

GLOBAL RE-INTRODUCTION PERSPECTIVES

Re-introduction case-studies from around the globe



**Edited by
Pritpal S. Soorae**



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 IUCN or any of the funding organizations 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 IUCN, Environment Agency - Abu Dhabi or Denver Zoological Foundation.

Published by: IUCN/SSC Re-introduction Specialist Group

Copyright: © 2008 IUCN/SSC Re-introduction Specialist Group

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

Citation: Soorae, P. S. (ed.) (2008) GLOBAL RE-INTRODUCTION PERSPECTIVES: re-introduction case-studies from around the globe. IUCN/SSC Re-introduction Specialist Group, Abu Dhabi, UAE. viii + 284 pp.

ISBN: 978-2-8317-1113-3

Cover photo: Clockwise starting from top-left:

- Formosan salmon stream, Taiwan
- Students in Madagascar with tree seedlings
- Virgin Islands boa

Produced by: IUCN/SSC Re-introduction Specialist Group

Printed by: Abu Dhabi Printing & Publishing Co., Abu Dhabi, UAE

Downloadable from: <http://www.iucnsscrg.org> (downloads section)

Contact

Details: Pritpal S. Soorae, Editor & RSG Program Officer
E-mail: psoorae@ead.ae

Re-introduction of Arabian oryx into Wadi Rum Protected Area, Jordan

Jamal Al Zaidaneen¹ & Abd Alrahman Al Hasaseen²

¹ - Head of Conservation Section, Wadi Rum Protected Area, Aqaba Special Economic Zone, Aqaba, Jordan (jzaidaneen@wadirum.jo)

² - Species Conservation Officer, Wadi Rum Protected Area, Aqaba Special Economic Zone, Aqaba, Jordan, P.O. Box 2565, Aqaba 77110, Jordan (Ahasasen@wadirum.jo)

Introduction

The Arabian Oryx (*Oryx leucoryx*), also known as “*Al Maha*” in Arabic, is the Arabian peninsula’s largest antelope and one of the most important species in the Wadi Rum Protected Area. The species has been listed as Endangered on the IUCN Red List and on CITES Appendix I since 1975. The beauty of this animal has always inspired poets and has been associated with the culture and the history of the Rum area. This fact is as stable as the Thamudic era oryx rock drawings dating back 6,000 years and which have been found in many locations within and outside of the Wadi Rum protected area. Located in the southern part of the Hashemite kingdom of Jordan, about 370 km south of Amman and about 60 km north east of Aqaba, Wadi Rum protected area is the largest protected area in Jordan. A total of 720 km² of sand dunes wadis delimited with enormous erect sandstone mountain terrains is included within this area.

Goals

- Goal 1: To establish a free-ranging Arabian oryx population in the Wadi Rum protected area in the Hashemite kingdom of Jordan.
- Goal 2: To insure the public support and collaboration for the conservation of Arabian oryx in the Wadi Rum protected area.

Success Indicators

- Indicator 1:
 - ⇒ The Aqaba Special Economic Zone Authority (ASEZA) proposed the idea of having a free-ranging Arabian oryx population.
 - ⇒ Approving the Arabian oryx release strategy.
 - ⇒ Cooperation with the Environment Agency - Abu Dhabi, UAE to implement the Arabian oryx re-introduction



Arabian oryx (*Oryx leucoryx*)

project (H.H. Sheikh Mohammad bin Zayed al Nahyan, Arabian oryx re-introduction project in Wadi Rum protected area, Jordan).

- Indicator 2:

- ⇒ The local people helped in the experimental Arabian oryx release conducted in 2005.
- ⇒ No hunting threats were observed since the start of the project in 2007 until now.
- ⇒ Most of the local people are convinced and motivated by the Arabian oryx release.

Project Summary

Feasibility: Wadi Rum Protected Area is present in the Sudanian vegetation region. As for the vegetation types, there are three types present in the protected area (Eisawi, 1996). 1) Sand dune vegetation type - this vegetation type is only found in the Sudanian vegetation region. Wadi Rum area is one of the best representatives for this and is made up of shrubs and bushes (sand dunes fixatives). The main species that characterize this type include *Haloxylon persicum*, *Retama raetam*, *Calligonum comosum*, *Neurada procumbens* and *Hammada scopiara*. 2) Acacia and rocky Sudanian vegetation type - this vegetation is limited to the rocky areas in the protected area and sometimes it is associated with the sand dune vegetation type. The main species of this type that are present in the protected area include *Acacia raddiana*, *Anabasis articulata*, *Caralluma* spp., *Fagonia* spp., *Gymnocarpos decndrum* and *Helianthemum lippii*. 3) Hammada vegetation type - this vegetation type covers more than 70% of Jordan's surface area. In the protected area, this vegetation type is not dominant but nevertheless some of its components are present. The main species of this type that are present in the protected area include *Anabasis articulata*, *Retama raetam*, *Tamarix* spp., *Achillea fragrantissima*, *Artemisia herba-alba* and *Zilla spinosa*.

