

Nesting of the Rufous-tailed Hawk *Buteo ventralis* on a rocky wall in southern Chile

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ABSTRACT: We report the first record of nesting of the Rufous-tailed Hawk (*Buteo ventralis* Gould) on a rocky substrate. The nest was recorded in southern Chile, on the west coast of South America. It was a platform 50 cm wide and 80 cm high, built with branches of the roble (*Nothofagus obliqua*), on a rocky wall about 30 m above the ground.

KEY-WORDS: nest, breeding, behavior, Rufous-tailed Hawk, temperate forest.

The Rufous-tailed Hawk (*Buteo ventralis* Gould) is a specialized raptor endemic to the temperate forest of southern South America (35 ° - 55 ° S) due to its high dependence of this type of environment for nesting (Clark 1986, Trejo *et al.* 2006). Only 15 nests are reported for this species (Housse 1945, Behn 1947, Figueroa *et al.* 2000, Rivas-Fuenzalida *et al.* 2011, Norambuena *et al.* 2012), all of them built on tall trees (> 25m) in primary and secondary temperate forests or in exotic plantations of the monterey pine *Pinus radiata* surrounded by native forest (Rivas-Fuenzalida *et al.* 2011). In this paper we report a new nest and the first record of Rufous-tailed Hawk nesting on a rocky substrate.

On 2 November 2012 we recorded a pair of light-morph Rufous-tailed Hawks nesting on the northern slope of the cerro Illi, municipality of Lago Ranco, southern Chile (40°16'S; 72°12'W, 150 m a.s.l.). The cerro Illi is a government property of ~ 1.750 ha, with elevations between 80 to 850 m a.s.l., mostly (60%) covered with primary temperate forest of coihue (*Nothofagus dombeyi*) and ulmo (*Eucryphia cordifolia*) and to a lesser extent (~ 30%) by secondary forest of roble (*Nothofagus obliqua*), laurel (*Laurelia sempervirens*) and lingue (*Persea lingue*) and steep rocky outcrops (~10%) (CEA 2013). The nest was ~ 50 cm high and ~ 80 cm wide, built with fresh and dry branches of roble (Figure 1), on a small rocky ledge at ~ 30 m above the ground, on a rocky wall of ~ 120 m wide and ~ 40 m high. Above the nest (~ 3m) another

rocky ledge protected the nest from sunrays during the hottest hours. The rocky wall was in a highly altered ravine of native forest of roble, laurel and lingue, with emergent trees at the top of the wall, which were used as perch by the pair of Rufous-tailed Hawks. Nearby (~ 200 m) at the foot of the ravine there was a meadow where the pair hunted. This pair started to nest in this site during the 2008-2009 breeding season. Previously the rocky wall was occupied by a small colony (<5 pair) of black-faced ibises (*Theristicus melanopis*), which was displaced from the area by the pair of Rufous-tailed Hawks (M. Garcés *pers. comm.*).

During 12 hours of observation we recorded carrying of branches to the nest, four of these by the male and one by the female. From the behavior displayed by the pair (see Norambuena *et al.* 2012), we estimate that incubation was already in process, coinciding with the dates of incubation previously reported for the species (Housse 1945, Rivas-Fuenzalida *et al.* 2011, Norambuena *et al.* 2012). Incubation was done mainly by the female with short replacements (<10 min) by the male.

The absence of records of nesting on rocky substrate by the Rufous-tailed Hawk could be explained by the lack of surveys of this species in environments of the Andean Cordillera (see Rivas-Fuenzalida *et al.* 2011). Explanations for nest building on a rocky ledge by this pair are not mutually exclusive and may include: (a) an opportunistic response to tap a nest previously built by another bird, (b)



FIGURE 1. Nest of the Rufous-tailed Hawk (*Buteo ventralis*) on a rocky ledge, Lago Ranco, Southern Chile. November 2012.

an adaptive response to avoid adverse weather conditions (i.e., strong wind, snow) in the high peaks of cerro Illi, or (c) a functional response for get food more quickly and effectively in areas of prairie nearest to the nest. However, additional information is needed to clarify and verify these explanations, and further exploration of this species in environments with rocky outcrops in the Andes are needed to understand the importance of these environments to the nesting of the Rufous-tailed Hawk.

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