Conservation Workshop for the Fauna of Arabia

ورشة صون حيوانات شبه الجزيرة العربية

19-22 February 2006

هيئة البيئة والمحميات الطبيعية
Environment & Protected Areas Authority
SHARJAH الشارقة

مركز حماية وإكثار
حيوانات شبه الجزيرة العربية
المهددة بالانقراض

BREEDING CENTRE
FOR ENDANGERED
ARABIAN WILDLIFE

FINAL REPORT

Proceedings of the

7th Conservation Workshop for the Fauna of Arabia

Sponsored by the Environment and Protected Areas Authority &
organized by the Breeding Centre for Endangered Arabian Wildlife

19-22 February 2006

Environment & Protected Areas Authority
Government of Sharjah
Po Box 2926, Sharjah
United Arab Emirates

Breeding Centre for Endangered Arabian Wildlife
PO Box 29922, Sharjah, United Arab Emirates
Email: *breeding@epaa-shj.gov.ae*

The designation of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of EPAA concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The views expressed in this publication do not necessarily reflect those of EPAA.

Citation: Environment and Protected Areas Authority (EPAA). 2006. 7th Conservation Workshop for the Fauna of Arabia. Environment & Protected Areas Authority, Sharjah, UAE.

Cover Photo: Pharaoh Eagle Owl (*Bubo ascalaphus*); photo Kevin Budd. Lesser Jerboa (*Jaculus jaculus*); photo Jane Edmonds, and Sand Dunes at sunset, UAE; photo Paul Vercammen.

Maps: Master map originally provided by Environmental Research and Wildlife Development Agency, edited by Breeding Centre for Endangered Arabian Wildlife, EPAA.

Available from: Breeding Centre for Endangered Arabian Wildlife
Po Box 29922, Sharjah
United Arab Emirates
Tel. +971 (0)6 5311212
Fax. +971 (0)6 5311156
Email. breeding@epaa-shj.gov.ae

Contents

Arabian Tahr and Nubian Ibex Working Group **1**
- **Arabian Tahr, *Hemitragus jayakari*** **2**
- Participants 2
- Range State Progress Reports (Since 2004) 2
- Captive Breeding 3
- Taxonomy 3
- Taxon Data Sheet 3
- **Nubian Ibex, *Capra ibex nubiana*** **12**
- Participants 12
- Range State Updates (Since 2004) 12
- Taxon Data Sheet 13

Insectivore and Rodent Working Group **22**
- Participants 23
- Introduction 23
- Further Recommendations 26
- Appendix 1: Taxon Data Sheets 27

Small Birds of Prey and Owls Working Group **243**
- Executive Summary 244
- Introduction 245
- Issues Identified in the Species Reviews by the Group 245
- Conservation Status 246
- Discussion 247
- Recommendation and Actions 247
- Public Awareness 248
- Research 248
- Miscellaneous 249
- Participants 250
- Appendix 1: A Note on the Status, Distribution and Population of Breeding Birds of Prey And Owls in Arabia. 252
- Appendix 2: Taxon Data Sheets of Species Considered. 272
- Appendix 3: Recommended Further Study 356
- Appendix 4: Estimated Populations of Breeding Raptors and Owls in Arabia 357

Participants **358**

Arabian Tahr and Nubian Ibex Working Group

Arabian Tahr, *Hemitragus jayakari*

Participants

Azhar Abbas
Mubarak Ali Mohana Al Dosary
Ayoub Hassan Al Ghafry
Sara Ahmed Baker
Ahmed Boug
Mark Craig
Chris Drew
Amel Saleh Al Haddi
Ayoub Hassan
Hadi Musalam Said Al Hikmani
Khaled Juma Al-Rasbi
Salem Hussain Al Safran
Husam El Alqamy
Abdul Rahman Khoja
Vladimir Korshunov
Robert Llewellyn-Smith
Ron Loughland
Iyad A. Nader
Abdul Karim Nasher
An Pas
Jean Rust
Ahmed Saqqaf
Ahmed Said Shuraibi
Maral Khaled Shurique
Jackie Strick
Christophe Tourenq
Paul Vercammen
Miriam Yamani
David Mallon (facilitator)

Range State Progress Reports (Since 2004)

OMAN

Wadi Sareen Tahr Reserve. Last survey was in 2000 when the population was estimated at around 2000.

Hajjar Mountains. Rangers report tahr present at points throughout the range, south-east to Sur. Named localities include: near Nakhl (6 seen), Wadi Beni Auf, Jebel Gahwan. Rangers' records are made on standard field cards. These will be entered onto a database and later mapped on a GIS. Tahr occasionally descend to feed in fields.

Jebel Hafit. No recent information from the Oman side.

Musandam. Surveys by Biosphere Expeditions revealed no sign of tahr so far.

Threats. Hunting is still a threat in places. Drought is another negative factor and growing numbers of feral donkeys and goats increase competition for grazing.

UAE

Sharjah. The Arabian Tahr Group had met regularly since set-up in 2004 and had expanded its membership. The possibility of expanding the Group to include Oman would be investigated. A 3-year survey is proposed.

Ras Al Khaimah. No signs were found on a survey of Rus Al Jebel and local people had not heard of the species. Severe lack of water may be a limiting factor.

Fujairah. Recent surveys in Wadi Wurrayah found tracks and droppings, indicating current presence.

Abu Dhabi. Field studies have been carried out on Jebel Hafit and produced recent sightings and camera trap photos, but numbers are small. Tahr keep to S side of the mountain in the vicinity of an artificial water point. A survey of the Oman side of the mountain, which is wilder and contains no roads would be valuable.

Captive Breeding

Abu Dhabi: 37 at NMC (EWBCC) , Al Ain, comprising animals from Sir Bani Yas and other collections in Abu Dhabi. These now include 9 breeding pairs.

Omani Mammal Breeding Centre: 60, from 7 founders. Attempts to capture a wild individual in December 2005 were unsuccessful.

BCEAW, Sharjah: 2 animals.

Total: 99 animals. Possibly a small number in private collections. Some exchanges are planned or under discussion.

The day's session was preceded by a presentation by Jean Rust on Arabian Tahr in the NMC (EWBCC) collection at Al Ain. Detailed research is being carried out on many aspects of captive breeding and a long-term management plan is in preparation.

Taxonomy

A revision of the genus *Hemitragus* based on DNA analysis was published by Ropiquet, A. & Hassanin, A. in 2005 [Molecular evidence for the polyphyly of the genus *Hemitragus* (Mammalia, Bovidae). *Molecular Phylogenetics and Evolution* 36: 154-168]. This placed Arabian tahr in a genus of its own, *Arabitragus*, with its closest relative the Barbary sheep (*Ammotragus*). The other two tahr species were closer to sheep and goats respectively. Similar conclusions had earlier been reached by analyses carried out at KKWRC. If confirmed, this taxonomic change to an endemic genus can be used to raise the profile of Arabian tahr even further. There was some regret that the name selected did not more accurately reflect the geographical distribution (eg *Hajartragus*).

Taxon Data Sheet

The sheet compiled at the 2002 CAMP meeting was revised. The main change was the reversion to Endangered status, on the basis of some known population declines and declines inferred from loss of habitat and deterioration in habitat.

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Arabain Tahr & Nubian Ibex Date: 19-Feb-2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Hemitragus jayakari*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
Al wa'al al arabi (Arabic), Al thar al Arabi (Arabic), etood (young tahr)(Arabic), abu Shamea (Arabic), Arabian tahr (English)

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Oman & UAE.

2B. Current Distribution (illustrate on map):
Oman & UAE

2C. Habitat of the Taxon (ecosystem level):
Arid mountains from sea level to 3000 m.a.s.l.

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☐ No ☒ Unknown

If Yes, describe:
Possible but no data.

3. Number of Populations and Subpopulations in which the taxon is distributed: 5

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Wadi Surin Nature Reserve		10-15% of Pop.
Wadi Wurrayah, UAE		
Jebel Hafit		
Oman 3 main & 17 other locations.		

4. Population Trends

4A. Is the population: ☒ Decreasing ☐ Increasing ☐ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? <10% over 5 years

4C. If stable or unknown, do you predict a future decline in the population size: ☒ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
<10%

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☒ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? 5

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur?

5E. State primary cause of change:

The decrease overall is small, major decreases in the UAE. habitat status is declining in the UAE as predicted in CAMP 2001. Dam and road construction are the two major causes of decrease in habitat size, with an associated increase in disturbance and therefore decline in habitat quality in the UAE. Most areas in Oman are stable.

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving

5G. State the primary cause of change:

Change in habitat primarily due to increased disturbance.

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☒	☒
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☒	☒	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☒	☒
Recreational activities	☐	☐	Grazing	☒	☒
Hunting (recreation or retail)	☒	☒	Habitat fragmentation	☒	☒
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☒	☒
Poisoning	☐	☐	Livestock competition (food etc)	☒	☒
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☒	☒

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☒ Local ☒ Regional ☒ International ☒ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☒ Meat	☒ Live Animal	

Comments/Other threats (please specify):
Small cross border trade between Oman and UAE. Suspected of having a local effect on population. trade in throat glands suggested before, but lack of further information on this makes the possibility speculative. Report of young tahr collected from local bedu near Hatta which are destined as gifts for important people suggests that live animals are being traded.

8. Data Quality

8A. Are the estimates you have supplied based on:

☒ Census or monitoring	☒ General field sudies	☒ Informal field studies
☒ Literature	☒ Museum studies/records	☒ Hearsay/popular belief
☒ Indirect information from trade, etc		

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
Smith, M. & Roddock, L.	Wadi Wurrayah, UAE	2000-2001	General Research, Field Work
Insall		1994, 1999	Tahr Ecology
Al-Majani	Wadi Sereen, Oman		Diet of the Arabian Tahr

10. Conservation Status

10A. Global IUCN Red List Category: Global EN (C2a) Regional/National: EN UAE

10B. Workshop Assesment of Regional Red List category: Endangered (A2)

10C. CITES: Not Listed

10D. National Wildlife Legislation: UAE - general hunting ban, Oman protected against hunting and capture.

10E. National Red Data Book: Oman EN

10F. International Red Data Book: Endangered

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Thriving population in Wadi Surin Wildlife Reserve, Sultanate of Oman.

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☐ Surveys ☒ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☒ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Limiting factor research and Epidemiology.

12. Management

12A. What management is recommended for the taxon?

- ☒ Habitat management
- ☒ Wild population management
- ☒ Captive breeding
- ☒ Monitoring
- ☒ Translocation
- ☒ Sustainable Utilisation
- ☒ Public awareness
- ☒ Limiting factor management
- ☒ Genome Research Banking
- ☒ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☒ Species recovery
- ☒ Reintroduction
- ☒ Research
- ☒ Preserve live genome
- ☒ Husbandry
- ☒ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
BCEAW (1.0), Sharjah. Sir Bani Yas Island (3.6), Abu Dhabi. Oman Mammal Breeding Centre (16.9), Muscat. Private Collection in Abu Dhabi.

13C.Number in captvity: Males: 20 Females: 15 Unsexed: 0 Total: 35

13D. Does a coordinated Species Management Plan exist? ☒ Yes ☐ No

If yes, list the participating institutions:
BCEAW, Sharjah and Oman Mammal Breeding Centre

If Not, is a Species Management Plan recommended: ☒ Yes ☐ No

List the institutions that should particpate:
Range States.

13E. Level of captive breeding recommended:

- ☒ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

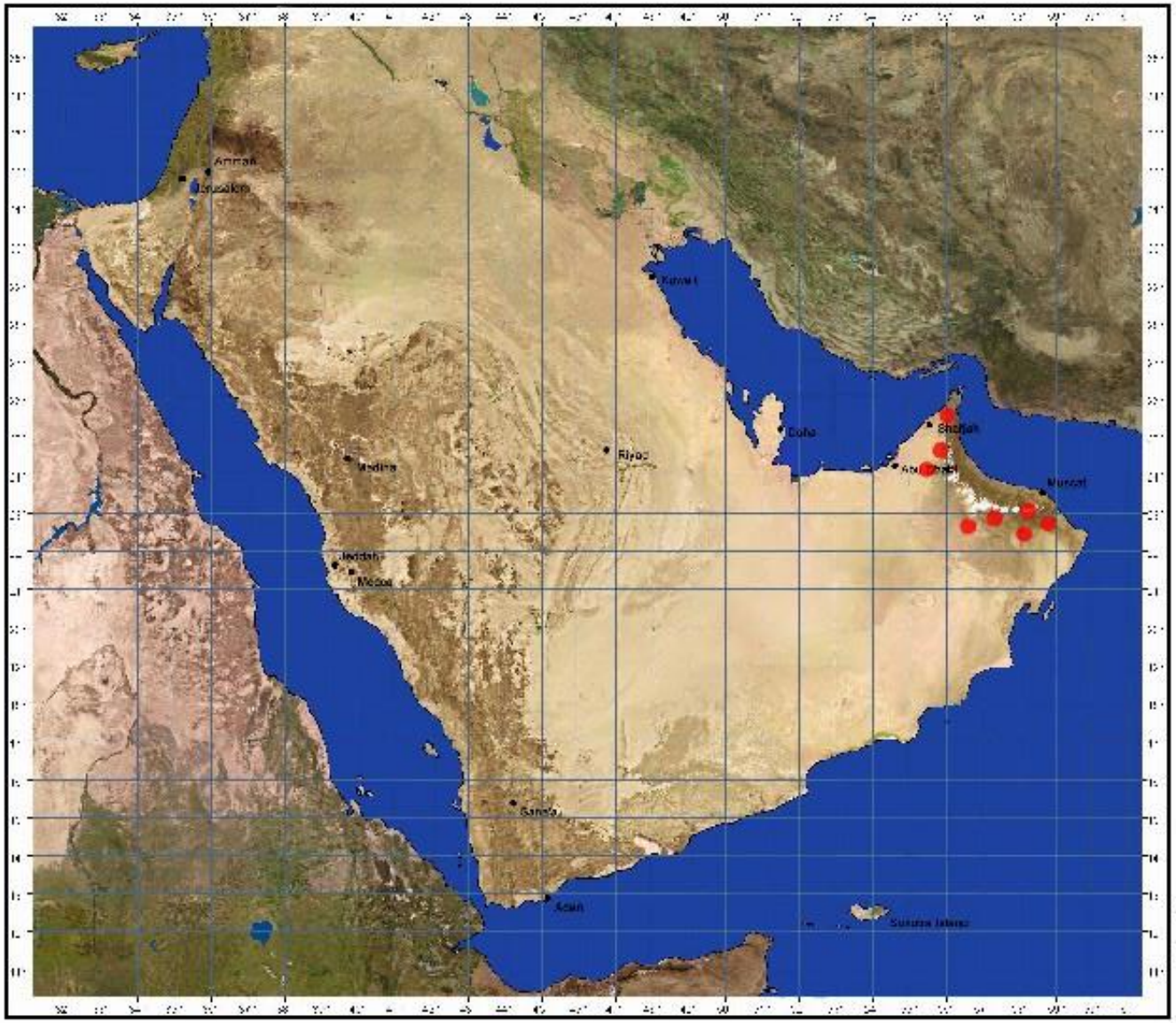
14. Sources/References (complete citation):

Insall, david. 1999. A review of the Ecology and Conservation Status of the Arabian Tahr.
Martin Fisher, S.A. Ghanzafar and A Spalton (eds). The Natural History of Oman. A Festschrift for Michael Gallagher. Blackhuys Publishing. pp 129-146.
Munton, Paul. 1985. The Ecology of the Arabian Tahr. Journal of Oman Studies, Vol. 8 (Pt. 1). pp 11-48.
Munton, Paul. 1988. Comparison of tahr and Gazelle populations. In Conservation and Biology of Desert Antelopes. Dixon, A & David Jones (Eds). Zoological Society of London, Christopher Helm, London. pp 182-192.

.

15. Compilers:

Lanral Ruddock, Abdulaziz Al Midfa, Mohammed Abul Hashem, Richard Wood, Difaullah Al Shalan, Dr. Qassem N. Al Qhatani, Nagi S. Thowabeh, Dr. Ayoub Al-Balushi, Tariq Al Makhani, Dr. Azhar Abbas, Dr jacob Mwanzia, Katalin Szemerady and Nayif Al Omayreen.



Hemitragus jayakari

Nubian Ibex, *Capra ibex nubiana*

Participants

Iyad A. Nader
Salem Hussain Al Safran
Khaled Juma Al-Rasbi
Husam El Alqamy
Abdul Rahman Khoja
Hadi Musalam Said Al Hikmani
Ahmed Said Shuraibi
Ayoob Hassan Al Ghafry
Mubarak Ali Mohana Al Dosary
Abdul Karim Nasher
Omer Ahmed Baeshen
Sara Ahmed Baker
Miriam Yamani
Amel Saleh Al Haddi
Ahmed Saqqaf
Jackie Strick
Ahmed Boug
Paul Vercammen
David Mallon (facilitator)

Range State Updates (Since 2004)

SAUDI ARABIA
Ibex Reserve retains a healthy population. KKWRC conducts monthly monitoring following a standardised protocol along a transect through 7 wadis. Information collected includes number, age, and sex. The last count was 386. Ibex are also present in Al Tubayq Reserve, but no census figure is available. There is also a population (size unknown) on Jebel Al Lawz, which has been proposed as a protected area. Small numbers are found at scattered sites along the western mountains, including Jabal Figra and Jabal Rodwa. None of these has been surveyed recently. NWRC at Taif holds a small number of ibex originating from San Diego Zoo, but there is no captive breeding programme.

OMAN
A decrease in Huqf and Jebel Samhan has been noted over the last 2 years and is thought to be a consequence of drought. Ibex are still present on Jebel Qara and Jebel Qamr, but no population estimates are available.

YEMEN
A Rapid Assessment Survey carried out by Sharjah EPAA on the northern side of Wadi Hadhramout revealed very low numbers. 5-10 were reported shot in the area during November 2005 and 5 more were reported killed in January 2006, the traditional hunting season. Local reports indicate that ibex are still present on the southern side of Wadi Hadhramout and in Shabwa province, including Jebel Hatur. There is no information from the western mountains. Oil exploration is a potential threat, causing ibex to move and potentially bringing them into closer contact with people.

JORDAN
Wadi Mujib: captive and wild populations are both increasing. Wadi Rum: ibex were recently sighted here in the upper section of the reserve. The overall population in Jordan was estimated at 2000 (including captives). Hunting remains a threat. Hunters use two methods, ambush at water holes and knocking on the rock with wood to simulate the call of females.

QATAR
There is an introduced population, numbering about 300 on Haloul Island, approx 30km west of Qatar.

BAHRAIN
The introduced population on Hawar Island now numbers 65. Some supplementary feed is provided as the island is very dry. Al Areen WP has 55.

UAE
One collection in Dubai contains 495 animals. Al Ain Zoo has c.150. NMC (EWBCC) in Al Ain has a smaller number. BCEAW, Sharjah has two groups, numbering 35 and 11. A private collection in Sharjah also holds a breeding group.

Taxon Data Sheet

The Taxon Data Sheet compiled in 2002 was revised.

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Arabain Tahr & Nubian Ibex Date: 19-Feb-2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Capra ibex nubiana*

1B. Synonyms (with authority & date):
Aegoceros, Capra arabica, Capra mengesi, Capra nubiana, Capra sinaitica

1C. Common Name(s) with language/region:
Al' Badn (Saudi Arabia), Al wa'al aljabi (Saudi Arabia), wa'al (Saudi Arabia), al wa'al alnubi (Oman), boach (Salalah, Yemen), Nubian ibex (English)

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Oman, Saudi Arabia, Yemen, possibly the UAE.

2B. Current Distribution (illustrate on map):
Oman, Saudi Arabia, Yemen.

2C. Habitat of the Taxon (ecosystem level):
Steep mountain terrain (escarpment), (Huqf - Arabic for escarpment). From escarpment plains up to the mountain tops. Maximum elevation depending on location in the Arabian Peninsula.

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☐ No ☒ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: _____

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Arabian Oryx Sanctury		
Al Huqf Escarpment		
Dhofar Mountains		
Ra'as Madnakah		
Doqm Mountains		
Sarabed (near Doqm Mountains)		

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☒ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Habitat loss, hunting.

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☐ Fragmented ☒ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☒ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☒ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving

5G. State the primary cause of change:

Habitat is naturally fragmented, however there is concern that road and dam construction as well as oil exploration will increase fragmentation.

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☒	☒
Urban Development	☐	☐	Hybridization	☒	☒
Road Kills	☒	☒	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☒	☒
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☒	☒	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☒	☒
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☒	☒

Other comments/threats (please specify):

Aircraft

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☒ International ☒ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☒ Horn
☐ Glands	☒ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☒ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

☐ Census or monitoring	☐ General field sudies	☐ Informal field studies
☐ Literature	☐ Museum studies/records	☐ Hearsay/popular belief
☐ Indirect information from trade, etc		

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
Tear & Spalton	Al Huqf Oman	1991-1997	VHF Telemetry

10. Conservation Status

10A. Global IUCN Red List Category: Global DD Regional/National:

10B. Workshop Assesment of Regional Red List category: Vulnerable C1 (Feb 2001)

10C. CITES: Not Listed

10D. National Wildlife Legislation: Saudi Arabia, Oman and protected in Jordan

10E. National Red Data Book: Oman EN C2a

10F. International Red Data Book: EN C2a 1996

10G. Other legislation (please specify):

RD 114, 2001 in Oman

10H. Existing protected areas for this species (please specifiy):

The Huqf Escarpment, Jebel Samhan Nature Reserve in Oman. Also another 3 areas between Al huqf and Dhofar mountains: Doqm Mountains, south Al-Jazer, Suwaimia. Arabian Oryx Sanctury and Jabal Qamar (Dhofar). Ibex Reserve, Al Tobiq Reserve and Al-Hejaz mountains in Saudi Arabia.

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

Endorsed Action plans in Saudi Arabia, Yemen and Jordan.

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☐ Surveys ☒ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☒ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Limiting factor research and Epidemiology.

12. Management

12A. What management is recommended for the taxon?

- ☒ Habitat management
- ☒ Wild population management
- ☒ Captive breeding
- ☒ Monitoring
- ☒ Translocation
- ☒ Sustainable Utilisation
- ☒ Public awareness
- ☒ Limiting factor management
- ☒ Genome Research Banking
- ☒ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☒ Species recovery
- ☒ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☒ Husbandry
- ☒ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
BCEAW (9.5) Sharjah. NWRC (4.12) Taif. Riyadh Zoo. Hawar Island & Al Areen, Bahrain. Al-Wabin (12.8) Qatar. Al Ajbah Natural Reserves, Jordan.

13C.Number in captvity: Males: 83 Females: 95 Unsexed: 14 Total: 192

13D. Does a coordinated Species Management Plan exist? ☒ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☒ Yes ☐ No

List the institutions that should particpate:
Range States.

13E. Level of captive breeding recommended:

- ☒ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

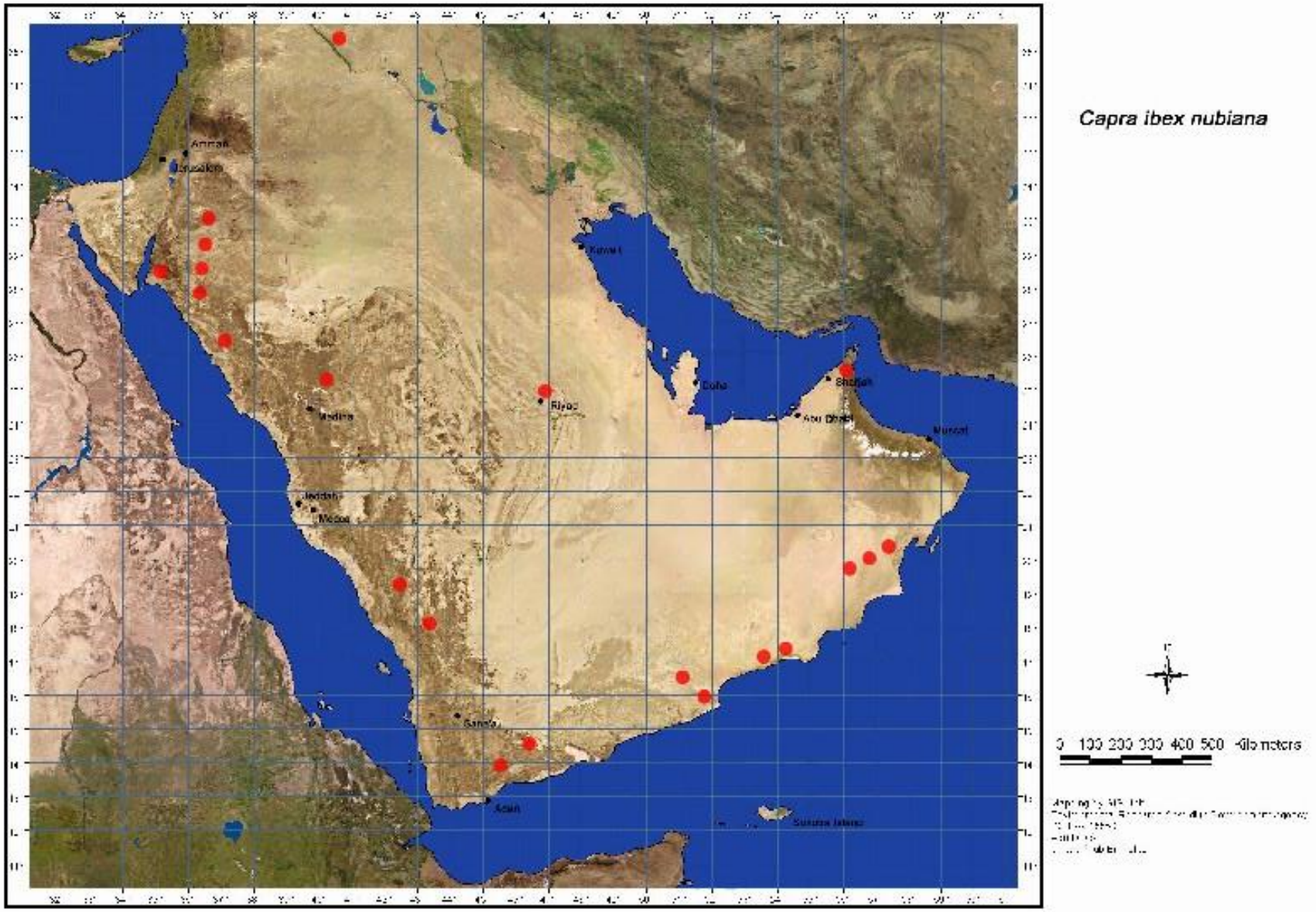
- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

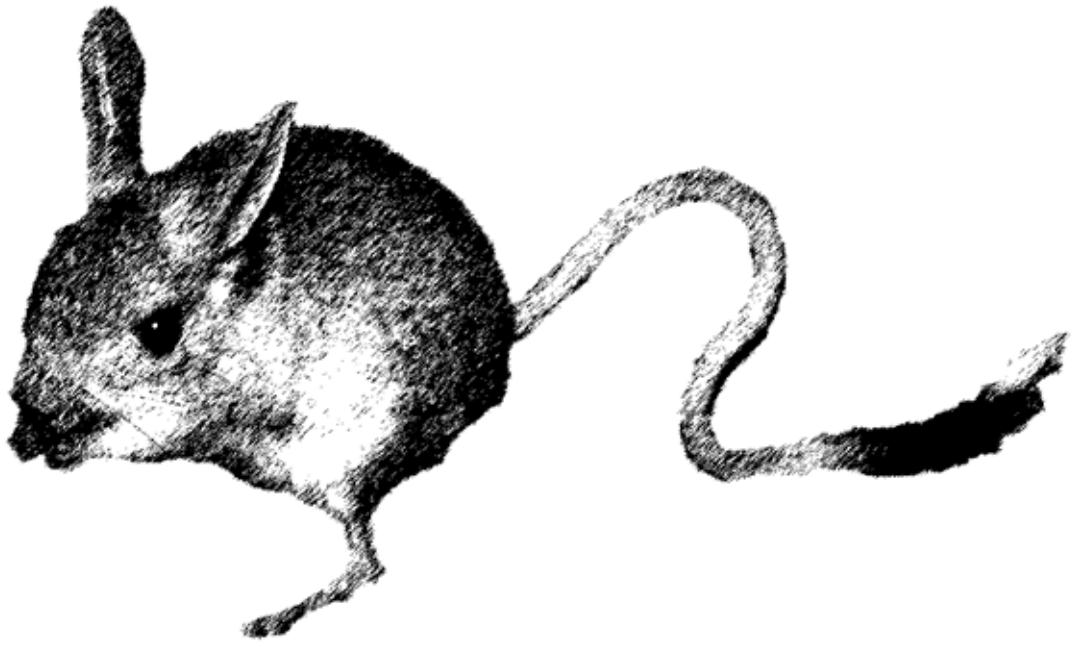
Martin Fisher, Natural History of Oman.
Habbi, Khushai. 1994. The Desert Ibex, NCWCD, Riyadh and Immel Publishing, London. p.192
Harrison, D.L. & Bates, P.J.J. 1991. The Mammals of Arabia. Harrison Zoological Museum, Sevenoaks, UK. pp 180-183.

15. Compilers:

Lanral Ruddock, Abdulaziz Al Midfa, Mohammed Abul Hashem, Richard Wood, Difaullah Al Shalan, Dr. Qassem N. Al Qhatani, Nagi S. Thowabeh, Dr. Ayoub Al-Balushi, Tariq Al Makhani, Dr. Azhar Abbas, Dr jacob Mwanzia, Katalin Szemerady and Nayif Al Omayreen.


Capra ibex nubiana
Amman
Jerusalem
Kuwait
Doha
Riyadh
Medina
Abu Dhabi
Muscat
Jeddah
Mecca
Sanaa
Aden
Socotra Island
0 100 200 300 400 500 Kilometers

Insectivore and Rodent Working Group



Participants

Chair: Mike Jordan
Recorder: Peter Phelan
Reporter: Peter Dickinson and Paul Vercammen

Gavin Nel
Hassan Zain
Dr Nayel Mohammed Nayel
Dr Iyad Nader
Peter Arras
Dr Maasa Al Jumaily
Zuhair Amr
Prof Achmed Disi
Abdul Aziz al Jabri
Salem Al Safran
Minandro Mondola Eguilos
Ayoub Hassan Al Ghafri
Moayyad Sher Shah
Ronald Lochlan

Introduction

This was the first meeting dealing with the Arabian rodents and not surprisingly after careful study of the assessments and the accompanying notes it was very clear how limited our knowledge is of these small mammals of the Arabian Peninsula. The word 'unk' (unknown) appears time and again in the tick boxes of the completed Taxon Data Sheets (Appendix 1). This is not necessarily a bad thing. Here we have had gathered the worlds experts on small mammals of the region and through joint discussion have freely admitted that our knowledge is scant. It is important to appreciate that we know so little in order to direct research in the right direction. We are all aware that the region in which we live and work is undergoing rapid change. Habitat is being fragmented, areas being completely destroyed before proper study has yet taken place.

Small mammals are so often overlooked. They lack the charisma of the tiger or the postcard cuteness of the panda and yet their importance within the ecological chain, if overlooked, could mean the disappearance of many carnivores and birds. Plant species dependent on their seed distribution will go too along with the ungulates dependent on these.

The areas of research have been highlighted by this meeting. It is now important that we take action. We know what we don't know. Let's change that. Let's make the unknown, known so that we are in a position to put prevent ecological disaster.

Several species were specifically identified for research, survey and taxonomic work which only went to strengthen the supposition that we have up to now scratched the surface of our knowledge.

The species which were identified for research and action were as follows:

NE – Not endemic to the Arabian Peninsula

Long-eared Hedgehog *Hemiechinus auritus* NE
Research and survey work needs to be done on this Hedgehog in Qatar where it is known to occur. There needs to be further research to determine the Southern most range.

Ethiopian Hedgehog *Hemiechinus aethiopicus* NE
The status of this Hedgehog within Kuwait needs to be examined as it is believed to be a declining population.

Brandt's Hedgehog *Hemiechinus hypomelas* NE
The extent to which the species extends to the East and the West needs to be identified. All areas of research into this species are important because so little is known.

Savi's Pygmy Shrew *Suncus etruscus* NE
There needs to be research into the taxonomy as well as surveys and study of the life history. Recent first records for the UAE. The species possibly occurs on Socotra island.

Lesser White-toothed Shrew *Crocidura suaveolens* NE
There needs to be research into the taxonomy as well as surveys and study of the life history. An investigation into subspecies may be of interest.

Arabian White-toothed Shrew *Crocidura arabica*
There needs to be research into the taxonomy as well as surveys and study of the life history. A captive breeding programme should also be put into place for further study.

Dhofar Shrew *Crocidura dhofarensis*
There needs to be research into the taxonomy as well as surveys and study of the life history. A captive breeding programme should also be put into place for further study.

Indian Porcupine *Hystrix indica* NE
Although this species has a wide range little is known of its status within the Arabian Peninsula. The species should be monitored following research into trade and human impact on the current population. A public awareness campaign may be of value. Current assessment for the porcupine is Lc. This needs to be looked at again with consideration being given to different threats across its range.

Five-toed Jerboa *Allactaga euphratica* NE
Study into the impact of trade in this species will be of immense value. The wild populations will need to be closely monitored whilst a captive breeding program is implemented.

Lesser Jerboa *Jaculus jaculus* NE
Study into the impact of trade in this species will be of immense value. The wild populations will need to be closely monitored whilst a captive breeding program is implemented. Determination of subspecies will be of value.

Asian Garden Dormouse *Eliomys melanurus* NE
It is important to learn more of the status and behaviour of this species in the wild so research in those areas will be of value. A captive breeding program needs to be implemented and a study made of the genetics.

Nile Rat *Arvicanthis niloticus*
Surveys and research into the taxonomy of the isolated populations within the Arabian Peninsula will be of interest and value. It may well be that this is a separate species from the African population and a unique taxon.

Rock Rat *Hylomyscus yemeni* (*Praomys fumatus*)
A captive breeding program needs to be initiated within three years along with husbandry protocols. Surveys of the wild population along with behaviour, genetics and taxonomy will be of immense value. This is an extremely rare endemic.

Arabian Spiny mouse *Acomys dimidiatus*
Taxonomic and Genetic research is essential with particular emphasis on recognition of subspecies *whitei* and *homericus*. Studies are important as the visual and taxonomic differences are worth looking at.

Golden Spiny Mouse *Acomys russatus*
Urgent investigation is required to be carried out on this distinctive little mouse with reference to the taxonomy of the subspecies *lewesi*. Further research is required to establish the limits of its range and its extent within the Kingdom of Saudi Arabia. It is possible that those animals in Yemen are a separate species. The previous subspecies *lewisi* found in Jordan is now a recognised species. Lack of recent records is worrying.

Bandicoot Rat *Nesokia indica*
The status for this species needs to be confirmed. There is a possibility of introduction or misidentification.

Large Aden Gerbil *Gerbillus poecilops*
The available records for this species are old and scattered. There needs to be an urgent assessment of its current status and range. It is currently Lc. Work on the genetics, taxonomy and life history are important.

Baluchistan Gerbil *Gerbillus nanus* NE
There needs to be further research on this species, in particular to establish the extent of the range within Yemen and Oman. There are many subspecies so species status needs to be determined.

Wagner's Gerbil *Gerbillus dasyurus*
Surveys to establish the extent of the range of the species need to be arranged with particular reference to the sand dune areas of Qatar and Yemen in the South. There are many subspecies so species status needs to be determined.

Information received, prior to going to press, in 2007 has indicated that the few areas where sand dunes occur within Qatar are receiving such heavy recreational use that any wildlife within the dune environment if not already extinct must be severely under threat.

Cheesman's Gerbil *Gerbillus cheesmani* NE
Requires a survey of its range with particular reference to Yemen in the South.

Pygmy Gerbil *Gerbillus henleyi* NE
The taxonomy of this Gerbil needs work to clear up current confusion. Those animals in Yemen and the North are very different to those within the Kingdom of Saudi Arabia.
Surveys of the wild population would be of value.

Black-tufted Gerbil *Gerbillus famulus*
There has been only one sighting of this species since 1950. The establishment of a breeding management programme will be of value coupled with surveys in the field, behavior studies and taxonomic assessment. These programmes should be established within three years. Status needs reconsideration since assessment is currently LC.

This species was seen again and photographed in Hadramout, Yemen in 2005 by a visiting team from the Breeding Centre for Endangered Arabian Wildlife in Sharjah.

Libyan Jird *Meriones libycus*
Field research is needed to determine the Southern distribution of the species in relation to the Arabian Jird *Meriones arimalius.* This should be coupled to further genetic and taxonomic work. There are many subspecies which can complicate field work. Taxonomy should assist in determining ranges.

Sundevall's Jird *Meriones crassus*
No recommendations. In spite of frequent trapping in the UAE and Oman over recent years no specimens of *crassus* have been caught. There remains the possibility of past sightings being misidentified. There are no records for the Kingdom of Saudi Arabia

Arabian Jird *Meriones arimalius*
Within the field the Western most range for the species needs to be established. Field studies of behavior coupled with those from a captive breeding program and taxonomic work will be of value.

King Jird *Meriones rex*
There needs to be some investigation into the status and range and taxonomy of subspecies with particular reference to Yemen where there have been two sightings. Behaviour studies in the wild along with taxonomy will be of tremendous value.

Bushy-tailed Jird *Sekeetamys calurus*
There needs to be research to establish the range of this species. Current records show only a few isolated populations in the middle of the Kingdom of Saudi Arabia.

Fat Sand Rat *Psammomys obesus*
Field surveys and research on the species will be of importance. It is recommended that links between the occurrence of leishmaniasis disease and the presence of this species within the Arabian Peninsula are investigated. There are several subspecies to look at so taxonomic work will be of value.

Research is going on in Germany to study the suitability of this species as a vector for leishmaniasis.

Crested Rat *Lophiomys imhausii*
There needs to be a field survey to assess the current status. Extinct in the wild. Not seen since the late 1900's.

Possible species
Tristram's Jird *Meriones tristrami* and Anderson's Gerbil *Gerbillus andersoni* may occur within the region as they touch the border of Jordan though there are no records for the Kingdom of Saudi Arabia

Further Recommendations

1) Grey literature around the region is not available. Formally request copies of field reports from institutions or involve more people that are active in field and not present in workshop
2) Raise awareness for field workers and researchers by means of training workshops, id keys etc
3) Cooperation with birding groups and people (e.g. owl pellet collection and analysis)
4) Provision of support, equipment and capacity building for Yemen
5) Enhance networking and exchange between institutions that are holding captive Arabian species of small mammals or reference material

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 20/2/2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Hemiechinus auritus*

1B. Synonyms (with authority & date):
Erinaceus auritus (Gmelin 1770), Erinaceus aegyptiacus (Fischer 1829), Erinaceus syriacus (Wood 1876), Erinaceus calligoni (Satunin 1901)

1C. Common Name(s) with language/region:
Long-Eared Hedgehog

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread throughout Kuwait, Qatar, Bahrain as well as north of th Arabian Peninsula

2B. Current Distribution (illustrate on map):
Kuwait, Bahrain, Saudi eastern coast

2C. Habitat of the Taxon (ecosystem level):
Semi-desert
IUCN Vegetation categories - 11.4/11.5/11.1/11.2/4.5

2D. Habitat specificity (elevation, etc):
Generally around human habitation and farmlands.

