



Global Biodiversity Pattern

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A global study published in *Nature Ecology & Evolution* reveals a **universal pattern in species distribution** across biogeographical regions, offering new insights into **global biodiversity organization**.

Key Findings of the Study:

- **Onion-like Structure:** Dense **core zones** with **high richness and endemism**, gradually transitioning through **moderate diversity layers** to **species-poor outer zones** dominated by **generalists** (subsets of inner species).
- **Universal Pattern:** Despite regional differences (**e.g., South America vs. Africa**), species in **diverse taxa (birds, mammals, amphibians)** follow a common biogeographical structure.
- **Climatic Determinants:** **Temperature** and **rainfall** predict species distribution with **98% accuracy**, showing the strong role of **environmental filters** like **climate** and **elevation**.

Implications for Conservation:

- **Redefining Focus:** Move beyond administrative protected areas towards **ecological corridors** and **biodiversity hubs**, crucial for **climate-sensitive regions** like the Himalayas.
- **Addressing Data Gaps:** Underrepresentation of **tropical regions, Global South**, and certain **taxa** (e.g., dragonflies, trees) calls for more **region-specific studies** in India.
- **Climate-Responsive Strategy:** Monitoring **rainfall** and **temperature shifts** can support **adaptive conservation planning**.

Read More: [Biodiversity as India's Sustainable Edge](#)

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