



COMMUNICATING SCIENCE SERIES

## **SUCCESS AND FAILURE IN CONSERVING SPECIES OF EXTREME RARITY: LESSONS TO BE LEARNT?**

Tuesday, 11 May 2010

The Meeting Rooms, The Zoological Society of London, Regent's Park, London NW1 4RY

**Chair: Jonathan Baillie, Conservation Programmes Director, ZSL**

### **Assessing conservation success: lessons from the Arabian oryx and other desert antelopes**

*Tim Wacher, Wildlife Biologist, Conservation Programmes, ZSL*

The Arabian oryx is a world famous example of a critically endangered species that has been a prime focus of international conservation attention for the last 50 years. Have we been successful in conserving it? In this presentation I will give a brief history of the Arabian oryx from its extinction in the wild in the mid-1970s through captive breeding to contemporary efforts to re-introduce it to its former habitats. Reviewing the history of the Arabian oryx, and some of its close desert-dwelling relatives, provides an interesting exercise in helping us think about the complexity of any conservation intervention. In the long term it is tempting to set up an easy criterion of success along the lines that the target species is seen to be sustaining itself unaided in a natural state as a result of the conservation input. The Arabian oryx is illuminating in this respect, because the remote desert wildernesses they favour are comparatively little occupied by man. One might expect it should be relatively easy to restore undisturbed natural conditions for the species to thrive. A close examination of the lessons that can be drawn from practical attempts to achieve this with Arabian oryx and other desert antelopes illustrate a number of important lessons. It is clear that assessment of conservation success is both elusive and time dependent. A major lesson is that to be realistic and fair to ourselves in a dynamic and changing environment, we should consider conservation projects over a long time frame, in which success can be expected to rise and fall at differing stages. It may not be helpful to rely too heavily on an end-point criterion of success for processes that are so inherently dynamic and unforeseeable in many aspects. Our conservation strategies should plan for this reality.

## **Facing extinction: what lessons can we learn from the Po'o-uli?**

*Jim Groombridge, DICE, University of Kent*

The Po'o-uli (*Melamprosops phaeosoma*), a stocky, medium-sized, elusive honeycreeper with short, rounded wings and an extremely short tail, was discovered on Maui in 1973. Morphological and genetic studies have declared the Po'o-uli to be very distinct from other Hawaiian forest birds, and on this basis the species has been considered a high priority for conservation. Known to exist on a diet of forest snails, this birds' unusual feeding ecology sets it apart from other Hawaiian forest birds. Field survey data indicate the population declined dramatically from 1975 to 1985, and surveys from 1997–2000 located only three birds, of which only two existed until very recently. Today, this species is considered to be 'possibly extinct'. During the period when only two or three birds were known to exist in the wild and were being regularly monitored, the question of how to save this species generated a great deal of interest and controversy. Given the well-documented recoveries of other bird populations from a single pair, a priority for the Po'o-uli focused on the creation of a breeding pair by a translocation between the last few remaining, geographically separated individuals—an intensive intervention which did not succeed. However, the outcome did provide encouraging data on the behaviour of captive Po'o-uli, and precipitated the decision to remove all remaining wild individuals for captive-breeding. A male was caught in September 2004 but died after several months from old age, and field surveys since suggest the species is now extinct. The probable loss of the Po'o-uli has evoked strong emotion and controversy amongst the conservation community, and continues to raise issues about investment of conservation resources, probability of success versus failure, and the value that the international community places on attempts to recover species close to the edge of extinction.

## **Sumatran and Javan rhino conservation: a rare chance of success?**

*Cathy Dean, Director, Save the Rhino International*

Of the five rhino species, the two most threatened are the Sumatran and Javan rhinos. With only approximately 200 Sumatran rhinos surviving in scattered populations in Indonesia and Malaysia, ZSL's EDGE of Existence programme ranks the Sumatran rhino as the sixth most endangered mammal species; while the Javan rhino, with only 50 or so remaining, is ranked the eleventh most endangered mammal species.

The good news is that, having learnt lessons from the revived fortunes of the Southern white rhino and the Greater one-horned rhino, conservation actions are underway with both species. Implementing the general principles—protecting habitats and preventing poaching and other illegal activities, together with detailed monitoring and research into behaviour and reproductive biology—has kept numbers steady over the last 10 years or so. Furthermore, there are strategic plans in place that encompass a range of approaches to conserving both species, and in turn increasing population numbers.

However, significant political and financial obstacles will have to be overcome, and quickly, in order that the Sumatran and Javan rhinos have the best possible chance of recovery. In this talk, I will look at the goals, conservation measures underway, successes to date and problems to be addressed for both species.