EQUATORIAL GUINEA

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Chestnut Wattle-eye *Platysteira castanea*. (ILLUSTRATION: MARK ANDREWS)

GENERAL INTRODUCTION

The Republic of Equatorial Guinea is comprised of three separate regions, two of which are islands in the Gulf of Guinea and the third is part of the neighbouring mainland. The mainland region, Río Muni (26,000 km²), is bordered to the north by Cameroon, to the east and south by Gabon and to the west by the Gulf of Guinea. The islands are Bioko (2,017 km²), situated to the north-east of Río Muni, some 34 km from the Cameroon coast, and Annobón (21 km²), 565 km south-west of Bioko. Lying between Bioko and Annobón are the islands—and Republic—of São Tomé and Príncipe. These four islands extend along a line, oriented approximately south-west to north-east, of volcanic activity which continues to the north-east in the massif of Mount Cameroon.

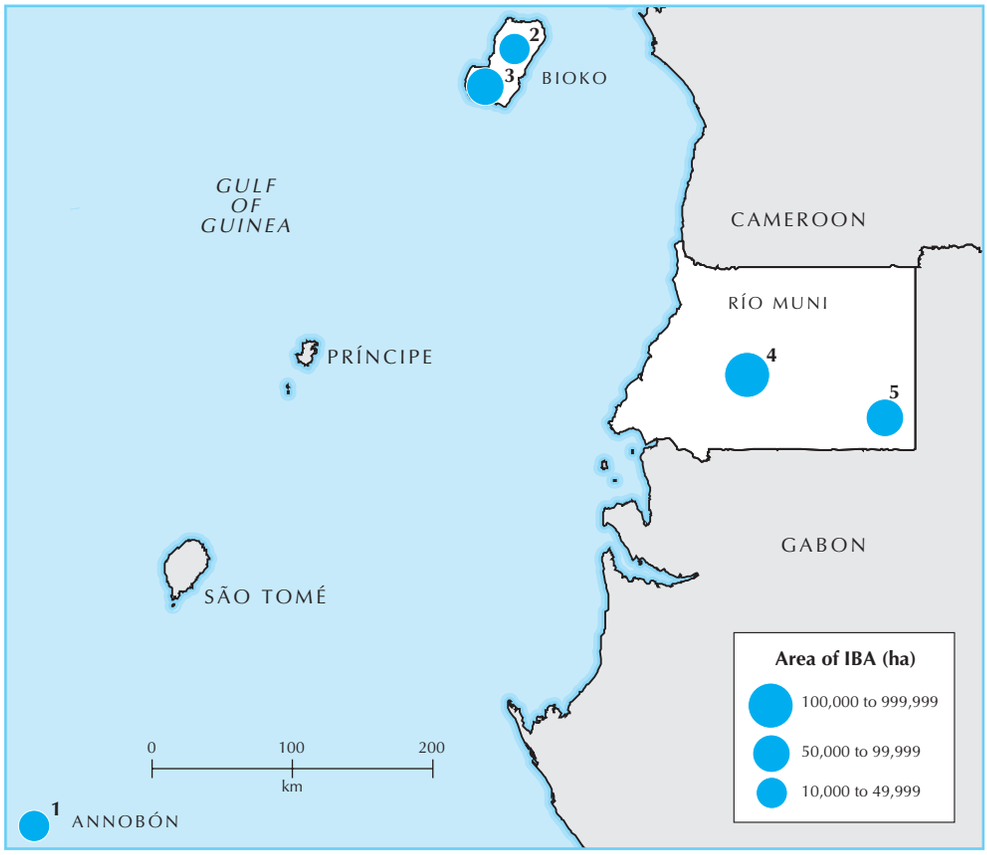
The population of Equatorial Guinea is c.400,000 and the annual growth-rate is 2.4%. The majority of the population is rural, with the major urban concentrations, totalling about 60,000, in the capital, Malabo (on Bioko), and Bata, the main city of Río Muni. There are four main ethnic groups, among whom the Fang, originally native to Río Muni, form the majority. The others include the Bubi of Bioko and the Ndowe from the coastal area of Río Muni. Annobón island was, when discovered in the 15th century, uninhabited. Settled since then, the Annobonese have subsequently developed their own language and culture.

