

Predation of the Rufous-tailed Hawk (*Buteo ventralis*) on the Chilean Hawk (*Accipiter chilensis*) in Alerces National Park, Argentina

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ABSTRACT: This study describes the observation of a predation event upon Chilean Hawk (*Accipiter chilensis*) by a Rufous-tailed Hawk (*Buteo ventralis*) in the Austral Forests of Argentina. The Rufous-tailed Hawk seems not only feeding on small birds but also on birds of prey, according to our observations in Alerces National Park, where this had not been recorded previously.

KEY-WORDS: Austral Forest, intraguild predation, Patagonia, raptor.

The concept of intraguild predation consists of one species killing and consuming another species that competes for similar feeding sources. In other words, such species behaves as a competitor and predator within the same trophic level (Polis *et al.* 1989, Lourenço *et al.* 2014). Limited information exists regarding intraguild predation on raptors (Sergio & Hiraldo 2008, the killing of species that use similar resources, has been largely overlooked in raptor investigations. To help fill this gap in knowledge, we conducted a literature review, focusing on studies that tested the behavioural and demographic impact of intraguild predation on individuals, populations, and assemblages of diurnal and nocturnal raptorial species. Overall, data were available for 39 empirical and experimental studies on 63 populations belonging to 11 killer species and 15 victim species. An overview of these studies suggested that intraguild predation was a widespread, size-based phenomenon. Results from multiple studies on the same species at different locations were usually consistent across wide geographical areas. Individual-level demographic impacts included reduced site-occupancy, breeding success and survival. Individuals of the prey species responded to predation pressure through direct spatial avoidance, risk-sensitive habitat selection, short-term behavioural avoidance (e.g. reduced vocal activity and escape to refugia after predator detection López-López *et al.* 2016). In Argentina, Bó

et al. (2007) reported an extensive synthesis on trophic ecology of raptors, yet they did not report this type of interaction for any Argentinian raptor.

The distribution of the rare and mysterious Rufous-tailed Hawk (*Buteo ventralis*) is restricted to the Temperate Austral Forests in southern Chile and Argentina, ranked as “Vulnerable” on a global scale due to its natural rarity (Ferguson-Lees & Christie 2001, Gelain & Trejo 2001, BirdLife International 2016). The Rufous-tailed Hawk preys mainly upon birds (55%) and small mammals (38%) (Figueroa *et al.* 2000). The few data available about the feeding of Rufous-tailed Hawk indicates that it normally preys upon *Vanellus chilensis*, *Columba araucana*, *Colaptes pitius*, *Sturnella loica*, *Turdus falcklandii*, without ruling out poultry such as *Phasianus* spp., *Gallus* spp., *Columba* spp., and in a lesser degree, reptiles and insects (Figueroa *et al.* 2000, Pastore *et al.* 2007).

On 6 June 2013 at 12:00 h in the Central Arrayanes in Alerces National Park (42°44'37.26"S; 71°44'21.39"W), to the west of the province of Chubut, Argentina, we observed a *Buteo ventralis* flying with a prey and after on the branch of an Coihue Tree (*Nothofagus dombeyi*) holding a prey in its claws. The prey was identified as an *Accipiter* sp., assumed to be the Chilean Hawk (*Accipiter chilensis*) since it is the only hawk of the genus *Accipiter* that inhabits the region (Ferguson-Lees & Christie 2001). The observation lasted between

45–60 min, when photographs were taken of the species consuming its prey (Fig. 1). The *B. ventralis* was tearing apart *Accipiter*'s chest muscles and some feathers with its beak, while consuming them assiduously. Afterwards it flew toward the forest interior, making us unable to observe the total consumption of the *Accipiter*. This is

the first record of Rufous-tailed hawk in Alerces National Park—which was created in 1937 and protects 259,570 ha of well-preserved Andean Patagonian Forest - where, at the very least, the Rufous-tailed Hawk seems to maintain a healthy population, given its frequent sightings (Ramos B. pers. obs.).



Figure 1. Predation of the Rufous-tailed Hawk (*Buteo ventralis*) on the Chilean Hawk (*Accipiter chilensis*) in Central Arrayanes, Argentina (A, B, C), on 06 June 2013. Adult of Rufous-tailed Hawk on 03 April 2014 in Parque Nacional Los Alerces, Argentina (D).

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