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 2 (Within Arabian Peninsula)

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Bahrain	500km2	
North eastern coastal plain	35000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☒ Increasing ☐ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☒ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

Increasing agriculture and settlement

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☐ Declining ☒ Improving

5G. State the primary cause of change:

Increasing agriculture and settlement

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☒	☒	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☒	☒	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☒	☒	Nutritional disorders	☐	☐

Other comments/threats (please specify):

Sporadic Collection for medicinal or food. sporadic trade in certain areas such as Kuwait, Syria, Jordan

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☒ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☒ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- [x] Skin
- [ ] Fur
- [ ] Horn
- [ ] Glands
- [ ] Taxidermy
- [ ] Products
- [ ] Bones
- [ ] Hair
- [ ] Organs
- [ ] Meat
- [x] Live Animal

Comments/Other threats (please specify):
Only very sporadic trade

8. Data Quality

8A. Are the estimates you have supplied based on:

- [ ] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [ ] Museum studies/records
- [x] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Look at southern distribution and Qatar

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities in and out of region

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Ballenger, L. 1999. "Hemiechinus auritus" [On-line], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Hemiechinus_auritus.html.

Harrison D.L., Bates P.J.J., 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 3-5.

Insectivore Specialist Group 1996. Hemiechinus auritus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.redlist.org. Downloaded on 26 January 2006.

IUCN. 1995. Eurasian Insectivores and Tree Shrews - Status Survey and Conservation Action Plan. (Compiled by Stone, R. David, IUCN/SSC Insectivore, Tree Shrew and Elephant Shrew Specialist Group). IUCN, Gland, Switzerland. vii + 164 pp. ISBN 2-8317-0062-0.

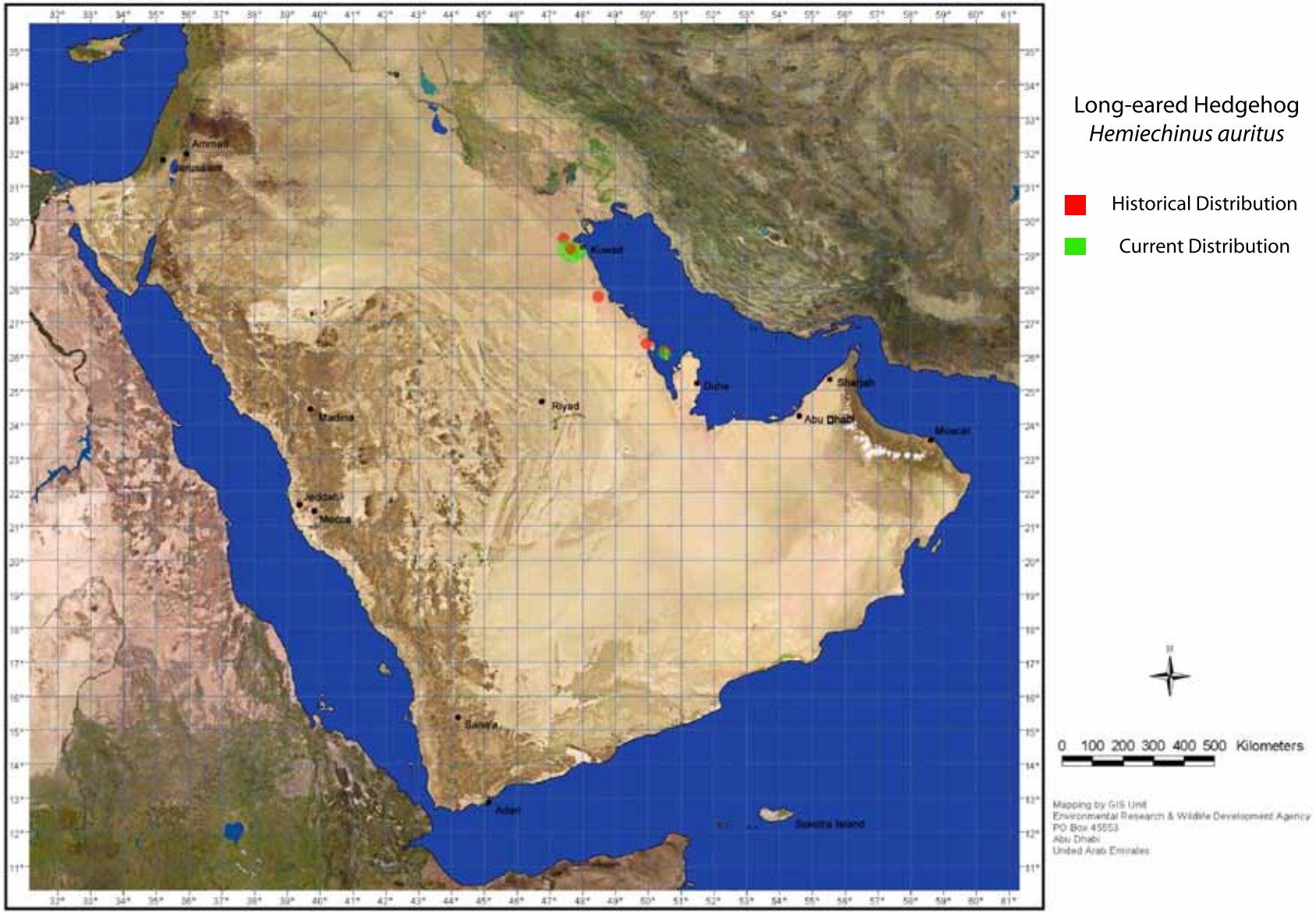
Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 18-21.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 331-333.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. I. pp. 177-179.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland


Long-eared Hedgehog
Hemiechinus auritus
Historical Distribution
Current Distribution
Kuwait
Doha
Sharjah
Abu Dhabi
Muscat
Riyad
Madina
Jeddah
Mecca
Sana'a
Aden
Socotra Island
0 100 200 300 400 500 Kilometers
Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 20/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Hemiechinus aethiopicus*

1B. Synonyms (with authority & date):
Paraechinus aethiopicus (Ehrenberg 1833), Erinaceus aethiopicus(Ehrenberg 1833), Hemiechinus pectoralis (Heuglin 1861), Erinaceus dorsalis(Anderson & De Winton 1901), Paraechinus ludlowi(Thomas 1919), Paraechinus dorsalis albatus(Thomas 1922), Paraechinus oniscus(Thomas 1922), Paraechinus dorsalis albior (Pocock 1934)

1C. Common Name(s) with language/region:
Ethiopean Hedgehog, Desert Hedgehog

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread throughout Arabian Peninsula except possibly the Empty Quarter. Occurring in UAE, Oman, KSA, Yemen, Qatar, Bahrain.

2B. Current Distribution (illustrate on map):
Widespread Qatar, KSA(Not in empty quarter), UAE, Bahrain, Yemen, Oman, Kuwait- sporadic records (2 in 2003)

2C. Habitat of the Taxon (ecosystem level):
IUCN Vegetation Categories- 8.1/4.5/3.5/3.6/11.1-11.5

2D. Habitat specificity (elevation, etc):
Not on rocky mountain slopes and wadis

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

_____
_____
_____
_____

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

_____
_____
_____
_____

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☒	☒	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☒	☒	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☒	☒	Nutritional disorders	☐	☐

Other comments/threats (please specify):
Sporadic Collection for medicinal or food. sporadic trade in certain areas such as Kuwait, Syria, Jordan

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☒ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☒ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- [x] Skin
- [ ] Fur
- [ ] Horn
- [ ] Glands
- [ ] Taxidermy
- [ ] Products
- [ ] Bones
- [ ] Hair
- [ ] Organs
- [x] Meat
- [x] Live Animal

Comments/Other threats (please specify):
Only very sporadic trade

8. Data Quality

8A. Are the estimates you have supplied based on:

- [ ] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [ ] Museum studies/records
- [x] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☒ Other (please specify):

Survey Kuwait due to reports of declining population

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities in and out of region

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: p. 479.

Al-Khalili A.D., Nader I.A., 1984. Nature Conservation in Saudi Arabia. An Ecological Study of the Asir National Park with a Check-list of the Terrestrial Vertebrate Fauna of the Park and its Surroundings. Fauna of Saudi Arabia 6: 11-14,19.

Hall, D. 2002. "Hemiechinus aethiopicus" (On-line), Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Hemiechinus_aethiopicus.html.

Harrison D.L., Bates P.J.J., 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 5-8.

Insectivore Specialist Group 1996. Hemiechinus aethiopicus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.redlist.org. Downloaded on 26 January 2006.

IUCN. 1995. Eurasian Insectivores and Tree Shrews - Status Survey and Conservation Action Plan. (Compiled by Stone, R. David, IUCN/SSC Insectivore, Tree Shrew and Elephant Shrew Specialist Group). IUCN, Gland, Switzerland. vii + 164 pp. ISBN 2-8317-0062-0.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 18-21.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 331-333.

Nader I.A., Al-Safadi M.M., 1993. The Ethiopean Hedgehog Paraechinus aethiopicus (Ehrenberg, 1833) and Brandt's Hedgehog Paraechinus hypomelas (Brandt, 1836) (Mammalia:Insectivora:Erinaceidae) from Northern Yemen. Fauna of Saudi Arabia 13: 397-400.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. I. pp. 177-179.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Ethiopean Hedgehog
Hemiechinus aethiopicus

Areas where Hemiechinus aethiopicus is not likely to occur, i.e. the Rub al Khali and mountainous areas. Otherwise widespread throughout Arabia

N

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 20/2/2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Hemiechinus hypomelas*

1B. Synonyms (with authority & date):
Paraechinus hypomelas (Brandt 1833), Erinaceus hypomelas (Brandt 1836), Erinaceus niger (Blanford 1878), Paraechinus niger seniculus (Thomas 1922), Paraechinus niger sabaeus (Thomas 1922)

1C. Common Name(s) with language/region:
Brandt's Hedgehog

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Yemen - El Kubar, Mukeiras
Oman - Muscat, south of Jabl Shamse, west of Nizwa, Hamra, between Tabaqah and Al Khadra, Wadi Hareem, Aqabat Bey
UAE - Tibat, Masafi, Jabal Hafit
KSA - NWRC near Ta'if

2B. Current Distribution (illustrate on map):
UAE, KSA, Yemen, Oman(salalah)

2C. Habitat of the Taxon (ecosystem level):
Rocky areas
IUCN Vegetation Categories - 6

2D. Habitat specificity (elevation, etc):
Mountainous areas

2E. Migration: ☐ Yes ☐ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 2

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
UAE, Oman - Hajar	>20000km2	
Salalah(Oman), Yemen, Western saudi	>20000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☒ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Only in UAE where there are quarries

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving

5G. State the primary cause of change:

Only quarries in UAE

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☒	☒	Nutritional disorders	☐	☐

Other comments/threats (please specify):

Trade in Yemen

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☒ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☒ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☒ Live Animal	

Comments/Other threats (please specify):
Only very sporadic trade

8. Data Quality

8A. Are the estimates you have supplied based on:

☐ Census or monitoring	☒ General field sudies	☒ Informal field studies
☒ Literature	☐ Museum studies/records	☒ Hearsay/popular belief
☐ Indirect information from trade, etc		

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☒ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Clarify eastern and north-western populations

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Sharjah

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 479.

Harrison D.L., Bates P.J.J., 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 8-9.

Insectivore Specialist Group 1996. Hemiechinus hypomelas. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.redlist.org. Downloaded on 26 January 2006.

IUCN. 1995. Eurasian Insectivores and Tree Shrews - Status Survey and Conservation Action Plan. (Compiled by Stone, R. David, IUCN/SSC Insectivore, Tree Shrew and Elephant Shrew Specialist Group). IUCN, Gland, Switzerland. vii + 164 pp. ISBN 2-8317-0062-0.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 18-21.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 331-333.

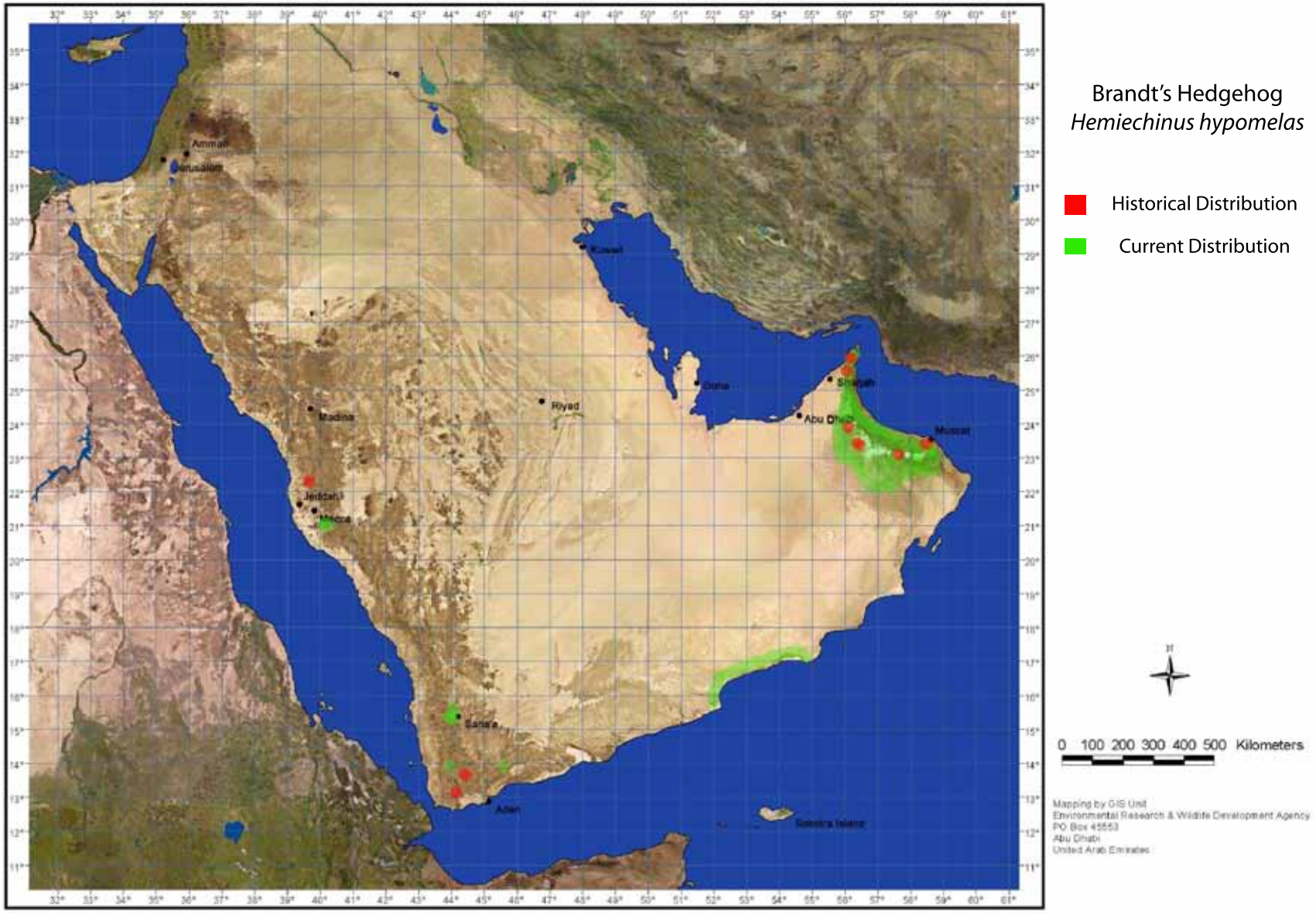
Nader I.A., 1991. Paraechinus hypomelas(Brandt, 1836) in Arabia with Notes on the Species' Zoogeography and Biology (Mammalia: Insectivora: Erinaceidae). Fauna of Saudi Arabia 12. pp. 400-410.

Nader I.A., Al-Safadi M.M., 1993. The Ethiopean Hedgehog Paraechinus aethiopicus (Ehrenberg, 1833) and Brandt's Hedgehog Paraechinus hypomelas (Brandt, 1836) (Mammalia:Insectivora:Erinaceidae) from Northern Yemen. Fauna of Saudi Arabia 13: 397-400.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. I. pp. 177-179.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland


Brandt's Hedgehog
Hemiechinus hypomelas
Historical Distribution
Current Distribution
Amman
Kuwait
Riyad
Sharjah
Abu Dhabi
Muscat
Madina
Jeddah
Mecca
Sana'a
Aden
Socotra Island
0 100 200 300 400 500 Kilometers
Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 20/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Suncus etruscus*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
Zubab - arabic, Sav's Pygmy Shrew

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Aden (south Yemen), Lahej (Yemen), Salalah plain (Oman), Bahrain

2B. Current Distribution (illustrate on map):
El-Kod (yemen-1984), Socotra 1999 and 2003, Sharjah UAE(2000) , Aden (south Yemen), Lahej (Yemen), Salalah plain (Oman), Bahrain

2C. Habitat of the Taxon (ecosystem level):
Habitat generalist
IUCN Vegetation Categories - 4.5/6/3.5/3.6

2D. Habitat specificity (elevation, etc):
Habitat generalist

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 5

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Area of occupancy(All 5 areas)	>2000km2	
Area of occurrence(All 5 areas)	>20000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Unknown

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☒	☒
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☒ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☒ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
Thompson K, Faireclough B.	Sharjah, UAE	2000	First records of Suncus etruscus in UAE

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☐ No

If yes, list the facilites:

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia17: 479-480, 494-496.

Aulagnier S., Hutterer R. & Jenkins P., 2004. Suncus etruscus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Ciszek, D. and P. Myers. 2002. "Soricidae" (On-line), Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Soricidae.html.

Ferry, A. 2005. "Suncus etruscus" (On-line), Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Suncus_etruscus.html.

Harrison D.L., Bates P.J.J., 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 12-13.

IUCN. 1995. Eurasian Insectivores and Tree Shrews - Status Survey and Conservation Action Plan. (Compiled by Stone, R. David, IUCN/SSC Insectivore, Tree Shrew and Elephant Shrew Specialist Group). IUCN, Gland, Switzerland. vii + 164 pp. ISBN 2-8317-0062-0.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 22-23.

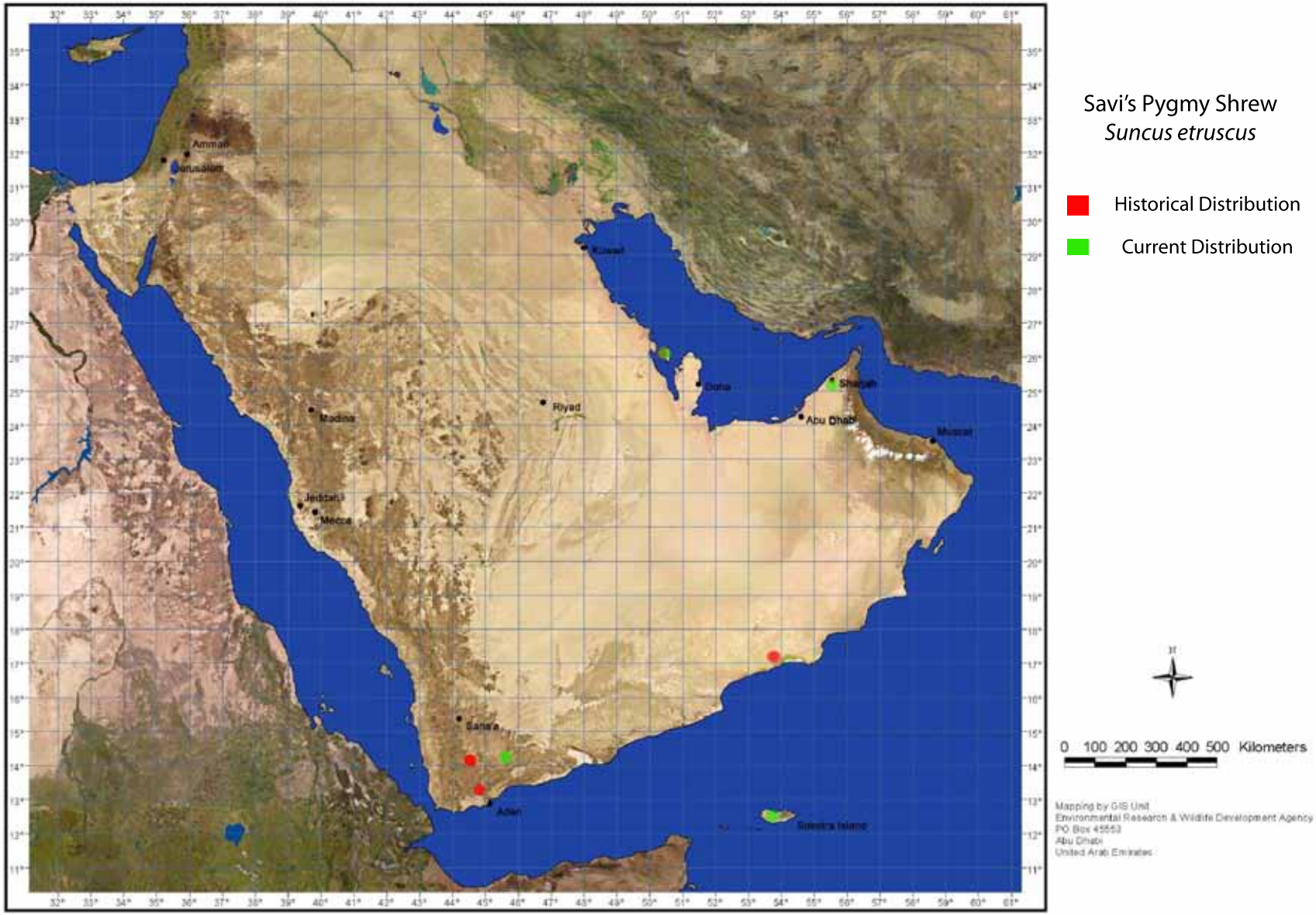
Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11. pp. 333-334.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. I. pp. 202-203, 223-225.

Thompson K. and Fairclough B. P. M.. First Records of Savi's Pygmy Shrew, Suncus etruscus (Savi, 1822) as found in United Arab Emirates. Mammalia: Insectivora: Soricidae.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland


Savi's Pygmy Shrew
Suncus etruscus
Historical Distribution
Current Distribution
Amman
Jerusalem
Kuwait
Doha
Sharjah
Riyad
Madina
Abu Dhabi
Muscat
Jeddah
Mecca
Sana'a
Aden
Socotra Island
0 100 200 300 400 500 Kilometers
Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 20/02/2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Crocidura suaveolens*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
Zubab-arabic, Lesser White-toothed Shrew

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
KSA - Bani Mashoor
Yemen - Sana'a

2B. Current Distribution (illustrate on map):
KSA - Bani Mashoor
Yemen - Sana'a

2C. Habitat of the Taxon (ecosystem level):
Appears to be habitat generalists - shrublands, grasslands, rocky areas
IUCN Vegetation Categories - 4.5/ 6/3.5

2D. Habitat specificity (elevation, etc):
Yemen - Sana'a
KSA - Bani Mashoor

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: _____

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Yemen - Sana'a		
KSA - Bani Mashoor		

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Unknown

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☐ Fragmented ☒ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☐ No ☒ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☐ No ☒ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☒	☒
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☐ General field sudies
- ☐ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: DD

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 479-480, 494-496.

Ciszek, D. and P. Myers. 2002. "Soricidae" (On-line), Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Soricidae.html

Harrison D.L., Bates P.J.J., 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 16-18.

Insectivore Specialist Group 1996. Crocidura suaveolens. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

IUCN. 1995. Eurasian Insectivores and Tree Shrews - Status Survey and Conservation Action Plan. (Compiled by Stone, R. David, IUCN/SSC Insectivore, Tree Shrew and Elephant Shrew Specialist Group). IUCN, Gland, Switzerland. vii + 164 pp. ISBN 2-8317-0062-0.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 22-23.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11. pp. 333-334.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. I. pp. 202-203, 223-225.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Lesser White-toothed Shrew
Crocidura suaveolens

Historical Distribution

Current Distribution

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 19/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Crocidura arabica*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
Zubab - arabic, Arabian White-toothed Shrew

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Oman - Khadrafi, Tawi Atair, Jabal Qara, Birkat Khaldiya(Musandam)
Yemen(more than 100 years ago) - Aden

2B. Current Distribution (illustrate on map):
Oman - musandam

2C. Habitat of the Taxon (ecosystem level):
IUCN Vegetation Categories
Southern Oman-3.5 and 3.6 Musandam-6 (rocky areas, mountainous areas)

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 2

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Area of occupancy	170000km2	
Extent of occurrence	450000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Unknown

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:
Development

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving

5G. State the primary cause of change:

Development

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☒	☒
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☐ General field sudies
- ☐ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Areas occurring within range of species
Hawf Forest(Yemen)-no actual records. Jabal Achdar. Khawis of Dhofar (Oman)

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☒ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☒ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☒ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☒ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 479-480, 494-496.

Ciszek, D. and P. Myers. 2002. "Soricidae" (On-line), Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Soricidae.html

Harrison D.L., Bates P.J.J., 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 18-19.

Insectivore Specialist Group 1996. Crocidura arabica. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

IUCN. 1995. Eurasian Insectivores and Tree Shrews - Status Survey and Conservation Action Plan. (Compiled by Stone, R. David, IUCN/SSC Insectivore, Tree Shrew and Elephant Shrew Specialist Group). IUCN, Gland, Switzerland. vii + 164 pp. ISBN 2-8317-0062-0.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11. pp. 333-334.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. I. pp. 202-203, 223-225.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Arabian White-toothed Shrew
Crocidura arabica

Historical Distribution

Current Distribution

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 19/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Crocidura dhofarensis*

1B. Synonyms (with authority & date):
Crocidura somalica (Thomas 1895), C. somalica dhofarensis (Hutterer and Harrison 1988)

1C. Common Name(s) with language/region:
Zubab-arabic, Dhofar Shrew

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Dhofar

2B. Current Distribution (illustrate on map):
Dhofar

2C. Habitat of the Taxon (ecosystem level):
IUCN Vegetation Categories - 3.5/3.6

2D. Habitat specificity (elevation, etc):
So far has only been found at one spot which is at 620m

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Khadrafi, Dhofar	<10 km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Unknown

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? 20 years

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:
Settlements

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving

5G. State the primary cause of change:

Settlements

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☒	☒
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☐ General field sudies
- ☐ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Cr B1 + 2C Regional/National: Endemic

10B. Workshop Assesment of Regional Red List category: CR B1ab(iii) + 2ab(iii)

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☒ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☒ Research
- ☒ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☒ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☒ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

AZE Website. Crocidura dhofarensis. www.zeroextinction.org. Downloaded on 31 January 2006.

Ciszek, D. and P. Myers. 2002. "Soricidae" (On-line), Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Soricidae.html

Harrison D.L., Bates P.J.J., 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 19-20.

Insectivore Specialist Group 1996. Crocidura dhofarensis. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

IUCN. 1995. Eurasian Insectivores and Tree Shrews - Status Survey and Conservation Action Plan. (Compiled by Stone, R. David, IUCN/SSC Insectivore, Tree Shrew and Elephant Shrew Specialist Group). IUCN, Gland, Switzerland. vii + 164 pp. ISBN 2-8317-0062-0.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 22-23.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11. pp. 333-334.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. I. pp. 202-203, 223-225.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Dhofar Shrew
Crocidura dhofarensis

Historical Distribution

Current Distribution

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Hystrix indica*

1B. Synonyms (with authority & date):
Hystrix cristata (Kerr 1792), Hystrix leucurus (Sykes 1831), Hystrix hirsutirostris aharonii (Muller 1911), Hystrix hirsutirostris schmidtzi (Muller 1911), Hystrix mesopotamica(Muller 1920)

1C. Common Name(s) with language/region:
Indian Crested Porcupine

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
KSA - Summan region, near Safa, Medain Salih(Hejaz), various localities in Asir and Hejaz, Jabal Shada
Yemen - Wadi Dahr, north of Sana'a, south of Mokka, Jabal al Jama(near Bajil), near Aden, Sheik Othman, Wadi Alasan
Oman - common in Jabal Qara, near Salalah and Hayma in the Jiddat al-Harasis

2B. Current Distribution (illustrate on map):
Kuwait (2003-2004), KSA, Yemen, Oman

2C. Habitat of the Taxon (ecosystem level):
Rantermium pernial shrub
IUCN Vegetation Categories - 3.4/11.1/11.2/6

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☒ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? 30 years

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

Development

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving

5G. State the primary cause of change:

Development

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☒	☒
Hunting (recreation or retail)	☒	☒	Habitat fragmentation	☐	☒
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☒	☒	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☒	☒	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☒	☒	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☒ Local ☒ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☒ Taxidermy	☐ Products
☐ Bones	☒ Hair	☐ Organs
☒ Meat	☒ Live Animal	

Comments/Other threats (please specify):
Hair above refers to Quills.

8. Data Quality

8A. Are the estimates you have supplied based on:

☐ Census or monitoring	☒ General field sudies	☒ Informal field studies
☒ Literature	☐ Museum studies/records	☒ Hearsay/popular belief
☐ Indirect information from trade, etc		

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Areas within range of the species include:
Oman - Jabal Samhan, Khawis of Dhofar

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☐ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☒ Trade ☐ Reintroduction ☒ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☒ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☒ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities in and out of region

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Al-Khalili A.D., Nader I.A., 1984. Nature Conservation in Saudi Arabia. An Ecological Study of the Asir National Park with a Check-list of the Terrestrial Vertebrate Fauna of the Park and its Surroundings. Fauna of Saudi Arabia 6: 11-14,21.

Al Safadi M.M., Nader I.A., 1991, The Indian Crested Porcupine, Hystrix indica indica Kerr, 1792 in North Yemen with Comments on the Occurrence of the Species in the Arabian Peninsula (Mammalia: Rodentia: Hystricidae). Fauna of Saudi Arabia 12: 411-415.

Baillie J., 1996. Hystrix indica. In: IUCN 2004. 2004 IUCN Red List of threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 219-221, 237, 263, 268-269.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 72-73.

Kinzelbach R, 1986. Additional Records of the Porcupine, Hystrix indica, from the Middle East. Zoology in the Middle East 1: 22-23.

Myers, P., R. Espinosa, C. S. Parr, T. Jones, G. S. Hammond, and T. A. Dewey. 2005. The Animal Diversity Web [Online]. Accessed January 17, 2006 at http://animaldiversity.org.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia, 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition Vol. II. pp. 1645-1649.

Schlimme, K. 2000. "Hystrix indica" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Hystrix_indica.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Indian crested Porcupine
Hystrix indica

Historical Records

Recent Records

Unconfirmed Report

N

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Allactaga euphratica*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
Euphrates Jerboa, Five-toed Jerboa, Long-eared Jerboa

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
KSA - Qaisumah
Kuwait - various records

2B. Current Distribution (illustrate on map):
Ruatain-kuwait,

2C. Habitat of the Taxon (ecosystem level):
Open areas with scattered veg, temp shrubland
IUCN Vegetation Categories - 3.4

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

_____

_____

_____

_____

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

_____

_____

_____

_____

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☒	☒	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☒	☒	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☒ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☒ Meat
- ☒ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Nt Regional/National:

10B. Workshop Assesment of Regional Red List category: Vu B1a(iii)

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☐ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☒ Trade ☐ Reintroduction ☒ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☒ Captive breeding
- ☒ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☒ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:
Possibly in Syria where trade is high in this species

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☒ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Baillie J., 1996. Allactaga euphratica. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221-223, 237, 263, 268-269.

Hodgson, S. 2004. "Allactaga euphratica" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Allactaga_euphratica.html.

Jansa, S. and P. Myers. 2000. "Dipodidae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Dipodidae.html.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 66-69.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition Vol. II. pp. 1341-1342.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Five-toed Jerboa
Allactaga euphratica

Historical Records

Recent Records

N

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Jaculus jaculus*

1B. Synonyms (with authority & date):
Mus jaculus (Linnaeus 1758), Dipus macrotarsus (Wagner 1840), Dipus loftusi (Blanford 1875), Dipus schlueteri (Nehring 1901), Jaculus loftusi vocator (Thomas 1921), Jaculus jaculus syrius (Thomas 1921), Jaculus florentiae (Cheesman & Hinton 1924), Jaculus florentiae oralis (Cheesman & Hinton 1924)

1C. Common Name(s) with language/region:
Lesser Jerboa, Desert Jerboa

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widely spread throughout Arabian Peninsula

2B. Current Distribution (illustrate on map):
KSA, Kuwait, Yemen, UAE, Oman, Bahrain, Qatar

2C. Habitat of the Taxon (ecosystem level):
Open areas with some gravel plains and small inter dunes scattered veg
IUCN Vegetation Categories - 8.1

2D. Habitat specificity (elevation, etc):
Open areas with some gravel plains and small inter dunes scattered veg

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Unknown

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving

5G. State the primary cause of change:

Overgrazing and development

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☒	☒
Hunting (recreation or retail)	☒	☒	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☒	☒	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☒	☒	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

Cyclic population in different areas

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☐ Local ☒ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- [ ] Skin
- [ ] Fur
- [ ] Horn
- [ ] Glands
- [ ] Taxidermy
- [ ] Products
- [ ] Bones
- [ ] Hair
- [ ] Organs
- [x] Meat
- [x] Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [ ] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [ ] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☐ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☒ Trade ☐ Reintroduction ☒ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☒ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities in and out of region

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Aulagnier S., 2004. Jaculus jaculus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 226-228, 237, 263, 268-269.

Jansa, S. and P. Myers. 2000. "Dipodidae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Dipodidae.html.

Keeley, T. 2004. "Jaculus jaculus" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Jaculus_jaculus.html.

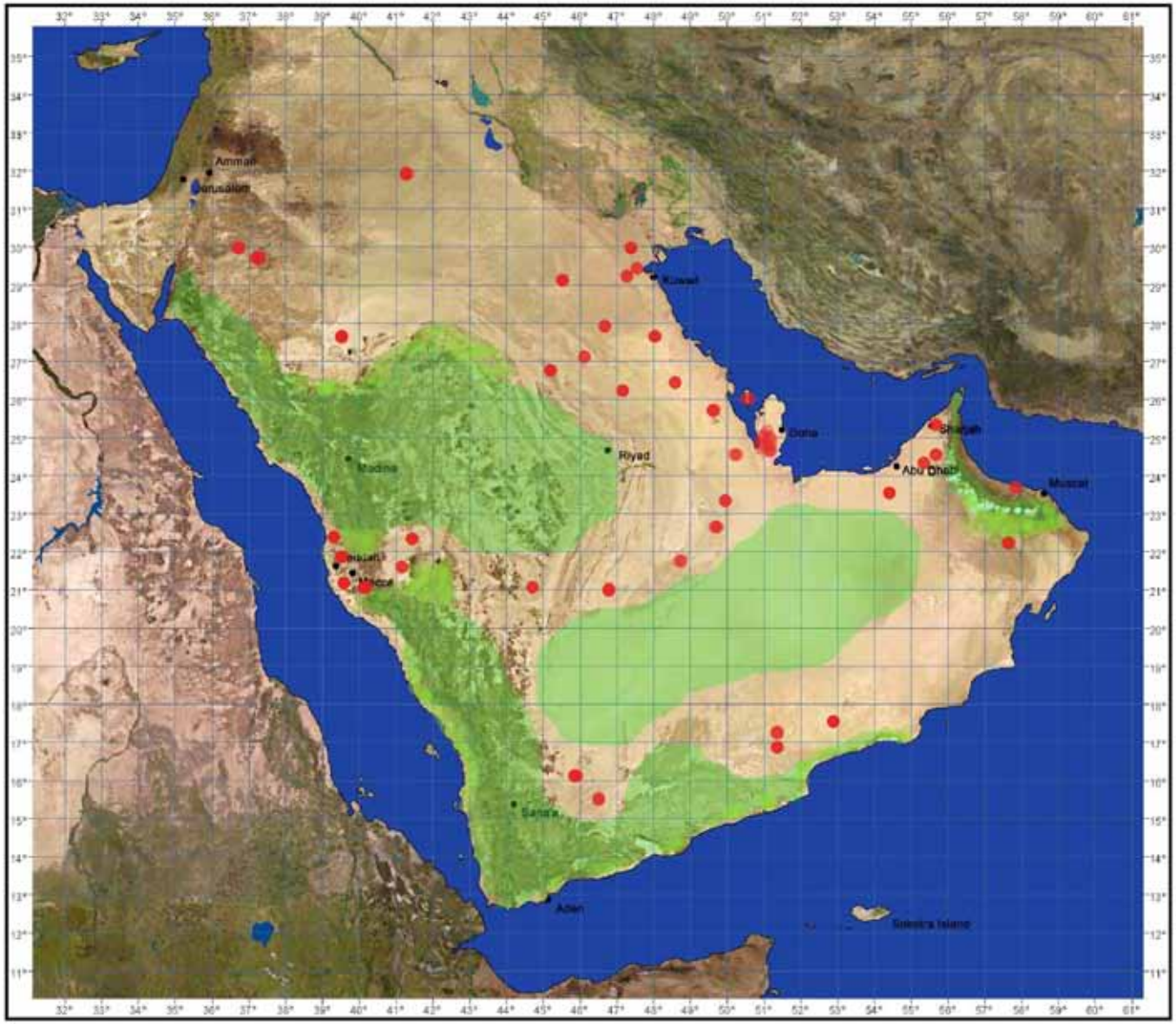
Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 70-71.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition Vol. II. pp. 1339-1340.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland



Lesser Jerboa
Jaculus jaculus

Historical Records

Widespread throughout Arabian Peninsula except these highlighted areas, i.e. mountainous regions and the Rub al Khali

N

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Eliomys melanurus*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
Asian Garden Dormouse, Desert Dormouse

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
KSA - Near Medain Saleh(Hejaz), Wadi Dalaghan (Asir).
Unconfirmed reports from Haql And Jabal Shar in the Hejaz

2B. Current Distribution (illustrate on map):
Yemen (Ibb-2000)
KSA(1990)

2C. Habitat of the Taxon (ecosystem level):
Rocky areas, inside agricultural dwellings in mountainous areas
IUCN Vegetation Categories - 6/11.4

2D. Habitat specificity (elevation, etc):
Rocky areas, inside agricultural dwellings in mountainous areas

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 3

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
South	10km2	
Middle	10km2	
North	10km2	
Area of occurrence	10000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured?

4C. If stable or unknown, do you predict a future decline in the population size: ☒ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Development-rate unknown

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☐ No ☒ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured?

