

Cosmopolitan
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climatic zones. the



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Cosmopolitan distribution: Such a taxon or a species occurs in all climatic zones.

The common plant species of nearly cosmopolitan distribution are *Chenopodium album*, *Taraxcum officinale*, *Phragmites communis*, *Urtica dioica*, *Poa annua*, etc. Among the animals the following species have cosmopolitan distribution: *Tyto Alba*, *Ardea cineria*, *Falco peregrinus*, *Vanessa cardui*, *Nonrrophria noctuella*, and *Macrobiotus hufelandi*. Circumpolar distribution: Certain species such as *Saxiphraga oppositaefolia*, *Carex lapponica*, *Ranunculus nivalis*, etc., are distributed in a belt around the north-pole. Circumboreal and circumastral distribution: The species which are distributed in a near continuous belt in the temperate region of northern or southern hemisphere are said to have circumboreal and circumastral distribution respectively. The genera *Alnus*, *Draba*, *Acer*, etc., are circumboreal in distribution and *Danthonia* is circumastral in distribution.

Pantropical distribution: Certain plant species like *Bauhinia*, *Dalbergia*, *Dioscorea*, *Corchorus*, *Ocimum*, *Cassia*, *Eugenia*, *Phyllanthus*, etc., are distributed throughout the tropical belt.

2. Discontinuous Distribution:

A taxon distributed in two or more widely separated geographical areas, is said to have discontinuous distribution.

Such taxa may occur in several small areas in the same continent or in two different continents of the same or different hemispheres. For example, two plant species—*Saxifraga* and *Silene* are distributed in Arctic region and high altitudes Likewise, three genera of Dipnoi fish, *Epiceratodus*, *Protopterus* and <https://assignbuster.com/cosmopolitan-species-occurs-in-all-climatic-zones-the/>

Lepidosiren are distributed in Australia, Africa and South America. There are various other examples in plants and animals which show discontinuous distribution.

3. Endemic:

The endemics are taxa of very restricted distribution in small areas.

Numerous plant families, genera and species are found to be highly endemic. For example, a great proportion of the taxa of the flora of oceanic islands are endemic to those islands only. Some important endemic plant genera of Indian deserts are Omania, Xerolia, Leptadenia, Daemia, etc.

, and of India are Amphi- come, Dittoceras, Dodecania, Ulteria, Cruddasia, Heylandia, Lage- nandra, Zeylandium, Hitchenia, Blepharistemma, etc.

Certain important examples of endemic Indian plant species include Ficus reli- giosa, Ficus bcngalensis, Aegle marmelos, Artoca pus nohilis, Crotalaria juncea. Datura metel, Indigofera tinctoria, Ektiaria, Eleu- sine coracana, Piper nigrum, Piper longum, Sesamum indicum, Hibiscus abelmoschus, Butea monosperma, Beaumontia grandiflora, Memecylon umbellatum, Holmskioldia sanguinea, Feronia elephantum, Saraca indica, Shorea robusta and Caryota urens. The endemics are divided into two types: i. Palaeoendemic or epibiotic or relicts: These endemics are supposed to have been the remnants of a once widely distributed taxon in the past, e. g.

, Ginkgo biloba, Sequoia semipervirens, Trapa natans. ii. Neoendemics or microendemics: These endemic taxa are supposed to have evolved only during the recent times and did not have sufficient time to extend their ralges of distribution.