



## Andaman & Nicobar Islands' Rich Faunal Diversity

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 Andaman and Nicobar (A&N) islands.

- According to the publication, A&N islands which comprise only **0.25% of India's geographical area**, are home to more than **10% of the country's fauna species**.
- The presence of a large number of species in such a small area makes the A&N islands one of the richest ecosystems and biodiversity hotspots in India.
- 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.

### Zoological Survey of India

- The Zoological Survey of India (ZSI), a subordinate organization of the **Ministry of Environment and Forests** was **established in 1916**.
- It is a national centre for **faunistic survey** and exploration of the resources leading to the **advancement of knowledge** on the exceptionally **rich faunal diversity of the country**.
- It has its headquarters at **Kolkata** and 16 regional stations located in different geographic locations of the country.

### Faunal Diversity

- Major **endemic faunal species** found only on the A&N Islands and nowhere else are **Narcondam hornbill**, **Nicobar megapode** (a bird that builds nests on the ground); **Nicobar treeshrew** (a small mole-like mammal), **Long-tailed Nicobar macaque**, and the **Andaman day gecko**.
- Among **marine fauna** found on the islands, the **Dugong (sea cow)**, and the **Indo-Pacific humpback dolphin** are classified as **Vulnerable** under the **IUCN** (International Union for Conservation of Nature) Red List of Threatened Species.
- Among the **terrestrial mammalian species** found, three species have been categorised as **Critically Endangered** under **IUCN Red List** — **Andaman shrew** (*Crocidura andamanensis*), **Jenkin's shrew** (*C. jenkinsi*) and **Nicobar shrew** (*C. nicobarica*).
- Another unique feature of the islands' ecosystem is its **marine faunal diversity**, which includes **coral reefs** and its associated fauna.
- **More than 500 species of scleractinian corals** (hard or stony corals) are found in the island ecosystem which have been protected under **Schedule I of the Wildlife Protection Act, 1972**.

### Key Findings: Causes & Consequences

- Anthropogenic threats-**tourism, illegal construction** and **mining** are posing a threat to the islands' biodiversity, which is already vulnerable to **volatile climatic factors**.
- The development paradigm that is being pushed such as tourism, construction and development of military, is 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.**

- Any stress can have a long-lasting impact on the A&N islands' biodiversity, devastating the population size of any endemic fauna, followed by extinction within a limited span of time.

### **Andaman and Nicobar Islands**

- The Andaman and Nicobar islands ( A&N islands), popularly known as '**Bay Islands**', are situated in the Bay of Bengal, midway between peninsular India and Myanmar, spreading like a broken necklace in the North-south direction.
- The total geographic area of A&N islands is 8249 sq km, of which Andaman group of islands cover 6408 sq km while Nicobar group cover 1841 sq km.
- A&N islands represent a **typical tropical ecosystem** that includes an endless stretch of **tropical rainforests** bordered by **mangrove swamps** and unspoilt fragile marine biota exhibiting an extreme degree of endemism.
- The **maximum altitude** of these islands is 730 m at **Saddle Peak** in **North Andaman**, formed mainly of **limestone, sandstone, and clay**.
- Two islands of **volcanic origin** are found, namely the **Narcondam** and the **Barren islands**. The former is now apparently extinct while the **latter is still active**.
- The Andaman and Nicobars are separated by the **Ten Degree Channel** which is 150 Kms. wide.
- The population of the islands is about 4 lakh, which includes **six particularly vulnerable tribal groups (PVTGs)**.
- The indigenous people of **Andamans** are the **Great Andamanese**, the **Jarawa**; the **Onge**; and the **Sentinelese (the most isolated of all the groups)**.
- The indigenous peoples of the **Nicobars** (unrelated to the Andamanese) are the **Nicobarese**; and the **Shompen**.
- The **Andaman Wood Pigeon**, **Andaman Padauk** and **Dugong** are declared as **State Bird**, **State Tree** and **State Animal** respectively.

### **Biodiversity Hotspots of India**

There are **four biodiversity hotspots** in India:

- **Himalaya**: Includes the **entire Indian Himalayan region** (and that falling in Pakistan, Tibet, Nepal, Bhutan, China and Myanmar)
- **Indo-Burma**: Includes **entire North-eastern India, except Assam and Andaman group of Islands** (and Myanmar, Thailand, Vietnam, Laos, Cambodia and southern China)
- **Sundalands**: Includes **Nicobar group of Islands** (and Indonesia, Malaysia, Singapore, Brunei, Philippines)
- **Western Ghats and Sri Lanka**: Includes **entire Western Ghats** (and Sri Lanka)

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