SAHARA CONSERVATION FUND

Rise of the Phoenix: Restoring the Scimitar-horned Oryx to Chad

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Sahara Conservation Fund

Scimitar-horned Oryx

Probable extinction dates

Range State	Extinction in the wild	Sources
Algeria	1960s	Grenot 1974
Burkina Faso	1950s	Roure 1968
Chad	1990s	Newby 2001
Egypt	1850s	Flower 1932
Libya	1940s	Hufnagl 1972
Mali	1970s	Lamarche
Mauritania	1960s	Trotignon 1975
Morocco	1930s	Cabrera 1932
Niger	1980s	Newby 2002
Senegal	1850s	Dupuy 1960
Sudan	1970s	Newby 1982
Tunisia	1900s	Lavauden 1924
Western Sahara	1960s	Valverde 1968

Last known photo

- Last photo early-1980 (Aïr Mountains, Niger)
- Last animals 1980s-1990s (Niger, Chad)
- Captive populations exist in Africa but are not yet released into the wild

Causes of extinction

- OVER-HUNTING AND POACHING
- Desertification and loss of pasture
- Severe and/or prolonged drought
- Loss of habitat to development
- Lack of resources for conservation

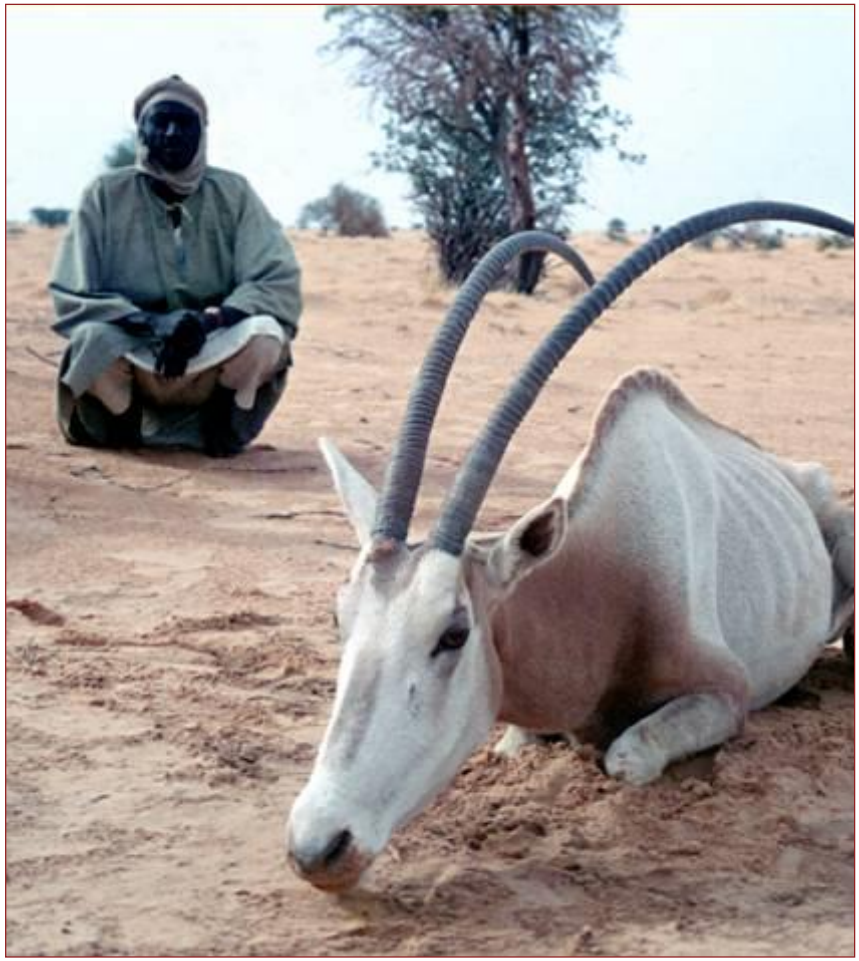
Traditional poaching

Warfare and modern arms

Desertification

- Habitat loss
- Climate change is apparent
- Loss of intermediary Sahelo-Saharan habitats

Drought



- Adult mortality
- Calves abandoned
- Reproduction halted
- Increased vulnerability

Pastoral development

- New, deep boreholes in prime oryx habitat
- Overgrazing and disturbance
- Competition from increasing livestock numbers
- Wells as springboard for poaching activities

Livestock and well sites will be a challenge to the reintroduction.

Agricultural encroachment

- Poverty and population driven
- Rarely productive on marginal land
- Root cause of desertification
- Reversal difficult without viable alternatives

DOES THE ORYX HAVE A FUTURE IN THE WILD?

Yes, if....

- ✓ Access to enough suitable habitat
- ✓ Freedom to disperse
- ✓ Community support
- ✓ Cooperation between various land-users
- ✓ Protection
- ✓ Resources

Global studbook

- Global Studbook: 1742 oryx in 222 institutions
- EEP (EAZA): 410 oryx in 51 institutions
- SSP (AZA): 204 oryx in 25 institutions
- ASMP: 37 oryx in 5 institutions

Source: Tania Gilbert, pers. comm.

Oryx in private hands

10,000-20,000 animals!

But…

"Overall, the managed populations are just too small to be self-sustainable, and too poorly catalogued to be managed optimally."

"The global captive population has enormous value, but we really need to focus on getting the species back into its historical range in large herds comprising all the known genetic diversity of the global population."

