

Creation of an action plan for the conservation of freshwater mammals in Venezuela

During 7–10 July 2016 a workshop was held to establish an action plan for the conservation of the threatened freshwater mammals of Venezuela. The workshop was attended by more than 30 specialists, including representatives of the Ministry of Popular Power for Eco-socialism and Water, Fundación Omacha and WWF-Colombia.

On the first day of the workshop knowledge about the river dolphins (*Inia geoffrensis* and *Sotalia guianensis*), giant otters (*Pteronura brasiliensis* and *Lontra longicaudis*) and manatee *Trichechus manatus* in Venezuela was evaluated. This facilitated identification of the main threats and gaps in information, and priority areas for conservation of the species. The main threats identified were habitat loss as a result of damming of rivers for agriculture, use of irrigation systems for residential development, and deforestation and sediment removal; pollution from oil and gas extraction activities in Maracaibo Lake, and from the mining industry along the lower Orinoco River; illegal hunting for meat (manatees and dolphins) and for use as bait (dolphins) and pets (otters); and negative interaction with fisheries.

During the second day separate working groups for river dolphins, otters and manatees discussed (1) research and monitoring, (2) sustainable management, (3) information and its dissemination, (4) education, participation and training, and (5) management and institutions. On the third day the results were shared in a plenary session, and priorities common to each of the groups were identified. Finally, a financial strategy was discussed, identifying potential sponsor institutions and stakeholders.

The research needs identified were studies of the distribution, population size, genetics, biology and ecology of these mammals and the quantification of each of the identified threats. The outcome of the workshop will be the first action plan dedicated to the conservation of these species, by the Ministry of Popular Power for Eco-socialism and Water, framed within the national strategy for the conservation of biodiversity of Venezuela. This workshop methodology could be used for the formulation of conservation strategies at the national level for other groups of threatened species.

OLGA L. HERRERA-TRUJILLO *Fundacion para el Desarrollo de las Ciencias Fisicas, Matematicas y Naturales, Palacio de las Academias, Caracas, Venezuela*
E-mail olgah82@gmail.com

FERNANDO TRUJILLO *Fundación Omacha, Bogota, Colombia*

Leveraging public funding to secure a protected area in the Western Ghats, India

Protected areas serve as refuges for threatened species worldwide, and in India, although these areas constitute < 5% of the country, they are rich habitats for tigers, elephants and other globally threatened species. In many cases people were residing within these protected areas prior to their notification, posing two problems. Firstly, in addition to suffering conflicts with wildlife, people residing within the protected areas are denied basic facilities such as medicine, education or electricity. Secondly, disturbance by people, even at low levels, can negatively affect threatened species.

The c. 600 km² Kudremukh National Park, in the Western Ghats, south-west India, with its shola grasslands and evergreen forests, was declared in 1987 to protect a newly discovered population of the Endangered lion-tailed macaque *Macaca silenus*. The Park continues to harbour one of the largest extant populations of the species but is also home to c. 1,380 families residing in 42 settlements. Many residents have demanded development of infrastructure, although this would violate existing conservation laws.

The Indian government and the Wildlife Conservation Society India Program (WCS India) and its conservation partners view voluntary and fair resettlement of people from within National Parks as of benefit to all parties: resettled families obtain access to land, electricity, health care and education, and habitat is consolidated for threatened species. WCS India has been involved in successful village resettlement programmes in India for more than 2 decades, improving the welfare of more than 1,500 families through support of government-sponsored relocation projects and by providing extensive post-resettlement assistance (see *Oryx*, 48, 484–485, & 50, 205–206).

During 2000–2003 WCS India and its conservation partners, supported by donors that include philanthropist Vikram Nagaraj and Microsoft Corporation, initiated a privately-funded resettlement programme involving eight families from Kudremukh, with the approval and support of the Park authorities. This small intervention, the first of its kind for the Park, triggered a chain of events. Residents of Kudremukh, who were previously at an impasse, recognized in resettlement an outcome that could address their problems. With the Society's support c. 500 families residing within Kudremukh, including forest-dwelling tribal communities, formally applied to the government for resettlement to locations outside the Park.