5D. If unknown, do you predict a future decline in the habitat:

☒ Yes ☐ No If Yes, what do you predict decline will be?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? 10

5E. State primary cause of change:
Development - Decline in Yemen area since KSA areas appear to be mostly in protected areas

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving

5G. State the primary cause of change:

Development - Decline in Yemen area since KSA areas appear to be mostly in protected areas

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

Most threats are in Yemen areas

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

Most threats are in Yemen areas

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☐ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: En B2a +B(iii)

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Protected areas within the range of this species - Mahazzat as-Sayd, Harrat al Harrah, At Tubayq, Al Kunfah, Rayda

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☒ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☒ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☒ Research
- ☒ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Jordan-Madahnsade
Also numerous facilities with unknown origin stock

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☒ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Khalili A.D., Nader I.A., 1984. Nature Conservation in Saudi Arabia. An Ecological Study of the Asir National Park with a Check-list of the Terrestrial Vertebrate Fauna of the Park and its Surroundings. Fauna of Saudi Arabia 6: 11-14,21.

Aulagnier S., 2004. Eliomys melanurus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 228-231, 237, 263, 268-269.

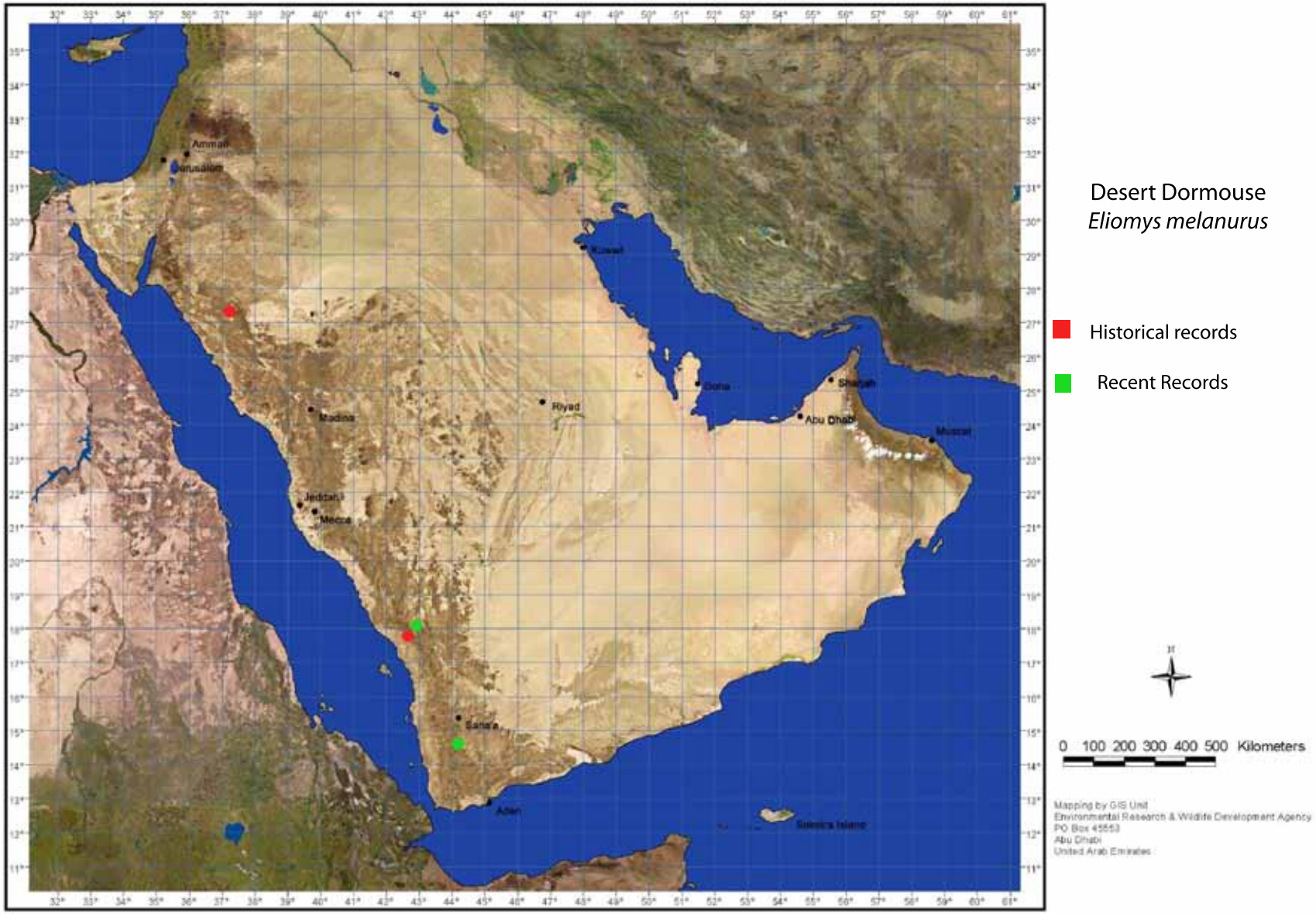
Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 71-72.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition Vol. II. p. 1632.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland


Amman
Jerusalem
Kuwait
Doha
Sharjah
Riyad
Madina
Abu Dhabi
Muscat
Jeddah
Mecca
Sana'a
Aden
Socotra Island
Desert Dormouse
Eliomys melanurus
Historical records
Recent Records
N
0 100 200 300 400 500 Kilometers
Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Arvicanthis niloticus*

1B. Synonyms (with authority & date):
Arvicola niloticus (Desmarest 1822), Arvicanthis niloticus naso (Pocock 1934)

1C. Common Name(s) with language/region:
Nile rat, Kusu Rat

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Yemen - Lahej, El Kubar, Lodar, near Ta'iz, El Hauban, Usaifira

2B. Current Distribution (illustrate on map):
Yemen-old records,
Oman(Brown in 1995)

2C. Habitat of the Taxon (ecosystem level):
Tall grass in ditches between fields, hillsides of euphorbia, dense shrubby thicket bordering garden
IUCN Vegetation Categories - 11.1-11.4, 3.6

2D. Habitat specificity (elevation, etc):
Tall grass in ditches between fields, hillsides of euphorbia, dense shrubby thicket bordering garden

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 2

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Oman	10km2	6
Yemen	20000km2	
Area of occurrence	>20000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☐ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☒ Genetics ☒ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:
Arabian stock not kept in captivity, only African stock in numerous facilities

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.Granjon L., 2004. Arvicanthis niloticus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Büttiker W., Harrison D.L. 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 243-244, 263, 2689-269.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition Vol. II. pp. 1603-1604.

Myers, P., R. Espinosa, C. S. Parr, T. Jones, G. S. Hammond, and T. A. Dewey. 2005. The Animal Diversity Web [Online]. Accessed at http://animaldiversity.org.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

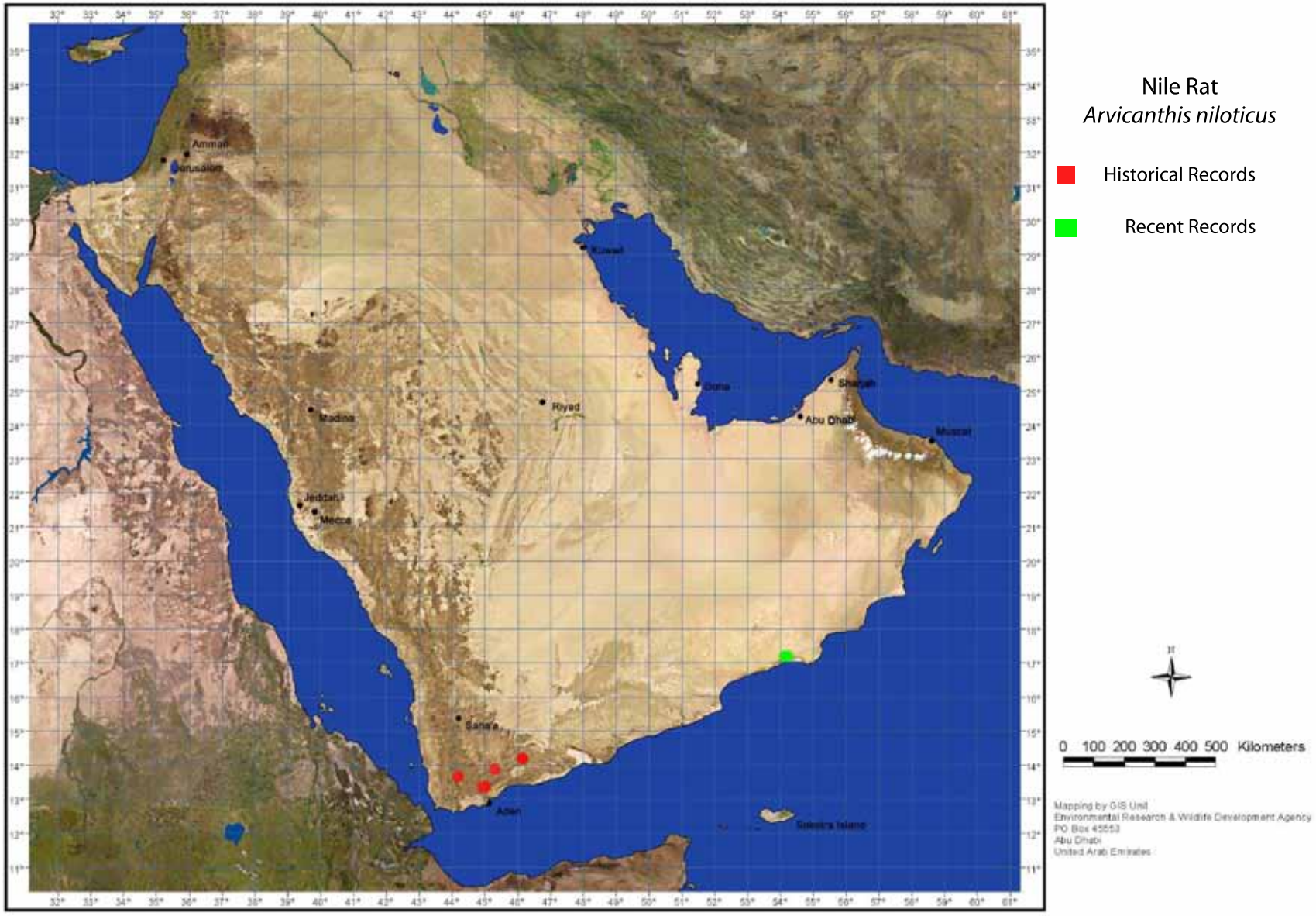
Sicard B., Catalan J., Ag'Atteynine S., Abdoulaye D. and Britton-Davidian J., 2004. Effects of climate and local aridity on the latitudinal and habitat distribution of Arvicanthis niloticus and Arvicanthis ansorgei (Rodentia, Murinae) in Mali. Journal of Biogeography (J. Biogeogr.) 31: 5–18.

Snowden P., Bates P.J.J., Harrison D.L. & Brown M.R., 2000. Recent records of bats and rodents from Oman including three species new to the country. Fauna of Arabia 18: 397-407.

St. John, J. 2005. "Arvicanthis niloticus" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Arvicanthis_niloticus.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland


Nile Rat
Arvicanthis niloticus
Historical Records
Recent Records
Amman
Jerusalem
Kuwait
Doha
Sharjah
Riyad
Abu Dhabi
Muscat
Madina
Jeddah
Mecca
Sana'a
Aden
Socotra Island
0 100 200 300 400 500 Kilometers
Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Hylomyscus yemeni*

1B. Synonyms (with authority & date):
us fumatus (Peters 1878), Myomys fumatus Yemeni (Sanborn & Hoogstraal 1953), , Myomys yemeni, Praomys fumatus

1C. Common Name(s) with language/region:
Rock Rat

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Yemen - Kariet, Wadi Dahr, 10km NW of Sana'a, 2km from Al Mahweit, 70km WNW of Sana'a and Beni Madar, 35km SW of Sana'a on Hodeida road
KSA - Al Haniq, Thamniyah, Wadi Dalaghan

2B. Current Distribution (illustrate on map):
Yemen, KSA(last record 1988)

2C. Habitat of the Taxon (ecosystem level):
Shrubland, juniper forest, dense woodland, garden, grassy plains, rocky areas
IUCN Vegetation Categories - 3.5/6

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 2

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Northern (KSA)-Area of occupancy	10000km2	
Southern(Yemen)-area of occupancy	15000	
extent of occurrence	50000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☐ General field sudies
- ☐ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☒ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☒ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☒ Research
- ☐ Preserve live genome
- ☒ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☒ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☒ Techniques not known

14. Sources/References (complete citation):

Baillie J., 1996. Myomys yemeni. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 248-250, 263, 268-269.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition Vol. II. pp. 1577-1579.

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Al-Khalili A.D., Nader I.A., 1984. Nature Conservation in Saudi Arabia. An Ecological Study of the Asir National Park with a Check-list of the Terrestrial Vertebrate Fauna of the Park and its Surroundings. Fauna of Saudi Arabia 6: 11-14,21.

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Rock Rat
Hylomyscus yemeni

Historical Records

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Acomys dimidiatus*

1B. Synonyms (with authority & date):
Acomys cahirinus (Desmarest 1819)

1C. Common Name(s) with language/region:
Egyptian Spiny Mouse, Arabian Spiny mouse

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread throughout mountainous regions of Oman, KSA, Yemen, UAE

2B. Current Distribution (illustrate on map):
UAE
KSA(ibex reserve-last 4 years)
Yemen(Maqwid 1997, 2005 roadkill near Sana'a)
Oman(very distinctive)

2C. Habitat of the Taxon (ecosystem level):
rocky, gravelly areas, sometimes cultivated areas reported in Yemen
IUCN Vegetation Categories - 6

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: Many

Location of each:	Approx. area occupied:	Approx. No. of Individuals:

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

_____
_____
_____
_____

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

_____
_____
_____
_____

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☐ Surveys ☒ Genetics ☒ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities in and out of region

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M. 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Al-Khalili A.D., Nader I.A. 1984. Nature Conservation in Saudi Arabia. An Ecological Study of the Asir National Park with a Check-list of the Terrestrial Vertebrate Fauna of the Park and its Surroundings. Fauna of Saudi Arabia 6: 11-14,21.

Büttiker W., Harrison D.L. 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Dieterlen F., 2004. Acomys cahirinus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 254-256, 263, 268-269.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Spiny Mouse
Acomys dimidiatus

Historical Records

Recent records indicate presence in all mountainous areas on Arabian Peninsula

N

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Acomys russatus*

1B. Synonyms (with authority & date):
Mus russatus (Wagner 1840), Acomy lewisi (Atallah 1967), Acomys russatus harrisoni (Atallah 1970)

1C. Common Name(s) with language/region:
Golden Spiny Mouse

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widely scattered in KSA, Beihan in Yemen and Ayun in Dhofar Oman

2B. Current Distribution (illustrate on map):
KSA(no recent records)
Yemen(1996-2km east of al fed)
Oman (Ayun in Oman, possibly cycle of life trip as well)

2C. Habitat of the Taxon (ecosystem level):
rocky areas
IUCN Vegetation Categories - 6

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: Many

Location of each:	Approx. area occupied:	Approx. No. of Individuals:

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

_____

_____

_____

_____

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

_____

_____

_____

_____

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☐ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: DD

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☒ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Taxonomic for lewisi (Possible KSA connection)

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Some facilities

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Al-Khalili A.D., Nader I.A., 1984. Nature Conservation in Saudi Arabia. An Ecological Study of the Asir National Park with a Check-list of the Terrestrial Vertebrate Fauna of the Park and its Surroundings. Fauna of Saudi Arabia 6: 11-14,21.

Baillie J., 1996. Acomys russatus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Fishman, B. 2000. "Acomys russatus" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Acomys_russatus.html.

Haim A. & Rozenfeld F. M., 1998. Spacing behaviour between two desert rodents, the golden spiny mouse Acomys russatus and the bushy-tailed gerbil Sekeetamys calurus. Journal of Arid Environments 39: 593–600.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp.221, 237, 256-258, 263, 268-269.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Golden Spiny Mouse
Acomys russatus

Historical Records

Recent Records

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 20/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Gerbillus poecilops*

1B. Synonyms (with authority & date):
Gerbillus (Dipodillus) poecilops (Yerbury & Thomas 1895)

1C. Common Name(s) with language/region:
Large Aden Gerbil

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
KSA - Hadda, 50km north of Al Muhayl, km 76 & km 86 on the Mecca Bypass, Wadi Uranah(near Mecca).
Yemen - Lahej, Sheik Othman, El Kod, Ta'iz, Wadi Zabid.

2B. Current Distribution (illustrate on map):
KSA - Ta'lf (2001/2), Mahazzat as-Sayd (1997)
Yemen(1984)

2C. Habitat of the Taxon (ecosystem level):
Semi-arid deserts, Rural agricultural.
IUCN Vegetation Categories - 8.1/11.1/11.4

2D. Habitat specificity (elevation, etc):
Often around cultivation and rural habitation

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
From Aden to Ta'if	>20000km2	
Extent of occurrence	210000km2	
Area of occupancy	50000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Unknown

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):
Local urban development

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☒ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
William J. McShea	Mahazzat as-Sayd	1992	The Small mammal community within Mahazzat as-Sayd: A preliminary study of its composition, distribution and richness
Nicola J Wells	Mahazzat as-Sayd	1999	Effects of predation and habitat on desert rodent community in Mazzat as-Sayd reserve, Saudi Arabia

10. Conservation Status

10A. Global IUCN Red List Category: Global Lr/Nt Regional/National:

10B. Workshop Assesment of Regional Red List category: Nt

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☒ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☒ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☒ Research
- ☐ Preserve live genome
- ☒ Husbandry
- ☒ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
BCEAW

13C.Number in captvity: Males: 5 Females: 3 Unsexed: Total: 8

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☒ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-271.

Harrison D., 1996. Gerbillus poecilops. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448,1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

Snowden P., Bates P.J.J., Harrison D.L. & Brown M.R., 2000. Recent records of bats and rodents from Oman including three species new to the country. Fauna of Arabia 18:397-407.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Large Aden Gerbil
Gerbillus poecilops

Historical Records

Recent Records

N

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Gerbillus nanus*

1B. Synonyms (with authority & date):
Gerbillus nanus (Blanford 1875), Dipodillus mimulus (Thomas 1902), Dipodillus arabium (Thomas 1918), Gerbillus nanus setonbrownei (Harrison 1968)

1C. Common Name(s) with language/region:
Baluchistan Gerbil

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread throughout UAE, Oman, KSA, Yemen, Qatar, Kuwait

2B. Current Distribution (illustrate on map):
UAE, KSA, Oman, Kuwait, Qatar, but no recent records from Yemen

2C. Habitat of the Taxon (ecosystem level):
Gravel plains with some veg, scattered small dunes, mud flats
IUCN Vegetation Categories - 8.1

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

_____

_____

_____

_____

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

_____

_____

_____

_____

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☒
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
Mohammed A. Yousef, Zuhair S. Amr	Jordan	Between 2000-2005	Altitude stratification and habitat selection of rodents
Z. Amr, M. Abu Baker, L. Rifai	Jordan	2004	Mammals of Jordan
M. Abu Baker, Zuhair Amr	Jordan	2004	Rodents of Wadi Ramm

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Surveys particularly for Southern range - Yemen and Oman

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Granjon L., 2004. Gerbillus nanus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269, 274-276.

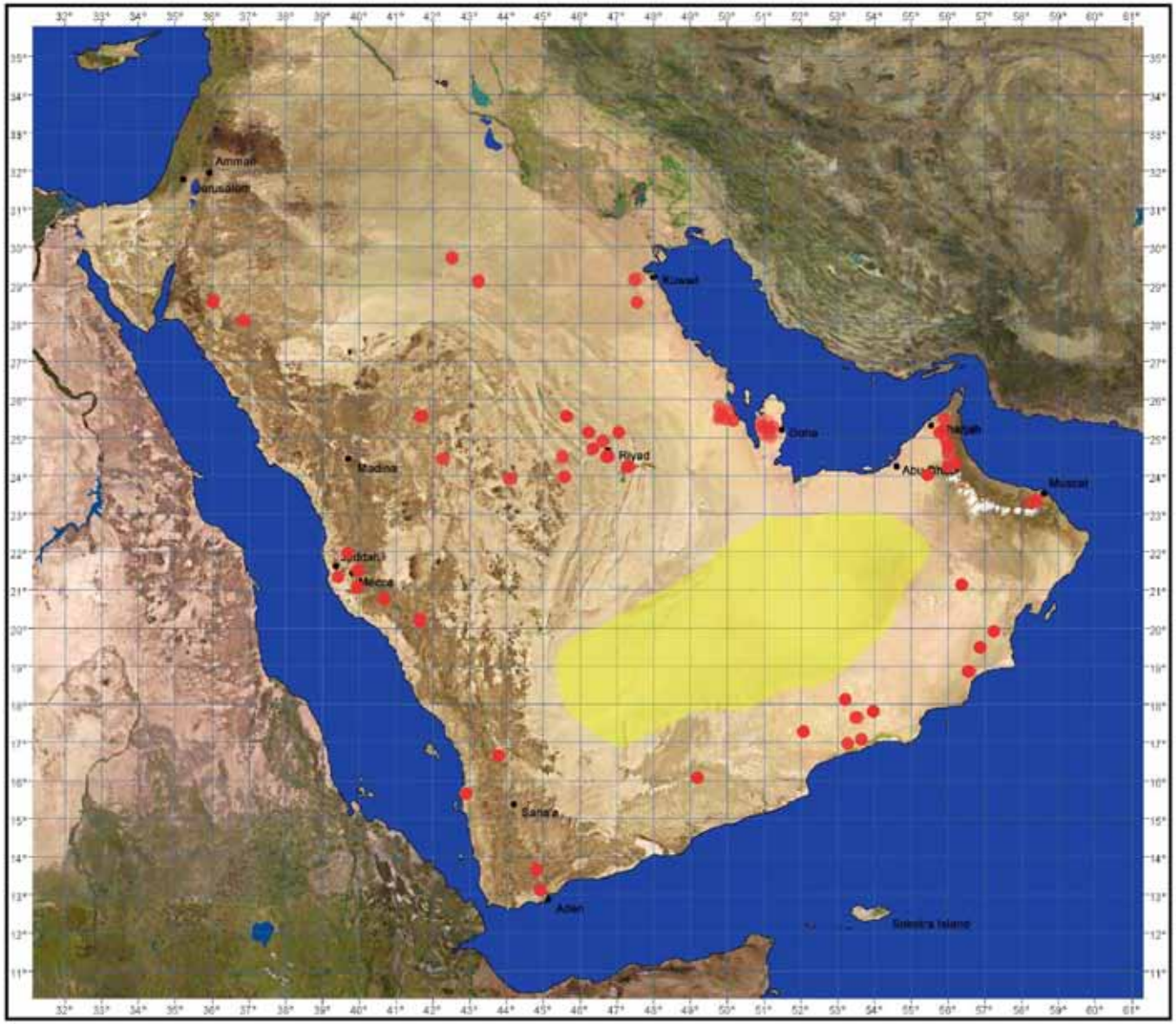
Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition. Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland



Baluchistan Gerbil
Gerbillus nanus

Widespread throughout whole Arabian Peninsula except this area, the Rub al Khali

Historical Records

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Gerbillus dasyurus*

1B. Synonyms (with authority & date):
Meriones dasyurus (Wagner 1842), Gerbillus (Dipodillus) lixa (Yerbury & Thomas 1895), Dipodillus Dasyuroides (Nehring 1901), Gerbillus (Dipodillus) dasyurus palmyrae (Von Lehmann 1966), Gerbillus (Dipodillus) Dasyurus leosollicitus (Von Lehmann 1966), Gerbillus dasyurus gallagheri (Harrison 1971)

1C. Common Name(s) with language/region:
Wagner's Gerbil

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread in Arabian Peninsula where there are rocky areas (low foothills etc) with low vegetation

2B. Current Distribution (illustrate on map):
Qatar - sandy dunes-possibly mis-identification,
Yemen(old records)
KSA
Oman (no recent records)
UAE

2C. Habitat of the Taxon (ecosystem level):
Rocky areas with low vegetation
IUCN Vegetation Categories - 6/8.1

2D. Habitat specificity (elevation, etc):
Rocky areas with low vegetation

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 5

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
UAE/Oman		
Masirah		
Salalah		
S. Yemen		
N.eastern saudi		

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

_____

_____

_____

_____

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

_____

_____

_____

_____

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):
Quarries-UAE(slight)

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☒ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Southern part of range(Yemen)
Qatar-confirm status of animal on sandy dune areas

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☒ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Al-Khalili A.D., Nader I.A., 1984. Nature Conservation in Saudi Arabia. An Ecological Study of the Asir National Park with a Check-list of the Terrestrial Vertebrate Fauna of the Park and its Surroundings. Fauna of Saudi Arabia 6: 11-14,21.

Baillie J., 1996. Gerbillus dasyurus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269, 276-280.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Wagner's Gerbil
Gerbillus dasyurus

Historical Records

Recent Records

? Unconfirmed Report

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Gerbillus cheesmani*

1B. Synonyms (with authority & date):
Gerbillus cheesmani (Thomas 1919), Gerbillus arduus (Cheesman & Hinton 1924), Gerbillus cheesmani maritimus (Sanborn & Hoogstraal 1953)

1C. Common Name(s) with language/region:
Cheesman's Gerbil

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread throughout Oman, UAE, Yemen, KSA, Kuwait

2B. Current Distribution (illustrate on map):
UAE, Oman, Kuwait, Qatar,Yemen(no recent records), KSA

2C. Habitat of the Taxon (ecosystem level):
Sandy dunes
IUCN Vegetation Categories - 8.1

2D. Habitat specificity (elevation, etc):
sandy dunes

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

_____
_____
_____
_____

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

_____
_____
_____
_____

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
Mohammed A. Yousef, Zuhair S. Amr	Jordan	Between 2000-2005	Altitude stratification and habitat selection of rodents
Z. Amr, M. Abu Baker, L. Rifai	Jordan	2004	Mammals of Jordan
M. Abu Baker, Zuhair Amr	Jordan	2004	Rodents of Wadi Ramm

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Particularly yemen

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☒ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Al-Khalili A.D., Nader I.A., 1984. Nature Conservation in Saudi Arabia. An Ecological Study of the Asir National Park with a Check-list of the Terrestrial Vertebrate Fauna of the Park and its Surroundings. Fauna of Saudi Arabia 6: 11-14,21.

Baillie J., 1996. Gerbillus cheesmani. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269, 284-285.

Jain, D. 2002. "Gerbillus cheesmani" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Gerbillus_cheesmani.html.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Myers, P., R. Espinosa, C. S. Parr, T. Jones, G. S. Hammond, and T. A. Dewey. 2005. The Animal Diversity Web [Online]. Accessed at http://animaldiversity.org.

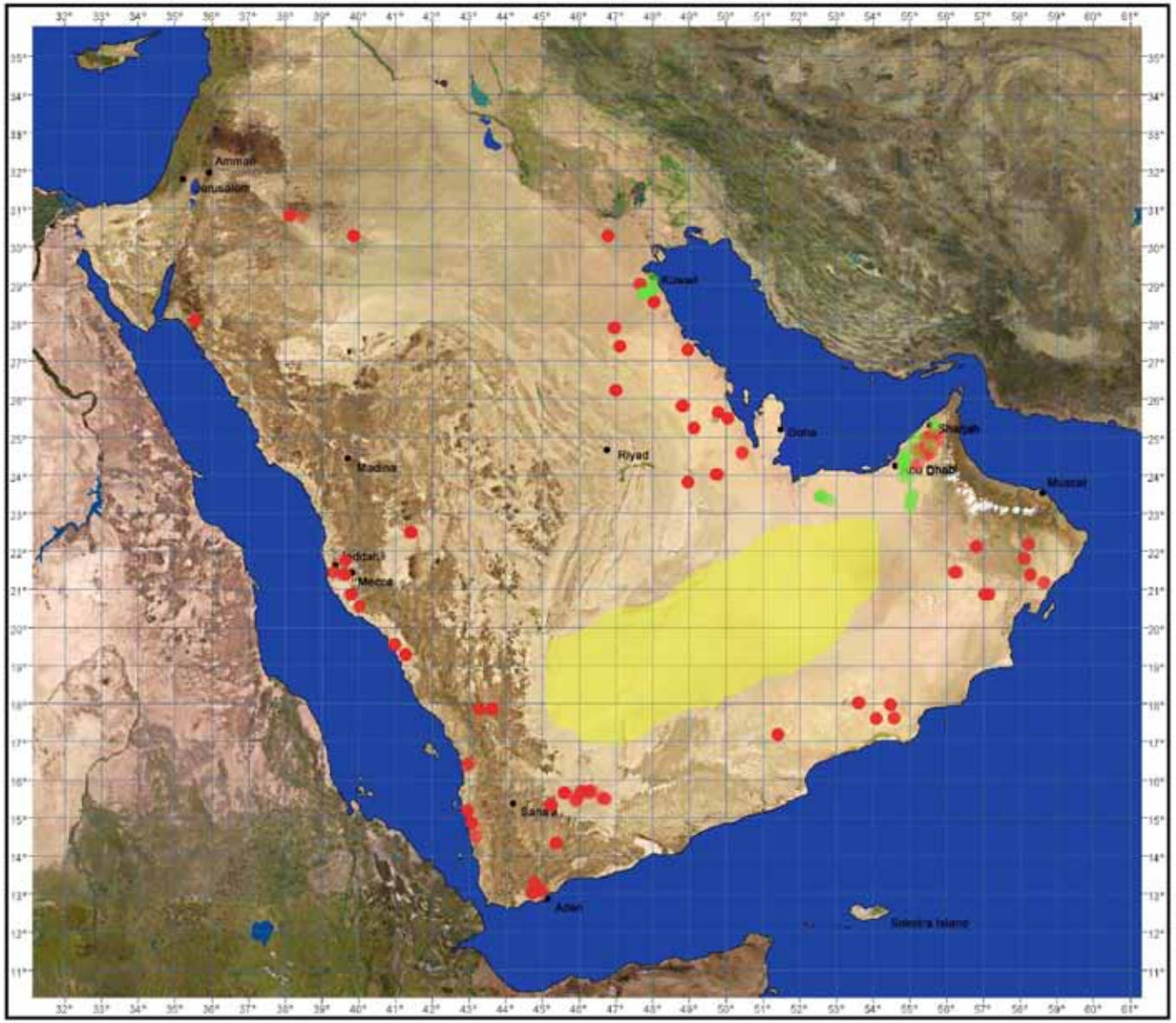
Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition. Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland



Cheesman's Gerbil
Gerbillus cheesmani

Historical Records

Confirmed Recent Records

Gerbillus cheesmani widespread in Arabian Peninsula except in this area (Rub al Khali) and all mountainous terrain

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Gerbillus henleyi*

1B. Synonyms (with authority & date):
Dipodillus henleyi (de Winton 1903), Dipodillus mariae (Bonhote 1909), Gerbillus (hendecapleura) henleyi

1C. Common Name(s) with language/region:
Pygmy Gerbil

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Yemen - Hodeida
Oman - Wadi Thayfut
KSA - Al Arf

2B. Current Distribution (illustrate on map):
KSA(1997)

2C. Habitat of the Taxon (ecosystem level):
Flat gravelly, open with scattered veg
IUCN Vegetation Categories - 8.1

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 3

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Oman		
Yemen		
Saudi		
All 3 very different-possible mis-identification		

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Unknown-due to differences in individuals described at the different localities

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☐ Fragmented ☒ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☐ No ☒ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☐ No ☒ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):
Unknown

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☒ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: DD

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Protected areas within range of species: Mazzat as-Sayd, Saja/Umm Al Rimth

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☒ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Jordan

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☒ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia17: 491-496.

Aulagnier S. & Granjon L., 2004. Gerbillus henleyi. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269, 272-274.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Pygmy Gerbil
Gerbillus henleyi

Historical Records

Recent Records

N

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 20/2/2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Gerbillus famulus*

1B. Synonyms (with authority & date):
Gerbillus (Hendocapleura) famulus (Yerbury & Thomas 1895)

1C. Common Name(s) with language/region:
Black-tufted Gerbil

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Yemen (Around Aden area) -1950 and earlier. Other localities: Lahej, El Khaur, Wadi Hassan, Dhala, Ma'bar, Ta'iz, Sukhnar village, 62km east of Hodeida, 6km north of Ta'iz

2B. Current Distribution (illustrate on map):
Sui'n(Hadramut)-2005

2C. Habitat of the Taxon (ecosystem level):
Acacia scrub, rocky ridges
IUCN Vegetation Categories - 6/3.5

2D. Habitat specificity (elevation, etc):
Acacia present in areas where records occurred(thorny scrub)

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Area of occurrence	60000km2	
Area of occupancy	20000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured?

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☒ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? 30 years

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur?

5E. State primary cause of change:

Clearing for agriculture, settlements (Mainly around aden area)

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving

5G. State the primary cause of change:

Clearing for agriculture, settlements (Mainly around aden area)

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☒	☒
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☒ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☒ Research
- ☐ Preserve live genome
- ☒ Husbandry
- ☒ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☒ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Baillie J., 1996. Gerbillus famulus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269, 271-272.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Black-tufted Gerbil
Gerbillus famulus

Historical Records

Recent Records

N

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 22/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Meriones libycus*

1B. Synonyms (with authority & date):
Meriones libycus (Lichtenstein 1823), Gerbillus erythroura (Gray 1842), Meriones syrius (Thomas 1919), Meriones syrius edithae (Cheesman & Hinton 1924), Meriones syrius evelnae (Cheesman & Hinton 1924), Meriones arimalius (Cheesman & Hinton 1924)

1C. Common Name(s) with language/region:
Libyan Jird

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Initial records indicate UAE (Mis-identification), KSA and Kuwait

2B. Current Distribution (illustrate on map):
KSA(Not recent-1980), Kuwait(subeya-within last 2 years-quite common,, one report of decline in kuwait. not as many as before)

2C. Habitat of the Taxon (ecosystem level):
Scattered shrub cover in desert
IUCN Vegetation Categories - 8.1/3.5

2D. Habitat specificity (elevation, etc):
Not shifting sands, vegetated hamocks

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
area of occupancy	<2000km2	
area of occurence	>20000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☐ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☒ Genetics ☒ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Surveys to look at southern distribution in relation to arimalius

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Kuwait(numerous)-need to confirm id of stock

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Aulagnier S. & Granjon L., 2004. Meriones libycus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Harrison D.L., Bates P.J.J., 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269, 296-299.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Masi, A. 2000. "Meriones libycus" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Meriones_libycus.html.

Myers, P., R. Espinosa, C. S. Parr, T. Jones, G. S. Hammond, and T. A. Dewey. 2005. The Animal Diversity Web [Online]. Accessed at http://animaldiversity.org.

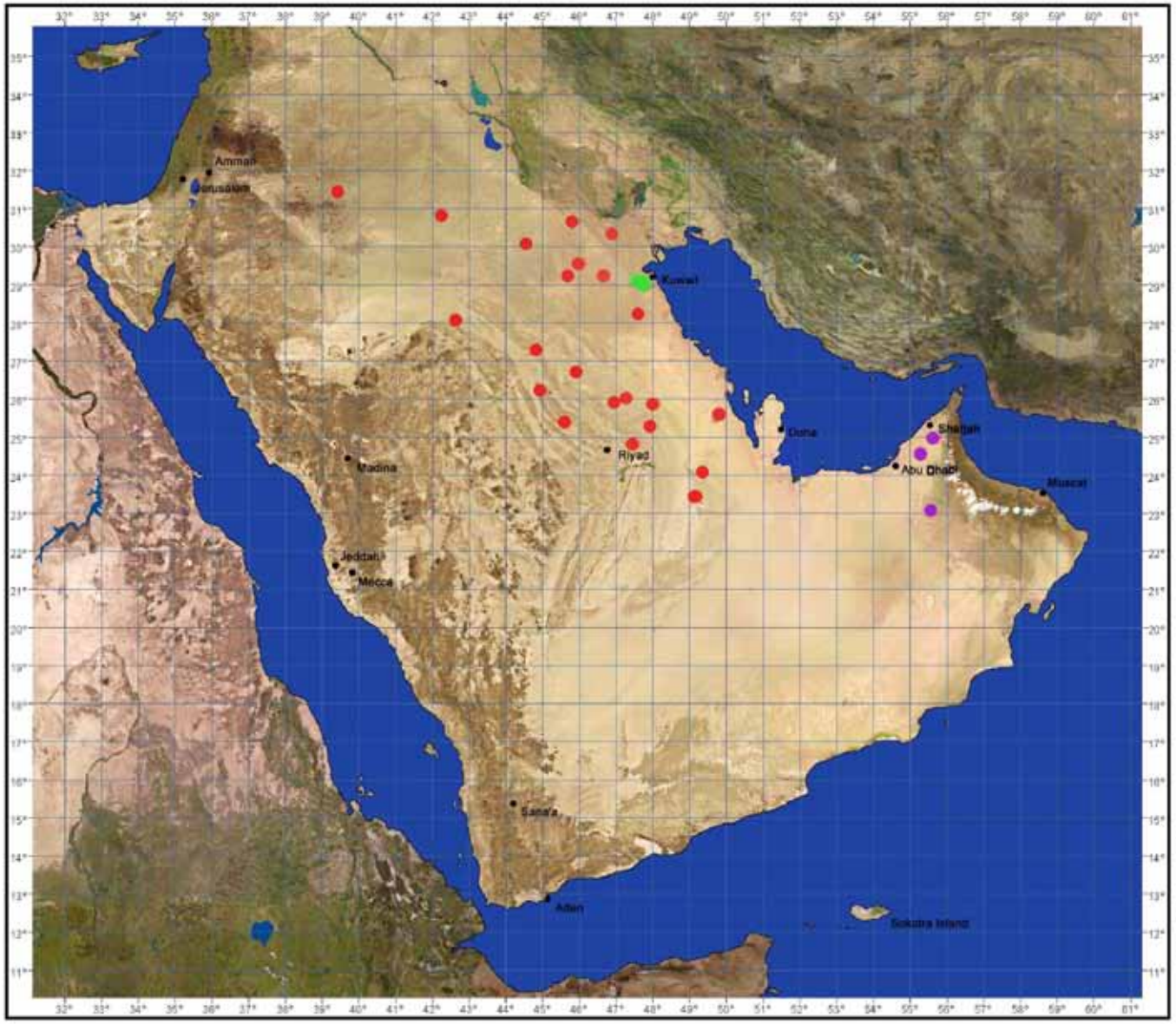
Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland



Libyan Jird
Meriones libycus

Historical Records

These records possibly mis-identified. Possibly was *Meriones arimalius*

Recent Records

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Meriones crassus*

1B. Synonyms (with authority & date):
Meriones crassus (Sundevall 1842), Meriones longifrons (Lataste 1884), Meriones charon (Thomas 1919), Meriones pelerinus (Thomas 1919)

1C. Common Name(s) with language/region:
Sundevall's Jird

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread in Kuwait, Qatar, Bahrain, UAE, Oman and northern, western and eastern KSA

2B. Current Distribution (illustrate on map):
Kuwait, KSA (Mahazet es sayd, Saja /Umm Ar-rimth), UAE (Abu-Dhabi and Al-Ain)

2C. Habitat of the Taxon (ecosystem level):
Semi arid desert
IUCN Vegetation Categories - 8.1

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: unknown

Location of each:	Approx. area occupied:	Approx. No. of Individuals:

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
unknown

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☒	☒
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☒ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
Nicola J Wells	Mahazzat as-Sayd	1999	Effects of predation and habitat on desert rodent community in Mazzat as-Sayd reserve, Saudi Arabia

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☐ Yes ☒ No

If Yes, what type of research would you recommend?