Project genesis

- SCF/SSIG decide to develop global strategy (April 2008)
- Al Ain workshop (technical issues) (November 2009)
- Algiers workshop (range state issues) (October 2010)
- GIS mapping & matrix to assess potential sites
- Selection of Chad by SCF as a high value option (2010)
- Pan Sahara Wildlife Survey missions (Jan., Sept. 2011)
- Chad fieldtrip & workshop (2012)
- Return to Chad in 2014 for site assessments and determination of best location—recon for supplies and airports

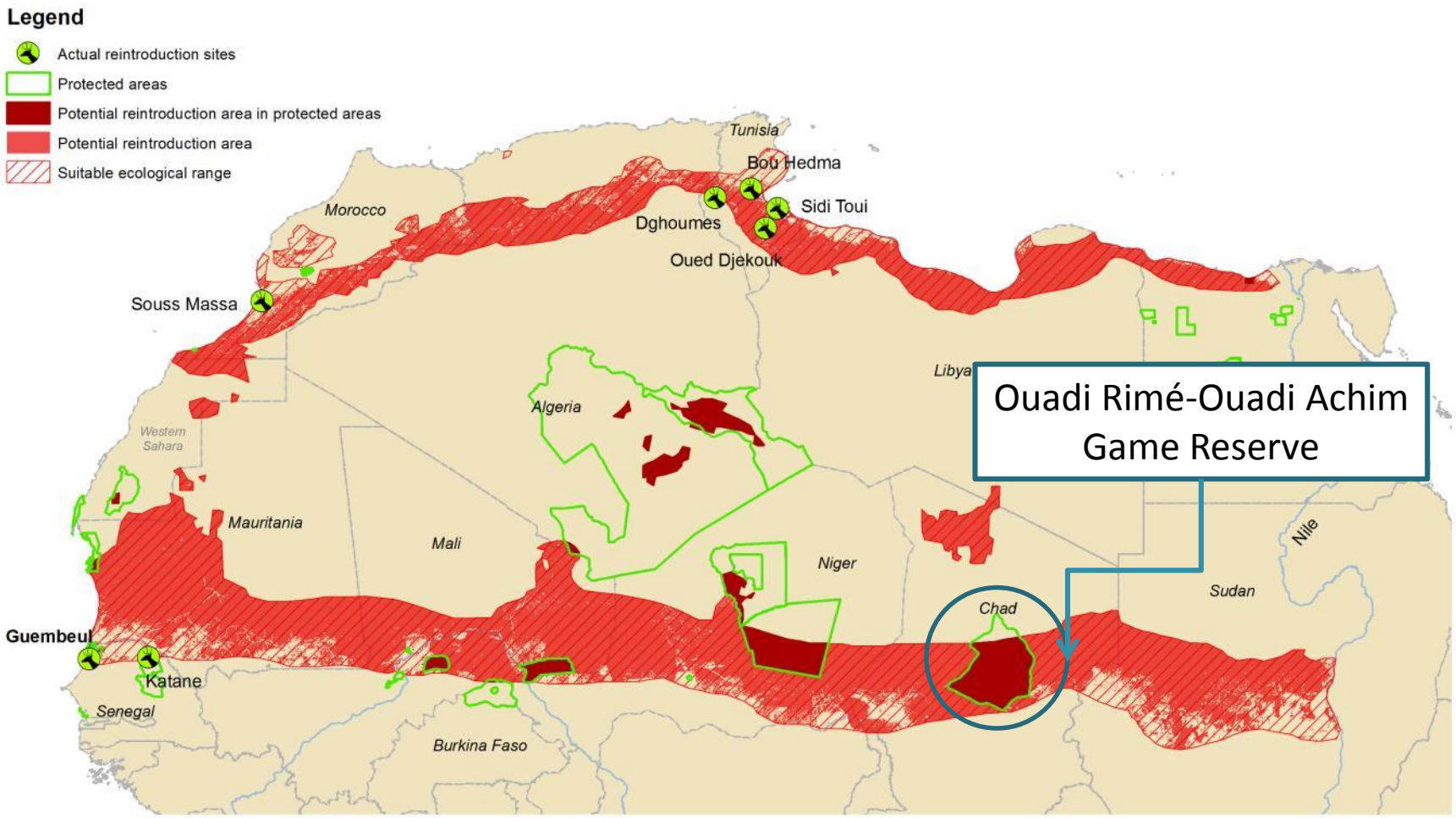
Chad project goals

- Reintroduction of a viable, free-ranging population(s) of scimitar-horned oryx
- Rehabilitation of the Ouadi Rimé-Ouadi Achim Game Reserve
- Conservation of globally significant populations of other species (dorcas gazelle, dama gazelle, bustards, vultures...)
- Opportunities for reintroduction and/or reinforcement of other species (addax, ostrich, dama gazelle...)
- Ultimately, reconcile wildlife with pastoral development for the benefit of all

Ambitious working hypothesis

- Work with large numbers of animals (100+)
- Work on a large (ecological) scale
- Incremental genetic supplementation
- Experiment with low cost, mobile fencing
- Reduced time in captivity
- Multiple reintroduction sites
- Significant post-release monitoring

Potential reintroduction sites



Why Ouadi Rimé-Ouadi Achim Game Reserve?

- Historical range, gazetted in 1969 for oryx
- Last viable populations before extinction (1980s)
- Site of 1960s oryx captures
- Large size (77,950 km^2/30,000 ml^2)
- Habitat diversity and availability
- Strong government interest
- High conservation value site (dama gazelle, dorcas gazelle, bustards, etc.)
- Chad is currently stable
- Substantial baseline data available
- Certainly the best option for the development of a viable, free-ranging population of oryx living within historical range
- However, there are challenges to be addressed...

