

ANGIOSPERMAE PALEOGEOGRAPHY AND CENOZOIC PLATE TECTONICS

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During Cenozoic Angiospermae expanded all over the Earth with cosmopolitan and endemic taxa. Families with fossils are from: Paleocene 20, Eocene, 43, Oligocene and Miocene 11 each, Pliocene 5 and Pleistocene 9. Most of the endemic families date back to these phases of evolution and radiation. Reconstructed world maps from Boreal Region, American Mediterranean, South Atlantic and Indian oceans, India, SE Asia and Australasia, Austral Region, Atlantic and Pacific Hemispheres give evidence of natural bridges in many parts of the world, which permitted their final widespread distribution. Insects, microchiroptera [Paleocene] and macrochiroptera [L/M Oligocene] were important partners in this evolutionary process. All mammals evolved with intensive dependence on this class distribution. Rich varieties of habitats and niches and their occupation was dependant mostly on the nutrition factor offered by Angiospermae. New regional and micro climates were organised and/or conserved as dense forests worked out thermodynamically to diminish temperature gradient of the atmosphere. In Pliocene times most of the family taxa were already present on Earth. Mutations on varieties submitted to intensive cosmic and/or climatic agents [specially altitude] and selection factors directed the endemic cladistic type explosion of the Tertiary. Eventually electromagnetic field inversions permitted cosmic rays and UV to operate intensively on the genoma. Selection and genetic drift of pioneering plants occupying new territories offered the conditions for such explosion of varieties. Plate and continental separation were absolute factors for endemism to develop. It is certain that our present time conditions were already defined by the end of Tertiary.