

Hot spots of biodiversity

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A world map with a dark blue background. The landmasses are colored in a gradient from light blue to red, representing different levels of biodiversity. The most intense red areas, indicating the highest biodiversity, are concentrated in South America (primarily Brazil), Central Africa (including the Congo basin), and Southeast Asia (including the Indonesian archipelago). Other areas in yellow and light green are scattered across Africa, Asia, and the Americas. The text "HOT SPOTS OF BIODIVERSITY" is overlaid in the center in a yellow, serif font.

HOT SPOTS OF BIODIVERSITY

What's a Hotspot?

A **biodiversity hotspot** is a biogeographic region that is both a significant reservoir of **biodiversity** and is threatened with destruction. The term **biodiversity hotspot** specifically refers to 35 biologically rich areas around the world that have lost at least 70 percent of their original habitat.

HISTORY

- British biologist **Norman Myers** coined the term "biodiversity hotspot" in **1988** based on **plant endemism** and serious levels of **habitat loss**.
- **1990** Myers added a further **8** hotspots, including **4** Mediterranean-type ecosystems



HISTORY

- **Conservation International (CI), USA** adopted Myers' hotspots as its institutional blueprint in **1989**
- **1996**, undertake a reassessment of the hotspots concept
- In **1999**, CI identified **25 biodiversity hotspots** in the book "Hotspots: Earth's Biologically Richest and Most Endangered Terrestrial Ecoregions".
- In **2005** CI published an updated titled "Hotspots Revisited: Earth's Biologically Richest and Most Endangered Terrestrial Ecoregions" and mentioned **35 biodiversity hotspots**



BASIC CRITERIA

According to CI, to qualify as a hotspot a region must meet two strict criteria:

1. It must contain at least 1,500 species of vascular plants ($> 0.5\%$ of the world's total) as endemics
2. It has to have lost at least 70% of its original habitat

Important hot spots,

1. western Ghats and Sri Lanka
2. Himalaya
3. Mediterranean basin
4. Indo-Burma
5. Horn of Africa
6. Madagacsar and Indian ocean islands
7. Sundaland
8. Forests of Australia
9. Caucasus
10. Mesoamerica

BIODIVERSITY HOTSPOTS IN INDIA

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

Himalaya



Red Panda (*Ailurus fulgens*)



Yak (*Bos mutus*)



Tibetan wild dog (*Cuon alpinus*)



Snow leopard (*Uncia uncia*)



Bar-headed Goose (*Anser indicus*)



Great hornbill (*Buceros bicornis*)



Black-necked crane (*Grus nigricollis*)



White-crested Kalij Pheasant
(*Lophura leucomelanos hamiltoni*)



Himalayan newt (*Tylototriton verrucosus*)



Himalayan toad
(*Duttaphrynus himalaicus*)



Himalaya Paa Frog



Himalayan agama
(*Paralaudakia himalayana*)

Indo-Burma



Large-antlered Muntjac
(*Muntiacus vuquangensis*)



Grey-shanked douc langur
(*Pygathrix cinerea*)



Annamite striped rabbit
(*Nesolagus timminsi*)



leaf deer (*Muntiacus putaoensis*)



Saola (*Pseudoryx nghetinhensis*)



Racket-tailed Treepie
(*Crypsirina temia*)



Giant ibis (*Thaumatibis gigantea*)

Fauna of Western Ghats



Lion-tailed macaque (*Macaca silenus*)
Flagship species of Western Ghats



Malabar large-spotted civet
(*Viverra civettina*)



Nilgiri tahr (*Nilgiritragus hylocrius*)



Nilgiri langur (*Trachypithecus johnii*)



Nilgiri wood pigeon (*Columba elphinstonii*)



Malabar Parakeet (*Psittacula columboides*)



White-bellied treepie
(*Dendrocitta leucogastra*)



Malabar barbet (*Psilopogon malabaricus*)



Mugger crocodile (*Crocodylus palustris*)



Purple frog or pig-nosed frog
(*Nasikabatrachus sahyadrensis*)



Malabar gliding frog or Malabar flying frog
(*Rhacophorus malabaricus*)



Denison's barb, Miss Kerala, or roseline shark
(*Sahyadria denisonii*)

Reasons for biodiversity loss in hotspots

- ***Habitat destruction***
- ***Resource mismanagement***
- ***Poaching***
- ***Climate change***

THANK YOU!!!!!!