Equatorial Guinea has a tropical climate with average annual temperatures that fluctuate little from c.25°C and an annual average relative humidity of over 85%. Rainfall is high across the whole country, but varies significantly both between the islands and Río Muni and within each territory. Thus, in Bioko the differences are extreme, ranging from 1,800 mm in the north of the island to 10,000 mm in the south, while for Río Muni the range is between 1,700–3,500 mm. On Annobón, rainfall in the north reaches only 1,200 mm annually. Seasonality also differs in each territory. For example, the dry season (below 100 mm of rain per month), on Bioko falls between November and February; on Annobón it occurs in January and again between May and October while Río Muni has two distinct dry seasons, June–August and January–February.

Equatorial Guinea is the only Spanish-speaking nation in Africa. At independence from Spain in 1969, the economy of the country was based upon coffee and cocoa, but the importance of both has been in decline ever since. Forestry has, since 1989 and until recently, been the main source of foreign exchange. Rates of timber extraction have grown considerably in the recent past, increasing from 250,000 m³ in 1993 to 760,000 m³ in 1997 (CUREF 1998). The only other main industry in the country is that of oil extraction on Bioko, shortly also to be extended to Río Muni. Extraction began in 1992 and, by 1999, had reached 200,000 barrels per day. The income generated now exceeds considerably that from forestry. This has resulted in a dramatic recent increase in the rate of growth of the country's gross national product. Meanwhile, the majority (c.70%) of the population continue to be engaged in subsistence agriculture, mostly shifting cultivation, with fishing and hunting by traditional means providing the main sources of protein.

Annobón

The small, volcanic island of Annobón (formerly Pagalu) is the most remote of the islands in the Gulf of Guinea. It lies 340 km west of the coast of Gabon, the nearest point on the African mainland, and 180 km south-west of São Tomé. The highest point on the island is the Macizo de Santa Mina (613 m), while several other peaks reach over 500 m. There is a lake, A Pot, in the centre-north of the island. Located in an ancient crater, it is roughly circular and is 700 m in diameter. In general, the coastline rises steeply, but is broken in places by a few scattered beaches. Some 10 islets lie close to the coast while a group of three others is situated 2.5 km offshore to the south. Most of the island, other than the north, is covered by rainforest, much of it disturbed by cultivation. The northern quarter is covered by grassland, scattered bushes, oil-palms and a few other trees. Here the land, generally lower and drier, was cleared historically for sugar-cane cultivation. All the island's 2,000 inhabitants live in this part of the island, in a coastal



Map 1. Location and size of Important Bird Areas in Equatorial Guinea.

Table 1. Summary of Important Bird Areas in Equatorial Guinea. 5 IBAs covering 3,770 km²

IBA code	Site name	Administrative region	Criteria (see p. 11; for A2/A3 codes, see Tables 2/3) A1	A2 081	A2 085	A2 086	A3 A05	A4i
GQ001	Annobón	Annobón	✔	✔				✔
GQ002	Basilé Peak National Park	Bioko	✔			✔		
GQ003	Luba Caldera Scientific Reserve	Bioko	✔			✔		
GQ004	Monte Alen National Park	Río Muni	✔		✔		✔	
GQ005	Nsoc Highlands National Park	Río Muni	✔		✔		✔	
	Total number of IBAs qualifying:		5	1	2	2	2	1

village called Palé. The higher peaks of the southern half of the island, above 450–500 m, are frequently shrouded in mist which results in a luxuriant proliferation of forest epiphytes.

Bioko

Bioko (formerly Fernando Po) is a continental island which, at least during the Pleistocene glaciation, was connected to the mainland. It has a very rugged relief and consists of two large massifs dotted with numerous craters. These are Pico Basilé (3,011 m) in the north and, in the south, the Macizo Sur of which the highest points are Pico Biao (2,009 m) and the Caldera de Luba (2,261 m). This caldera is a remarkable geological feature with a crater 5 km across and walls which rise up more than 1,000 m. The coastline is rocky with few beaches, except for a 30 km stretch of the southern shore where there is an almost continuous expanse of sandy or stoney beaches. This shoreline faces the prevailing humid winds and has one of the wettest climates in the world.

