



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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