

Seasonal dynamics of avian guilds inside and outside core protected areas in an Andean Biosphere Reserve of southern Chile

Ibarra, J. T., Gálvez, N., Altamirano, T. A., Caviedes, J., Rojas, I. M., Bonacic, C., & Martin, K. (2017). Seasonal dynamics of avian guilds inside and outside core protected areas in an Andean Biosphere Reserve of southern Chile. *Bird Study*, 64(3), 410-420. <10.1080/00063657.2017.1368447> Accessed 26 Apr 2021.

Abstract

Capsule: Many protected forests at high elevations show higher endemic biodiversity than unprotected habitats at low elevations. In seasonal ecosystems, however, harsh environmental conditions during winter may force individuals to move from protected forests to unprotected degraded forests in lowlands. **Aims:** To examine how forest types and seasons affect avian diversity and habitat-use guilds in protected and unprotected forests. **Methods:** Habitat and seasonal avian surveys were conducted to test forest type and seasonal differences on avian species richness, relative abundances and relative abundance of habitat-use guilds. **Results:** Twenty-three avian species (~40% endemics) were recorded. Highland old growth forests showed the highest richness (4.1–4.9 species/point count). The lowest richness was recorded in mid-elevation secondary forests (3.1 species/point count). The highest relative abundances for habitat-specialist understorey users and large tree users were recorded in highland old growth forests. However, the abundance of large tree users was higher in secondary forests at low elevations during colder seasons. **Conclusions:** Some species and guilds may move to lower elevations outside protected areas during winter. Increasing degradation of unprotected areas will likely affect the suitability of 'winter habitat' for specialist guilds, and thus the ecological processes and source/sink dynamics occurring across boundaries of protected and unprotected areas..