

GUYANA

INTRODUCTION

based on information provided by Lennox Bobb, Rhoehheit and Balram Singh

Guyana lies on the north coast of South America and is bounded in the west by Venezuela, in the east by Suriname, and in the south by Brazil. The total area is approximately 214,970km². The climate is humid tropical, with uniformly high temperatures (mean temperature in Georgetown 27°C), and an average annual rainfall of 2,000-2,500 mm. The main rainy season is from April to August, but there is a second peak between November and February, and the humidity remains high throughout the year.

The country is divided into three main regions: a narrow coastal plain (less than 5% of the country); the forested interior (85%); and the upland savannas and mountains of the southwest (10%). The 320 km long coastal plain, although generally less than 12 km wide, supports 90% of the country's population of about 800,000. Early Dutch settlers drained many of the wetlands, and most of the central and eastern coastal plain is now intensively cultivated for sugar cane and rice. The plain is crossed by several great rivers such as the Essequibo, Demerara, Berbice and Corantyne, which rise in the interior. The hilly interior of the country rises gradually from the coast to the high plateau in the southwest. There is little human settlement or cultivation; the soils are poor and sandy, and most of the land remains under primary forest cover. The uplands of the southwest, including the Rupununi and Kanaku mountains, comprise a part of the Guiana Highlands, a region of rolling savannas and rocky peaks rising to over 2,000m. There is a small indigenous population now dependent mainly on cattle ranching.

Institutional Base for Wetland Conservation and Research

The Parks Commission in the Ministry of Energy and Natural Resources was originally the authority for identifying, establishing and managing national parks and reserves, but is now concerned only with recreation areas. The Wildlife Committee in the Ministry of Agriculture assumed responsibility for nature conservation, but since the death of its former chairman, Prof. Joseph Nilkes, the Committee has been concerned almost exclusively with trade in wildlife, especially Psittacidae. A proposal was made in 1979 to set up a Wildlife Unit in the Ministry of Agriculture with its own administrative and technical staff, but no progress has been made to date.

In 1982, the National Science Research Council founded an Environmental Research Unit, and this is now the only organization primarily concerned with environmental conservation. Its major activity to date has been the collection of basic data. The Guyana National Museum, although not involved directly with conservation, has conducted some research on wildlife, and until 1980, published its results in the journal "Timehri". The Institute of Applied Science and Technology at the University of Guyana also conducts research on wildlife, and has a representative in the Wildlife Committee.

Progress in Wetland Conservation and Research

Legislation concerning parks and reserves dates from 1929, but only one national park has as yet been established, the Kaieteur National Park (11,655 ha) in the forested interior. Very comprehensive game laws were introduced in the 1970s. The Wild Birds Protection Act of 1973 and its amendment of 1978 give complete protection to most birds, permitting open seasons for only a small number of game species, while the Fisheries Act of 1973 covers not only marine and freshwater fishes but also reptiles. Unfortunately, the game laws are largely ignored and trade in protected wildlife continues at a high level. However, there are strict controls on firearms and only some 200 licensed hunters in the country; thus shooting pressure is very light.

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Little research has been conducted on wetlands and/or waterfowl, and most of this has been carried out by visiting biologists from abroad. Recent work has involved the following:

- a) Surveys of wintering shorebirds and terns *Sterna* spp along the coast, by the Canadian Wildlife Service and Manomet Bird Observatory (Blokpoel *et al*, 1982; Morrison *et al*, 1985; B. A. Harrington, pers. com.).
- b) Studies of *Dendrocygna autumnalis* and *Rostrhamus sociabilis* in coastal wetlands, by Bourne (1979, 1981 & in prep.) and Bourne & Osborne (1978).
- c) Surveys of breeding *Eudocimus ruber* and other Ciconiiformes in the coastal zone, by Spaans (1975a) and the World Working Group on Storks, Ibises and Spoonbills (C. Luthin, pers. com.).

The Environmental Research Unit has recently acquired funding for a small research team to undertake a survey of Guyana's wetlands, and it is anticipated that this will be completed during the course of 1985.

Major Threats to Wetlands and Waterfowl

Nothing is known of the current threats to wetlands in Guyana. Sport hunting is not considered to pose a threat to waterfowl populations, but there is a considerable amount of subsistence hunting, and market hunting is reported to be on the increase. Migrant shorebirds and terns are commonly trapped for food along the coast, and this may be having a detrimental effect on some species, particularly *Sterna hirundo* and other terns (Blokpoel *et al*, 1982).

WETLANDS

Insufficient information is available on the wetlands of Guyana for the identification of sites of special importance. The following brief accounts of wetlands in the three major regions of the country are based on information from Brian A. Harrington, David Willis and the literature.

The Coastal Zone

The shoreline of Guyana west of the Essequibo River is for the most part a narrow coral sand beach, of little importance for waterfowl. From the estuary of the Essequibo River east to the estuary of the Corantyne River on the Suriname border, there are tidal mudflats, sand flats and patches of mangrove swamp of considerable importance for a variety of Ciconiiformes and migrant shorebirds and Laridae. In an aerial survey of this eastern coast in February 1982, Morrison *et al* (1985) recorded 885 *Eudocimus ruber* and almost 27,000 shorebirds, mainly *Pluvialis squatarola*, *Tringa melanoleuca/flavipes*, *Limnodromus* sp and *Calidris* spp. Spaans (1975a) found breeding colonies of *Eudocimus ruber* in the Mahaicony region in 1972 (600 pairs) and 1976 (300 pairs), but no colonies were located in 1982 or 1983. An aerial survey of the entire coast in the summer of 1983 did however locate two large mixed colonies of Ardeidae; a colony of 2,000-3,000 pairs of small herons and egrets 12 km east of the Abary River, and a colony of 100 pairs of *Egretta alba* and 500-1,000 pairs of small herons and egrets at the mouth of the Berbice River. Other birds recorded during this survey included 30 *Pelecanus occidentalis* and 130 *Ajaia ajaja* near the estuary of the Essequibo River. In February 1984, there was a roost of several thousand Ardeidae of six species and a breeding colony of several hundred pairs of *Nycticorax nycticorax*, *Bubulcus ibis* and *Egretta thula* in the Botanic Gardens on the outskirts of Georgetown.

Inland, the coastal plain is intensively cultivated, and there are few if any large natural wetlands remaining. However, the rice paddies and wet meadows provide rich feeding areas for many Ardeidae, *Dendrocygna* spp and migratory shorebirds.

The Interior

There are extensive tracts of swamp forest and riverine marshes in the forested interior of the country. The region of Lethem and Manari on the Brazilian border in the southwest is known to be particularly rich in wetlands. Here, along the Rio Tacutu, a tributary of the Rio Branco in the Amazon drainage, there are many small lakes and swamps important for waterfowl. Species recorded include *Pilherodius pileatus*, *Jabiru mycteria*, *Dendrocygna viduata*, *Amazonetta brasiliensis*, *Porphyryla flavirostris*, *Rynchops niger* and many migratory shorebirds (notably *Bartramia longicauda* and *Micropalama himantopus*) (D. Willis, pers. com.)

The Grand Savanna

The upland savanna of western Guyana is an extension of the Gran Sabana of eastern Venezuela. There are many small freshwater lakes and bogs throughout the region, but their importance for wildlife is unknown.