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UNUSUAL NESTING OF THE RUFOUS-LEGGED OWL?

The Rufous-legged Owl (*Strix rufipes* King) is a forest specialist that inhabits the woodlands of southern South America. Dietary studies have shown it to be a generalist predator (D.R. Martínez 1993, *J. Raptor Res.* 27:214–216). Recent research on habitat use indicates it is associated with old-growth forests (D.R. Martínez and F.M. Jaksic 1996, *Ecoscience* 3:259–263), and cavity-bearing dead trees have been suggested as the key features and limiting factors in suitable habitat (R. Rozzi et al. 1996, pages 135–152 *in* J.J. Armesto et al. [EDS.], Ecología de los bosques nativos de Chile, Editorial Universitaria, Santiago, Chile). Apparently, in late September in mature forests, it selects a nest tree with an upward-facing cavity where it lays a clutch of 2–3 eggs (A.W. Johnson 1967, The birds of Chile and adjacent regions of Argentina, Bolivia and Peru. Vol. 2. Platt Establecimientos Gráficos, Buenos Aires, Argentina; R. Housse 1945, Las aves de Chile: su vida y costumbres. Ediciones Universidad de Chile, Santiago, Chile). To our knowledge, no firsthand descriptions of an active nest have been published.

On 11 October 1996, while conducting an assessment of the use of exotic pine (*Pinus radiata*) plantations by diurnal birds in Constitución, central Chile, we found a Rufous-legged Owl nest in an approximately 15-yr-old pine stand (35°27′32″S, 72°52′40″W). The nest, which contained two eggs, was a small depression on the ground covered with pine needles and surrounded by woody debris. The vegetation in the understory was sparse (37.5% cover) and was composed mainly of shrubby individuals of *Cryptocaria alba* and *Aristotelia chilensis*. The pine canopy had a mean height of 11 m and a coverage of 55%. The closest patch of native forest was 420 m away. We observed the nest every 4–5 d, and there was always an owl incubating the eggs. By 23 October, one egg had disappeared from the nest, but the other was still being incubated. On 6 November, we visited the site for the last time. The egg had not yet hatched, so we could not confirm nesting success. During the same day, however, we discovered a second nest located in a pine plantation only 350 m north from the first one (35°27′24″S, 72°52′40″W). This nest was also on the ground at the base of a clump of grasses and contained only one egg. The composition of the understory (33.7% cover) was similar to that of the first site, but the pine plantation was older (approximately 25-yr-old), with a mean canopy height of 16 m and a coverage of 62.5%. The nest was 100 m from the nearest native forest.

We found these two nests by chance while surveying less than 0.5% of the 14 073-ha of pine plantations in our study area. This suggests that the Rufous-legged Owl might be relatively common. Ground nesting has been reported for other *Strix* owls as a response to the lack of nesting sites due to forestry practices (S.J. Petty et al. 1994, *J. Raptor Res.* 28:134–142, S. Sulkava and K. Huhtala 1997, *J. Raptor Res.* 31:151–159). In our case, there were nearby stands of native forest with trees large enough to contain potential nesting cavities. Nonetheless, our survey in 51 ha (2.55% available area) of native forest found no owls.

The clutches we observed were smaller than those reported for the species and certainly smaller than the average sizes of clutches of temperate *Strix* owls in North America (2.4–3.2; P.A. Johnsgard 1988, North American owls. Biology and natural history. Smithsonian Institution Press, Washington, DC U.S.A.) and mid-Europe (4.6; H. Mikkola 1973, pages 116–146 *in* J.A. Burton [ED.], Owls of the world, their evolution, structure and ecology. E.P. Dutton & Co , New York, NY U.S.A.). Small clutches and the loss of one egg during the observation period indicate that success of ground nests in pine plantations may be low for the species. However, the apparent behavioral shift from cavity nesting in old-growth native forests to ground nesting in exotic pine plantations could be an indication that the Rufous-legged Owl is not as dependent on old-growth forests as previously assumed.

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