☐ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Aulagnier S. & Granjon L., 2004. Meriones crassus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269, 299-300.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Maher, S. 2002. "Meriones crassus" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Meriones_crassus.html.

Myers, P., R. Espinosa, C. S. Parr, T. Jones, G. S. Hammond, and T. A. Dewey. 2005. The Animal Diversity Web [Online]. Accessed at http://animaldiversity.org.

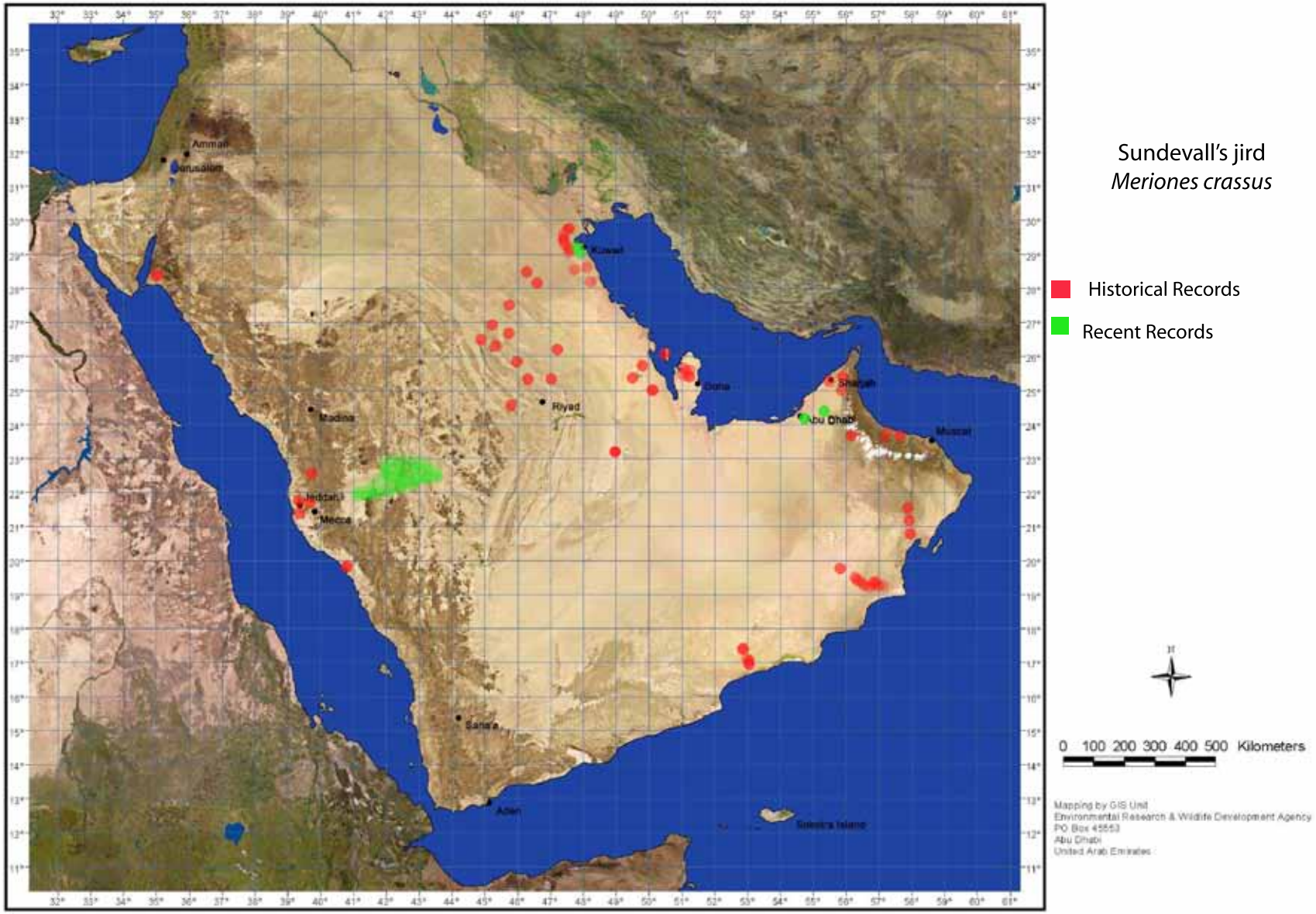
Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland


Sundevall's jird
Meriones crassus
Historical Records
Recent Records
Amman
Kuwait
Doha
Sharjah
Riyad
Abu Dhabi
Muscat
Madina
Mecca
Sana'a
Aden
0 100 200 300 400 500 Kilometers
Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 20/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Meriones arimalius*

1B. Synonyms (with authority & date):
Meriones arimalius (Cheesman & Hinton 1924), Meriones libycus arimalius(Harrison 1972), Meriones arimalius (Pavlinov 1991)

1C. Common Name(s) with language/region:
Arabian Jird

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Oman, KSA(Jabrin), UAE(Buraimi)

2B. Current Distribution (illustrate on map):
UAE-2km South of Sharjah al Dhaid highway, Wadi Faiyah, Al Ain, south-eastern corner of Abu Dhabi

2C. Habitat of the Taxon (ecosystem level):
sandy hot desert
IUCN Vegetation Categories - 8.1

2D. Habitat specificity (elevation, etc):

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 3

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Shj	500km2	
Al-ain +Buraimi	150km2	
area occupied	25000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☒ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Loss of habitat due to development (particularly UAE)

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☒
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:
Planned developments

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☐ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

☐ Census or monitoring	☒ General field sudies	☐ Informal field studies
☒ Literature	☐ Museum studies/records	☐ Hearsay/popular belief
☐ Indirect information from trade, etc		

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
Peter Phelan(BCEAW)	Sharjah, UAE	2005->	Distribution of Meriones arimalius

10. Conservation Status

10A. Global IUCN Red List Category: Global En Regional/National:

10B. Workshop Assesment of Regional Red List category: Vu B2ab(iii)

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☒ Captive breeding
- ☒ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☒ Research
- ☐ Preserve live genome
- ☒ Husbandry
- ☒ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
BCEAW
EWBCC

13C.Number in captvity: Males: 4 Females: 4 Unsexed: 20 Total: 28

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☒ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448, 1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

Tchabovsky A., 1996. Meriones arimalius. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Arabian Jird
Meriones arimalius

Historical Records

Recent Records

? Possible mis-identification with *Meriones libycus*

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 20/2/2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Meriones rex*

1B. Synonyms (with authority & date):
Meriones rex (Yerbury & Thomas 1895), Meriones buryi (Thomas 1902), Meriones philbyi (Morrison-Scott 1939)

1C. Common Name(s) with language/region:
King Jird

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
KSA-Najran, Wadi Hijla, Ashaira, Shaib Hanjur, Dailami, Wadi Turabah, Al Dalhan, Wadi Dalaghan, Al Baha camp, Ta'if
Yemen-Lahej, Shaka, near Aden, Zabed, Habiland, Dhala, Ma'abar, Al' Asr, Sana'a, Kariet Wadi Dhahr, El Hauban, near Ta'iz, vicinity of Sa'da, Sok al Khamis, Wadi Yana'im

2B. Current Distribution (illustrate on map):
KSA-last sighting in 1990
Yemen -sightings in last 5-10 years include Juban(1997), Dhamar(2005)

2C. Habitat of the Taxon (ecosystem level):
Acacia plains, common in wadis, both cultivated and uncultivated areas Appears to be a habitat generalist.
IUCN vegetation categories - 3.5/11.1/11.3/6

2D. Habitat specificity (elevation, etc):
Acacia plains, common in wadis, both cultivated and uncultivated areas Appears to be a habitat generalist.

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Area of occurrence	180000km2	
Area of occupancy	80000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Protected areas falling within range of this species include Mahazat as-Sayd(KSA), Raydah(KSA)

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☒ Genetics ☒ Taxonomic ☒ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☒ Other (please specify):

Investigate subspecies status
Survey especially in Yemen where status unknown-Only two recent sightings in last 10 years

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
BCEAW

13C.Number in captvity: Males: _____ Females: 1 Unsexed: _____ Total: 1

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Al-Jumaily M.M., 1998. Review of the mammals of the Republic of Yemen. Fauna of Arabia 17: 491-496.

Al-Khalili A.D., Nader I.A., 1984. Nature Conservation in Saudi Arabia. An Ecological Study of the Asir National Park with a Check-list of the Terrestrial Vertebrate Fauna of the Park and its Surroundings. Fauna of Saudi Arabia 6: 11-14,21.

Baillie J., 1996. Meriones rex. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 289-292.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition. Vol. II. pp. 1446-1448,1455-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

King Jird
Meriones rex

Historical Records

Recent Records
(Some sightings in Saudi Arabia areas in last 10 years but no locality data)

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Sekeetamys calurus*

1B. Synonyms (with authority & date):
Gerbillus calurus (Thomas 1892)

1C. Common Name(s) with language/region:
Bushy-tailed Jird

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
KSA - Eastern side of the Tuwaiq mountains (36km SW of Riyadh), Jabal Banban, Wadi Khumra

2B. Current Distribution (illustrate on map):
KSA (slightly west of Riyad) most recent record 1988

2C. Habitat of the Taxon (ecosystem level):
rocky areas
IUCN Vegetation Categories - 6

2D. Habitat specificity (elevation, etc):
rocky areas

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 1

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Area of occupancy	10000km2	
area of occurrence	10000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

_____

_____

_____

_____

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

_____

_____

_____

_____

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☒ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National:

10B. Workshop Assesment of Regional Red List category: NT B1

10C. CITES:

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☐ Other (please specify):

Ascertain true range (isolated spot in middle of Saudi Arabia with no connection to northern populations)

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☐ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Numerous facilities outside and inside region-Mostly European stock which originates from Egypt

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☒ Techniques known for this or similar taxon
- ☐ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Büttiker W., Harrison D.L., 1982. On a collection of Rodentia from Saudi Arabia. Fauna of Saudi Arabia 4: 488-502.

Carter, K. 2004. "Sekeetamys calurus" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Sekeetamys_calurus.html.

Haim A. & Rozenfeld F. M., 1998. Spacing behaviour between two desert rodents, the golden spiny mouse Acomys russatus and the bushy-tailed gerbil Sekeetamys calurus. Journal of Arid Environments 39: 593–600.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269, 301-303.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65

Myers, P., R. Espinosa, C. S. Parr, T. Jones, G. S. Hammond, and T. A. Dewey. 2005. The Animal Diversity Web [Online]. Accessed January 17, 2006 at http://animaldiversity.org.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition, Vol. II. pp. 1446-1448, 1454-1457, 1517-1522, 1590-1592.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

Schlitter D., 2004. Sekeetamys calurus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Bushy-tailed Jird
Sekeetamys calurus

Historical records

Recent Records

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Insectivore and Rodents of Arabia Date: 21/2/06

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Psammomys obesus*

1B. Synonyms (with authority & date):
Psammomys obesus (Cretzschmar 1828), Psammomys terraesanctae (Thomas 1902), Psammomys obesus dianae (Morrison-Scott 1939)

1C. Common Name(s) with language/region:
Fat Jird, Fat Sand Rat

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
KSA - Medain Salih, Tibuk, Safaha Desert, Dailami, 8km & 46km west of Abqaiq, 25 deg 40 min north and 51 deg 00 min east

2B. Current Distribution (illustrate on map):
KSA (historical records only)

2C. Habitat of the Taxon (ecosystem level):
Sandy ground and occasionally rocky terrain. Deserts
IUCN Vegetation Categories - 8.1

2D. Habitat specificity (elevation, etc):
Possibly vegetation specific-dependent on certain succulent plants for moisture

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:

3. Number of Populations and Subpopulations in which the taxon is distributed: 3

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
N-east		
West		
North		
combined area of occupancy	20000km2	
Area of occurrence	>20000km2	

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:

_____

_____

_____

_____

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

_____

_____

_____

_____

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

- ☐ Skin
- ☐ Fur
- ☐ Horn
- ☐ Glands
- ☐ Taxidermy
- ☐ Products
- ☐ Bones
- ☐ Hair
- ☐ Organs
- ☐ Meat
- ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☐ General field sudies
- ☐ Informal field studies
- ☒ Literature
- ☐ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global Lc Regional/National: _____

10B. Workshop Assesment of Regional Red List category: Lc

10C. CITES: _____

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

10I. Recommended protected areas for this species (please specify):

10J. Existing regional conservation/protection.action plan(s):

10K. Conservation/protection/action plan(s) enforced/implemented:

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☐ Life History ☐ Public awareness

☐ Trade ☐ Reintroduction ☐ Human Impact ☐ Monitoring

☒ Other (please specify):

Investigate link with leishmani within region

12. Management

12A. What management is recommended for the taxon?

- ☐ Habitat management
- ☐ Wild population management
- ☐ Captive breeding
- ☒ Monitoring
- ☐ Translocation
- ☐ Sustainable Utilisation
- ☐ Public awareness
- ☐ Limiting factor management
- ☐ Genome Research Banking
- ☐ Work in local communities
- ☐ Address policy makers
- ☐ Law enforcement
- ☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

- ☐ Species recovery
- ☐ Reintroduction
- ☐ Research
- ☐ Preserve live genome
- ☐ Husbandry
- ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Possible stocks in europe - origin ?

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☐ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques established for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

Aulagnier S. & Granjon L., 2004. Psammomys obesus. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.iucnredlist.org. Downloaded on 26 January 2006.

Biagi, T. 2004. "Psammomys obesus" [Online], Animal Diversity Web. Accessed September 12, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Psammomys_obesus.html.

Harrison D.L., Bates P.J.J. 1991. The Mammals of Arabia 2nd Edition. Harrison Zoological Museum Publication. pp. 221, 237, 263, 268-269, 303-305.

Kingdon J, 1990. Arabian Mammals. A Natural History. Academic Press. pp. 52-57, 61-65.

Myers, P., R. Espinosa, C. S. Parr, T. Jones, G. S. Hammond, and T. A. Dewey. 2005. The Animal Diversity Web [Online]. Accessed at http://animaldiversity.org.

Nader I.A., 1990. Checklist of the Mammals of Arabia. Fauna of Saudi Arabia 11: 348-358.

Nowak R. M., 1999. Walkers Mammals of the World 6th Edition Vol. II. p. 1458.

Poor, A. 2005. "Muridae" [Online], Animal Diversity Web. Accessed January 17, 2006 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Muridae.html.

15. Compilers:

Mike Jordan, Peter Phelan, Gavin Nel, Hassan Zain, Dr Nayel M. Nayel, Dr Iyad A. Nader, Peter Arras, Dr Masaa Al-Jumaily, Dr Zuhair Amr, Prof. Achmed Disi, Abdulaziz Al Jabri, Salem Alsafran, Menandro Mondala Eguilos, Ayoor Ahassan Al Ghafri, Moayyad Sher Shah, Ronald Loughland

Fat Jird
Psammomys obesus

Historical Records

N

0 100 200 300 400 500 Kilometers

Mapping by GIS Unit
Environmental Research & Wildlife Development Agency
PO Box 45553
Abu Dhabi
United Arab Emirates

Small Birds of Prey and Owls Working Group

Executive Summary

Michael C Jennings and Tanya A Sadler

The Small Birds of Prey and Owls group had the objective of examining the life history and conservation of some 18 species. In the event the group decided not consider two species, Marsh Harrier *Circus aeruginosus* and Lesser Kestrel *Falco naumanni,* because they do not breed in Arabia. There was insufficient time to review four species of owls. The 12 species (including 3 owls) which were considered are listed at page 2. It was quickly clear to the group that these taxa are very poorly studied in Arabia and there is little or no information at national level on population trends, habitat change/loss, the degree of international trade and legislative protection afforded to each species. This lack of information hampered proper discussion. Furthermore there have been very few in-depth studies of the life history, breeding, habitat, biology, populations etc. in Arabia of these species.

During discussion it became clear that the generally held view of the world population of the Sooty Falcon *Falco concolor* a species which has a main part of the population within Arabia, appears to have been very much overstated. This has apparently been made on the basis of an assessment of the wintering population in Madagascar. The world population may actually be only one fortieth of the generally understood population.

The group identified a number of areas where there was a need for more public awareness of these species and the need for detailed studies to be carried out for most of them. It drew up recommendations for progression of these topics within the group. In addition the group set itself the task of identifying legislative documents of all Arabian states which relate to these birds in order to compile a catalogue of such instruments for the use of all workers interested in conservation aspects in future. It also set out a recommendations to identify the full range of threats which birds of prey and owls face today in Arabia and what can be done to counter them. An Internet Workgroup site will be set up to move forward the recommendations.

Introduction

The group was established to examine, species by species, those raptors and owls which were not considered by the large raptors working group in 2005, notably birds of prey in the genera *Elanus, Milvus, Melierax, Micronisus, Accipiter, Buteo* (but not *B. socotranus* endemic to Socotra), *Pandion and Falc*o (but not hunting falcons), and owls (but not *O. socotranus* endemic to Socotra). It is understood that the hunting falcons and Socotra endemics will be included in future workshops. However the population and conservation situation aspects of those species considered included, where appropriate, details of the Socotra population. Jordan was not directly considered although some input of data from Jordanian representatives on other working groups was gratefully received.

The group benefited from a wide range of expertise including academics, reserve managers, government conservation department representatives, field workers, wildlife park specialists, veterinary specialists and those closely connected with official bodies such as CITES monitoring. There were representatives present from each state and a number of foreign delegates attended to share their knowledge and expertise. Written submissions were received from David Stanton in Yemen, Jacky Judas and Patrick Pailat who were unable to attend in person.

Unfortunately the group did not have the advantage of finalised recommendations and actions from the large raptors group workshop held in 2005 , but a few of the delegates to that workshop were present and could pass on there experiences and knowledge. The BCEAW Sharjah had also prepared comprehensive resource packs on each species including extracts from the literature, distribution maps etc. As an aid to discussion the facilitator prepared prior to the workshop a comprehensive summary of the status, distribution and populations of all raptors (including those not due for discussion and those discussed at last year's workshop) and owls. This document formed a focal point for initial discussion for each species as the group reviewed distribution and population issues collectively, before considering the individual Taxon Data Sheets (TDS). (Please note that the table of estimated populations of each species that appears as an appendix to the document 'A Note on the Status, Distribution and Population of Breeding Birds of Prey and Owls in Arabia', was updated at the workshop and appears as Appendix 4 to this report.

Issues Identified in the Species Reviews by the Group

The group worked through the species one by one. To encourage discussion a start was made with a species well known to everyone, the Osprey *Pandion halieatu*s. Rather disconcertingly this took half of Day 1. This was probably because there is relatively a lot known about this species in Arabia and many had a view to express. After that the group was able to review of the majority of species targeted including 9 birds of prey and 3 owls. The group took a decision not to discuss the Marsh Harrier *Circus aeruginosus* and Lesser Kestrel *Falco naumanni* on the original worksheet because these species are not confirmed to breed in Arabia, although the latter does have a breeding population of about 100 pairs in Jordan. The group did not have sufficient time to review all species scheduled for discussion because it considered it important to have proper time to discuss general issues and form ideas for some realistic recommendations. The species not considered because of lack of time were the African and Striated Scops Owls (*Otus africanus and O. brucei*), Spotted Eagle Owl *Bubo africanu*s and Little Owl *Athene noctua*

The species that were reviewed (in the order considered) were as follows:

Osprey *Pandion haliaetus*
Black-shouldered Kite *Elanus caeruleus*
Black Kite *Milvus migrans*
Dark Chanting Goshawk *Melierax metabates*
Gabar Goshawk *Micronisus gabar*
Shikra *Accipiter badius*
Long-legged Buzzard *Buteo rufinus*
Common Kestrel *Falco tinnunculus*
Sooty Falcon *Falco concolor*
Barn Owl *Tyto alba*
Desert Eagle Owl *Bubo desertorum/ascalaphus*
Hume's Owl *Strix butleri*

The groups worked through the TDS document for each species, to identify and categorise the conservation situation appropriate for each in Arabia and review this against its global status as shown in the various documents available to the group. Working through the TDSs it became clear that certain themes and issues occurred over and over again for a number of species, (in TDS order)

a. There was only poor quality information available on population trends both nationally and regionally.
b. Information on Arabian habitats, habitat change, and habitat losses due to development and agriculture was limited.
c. Although much anecdotal information was presented the degree to which each species is in local or international trade in the Arabian region is very poorly known.
d. There have been very few detailed studies of the target species in Arabia.
e. The general lack of detailed research into populations, habitats and life histories in Arabia of the species reviewed hampered discussion.
f. Captive breeding was not identified as a relevant issue for Arabian species at present.
g. There was no clear information available of exactly which species, species groups etc. have any degree of protection in the region. This restricted the group's ability to make recommendations towards legislation.

Conservation Status

The group considered the current global conservation status as published by the IUCN (BirdLife International 2004. In: IUCN 2004. 2004 IUCN Red List of Threatened Species. www.redlist.org.) and recommended which regional status is appropriate for Arabian taxa.

Table 1 presents the results along with the suggested total Arabian populations for each – expressed as breeding pairs. (NB Many sources quote populations in terms of individuals, to convert individuals to breeding pairs in very broad terms, some workers use the yardstick ratio of 1 pair to every 3 individuals).

Table 1: Global IUCN conservation status of species reviewed, with estimate current Arabian breeding population (pairs)

Species	Global IUCN Conservation Status	Conservation Status in Arabia	Arabian Population (Breeding Pairs)
Black-shouldered Kite	Least concern	Vulnerable C1	15
Black Kite	Least concern	Least concern	15 005
Dark-chanting Goshawk	Least concern	Near threatened	1 000
Gabar Goshawk	Least concern	Vulnerable D1	200
Shikra	Least concern	Vulnerable D2	428
Long-legged Buzzard	Least concern	Near threatened	805
Osprey	Least concern	Vulnerable C1	830
Common Kestrel	Least concern	Least concern	10152
Sooty Falcon	Least concern	Endangered C2a1	451
Barn owl	Least concern	Vulnerable C1	960
Desert Eagle Owl	Least concern	Near threatened	1 490
Hume's Tawny Owl	Least concern	Least concern	1 700

Discussion

Perhaps the most important result of the discussion was the realisation that there appears to be a fundamental error in the published information on the known world population of the Sooty Falcon. This species is credited with a world population according to IUCN (BirdLife International 2004. *Falco concolor*. In: IUCN 2004. 2004 ICUN Red List of Threatened Species; www.redlist.org.) of 100,000 individuals and similarly in, el Hoyo (1994) Handbook of the Birds of the World, as 40,000 pairs. However careful research of all Arabian census data, which is surprisingly complete for this species, has revealed that the total Arabian population is probably just less than 500 breeding pairs. Given that the Arabian population is generally regarded as the largest within its range (perhaps half of the world population) the quoted global population may actually be exaggerated by a factor of forty! This issue requires urgent investigation. The published total may be the result of an erroneous extrapolation of partial counts in the species winter range.

Apart from the situation with Sooty Falcon the group considered that the two most pressing issues concerning raptor and owl conservation in the Arabia region were as follows.

1. There is a need for much greater public awareness of threats and issues facing these species and how these might be overcome, and
2. There is great need for detailed studies of most of these species, including their habitats, populations and life histories, to address their conservation status and identify population trends.

Recommendation and Actions

Recommendations were collected against the following two general topics and are scheduled with some miscellaneous issues below. The group thought that it would only be appropriate to list recommendations that it could realistically achieve through the action of the group's members. The individuals who will be coordinating specific action within the group and taking forward the issues to resolution are shown. Those taking forward actions should copy all drafts and details of progress to the other members of the group using the standard email distribution list or the workgroup to be set up. The facilitator would coordinate all actions and progress for a period of six months after the workshop.

Public Awareness

a. Owls in Arabian Folklore: The particular situation within Arabia where owls are universally regarded in folklore as birds of bad omen, which often leads to persecution, was identified as a major stumbling block to their conservation. In an attempt to counter this negative understanding the group felt that a poster or similar document could be prepared which could then be circulated widely within schools to try and instil in children the idea that owls are not to be feared and are in fact a very beneficial part of the human environment because they eat rodent and insect pests. The group undertook to start action to prepare such a poster which it was hoped could be funded for printing by the Birdlife (Middle East), perhaps with local donations from both the official and private sectors. (Action: Draft poster design, Declan O'Donovan) (All members who have knowledge of the folklore aspects of owls in Arabia are requested to provide Declan with the details as this will be useful in designing the poster).

b. Husbandry broadsheet for injured birds and chicks- and rescue centres: Several group members identified that at present it is a recurring problem that young, sick or particularly injured birds are found by the public who do not know what to do with them. In view of the rarity/ vulnerability of most species it was recommended that a fact-sheet type document should be prepared (which could be adapted for each state) which would show what the public could do with birds in terms of first aid, basic care, feeding and which local organisations, such as rescue centres, even sympathetic vets, were available to help restore the bird to good health or, if unavoidable, effect euthanasia. The sheets could be made available at a variety of establishments such as zoos, wildlife centres, vets, and occasionally published in local papers, especially if dressed up as a wildlife article. The group also considered that there was a need for more wildlife rescue centres and would look into ways of how this might be encouraged. (Action: Draft broadsheet and list of rescue centres, Greg Simkins & Declan O'Donovan) (All members to pass further ideas and details of local centres to Greg and Declan).

c. CITES Poster: Kuwait representatives mentioned that they had started to prepare an advice document on CITES species in trade. This document which might take the form of a poster with photographs would be issued for display in markets, at airports and border areas etc. It was thought that such a poster could be easily adapted for use elsewhere in the region. (Action: When poster prepared for Kuwait to be circulated to other members, Shareefa Al Salem)

Research

a. Sooty Falcon population: The discrepancy identified between the accepted view of world population and the likely world population suggested from research in Arabia needs to be publicised and brought to the attention of appropriate conservation bodies. The group recommends that urgent efforts are made to identify how the world population of 100,000 birds has been calculated and to alert the IUCN of the discrepancy. This species may actually be endangered rather than 'least concern' as currently classified. (Action: Determine origin of published world population of 100,000 birds and report views of group to IUCN/BirdLife as necessary, Michael Jennings)

b. Sooty Falcon winter range: With only limited investment a great deal could be learnt on the non-breeding range of the Sooty Falcon by fitting some with satellite tracking devices. A few fitted at colonies in Bahrain, Oman, northern Red Sea and Yemen would provide extremely valuable information. This study could be extended to other species and include traditional ringing

techniques as appropriate. (Action: Not allocated. It is suggested that Howard King could look into how this could be done for the Bahrain colony, perhaps with the help of Mohammed Shobrak who has knowledge of the Saudi Arabian Red Sea colonies and of satellite tracking technology.)

c. Disease, health and parasite etc studies: It was thought that a lot of information on disease among birds of prey and general aspects of health was being lost though lack of awareness by fieldworkers, ringers and others handling birds or inspecting nests etc. It was recommended that a paper could be prepared on things to look out for, basic data and specimens that could be collected and which organisations would be interested in specimens, samples etc. (Action: Draft information document, Tom Bailey).

d. Impact of agriculture and development: Despite the huge increase in the last two decades in the area of land under agriculture and developed for commercial, industrial and domestic use, there has been very little work done on how these issues are impacting populations and ranges of raptors and owls. It was recommended that the main issues relative to these aspects should be identified so that future study programme could be coordinated. (Action: Not yet allocated)

e. Formal research subjects: It was identified that there are a number of important issues such as the monitoring of pesticides/insecticide usage and research in to pollution aspects, detailed studies of species etc, that require to be looked at in depth, some perhaps are appropriate to formal academic study. Some specific subjects arising out of the groups review are shown at Appendix 3. (Action: Not yet allocated)

f. Information Exchange: It is recommended that a central point should be established where data and other resources can be available as an aid to further research of taxa, habitats and conservation studies. This resource could include a variety of media such as databases, bibliographies, reference library, useful websites and online data sources. (Action: Not yet allocated, however this facility could perhaps be coordinated at BCEAW?)

g. Inter-disciplinary actions: Scope for more inter-disciplinary actions were judged to be high and should be encouraged as much as possible. For example the ornithological community can provide the small mammals group with owl and raptor pellets for analysis of mammalian contents. This specific area of cooperation will be published. (Action: Short notes to be drafted for inclusion in appropriate journals and newsletters, Michael Jennings) Ideas would be welcomed from other members on which publications could carry such notes.

h. Hybrids/Exotics species: This is a subject which is a particularly concern in view of the possibility that hybrids, such as those falcons deliberately cross-bred in falcon centres are released, or escape, to the environment and could then cross breed in turn with indigenous species. Research is needed to determine whether this concern is justified. (Action: Not yet allocated)

Miscellaneous

a. Legislation and Politics: The group considered that it was generally very difficult or impracticable to get movement with the political and legislative process by direct means. However there was a case for every individual not to miss the opportunity to lobby those in government and those taking the major decisions, to effect small and large changes that may concern birds of prey and owls. It was also agreed that to better inform the group and future similar workshops, a comprehensive

catalogue of conservation and environment protection legislation (e.g. Year, name of legislation, species/areas protected etc) for each state in Arabia should be prepared and updated as necessary. (This would be an important part of the resource at 'Recommendation i' above) Initial work would start on this immediately. (Action: Draft list of legislation to be prepared, Salah Behbehani) Would all members please forward information on national legislation within their own state to Salah).

b. Threats: Further work is needed to determine what studies are appropriate to clarify the true impact of hunting, persecution, trade, and recreation on breeding species. There is also a need to ensure the impact of these issues is brought to the attention of the perpetrators and those involved so that they know the effect of their actions. Again this could perhaps be done through publicity activities such as newspaper articles, TV etc. (Action: Not yet allocated)
The way forward in respect of the recommendations

To action the groups recommendations it is proposed to set up a workgroup site (Action: Howard King). All members can then keep in touch and share all their thoughts, ideas and data. A standard email distribution list will also be prepared and used for to circulation the formal actions, drafts etc, arising out of the recommendations (Action: Tanya Sadler).

Participants

The following persons took part in the debates of one or more species or the general discussion of recommendations.

FACILITATOR: Michael Jennings (UK based. Coordinator: Atlas of the Breeding Birds of Arabia project, Editor: The Phoenix)
ArabianBirds@dsl.pipex.com

SECETARY: Ms. Tanya Sadler (Veterinary Nurse, BCEAW, Sharjah)
tanyasad@hotmail.com

BAHRAIN:
Howard King (Land surveyor, field ornithologist, specialist on the birds breeding on the Hawar Islands)
howardk@balelco.com.bh
Essa Faraj Sa'ad (Head Bird Section, Department of Protected Areas)

SAUDI ARABIA:
Dr. Mohammed Shobrak (Director National Wildlife Research Centre, Taif)
desert@nwrc-sa.org

KUWAIT:
Salah Behbehani (Assistant Curator-Desert Section, Kuwait CITES)
salah@tsck.org.kw
Dr. Shareefa al-Salem (CITES National Committee, Environment Public Authority)
sh.alsalem@epa.org.kw
Dr. Fouzia Abdulaziz Alsadrawi (Living Resource Division, EPA)
fozaconsultant@yahoo.com

OMAN:
Ahmed bin Said al Shakili (MRMEWR – Ministry of Environment)
ahmed@mrmewr.gov.om

UAE:

Dr. Barbara Arca Ruibal (Veterinarian, Al Wasl Veterinary Clinic)
barbyarca@yahoo.es
Dr. Tom Bailey (Veterinarian, Dubai Falcon Hospital)
tom.bailey@dfh.ae
Dr. Ahmed Elsayed (CITES Liaison Officer, Ministry of Environment & Water)
citesunit.maf@uae.gov.ae
Eng. Asma Ahmed (CITES Animal Wealth dept, Ministry of Environment & Water)
asma.maf@uae.gov.ae
Dorian Hoy (Wildlife Manager, Al Warsan Farm)
doz@eim.ae
Dr Laco Molnar (Avian & Wildlife Medicine, Al Warsan Falcon Hospital)
molnarlm@zmail.sk
Declan O'Donovan (Director, Wildlife Services, Wadi al Safa Wildlife Centre)
cianod@emirates.net.ae
Greg Simkins (Conservation Manager, Dubai Desert Conservation Reserve)
greg_simkins@emirates.com

YEMEN:

Omer Ahmed Baeshen (Nature Resource Management, Environment Protection Authority)
g_hng@yahoo.com

Participants submitting written material:

Jacky Judas (Wildlife biologist, National Avian Research Centre, EAD)
jjudas@aed.ae
Patrick Paillat (Field researcher)
No present email address
David Stanton (Chairman of the Yemen Ornithological Society, Sana'a)
davidstanton@qsi.org

A NOTE ON THE STATUS, DISTRIBUTION AND POPULATION OF BREEDING BIRDS OF PREY AND OWLS IN ARABIA

by M C Jennings

February 2006

This paper has been prepared to aid discussion of these taxa at the Conservation Workshop for the Fauna of Arabia to be held at Breeding Centre for Endangered Arabian Wildlife, Sharjah, 19-22 February 2006. It does not include information and population estimates in the 'Eagles and Vultures' report of the Conservation Workshop for the Fauna of Arabia, Sharjah 20-23 February 2005.

The document is compiled from the paragraph on status and distribution contained in drafts species accounts of the forthcoming *Atlas of the breeding birds of Arabia* (ABBA), Jennings, *in prep*. The notes on Osprey *Pandion haliaetus* and Striated Scops Owl *Otus brucei* are taken from drafts provided by Paul Fisher and Simon Aspinall respectively. This review does not include species restricted solely to Socotra (these are Socotra Buzzard *Buteo socotrae* and Socotra Scops Owl *Otus socotranus*) but the status and distribution comments, population estimates and maps do include reference to Socotra.

On the distribution maps (Appendix 2) , large dots are 'confirmed breeding', medium sized dots are 'probable breeding' and small dots 'other records of occurrence'. Red dots represent records prior to 1984 and blue dots are records from 1984 or later. The maps are compiled from records reported by observers to the ABBA Project, extracted from the literature and unpublished sources, museum specimen records and observations during ABBA Surveys to Arabia. Those species highlighted are the primary species for consideration at the workshop.

A summary of possible species populations appears as a table at Appendix 4.

Unfortunately it has not been possible to reference all the sources of species information in this work but readers may, if they wish see more detailed information on individual species by consulting sources included in *A Rough Draft Bibliography of Arabian Ornithology* (Jennings 2005). The series of numbers shown after each species statement below are the reference numbers to papers relevant to each species included in that bibliography. (A soft copy of the bibliography, which will make searching easier, is available on request).

Comments on status and population estimates should be regarded as provisional. Generally species are not identified to subspecies in this paper except where more than one subspecies is represented in Arabia. Taxonomic and nomenclature issues are covered in other parts of *the Atlas*.

The Author would very much value any comments concerning the information shown here and to hear of records extending or complimenting the range etc of species shown on the maps.

(0235) **Black-shouldered Kite *Elanus caeruleus***

The status of the Black-shouldered Kite in southwest Arabia is unclear, in that it appears to be a scarce resident on the Tihama and foothills. However it may only be an erratic breeding visitor from Africa. It

has occurred in all months, as far north as Jeddah and in the south to just east of Aden. Most records come from the region east of Hodeidah, especially Wadi Surdud and also between Lahej and Aden in the south of Yemen, where it has bred. However occurrence is not stable and it cannot always be found and may be absent some years. Occurrence suggests irregular movements and temporary residence which seems to characterise the species in some parts of Africa and India and this might be expected in Arabia which is at the edge of its range. In Africa it is regarded as nomadic to areas where there is plenty of prey, such as local rodent plagues. In eastern Arabia the species has been increasingly recorded since the early 1980 s. In the UAE, where at the beginning of the 21st Century it occurred almost annually, records are mainly from November to March with one in September. In northern Oman occurrence is more erratic with records in January, July, August and November. In Dhofar it has been recorded twice in November and February. The two Dhofar records are probably representatives of the nominate subspecies from the southwest, extending further east than usual. However the records from UAE and northern Oman seem more likely to be individuals from the Indian region wandering in winter. The two Kuwait records, in February and June, are not easily explained but were no doubt wanderers and could equally have originated from the Nile Delta population or the Indian region. Although there is one record of a bird coming on board a ship in the Gulf of Aden (in July) there are no other reports of movements. For example it is not recorded from the well watched islands of Das in the Arabian Gulf, or Masirah[1]. It is not known from Socotra, northern, central and eastern Saudi Arabia, Bahrain or Qatar. The map shows all records. The paucity of records of this species make it difficult to suggest whether there has been any change in the 'resident' population of the southwest in the last 50 years. Probably not. In view of its erratic status the likely breeding population can only be guessed at, it may be that 10 - 20 pairs breed each year, but it is likely that in some years none breed at all. Most breeding birds are likely to be in Yemen.

003003, 033005, 033012, 033111, 043033, 043039, 053047, 053121, 053122, 883086, 923002, 923009, 923017, 923023, 933001, 933027, 963075, 973326, 973327, 983012, 983022

(0238) **Black Kite *Milvus migrans***

The subspecies *aegyptius* is resident on the Tihama and highlands of the south-west from about the latitude of Jeddah to Aden. There are a few scattered breeding records through eastern Yemen to Salalah. It is a rare migrant on Socotra. The resident population is commensal relying on human rubbish for scavenged food. Consequently the Black Kite is often common around towns and villages but it can be quite scarce or even absent altogether in adjacent deserts and uninhabited areas. The sub species *migrans* is a migrant throughout Arabia, occurring in all states, often as singletons or in small numbers with more in the south-west. One count of 1500 at a Jeddah rubbish dump in February is indicative of migration concentration but unfortunately many observations like this have not identified the subspecies. The number s migrating through Arabia and the periods and routes are still poorly known. Incomplete migration counts in the Hejaz, Yemen and autumn counts in Djibouti of birds coming across the Bab al Mandab, have recorded only a few hundred birds. Which may be only a small part of the actual numbers moving. The what extent to which birds winter in the south-west is also poorly understood because of the confusion with the local resident population. Certainly larger numbers occur on the Tihama in winter suggesting an influx and a few winter in outlying urban areas such as the vicinity of Tabuk, Hail and the Eastern Province. Anecdotal evidence suggests that the breeding population is falling in parts of its range, probably as a result of improved sanitation but there are likely to be many other local factors. The Black Kite is still a common urban bird in Yemen. In Saudi Arabia by 2000 it seemed to have become scarce in some towns compared with the situation in 1970 s and 1980 s but the towns are also much larger than before. So it is quite possible that the kite population has increased with

[1] It should be mentioned here that Green (1949) described this species as a breeding resident on Masirah island and gave details of its breeding and ecology there. However it was later shown that the author has clearly misidentified the local Egyptian Vultures *Neophron percnopterus*!

a less concentrated population spread over a much larger urban area. The map shows probable and confirmed breeding only. There are no indications that the absolute range has either contracted or expanded in recent years. The overall breeding population is difficult to estimate as there are no good studies of the species and there is the confusion with migrants and visitors. There may well be 500 pairs resident in each suitable ABBA square on the Tihama and in the southwest highlands. This would give a total of about 30,000 breeding pairs, with probably two thirds in Yemen. The breeding population east of Aden and in Dhofar may only be a few dozen pairs. In the southern part of Yemen between Lahej and Aden the breeding population appears to have been much affected by continual harrying by large numbers of House Crows *Corvus splendens*. The House Crow is a direct competitor for scavenged food and Black Kites being outnumbered are driven from food by the crows. The crows also disturb nests and incubating birds and attack Black Kites in the air at every opportunity. In the 1950 s the Black Kite population in Aden was regarded as many thousands, but by 2005 it had become scarce in the area. There are also reports of House Crows possibly being responsible for a decrease in Black Kite breeding population at Hodeidah and Jeddah. However at these latter sites the House Crow population is not large.