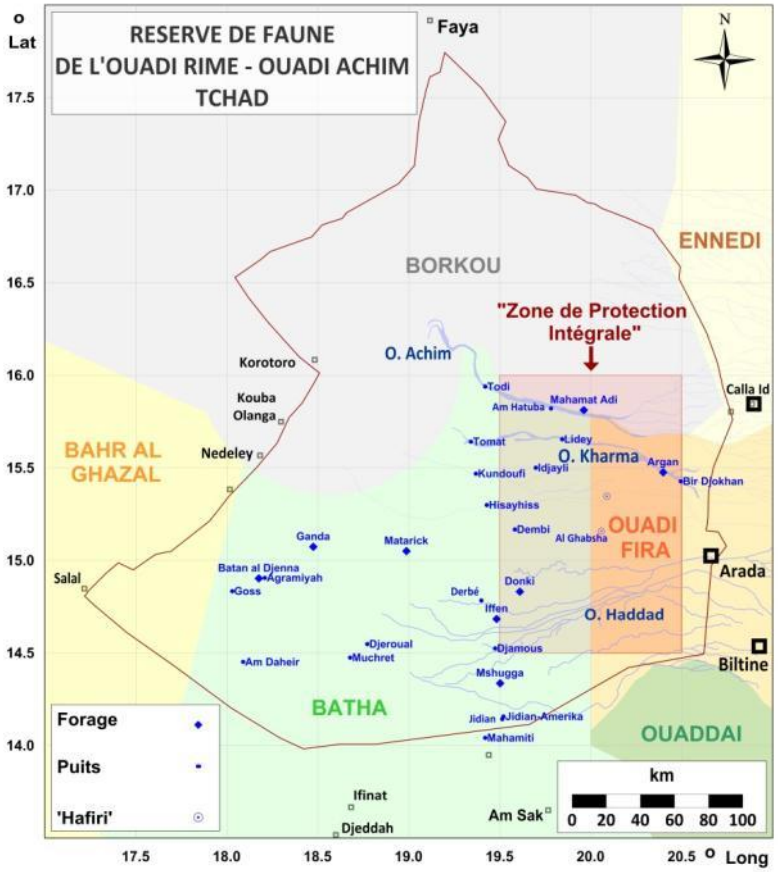
Challenges

- Rehabilitation of the reserve as a functional protected area (resources, manpower, infrastructure, leadership,...)
- Management of land-use, especially grazing pressure and the development of modern wells
- Occupation of key habitats by agriculture and/or sedentary livestock herders. This is especially significant for dry season pasture and shade areas
- Developing meaningful relations and collaboration with area's population (mostly nomads) and their traditional leaders
- Logistics
- Poaching is not currently an issue but complacency is not an answer. Combine with community relations, education, awareness, etc.

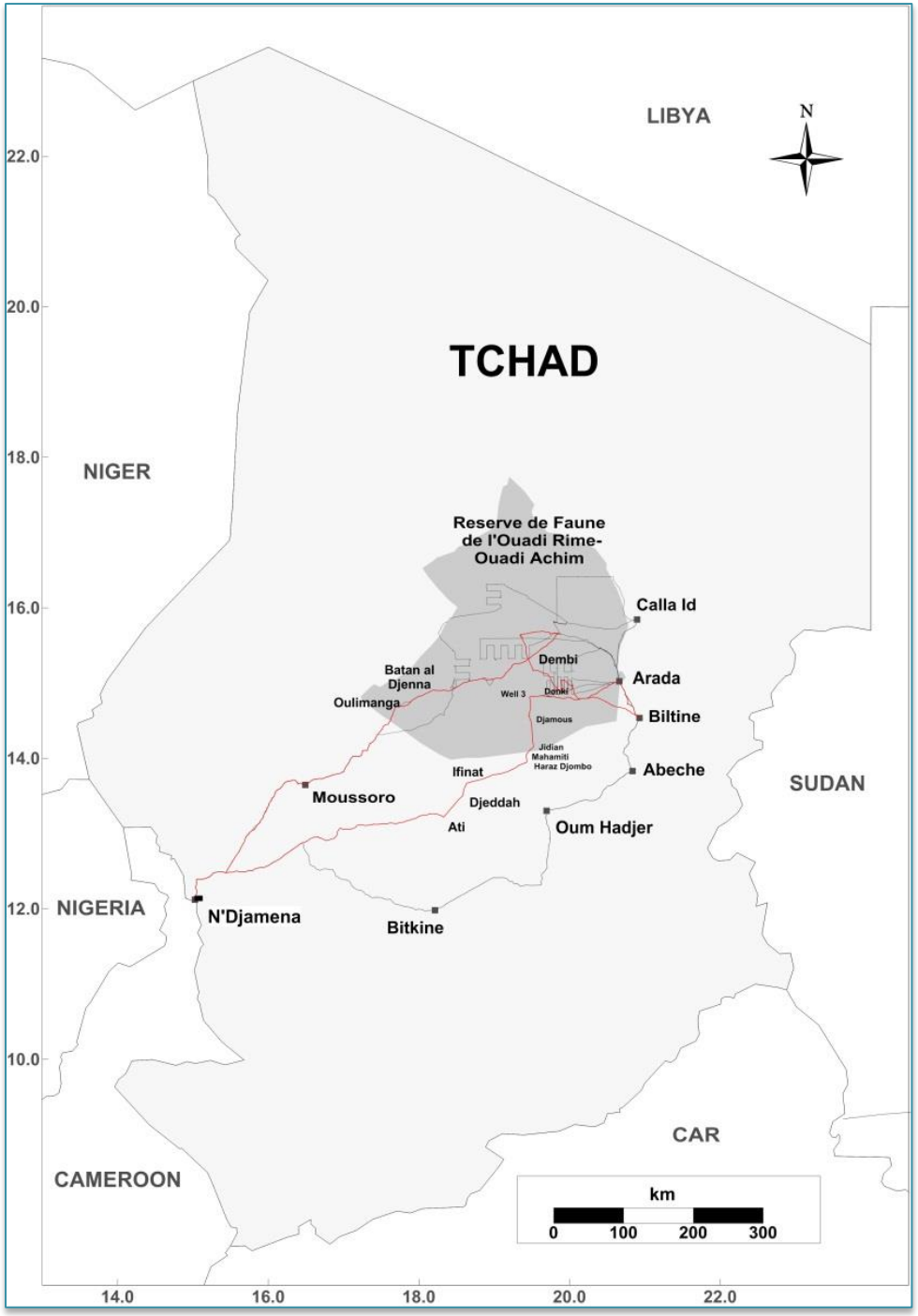
Ouadi Rimé–Ouadi Achim GR

- Established 1969 for oryx, dama gazelle and ostrich
- Area of 77,950 km² (30,000 sq. ml)
- Heavily impacted in the past by civil war
- Oryx and addax now gone; dama very rare
- Dorcas gazelles present in very good numbers
- Habitat still good but land-use is changing
- Rehabilitation of reserve is imperative
- Government support is strong