At the habitat level, diversity in the protected area is relatively high, compared to other known areas in Jordan with Sudanian vegetation types. As well as the more ubiquitous gravel and silt wadis, it has large areas of sand dunes and high mountains and many deep, shaded canyons. These factors made the idea of the re-introduction of the Arabian oryx more attainable. On the other hand, the special cultural popularity of the Arabian oryx between the local communities in and around the protected area, and their ambition to see the oryx back home after decades of extinction. This will also boost the eco-tourism potential by having the oryx back in this protected area.

Implementation: The re-introduction program in Wadi Rum which started in 2002, was managed by the Royal Society for Conservation of Nature (RSCN) through a contract signed between ASEZA and RSCN. The re-introduction project is currently being implemented in cooperation between ASEZA and RSCN and 10 oryx individuals (7:3) were initially transferred from Shaumari reserve (north of Jordan) to a 4 km² enclosure to investigate their adaptability and behavior. In 2005, Wadi Rum protected area formulated a strategy for the re-introduction

project and the strategy concentrated on the idea of having free-ranging oryx managed and monitored effectively to secure the sustainability of these populations. The strategy also focused on developing the enclosures for better survival condition for the oryx during the adaptation phase. The strategy was finally approved and adopted by both ASEZA and RSCN.



**Wildlife ranger in the Wadi Rum
Protected Area, Jordan**

In 2005, an experimental oryx release was done in the Wadi Rum protected area and which lasted for 25 days and aimed to

investigate the behavior of the oryx according to their interaction with human activities (mainly tourism) and livestock; grazing habits and their dispersal rates. The results of the experimental release demonstrated that there is a good likelihood for the success of the free release if financial support is secured. Also the trans-boundary arrangements between Jordan and Saudi Arabia should be insured before starting any final release for the oryx in the Wadi Rum protected area. The experimental release also showed a good indicator on how much this idea is adored by the local people of the area, who are mainly local Bedouins who were very supportive to the team. Six more animals have been added since then and all have been moved to a new enclosure of 18 km² in the wilderness zone of the protected area in order to provide better conditions for the oryx which faced a lot of difficulties in the old enclosure which led to the death of more than nine individuals due to falling from cliffs. Recently, the first oryx birth was recorded on 20th February 2006. In April 2007 the third meeting of Coordination Committee for the Conservation of the Arabian Oryx (CCCAO) was held in the Wadi Rum protected Area over three days and reached an agreement on encourage projects aiming to restore the oryx as a free-ranging species. Depending on that, the Wadi Rum protected area submitted to H.H. Sheikh Mohammad bin Zayed al Nahyan of the UAE a proposal for the Arabian oryx re-introduction project in the Wadi rum protected area, Jordan.

Post-release monitoring: As confirmed in the proposal, (H.H. Sheikh Mohammad bin Zayed al Nahyan, Arabian oryx re-introduction project in Wadi Rum protected area, Jordan), the release of the Arabian oryx will be monitored by satellite tracking. The post-release monitoring team will obtain capacity building training from the Environment Agency - Abu Dhabi, UAE especially in tracking techniques and handling of oryx.

Mammals

Major difficulties faced

- Difficulty in adaptation as the original herd came from Shaumari reserve which is completely different than Wadi Rum especially in regard to climate, vegetation and topography.
- The poor physical and genetic condition of the oryx.
- The small area of the old enclosure and shortage of suitable habitat.
- Financial constraints to improve the project.

Major lessons learned

- A genetic studbook for the oryx is a necessity.
- The carrying capacity and botanic studies should be conducted before transferring oryx to any new site.
- Concentrating on the *in situ* conservation program might be more effective than captive breeding.
- The focused planning of the re-introduction program is the key to the success of the re-introduction.
- Working hand in hand with the local people will reduce threats facing any released oryx.

Success of project

Highly Successful	Successful	Partially Successful	Failure
		√	

Reasons for success/failure:

- During the first phase planning a more suitable location for the first enclosure was needed.
- There was a shortage on genetic information regarding the first herd.
- Less attention was paid to the habitat of the re-introduction site.

References

Dawud Al-Eisawi (1996) Vegetation of Jordan Regional Office for Science and Technology for the Arab States, UNESCO, Cairo. viii + 284 pp.