Vertebrate invaders and their ecological impacts in Chile

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Abstract

The South American country of Chile has been subjected to relatively few invasions in historic times. In comparison to the ca 610 vertebrate species found in continental Chile, only 24 species (3.9%) have invaded the country. Except for two bird and two or three mammal species that expanded their range and crossed the Andean Ranges from Argentina, the remaining 20 species were all introduced, or aided, by humans. Of the 24 invader species that currently occur in Chile, 11 (46%) were first introduced in central Chile, two (8%) in the northern part of the country, nine (38%) in the southern part, and two (8%) in Juan Fernández Archipelago. For ten (42%) of those species there is no information about their effects on the native flora, vegetation, or fauna. For eight species (33%), the information regarding the effects of the invaders is anecdotal. For six species (25%), there is adequate quantitative documentation available on their effects. Of a total of seven convincingly reported cases, two involve positive effects (increase in the prey base for native predators) and five have negative effects, of which three are on native vegetation and the remaining two on native fauna.