The vegetation of the island is, in effect, arranged in four concentric rings, determined largely by climate and altitude. Lowland forest occurs up to 800 m, above which, between 800–1,800 m, is a zone of montane forest. Between 1,800–2,500 m there is a zone of Araliaceae-dominated forest while, at the highest altitudes, the vegetation is a mix of montane grassland and ericaceous stands. Much of the forest below about 600–900 m, particularly around Pico Basilé, and totalling some 90,000 ha (45% of the land area) has, however, been severely degraded, with about 70,000 ha converted to cocoa plantation (DHV 1989). Many of the more southerly plantations, particularly those difficult to access, have since been abandoned and the forest is now regenerating. In the southern third of the island the lowland forest remains largely untouched. The forest in this extremely high rainfall area has not yet been properly investigated botanically (Guinea 1968). At higher altitudes the forest also remains pristine although, at the beginning of the twentieth century, 4,250 ha on Pico Biao were cleared and converted to cattle pasture and some 500 ha burned between 2,000–2,700 m on Pico Basilé. In total, some 106,000 ha, 53% of the island, are covered by primary forest.

Río Muni

The 200 km coastline of Río Muni (formerly Mbini) consists mostly of sandy beaches, except where it is penetrated by three main rivers, the Campo, on the northern border with Cameroon, the Uoro in the centre, and the Muni, which forms the southern border with Gabon. The estuaries of each support mangrove swamps, which cover a total area of 250 km², of which the Muni holds 193 km². Behind the beaches is an area of coastal grassland, liable to seasonal flooding. Further inland, the original lowland forest is now much degraded by agriculture. This coastal plain extends across the western third of the territory in the north, but gets progressively narrower in the south, due to the alignment of the Uoro Depression, a rift valley which runs with a north-east–south-west alignment and divides the territory into two (Martínez-Torres and Riaza 1996). The eastern scarp of the Depression reaches 1,250 m in places, but falls away inland to become a gently undulating plateau of about 500 m. Here, the original, largely uniform cover of lowland forest has been converted to a mosaic as a result of forestry, shifting

Table 2. The occurrence of restricted-range species within Important Bird Areas in Equatorial Guinea. Sites that meet the A2 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**.

081 – Annobón Endemic Bird Area
(three species in Equatorial Guinea; one site meets the A2 criterion)

IBA code:	001
Columba malherbii	✔
Terpsiphone smithii	✔
Zosterops griseovirescens	✔
Number of species recorded:	3

085 – Cameroon and Gabon lowlands Endemic Bird Area
(four species in Equatorial Guinea; two sites meet the A2 criterion)

IBA code:	004	005
Hirundo fuliginosa	✔	
Picathartes oreas	✔	✔
Batis minima	✔	
Malimbus racheliae	✔	✔
Number of species recorded:	**4**	**2**

086 – Cameroon mountains Endemic Bird Area
(13 species in Equatorial Guinea; two sites meet the A2 criterion)

IBA code:	002	003	004
Columba sjostedti	✔		
Psalidoprocne fuliginosa	✔	✔	
Andropadus tephrolaemus	✔	✔	
Phyllastrephus poensis	✔	✔	
Picathartes oreas		✔	
Urolais epichlora	✔	✔	
Poliolais lopezi	✔	✔	
Phylloscopus herberti	✔	✔	✔
Batis poensis		✔	
Nectarinia oritis	✔	✔	
Nectarinia ursulae	✔	✔	
Speirops brunneus	✔		
Nesocharis shelleyi	✔	✔	
Number of species recorded:	**11**	**11**	1

agriculture and conversion to plantations of former cash-crops (coffee, cocoa and oil-palm). It is estimated that, prior to 1949, 1,590,000 ha (61%) of Río Muni were forested (SGE 1960), of which 770,400 ha were dense, lowland rainforest (Fa 1992). However, much of this forest is now, as a result of logging, secondary.

