

ANDAMAN & NICOBAR ISLANDS: HOME TO A TENTH OF INDIA'S FAUNA SPECIES

Relevant for: Environment & Disaster Management | Topic: Environmental Degradation - Wildlife related issues

Andaman Serpent Peter Bundgaard

The Narcondam hornbill, its habitat restricted to a lone island; the Nicobar megapode, a bird that builds nests on the ground; the Nicobar treeshrew, a small mole-like mammal; the Long-tailed Nicobar macaque, and the Andaman day gecko, are among the 1,067 endemic faunal species found only on the Andaman and Nicobar Islands and nowhere else.

A recent publication by the Zoological Survey of India (ZSI) titled *Faunal Diversity of Biogeographic Zones: Islands of India* has for the first time come up with a database of all faunal species found on the island, putting the number at 11,009. The documentation proves that the islands, comprising only 0.25% of India's geographical area, are home to more than 10% of the country's fauna species.

The publication, however, also cautions that tourism, illegal construction and mining are posing a threat to the islands' biodiversity, which is already vulnerable to volatile climatic factors.

"The presence of a large number of species in such a small area makes the Andaman and Nicobar Islands one of the richest ecosystems and biodiversity hot spots in India. Some of the species in A&N Islands are restricted to a very small area and thus more vulnerable to any anthropogenic threat," Kailash Chandra, Director-ZSI, and one of the authors of the publication, said.

The total area of the A&N Islands, which comprises of 572 islands, islets and rocky outcrops, is about 8,249 sq. km. The population of the islands, which includes six particularly vulnerable tribal groups (PVTGs) — Great Andamanese, Onge, Jarawa, Sentinelese, Nicobarese and Shompens — is not more than 4 lakh. The number of tourists visiting the islands has crossed the number of people residing in them, with latest data showing 4.87 lakh tourists visiting the islands annually.

In a recent development, the Government of India relaxed the Restricted Area Permit (RAP) norms for some foreign nationalities notified under the Foreigners (Restricted Areas) Order, 1963, to visit 29 of its inhabited islands, till December 31, 2022. This has triggered further concerns of increased anthropogenic pressures over the islands' ecosystem.

Pankaj Sekhsaria, Senior Project Scientist, DST-Centre for Policy Research, Indian Institute of Technology (IIT)-Delhi, who has written extensively about the islands, said that some of the islands opened up for tourists are very difficult to access for a day visit.

Some of the islands removed from the RAP list have no habitation except PVTG like Sentinelese in case of North Sentinel Island, and there is nothing other than a police outpost on the Narcondam Island, Dr. Sekhsaria pointed out.

"The development paradigm that we are pushing for this place at the macro level, such as tourism, construction and development of military, are not taking in account three factors — ecological fragility of the area (the endemism), geological volatility (earthquakes and tsunamis), and the impact they will have on local communities," he said.

The publication, running across 49 chapters and 500 pages, not only prepares a database of species found in particular category of animals, but also highlights the most vulnerable among them. Of the ten species of marine fauna found on the islands, the dugong/sea cow, and the Indo-Pacific humpback dolphin, are both classified as Vulnerable under the IUCN (International Union for Conservation of Nature) Red List of Threatened Species.

Among the 46 terrestrial mammalian species found, three species have been categorised as Critically Endangered — Andaman shrew (*Crocidura andamanensis*), Jenkin's shrew (*C. jenkinsi*) and Nicobar shrew (*C. nicobarica*). Five species are listed as Endangered, nine species as Vulnerable, and one species as Near Threatened, according to the IUCN.

Among birds, endemism is quite high, with 36 among 344 species of birds found only on the islands. Many of these bird species are placed in the IUCN Red List of threatened species under the Wildlife Protection Act (WPA).

Similarly, eight species of amphibians and 23 species of reptiles are endemic to the islands, and thus are at high risk of being threatened.

Another unique feature of the islands' ecosystem is its marine faunal diversity, which includes coral reefs and its associated fauna. In all, 555 species of scleractinian corals (hard or stony corals) are found in the island ecosystem, all which are placed under Schedule I of the WPA. Similarly, all species of gorgonian (sea fans) and calcareous sponge are listed under different schedules of the WPA.

While highlighting that a long period of isolation from the mainland made the islands hotspots for speciation (the formation of new and distinct species) resulting in hundreds of endemic species and subspecies, the authors of the publication have underlined that any stress can have a long-lasting impact on the islands' biodiversity, devastating the population size of any endemic fauna, followed by extinction within a limited span of time.

Many countries have placed several restrictions on the use of firecrackers

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