

Community ecology and phylogeography of bird assemblages in arid zones of northern Venezuela

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Arid scrub in northern Venezuela



Banding a bird caught in a mist net

Arid zones of northern Venezuela constitute an Endemic Bird Area because of the occurrence of several habitat-specialist and restricted-range bird species, but in spite of their global importance for avian conservation, arid scrublands are threatened by ongoing changes in vegetation structure and composition. This project intends to characterize bird communities inhabiting arid zones in northern Venezuela by analyzing general patterns of avian species richness, abundance, community composition and genetic diversity, as well as bird-habitat associations. From September 2004 to August 2005, I conducted field work in six arid zones in northern Venezuela (Paraguaná Peninsula, Falcón lowlands, Lara lowlands, Clarines-Piritu region, Araya Peninsula, and Macanao Peninsula). First, I established 3 plots (containing 10 point counts each) in each area, where six rounds of bird surveys were carried out bimonthly. Vegetation sampling was conducted at the same 30 points in each of the areas. Mist nets were placed in each area during each visit and this sampling regime continued until August 2006. Blood and feather samples were collected from captured target species (buffy hummingbird, vermilion cardinal, and black-faced grassquit). I also collected blood samples from chicks of the yellow-shouldered parrot taken from natural nests. Field work was conducted with the help of volunteers (a total of 16 undergraduate biology students from 5 countries), and local field assistants hired in each of the study areas. Both volunteers and field assistants were trained in ornithological techniques (mist-netting, taking measurements, banding, and blood collection).

Preliminary results indicate that 96 bird species (89 residents and 7 migrants) were recorded during surveys. Field activities gathered relevant and new information on the natural history of the habitat-specialist birds as well as the identification of the main threats faced by those species. All this information, together with data on species presence and densities in the sampling areas, will be used to update the conservation status of all these poorly known birds and used to design management plans for arid zones where these species are still abundant. Vegetation and genetic analyses will be used to identify priority areas for conservation.