013001, 013016, 023001, 023045, 023056, 033061, 033110, 043059, 053004, 053015, 053047, 053060, 883015, 883022, 883032, 883078, 883093, 883114, 883128, 883133, 923002, 923003, 923006, 923009, 923010, 923012, 923013, 923014, 923017, 923020, 923023, 923037, 933000, 933001, 933002, 933011, 933021, 933035, 933052, 963067, 963072, 973001, 973062, 973065, 973085, 973086, 973088, 973089, 973093, 973094, 973095, 973096, 973098, 973108, 973317, 983012, 983041, 983043, 993025, 993029

(0246) **Bearded Vulture *Gypaetus barbatus***

The Bearded Vulture occurs in small numbers in the western highlands, from the sandstones near the Jordan border to the mountains of southern Yemen, east to Mukayras. It is probably resident where it occurs. There is poor observer coverage over the northern regions where it is known, which are mainly sandstone areas and that population is very hardly known. The northern breeding range may be populated by just a few scattered breeding pairs. Possibly some records from there are of wandering individuals, especially those seen on the eastern flanks, but there is no firm evidence of any local or seasonal movements anywhere in Arabia. There is also no evidence of birds wintering in Arabia from further north although this might be expected. In the southwest it occurs from 850 m in the western ramparts of Yemen to the tops of the highest mountains (3,000 m). The species is clearly decreasing in Saudi Arabia. For example in the mid 1970 s the Bearded Vulture could be seen each day at the escarpment near Taif and at Jebal Sawdah, near Abha but there have been only one or two records at these particular sites since 1990. The Yemen population still appears to be flourishing. but it is not known from the Tihama or Socotra. It is also unknown from the Arabian Gulf and Oman. The map shows all records. The Arabian population at the beginning of the 21st Century must be small, probably much less than 100 pairs, with possibly 50 pairs in Yemen and only 10 to 20 pairs in Saudi Arabia.

023001, 023049, 023056, 023057, 033062, 033067, 053015, 053100, 053109, 053116, 883015, 883022, 883032, 883055, 883082, 923034, 923035, 923037, 923051, 933001, 933002, 933027, 973062, 973085, 973089, 973093, 973096, 993019, 993029

(0247) **Egyptian Vulture *Neophron percnopterus***

The Egyptian Vulture is a widespread resident as well as a migrant and winter visitor. It occurs as a breeding bird in the northern UAE and Oman, possibly southern Oman, eastern Yemen, the western highlands, and much of central Arabia, with a few pairs in the Eastern Province. It is absent from the Empty Quarter and Great Nafud sand seas, the Arabian Gulf littoral area from Kuwait to Dubai and most of northern Arabia. Numbers appear to be reducing everywhere but still relatively dense populations occur on the islands of Masirah, Socotra (one report suggested there may be 500 pairs on that island) and Farasan. Trans-Arabian migration would be expected to involve birds moving south in autumn across a wide front in northern Arabia. There perhaps ought to be a concentrations around the head of the Arabian Gulf and across the Straits of Hormuz but it is scarce in Kuwait and there are only small movements noted across the southern Gulf. A study of raptors entering Africa at Djibouti across the Bab

al Mandab between 3 October and 9 November 1987 recorded 554 Egyptian Vultures. Other movements recorded in the southwest and Oman fit a picture of late autumn migration in October and November. The movement north in Spring seems from the little information available to more concentrated, with more than 700 recorded in two three/four day periods crossing the Bab al Mandab. Numbers increase locally in winter in central Arabia, Yemen and Oman at which times it congregates at rubbish tips, for example 250 at Ghayyan in northern Oman in December, 100 Jebal Hafit UAE in winter, 170 at Sunub near Muscat in October and 26 in February in southern Oman. There is high proportion of brown immatures noted in some winter groups suggesting the adults may return north earlier or winter elsewhere[2]. All old accounts suggest that earlier in the 20th Century the Egyptian Vulture was much more numerous than it is at the beginning of the 21st Century, both as a resident and a wintering bird. During the ABBA period it has been noticed as becoming more scarce in a number of regions and by the early 21st Century is was sometimes difficult to find in areas where it could at one time be counted on being seen every day. In Aden where it occurs mostly in Autumn, Winter and Spring a count on 24 October 1960 found some 1343 at five sites near he city. This compares very unfavourably with observations during the period 23-27 October 1989 when only a single bird was seen in the Aden area. By 1989 the numbers around Aden had been much reduced by the activities of the very numerous and aggressive House Crow *Corvus splendens*. Even so the two records paint a picture of very significant decline. Most old records point to it being a common scavenger around towns and villages and large numbers were reported 50 years or more ago from Jeddah, Riyadh, Abqaiq, Sanaa, and Dubai/Sharjah, where by 2006 it had become scarce or not recorded at all. Overall by this time the mainland breeding population was possibly only one tenth of what it was 50 years previously. Agricultural pesticides have been implicated for its decline in other parts of its range. Although the effect of agricultural pesticides is unknown in Arabia the decline was noted long before the farming revolution started in Arabia. A study into the reasons for the decline of this and other species of vultures in Arabia is much needed not least to try and stabilise the breeding population. By 2006 there were small numbers spread over a huge range and the population might be of the order of a few more than 3000 pairs. Of the total possibly up to 10% are in the UAE and Oman and the rest are spread equally between Yemen (including Socotra) and Saudi Arabia. The map shows all records.

013032, 013034, 023012, 023013, 023019, 023045, 023083, 033009, 033031, 033039, 033052, 033061, 033062, 033077, 033106, 033108, 043032, 043033, 043039, 043045, 053004, 053005, 053018, 053040, 053047, 053056, 053060, 053095, 053118, 053124, 883009, 883022, 883049, 883055, 883078, 883082, 883104, 883124, 883128, 883133, 883134, 883141, 923002, 923006, 923008, 923010, 923012, 923017, 923020, 923023, 923035, 923036, 923043, 923044, 933000, 933001, 933002, 933004, 933006, 933008, 933011, 933020, 933032, 933035, 933037, 933038, 963002, 963052, 963069, 963075, 963206, 963210, 973001, 973002, 973007, 973048, 973051, 973056, 973062, 973065, 973085, 973101, 973110, 973111, 973112, 973312, 973320, 973321, 983014, 983031, 983039, 983041, 983043, 993016, 993019, 993021, 993029, 993046

(0251) **Griffon Vulture *Gyps fulvus***

The Griffon Vulture is resident in western and central Arabia and a migrant and winter visitor to most regions. As a breeding bird it is widespread in the southwest highlands of Yemen and Saudi Arabia and north central Saudi Arabia. It has disappeared from a small colony near Riyadh between the 1970 s and the early 1990 s. In the Eastern Province it is very scarce, September to February. Small numbers have been recorded in Kuwait in most recent years September to March. It is also rather scarce in eastern Yemen, southern and northern Oman and the northern Emirates where it is generally regarded as a winter visitor. There are two records from the Farasan islands (November and April) which are surprising as birds would presumably find difficulty in flying across to the islands from the mainland and those islands would not be regarded as on a migratory route for soaring species to or from Africa. Not confirmed from Bahrain and there are no records from Qatar or Socotra. The map shows all records. One migrating bird was satellite tracked from northeast Israel to between Jeddah and Medinah in August and six were once

[2] Satellite tracking of individual immature birds hatched in France has shown that some stay within a home range in the Sahel region of Africa for up to 3 years (Meyburg et al 2004), before returning north to breed. A similar habit in Arabia may account for the high number of immatures sometimes recorded.

seen on migration south through the Hejaz during a 14 day period of observations in October. A study of raptor migration in Djibouti from the beginning of October to early November in 1985 and 1987 noted only three Griffons moving to Africa from Arabia. The authors of the study concluded that it is unlikely that the species is a regular or numerous migrant across the Bab al Mandab. There is very little information on the numbers and distribution of this species in previous decades but it seems likely that numbers have generally decreased in recent years in Arabia, both as a winter visitor and as a breeding bird[3]. The breeding locality which was vacated near Riyadh may have been due to human disturbance which was probably also the cause of desertion from a small colony near the village of Habala in the Asir which disappeared some time in the 1980 s when the area had become a local tourist attraction. The breeding population in Yemen may be of the order of 2000 pairs, with a similar number in the highlands of southwest Saudi Arabia and possible a further thousand pairs throughout central Arabia. The wintering population may be as great as the breeding population but the geographical origin of wintering birds is unknown.

003009, 013013, 023045, 023046, 023052, 023121, 033039, 033061, 033062, 033065, 033067, 033093, 043033, 043040, 043045, 053007, 883009, 883022, 883032, 883055, 883082, 883101, 883114, 883134, 923002, 923008, 923010, 923012, 923035, 923036, 923037, 933001, 933002, 933011, 933035, 933038, 963069, 973062, 973085, 973088, 973089, 973093, 973095, 973096, 973098, 973300, 973312, 973320, 983024, 983041, 983043, 993029, 993046

(0254) **Lappet-faced Vulture *Torgos tracheliotos***

There was previously much confusion regarding the status and distribution of large vultures in Arabia. This was because the Lappet-faced Vulture was not generally recognised as widely occurring in Arabia until the 1980 s. Up until that time it was often believed that tree nesting vultures were Griffon Vultures *Gyps fulvus,* when in fact they were probably all Lappet-faced. Many old records of Griffons and Black Vultures *Aegypius monachus* also probably referred to Lappet-faced. The possible previous occurrence of Rüppell's Griffon *Gyps rueppellii* has also confused the picture. This latter species may never have occurred in Arabia despite several records mentioned in Meinertzhagen (1954) and the existence of some dubious specimen records. There are several old photos and some specimen records from the 1940-50 s of Lappet-faced Vultures which were not correctly identified or went unnoticed at the time. The first confirmed recorded was one collected between Medina and Hail in 1944, it was identified at the time as Lappet-faced but appears not to have come to wide notice as the collection was published and the specimen deposited in Cairo. (The specimen could not found in Cairo in 1985). Then one was collected about 100 km north of Riyadh in 1945 but was incorrectly identified at the British Museum (Natural History) as *Gyps fulvus*. Eggs and specimens were also collected in central Arabia in 1947 and Sharjah 1952 and were all incorrectly identified as *Gyps*. Even after the species was known to occur in Arabia it has often been referred to as a winter visitor. Whereas the species actually starts to breed in midwinter. Perhaps more than any other species the ABBA project has identified the true distribution of this species. It is in 2006 known to be locally common and widely distributed on the central plains of Arabia, from Jebal Tubaiq at about 30☜N, southwards to eastern Yemen and probably Dhofar. In eastern Yemen breeding is only confirmed from reports of four of the distinctive nests of this species. There is an isolated breeding population in northern Oman and UAE. The species is probably resident wherever it occurs but wandering birds are known from as far north as the Harrat al Harrah, the Tihama of southwest Saudi Arabia, Aden, and Jibla on the eastern edge of the western highlands of Yemen. Much work has been done on the biology of the species at the Mahazat as Sayd reserve, and one marked immature bird there moved 400 km north and then returned to the Mahazat. In Africa juveniles are known to disperse

[3] Until the 1980 s there was much confusion between this species and the Lappet-faced Vulture *Torgos tracheliotos*. It is only since the 1970 s that the latter species has been shown to be a numerous and widespread breeding species in Arabia. Until the 1980 s, there had been various reports of tree-nesting Griffons which were widely accepted. It is clear from the perspective of 2006 that all these records referred to the Lappet-faced Vulture. The Griffon Vulture does nest in trees in Europe but has never been recorded to do so in Arabia.

at least 700 km from the breeding area. Movements like this suggests that birds could easily transfer between the north Oman population and the rest of Arabia. There are no records from Kuwait, Bahrain or Qatar. Counts of migrating raptors at the Bab al Mandab did not report this species and there are no confirmed records from the Farasans, Socotra or other islands to indicate it migrates to Africa. The map shows all records. This species ranges widely in search of food. In Africa adults may travel 200 km from the nest when foraging. The several reports of 20 or more birds at one carcase or feeding site in Arabia may therefore represent birds from several different atlas squares, thereby giving a false impression that local populations may be larger than they actually are. A gatherings of 45 at one site has been recorded in Oman, 35 have been counted in one square where active breeding was occurring in west central Arabia, up to 17 pairs attempted to breed each year in the Mahazat reserve during a four year study in the early 1990 s. At the same place autumn roosts have involved up to 162 birds. At least 13 pairs are known to have bred annually at the Bani Maarid reserve area on the western edge of the Rub al Khali. Breeding is confirmed in at least 60 squares. In central Saudi Arabia, a region which is still poorly covered by observers, there are 50 squares with confirmed breeding. Some records of confirmed breeding only refer to 'used nests' but such records at least indicate that there are active pairs in the vicinity. In two squares GB27 and IB25 in western Saudi Arabia, 7 and 8 nests respectively were seen from a helicopter to contain single eggs early spring 1983. That helicopter was engaged in geological survey work and did not systematically cover the whole square in each case and suggests that locally many pairs may nest in a relatively confined area. If in Saudi Arabia there were on average 10 pairs for every square where the species has been confirmed to breed there would be some 500 pairs. Probably not many squares away from the reserves mentioned would have this level of population but on the other hand this vulture is likely to breed in many additional squares where breeding is not yet recorded. Much of eastern Yemen is eminently suitable for this species but coverage there has been very poor. There are records from eight squares there and it is likely that at least 50 pairs inhabit that region and probably neighbouring Dhofar. There must be at least 50 pairs in northern Oman with perhaps the odd pair breeding in UAE. Making an Arabian total of about 600 breeding pairs. Unlike other Arabian vultures, such as the Bearded Vulture *Gypaetus barbatus*, Egyptian Vulture *Neophron percnopterus* and the Griffon, which are all clearly in decline, the Lappet-faced Vulture shows indications of having increased in number in recent decades. In northern Oman there appear to be more records and larger counts by 2006 than previously. In both the Mahazat and Bani Maarid reserves there has been a marked increase in breeding pairs since protection was established. It is likely that some of this increase is that the protected nature of the reserve encourages birds to move in from outlying regions but it at least indicates that there are very healthy populations locally which can multiply easily when the opportunity is provided.

003009, 003034, 013032, 023004, 023012, 023013, 023019, 023049, 023112, 033031, 033039, 033047, 033062, 033064, 033077, 033093, 033108, 033111, 033113, 043039, 043040, 053005, 053012, 053041, 053117, 053121, 883054, 883055, 933001, 933004, 933005, 933007, 933035, 963002, 963051, 963066, 963205, 963210, 963211, 963212, 963214, 963216, 963217, 973007, 973033, 973323, 973324, 973331, 983012, 983018, 983021, 993004, 993042, 993046

(0256) **Short-toed Eagle *Circaetus gallicus***

A scarce to frequent passage migrant and winter visitor to Arabia. Widespread in small numbers in the summer months but only a handful of breeding records. As a migrant and winter visitor it is absent or very scarce in the northwest, much of central Arabia, the Eastern Province and western UAE. It is scarce in Kuwait, Bahrain and Qatar. It is also uncommon in the northern UAE from Autumn to Spring but it may breed . In northern Oman it is fairly common and has bred. In southern Oman and Masirah island it has been recorded almost every month. It has been recorded September to March with a peak of records in October in Yemen but it is not known from Socotra island. Similarly it is most noticeable as a Spring and Autumn migrant in the southwest of Saudi Arabia with substantial numbers in October when it passes with other raptors. There are a few present in the Asir in the summer months. The best evidence of the number that migrate through Arabia has come from a study in Djibouti where 203 birds were recorded arriving in Africa from Arabia in October 1985 (102 on 17 October) and 1202 counted at the same place in October/November 1987, with 126 on 15 October. Those authors suggested an eastern

origin for the birds crossing the Bab al Mandab. Another count of the Bab al Mandab movement from the Arabian side recorded 48 on 15 October 1997. The scattering of migrant and winter visitor records in Arabia suggests that birds move across central Arabia diagonally from the head of he Arabian Gulf. Theoretically a significant number of migrants could also enter Arabia at the Straits of Hormuz but any evidence for this is lacking. The small breeding population is probably resident and separate fro the migrant population. Breeding is known from south central Arabia (two records), southwest Saudi Arabia and northern Oman/UAE (two records). With so few confirmed breeding records and no confirmation yet if populations are resident or transitory it is difficult to assess how large the breeding population is in Arabia. On the basis that the species inhabits broken and hilly country which is difficult to survey there could be 200 pairs in central and southwest Saudi Arabia, 50 pairs in Yemen (although there is no confirmed breeding from that country yet) and another 20 pairs in northern Oman/UAE. This species is very poorly recorded as a breeding bird and there is nothing to suggest that the breeding population is either changing in number or distribution. The map shows only probable and confirmed breeding records and some potential breeding records .

003009, 013001, 013016, 023012, 023013, 023045, 033024, 033061, 043039, 053005, 053066, 883032, 933001, 933002, 933004, 963069, 963205, 963214, 973111, 983031, 983041, 983043

(0257) **Bateleur *Terathopius ecaudatus***

The Bateleur is a bird of the African savanna which finds a toehold in southwest Arabia. Status in Arabia is probably 'scarce breeding resident'. Most records are September to April. Of 60 dated records there is only one between late April and early July. However there is no evidence to suggest there is any migration between Africa and Arabia or within Arabia so the apparent summer absence may be an observer bias within a relatively small number of records. Elsewhere in the Middle East it is accidental to Iraq (October), and Israel (December March to May). It is found in the extreme southwest of Saudi Arabia and western Yemen, most records are no further north than 18☜ N or east of Aden. It wanders rarely as far north as Jeddah and as far east as Mukalla. It has not been recorded in the Mahra area of eastern Yemen and southern Oman or on Socotra. It is also unknown from the Arabian Gulf States. This species has not yet been confirmed to breed in Arabia but there is evidence that it does breed. The population must be thinly spread and pairs appear to have large territories, in Africa territories may be up to 200 km^2. On this basis there could be little more than five pairs in a square even in the most suitable habitat which would suggest that the total Arabian breeding population, if it does indeed breed, is less than 100 pairs. Yemen probably has at least two thirds of the population. There is no evidence that the population or range has changed in recent decades. The map shows all records on the database.

023049, 023056, 023063, 033052, 053050, 883022, 883055, 923005, 923010, 923035, 933001, 933025, 933027, 963075, 973001, 973328, 983013

(0265) **Dark Chanting Goshawk *Melierax metabates***

The Dark Chanting Goshawk is resident in southwest Arabia. It is found sparingly from a little north of Taif, becoming quite numerous on the Tihama in the extreme southwest of Saudi Arabia, south through Yemen to Aden. There are only three or four records from eastern Yemen but none form Dhofar. In southwest Saudi Arabia birds are recorded as wandering northwards in the winter months. This would account for some of the isolated occurrences which have been from near Riyadh in January and from the UAE in February and April. The species has also been recorded Israel in April. There are no records from the other Arabian Gulf states ad it s unknown from Socotra. There is no evidence of regular movements within Arabia. On the basis that there may be 30-40 breeding pairs in each atlas square where there is suitable habitat, the population may be of the order of 1000 pairs, with perhaps more (60%) in Yemen. There is no information to suggest the breeding population or distribution has changed in recent years. The map shows all records.

013034, 023124, 053015, 053050, 053110, 883015, 883022, 883032, 883055, 883093, 923000, 923002, 923003, 923009, 923010, 923017, 923023, 923034, 923035, 933001, 933002, 933025, 933027, 933030, 963061, 963074, 973001, 973062, 973067, 973085, 973088, 973096, 973303, 973326, 983013, 983017,

983033

(0266) **Gabar Goshawk *Micronisus gabar***

Resident on the Tihama and in the foothills from southwest Saudi Arabia (19☜ N is the northernmost record), to Yemen. There are a few records in southern Yemen away from the Tihama and north and east of Aden. The only information on dispersal or migration comes from two isolated records, probably non breeding wanderers, from near Mukalla in September and at almost 25☜ N in the Hejaz in March. It is not recorded on Socotra or from the other states. Although the species is likely to be overlooked in thick bush country it appears to be much scarcer than the Dark Chanting Goshawk *Melierax metabates*. The population may be as few as only 200 pairs with probably three quarters in Yemen. There is no information to suggest that numbers or range have changed in recent years. The maps shows all records.

013001, 023021, 023026, 053015, 053054, 053063, 883022, 883032, 883055, 883114, 923009, 923026, 933002, 963069, 963075, 973326, 973327, 973329

(0272) **Shikra *Accipiter badius***

The Shikra (subspecies *sphenurus*) is a scarce resident of the southwest, occurring in the foothills and highlands of the western escarpment of Yemen and adjacent parts of southwest Saudi Arabia. It has been recorded every month and there is no evidence of any movement or dispersal of this population, either within Arabia or between Africa and Arabia. Since 1996 breeding has been recorded near Dubai and an *accipite*r, possibly this species, has been seen displaying in Ras al Khaimah UAE. The status of the species in the UAE is unclear, perhaps in the early 21st Century only a single pair or very few pairs bred.. It could be a summer visitors from Iran or further east and there has been suggestion of a captive origin or some of the original birds. Since 1991 there have been a number of records from Oman from the Batinah coast (March), Masirah island (where three separate birds were present at different times between late June and early November), Salalah area and interior southern Oman (March and October, November). Since 1988 there hae been a number of records from Kuwait in each month from September to April and by 2006 was sufficiently well known there to be recorded as a scarce migrant and winter visitor. This is an old specimen record (October 1938) from Riyadh. There are no records from Bahrain, Qatar or the Eastern Province. The Dubai birds have been tentatively identified as belonging to the Asian subspecies *cenchroides* and representatives of this race are likely to occur elsewhere in eastern Arabia The species has been poorly recorded in the southwest in previous years and because of this there is no indication that it has either changed its distribution or numbers there in recent years. In the southwest probably about 30 squares have suitable habitat for this species and if there were 20 pairs in each the population would be of the order of 600 pairs, with possibly three quarters occurring in Yemen. The map shows the location of all records including migrants and winter visitors.

003003, 003035, 013001, 013033, 023017, 033031, 033039, 033058, 043022, 043031, 043039, 043041, 053119, 883015, 883022, 933002, 963069, 963071, 973300, 973307, 983006, 983008, 983012, 983017

(0288) **Long-legged Buzzard *Buteo rufinus***

The Long-legged Buzzard is a widespread but scarce breeding resident. It also occurs widely in winter and on migration. As a resident it is scattered throughout eastern, north, central and southwestern parts of Saudi Arabia. A few pairs breed in UAE, and central and southern Oman but it appears to be rather more scarce as a breeding species in Yemen. It is not known from Socotra. Has bred at several places on the edge of the Empty Quarter and may well breed throughout that sand sea. It is known as a winter visitor in small numbers in Kuwait (occasional summer records), Bahrain and Qatar, from late September to April. Migration reports have come form the Eastern Province, at Tabuk, Yanbu, in the highlands of southwest Saudi Arabia and Yemen. The only counts indicating the size of the migration through Arabia are from a report of the study of migrants made in Djibouti where 131 were observed arriving in Africa across the Bab al Mandab from Yemen between 10 October to 9 November 1987. The majority crossed the Bab al Mandab in early November with the maximum daily count of 36 on 8 November. The authors of that report considered it likely that November is the main passage period and suggested that good

numbers may move into Africa in mid to late November. The breeding population in the UAE is obscured by winter visitors and migrants but in the UAE up to 5 pairs have been estimated to breed. There may be 100 breeding pairs each in Oman, Yemen and the highlands of southwest Saudi Arabia and possibly a further 500 pairs spread over central and eastern Saudi Arabia. Making a total of the order of 800 pairs. There is no evidence to indicate whether the breeding population is stable or whether agricultural developments in recent years have assisted it or been to its detriment. The map shows all records except the more obvious migrants and visitors.

013001, 013016, 023045, 023097, 033024, 033061, 053041, 053119, 053133, 883009, 883032, 883052, 883055, 883104, 883114, 883134, 883913, 923010, 923035, 933001, 933004, 933052, 963050, 963066, 963068, 963075, 963208, 963211, 963214, 963217, 973312, 973320, 973331, 983014, 983035, 983040, 983041, 983043, 993029

(0294) **Tawny Eagle** ***Aquila rapax***

The nominate subspecies of the Tawny Eagle, is an uncommon resident of southwest Saudi Arabia and western Yemen. The population there is thought to be sedentary as there are no observations suggesting migration within Arabia, or to or from Africa. Non breeding birds appear to wander a few squares northwards, to 20☜ N and southwards to Aden. This eagle is not known from the Farasan islands or Socotra. Records of this species from northern Oman (November to March) may have been wandering birds of the Indian race *A. r. vindhiana*. One seen at Taqah in Dhofar in November could have been of either race. There are no records from the other states[4]. The Arabia breeding population is small, probably of the order of only 250 pairs. This estimate is based on suitable habitat covering the area of 25 squares with 10 pairs in each square. Probably 30% of the breeding population is in Saudi Arabia and rest in Yemen. There is no information on whether numbers or distribution are changing in any way. The map shows all observations in the southwest and Dhofar.

033061, 053063, 883022, 883045, 883055, 883082, 883114, 923008, 923010, 923013, 923034, 933001, 933002, 933052, 963071, 973062, 973111, 973328, 983013

(0296) **Golden Eagle** ***Aquila chrysaetos***

The Golden Eagle is a widespread but local and uncommon resident. There are two main population centres, in northwest and north central Saudi Arabia and in the eastern part of the Empty Quarter and central Oman. Elsewhere it is very scarce. There is a small breeding population in the UAE part of the Empty Quarter and thee are probably also a few pairs breeding in eastern Yemen. There may also be breeding birds in the Yemen highlands where there have been a number of observations, including display. The species is not known from Qatar or Bahrain and it is a vagrant (four records) to Kuwait. There are a few records from around Riyadh and in the Eastern Province, without confirmed breeding. The Eurasian population of the Golden Eagle is not noted for strong migration tendencies and regular migration within and through Arabia is probably negligible. This is borne out by raptor migration studies in the Hejaz, the Yemen foothills and at the Bab al Mandab, which have recorded only a single Golden Eagle. This was in the Hejaz and even that bird could have been a local resident. Further evidence to support little or no migration is that it is unknown from islands of Farasan, Socotra, Masirah and Das. After breeding, birds sometimes congregate during summer at places where there is fresh water, such as Montassar in southern Oman (where up to 9 have been seen together in June) and also near Al Jawf northern Saudi Arabia in May and August. The population is small and as there is very little information on which to judge numbers thus any estimate is almost a guess. The few breeding records from Saudi Arabia are probably indicative of a thin population over a very large area. There may be 250 pairs

[4] Eggs collected in the middle of the Empty quarter by B Thomas (883002) were identified by Kinnear (883045) as most likely to belong to this eagle. However the record is some 1000 km from the nearest other reports of the species and the habitat was wrong. That nest most likely belonged to the Golden Eagle *A chrysaetos* which by the year 2000 was known to be a widespread breeding bird in the Empty Quarter. Also further measurement, analysis and opinion of the eggs also suggest the later species.

altogether in Arabia, with the majority in Saudi Arabia, possibly 20 pairs in, mainly eastern, Yemen and 30 pairs in the eastern part of the Empty Quarter including central Oman and southern UAE. There is no information to suggest the population is changing in any way but the increased number of stock animals and the wider provision of water on the plains will be advantageous to this species. The maps shows all records as an indication of overall range.

003002, 003006, 003009, 003019, 023012, 023083, 023096, 033045, 043039, 043041, 053060, 883002, 883022, 883045, 883049, 883052, 883114, 883119, 883133, 923002, 923010, 933001, 933027, 983014, 983024, 983043

(0297) **Verreaux's Eagle *Aquila verreauxii***

This species was first recorded in Arabia in 1878 by Sir Richard Burton in 'Midian' (northwest Saudi Arabia), there was another record in southern Yemen in 1948, it since the 1970 s it has been found to be quite widespread. The increase in observations probably reflects better observer coverage in the highland areas where it occurs, than any real population change. Verreaux's Eagle is a scarce resident breeding sporadically in the highlands and foothills of western Arabia, from Jebal al Lawz near the Gulf of Aqaba to just north of Aden and through eastern Yemen to Dhofar. There are no records from the other states[5] and there is no evidence to suggest there is any migration to Africa for the winter and, apart from the dispersal of juveniles from the nesting area, there are probably no local movements within Arabia. In Arabia pairs are predictable at nesting sites all year round. Probably more widespread than records suggest but occurring at a very low level of density. There are collections of records near Jebal Rawdah near Yanbu and in the southern Hejaz. It is probably most numerous in western Yemen, both in the Tihama foothills and the highlands. Some 10-11 sites were known in Yemen in 1987. It is more spread out and scarce in eastern Yemen with records from near Habban, Tarim and Wadi Meseila. There is another cluster of records in Dhofar where breeding is recorded in at least 4 squares. The species range in Arabia, as in Africa, is closely linked to the distribution of Hyrax *Procavia capensis,* of which it is a specialist predator. The only locality where Hyrax occurs where this eagle has not been confirmed is the Tuwaiq Escarpment in central Arabia. The Arabian population is perhaps in the region of 60 pairs, if it is assumed that there are two pairs breeding in each the squares in southwest Saudi Arabia and western Yemen where the species is known and one in each of the occupied square in the other localities. The map shows all records.

003009, 003029, 013001, 023049, 023063, 033052, 033061, 033063, 053012, 883022, 883032, 883055, 883114, 883133, 933001, 933002, 933027, 963069, 963075, 973307, 973326, 973327, 983022, 993012

(0299) **Bonelli's Eagle *Hieraaetus fasciatus***

Bonelli's Eagle is an uncommon but widespread resident of rocky and mountainous regions. It is probably the most numerous breeding eagle in Arabia. It occurs throughout the mountains of west and southern Arabia to Dhofar and then again in northern Oman and the Emirates. There are isolated breeding records from near Riyadh, where it may be thinly distributed as a breeding bird along the Tuwaiq escarpment, and from Masirah island. It is absent as a breeding bird from the plains of northern Arabia and the coastal area of the Arabian Gulf but it has been recorded in those places rarely as a migrant and winter visitor. There is probably an insignificant migration through Arabia as small numbers have been noted on migration across the Bab al Mandab from Arabia to Africa and it has been seen on Das Island in the Arabian Gulf. Its secondary status, as a winter visitor and passage migrant needs further clarification. A few records from Kuwait, the Eastern Province and the UAE suggest that there is a small population that comes to Arabia across the Arabian Gulf and around the head of the Gulf for the winter. The species is not known from Bahrain, Qatar or Socotra. It has been described as the commonest breeding eagle in Yemen and the population in the UAE has been estimated to be of the

[5] In 1999 a UAE military transport aircraft landed at Ras al Khaimah airport having suffered a birdstrike. The remains of the bird still in the wing appeared to be the complete leg of a Verreaux's Eagle. The birdstrike was apparently suffered near to Ras al Khaimah but enquiries could not establish where the aircraft had come from and so a birdstrike on takeoff at another location could not be ruled out.

order of 10 - 50 pairs in the small area of UAE highlands. If the midpoint of the UAE population estimate were to be repeated in other mountainous areas of Arabia, which are for the most part much less studied than the UAE maintains, then the total Arabian population might be of the order of 700 pairs. Of the total there may be 300 pairs each in Saudi Arabia and Yemen and 70 in Oman. The UAE population is thought by some to be declining but no population change or obvious range expansion has been noted elsewhere. The map shows all records.

003009, 023017, 023019, 023045, 023112, 033039, 033061, 033064, 043023, 043041, 053001, 053005, 053066, 053133, 883015, 883022, 883032, 883045, 883055, 933004, 933030, 933038, 963066, 963069, 963202, 963203, 963205, 963207, 963211, 963212, 963216, 963217, 963220, 973007, 973085, 973096, 973326, 973331, 983013, 983014, 983041, 993020, 993047

(0301) Osprey *Pandion haliaetus*

The Osprey is a common breeding resident species in the Red Sea, the Arabian Gulf and the Gulf of Oman. It is less numerous in the Gulf of Aden and the Arabian Sea. The highest concentrations in the Red Sea are on the Tiran, Al Wejh and Farasan archipelagos, and islands off Al-Hudaydah. In the Arabian Gulf important breeding populations are found on the Hawar Islands, Bahrain, the western islands of the UAE and Musandam islands (Oman). Only in Kuwait is it not known as a breeding species. In the Gulf of Oman, Arabian Sea and Gulf of Aden small numbers of Osprey breed on the Damaniyat, Halaaniyah archipelago Oman and the outlying islands of the Socotra Archipelago. The large majority of nests are on islands with nests on the mainland being rare, possibly less than 1%. There is no evidence to support movement between the populations of the Red Sea, Arabian Gulf and Arabian Sea but within each population there may be considerable movement of individuals for example limited ringing studies have shown that a female ringed as a nestling on Tiran Island was seen in a subsequent year nesting with two yung some 70 km east near Al Muwaylih and a male nestling ringed on Farasan was later photographed breeding on the other side of the Red Sea at Green Island, near Massawa, Eritrea some 250 km away. The breeding population estimate for Arabia is of the order 850 pairs of which up to 70% are found in the Red Sea. Ospreys also migrate through Arabia, certainly overland and presumably along the coasts and small numbers probably over-winter. Eurasian migrants are larger than Arabian Ospreys, and typically with darker plumage and more prominent black upper breast band (particularly in females). Fenno -Scandinavian ringed birds have been recovered near Riyadh, Taif and Perim Island. Limited evidence from the satellite tracking of individuals has shown that at least some individuals from temperate areas pass over the Arabian Peninsula and parts of the Arabian Gulf during September and October to winter in tropical Africa (Kjelléllen *et al*., 1997). The map shows all potential breeding records.

003009, 003018, 003025, 013014, 013032, 013033, 023003, 023026, 023072, 023103, 023110, 023138, 023142, 033013, 033029, 033030, 033031, 033039, 033068, 033072, 033082, 033110, 043015, 043017, 043032, 043039, 043041, 053025, 053040, 053044, 053080, 053094, 053124, 053132, 883007, 883011, 883022, 883032, 883055, 883092, 883100, 883104, 883112, 883124, 923002, 923005, 923006, 923010, 923012, 923020, 923037, 923043, 933000, 933001, 933002, 933004, 933008, 933013, 933014, 933017, 933026, 933031, 933034, 933038, 943006, 943009, 963205, 963210, 963211, 963214, 963216, 963220, 973001, 973003, 973004, 973006, 973007, 973008, 973009, 973011, 973013, 973036, 973038, 973041, 973042, 973043, 973064, 973075, 973080, 973081, 973085, 973089, 973101, 973110, 973114, 973302, 973311, 973313, 973325, 983012, 983020, 983026, 983038, 983039, 983041, 993009, 993026, 993031, 993034

(0304) **Kestrel *Falco tinnunculus***

The Kestrel is the most widespread, numerous and familiar bird of prey in Arabia. It can be seen in city centres as well as open desert habitats, including the Empty Quarter. It is scarce or absent as a breeding bird from the plains of central and northern Arabia where there are no trees or rocky outcrops. The most significant area where breeding is not indicated is eastern Yemen but this may be due to poor observer coverage there. It is a widespread breeding resident in all states and the larger islands such as the Farasans, Socotra and Masirah. There is also a significant wintering population in all states. To ensure that the distribution map shows only resident birds records of migrants and winter visitors are ignored and only probably and confirmed breeding records are plotted. No information is available on the movement of marked birds including post breeding dispersal and thus the origins of the wintering population is unclear, but most likely birds arrive from further north in the Middle East and possibly from eastern Europe and western Asia. The breeding population is probably of the order of about 10-

11

11000 prs, on the basis that there may be 300 squares of most suitable habitat holding at least between 30 - 40 pairs each and 150 more squares of secondary habitat holding 5 pairs each. This population is possibly outnumbered two to one by visitors during winter and spring. The breeding population has almost certainly increased in recent years with the advent of large scale agricultural programmes. Anecdotal evidence suggests that in large areas of irrigated wheat fields in central and northern Arabia the breeding population in each square might be as high as 2-300 pairs.