ORNITHOLOGICAL IMPORTANCE

The avifauna of Equatorial Guinea is amongst the poorest known in Africa. Only some 340 species have so far been recorded from Río Muni (R. J. Dowsett *in litt*.), which is well below the potential figure, since the mainland part of the country, in particular, has been very poorly surveyed. At least 198 species are known from Bioko while Annobón has an avifauna of only some 19 species. Four species are endemic to the country; *Terpsiphone smithii* and *Zosterops griseovirescens*, both confined to Annobón, and *Batis poensis* and *Speirops brunneus* which occur only on Bioko (although not all taxonomists accept the *Terpsiphone* and *Batis* as good species). In addition, over 40 subspecies (the precise number varies according to taxonomic treatment) are endemic to Bioko and Annobón.

Nine species of conservation concern have been recorded, seven of which are known or thought to breed. The exceptions are *Morus capensis* (NT), a non-breeding visitor from southern Africa and *Apus sladeniae* (DD) of which there are old records from Bioko, but its status there is unclear and it is possibly no more than a vagrant (Pérez del Val *et al.* 1997). The remainder, which includes three of the endemics, are *Psalidoprocne fuliginosa* (NT), *Picathartes oreas* (Vu), *Batis minima* (DD), *Terpsiphone smithii* (VU), *Nectarinia ursulae* (NT), *Speirops brunneus* (VU) and *Zosterops griseovirescens* (VU). All or part of three Endemic Bird Areas fall within Equatorial Guinea. The whole of Río Muni lies within the Cameroon and Gabon lowlands Endemic Bird Area (EBA 085), of which four restricted-range species occur, while Annobón consitutes an EBA in its own right (EBA 081), with three species. Much of Bioko forms part of the Cameroon mountains EBA (086) and 11 of its species occur, as does one species in Río Muni. Río Muni also falls entirely within the Guinea–Congo Forests biome (A05), of which 176 species have been recorded, while two species of the Afrotropical highlands (A07) biome occur at higher altitudes.

Table 3. The occurrence of biome-restricted species at Important Bird Areas in Equatorial Guinea. Sites that meet the A3 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**. Any other species with a restricted range are highlighted in blue.

A05 – Guinea–Congo Forests biome (176 species in Equatorial Guinea; two sites meet the A3 criterion)

IBA code:	004	005	IBA code:	004	005
Tigriornis leucolophus	✔		*Bubo poensis*	✔	
Bostrychia rara	✔		*Bubo leucostictus*		
Pteronetta hartlaubii	✔		*Jubula lettii*		
Dryotriorchis spectabilis	✔		*Glaucidium tephronotum*	✔	
Accipiter castanilius	✔		*Glaucidium sjostedti*	✔	
Urotriorchis macrourus	✔		*Rhaphidura sabini*	✔	✔
Spizaetus africanus	✔		*Neafrapus cassini*	✔	
Francolinus lathami	✔		*Apus batesi*	✔	
Agelastes niger	✔		*Apaloderma aequatoriale*	✔	
Guttera plumifera	✔		*Alcedo leucogaster*	✔	✔
Sarothrura pulchra	✔		*Ispidina lecontei*	✔	✔
Himantornis haematopus	✔		*Halcyon badia*	✔	
Canirallus oculeus			*Merops gularis*	✔	✔
Columba unicincta	✔	✔	*Merops muelleri*	✔	✔
Columba iriditorques	✔		*Merops malimbicus*	✔	
Turtur brehmeri	✔		*Eurystomus gularis*	✔	
Psittacus erithacus	✔		*Tockus albocristatus*	✔	✔
Agapornis swindernianus	✔		*Tockus hartlaubi*	✔	
Tauraco persa	✔		*Tockus camurus*	✔	✔
Tauraco macrorhynchus	✔		*Tockus fasciatus*	✔	✔
Cercococcyx mechowi	✔		*Ceratogymna fistulator*	✔	✔
Cercococcyx olivinus	✔		*Ceratogymna subcylindricus*	✔	✔
Chrysococcyx flavigularis	✔		*Ceratogymna albotibialis*	✔	✔
Centropus leucogaster			*Ceratogymna atrata*	✔	✔
Centropus anselli	✔	✔	*Gymnobucco calvus*	✔	

Table 3 ... continued. The occurrence of biome-restricted species at Important Bird Areas in Equatorial Guinea. Sites that meet the A3 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**. Any other species with a restricted range are highlighted in blue.