Ouadi Rimé-Ouadi Achim GR



- Incremental restoration process
- 18,000 km² strict protected zone
- People access but no further well development
- Initial reintroduction site
- Contains unique wildlife resources (dama, dorcas gazelles)


LIBYA
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NIGER
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de l'Ouadi Rime-
Ouadi Achim
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Oulimanga
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Djamous
Jidian
Mahamiti
Haraz Djombo
Ifinat
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SUDAN
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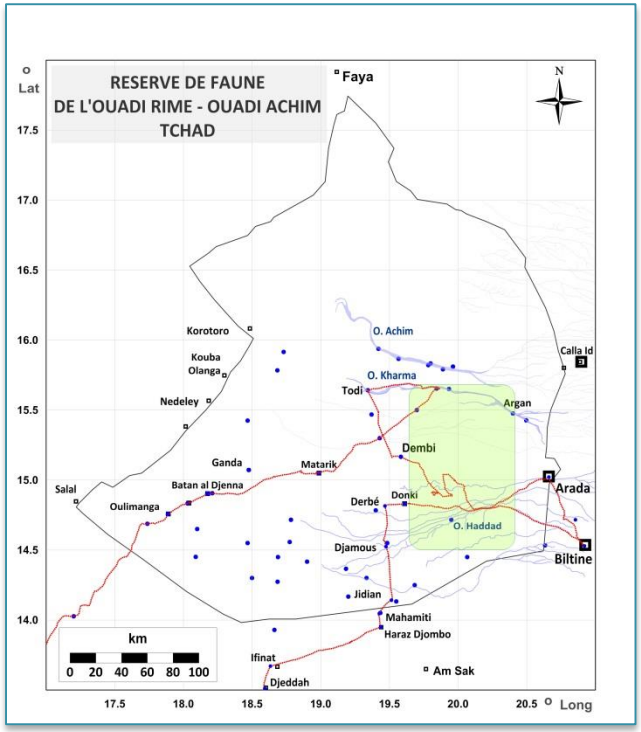
2012 Survey


RESERVE DE FAUNE
DE L'OUADI RIME - OUADI ACHIM
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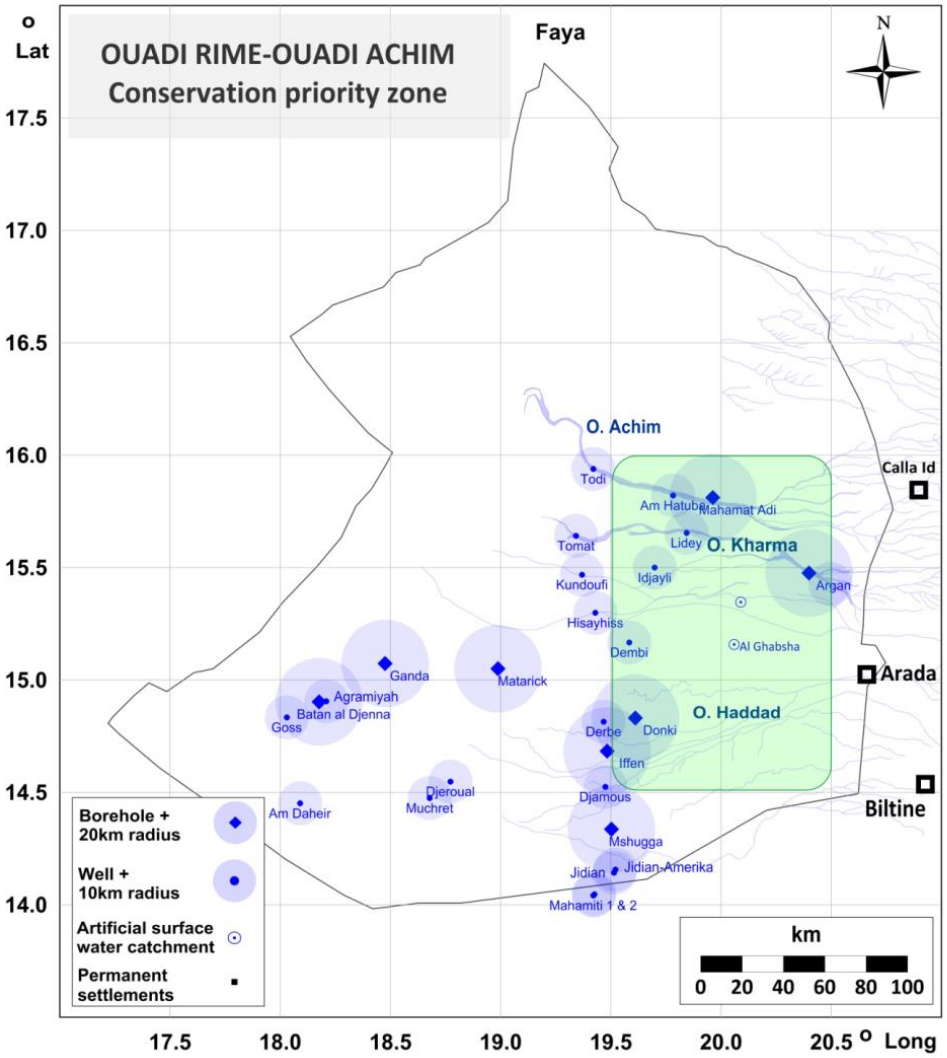
Location of the region that the reintroduced SHO are hoped to inhabit

- Light green shows an area within the Ouadi Rime-Ouadi Achim Reserve of relatively low concentration of wells, and therefore of humans and livestock.



