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Abstracts

## FEATURE ARTICLES

### NEOTROPICAL FOREST BIRD COMMUNITIES: A COMPARISON OF SPECIES RICHNESS AND COMPOSITION AT LOCAL AND REGIONAL SCALES

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*Abstract.* Species richness and composition of Neotropical forest bird communities vary spatially at both large and small scales, but previous comparisons based on 100 ha plots have not replicated plots within a region. I sampled birds in two 100 ha plots in lowland forest of eastern Ecuador to better understand how species richness and composition vary over smaller spatial scales. Birds were sampled in February and April of 2002–2005 (only in February in 2005). Plots were approximately 1.5 km apart in predominantly terra firme forest. A total of 319 species (285 and 281 per plot) from 43 families were represented in ~16 000 detections per plot; number of species and detections per sample averaged approximately 185 and 2300, respectively. Numbers of species and detections per family were strikingly similar in the two plots, but numbers of detections of individual species often differed, likely in response to differences in habitat between the two plots. Species richness and composition were similar in many respects to comparable data from Ecuador, Peru, and French Guiana, but differed from those of Panama. Differences were most pronounced at the species level, less at the genus level, and least when comparisons were based on families. Differences among sites in South America were correlated with geographic distance at the species and genus levels, but not at the family level. Results illustrate the value of replicated plots within a region for understanding how species richness and composition can vary at small spatial scales, and highlight the importance of beta diversity for determining overall patterns of regional diversity.

*Key words:* Amazonia, community composition, Ecuador, local scale, regional scale, spatial variation, species richness.