

Biogeography of Chilean herpetofauna: Distributional patterns of species richness and endemism

Vidal, Marcela A.

Soto, Eduardo R.

Veloso, Alberto

We analyze the geographic distribution pattern of Chilean amphibian and reptile species between 18°20'S (Arica) to 56°S (Magellanic Area) by the identification of centers of higher richness and endemism and we infer the biological processes that could have promoted these patterns from a biogeographic point of view, comparing our results with the present location of National Parks found in the National System of State Wildlife Protected Areas. Our results provide evidence that richness and endemism shows clear latitudinal trends along Chile, with highest values at mid-latitudes (31°S to 44°S). Five areas of endemism for phenetic analysis and six for PAE (Parsimony analysis of endemism) were found that agree with bioclimatic boundaries. We suggest that the richness and endemism patterns registered for Chilean herpetological taxa may be explained by an historical mechanism, in accordance with previous biogeographical proposals. To improve the conservation efforts for amphibians and reptil