Chad Strategy & Logistics

- Focus Issues:
  - Negotiations/agreement with Chadian authorities for project approval, conditions, framework, contracting, identification of local Chad team and partners, etc.
  - Acquisition of project development funds and possibly recruitment of project leader/staff if needed at offset
  - Development of full project proposal and budget, incl. identification of all stakeholders and potential local partners
  - Development of local strategy, infrastructure, vehicles, personnel
  - Release/holding site selection (based on ground survey with local input and agreement (local authorities/traditional leaders)
  - Infrastructure development plan, incl. staffing requirements
  - Development of logistics plan for animal import/transport to site, incl. food supply for x months
  - Purchase and construction of site infrastructure, fencing, food stores, water supply and storage, etc.
  - Animal import (CITES) and health clearance issues pre-arrival
  - Others to be identified

Three day meeting involving government organizations, stakeholders, Nomads, scientific advisory personnel, and facilitated by Conservation Breeding Specialist Group (CBSG)

Iterations for successful reintroduction

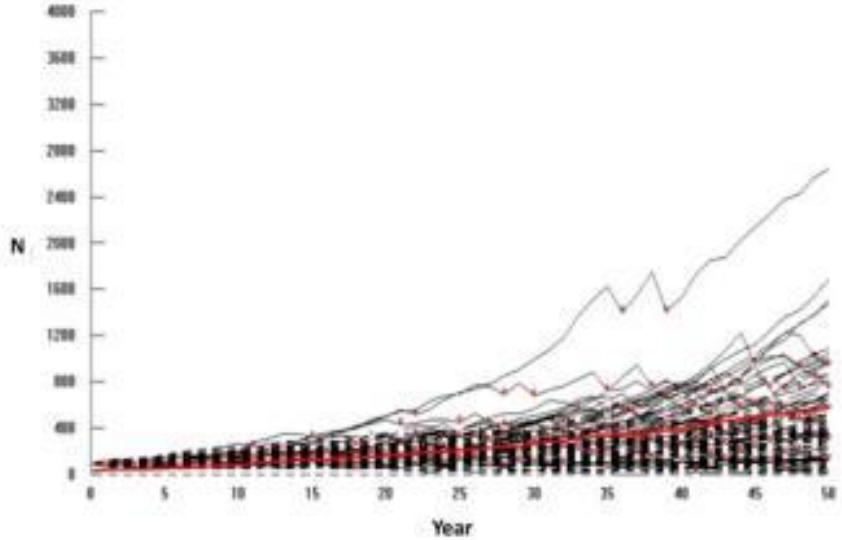


Figure 1. Fifty-year projections of a single release of 100 individuals. The red line shows the average population size.

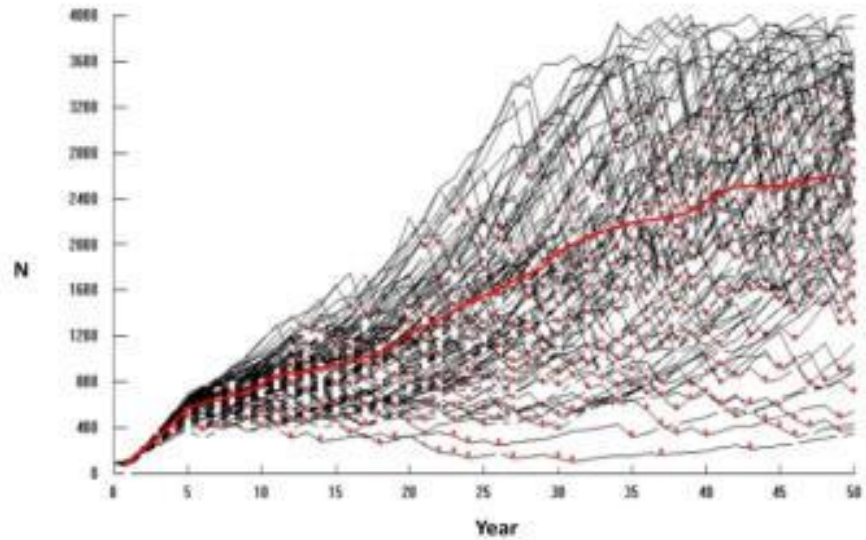
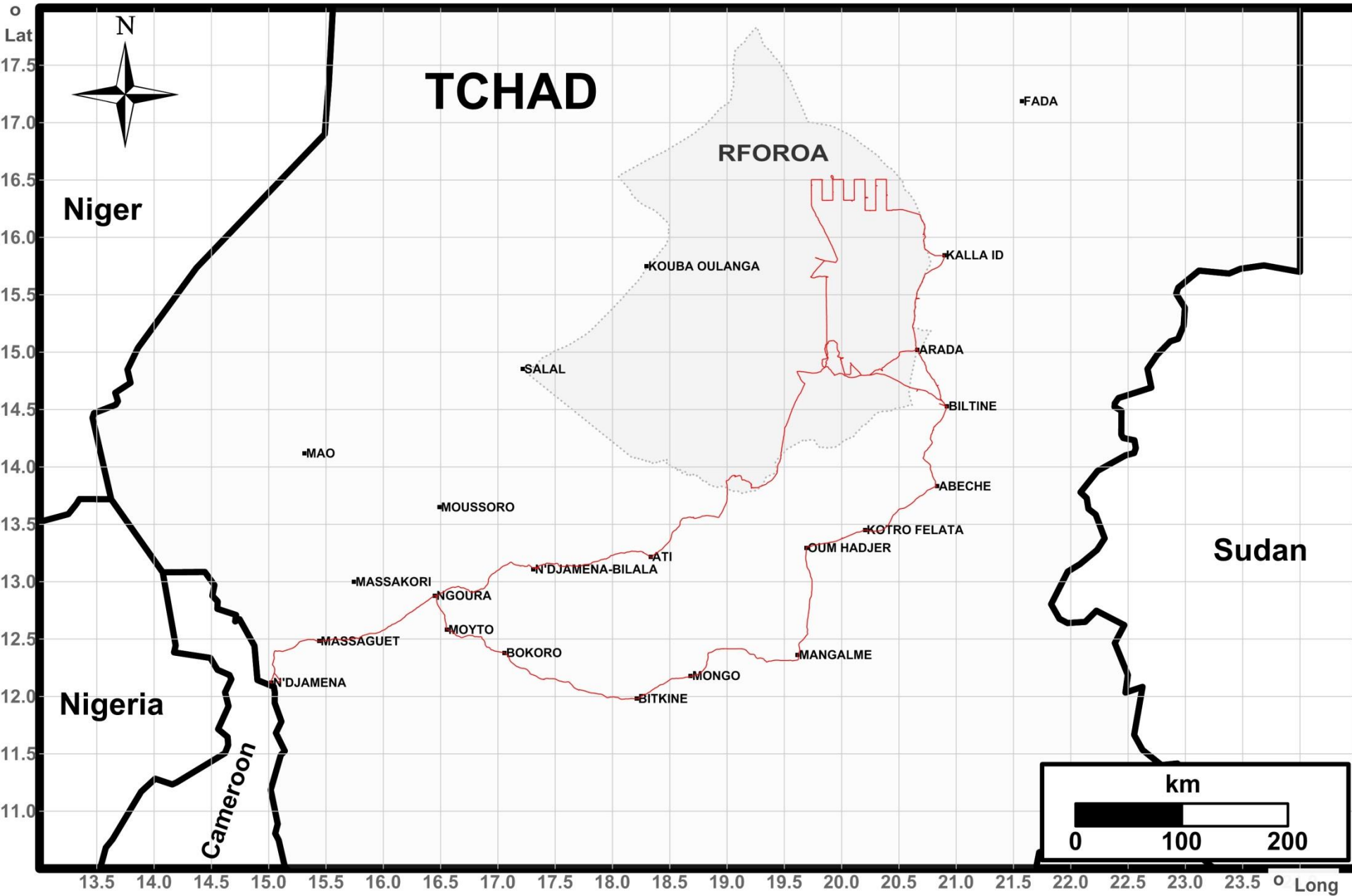


