

\*Smithsonian Conservation Biology Institute Sahara Conservation Fund Postdoctoral Fellowship (2-years) Scimitar-horned Oryx Reintroduction at Ouadi Rimé-Ouadi Achim Game Reserve in Chad\*

The Smithsonian Conservation Biology Institute (SCBI) and Sahara Conservation Fund (SCF) are currently seeking a Postdoctoral Associate to be based at SCBI's facilities in Front Royal, VA, with regular site visits to Chad. Duties include:

Tracking the movements, habitat selection, and survival of reintroduced scimitar-horned oryx at the Ouadi Rimé-Ouadi Achim Game Reserve using satellite GPS collars and remote sensing. Successful candidates are expected to develop innovative research on habitat selection, movement ecology, and dispersal of newly released scimitar-horned oryx. They will be responsible for developing satellite remote sensing and habitat mapping approaches, as well as managing all aspects of satellite tracking (selection of tracking devices, deployment, data management) and movement data processing and analysis.

This is a full-time, 1-year initial appointment beginning April 1, renewable for an additional year.

Qualifications:

The postdoctoral scientist will have extensive experience in the application of spatial analysis and satellite remote sensing to species conservation. He/she must have a strong background in conservation and spatial ecology, with significant quantitative skills, specifically in:

Using remote sensing to create land cover and land cover change data  
Linking environmental data from remote sensing with species location data  
Analyzing species movement and distribution data  
Developing habitat models.

The postdoctoral scientist also needs to have advanced knowledge of Geographic Information Systems (GIS), as well as the use of R for analyzing data and programming. Previous work on herbivore or ungulate ecology and fluency in French also are advantageous but not required.

Specific Tasks

The first year of the project will focus on:

Compiling satellite imagery and existing environmental base layers for the reintroduction site.  
Developing new critical environmental base layers using a combination of automated remote sensing and manual mapping approaches to map grassland quality, fire extent and frequency, rainfall, seasonal and permanent water sources, well sites, traditional migration routes used by local herders, and vehicle tracks and roads.  
Working with collar manufacturers and other project scientists to select the best tracking solution for released animals.  
Manage ordering and acquisition of tracking collars.

The second year of the project will focus on:

Developing a database for tracking data that automatically processes, integrates and maps incoming location data.  
Implement existing or develop new algorithms for geofencing and inactivity warnings.  
Work with other project scientists to develop benchmarks for evaluating project success based on basic population models and data from field monitoring.  
Analyze movement data to answer critical basic and applied research questions on scimitar-horned oryx ecology and restoration.

Background

Since the late 1980s the scimitar-horned oryx (SHO), *Oryx dammah*, has been classified as Extinct in the Wild (IUCN Red List 2012). Since 2010 surveys by the Sahara Conservation Fund have reported extensively on land use and wildlife status in the Sahel in Chad. Results indicate that opportunity still exists to re-introduce SHO to their former last stronghold in the wild. Following expression of widespread support at a preliminary stakeholder workshop held in N'Djamena in May 2012, the Environmental Agency of Abu Dhabi (EAD), together with the Chadian Ministry of Environment, and the Sahara Conservation Fund (SCF), has developed a project to reintroduce the SHO to the Ouadi Rimé-Ouadi Achim Game Reserve of central Chad using protocols based on IUCN Reintroduction Guidelines. The reintroduction plan includes rehabilitation of the reserve, the delivery of oryx from a large captive population managed by the EAD in Abu Dhabi to Chad, and scientific monitoring of post-release progress. The SCF has been contracted by EAD to provide direct technical support working with SCBI and ZSL.

Interested applicants should submit cover letter, CV, and the names and contact information for 3 references to \*scbi.gis@gmail.com <scbi.gis@gmail.com>\* by January 31.