

Birds of Aruba, Curaçao, and Bonaire. — Bart de Boer, Eric Newton, and Robin Restall. 2011. Princeton University Press, Princeton, New Jersey, USA. Hardcover, 176 pp. ISBN 978-0-691-15336-0. Costs \$27.95.

The neighboring islands of Aruba, Curaçao, and Bonaire are part of the Netherlands Antilles situated in the southern Caribbean, just north of Venezuela. The islands arose from uplifting of submerged volcanic formations that resulted from the collision of the Caribbean and South American tectonic plates during the Pleistocene. These islands were never connected via land bridges to the continent, although they are sufficiently near the continent (Aruba, 30 km; Curaçao, 66 km; Bonaire, 88 km), that for zoogeographic purposes they are considered as continental islands, by some. The islands are relatively small (Aruba, 190 km²; Bonaire, 288 km²; Curaçao, 444 km²) and of low stature (i.e., maximum elevation above sea level for Aruba, 188 m; Bonaire, 240 m; Curaçao, 377 m), and partly as a consequence, they have a semi-arid climate with distinct wet and dry seasons, the severity and timing of which vary among years. The predominate native vegetation is comprised of a mix of cactus and thorn-scrub, which varies in stature with exposure to the northeast trade winds, and which in many areas has been severely degraded as a result of various agricultural and industrial practices. Lagoons, some fringed with mangroves, are scattered around the islands; salinity of lagoons is variable, as is the seasonal presence of water. The recent establishment of a freshwater sewage lagoon has further increased habitat diversity on Aruba.

Given their proximity to mainland South America and limited topographic relief, it should not be surprising that no bird species are unique to these islands, although approximately 22 subspecies or races, many characterized by pale coloration, are largely confined to one or more of the islands.

Proximity to the mainland accounts for the predominance of South American birds in the resident terrestrial avifauna though some insular Caribbean species are present, with their representation increasing from Aruba to Bonaire. Because of the predominance of South American species, the three islands are excluded from the West Indian faunal region and as a result many of the species typical of these islands are excluded from major field guides to West Indian birds. Therefore, there has been a need for a field guide for these islands, which was filled for many years by Voous (1983). At the time of Voous's classic work, the three islands hosted 236 species of which 63 species bred, 111 were Nearctic-Neotropical migrants, 43 species visited from South America, and 36 species were seabirds. More recently, as summarized in the checklist in the "Birds of Aruba, Curaçao, and Bonaire," the total for the three islands has increased to 286 species, due primarily to an increased tally of vagrant species, undoubtedly due to more birding activity, and an increase in naturalized exotic bird species (psittacines and finches).

"Birds of Aruba, Curaçao, and Bonaire" begins with a very brief introduction to the geology, geography, climate, history, and current political status of the islands. A section on the flora and fauna provides descriptions of some of the more conspicuous plants and animals of these islands. Avifauna is briefly described with much of the discussion based on observations of Hartert (1893), but with no mention of more recent analyses by Voous and others. A section on how to use the book includes definitions of terms used in the guide as well as three detailed figures depicting various aspects of bird topography. A useful section on birding sites is provided for each island and includes descriptions of the sites and some of their notable bird species. Important bird areas and Ramsar sites are noted in the text as well as in individual maps

for each island, which show the locations of the birding sites. The conservation section notes that only two resident species in the islands are listed in the IUCN Red List although the local subspecies of two owl species are of conservation concern. In the section on local names, the authors describe the difficulties and challenges of providing local names for birds in Papiamento, the creol language used on the three islands. The authors should be congratulated for providing some of the local bird names, despite the fact that the Papiamento language has two official spellings and the language itself represents a hybrid derived from pidgin Portuguese influenced by a mix of Arwak, Spanish, Dutch, French, English, and several African languages. The reference to local names is useful for visiting birders when they converse with local residents, but more importantly, use of local names is invaluable for conservation efforts, which require “ownership” of the avifauna by the island residents. Overall, however, the introductory sections will be disappointing to visitors wanting more background on the avifauna and its ecology and evolution in these islands.

The species accounts are arranged in the standard format of a modern identification guide with a page providing the description and the adjoining page illustrating the described species. Each species account provides English, Dutch, and scientific name as well as local name from each of the islands, where known. Brief descriptions of key field marks are provided for each species with distinguishing traits noted in bold lettering. Habitat and status for each species is also provided in the accounts. Range maps are not provided for the islands, but given their relatively small size this is not likely to be a problem for most species. Naturalized exotic species are described in the text and illustrated; a list (without illustrations) is provided for exotics that occasionally escape,

but for which evidence of successful breeding in the wild has not been established.

Each of the 286 species known from the islands are described and illustrated in 71 color plates and almost 1,000 illustrations. Robin Restall did all of the illustrations, many of which were taken from Restall *et al.* (2007) or Kenefick *et al.* (2001). For sexually dichromatic species, both sexes are shown, and the various plumages that differ by age and/or season are also illustrated for those species showing such variation. The degree of plumage variation illustrated is sometimes extensive as evident in the plate of the frigatebirds (plate 9) and plates of migrant warblers. For most migrants, only those plumages that occur when a migrant is present in the islands are depicted, and therefore alternate plumages for some are not shown, e.g., male Indigo Bunting (*Passerina cyanea*) and Blue Grosbeak (*P. caerulea*). Many species are shown in both non-flight postures and in flight (e.g., raptors, some shorebirds, gulls and terns, waterfowl, nightjars, and swallows) whereas pelagic species are shown only in flight and most other groups are shown only in standing or perched positions. A nice addition is the inclusion of illustrations of the different subspecies for those species in which differences are distinguishable by plumage in the field. Overall, the quality and accuracy of most plates are good and based on my own field experience identifying birds on these islands observers should have little trouble using the illustrations to identify most birds found in these islands. However, for migrants, including some shorebirds and thrushes, which are not well illustrated in the plates, observers would be wise to refer to a North American field guide to ensure accurate identification.

The illustrations in “Birds of Aruba, Curaçao, and Bonaire” represent a vast improvement over those depicted in Voous (1983). In this earlier book, some of the illustrations

were of poor quality and many species were not illustrated. Nonetheless, bird watchers may wish to consult Voous (1983) for more detailed descriptions of plumages and natural history, much of the latter of which was distilled from the Dutch literature and previously unavailable in English. Although, Voous (1983) is dated (but not out of print) it still provides good introductory information on the islands and their avifauna, and for many breeding species, some of the most detailed summaries of diet, breeding behavior, and habits published for birds on any Caribbean island. In contrast, the “Birds of Aruba, Curaçao, and Bonaire” provides an up-to-date compact complete identification guide that all bird watchers will want to have with them when in the field on these islands.

— Joseph M. Wunderle, Jr., International Institute of Tropical Forestry, USDA Forest Service, Sabana Field Research Station, HC 02 Box 6205, Luquillo, Puerto Rico 00773, USA.
E-mail: jmwunderle@gmail.com

REFERENCES

- Hartert, E. 1893. On the birds of the islands of Aruba, Curaçao, and Bonaire. *Ibis* 5: 289–338.
- Kenefick, M., R. L. Restall, & F. Hayes. 2001. *Birds of Trinidad and Tobago*, 2nd ed. Christopher Helm Press, London, UK.
- Restall, R., C. Rodner, & M. Lentino. 2007. *Birds of Northern South America*, Yale Univ. Press, New Haven, Connecticut, USA.
- Voous, K. H. 1983. *Birds of the Netherlands Antilles*, 2nd ed. Walburg Press, Zutphen, The Netherlands.