

Deciduous-forest bird communities in a fragmented landscape dominated by exotic pine plantations

Estades, Cristián F.

Temple, Stanley A.

Impacts of habitat fragmentation on forest bird communities have often been studied in landscapes dominated by agriculture. The striking structural differences between forest fragments and the matrix have led most researchers to rely on island biogeographic theory to predict the distribution of bird species in fragmented forests. However, in some cases the vegetation surrounding fragments is not completely unsuitable for forest birds. Thus, a more general framework is needed to understand the effects of habitat fragmentation. The mosaic approach considers fragments as integrated parts of a complex landscape composed of patches of habitat of different qualities. In the coastal area of the Maule region in central Chile the remaining hualo (*Nothofagus glauca*) forests cover < 10% of the landscape, are severely fragmented, and are imbedded in a matrix of exotic pine plantations. We compared the island and mosaic approaches as explanations for the distribution and abundance of forest birds.