A05 – Guinea–Congo Forests biome ... continued (176 species in Equatorial Guinea; two sites meet the A3 criterion)

IBA code:	004	005
Gymnobucco peli	✔	
Pogoniulus scolopaceus	✔	✔
Pogoniulus atroflavus	✔	
Pogoniulus subsulphureus	✔	✔
Buccanodon duchaillui	✔	
Tricholaema hirsuta	✔	
Trachyphonus purpuratus	✔	✔
Indicator maculatus	✔	✔
Indicator willcocksi	✔	✔
Melignomon zenkeri	✔	
Sasia africana	✔	
Campethera nivosa	✔	✔
Campethera caroli	✔	✔
Dendropicos gabonensis	✔	
Smithornis sharpei	✔	
Smithornis rufolateralis	✔	✔
Anthus pallidiventris		
Hirundo nigrita	✔	
Hirundo fuliginosa	✔	
Psalidoprocne nitens	✔	
Coracina azurea	✔	✔
Andropadus gracilis	✔	
Andropadus ansorgei	✔	
Andropadus curvirostris	✔	✔
Calyptocichla serina	✔	
Baeopogon indicator	✔	✔
Baeopogon clamans	✔	
Ixonotus guttatus	✔	✔
Chlorocichla simplex	✔	✔
Chlorocichla falkensteini		
Thescelocichla leucopleura	✔	✔
Phyllastrephus albigularis	✔	
Phyllastrephus icterinus	✔	✔
Phyllastrephus xavieri	✔	✔
Bleda syndactyla	✔	✔
Bleda notata	✔	✔
Nicator chloris	✔	✔
Nicator vireo	✔	
Criniger chloronotus	✔	✔
Criniger calurus	✔	✔
Criniger ndussumensis	✔	✔
Dryoscopus senegalensis	✔	
Dryoscopus sabini	✔	
Laniarius leucorhynchus	✔	
Telophorus bocagei	✔	
Malaconotus cruentus	✔	
Prionops caniceps	✔	
Neocossyphus fraseri	✔	✔
Neocossyphus poensis	✔	✔
Zoothera cameronensis	✔	
Alethe diademata	✔	
Stiphrornis erythrothorax	✔	✔
Sheppardia cyornithopsis	✔	✔
Cossypha cyanocampter		
Illadopsis cleaveri	✔	✔
Illadopsis fulvescens	✔	
Picathartes oreas	✔	✔
Cisticola anonymus	✔	
Apalis nigriceps	✔	
Apalis binotata		
Apalis rufogularis	✔	✔
Camaroptera superciliaris	✔	✔
Camaroptera chloronota	✔	✔
Eremomela badiceps	✔	
Sylvietta virens	✔	✔

IBA code:	004	005
Sylvietta denti	✔	
Macrosphenus flavicans	✔	
Macrosphenus concolor	✔	✔
Hylia prasina	✔	✔
Phylloscopus budongoensis	✔	
Hyliota violacea	✔	✔
Fraseria ocreata	✔	✔
Fraseria cinerascens	✔	✔
Muscicapa infuscata	✔	
Muscicapa olivascens	✔	✔
Muscicapa epulata		
Muscicapa sethsmithi	✔	
Muscicapa comitata		
Muscicapa tessmanni	✔	
Muscicapa cassini	✔	✔
Myioparus griseigularis	✔	✔
Bias flammulatus	✔	
Batis minima	✔	
Batis occulta	✔	
Platysteira castanea	✔	
Platysteira tonsa	✔	
Platysteira chalybea	✔	
Erythrocercus mccallii	✔	✔
Trochocercus nigromitratus	✔	✔
Trochocercus nitens	✔	✔
Terpsiphone rufiventer	✔	✔
Terpsiphone rufocinerea		
Anthreptes fraseri	✔	✔
Anthreptes rectirostris	✔	
Nectarinia seimundi	✔	
Nectarinia batesi	✔	
Nectarinia reichenbachii		
Nectarinia cyanolaema	✔	
Nectarinia rubescens	✔	
Nectarinia minulla	✔	
Nectarinia johannae	✔	
Nectarinia superba	✔	
Pholidornis rushiae	✔	
Parmoptila woodhousei	✔	
Nigrita fusconota	✔	✔
Nigrita bicolor	✔	
Nigrita luteifrons	✔	
Spermophaga haematina	✔	✔
Ploceus aurantius	✔	
Ploceus nigerrimus	✔	
Ploceus tricolor	✔	
Ploceus albinucha	✔	
Ploceus preussi	✔	
Malimbus coronatus	✔	
Malimbus cassini	✔	✔
Malimbus racheliae	✔	✔
Malimbus erythrogaster	✔	
Malimbus nitens	✔	
Malimbus malimbicus	✔	✔
Malimbus rubricollis	✔	
Poeoptera lugubris	✔	
Onychognathus fulgidus	✔	
Lamprotornis purpureiceps	✔	
Oriolus brachyrhynchus	✔	
Oriolus nigripennis	✔	✔
Dicrurus atripennis	✔	✔
Number of species recorded:	**164**	**66**