About 200 families have so far been resettled from Kudremukh under the State government-sponsored scheme, receiving INR 547,000,000 (c. USD 8,000,000) as compensation and financial support. WCS India has invested c. 10% of this in supportive actions, including help with necessary documentation and follow-up with the

government. Circa 152 ha of land in the most pristine parts of Kudremukh, which previously belonged to the resettled families, have been legally integrated into the Park. This has had the benefit of reducing scope for intrusions of development into approximately one-third of the Park.

In April 2016 the government officially proposed resettlement of the remaining 300 families. The government seeks to set aside INR 344,000,000 (USD 5,000,000) for resettlement of 86 scheduled tribe families and INR 871,000,000 (USD 13,000,000) for resettlement of 239 families from other communities. With the formation and working of a District Relocation Committee, the Kudremukh Park officials and other government officials are confident of successfully implementing the proposed resettlement.

Private sector conservation initiatives can play an important role in triggering and promoting fair, generous resettlement programmes. These programmes serve social justice by ensuring that people have access to basic facilities such as electricity, health care and education, and contribute to conservation through consolidation of habitat for threatened species.

P.M. MUTHANNA and DIVYA VASUDEV Wildlife Conservation Society, India Program, Bangalore, India
E-mail vasudev.divya@gmail.com

K. ULLAS KARANTH Wildlife Conservation Society, New York, USA

Otters and wetlands training workshop in China

Otters are excellent indicator species and ideal symbols for wetland conservation as they are top predators and use both land and water. In Asia few scientists are carrying out research on otters and their habitats, and therefore the International Otter Survival Fund has been providing a series of workshops to train people in field techniques for otters, public awareness programmes, law enforcement and general conservation issues. The latest workshop was in Zhuhai, China during 5–10 September 2016.

There are three species of otter in China: the Near Threatened Eurasian otter *Lutra lutra*, the Vulnerable smooth-coated otter *Lutrogale perspicillata*, and the Vulnerable Asian small-clawed otter *Aonyx cinereus*. Populations of all three are declining, largely as a result of wetland degradation, depletion of food resources and illegal hunting. The high quality of otter fur makes it a target for the fur trade, and China is a major market, particularly Tibet, where it forms part of the traditional dress. Although otters are now protected in China, illegal trade continues.

Conservation efforts for mammals in Asia are generally concentrated on high-profile species such as tigers and elephants, and this workshop was the first on otters to be held

in China. The 33 participants came from Nepal, Sri Lanka, Thailand, The Netherlands, Australia, Ukraine, UK and China, where they work with zoos, universities and NGOs. The workshop was opened by Matthew Rous, the UK Consul General in Guangzhou.

The workshop began with a look at the otters of the world, covering the identification, ecology and threats to Asian otters, an overview of conservation status, current knowledge and legislation, and threats to Chinese otters, and continued with otters as wetland ambassadors, reintroducing otters, and caring for otters for release. A major element of the workshop was education and public awareness, particularly in schools and zoos, both in presentations and in practice during a session with local schoolchildren. There were also discussions about the best way to work with older children (12–17 years) and adults.

As otters do not occur near the workshop venue, field visits were not possible but survey techniques and use of camera traps were discussed, and participants practised spraint (droppings) analysis and identification of footprints from casts. As fishermen can pose a threat to otters, mitigation measures were examined. The illegal wildlife trade was considered, in Asia more widely and in Nepal and China. Although Tibet has always been a major market for otter furs, one participant, who works on the Tibetan plateau, reported that the use of real fur is declining as people become more concerned about conservation, encouraged by the Dalai Lama.

The final afternoon was devoted to a discussion of a new initiative to establish a Chinese Otter Conservation Network, for sharing experiences and education material for otter conservation. Two priorities were identified for the new Network: baseline surveys for a better understanding of the distribution and status of the three species of otter, and education and public awareness.

Each participant will be submitting their plans for the next 6 months work to the Network coordinators, Ling-Ling Lee of the National Taiwan University and Zhang Xiaohong, Deputy Director of Wetlands International China. The enthusiasm for collaboration has already resulted in a small team in Hong Kong working together on surveys and education in the Mai Po nature reserve. The Chinese Network will also be linked to the Asian Otter Conservation Network, established following earlier workshops.

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GRACE YOXON International Otter Survival Fund, Skye, UK
E-mail grace@otter.org

PADMA DE SILVA Asian Otter Conservation Network, Sri Lanka