Figure 2. Fifty-year projections for a multiple release of 100 individuals each year for the first 5 years. The red line shows the average population size.

The “Matrix” got a lot of press at this meeting. This tool was implemented for use In determining the potential sites for reintroduction of Scimitar-horned oryx.

2014 Expedition Route



Meeting folks on their level

Grass identification team in hip high annual grasses during the rainy season

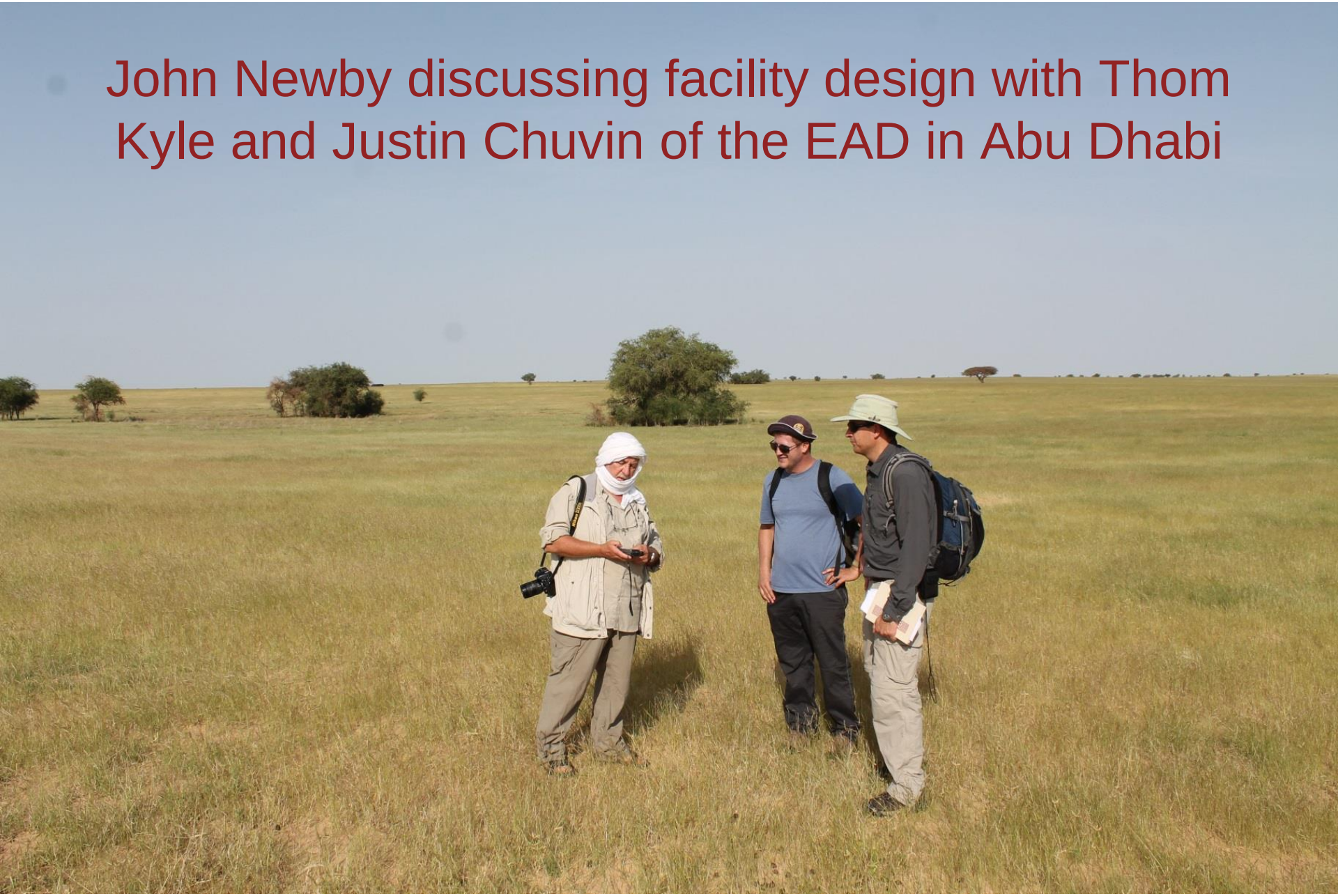
Typical oryx habitats

Ouadis are also important habitats to preserve
for the wildlife. This is the Ouadi Kharma.

