

In this issue

Narcondam: observations of marine and terrestrial fauna

Oceanic islands often contain ecosystems sensitive to human impact and shelter threatened and endemic species. Those of volcanic origin are biologically interesting in studies of ecology and evolution of species colonization, radiation and extinction. One such island in Indian waters is Narcondam.



Narcondam, a small, isolated volcanic island in the Andaman archipelago is clothed in tropical forests with significant biological diversity, including the endemic and endangered Narcondam Hornbill. Past research on Narcondam, including on the hornbill, have yielded useful insights into island biodiversity and ecology, yet there have been few surveys over the last century and much remains to be described and discovered. On **page 346**, Raman *et al.* report on a rapid survey of island from an April 2010 expedition. In surrounding waters, the team found vibrant coral reefs and 17 fish and 2 sea cucumber species. From the island, they report a number of invertebrates, reptiles, birds and mammals. Despite the short duration of the survey, four spider, three butterfly and six bird species are new records for Narcondam, suggesting that further research will augment documentation of island biodiversity. Narcondam Hornbills were frequently encountered and found to be breeding, and the study presents abundance estimates that may serve as a baseline for monitoring.

Discussing conservation status of Narcondam, the authors note steps taken to stave off threats such as feral goats, poaching, habitat degradation around the police camp and proposed military installations. Still, the island and surrounding waters require strict protection and further research and monitoring efforts.

Resource selection of trans-located leopards

In the last few decades severe leopard-human conflicts have been reported from different Protected Areas of India. Very little information is available on the leopard populations in India on ranging patterns and resource selection. Two leopards were captured from the conflict areas, radio-collared and released in forested areas of Sariska Tiger Reserve, Rajasthan, Western India to



study their ranging patterns and resource selection. Both the leopards established their home ranges in and around Sariska Tiger Reserve. The resource use of these trans-located leopards increased with increasing area of *Zizyphus* mixed forest and *Acacia* mixed forest and decreased with increasing area of *Anogeissus* dominated forest. Similarly, they selected habitats with higher encounter rate of wild pig and nilgai and less used the habitats with high encounter rate of chital and common langur. The 'problem' leopards had shown significant positive selectivity to the available natural vegetation types and wild-prey abundance rather to degraded habitats and domestic prey species. Translocation of 'problem'

leopards from human dominated areas to forested areas having high wild prey densities could be a better management strategy to mitigate leopard-human conflicts. See **page 338**.

Effect of elevated water temperature in Chocolate mahseer

The rising temperature in northeastern hill region of India is already affecting the life history events and reproductive performance of most native fish species. It is now evident that, temperature is a fundamental physical regulatory factor in the teleost and its effects in the control of all vital processes from gamete development to growth and survival. Chocolate mahseer *Neolissochilus hexagonolepis* is one of the commercially important fish species in India. In Meghalaya, the species is popular as a sport fish and provides recreation to anglers and significantly contributes to the ecotourism sector. It is now clear that majority of our hill ecosystem is under the trap of climate change. Consequently, natural habitats are increasingly affected by less rainfall and increasing temperature. Majhi *et al.* (**page 379**) studied the thermal tolerance limits in



Chocolate mahseer, presuming that the rapidly increasing temperature might affect this species in the coming years. Water temperature of 31°C and beyond in nature might create physiological stress in this species, which in the long run may affect its reproductive fate like in the case of Pejerrey fish from Argentina. The authors recommend that appropriate conservation efforts should be implemented to safeguard this valuable fish species.