

Raptors in Forest Plantations: Effects of Landscape and Territory Structure

FRANCISCO SANTANDER (fcojsantan@u.uchile.cl), Wildlife Ecology Lab., University of Chile, Santiago, Chile and The Peregrine Fund, Boise, ID, U.S.A. SERGIO ALVARADO, School of Public Health, University of Chile, Santiago, Chile. CRISTIÁN ESTADES, Wildlife Ecology Lab., University of Chile, Santiago, Chile.

Habitat specialist species, such as forest raptors, are generally more likely to suffer from the impacts of silvicultural and forestry activities than generalist species. One of the most characteristic and controversial aspects of these productive systems is the use of clearcutting as a harvesting method, which generates a mosaic of highly contrasting landscape between wooded areas and practically devoid of vegetation. In this study, we analyzed how exotic plantations affects raptors abundance with different degrees of forest dependency in landscapes dominated by exotic pine plantations in south-central Chile. We used playback surveys to detect diurnal and nocturnal raptors in sampling points. To characterize the vegetation coverage present in each landscape, we use recent satellite imagery and mapping information provided by timber companies. Our results show similar abundances between generalists and specialists species in landscapes with different proportion of forests and forests patch sizes. The Austral pygmy owl (*Glaucidium nana*) was the most abundant species detected (mean 0.53 ± 0.62 SE) followed by the Rufous-legged owl (*Strix rufipes*), the only specialist species detected (mean 0.44 ± 0.55 SE). The other three species detected were the Chimango caracara (*Milvago chimango*; mean 0.24 ± 0.43 SE), Variable hawk (*Geranoaetus polyosoma*; mean 0.13 ± 0.24 SE), the Barn owl (*Tyto furcata*; mean 0.08 ± 0.15 SE) and the Magellanic horned owl (*Bubo magellanicus*; mean 0.03 ± 0.15). We found correlation between the vegetation type, percentage of covertures and forests patch sizes with the habitat specialization of the species detected only at territory scale. These results suggest that generalists and forest specialist's species can use the native forests and exotic plantations like a continuous habitat, which implies that exotic plantations landscapes with an appropriate management at different scales could have a certain value for raptors conservation.