Prime Scimitar-horned oryx habitat is still plentiful in Chad

This entire expanse will be a part of the release pens. Two, one km by 500 m pens, 50 Ha total.

John Newby discussing facility design with Thom Kyle and Justin Chuvin of the EAD in Abu Dhabi



Assessing the proposed release site, soil composition and flora census.

50 hectare enclosure in Chad

هيئة البيئة - أبوظبي
Environment Agency - ABU DHABI

- Tasked with the care of the late Sheik Zayed bin Sultan Al Nahyan's collection
- He is the 'father' of the United Arab Emirates
- Very interested in working with the Sahara Conservation Fund on this project and others
- Timeline is to have scimitars in Chad within 24 months. Two weeks?! Last Monday?!

Wildlife Management Plan (Vision & Goals)

Scimitar Horned Oryx re-introduction Initiative

هـيـئـة الـبـيـئـة - أبـوظـبـي
Environment Agency - ABU DHABI

ENVIRONMENT AGENCY – ABU DHABI

Technical Workshop for the Reintroduction of Scimitar Horned Oryx into Chad

December 10-13, 2012

Abu Dhabi, UAE

Working Group 2: Husbandry, Logistics and Animal Health

Acquired animals from 16 institutions

Building the World Herd- A Source Population for Reintroduction

US- 6 different AZA and private institutions

Europe/UK- 6 different EAZA institutions

Marwell Wildlife

UAE- 4 different institutions with more possibilities

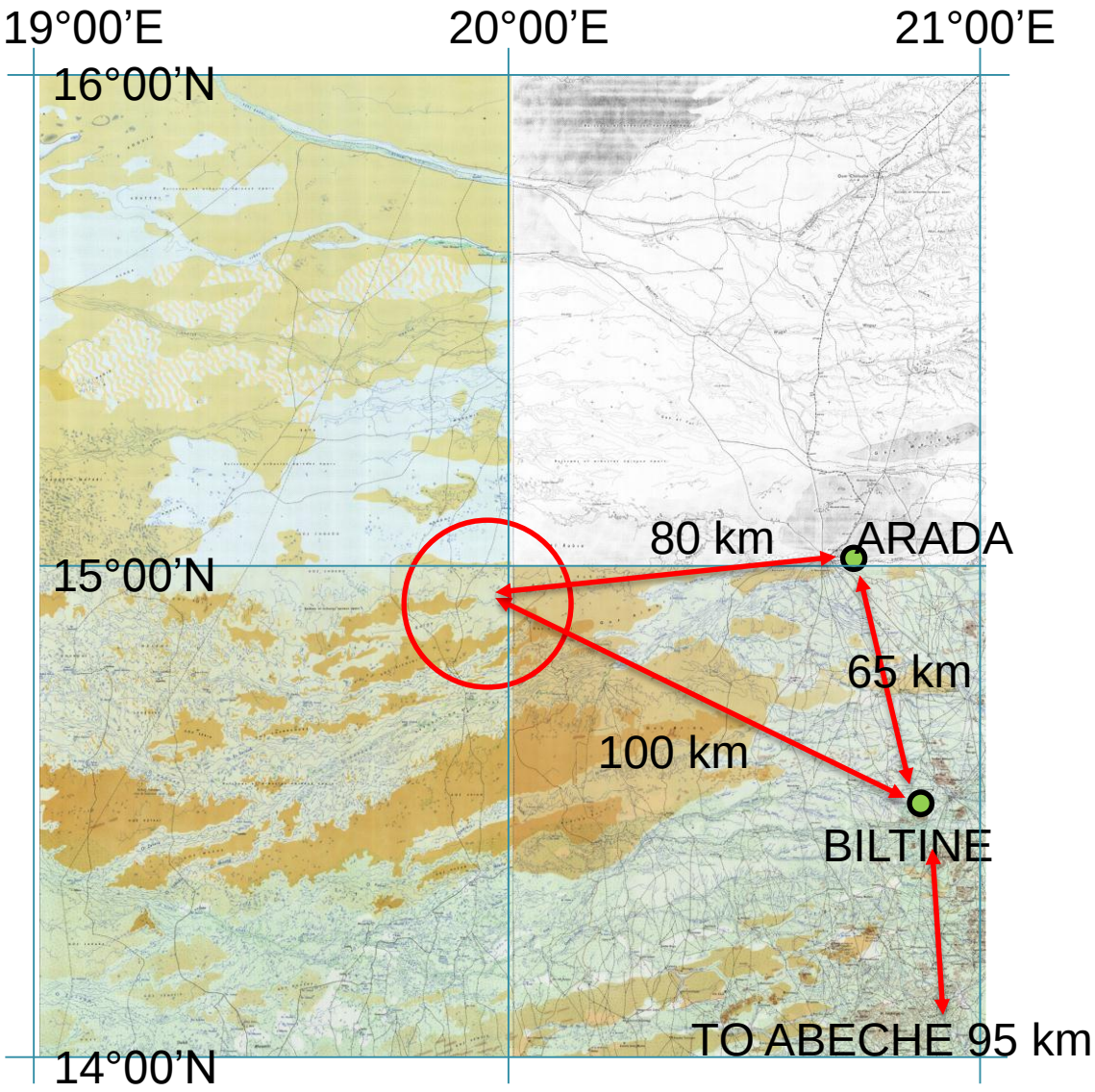
Facilities at Deleika

- Intention of World Class Breeding Facility
- 24 pens
- Have already begun working with Arabian oryx in a well managed situation
- Bring on additional species as necessary
- Also set up for large scale holding
- Will begin setting up for large scale animal handling as well with chutes, tamers, etc.

