Small mammals of the Atacama Desert (Chile)

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Abstract

The little-known mammalian fauna of the Atacama Desert and adjacent Puna in northern Chile is analysed by means of live-trapping, and examination of fox scats and owl pellets. On the basis of physiognomy, climate, altitude and vegetation, four biomes were recognized: coastal lowland Lomas, mid-altitude Riparian and Oasis biomes, and highland Puna. A total of 188 individuals in six small mammal species was caught with 2736 trap-nights chiefly during the summer months of 1997 and 1998. Representatives of another four small mammal species were detected among 123 fox scats (Pseudalopex spp.). A total of 346 pellets cast by Barn owls (Tyto alba) showed that they caught species not found in the fox diet, but captured in Sherman traps. The mammal sampling effected by live-traps, foxes and owls was rarely coincident, with some species collected only by traps or by foxes (owls coincided nicely with traps in presence-absence records). Even when captured by the three, the proportional representation of small mammals in live-traps, fox scats and owl pellets differed markedly. It is recommend that all these means of data collection (and perhaps snap-traps) are used to assess the mammalian biodiversity of any little-known site, lest surveying results be seriously flawed.