**Abstract**

We investigated the current patterns of diversity by country and by class of echinoderms, and analyzed their biogeographical, depth, and habitat or substratum affinities, using the database of the appendix of this book. Traditionally, the area has been divided into five biogeographical Regions and nine Provinces that cover a wide climate range. Currently, the echinoderm fauna of Latin America and [Canary](http://link.springer.com/search?dc.title=Canary&facet-content-type=ReferenceWorkEntry&sortOrder=relevance) islands is constituted by 1,539 species, with 82 species of Crinoidea, 392 species of Asteroidea, 521 species of Ophiuroidea, 242 species of Echinoidea and 302 species of Holothuroidea. Species richness is highly variable among the different countries. The number of species for the countries is highly dependent on its coast length. The echinoderm fauna of the Panamic, Galápagos and the Chilean regions are biogeographically related. Other regions that are closely related are the Caribbean, West Indian, Lusitania and Brazilian. Cosmopolitan species are an important component in all the regions. Affinities between faunas are a consequence of the combination of climatic and trophic factors, connectivity as a function of distance, currents patterns and historical processes. Moreover, different environmental factors would be responsible for the faunal composition and species distribution at different spatial scales. The bathymetrical distribution of the echinoderm classes and the species richness varies according to the depth range and the ocean. Most species occurred at depths between 20 and 200 m. The Caribbean-Atlantic regions are richest in shallow depths, while the Pacific coast has higher values in deeper waters. The domination of each class in each substrate and habitat categories also varies differentially along each coast.