

Martínez-Lanfranco J. A., F. J. Vilella & D. A. Miller. Avian diversity and composition in native and afforested environments in the Northern Campos Grasslands of Uruguay. X Neotropical Ornithological Congress & XXII Congresso Brasileiro de Ornitologia. Manaus, Brazil, 19-24 July, 2015.

Avian diversity and composition in native and afforested environments in the Northern Campos Grasslands of Uruguay

Juan A. Martínez-Lanfranco¹, Francisco J. Vilella² & Darren A. Miller³

¹Department of Wildlife, Fisheries and Aquaculture, Mississippi State University, Mississippi State, MS 39762, USA.

²U.S. Geological Survey, Cooperative Fish and Wildlife Research Unit, Department of Wildlife, Fisheries and Aquaculture, Mississippi State University, Mississippi State, MS 39762, USA.

³Weyerhaeuser Company, P.O. Box 2288, Columbus, MS 39704, USA.

Pampean grasslands are the most extensive grassland ecosystem of the Neotropics, where habitat loss and degradation has been broad. Large scale commercial forestry has become common practice. However, bird communities have not been fully characterized in afforested landscapes in the Pampas. To better understand avian community response to afforestation we conducted 1573 bird point counts within native (grasslands and forests) and afforested habitat types (pine and eucalyptus) of different ages and management regimes during the 2013-14 breeding season in northern Uruguay, on land managed by Weyerhaeuser Co. and other local companies. We documented 3407 individuals of 112 bird species and used rarefaction to compare species richness and evenness, and assessed community structure among habitat types using multivariate techniques. We found higher species diversity, and compositional differences, in native habitat types versus plantations. Avian communities in plantations were more similar to native forests than to grasslands, with one exception. Newly planted stands, available to some grassland facultative birds, were more similar to grasslands than to older plantations or native forests. As plantations aged, bird community shifted to forest generalist assemblages. Plantations of similar age under different thinning practices had different bird communities but similar richness. As plantation structure can be manipulated with predictable bird responses, this information will assist bird conservation in afforested landscapes. Furthermore, relative value of tree plantations to bird conservation in grasslands should be compared to other land uses such as intensive agriculture.

Key words: Afforestation; Community structure; Conservation; Diversity; Pampean birds.