003003, 013016, 013033, 013034, 023013, 023019, 023045, 023151, 033017, 033031, 033061, 043004, 043039, 043067, 053005, 053015, 053041, 053076, 053081, 053104, 053124, 883007, 883009, 883015, 883022, 883055, 883093, 883104, 883124, 883134, 923002, 923003, 923005, 923008, 923010, 923013, 923017, 923020, 923023, 923037, 923043, 923044, 933001, 933002, 933004, 933006, 933020, 933025, 933038, 963053, 963067, 963068, 963069, 963203, 963204, 963206, 963207, 963210, 963211, 963212, 963214, 973002, 973012, 973013, 973041, 973051, 973065, 973085, 973086, 973089, 973094, 973095, 973096, 973098, 973312, 973320, 973321, 983040, 983041, 983043, 993029, 993041, 993045

(0312) **Sooty Falcon *Falco concolor***

The Sooty Falcon is a breeding summer visitor to the Red Sea, Arabian Gulf and Gulf of Oman. In Arabia it almost exclusively inhabits islands. Breeding concentrations occur in the Arabian Gulf at the Hawar islands, Bahrain, the Abu Dhabi islands in the UAE and islands of Musandam and the Daimaniyat group in the Gulf of Oman. It breeds throughout the Red Sea from Tiran to the Bab al Mandab, with particularly concentrations found near the Wedj bank and al Lith. There are no breeding records from the Gulf of Aden, the Socotra Archipelago or the Arabian Sea. It occasionally nests on mainland sea cliffs in northern Oman, for example between Banda Jissa to Ras Khabba. The few breeding reports inland are restricted to the northwest of the peninsula and fit in well with a distribution of inland breeding from North Africa to Jordan. Other inland records could indicate an overland passage to the Arabian Gulf from and to the wintering grounds. The several records from near Abqaiq may have been breeding birds from the Gulf of Salwa. It arrives on its breeding grounds generally in April or May but odd birds are present from late March. There are two old records from Oman in January but both could be erroneous as they have not been repeated in recent years. There is no other evidence to suggest any are present during winter. The map shows the location of all observations. Although birds have been recorded on the coasts of the Arabian Sea and Gulf of Aden in April, October, and November (and therefore probably migrants) its absence from that coast and its islands as a breeding bird is not yet explained. It may be that the summer monsoon, which coincides with the Sooty Falcon breeding season, creates climatic conditions unsuitable for hunting or, more likely, reduces the number of prey species migrating down the coast. Studies in the Red Sea show that breeding numbers are less on islands where there is a less concentrated flow of migrants in Autumn. For example the Farasan islands were less favoured than the islands off Al Lith where the narrow coastal lowlands means a greater concentration of migrants moving along the coast. The volume of migrant flow on a broad front over the Arabian desert is probably not as concentrated as, for example in the area between northeast Egypt and Jordan and so perhaps mainland breeding birds would not be expected in the centre of the peninsula or the eastern part of Arabia. This falcon winters in Madagascar and less frequently on the African mainland at Mozambique and even eastern South Africa. The Arabian breeding population is probably no more than about 450 pairs. This is comprised of a population in the Arabian Gulf and Gulf and Oman of probably no more than 100 pairs (maxima of about 20 pairs on Hawar, 25 pairs on UAE islands, and 60 pairs in Oman) and about 350 pairs in the Red Sea. The latter are comprised of about 300 pairs in Saudi Arabia, with perhaps slightly more in the northern sector between the Wedj Bank and Tiran group than in the south from Al Lith to the Farasans and about 50 pairs on the Yemen islands. Considering that the Red Sea and the Arabian Gulf/Gulf of Oman are regarded as major population centres for this species it is very difficult to balance the above population estimate with the extrapolated wintering population in Madagascar of 40,000 pairs given in del Hoyo et. al. 1994. With an estimated population of 300 pairs in Egypt, 100 in Israel and 170 pairs in the Dahlak archipelago, Sudan, and a few in Libya and Jordan, the world population might be as low as 1000 pairs. One explanation for this disparity could be that it is a more widespread breeder in the inland deserts of North Africa than is known. Another is that there are significant undiscovered breeding areas. Both alternative explanations seem unlikely and perhaps the

world population should be revised down by a factor of 40! There is no information on population changes in recent years from Arabia. This species, having a fondness to breed on islands, must be regarded as extremely vulnerable due to the increasing disturbance many islands receive in the early 21st Century. It does not breed on the main Hawar island due to the presence of feral cats and no longer breeds on Zirka, Dalma, and Sir Bani Yas islands in the Gulf due to a combination of the oil industry and sizeable human populations having been established there in recent years. The promotion of tourism to the Gulf and Red Sea, especially water sports, must inevitably have a negative effect on this rare bird.

003003, 003009, 003018, 013032, 023012, 023049, 023138, 023143, 023151, 033002, 033007, 033008, 033009, 033012, 033067, 033068, 033108, 043001, 043025, 043039, 043050, 043051, 053027, 053040, 053046, 053080, 053081, 053119, 883008, 883011, 883032, 883082, 883089, 883100, 883112, 933000, 933008, 933013, 933014, 933016, 933026, 933030, 933038, 963051, 963209, 963211, 963214, 963220, 973003, 973010, 973012, 973013, 973036, 973043, 973069, 973325, 983009, 983014, 983015, 983017, 983022, 983031, 993007, 993009, 993031, 993036

(0314) **Lanner *Falco biarmicus***

A century ago the Lanner was recorded by one observer in south Arabia as 'Not uncommon', but by the year 2006 few observers have seen and the species had become a very rare bird in Arabia, although still apparently widespread at a very low population density. In the last 30 years breeding has been confirmed from the Eastern Province, central Arabia, the southwest highlands of Saudi Arabia and Yemen but the last report of confirmed breeding was in 1989. It has been recorded in almost every month in Oman but with no indication of breeding. Immatures have been seen in the UAE but there is no good evidence of breeding there either. In the 19th Century two pairs were recorded on Socotra but there have been no subsequent records from that island. There are no breeding records from northern Arabia or from the Empty Quarter. The map shows al records. In Arabia the Lanner is thought to be resident where it breeds, however there is likely to be a small wintering or migrant population because there are a number of records of single non-breeding birds. In recent years the number and status of the species has been obscured by the presence of escaped falconers birds (some have been reported with jesses on) as well as escaped hybrids which by the end of the 20th Century had become a regular bi-product of the falconry industry. There is no information available on movements of marked individuals. The small number of records obtained during the ABBA period (only 2 confirmed breeding and six probable breeding) outlines the range known by the 21st Century but provides very little on which to draw conclusions about the population size. Bearing in mind the vast areas of potential habitat there may still be as many as 20 pairs in central and eastern Arabia and a similar number each in the Saudi Arabian and Yemeni parts of the southwest highlands and a few in eastern Yemen. The total population for the whole peninsula must be considerably less than 100 pairs. There may be a few in Oman. The Lanner is a traditional hunting falcon of the Arabian bedouins. Whilst it has been able to withstand for many centuries an annual 'take' by nomads for their own needs it has not been able to sustain the level of pressure in the early 21st Century, generated by the commercial demand. This the species is likely to become extinct as a breeding species in Arabia in the near future. Taking young falcons from the nest is a further blight on the prospects of the genus in Arabia and in the case of the Lanner F. bemocks a major contributor to its almost complete extinction.

003009, 013032, 023012, 023045, 033005, 033039, 033061, 053063, 883022, 883032, 883049, 883055, 883114, 883124, 883134, 923000, 923004, 923009, 923013, 923017, 923043, 933001, 933002, 933035, 963050, 963214, 963220, 973085, 973307, 983005, 983014, 983040, 983041, 993004, 993025

(0320) **Peregrine Falcon *Falco peregrinus***

The Peregrine Falcon is primarily a widespread, uncommon migrant and winter visitor to coastal regions of Arabia. It occurs in all states. It appears to be more common in the Arabian Gulf and southern Arabia in winter than it is in the Red Sea region, but more marked as a migrant along the Red Sea coast into Africa than elsewhere. Rather scarce in the interior. Evidence of migration has been obtained from southwest Arabia. In October 1985 16 were seen arriving over 16 days in Djibouti across the Bab al Mandab from Arabia (023045) and in 1987 seven arrived at the same place over a 38 day period from early October (983041). Seven were also noted moving through the Hejaz during 16 days in October (983043). Migrants and winter visitors, especially *chalets,* travel enormous distances to Arabia and

beyond. One ringed as a nestling in August 1997 in the Tambar peninsula in Siberia was captured in November the same year on Qarnain island in the UAE, a distance of at least 6000 km.(033051). The Peregrine is poorly known as a breeding bird in Arabia and there is doubt as to its true breeding status. This is because there is probably some confusion of records with the smaller, but more widespread Barbary Falcon *F. pelegrinoides*, escaped or released falconers birds and captive reared birds, including hybrids. (Escaped falconers birds wearing jesses have been reported from all over Arabia and are possibly more common than naturally occurring birds away from the coasts). It is a scarce resident on Socotra island. There are two or three other breeding records from northern and central Oman including once of an apparent mixed pair with Barbary Falcon. In the Asir mountains of southwest Saudi Arabia a bird was once reported attending a nest site over several days in May 1988. This would normally be confirmed breeding but it was known that there had been escapes, including hybrids, in the area from a nearby falconry centre and the record is therefore only shown as a possible breeding. There are no breeding records from other states. The Arabian breeding population is probably no more than 50 pairs with possibly 30 on Socotra and 20 on the mainland. The map only shows those records where breeding is indicated. The traditional local trapping industry of migrating falcons still flourishes, especially along the mainland Red Sea coast and in the Gulf. This inevitably takes many migrants, a commerce supported by the high prices that falconers are still prepared to pay for wild caught birds. A further insidious threat to the wild population of Peregrines is the large number of hybrids that have been bred in captive conditions. Hybrids will have no idea of the species or region to which they belong when they escape and are likely to cause problems with any wild birds they encounter. Even an escaped wild caught falconers bird has the capability to produce racial hybrids if it breeds with one of the Arabian population because it could have originated from anywhere between northwest Africa and Siberia. With an increase in the number of captive bred falcons being released and escaping from falconers there may well be more incidents of casual breeding on the Arabian mainland.

013011, 013032, 023045, 033047, 033051, 053041, 053104, 883022, 923002, 923033, 923037, 923043, 923044, 973008, 973302, 983022, 983033, 983041, 983043

(0321) **Barbary Falcon** ***Falco pelegrinoides***

The Barbary Falcon is a widespread but scarce breeding resident. It has not been reported from Bahrain or Qatar, is rare in eastern Saudi Arabia and Kuwait and is not known from the Empty Quarter. Reports from Socotra are likely to refer to the small race of Peregrine that is resident there. Although migration along the Red Sea coast at Yanbu has been suggested there is little evidence for this or any other significant movements within Arabia. Individual birds may turn up for short periods at non-breeding locations but are likely to be dispersing after breeding. The map shows all records. The population of this species is difficult to assess as in some places it is relatively common and at other sporadic. For example one observer found four pairs in the Jebal Sawdah summit area and another reported three pairs located within 10 km along the Tuwaiq Escarpment. On this basis there may well be at least 100 pairs along the length of the Tuwaiq escarpment, another 300 pairs in the mountains of both Yemen and south West Saudi Arabia and a further 300 pairs spread over all the other rocky/mountainous areas of Arabia. Making a total population of just about 1000 pairs. There is no information about whether the population has changed in recent years. However it might be speculated that, like the Kestrel, it has probably benefited indirectly from agricultural and dairy farm developments in recent decades which have created favourable conditions for its main prey species, the Rock Pigeon *Columbia livia* and doves *Streptopelia* spp, to expand and flourish. Although it is a robust vigorous falcon that can be trained to hunt the Barbary Falcon is traditionally not used much for falconry in view of its small size (and therefore status) compared to the Lanner, Peregrine or Saker *F. cherrug*. In view of this it is not directly targeted by falcon trappers. However it is likely to be caught as a by-catch by trappers after the larger falcons at the main trapping sites along the Red Sea and Arabian Gulf coasts. The Barbary Falcon appears to require no particular conservation efforts on its behalf but, like all birds of prey, it could easily become vulnerable through pesticide use or to exploitation if falconry fashions change.

14

003003, 013001, 023012, 023013, 023019, 023083, 023102, 023103, 033010, 033031, 033034, 033039, 033061, 043033, 053005, 053106, 883022, 883032, 883055, 883124, 883134, 923002, 923004, 923009, 923010, 923014, 923015, 923017, 923037, 933001, 933030, 933031, 963061, 963067, 963211, 963214, 963216, 963220, 973001, 973002, 973007, 973062, 983012

(0735) **Barn Owl *Tyto alba***

The Barn Owl is a widespread but uncommon resident which occurs in every state. There appears to be no particular pattern of occurrence and it is probably thinly spread throughout Arabia especially near human habitation. There are rather more records from the Arabian Gulf region and eastern Arabia than from other parts. Not thought to make regular movements but clearly a few disperse considerable distances and a number have occurred on the Das island in the middle of the Arabian Gulf. May even be a winter visitor to Arabia as numbers are thought to increase on Bahrain in late summer and Autumn. Also irregularly on Masirah island but not recorded Socotra. Apparently absent from the sand seas such as the Empty Quarter and the northern plains. In those places the lack of nesting and roosting sites is possibly the main obstacle to its presence. In the UAE where it is scarce the population has been estimated at up to 10 pairs, and there are probably similar numbers in Kuwait, Qatar and Bahrain. On the basis of the number of records available and poor recording rate Oman, Yemen and Saudi Arabia may have up to 300 pairs each. However this total of less than 1000 pairs could be only a small part of the actual population bearing in mind its secretive nocturnal habits. The Barn Owl is likely to be on the increase in the new farming areas but there is no firm evidence for this. It has the potential to breed wherever it occurs and therefore the map shows all records, including non breeding birds.

003002, 003003, 003009, 003025, 013016, 013033, 023001, 023013, 023015, 023017, 023083, 023102, 033039, 033067, 033108, 043029, 043041, 053041, 053071, 053075, 053119, 883007, 883009, 883030, 883104, 883134, 923002, 923013, 923017, 923020, 923023, 923027, 933004, 933011, 933017, 933025, 963067, 963075, 963202, 963220, 973002, 973007, 973010, 973011, 973012, 973013, 973017, 973050, 973060, 973065, 973103, 973110, 973320, 973326, 973329, 983005, 983012, 983013, 983014, 983015, 983024, 983036, 993004

(0735.1) **African Scops Owl *Otus senegalensis***

In Arabia the African Scops is resident in the southwest, occurring from about 20☜N in the western highlands of Saudi Arabia, throughout Yemen, including eastern districts to about 54☜E in Dhofar. It is unknown on Socotra. There is no information to suggest even local movements and it probably breeds wherever it occurs. The map shows all records. This nocturnal species is under recorded and virtually nothing is known of its habits and breeding within Arabia. It is very vocal at night and many distributional records are based on its distinctive calls. Some records indicate it is locally common, once 15 calling males at one site in southern Oman and several reports of 2-5 birds calling from a single spot. Where it occurs it is probably the most common owl in Arabia and considering the range of altitude and habitat where it is found, if there were only, on average, one pair in each 10 km^2 within its range of potentially about 80 squares, then the Arabian population could be of the order of 24000 pairs (80 squares, 1 sq = 3000 km^2, i. e. 300 pairs per square). There are probably about equal numbers resident in Saudi Arabia and Yemen and proportionately less in Oman. There is nothing to suggest that numbers or range have changed in recent years. There are no records from the other states. Sympatric with Striated Scops Owl in parts of South West Arabia.

003011, 013001, 023012, 033047, 883055, 933002, 933033, 933036, 963071, 963083, 993029

(0738) **Striated Scops Owl *Otus brucei***

A locally common resident in the UAE and northern Oman but elsewhere in Arabia its status is unclear. There is little information on its occurrence in southwest Saudi Arabia (it is not known from Yemen) and clarification of its status in that region is needed. The accompanying map which shows all records is only an incomplete representation of range because it includes some records which are almost certainly migrants. There is also the possibility that this species winters more widely in the Arabian peninsula than is realised. Very little is known of migratory or other movements. The wing structure (short primaries) is clearly not pre-adapted for long-distance movements, but the northern populations outside

of Arabia are undoubtedly migratory. The nominate sub-species occurs in southern Kazakhstan and in certain areas of Tadjikistan and Kyrghyzia, where birds are migratory and some individuals probably reach Arabia. A single bird which was trapped in southern Oman in October 1978 was described as 'presumably on migration'. However records of migrants are few and seldom away from known breeding areas. Significantly there are no documented records from Arabian Gulf islands such as the well watched Das island or from Masirah island in the Arabian Sea, which suggests only small numbers come to Arabia on migration or as winter visitors. Conversely there are plenty of reports for the highly migratory Scops Owl from those places. There are a few records of Striated Scops Owl from Bahrain in October and November, including one specimen of the sub-species *exiguus*. Occurrence in Qatar and Kuwait needs to be confirmed. Identification difficulties prevail with the genus *Scops* and field determinations may in places have been based on what has 'gone before', undoubtedly some confusion of status of both species has been caused by misidentified individuals. Winter records from areas of UAE away from known breeding areas, and in the Eastern Province coastal districts, are considered most likely to involve migrant south-west Asian birds rather than the local Arabian population. Immediate post-breeding dispersal of birds breeding in eastern Arabia may only be into local areas or just beyond To those familiar with the species, the Striated Scops Owl is easily detected on account of its distinctive, if rather soft call, which is given for long periods usually after dark. The call is likened to a distant water-well pump. Nonetheless, it is doubtless much under-recorded, largely one suspects through a lack of survey effort. One study in April based on calling birds found that in the Ghubbrah Bowl, Jebal Akhdar, northern Oman, there were an estimated 140-280 breeding pairs, or at least one pair in each square kilometre, over an area of about 140 km^2. This was an region of wadies, hillsides and plains well scattered with acacia and Zizyphus at an altitude of 500-800 m. In the same study the population higher up on the Saiq Plateau and Jebal Shems (>1800 m) was estimated at a maximum of one pair in each 5 km^2, or less than 50 pairs spread over both of the sites with an area of about 250 km^2 each. However there could have been a bias in the latter observations as birds probably breed later in the highlands and would perhaps not be so vocal in April as lower down. Similar densities have been noted elsewhere. At one site in the east coast area of the UAE three family groups with young were found within a distance of 500 m. The habitat was a gravel plain with scattered acacias, with smaller trees and bushes. As many as 10 individuals have been recorded in Mushrif Park, Dubai in February. Such records shows that it can be locally very numerous. Given the similarity of the habitat found in the Ghubbrah site and all over northern UAE and Oman, the population for the area must be at least 3000 pairs, probably 80% in Oman. There is no information on historical changes in numbers or range.

003002, 003009, 013032, 033031, 033059, 033067, 043039, 053005, 933004, 933038, 963082, 963083, 963086, 963217, 963220, 973007, 983012, 983015, 993004, 993029

(0744) **Eagle Owl *Bubo bubo***

The Eagle Owl is a widespread resident in the northern half of Arabia, especially Saudi Arabia and eastern Arabia (UAE and northern Oman), it is scarce in Kuwait. There are a small number of records from the rocky hills of eastern Yemen in Spring and it may be more common in that large under recorded region. However some records from that country have been confused with the Spotted Eagle Owl. There are no records from western Yemen or Socotra. It is also scarce but probably breeding in southern Oman. Records suggest it is a short distance migrant occurring widely in non breeding areas in winter mainly November to January. There are a number of records, including sometimes darker birds, from Saudi Arabian, Bahrain and UAE islands but it is not known from the well watched Masirah island. Not confirmed Qatar. The map shows all records. This owl is locally common in the Arabian Gulf coastal area of the Eastern Province, at one sites two nests with eggs were found only 3 km apart. There may be 250 pairs in the Saudi Arabia Gulf coastal region and probably at least 1000 pairs elsewhere in central and northern Saudi Arabia. Up to 50 pairs have been estimated for the UAE and there are probably similar numbers in northern Oman, southern Oman and eastern Yemen Making a total Arabian population of the order of 1500 pairs. Although recognised in 2006 as a widespread and relatively

16

common bird there is no information to conclude the species is increasing or decreasing. However an increase might be expected in suitable habitats adjacent to newly irrigated areas where more prey species must be available.

003002, 003009, 013001, 013033, 023015, 023019, 023130, 033031, 033039, 033061, 033092, 033093, 043039, 053041, 053074, 053133, 883009, 883104, 883133, 883134, 933004, 943005, 963050, 963068, 963202, 963203, 963206, 963208, 963210, 963211, 963214, 963216, 963217, 963220, 973007, 973048, 973320, 983009, 983012, 983014, 983037, 983040, 993002, 993004

(0745) **Spotted Eagle Owl *Bubo africanus***

In Arabia it is resident in the southwest from about the latitude of Jeddah southwards in western Yemen and then east at least 48☜E. There is probably a gap in distribution in the eastern half of Yemen before the isolated population in the Mahra region. There is a further tiny population which is evidently resident near Muscat and possibly Dibba in northern Oman. There are no records from any of the other states and it is not known from Socotra. The map shows all records. The Arabian subspecies *B. a. milesi* was first described from a specimen taken from near Muscat in the 1880 s, however as a measure of its rarity in those parts it was not recorded there again for another century. It is not generally found in the same locality as the Desert Eagle Owl *Bubo b. ascalaphus.* In the few places that the two species have occurred at the same sites there is some evidence that the larger Desert Eagle Owl is dominant. For example in 1986-89 the Spotted Eagle Owl was present in a number of wadis near the NWRC reserve at Taif but by the end of 1991 it had been replaced at all sites by Desert Eagle Owl. Despite the above observation and the fact that the Spotted Eagle Owl has been recorded in recent years in many new localities, there is no evidence to suggest that its population or range has changed significantly in recent years. It appears to be relatively numerous where conditions are suitable. If there were, on average, 100 pairs in each square where the species has been recorded there would be of the order of 4000 pairs in Arabia with, maybe, 1600 in Saudi Arabia, 1800 in Yemen and 600 in Oman, including probably no more than 50 pairs in the Muscat enclave.

003009, 023012, 023026, 023063, 023107, 033047, 033052, 033063, 033066, 053046, 053050, 883022, 883055, 923010, 923013, 923014, 923017, 933021, 933025, 933030, 933035, 963067, 963069, 963074, 963075, 973062, 973085, 973303, 973326, 973327, 983006, 983022, 993002, 993012, 993015, 993028, 993041, 993050

(0757) **Little Owl *Athene noctua***

The Little Owl is a widespread, locally common, resident in the deserts of Arabia. It is generally thought of as sedentary, occurring in all states (except Bahrain). However there are a very few records which suggest limited seasonal or local movements e.g. occurrence on Das Island in the middle of the Arabian Gulf. There are a number of records from the periphery of the Empty Quarter but it appears to be absent from the core area. Its absence from this region and most of the plains of northern Arabia is likely to be due to lack of suitable roosting/nesting sites rather than a lack of prey or the species being unable to tolerant hyper arid environments. It is scarce in the highland areas of the southwest, except the drier eastern fringes. Resident Farasan island but generally scarce other coastal sites and not known from Socotra. Also present (resident) in very small numbers on Masirah island. It is a common bird in the UAE where one report give three nests spaced at 500 m intervals. At one pivot irrigation farm in central Arabia which was rich in rodents but poor in Little Owl roosting and nesting sites no less that 12 adults were seen at dusk sitting on a line of rock heaps over a distance of about a kilometre. In Kuwait one study showed occupied nests were not less than 1000 m apart. In the UAE the population has been estimated at 300 - 1000 pairs, which is probably higher than the likely breeding density in other states. This UAE population includes an estimated 50 pairs at Jebal Hafit on the UAE/Oman border. The total Arabian population may in of the order of 5-6000 pairs. This would be comprised of up to 100 pairs each in Kuwait and Qatar, 500 in the UAE, 1000 each in Oman and Yemen and 3000 in Saudi Arabia. There is no evidence to suggest populations are changing in any way but the huge expansion in agriculture in central and northern Arabia in recent decades must have had the effect of allowing many more to breed than did previously. The map shows all records.

17

003009, 003025, 013032, 013034, 023012, 023015, 023019, 023063, 033023, 033039, 033066, 033067, 043039, 053005, 053041, 053050, 883009, 883022, 883032, 883055, 883104, 883134, 923037, 933004, 933011, 933020, 933021, 933030, 933037, 963067, 963068, 963072, 963206, 963207, 963210, 963213, 963214, 963216, 963220, 973007, 973065, 973320, 973327, 973331, 983013, 983014, 993004, 993048

(0762) **Hume's Owl *Strix butleri***

Hume's Owl was, until the 1970's, widely thought of as very rare, with just a handful of records from diverse parts of its world range. There was only one record from Arabia, a bird collected in 1950 from the goldmines at Madh Dhahab in the Hejaz. In 1975 one was caught near Riyadh and in the next few years a number of records were gathered from several places in central and western Saudi Arabia. It was also heard at about that time in Dhofar, Oman but the species was not formally acknowledged as occurring in Oman until the 1990's. During the ABBA period this owl has been shown to be widespread and in places common in Arabia. It occurs from the Harrat al Harrah in the north, Hail and throughout the northern part of the Tuwaiq escarpment, probably the whole of the western highlands from Jebal Al Lawz southwards to Taiz, Yemen, eastern Yemen and at several sites in Dhofar. The first Yemen record was in 1985. It is also known from two sites in the Eastern Province. In 1898 an owl which sounded like *S. aluco* was heard at two places on Socotra and another was heard there in 1999. There are no records from the other Arabian states. It is resident wherever it occurs. Like all owls in Arabia it is probably under recorded. It is likely that it occurs in many more squares than where it has been recorded, probably at least twice as many. On this basis and assuming about 20 pairs for each atlas square where it occur (that gives each pair over 100 km^2), there are probably at least 2000 pairs in Arabia; with over 1000 pairs in Saudi Arabia, 600 in Yemen and 300 in Oman. Although in 2006 it is known to be widespread and relatively common it is probably no more or less numerous than 50 years ago, the change of status from very rare to widespread and common being the result of much more intense fieldwork and greater awareness of its presence. The map shows all records.

003009, 003022, 003046, 013001, 023010, 023012, 023118, 023119, 033010, 033022, 033028, 033033, 033039, 033052, 033063, 883055, 883124, 963074, 963082, 973089, 973093, 973307, 983014, 983015, 993029

DEL HOYO, J., A. ELLIOTT & J SARGATAL eds., 1994. **Handbook of the Birds of the World**, Vol 2. New World Vultures to Guineafowl. Lynx Ediciones, Barcelona.

GREEN, C. 1949. **The Black-shouldered Kite in Masira (Oman)**. *Ibis* 91: 459-464.

KINNEAR, N. B. 1931. **On some birds from central South Arabia**. *Ibis* (Series 13) 1: 698-701.

KJELLÉN, N., HAKE, M. and ALERSTAM, T., 1997. **Strategies of two Ospreys *Pandion haliaetus* migrating between Sweden and tropical Africa as revealed by satellite tracking**. *Journal of Avian Biology*, 28: 15-23.

JENNINGS, M C (in prep). **Atlas of the breeding birds of Arabia**, *Fauna of Arabia*

JENNINGS, M C, 2005. ***A Rough Draft Bibliography of Arabian Ornithology*** (Privately published).

MEYBURG, B-U, M GALLARDO, C MEYBURG and E DIMITROVA, 2004. **Migrations and sojourn in Africa of Egyptian vultures (Neophron percnopterus) tracked by satellite**; *J Ornithol* 145: 273-280.)

MEINERTZHAGEN, R., 1954. ***Birds of Arabia***. Oliver & Boyd, Edinburgh & London.

THOMAS, B. 1932. ***Arabia Felix: across the Empty Quarter of Arabia***. Jonathan Cape, London & New York, Toronto.

Michael C Jennings

Coordinator, Atlas of the Breeding Birds of Arabia project and Editor The Phoenix (ISSN 0268-487X)
Warners Farm House, Warners Drove, Somersham, Cambridgeshire, PE28 3WD, UK. Email:
ArabianBirds@dsl.pipex.com Website: http//dspace.dial.pipex.com/arabian.birds

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 19 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Pandion haliaetus (Linnaeus, 1758)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English- Osprey, Fish Eagle
Arabic- Aleqab Al Nesari

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Continuous distribution in the North Red Sea, south to about 23'N, and then in the South Red Sea from about 20'N. Southern half of the Arabian Gulf and Gulf of Oman. Local population on the southern coast of Arabia and Socotra. Doesn't breed in Kuwait

2B. Current Distribution (illustrate on map):
No change to the above has been identified.

2C. Habitat of the Taxon (ecosystem level):
Breeds on offshore coastal islands and archipelagoes, that are undisturbed and lack predators.
Feeds over coastal waters, shallow seas and inland dams.

2D. Habitat specificity (elevation, etc):
N/A (sea level)

2E. Migration: ☒ Yes ☐ No ☐ Unknown

If Yes, describe:
* Separate non-breeding migratory population that passes through Arabia, with some winter visitors.
* Possible post breeding dispersal (females and juveniles) of the Arabian resident population. Noticed that males seem to remain to passively protect their territories, no aggression seem to tolerate each other.

3. Number of Populations and Subpopulations in which the taxon is distributed: five

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Northern Red Sea	coasts and islands	~ 220 breeding pairs
Southern Red Sea	coasts and islands	~ 400 breeding pairs
Arabian Gulf	coasts and islands	~ 115 breeding pairs
Gulf of Oman	coasts and islands	~ 45 breeding pairs
Gulf of Aden to Socotra	coasts and islands	~ 30 breeding pairs
		(~2400 individuals)

4. Population Trends

4A. Is the population: ☒ Decreasing ☐ Increasing ☐ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☒ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? 10 years (see 4C for details)

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
*Saudi Arabia - decreasing
*Yemen Red Sea Islands - decreasing
*Bahrain - static, but could decline in the future
*UAE Islands - possibly declining

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☒ Decreasing in area ☐ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☐ < 20% ☒ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? 10 years

5D. If stable or unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No ☐ Unknown

If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur?

5E. State primary cause of change:
* Industrial development resulting in habitat loss
* Recreation resulting in disturbance

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving ☐ Unchanged ☐ Unknown

5G. State the primary cause of change:
* Over fishing in the Arabian Gulf and Red Sea resulting in a decrease of available food for the osprey. Osprey prey on shallow water fish which are not usually commercial.
* Introduction of predators such as cats, dogs and White-tailed mongoose (Southern Red Sea) mainly by the coast guards.

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☒	☒	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☒	☒
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☒	☒	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☒	☒
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☒	☒	Introduced species (non-livestock)	☒	☒
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:
The most significant threats perceived and actual is the development of islands for industrial (oil) and domestic use, the introduction of predators such as cats which follow humans eg: coast guard stations.

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin ☐ Fur ☐ Horn

☐ Glands ☐ Taxidermy ☐ Products

☐ Bones ☐ Hair ☐ Organs

☐ Meat ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [X] Census or monitoring
- [X] General field sudies
- [X] Informal field studies
- [X] Literature
- [X] Museum studies/records
- [X] Hearsay/popular belief
- [X] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
Paul Fisher (PhD)	Red Sea	1990's	census
Abdullal Al Suhabani + S. Newton	Red Sea	2002	census
Howard King	Bahrain	1998 ongoing	census
Simon Aspinall	UAE	1994	census
Numerous local and informal studies producing data and local populations. However, very little info on population trends, change and local populations over an extended period.			see no. 14 for details

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National: not recorded

10B. Workshop Assesment of Regional Red List category: vulnerable (C1)

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation: (being reviewed for all species by Salah Behbehanj)

10E. National Red Data Book: as above

10F. International Red Data Book: as above

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Hawar Islands Bahrain, Farasan Islands Red Sea, Umm Al Qamari Red Sea, Yemen Red Sea Islands and Socotra, Daimaniyat and Hallaniyat groups Oman.
This species benefits from all marine protected areas eg: turtle sanctuaries.

10I. Recommended protected areas for this species (please specify):

Wajd Bank North Red Sea, Tiran Island Northern Red Sea, Western Abu Dhabi Islands

10J. Existing regional conservation/protection.action plan(s):

This species benefits from all environmental, conservation action plans.

10K. Conservation/protection/action plan(s) enforced/implemented:

None specific for the osprey but see comments above.

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☒ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):
Much more information is needed on this species on both the local and regional level.

12. Management

12A. What management is recommended for the taxon?

☒ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☒ Limiting factor management

☐ Work in local communities ☐ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify): _____

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: _____ Females: _____ Unsexed: _____ Total: _____

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

☐ Intensify existing program ☐ Decrease existing program

☐ Initiate program within 3 years ☐ Maintain program as it is

☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

☐ Techniques known for this or similar taxon ☐ Some techniques known for this or similar taxon

☐ Information not available with this group of compilers ☐ Techniques not known

14. Sources/References (complete citation):

BEECH, M. 2003. The diet of Osprey Pandion haliaetus on Marawah Island, Abu Dhabi emirate, UAE. Tribulus 13 (1):22-25.

BEN-HUR, Y. 1982. The diet of a top predator of a coral reef - the diet of the Osprey (Pandion haliaetus) population on the island of Tiran. Unpublished Msc Thesis, Hebrew University of Jerusalem.

COWLEY, J. C. 1953. Red Sea Osprey (Pandion h. haliaetus). Ool. Rec. 27: 23-24, 41-45, 55-59.

FISHER, P. R. 1995. The breeding biology and conservation status of the Osprey Pandion h. haliaetus on the Farasan islands protected area. Report published by the author, 65 pp.

FISHER, P. R. 1996. A report to the National Commission for Wildlife Conservation and Development on the status of the Farasan Islands Osprey Pandion haliaetus, Red Sea. Report of the Conservation Biology Research Group, Manchester Metropolitan University (pp57).

FISHER. P. R. 1996. Osprey research in the Red Sea. Al-Sambouk 3:4.

FISHER, P. R. 2001. Ecology & Behaviour of the Osprey Pandion haliaetus on the Farasan Islands, Red Sea, Saudi Arabia. Unpublished PhD thesis, Manchester Metropolitan University. 256pp.

FISHER, P. R. & C. GOLDSPINK. 1994. Farasan osprey study. Phoenix 11:20.

15. Compilers:

Osprey
Pandion haliaetus

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 20 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Elanus caeruleus (Desfontaines, 1789)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Black shouldered kite or Black-winged kite
Arabic - Al Hdaa Sawda Al Janah

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Appears to be a scarce resident on the Tihama and foothills. Occurs all months as far north as Jeddah and in the south to just east of Aden. Most records from the region east of Hodeidah, especially Wadi Surdud and also between Lahej and Aden in the south of Yemen, where it has bred.

2B. Current Distribution (illustrate on map):
see map, no known change except that some wintering birds in the Indian race are now recorded to breed in the Arabia peninsula. A few recent records of unknown origin in Kuwait.

2C. Habitat of the Taxon (ecosystem level):
Agricultural areas (Yemen) and on the Tihama plains and foothills, woodland. In eastern Arabia records have come from coastal / low lying areas.

2D. Habitat specificity (elevation, etc):
Breeding from sea level up to 800m in southwest Arabia, but has been recorded up to 2400m.

2E. Migration: ☒ Yes ☐ No ☐ Unknown

If Yes, describe:
Possibility that the Arabian breeding population is an overflow from Africa where it has seasonal migrations and an eruptive distribution.
Separate migrant population from India to eastern Arabia.

3. Number of Populations and Subpopulations in which the taxon is distributed: two

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Breeding population in southwest Arabia	Tihama	Probably not more than 15 pairs each year, but maybe not every year. (~ 50 individuals)
Migrant population		
Wintering population		

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
not enough data at present to accurately predict

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area ☒ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If stable or unknown, do you predict a future decline in the habitat:

☒ Yes ☐ No ☐ Unknown

If Yes, what do you predict decline will be?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? 10 years

5E. State primary cause of change:
* Decline in small scale farming leading to abandoned farms.
* loss of agricultural areas
* new agricultural practises - not clear what effect it will have.

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☐ No ☒ Unknown

Is the habitat quality: ☐ Declining ☐ Improving ☐ Unchanged ☒ Unknown

5G. State the primary cause of change:

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☒	☒
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☒	☒	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):
Insecticides have an indirect effect but reducing prey availability and by directly poisoning birds that are insectivorous.

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:
Unsure if the current population is permanent / stable

7. Trade

7A. Is the taxon in trade: ☐ Yes ☐ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☐ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- ☐ Census or monitoring
- ☐ General field sudies
- ☒ Informal field studies
- ☒ Literature
- ☒ Museum studies/records
- ☐ Hearsay/popular belief
- ☐ Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
No papers solely related to this species in Arabia.			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National:

10B. Workshop Assesment of Regional Red List category: vulnerable (C1)

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

none

10I. Recommended protected areas for this species (please specify):

protection for Important Birding Areas (IBA)

10J. Existing regional conservation/protection.action plan(s):

none

10K. Conservation/protection/action plan(s) enforced/implemented:

none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☐ Public awareness ☐ Limiting factor management

☐ Work in local communities ☐ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: Females: Unsexed: Total:

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

☐ Intensify existing program ☐ Decrease existing program

☐ Initiate program within 3 years ☐ Maintain program as it is

☒ Undertake no captive program

13F. Are techniques establised for captive breeding?

☐ Techniques known for this or similar taxon ☒ Some techniques known for this or similar taxon

☐ Information not available with this group of compilers ☐ Techniques not known

14. Sources/References (complete citation):

No papers solely related to this species in Arabia.

15. Compilers:

Black-shouldered Kite
Elanus caeruleus

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 20 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Milvus migrans (Boddaert, 1783)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Black kite
Arabic - Al Hdaa Al Sawdaa

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Resident on the Tihama and highlands of the south-west from about the latitude of Jeddah to Aden. Few scattered breeding records through eastern Yemen to Salalah. Rare migrant on Socotra.
Separate migratory population that is scarce in the east and plentiful on the west.

2B. Current Distribution (illustrate on map):
see map (No quantitative studies are available for migrant / resident birds.)
Breeding population no significant change.
Migratory population area of distribution is unchanged.

2C. Habitat of the Taxon (ecosystem level):
Near foothills, wadi with large tall trees, woodland, around rubbish dumps.
Need high structures to nest (trees, power lines, towers)

2D. Habitat specificity (elevation, etc):
Sea level o the tops of highest mountain (3700m), but probably only breeds regularly to about 2000m.

2E. Migration: ☒ Yes ☐ No ☐ Unknown

If Yes, describe:
Migrant throughout Arabia.
Large winter population in the southwest.

3. Number of Populations and Subpopulations in which the taxon is distributed: two

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
resident population		~ 50 000 (~1500 breeding pairs)
wintering population		~ 100 000

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? data not available

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
not enough data available to accurately predict

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☐ No ☒ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured?

5D. If stable or unknown, do you predict a future decline in the habitat:

☐ Yes ☒ No ☐ Unknown

If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur?

5E. State primary cause of change:
* there is an increase in rubbish dumps around towns which is a favorite feeding ground for this species.

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☐ No ☒ Unknown

Is the habitat quality: ☐ Declining ☐ Improving ☐ Unchanged ☒ Unknown

5G. State the primary cause of change:
not enough data

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☒	☒	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☒	☒
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):
* Unsure about the effect from the increased usage of insecticides and pesticides (directly or indirectly).
* Increased House crow population, they attack the kites when nesting, eat their eggs and chicks.
* Few seen for sale in markets (misidentified as falcons)

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☒ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☐ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National: _____

10B. Workshop Assesment of Regional Red List category: least concern

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):
none

10I. Recommended protected areas for this species (please specify):
none

10J. Existing regional conservation/protection.action plan(s):
none

10K. Conservation/protection/action plan(s) enforced/implemented:
none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☐ Work in local communities ☐ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: Females: Unsexed: Total:

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

☐ Intensify existing program ☐ Decrease existing program

☐ Initiate program within 3 years ☐ Maintain program as it is

☒ Undertake no captive program

13F. Are techniques establised for captive breeding?

☐ Techniques known for this or similar taxon ☒ Some techniques known for this or similar taxon

☐ Information not available with this group of compilers ☐ Techniques not known

14. Sources/References (complete citation):

SWANN, H. K. 1922. (Description of Milvus migrans arabicus from Lahej.) A Synopsis of the Accipitres (Diurnal Birds of Prey), edition 2: 153.