Working the scimitars at Deleika

Logistics

The distance between Abu Dhabi (AUH) airport in the UAE and Abéché (AEH) airport in Chad is approx. 3,600 km



Proposed target area for initial breeding centre prospection

Photos from the Oryx Reintroduction Project Annual Progress Report 2016

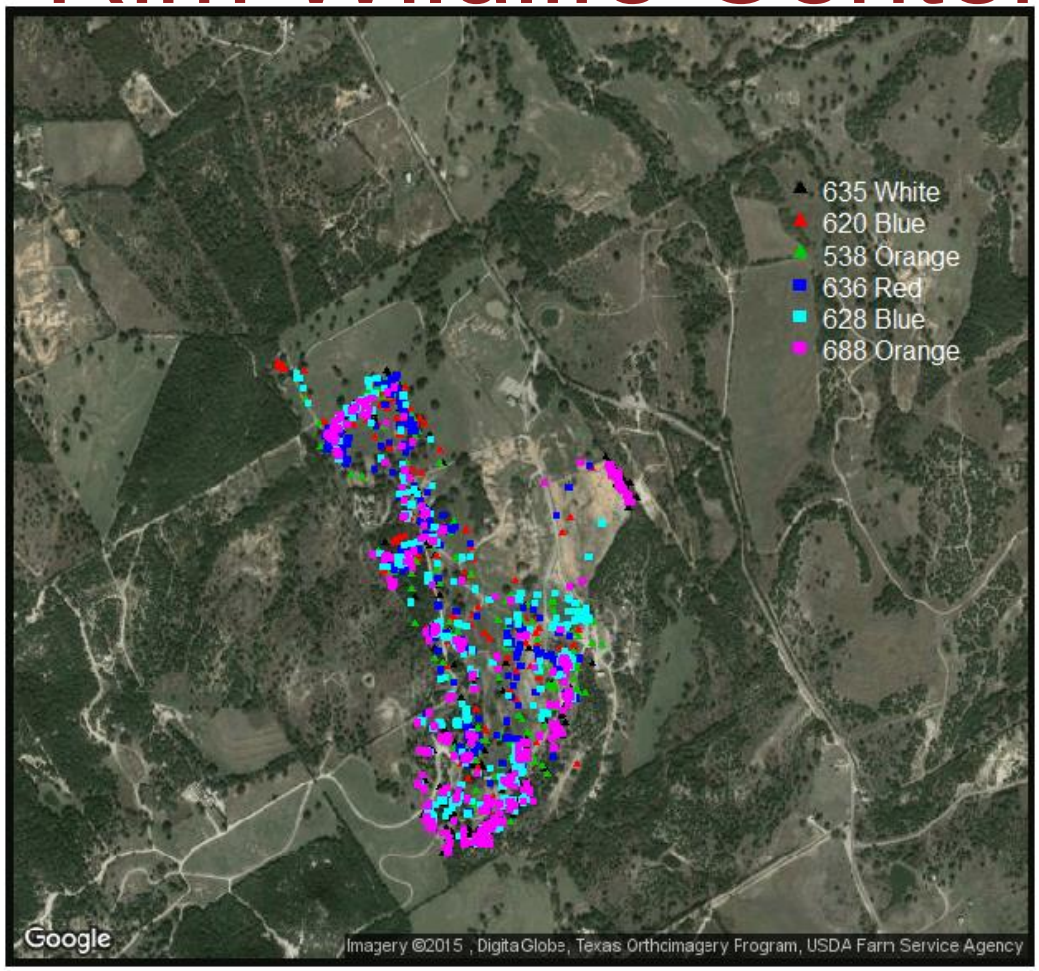
www.saharaconservation.org

Training site manager for Chad on scimitar handling

Scimitar collar study

Collared SHO at Fossil Rim

GPS collar tracking at Fossil Rim Wildlife Center



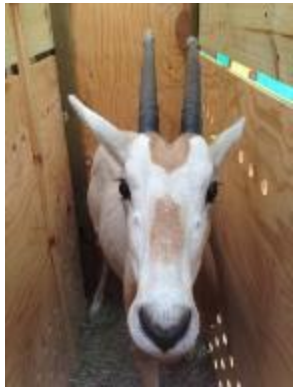
UK SHO at home and at Deleika

www.saharaconservation.org

SCF

Testing the animals that came in from the UK for reintroduction

Logistics of the translocation from Texas to Abu Dhabi



Capturing and moving 38 scimitars at Safari Enterprise February 15th, 2016

Working facilities at Deleika

Loading the 777 at Houston. There were five crates of SHO on this flight.

Five trucks hired to transport SHO from Dubai to Deleika. First truck outfitted with crane

And after 48 hours of travel and 4 ½ hours in clearing animals, the first stop has to be McDonald‘s!

Crates waiting to be loaded onto trucks at Al Maktoum International Airport--Dubai World Central February 27th, 2016

Unloading oryx crates at Deleika in Abu Dhabi. Started about 8:30 pm and were finished by 10:00 pm. 34 Oryx in total.

Today

- The shipment from Deleika to Chad should happen March 14th, 2016.
- IL76 Russian Cargo Plane
- 25 SHO and a Toyota Land Cruiser
- Landing at Abeche and traveling by truck to the release site—almost 200 kilometers of rough roads

New monitoring vehicle for Chad

Historic Release

Oryx habituating to new facility in Chad

Sensitization of the local communities to the Scimitar project

Ouadi Rime Ouadi Achim Park Rangers