

Sampling understory birds in different habitat types using point counts and camera traps

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Abstract

Point counts are widely used to assess bird diversity. However, this method has some limitations and can be affected by observer bias. For this reason, it is commonly complemented with other methods (e.g., mist-nets, sound recordings). Surprisingly, camera traps are rarely used on birds, despite being a common approach for wildlife monitoring. This approach has many advantages: minimum observer interference, little demanding in the field, cost-effective, and can be operated over large areas and long periods. We contrasted the results of point counts and camera traps along a 450-km transect, comprising four habitat types (old- and second-growth native forests, logged forests, and abandoned forestry plantations). We detected 21 understory bird species using point counts (effectiveness of 91.3%) and 18 species using camera traps (effectiveness of 78.3%). From those, we detected 16 species with both methods. Species richness estimations across habitats were variable when we used point counts, but we found similar results with camera traps. Point counts performed better on large-bodied and conspicuous species, camera traps were less biased towards body size and conspicuousness and performed better than point counts in some cases. Camera traps are a useful approach to assess understory bird diversity, providing similar results than point counts. Furthermore, we can obtain better results if we use both methods simultaneously.

Palabras clave

Palabras clave de autor: [Bird diversity](#); [Detectability](#); [Observer bias](#); [Southern Chile](#); [Temperate rainforest](#); [Understory](#)

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