15. Compilers:

Black Kite
Milvus migrans

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 20 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Melierax metabates (Heuglin, 1861)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Dark-chanting goshawk
Arabic - Al Basheq al Qatem

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Resident in southwest Arabia. Found sparingly from a little north of Taif, becoming numerous on the Tihama in the extreme southwest of Saudi Arabia, south through Yemen to Aden.

2B. Current Distribution (illustrate on map):
see map

No change. Extralimital occurrences are unexplained, but may be escaped cage birds.

2C. Habitat of the Taxon (ecosystem level):
Thornbush, Acacia woodland, foothills and wooded wadis.

2D. Habitat specificity (elevation, etc):
Occurs from sea level to 1900m in west of highland. Also on the dry savannah east of the highlands at about 1500m.

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:
Possibly some post-breeding dispersal, but no seasonal and regional movement identified.

3. Number of Populations and Subpopulations in which the taxon is distributed: one

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
southwest Saudi Arabia and Yemen		~ 1000 breeding pairs (~ 3000 individuals)

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☒ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
* Habitat loss as a result of tree cutting and development.
* Trade (insignificant)
* Persecution (insignificant)

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If stable or unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No ☒ Unknown

If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving ☐ Unchanged ☐ Unknown

5G. State the primary cause of change:
* Decline in trees and therefore nest sites and perch sites.
* Development eg: road building, clearance of acacia woodland for agriculture.

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☒	☒
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☒	☒	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☒	☒	Nutritional disorders	☐	☐

Other comments/threats (please specify):
* Decline of prey items due to increase in pesticide and insecticide usage.
* Few seen in markets (misidentified as falcons). Also imported for the pet trade which could lead to a problem of hybridization with resident birds.

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:
see above

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☒ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☒ Live Animal	

Comments/Other threats (please specify):
There is a low level of trade mainly of birds caught locally offered as pets, often in the mistaken belief that they are valuable falcons. There are also birds imported to Arabia from Africa which may have been the birds seen in the extralimital locations.

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
none known of			
(to be reviewed)			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National:

10B. Workshop Assesment of Regional Red List category: near threatened

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):
none

10I. Recommended protected areas for this species (please specify):
Establishment of protected IBA.

10J. Existing regional conservation/protection.action plan(s):
none

10K. Conservation/protection/action plan(s) enforced/implemented:
none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

☒ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☐ Work in local communities ☐ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: Females: Unsexed: Total:

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☒ Undertake no captive program

13F. Are techniques establised for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

FRIEDMANN, H. 1928. Notes on Melierax with description of a new form from Arabia. (M. metabates ignescens). Proc. Biol. Soc. Washington 41: 93-96.

15. Compilers:

Dark Chanting Goshawk
Melierax metabates

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 20 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Micronisus gabar (Daudin, 1800)*

1B. Synonyms (with authority & date): Melierax gabar

1C. Common Name(s) with language/region:
English - Gabar goshawk
Arabic - Basheq Kaber

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Resident on the Tihama and in the foothills from southwest Saudi Arabia (19'N is the northern most record), to Yemen. There are a few records in southern Yemen and north and east of Aden. Not recorded on Socotra or else where.

2B. Current Distribution (illustrate on map):
see map
Not enough data, but no suggestion of change. The extralimital records in the northern Hedjaz will be reviewed)

2C. Habitat of the Taxon (ecosystem level):
Found in areas of thornbushes, acacia woodland, foothills, scrub area and agricultural plantations (tumaric / mango / orange)

2D. Habitat specificity (elevation, etc):
From sea level to 2000m but probably only breeds up to 500m.

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:
Resident, no regional or seasonal movement identified.

More data needed.

3. Number of Populations and Subpopulations in which the taxon is distributed: one

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
South west Arabia - resident		~ 200 breeding pairs (~ 600 individuals)

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
* Need more data

* Use of insecticides / pesticides for aerial crop spraying and control of mosquitoes (Rift Valley Fever) in Saudi Arabia can possibly cause a decline of prey items or secondary poisoning.

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area ☐ Stable ☒ Unknown

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If stable or unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No ☒ Unknown

If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:
* Original habitat is being replaced by cultivated areas (eg: fruit trees) and the effect on this species is unknown.
* Recreational activities and infrastructure reduces natural habitat.

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving ☐ Unchanged ☒ Unknown

5G. State the primary cause of change:
see above

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☒	☒
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☒	☒	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):
* Saudi Arabia - increase in tourism in areas with hot / mineral springs which brings with it development and disturbances.
* Increase in irrigated areas can be beneficial in increasing the number and variety of prey eg; sparrows.

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:
* Development of natural habitat

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☐ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
none known of			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National:

10B. Workshop Assesment of Regional Red List category: vulnerable (D1)

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):
none

10I. Recommended protected areas for this species (please specify):
establish protection of IBA areas

10J. Existing regional conservation/protection.action plan(s):
none

10K. Conservation/protection/action plan(s) enforced/implemented:
none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☐ Work in local communities ☐ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: Females: Unsexed: Total:

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

☐ Intensify existing program ☐ Decrease existing program

☐ Initiate program within 3 years ☐ Maintain program as it is

☒ Undertake no captive program

13F. Are techniques establised for captive breeding?

☐ Techniques known for this or similar taxon ☒ Some techniques known for this or similar taxon

☐ Information not available with this group of compilers ☐ Techniques not known

14. Sources/References (complete citation):

CLANCEY, P. A. 1987. Subspeciation in the Afrotropical Gabar Goshawk Micronisus gabar. Bull. Brit. Orn. Club. 107: 173-177.

MEINERTZHAGEN, R. 1949. A new race of Melierax gabar (Daudin). Bull. Brit. Orn. Club 69: 82-83.

15. Compilers:

Gabar Goshawk
Micronisus gabar

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 20 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Accipiter badius (Gmelin, 1788)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Shikra
Arabic - Al Basheq al Kestenai

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Is a scarce resident of the southwest, occurring in the foothills and highlands of the western escarpment of Yemen and adjacent parts of the southwest Saudi Arabia.

2B. Current Distribution (illustrate on map):
see map
* Since 1996 Indian race birds have been breeding near Dubai a 2 sites and possibly also near Ras Al Khaimah in the UAE. There are often records for Kuwait and near Riyadh of probable Indian race.

2C. Habitat of the Taxon (ecosystem level):
Densely vegetated woodland or forest, ravines, foothills often near water. In UAE parkland.

2D. Habitat specificity (elevation, etc):
Sea level up to at least 2000m.

2E. Migration: ☒ Yes ☒ No ☐ Unknown

If Yes, describe:
Southwestern population - possibly resident
Eastern population - possibly resident

3. Number of Populations and Subpopulations in which the taxon is distributed: two

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Southwestern population - resident		400-500 breeding birds (~1 500 individuals)
Eastern Arabia population		5 pairs (~ 15 individuals)

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
* In the foothills they are secluded.
* Adapting to agricultural development, using it positively (eg: coffee plantations)
* Breeding in urbanized areas near Dubai.

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☐ No ☒ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If stable or unknown, do you predict a future decline in the habitat:

☒ Yes ☐ No ☐ Unknown

If Yes, what do you predict decline will be?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? 10 years

5E. State primary cause of change:
* Loss of habitat through development (road building), especially tracks in wadi basins.
* Habitat is now being created by agriculture such as fruit trees.

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving ☐ Unchanged ☐ Unknown

5G. State the primary cause of change:
Disturbance due to recreation and new roads and therefore traffic.

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☒	☒	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:
not enough data

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☒ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☒ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
none known of			
(to be reviewed)			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National:

10B. Workshop Assesment of Regional Red List category: vulnerable (D2)

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Jebel Bura and Rasda

10I. Recommended protected areas for this species (please specify):

establish IBA areas

10J. Existing regional conservation/protection.action plan(s):

none

10K. Conservation/protection/action plan(s) enforced/implemented:

none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☐ Work in local communities ☒ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:

Sharjah, Breeding Centre for endangered Arabian Wildlife.

13C.Number in captvity: Males: Females: Unsexed: Total:

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

☐ Intensify existing program ☐ Decrease existing program

☐ Initiate program within 3 years ☐ Maintain program as it is

☒ Undertake no captive program

13F. Are techniques establised for captive breeding?

☐ Techniques known for this or similar taxon ☒ Some techniques known for this or similar taxon

☐ Information not available with this group of compilers ☐ Techniques not known

14. Sources/References (complete citation):

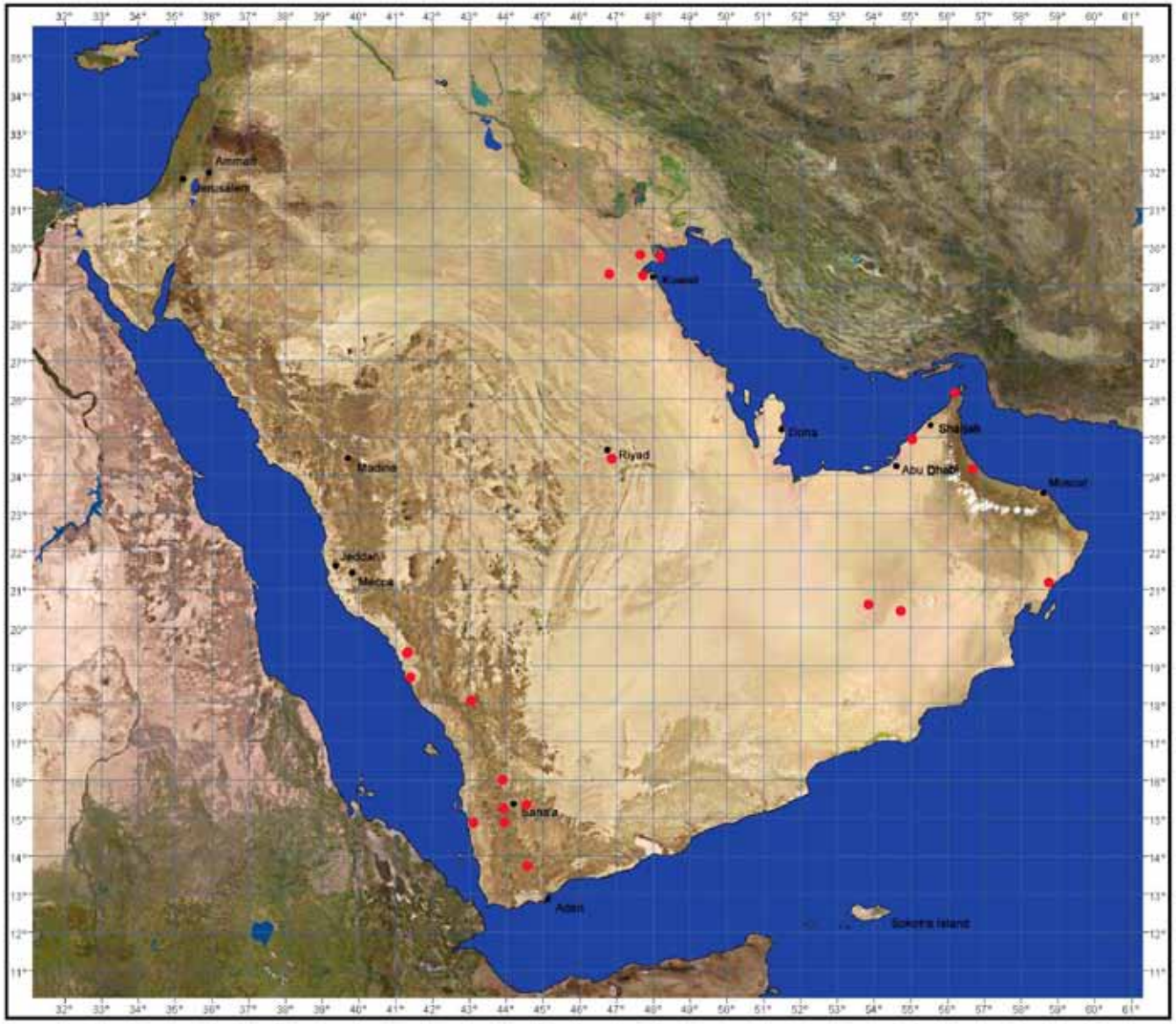
ASPINALL, S. J. 1997. Shikra breeding in the United Arab Emirates. Phoenix 14:10-11.

CLARK, W. S. & R. PARSLOW. 1991. A specimen record of Shikra Accipiter badius for Saudi Arabia. Sandgrouse 13: 44-46.

DISKIN, D. A. 2004. Breeding records of Shikra in the UAE. Phoenix 20:10-11.

DJERF, J. & E. DJERF. 2003. The first record of Shikra Accipiter badius in the United Arab Emirates. Emirates Bird Report 20:316-317.

15. Compilers:



Shikra
Accipiter badius

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 20 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Buteo rufinus (Cretzshmar, 1927)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Long-legged buzzard
Arabic - Baz Taweel As Saq

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Is a widespread but scarce in numbers. It occurs throughout eastern, north, central and southwestern parts of Saudi Arabia. Few pairs breed in the UAE, and central and eastern Oman. Scarce in Yemen and not known from Socotra.

2B. Current Distribution (illustrate on map):
see map

No change in recent years, but there are some anecdotal reports of a decline in numbers.

2C. Habitat of the Taxon (ecosystem level):
Dry rocky outcrops, foothills, mountainous escarpment, desert arid plains and edge of the Empty Quarter.
(Very variable habitat occupied)
(prey mainly on Uromastyx, also hares + birds are also opportunistic feeders eg: carrion)b

2D. Habitat specificity (elevation, etc):
up to 3000m. The majority of the population is on the Arabian plain about 5 - 800m.

2E. Migration: ☒ Yes ☐ No ☐ Unknown

If Yes, describe:
* Resident breeding population
* Migrant and winter population, some birds seen leaving Arabia across the Bab al Mandab. (The number of migrants has not been well studied and quantified.)

3. Number of Populations and Subpopulations in which the taxon is distributed: one

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Resident population		~ 800 breeding pairs (< 3000 individuals)
Migratory population		unknown 100's rather than 1000's.

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☒ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
* Widespread irrigation has caused open desert plains to the replaced by agricultural fields, resulting in habitat loss. However the utilisation of the farmland y the species has not been studied, may be beneficial.
* Reduction of natural prey eg: Dhabs and hares.
* Not enough data, but rough estimate of a 5% decline over 10 years.

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If stable or unknown, do you predict a future decline in the habitat:

☒ Yes ☐ No ☐ Unknown

If Yes, what do you predict decline will be?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? 10 years

5E. State primary cause of change:
* Development
* Agriculture / change in land practise
* Stone quarrying (Saudi Arabia)

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving ☐ Unchanged ☐ Unknown

5G. State the primary cause of change:
* Reduction of natural prey
* Change of land usage

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☒	☒
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☒	☒	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☐ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
none known of			
(to be reviewed)			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National:

10B. Workshop Assesment of Regional Red List category: near threatened

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Harrat al Harrah, Jebel Tubaik, Howtar, Raidar, Bani Maarid (Saudi Arabia)
Jiddat al Harasis (Oman)

10I. Recommended protected areas for this species (please specify):

establish IBA areas

10J. Existing regional conservation/protection.action plan(s):

none

10K. Conservation/protection/action plan(s) enforced/implemented:

none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☐ Work in local communities ☒ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: Females: Unsexed: Total:

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☒ Undertake no captive program

13F. Are techniques establised for captive breeding?

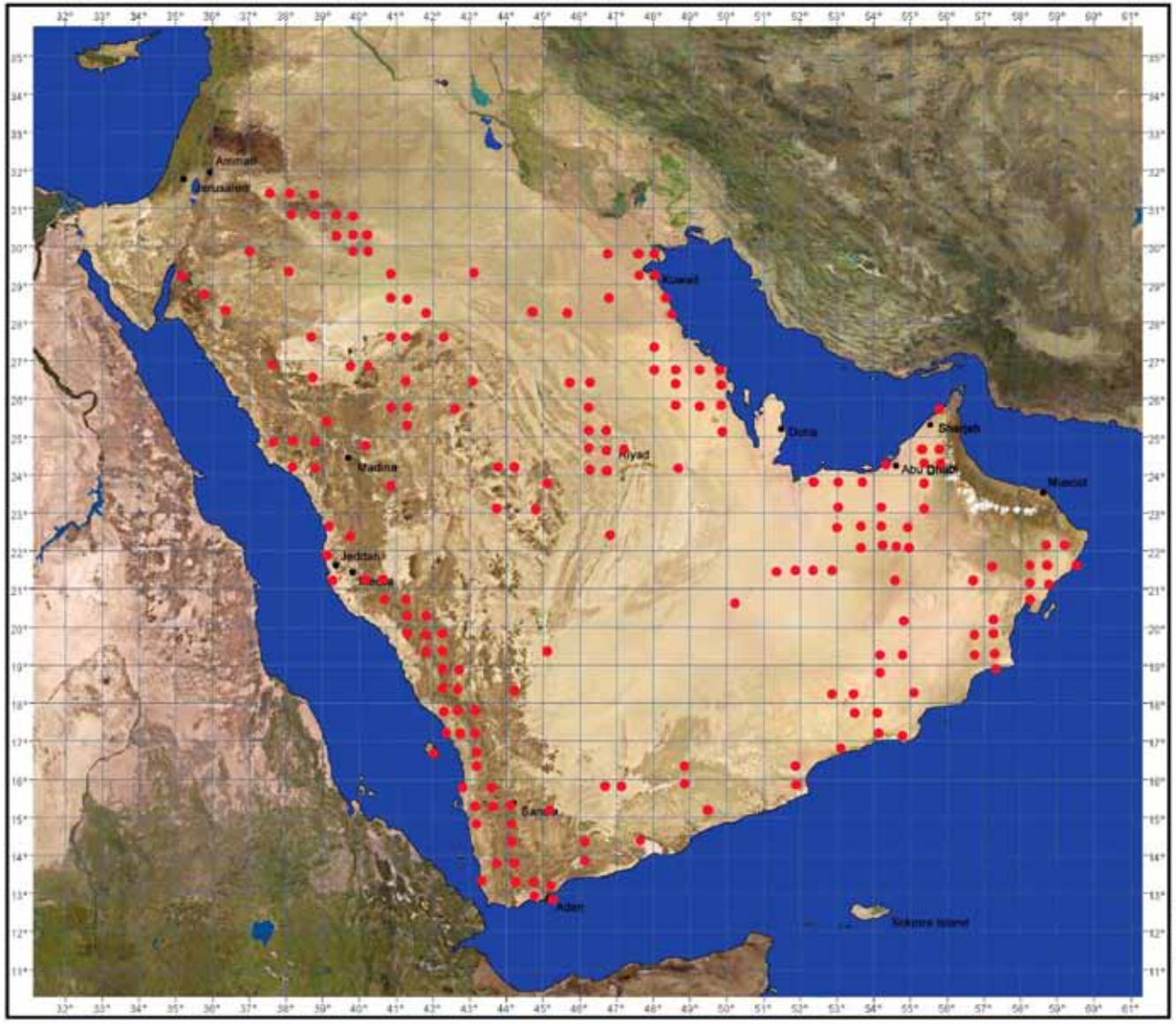
- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

FEULNER, G. R. 1992. Long-legged Buzzard nest. Tribulus (2) 1: 21.

HARRIES, P. 1998. A bright dresser - the Long-legged buzzard. Oman Bird News 4:5.

15. Compilers:



Long-legged Buzzard
Buteo rufinus

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 21 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Falco tinunculus (Linnaeus, 1758)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Common kestrel
Arabic - Al Awassaq

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread, numerous species in Arabia, (not found in the Empty Quarter). Common in mountains of western Arabia, larger islands eg:Farasons, Socotra and Masirah. Found in Oman mountains, Dhofar and mountains of Yemen.

2B. Current Distribution (illustrate on map):
see map

*Seems to have increased in numbers with increased urbanization and agriculture.

2C. Habitat of the Taxon (ecosystem level):
Near cliffs and rocky outcrops, areas with vegetation and rocks, in and around towns, villages and agricultural areas (farms).
Not found in completely arid areas or in the sand seas.

2D. Habitat specificity (elevation, etc):
Breed from sea level to 3700m in Yemen.

2E. Migration: ☒ Yes ☐ No ☐ Unknown

If Yes, describe:
Across Arabia migration and to Arabia in winter.

3. Number of Populations and Subpopulations in which the taxon is distributed: three

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Western resident population (sub species)		~ 6 000 breeding pairs
Eastern resident population (sub species)		(~ 4 000 individuals)
Migratory population		~30 000 individuals
* Not quantified but migrant population usually outnumbers the resident population (up to 10:1).		

4. Population Trends

4A. Is the population: ☐ Decreasing ☒ Increasing ☐ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
* Species is robust and able to adapt well to change.
* Increased in numbers in farmlands as a breeding bird & migrant due to increased prey (rats and mice).
* Utilizing man made structures as look out posts and nests (radio towers, buildings, light posts along roads).

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☒ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If stable or unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No ☐ Unknown

If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:
* Increased agricultural activities and urban green areas in and around towns and cities.
* Increased prey numbers due to increase in number of small farmsteads.

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☐ Declining ☒ Improving ☐ Unchanged ☐ Unknown

5G. State the primary cause of change:
see above

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☒	☒	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☒	☒	Nutritional disorders	☐	☐

Other comments/threats (please specify):
* Persecution and market trade. Used by falconers as bait to catch larger falcons.
* In Saudi Arabia people collecting kestrel eggs thinking they are from Barbary falcons.

* At present the above is at an insignificant level to cause population change.

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☒ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☒ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☒ Live Animal	

Comments/Other threats (please specify):
* Species used by falconers for trapping of larger falcon species.

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
none known of			
(to be reviewed later)			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National:

10B. Workshop Assesment of Regional Red List category: least concern

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):
Species that will benefit from environmental plans and IBA.

10I. Recommended protected areas for this species (please specify):
n/a

10J. Existing regional conservation/protection.action plan(s):
none needed

10K. Conservation/protection/action plan(s) enforced/implemented:
n/a

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☒ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):
* Need data on how the species is utilizing farms and urban areas.
* Data on local trading.

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☐ Work in local communities ☐ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☒ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
mainly in private collections

13C.Number in captvity: Males: Females: Unsexed: Total:

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☐ Initiate program within 3 years
- ☐ Maintain program as it is
- ☒ Undertake no captive program

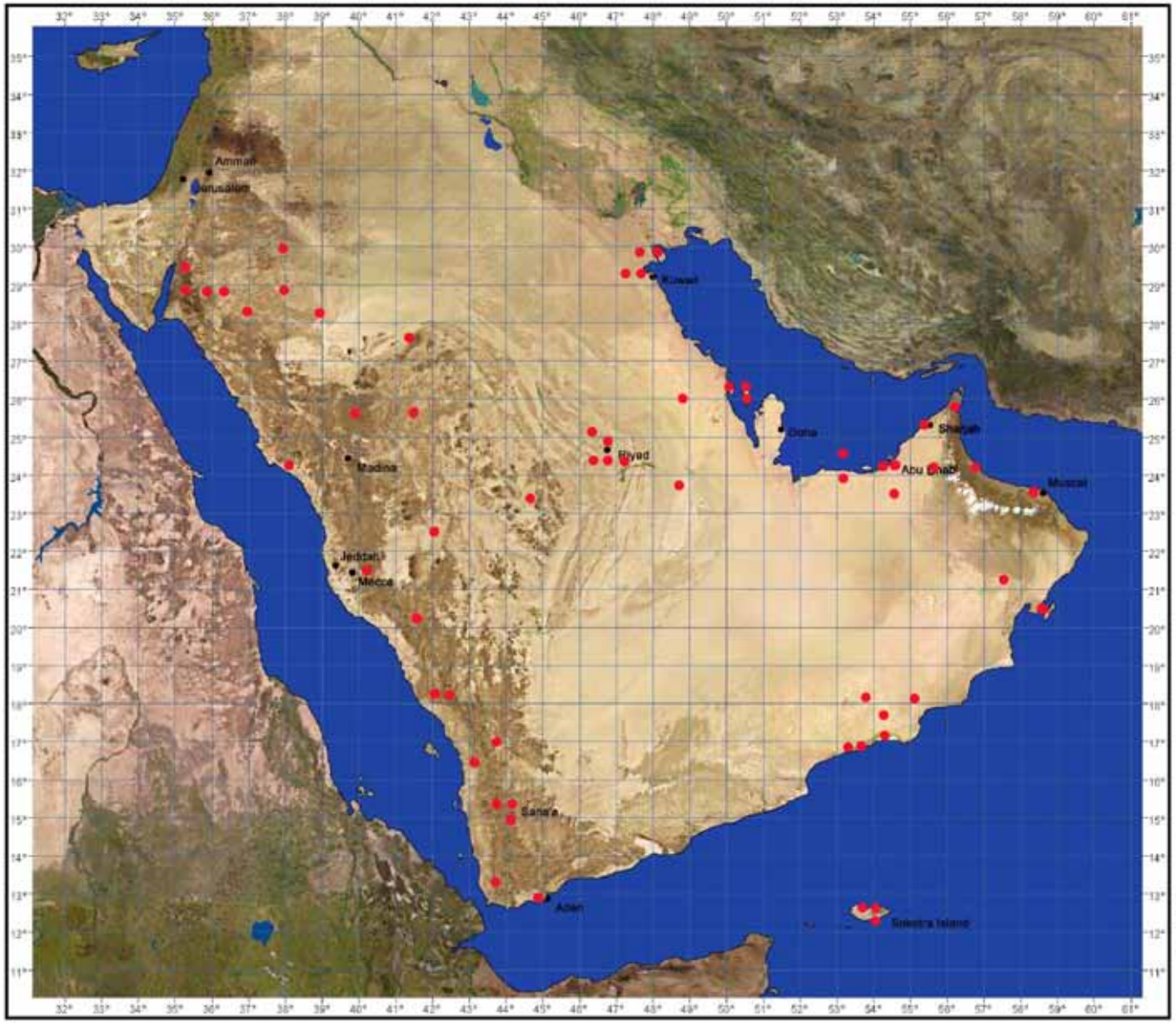
13F. Are techniques establised for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

No papers solely related to this species in Arabia.

15. Compilers:



Common Kestrel
Falco tinnunculus

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 21 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Falco concolor (Temminck, 1825)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Sooty falcon
Arabic - As Saqer Al Asham / Fahim

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Breeding occurs in the Arabian Gulf at Hawar Islands, Bahrain, Abu Dhabi Islands in the UAE, Islands of the Musandam and Daimaniyat group in the Gulf of Oman. Throughout the Red Sea from Tiran to the Bab Al Mandab, Wedj Bank and al Lith. Occasionally nests in the mainland cliffsin northern Oman.

2B. Current Distribution (illustrate on map):
see map

Unaware of any change, need more data.

2C. Habitat of the Taxon (ecosystem level):
Majority in Arabia on islands with rocky outcrops and cliffs. Also breeds on the ground in mangroves. Inland cliffs only in the north west.

2D. Habitat specificity (elevation, etc):
sea level up to ~800m

2E. Migration: ☒ Yes ☐ No ☐ Unknown

If Yes, describe:
Breeding summer visitor.

3. Number of Populations and Subpopulations in which the taxon is distributed: one

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Breeding summer visitor		~500 breeding pairs (~ 1000 individuals)

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☒ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☒ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
* Habitat loss (potential and actual) due to removal of mangroves for shrimp farming.
* Persecution, trade, disturbance due to tourism.

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☒ Decreasing in area ☐ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? 10 years

5D. If stable or unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No ☐ Unknown

If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:
* loss of habitat
* recreational development and distubance

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving ☐ Unchanged ☐ Unknown

5G. State the primary cause of change:
disturbance

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☒	☒
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☒	☒	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☐	☐	Introduced species (non-livestock)	☒	☒
Trade of animals/parts	☒	☒	Nutritional disorders	☐	☐

Other comments/threats (please specify):
* Introduction of predator eg: cat to breeding islands.
* Shrimp farming causing habitat loss.
* Grazing of mangroves by domestic animals (camels).
* trade

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☒ Yes ☐ No ☐ Unknown

If yes, is it: ☒ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☒ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
reviewed later			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National:

10B. Workshop Assesment of Regional Red List category: endangered (C2 a1)

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Bahrain - Hawar islands
Saudi - Farasan islands
Jordan - Wadi Rhum

10I. Recommended protected areas for this species (please specify):

Wedj bank is a proposed area
Tiran is a proposed area

10J. Existing regional conservation/protection.action plan(s):

none

10K. Conservation/protection/action plan(s) enforced/implemented:

none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☒ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☒ Work in local communities ☒ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☒ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☒ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Private ownership.

13C.Number in captvity: Males: Females: Unsexed: Total:

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☒ Yes ☐ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

- ☐ Intensify existing program
- ☐ Decrease existing program
- ☒ Initiate program within 3 years
- ☐ Maintain program as it is
- ☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

- ☐ Techniques known for this or similar taxon
- ☒ Some techniques known for this or similar taxon
- ☐ Information not available with this group of compilers
- ☐ Techniques not known

14. Sources/References (complete citation):

ASPINALL, S. J. 1994. Sooty falcon in the United Arab Emirates. Tribulus 4(2): 14-18 & 20.

ASPINALL, S. J. 1996. Sooty Falcon on Abu Dhabi Islands. Phoenix 13:12-13.

CONGREVE, W. M. 1961. (Falco concolor in the Red Sea.) Ibis 103a: 472.

FRUMKIN, R. & W. S. CLARK. 1988. Is there a dark morph of the Sooty Falcon Falco concolor? Ibis 130 (4): 569-571.

GALLAGHER, M. D. 1980. The Sooty Falcon in Oman. Observations following a recent survey. The Hawk Trust Annual Report. Pp. 34-38.

GAUCHER, P., W. D. DANUICHT & X. EICHACHER. 1994. The sooty falcon Falco concolor in Saudi Arabia. IN: Meyburg B-U. & R. D. Chancellor (Eds) "Raptor Conservation Today; World working group on Birds of Prey". Pp.109-116.

GAUCHER, P., T. PETIT & P. SYMENS. 1987. Notes on the study of the Sooty falcon (Falco concolor) during its breeding season in Saudi Arabia. (Unpublished report)

GAUCHER, P. & J. M. THIOLLAY. 1992. Sooty Falcon Survey. NCWCD Report.

GAUCHER, P., J. M. THIOLLAY & X. EICHAKER. 1995. The sooty falcon Falco concolor on the Red Sea coast of Saudi Arabia: distribution, numbers and conservation. Ibis 137: 29-34.

15. Compilers:

Sooty Falcon
Falco concolor

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 21 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Tyto alba (Scopoli, 1769)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Barn owl
Arabic - Bumat al Macazen

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread but an uncommon breeding resident occurring in every state. Thinly spread throughout Arabia especially near human habitation.

2B. Current Distribution (illustrate on map):
see map
* Nothing to indicate a change in range. Could be increasing in areas with increased agriculture, but not enough data.

2C. Habitat of the Taxon (ecosystem level):
* Desert outcrops and escarpment (Kuwait).
* Also around urban and sub-urban habitations eg: villages, towns, farms, gardens and parks.

2D. Habitat specificity (elevation, etc):
sea level up to 3000m

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:
Probably a small amount of dispersal but no true migration.

3. Number of Populations and Subpopulations in which the taxon is distributed: one

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Scattered resident population		~ 1 000 breeding pairs (~ 3 000 individuals)

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☒ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
* Over grazing by livestock which decreases the natural habitat of prey species leading to a prey decline.
* Present and future droughts have a negative effect on prey availability.
* Some farmsteads are being abandoned due to decline in water availability (Saudi).

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☒ Decreasing in area ☐ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? 10 years

5D. If stable or unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No ☐ Unknown

If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:
* Over grazing and drought causing a decline in prey species numbers.

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving ☐ Unchanged ☐ Unknown

5G. State the primary cause of change:
* Over grazing in some areas decreasing the habitat quality.
* The species is however able to adapt well to live and breed in urban environments.

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☒	☒	Decline in prey species	☒	☒
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☒	☒	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):
* Folk law - owls are evil and bring bad omens.
* Electrocution by power lines which sometimes also cross protected areas.

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☐ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
none known of			
(to be reviewed later)			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National:

10B. Workshop Assesment of Regional Red List category: vulnerable (C1)

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

benefit from all existing protected areas

10I. Recommended protected areas for this species (please specify):

none

10J. Existing regional conservation/protection.action plan(s):

none

10K. Conservation/protection/action plan(s) enforced/implemented:

none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☒ Work in local communities ☐ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Bahrain and UAE

13C.Number in captvity: Males: 2 Females: 2 Unsexed: Total: 4+

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

☐ Intensify existing program ☐ Decrease existing program

☐ Initiate program within 3 years ☐ Maintain program as it is

☒ Undertake no captive program

13F. Are techniques establised for captive breeding?

☐ Techniques known for this or similar taxon ☒ Some techniques known for this or similar taxon

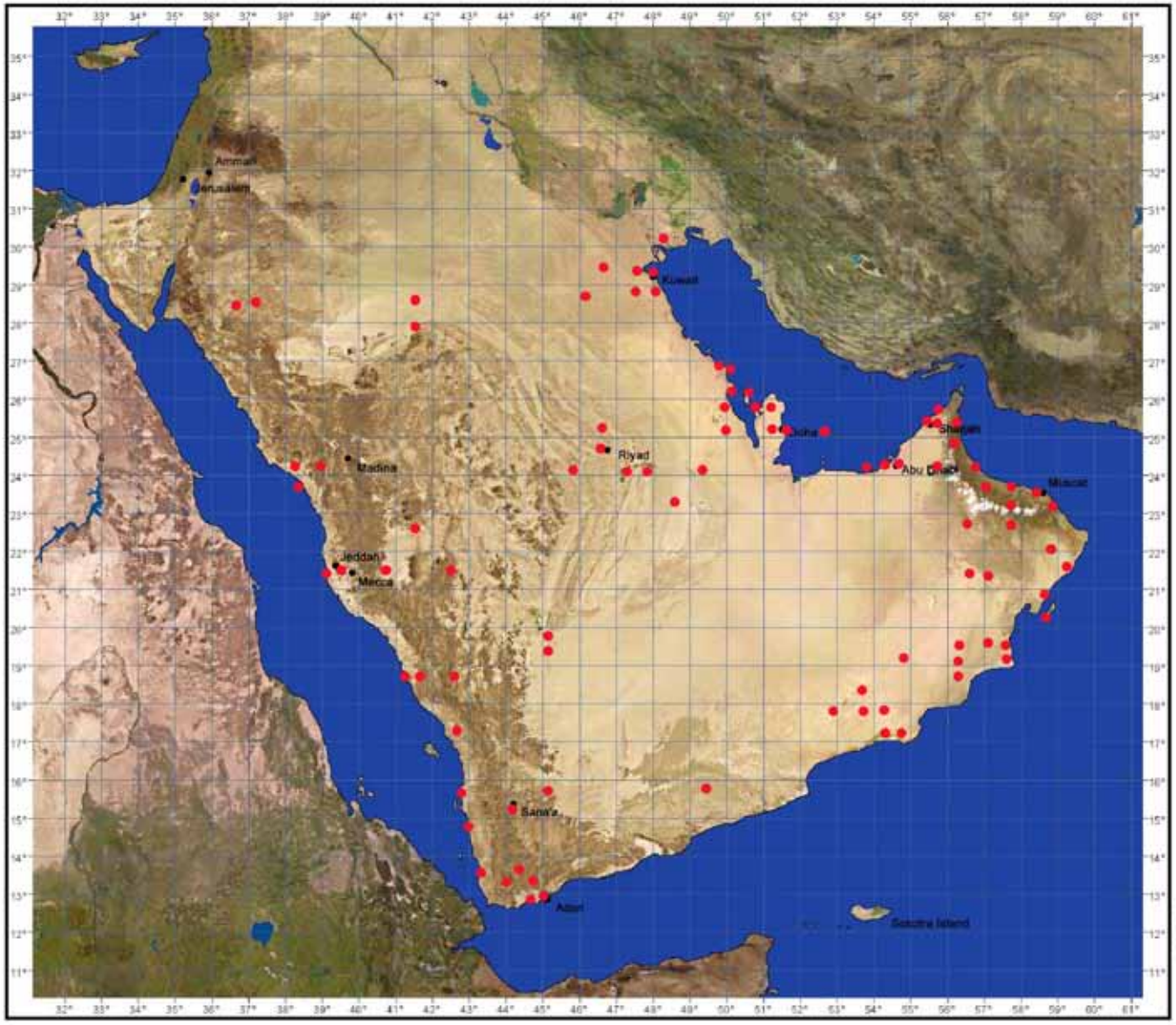
☐ Information not available with this group of compilers ☐ Techniques not known

14. Sources/References (complete citation):

CUNNINGHAM, P. L.. & S. ASPINALL. 2001. The diet of the Little owl Athene noctua in the UAE with notes on Barn owl Tytoalba & Desert eagle owl Bubu (b.) ascalaphus. Tribulus 11(2):13-17.

SCLATER, W. L. 1921. (Description of Tyto alba erlangeri subsp. nov.) Bull. Brit. Orn. Club 42: 24.

15. Compilers:



Barn Owl
Tyto alba

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 21 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Bubo desertorum (Savigny, 1809)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Desert eagle Owl
Arabic - Al Bumah al eqabiyah as Sahraweyah

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
Widespread resident in northern half of Arabia especially Saudi Arabia and eastern Arabia (UAE and northern Oman), scarce in Kuwait. small record from rocky hills in eastern Yemen. No records from western Yemen and Socotra. Scarce but possibly a number nesting in western Oman. Not confirmed from Qatar.

2B. Current Distribution (illustrate on map):
see map

* not aware of any change, but not enough data to be sure.

2C. Habitat of the Taxon (ecosystem level):
* Stable vegetated sand dunes, rocky outcrops, areas with trees such as Ghaf.
* Sometimes around urban and agricultural areas.
* Restricted east arid regions.

2D. Habitat specificity (elevation, etc):
Sea level up to 1000m. This species is absent from the western highlands.

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:
* Possibly some post breeding dispersal, but not enough data available.

3. Number of Populations and Subpopulations in which the taxon is distributed: one

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Resident population		~ 1500 breeding pairs (~ 4500 individuals)

4. Population Trends

4A. Is the population: ☒ Decreasing ☐ Increasing ☐ Stable ☐ Unknown

4B. If declining, what has been the rate of decline?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? 10 years

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☐ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
* Increase in development and urbanization of natural habitat.

5. Habitat Status

5A. Is the habitat distribution: ☒ Continuous ☐ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

If Yes, is it: ☒ Decreasing in area ☐ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☒ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? 10 years

5D. If stable or unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No ☐ Unknown

If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur?

5E. State primary cause of change:
* Development of natural habitat.
* Possibly a decrease of prey species due to over grazing.

5F. Is there any change in the quality of habitat where the taxon occurs?

