

Linking forest structure and composition: Avian diversity in successional forests of Chiloé Island, Chile

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We show how Chilean forest bird species richness, abundance and guild structure changes as a function of structural properties of forest stands. We surveyed bird assemblages in two old-growth (>200 years), two mid-successional (30-60 years), and two early-successional forest stands (4-20 years), from November 1999 to September 2000, on Chiloé Island, southern Chile (42°S). Birds were grouped into four habitat-use guilds: large-tree users, vertical-profile generalists, understory species, and shrub-users that occasionally use forests. We recorded a total of 24 bird species: 21 in old-growth, 14 in mid-successional and 16 in early-successional stands. Large-tree users and understory birds were most abundant in old-growth stands, vertical-profile generalists were common in both old-growth and mid-successional stands, and shrub-users were only common in early-successional stands. For nine bird species we found significant relationships between their local abundance and forest structural el