

On the ecology and conservation of the critically endangered Masafuera Rayadito (*Aphrastura masafuerae*)

Tomasevic, Jorge A.

Hodum, Peter J.

Estades, Cristián F.

The Masafuera Rayadito (*Aphrastura masafuerae*) is a little known, critically endangered, endemic bird species of Alexander Selkirk Island, Juan Fernandez Archipelago, Chile. The last assessment reported a population as low as 140 individuals. Possible causes for its decline could be habitat loss and degradation, and potentially a lack of nest sites. We conducted a new population assessment using point counts and investigated habitat use patterns during the post-breeding season of 2006 and 2007. We also installed 81 nest boxes (in three areas) to study the species' breeding ecology and to increase potential nest sites. Our estimated mean rayadito abundance for 2006 was 0.54 ± 0.19 ind/ha (mean \pm SE, approximately 250 individuals in the southern area). We could not survey all the areas where the rayadito might be found, but extrapolating to a conservative estimate of potential habitat of 1000 ha we estimate a total population size of 500 individuals (148-932, CI 95%). We found a significa