☒ Yes ☐ No ☐ Unknown

Is the habitat quality: ☒ Declining ☐ Improving ☐ Unchanged ☐ Unknown

5G. State the primary cause of change:
* Tourism and recreation causing disturbances to breeding.
* Over grazing leading to a decrease in prey species.

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☒
Urban Development	☒	☒	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☒	☒
Damming	☐	☐	Loss of Habitat	☒	☒
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☒	☒	Grazing	☒	☒
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☒	☒	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):
* 1x Record in the UAE of a wild Desert Eagle Owl with New Castles Disease, possibly contracted from feral pigeons.
* Folk law - owls are evil and bring bad omen.

6B. Would these threats result in (perceived or inferred) population decline?

☒ Yes ☐ No ☐ Unknown

Comments:
possibly in the future

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin ☐ Fur ☐ Horn
☐ Glands ☐ Taxidermy ☐ Products
☐ Bones ☐ Hair ☐ Organs
☐ Meat ☐ Live Animal

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
none known of			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National: _____

10B. Workshop Assesment of Regional Red List category: near threatened

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation: _____

10E. National Red Data Book: _____

10F. International Red Data Book: _____

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):
Will benefit from all protected areas.

10I. Recommended protected areas for this species (please specify):
none

10J. Existing regional conservation/protection.action plan(s):
none

10K. Conservation/protection/action plan(s) enforced/implemented:
none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☒ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☒ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):
* Taxonomy - need to clarify which sub-species is found in Arabia (desertorum or ascalaphus). Mike Jennings to investigate.

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☒ Work in local communities ☐ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☒ Yes ☐ No

If yes, list the facilites:
Bahrain - three
UAE - thirty six
Kuwait - two

13C.Number in captvity: Males: Females: Unsexed: Total: 40 - 50

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

☐ Intensify existing program ☐ Decrease existing program

☐ Initiate program within 3 years ☒ Maintain program as it is

☐ Undertake no captive program

13F. Are techniques establised for captive breeding?

☐ Techniques known for this or similar taxon ☒ Some techniques known for this or similar taxon

☐ Information not available with this group of compilers ☐ Techniques not known

14. Sources/References (complete citation):

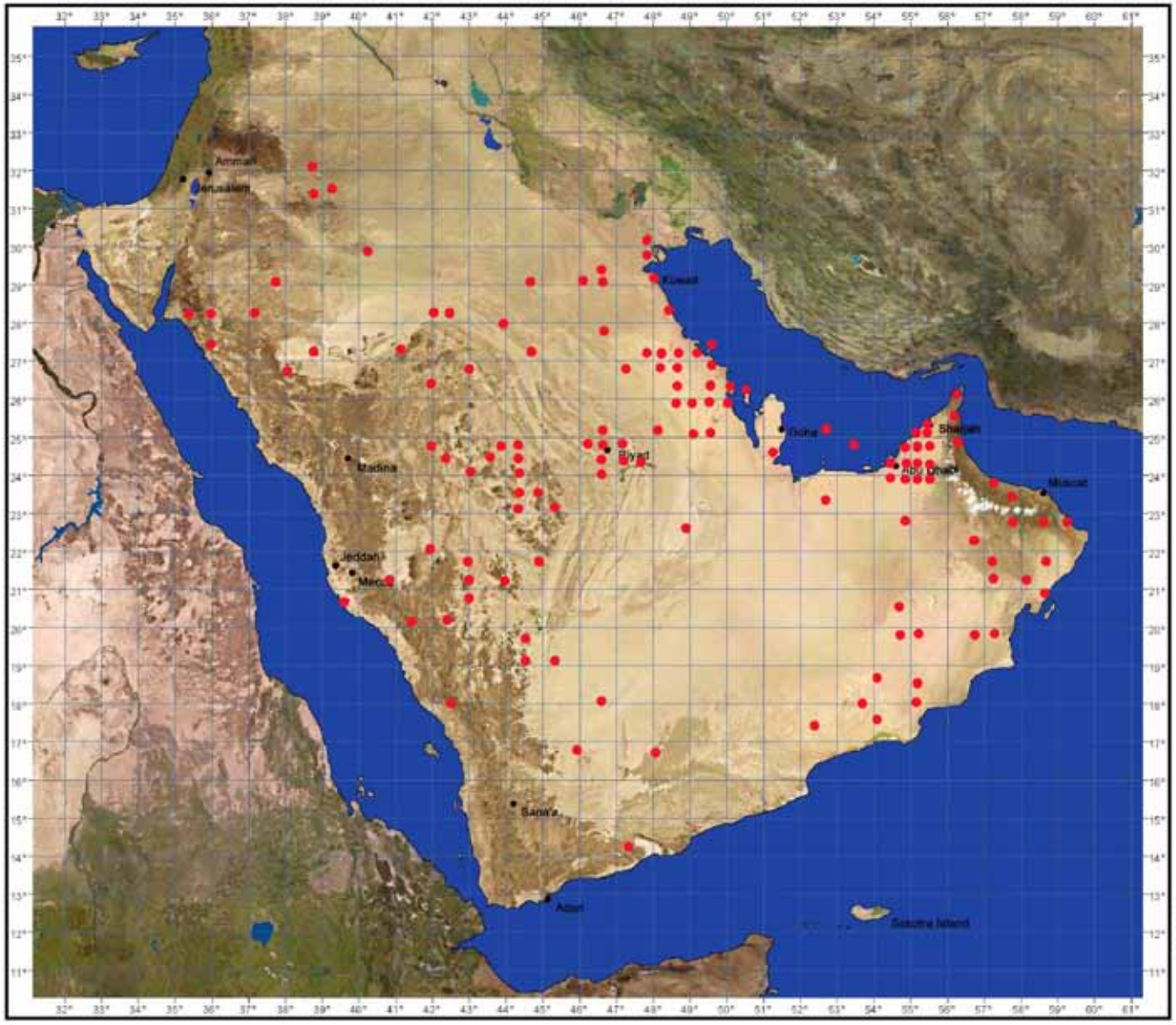
CUNNINGHAM, P. L.. & S. ASPINALL. 2001. The diet of the Little owl Athene noctua in the UAE with notes on Barn owl Tytoalba & Desert eagle owl Bubu (b.) ascalaphus. Tribulus 11(2):13-17.

EVANS, M. I. & P. BATES. 1993. Diet of the Eagle Owl in Harrat al Harrat reserve northern Saudi Arabia. Bull. Orn Soc. Middle East 30: 26.

KING, H. 1994. Summer sighting of an eagle owl (Bubu bubu) in Bahrain in August 1994. Newsl. Bahrain Nat. Hist. Soc. 9:4.

RICHARDSON, C. T. 1993. Eagle owl pellets analysed. Emirates Bird Report 17:8.

15. Compilers:



Desert Eagle Owl
B*ubo desertorum/ ascalaphus*

Conservation Workshop for the Fauna of Arabia

Taxon Data Sheet

Working Group: Raptor and Owl Date: 21 February 2006

---

1. Taxonomy

1A. Scientific Name (Genus, species & subspeices): *Strix butleri (Hume, 1878)*

1B. Synonyms (with authority & date):

1C. Common Name(s) with language/region:
English - Hume's Tawny owl
Arabic -

2. Distribution of Taxon

2A. Historical Distribution (last 100 years):
1970's Widespread very rare with only a handful of reports. Occurs from the Harrat al Harrah in the north, Hail & throughout northern part of Tuwaiq escarpment, probably whole of the western highlands from Jebal al Lawz southwards to Taiz, Yemen, eastern Yemen & several sites in Dhofar. Records from Socotra to be confirmed.

2B. Current Distribution (illustrate on map):
see map

* Probably no change in range only knowledge and identification.

2C. Habitat of the Taxon (ecosystem level):
Rocky / cliff areas, broken ground, escarpment.
Limestone with high cliffs and deep wadis.
Granite in the south west

2D. Habitat specificity (elevation, etc):
sea level to about 3000m

2E. Migration: ☐ Yes ☒ No ☐ Unknown

If Yes, describe:
Resident, possible some post breeding dispersal.

3. Number of Populations and Subpopulations in which the taxon is distributed: one

Location of each:	Approx. area occupied:	Approx. No. of Individuals:
Resident population		~ 1700 breeding pairs

4. Population Trends

4A. Is the population: ☐ Decreasing ☐ Increasing ☐ Stable ☒ Unknown

4B. If declining, what has been the rate of decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has the population decline occured? _____

4C. If stable or unknown, do you predict a future decline in the population size: ☐ Yes ☒ No

If yes, please specifiy rate and factors e.g. habitat loss, threats, trade, etc.:
Need more data to accurately predict future population trends.

5. Habitat Status

5A. Is the habitat distribution: ☐ Continuous ☒ Fragmented ☐ Unknown

5B. Is there any change in the range of the habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

If Yes, is it: ☐ Decreasing in area ☐ Increasing in area ☐ Stable ☐ Unknown

5C. If decreasing, what has been the decline?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years has this decline occured? _____

5D. If stable or unknown, do you predict a future decline in the habitat:

☐ Yes ☐ No ☒ Unknown

If Yes, what do you predict decline will be?

☐ < 20% ☐ > 20% ☐ > 50% ☐ > 80%

Over how many years do you predict the decline will occur? _____

5E. State primary cause of change:

5F. Is there any change in the quality of habitat where the taxon occurs?

☐ Yes ☒ No ☐ Unknown

Is the habitat quality: ☐ Declining ☐ Improving ☒ Unchanged ☐ Unknown

5G. State the primary cause of change:
* Rocky outcrops / hills / cliffs are not being readily developed at present.

6. Threats

6A. What are the threats facing the taxon:

	Present	Future		Present	Future
Pollution	☐	☐	Disease	☐	☐
Urban Development	☐	☐	Hybridization	☐	☐
Road Kills	☐	☐	Decline in prey species	☐	☐
Damming	☐	☐	Loss of Habitat	☐	☐
War	☐	☐	Genetic problems	☐	☐
Recreational activities	☐	☐	Grazing	☐	☐
Hunting (recreation or retail)	☐	☐	Habitat fragmentation	☐	☐
Harvest for medicine	☐	☐	Predation	☐	☐
Harvest for food/timber	☐	☐	Interspecific competition	☐	☐
Poisoning	☐	☐	Livestock competition (food etc)	☐	☐
Pesticides	☐	☐	Livestock conflicts (retaliation kills)	☐	☐
Persecution	☒	☒	Introduced species (non-livestock)	☐	☐
Trade of animals/parts	☐	☐	Nutritional disorders	☐	☐

Other comments/threats (please specify):
* Folk law - owls are evil and bring bad omens
* Prey species in mountainous areas seem to be presently stable as little development is taking place presently.

6B. Would these threats result in (perceived or inferred) population decline?

☐ Yes ☒ No ☐ Unknown

Comments:

7. Trade

7A. Is the taxon in trade: ☐ Yes ☒ No ☐ Unknown

If yes, is it: ☐ Local ☐ Regional ☐ International ☐ Commercial

7B. Parts in trade:

☐ Skin	☐ Fur	☐ Horn
☐ Glands	☐ Taxidermy	☐ Products
☐ Bones	☐ Hair	☐ Organs
☐ Meat	☐ Live Animal	

Comments/Other threats (please specify):

8. Data Quality

8A. Are the estimates you have supplied based on:

- [x] Census or monitoring
- [x] General field sudies
- [x] Informal field studies
- [x] Literature
- [x] Museum studies/records
- [ ] Hearsay/popular belief
- [ ] Indirect information from trade, etc

9. Studies (field) conducted over the past 10 years (indicate year of study not year of publication):

Researchers:	Location:	Year (of study):	Topics:
none known of			
(reviewed later)			

10. Conservation Status

10A. Global IUCN Red List Category: Global least concern Regional/National:

10B. Workshop Assesment of Regional Red List category: least concern

10C. CITES: CITIES Appendix II (controlled trade only)

10D. National Wildlife Legislation:

10E. National Red Data Book:

10F. International Red Data Book:

10G. Other legislation (please specify):

10H. Existing protected areas for this species (please specifiy):

Species will benefit from protected established areas.
Raidah, Harrat al Harrah, Howtah (Saudi Ibex Reserve)

10I. Recommended protected areas for this species (please specify):

none

10J. Existing regional conservation/protection.action plan(s):

none

10K. Conservation/protection/action plan(s) enforced/implemented:

none

11. Supporting Research

11A. Is research recommended? ☒ Yes ☐ No

If Yes, what type of research would you recommend?

☒ Surveys ☐ Genetics ☐ Taxonomic ☒ Life History

☐ Trade ☐ Reintroduction ☐ Human Impact ☒ Monitoring ☒ Public awareness

☐ Other (please specify):

12. Management

12A. What management is recommended for the taxon?

☐ Habitat management ☐ Wild population management

☒ Monitoring ☐ Translocation

☒ Public awareness ☐ Limiting factor management

☐ Work in local communities ☐ Address policy makers

☐ Captive breeding ☐ Sustainable Utilisation

☐ Law enforcement ☐ Genome Research Banking

☐ Other (please specify):

13. Captive Breeding

13A. If captive breeding is recommended, is it for:

☐ Species recovery ☐ Reintroduction ☐ Research

☐ Preserve live genome ☐ Husbandry ☐ Education

13B. Do captive stocks already exist? ☐ Yes ☒ No

If yes, list the facilites:

13C.Number in captvity: Males: Females: Unsexed: Total:

13D. Does a coordinated Species Management Plan exist? ☐ Yes ☒ No

If yes, list the participating institutions:

If Not, is a Species Management Plan recommended: ☐ Yes ☒ No

List the institutions that should particpate:

13E. Level of captive breeding recommended:

☐ Intensify existing program ☐ Decrease existing program

☐ Initiate program within 3 years ☐ Maintain program as it is

☒ Undertake no captive program

13F. Are techniques establised for captive breeding?

☐ Techniques known for this or similar taxon ☒ Some techniques known for this or similar taxon

☐ Information not available with this group of compilers ☐ Techniques not known

14. Sources/References (complete citation):

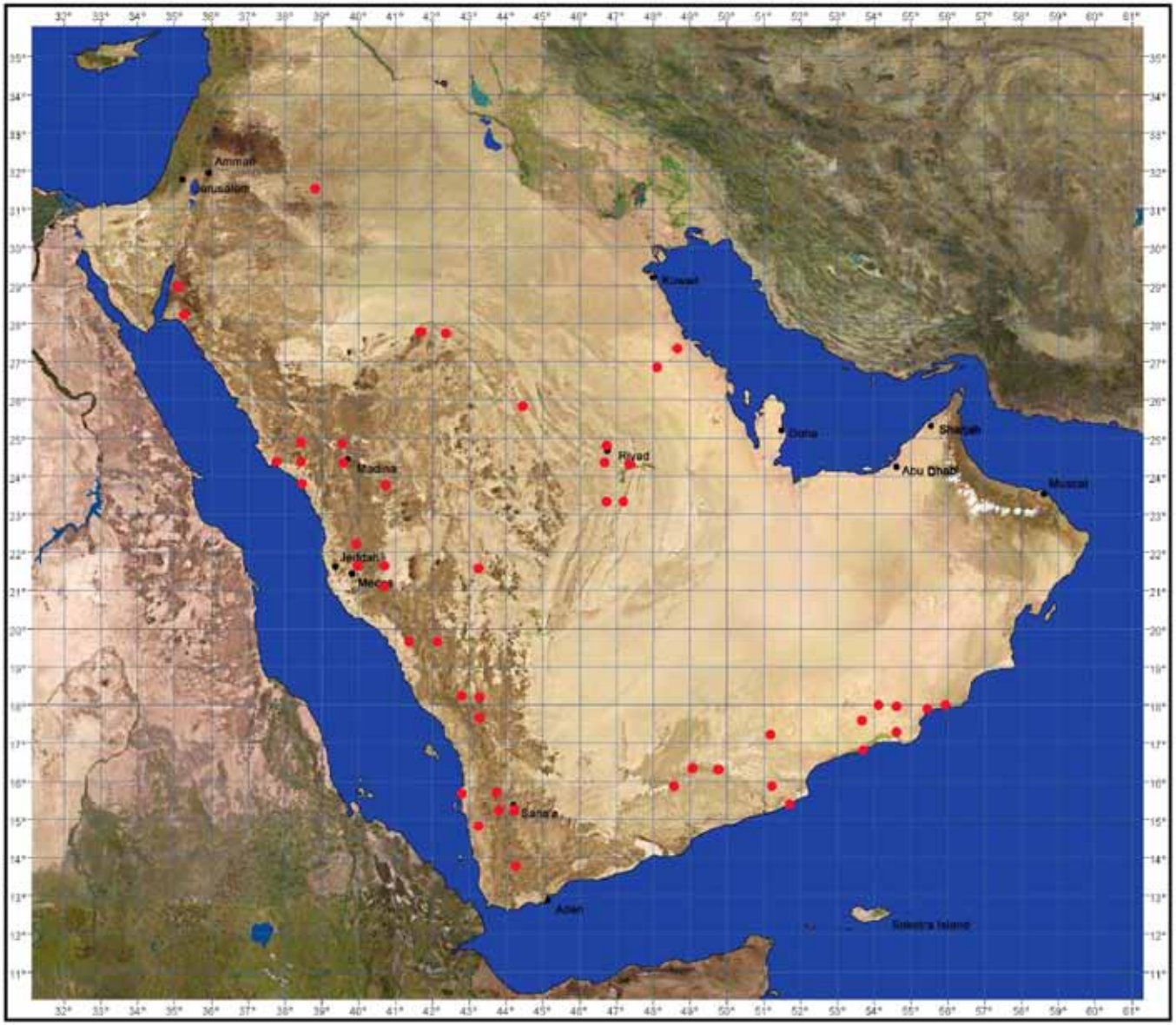
BROWN, M. 1995. Hume's Tawny owl in Oman. Oman Bird News 17:5.

ERIKSEN, J. 1995. More Hume's Tawny owls in Oman. Oman Bird News 17: 6-7.

JENNINGS, M. C. 1977. More about "Desert Liliths": Hume's Tawny Owl. Israel - Land and Nature 2: 168-169.

WRANES, R. E. 1998. Photospot: Hume's Tawny Owl. Sandgrouse 20(2):105-107.

15. Compilers:



Hume's Owl
Strix butleri

Appendix 3:

Recommended Further Study

1. Despite the huge increase in the last two decades in the area of land under agriculture and developed for commercial, industrial and domestic use there has been no study of how this changes in land use is impacting the habitats, populations and breeding of birds of prey and owls.
2. There is an urgent requirement to look in depth at the overall effect of the use of pesticides/ insecticides in the Arabian environment, to make research into other pollution aspects and to set up measures and procedures to monitor changes in these aspects in future.
3. Studies are appropriate to clarify the true impact of all aspects of hunting, persecution, trade and recreation on breeding species of raptors and owls in Arabia.
4. Detailed species studies are much needed for a number of taxa breeding in Arabia, where very little data is available in respect of their habitat utilisation, life history and breeding, and populations. Lack of knowledge is particularly noticeable for the Black-shouldered Kite, Black Kite, Dark Chanting Goshawk, Gabar Goshawk, Shikra, Long-legged Buzzard and all owl species.

Appendix 4:

Estimated Populations of Breeding Raptors and Owls in Arabia

Species	Total	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE	Yemen
Black-shouldered Kite Elanus caeruleus	15					5		10
Black Kite Milvus migrans	15005			5		5000		10000
Dark Chanting Goshawk Melierax metabates	1000					400		600
Gabar Goshawk Micronisus gabar	200					50		150
Shikra Accipiter badius	428					125	3	300
Long-legged Buzzard Buteo rufinus	805			100		600	5	100
Osprey Pandion haliaetus	830	25		45	10	420	80	250
Kestrel Falco tinnunculus	10152	2	30	600	20	6400	100	3000
Sooty Falcon Falco concolor	451	16		60		300	25	50
Barn Owl Tyto alba	960	25	10	200	10	400	15	300
African Scops Owl Otus senegalensis *	24000			2000		11000		11000
Striated Scops Owl Otus brucei *	3100			2500		100	500	
Eagle Owl Bubo bubo	1490		5	110		1250	75	50
Spotted Eagle Owl Bubo africanus*	4000			600		1600		1800
Little Owl Athene noctua *	5700		100	1000	100	3000	500	1000
Hume's Owl Strix butleri	1700			300		1000		400
Grand Total	**69821**	**68**	**145**	**7520**	**140**	**31645**	**1303**	**29000**

* Time did not permit full discussion on these four species of owls, The estimated populations shown are estimates based on data held on the ABBA database.

Participants

Bahrain

Mr. Mubarak Ali Mohanna Al-Dosary
Head of Mammals
Department of Protected Areas
Public Commission for the Protection of Marine Recourses, Environment and Wildlife.
PO Box 28690
State of Bahrain
T 00973 17 836278
F 00973 17 836117/8
M 00973 3919 6108
Email: mubarak_aldosary@hotmail.com

Mr. Howard King
Land Surveyor
Bahrain Government
PO Box 15344
Manama
State of Bahrain
M 00973 39642739
Email: howardk@balelco.com.bh

Mr. Essa Faraj Saad
Department of Protected Areas
NCWP
PO Box 28690
State of Bahrain
T 00973 17 836116
F 00973 17 836117/8
M 00973 36688211

Dr. Nayel Mohammed Nayel
Veterinarian
PO Box 28532
West Rifaa
State of Bahrain
F +973 17 750715
M +973 396 44911
Email: nayelmohammed@hotmail.com

Belgium

Mr. Kay van Damme
Ghent University
Faculty of Sciences
Department of Biology
Limnology Research Group
KL Ledeganckstraat 35
B-9000 Ghent
Belgium
T 0032 9264 5263
F 0032 9264 5343
M 0032 486911106
Email Kay.VanDamme@UGent.be

Germany

Mr. Kai Borkenhagen
Forschungsinstitut Senckenberg
Sektion Ichthyologie
Senckenberganlage 25
D-60325 Frankfurt a.M.
Germany
T +49 (0)69 7542 275
Email kai.borkenhagen@senckenberg.de

Dr. Fareed Krupp
Biologist, Curator of Fishes
Forschungsinstitut Senckenberg
Senckenberganlage 25
Frankfurt D-60325
Germany
T 0049 49 7542255
F 0049 69 754 2253
Email F.Krupp@senckenberg.de

Jordan

Dr Zuhair S. Amr
Jordan University of Science and Technology
Department of Biology
PO Box 3030
Irbid
Jordan
T +962 2 295111 ext 3468
F +962 2 295123
M +962 79 545281
Email: amrz@just.edu.jo

Prof. Dr. Ahmad Disi
Jordan University of Science and Technology
Department of Biology
PO Box 3030
Amman
Jordan
T 00962 65159687
M 00962 0777424331
Email: ahmadmdisi@yahoo.com

Mr. Nashat Hamidan
Researcher
The Royal Society for the Conservation of Nature
Amman - 11942
Jordan
T +962 6 5331931/2
+962 5 3982360
F +962 6 5434711
Email: nashat@nscr.org.jo

Kuwait

Dr. Fouzia Abdulaziz Alsadrawi
EPA
PO Box 1231
Surra
Kuwait
F +965 5 338678
M +965 6 522532
Email: fozaconsultant@yahoo.com

Ms. Shareefa Al-Salem
CITES International committee, sample Analyst,
Biodiversity Division.
Environment Public Authority, Living Resource Dept.
PO Box 24395
Safat 13104
Kuwait
T: +965 5 730485. Ext. 215
F: +965 5 730488
M: +965 7 866536
Email: sh.alsalem@epa.org.kw

Mr Salah Behbehani
Assistant Curator – Desert Section
The Scientific Centre
PO Box 3504
Salmiya 22036
Kuwait
T +965 2240313, +965 2240025 Ext. 428
F +965 5710297
Email: salah@tsck.org.kw

Mr. Menandro Eguilos
Senior Technician
The Scientific Centre
PO Box 3504
Salmiya 22036
Kuwait
T +965 2240313
F +965 5710297
M +965 9815413
Email: meguilos@hotmail.com

Oman

Mr. Hadi Musalam al Hikmani
Office of the Advisor for Conservation of the Environment
Diwan of Royal Court
PO Box 246
Muscat 113
Sultanate of Oman
T +968 24 693 536/7
F +968 24 693 883
Email: acedrc@omantel.net.om

Mr. Nizar bin Salem al Oremi
Ministry of Regional Municipalities and Environment and Water Resources (MRMEWR)
PO Box 323
Muscat 113
Sultanate of Oman
T 00968 25545002
F 0096 8 25540512
M 0096 8 99234656

Mr. Ahmed bin Said al Shakili
Ministry of Regional Municipalities and Environment and Water Resources (MRMEWR)
PO Box 323
Muscat 113
Sultanate of Oman
T 00968 24602285
F 00968 24602283

Dr. Andrew Spalton
Office of the Advisor for Conservation of the Environment
Diwan of Royal Court
PO Box 246
Muscat 113
Sultanate of Oman
T +968 24693 536
F +968 24693 883
Email acedrc@omantel.net.om

Dr. Khaled Juma al-Rasbi
Senior Specialist
Oman Mammal Breeding Centre
Diwan of Royal Court
PO Box 64, Seeb Airport
Postal Code 111
Sultanate of Oman
T +968 24 530 220
F +968 24 622 509
M +968 998 554 35
Email: tayamooo@hotmail.com

Qatar

Salem Hussain al Safran
Environmental researcher
Supreme Council for the Environment and Natural Reserves
Doha
Qatar
F +974 441 5248
M +974 500 0897
Email: alsafranmood@hotmail.com

Abdulaziz Yayeh Al Jabri
Environmental Researcher
Supreme Council for the Environment and Natural Reserves
PO Box 10366
Doha
Qatar
T +974 566 0005
F +974 441 5248
M +974 5806149
Email: aziz-qatar@hotmail.com

Saudi Arabia

Mr. Ahmed Boug
Ecologist
National Wildlife Research Centre (NWRC)
PO Box 1086
Ta'if
Kingdom of Saudi Arabia
T +966 2 745 5188
F +966 2 745 5176
M +966 505328093
Email: desert@nwrc-sa.org

Mr. Abdulrahman Khoja
Executive Director
National Wildlife Research Centre (NWRC)
PO Box 1086
Ta'if
Kingdom of Saudi Arabia
T +966 2 745 5188
F +966 2 745 5176
M +966 505712405
Email: ark@nwrc-sa.org

Dr. Iyad Nader
Director
KKWRC
Member IUCN/SSC Rodent Specialist Group
NCWCD
PO Box 61681
Riyadh, 11575
Kingdom of Saudi Arabia
T +966 1 4042527
F +966 1 4011527
M +966 50 4491717
Email: nadir_iyad@yahoo.com

Mr. Moayyid Shar Shah
Research ass.
National Wildlife Research Centre (NWRC)
PO Box 1086
Ta'if
Kingdom of Saudi Arabia
T +966 2 745 5188
F +966 2 745 5176
M +966 501313712
Email: moayyadkhan@yahoo.com

Dr Mohammed Shobrak
Director
National Wildlife Research Centre (NWRC)
PO Box 1086
Ta'if
Kingdom of Saudi Arabia
T +966 2 745 5188
F +966 2 745 5176
M +966 50 572 1001
Email: shobrak@nwrc-sa.org

Switzerland

Dr. Urs Breitenmoser
Co-chair IUCN/SSC Cat Specialist Group
c/o KORA
Thunstrasse 31
CH-3074
Muri/Bern
Switzerland
T +41 31 951 7040
F +41 31 951 9040

United Arab Emirates

Dr Azhar Abbas
Chief Curator
Al Ain Zoo and Aquarium
PO Box 1204, Al Ain
UAE
T +971 3 7829663
F +971 3 7829112
M +971 506232218
Email drazhar51@hotmail.com

Dr. Barbara Arca Ruibal
Al Wasl Veterinary Clinic
Wildlife Protection Office
Al Wasl Road
PO Box 75565, Dubai
UAE
M +971 50 551 8699
Email barbyarca@yahoo.es

Mr. Peter Arras
Supervisor
Endangered Wildlife Breeding Centre
PO Box 47087, Abu Dhabi
UAE
T +971 3 701 5555
F +971 3 721 1880
Email: Peterarras@arcot.de

Dr. Tom Bailey
Dubai Falcon Hospital
PO Box 23919, Dubai
UAE
F +971 4 337 9223
M +971 50 644 5829
Email: tom.bailey@dfh.ae

Sara Baker
Committee Member
Emirates Environmental Group
PO Box 7013, Dubai
UAE
T +971 4 3318100
F +971 4 3328500
Email: eeg@emirates.net.ae

Warren Baverstock
Curator
National Marine Aquarium
PO Box 74147, Dubai
UAE
M +971 50 5520830

Mr. Mark Craig
Director
Al Ain Zoological Park
PO Box 1204, Abu Dhabi
T +971 3 709 4101
F +971 3 7829112
M +971 50 663 6075
Email mark.craig@alainzoo.ae

Dr. Christopher Drew
Zoologist
Parsons International Ltd
PO Box 38811, Abu Dhabi
T +971 2 5095100
M +971 50 442 8401
Email: christopher.drew@parsonspm.ae

Xavier Eichaker
Technical Advisor
NARC
PO Box 45553, Abu Dhabi
M +971 4 487608
Email xav@emiartes.net.ae

Husam El-Alqamy
Dubai Desert Conservation Reserve
PO Box 7631, Dubai
UAE
T +971 48329900
Email: alqamy@lycos.com

Mr. Ahmed Elsayed
CITES Liaison Officer
Ministry of Environment and Water
PO Box 1509, Dubai
UAE
T +971 4 202 6601
F +971 4 295 7475
M +971 50 787 0875
Email citesunit.maf@uae.gov.ae

Mr. Ayoob Hassan al Ghafri
Researcher
Environmental Research Department
Emirates Heritage Club
PO Box 42959, Abu Dhabi
UAE
T: +971 2 4456456
F: +971 204454664
M: +971 5 4865545
Email: algafry_911@hotmail.com

Mr. Christian Gross
CG Associates and Animal Management Consultancy
PO Box 1022, Umm al Quwain
UAE
Email: chgross@emirates.net.ae

Mr. Dorian Hoy
Wildlife Manager
Al Warsan Farm
T +971 6 025639836
F +971 6 025638112
M +971 050 3155315
Email: doz@eim.ae

Mr. Kevin Hyland
Ecologist
Wildlife Protection Office
PO Box 12188, Dubai
T +971 6 3344262
F +971 4 3344860 (043344860)
M +971 50 5527374
Email kevinwpo@emiartes.net.ae

Mrs. Vanessa Jackson
Editor
Sharjah The Guide
PO Box 28491, Sharjah
T +971 6 524 4811
F +971 6 524 4811
M +971 50 677 7509
Email: whimp@emirates.net.ae

Mr. Jacky Judas
Environment Agency Abu Dhabi (EAD)
National Avian Research Centre
Wildlife Biologist, Associate Scientist
PO Box 45553, Abu Dhabi
UAE
T +971 3 734 7555
F +971 3 734 7607
M +971 50 6181026
Email jjudas@ead.ae

Koji Kawai
Photographer
Ocean World Productions FZ.LLC
PO Box 27419, Dubai
UAE
T +971 3912305-9
F +971 3909630
M +971 50 2970844
Email: jak@oceanworld.ae

Jonathan Ali Khan
Managing Director
Ocean World Productions FZ.LLC
PO Box 27419, Dubai
UAE
T +971 3912305-9
F +971 3909630
M +971 50 6508484
Email: jak@oceanworld.ae

Dr. Connor Kilgallon
Veterinarian
Dubai Falcon Hospital
PO Box 23919, Dubai
UAE
F +971 4 337 9223
M +971 508487065
Email: conhubhair2001@yahoo.co.uk

Dr. Vladimir Korshunov
Researcher
Endangered Wildlife Breeding Centre
PO Box 47087, Abu Dhabi
T +971 3 701 5555
F +971 3 721 1880

Ms. Barbara Lang-Lenton
Biologist
PO Box 102688, Dubai
M: +971 508741002
Email: barbarale@hotmail.com

Robert Llewellyn-Smith
Government of Ras Al Khaimah
Environment Protection and
Industrial Development Commission. (EPIDC)
PO Box 11377, Ras al Khaimah
UAE
T +971 7 228 4080
F +971 7 228 4090
M +971 50 432 1990
Email: Rllewellynsmith@yahoo.co.uk

Dr. Ronald Loughland
Head of environmental research and studies
Emirates Heritage Club
PO Box 10844, Abu Dhabi
UAE
T +971 2 5582 353
T +971 2 5584644
F +971 2 5582182
Email: r-aloughland@uaetorath.com

Mr. Sean McKeown
Collection Manager
H.E. Sheikh Butti bin Juma al Maktoum's Wildlife Centre
PO Box 7237, Dubai
UAE
T +971 4 337 9097
F +971 4 337 9097
M +971 50 451 7373
Email: smckeown@emirates.net.ae

Dr. Laco Molnar
Avian and Wildlife Medicine
Al Warsan Falcon Hospital
PO Box 77338, Abu Dhabi
UAE
T +971 2 563 3881
F +971 2 563 3881
M +971 50 612 6267
Email molnarlm@zmail.sk

Dr. Neelofar Ali Masoodi
Ecologist
H.H Private Office
PO Box 77, Abu Dhabi
UAE
T +971 6 666 494
F +971 2 666 3033
M +971 50 472 2626
Email: neeloali@yahoo.com

Mr Gavin Nel
Conservation Manager
Dubai Desert Conservation Reserve
PO Box 7631, Dubai
UAE
T +971 4 832 9900
F +971 4 809 8710
Email: gavin.nel@emirates.com

Dr. Milos Halan
Wildlife veterinarian
Al Warsan Farm
PO Box 77338, Abu Dhabi
UAE
F +971 2 5638772
M +971 50 3151133
Email: halan71@emirates.net.ae
Halan71@hotmail.com

Mr. Qusai Obaidullah
Office of Sheik Mohammed bin Rashid al Maktoum
F +971 4 336 4650
M +971 050 456 0560
Email ostrichranch@yahoo.com

Mr. Declan O'Donovan
Wadi al Safa Wildlife Centre
PO Box 27875, Dubai
UAE
M +971 506590777
F +971 4 335 9000
Email: cianod@emirates.net.ae

Mr. Mayyas Qarqas
Environment Agency
PO Box 45553, Abu Dhabi
UAE
T +971 2 681 7171
F +971 2 681 008
M +971 50 622 0562
Email: malqarqaz@ead.ae

Jean Rust
Endangered Wildlife Breeding Centre
PO Box 47087, Abu Dhabi
T +971 3 701 5555
F +971 3 721 1880

Mr. Khalid Salem
Dubai Municipality
PO Box 67, Dubai
UAE
T +971 4 347 4448
F +971 4 347 4733
Email: health@dm.gov.ae

Mr. Maral Shurieki
Geologist
Fujairah municipality
PO Box 7, Fujairah
UAE
F: +971 09 2222231
M: +971 508833402
Email: 1geologist@gmail.com

Mr. Greg Simkins
Conservation Manager
Dubai Desert Conservation Reserve
PO Box 7631, Dubai
T +971 4 832 9900
F +971 4 809 8710
M +971 50 4558770
Email: greg.simkins@emirates.com

Ms. Emma Smart
Wadifish Project
M +971 50 228 5336
Email: emma@wadifish.com

Archad Toosy
Veterinarian
NARC
PO Box 10000, Sweihan
UAE
T +971 7 347555
F +971 3 7347607
M +971 05 8126766

Dr. Christophe Tourenq
WWF
Environment Protection and Development Department
Fujairah Municipality
PO Box 7, Fujairah
UAE
T 00971 92 281543
F 00971 92 228780
M 00971 50 4549077
Email: ctourenq@wwfuae.ae

Mr. Tony van Harten
UAE Insect Project
PO Box 63799, Sharjah
M +971 50 327 0876
Email: vanharten@zmail.pt

Dr. Raju P. Vasudevan
Veterinarian
Hatta Conservation Area
PO Box 12188, Dubai
UAE
T +971 4 852 1537
F +971 4 852 1538
M +971 50 6554108
Email: drrajuvasudevan@yahoo.com

Mr. Hassan Zain
Inspector
Dubai Municipality
PO Box 67, Dubai
T +971 4 347 4448
F +971 4 347 4733
M +971 05 6400649
Email: health@dm.gov.ae

United Kingdom

Mike Jennings
Coordinator: Atlas of the Birds of Arabia
Editor: The Phoenix
Warners Farm House
Warners Drove
Somersham
Cambridgshire
PE28 3WD
UK
T/F +44 1487 841 733
M +44 7981 568 632
Email: arabian.birds@dsl.pipex.com
Website: http://dspace.dial.pipex.com/arabian.birds/

Dr. Mike Jordan
Curator of Higher Vertebrates
Chair (Europe and North Asia) IUCN SSC Reintroduction Specialist Group
Co-Chair EAZA Small Mammal Taxon Advisory Group
North of England Zoological Society
Chester Zoo, Upton
Chester, CH2 1LH
UK
T +44 1244 389 401
F +44 1244 381 352
M +44 7881 827 504
Email: M.Jordan@chesterzoo.org

Dr. David Mallon
Co Chair IUCN antelope specialist group
3 Acre Street, Glossop
Derbyshire, SK13 8JS
UK
T +44 1457 853560
F +44 1457 852578
Email: d.mallon@zoo.co.uk

Yemen

Amel Saleh Al- Haddi
Programme Assistant
Environment Protection Authority
PO Box 16659
Sana'a
Yemen
T +967 1 711491657
M +967 7 11491657
Email: amelalhaddi@yahoo.com

Dr. Karim Nasher
Faculty of Science
Sana'a University
PO Box 12231, Sana'a
Republic of Yemen
T +967 1 464558 (h) / +967 1 200522 (o)
F +967 1 214075
M +967 77911 596
Email karimnasher@yahoo.com

Dr. Masaa al Jumaily
Professor
Sana'a University
PO Box 12231, Sana'a
Republic of Yemen
T +967 1 464558
M +967 77911 596
Email karimnasher@yahoo.com

Mr. Omer Baeshen
Nature Reserve Management
Environment Protection Authority
PO Box 10442, Sana'a
Republic of Yemen
T +967 1 540 669
F +967 1 207 327
Email: g_hng@yahoo.com

Ms. Amel Alhaddi
CITES Programme
Environment Protection Authority
PO Box 16659, Sana'a
Republic of Yemen
T +967 1 473867
F +967 1 207 327
M +967 7 11941657
Email: amelalhaddi@yahoo.com

Dr. Ahmed al Saqqaf
Environment Protection Authority
PO Box 10442, Sana'a
Republic of Yemen
T +967 1 540 669
F +967 1 207 327
M +967 711709976
Email: alsaqqaff@hotmail.com

Mr. Ali Baraga
Manager
Waste collection and Planning Dept.
PO Box 10442, Sana'a
Republic of Yemen
T +967 1 540 669
F +967 1 207 327
M +967 7 711742992