Annobón holds significant breeding populations of seabirds, but the importance of the country's wetlands for waterbirds is largely unknown.

CONSERVATION INFRASTRUCTURE AND PROTECTED-AREA SYSTEM

The Ministerio de Bosques y Medio Ambiente (Ministry of Forests and the Environment) is, through the Dirección General de Medio Ambiente (National Environment Office), responsible for environmental and wildlife conservation. In conjunction with an EU-funded programme for the conservation and rational use of forest ecosystems (Conservación y Utilización Racional de los Ecosistemas Forestales, CUREF), this ministry has developed a national network of protected areas and policies for land- and forest-use.

As a result of this project, new legislation, approved in May 2000, established a national network of protected areas covering 5,860 km², comprising some 770 km² of sea and 5,090 km² of land, c.18% of the country. Thirteen protected areas (Scientific Reserves, National Parks, National Monuments and Natural Reserves) have been identified, 10 of them in Río Muni, two on Bioko and the entire island of Annobón.

Monte Alen National Park in Río Muni is the only protected area in the country currently being actively managed. This is being undertaken by ECOFAC (Conservation et Utilisation Rationelle des Ecosystèmes Forestiers en Afrique Centrale), with EU and Spanish cooperation and funding. Indeed, other than at Monte Alen, no known conservation projects are operating in the country, neither are any national conservation NGOs known to exist.

Forestry and hunting are the major threats to the environment, while the effects of oil extraction on Bioko need to be carefully monitored. Although timber extraction on Bioko has been illegal since 1990, deforestation is occurring extremely rapidly in Río Muni and the government's target of 450,000 m³ for the annual rate of timber extraction is being exceeded considerably. Most remaining forest has been sold off as timber concessions, including parts of nominally protected areas. Other than in Monte Alen National Park, there is no attempt to control hunting. As a result, overhunting for the bush-meat trade is widespread and populations of primate and antelope have declined dramatically (Juste *et al.* 1995, Fa *et al.* 1996).

INTERNATIONAL MEASURES RELEVANT TO THE CONSERVATION OF SITES

Equatorial Guinea has ratified the Convention on Biological Diversity, the Convention on International Trade in Endangered Species, the Convention on Climate Change and the Convention to Combat Desertification.

OVERVIEW OF THE INVENTORY

Five Important Bird Areas (IBAs) are identified in this inventory (Map 1, Table 1), with a total area (including marine areas around Annobón) of 3,770 km². The land area selected covers 3,560 km², or 12.7% of the country's land area. All sites, except for those offshore islands and marine areas included within the Annobón IBA (GQ001), are forested. Together, the five sites hold all resident species of global conservation concern, all restricted-range species (Table 2) and 164 of the 176 species of the Guinea–Congo Forests biome known from the country (Table 3). All sites are, as a result of the protected-area legislation enacted in 2000, now officially protected. The avifaunas of the island sites (GQ001–003) are reasonably well documented. The same could not be said, until recently, of anywhere on Río Muni. However, the birds of Monte Alen National Park (GQ004) are now quite well known, but knowledge of those of the Nsoc Highlands National Park (GQ005) is still far from complete.

This lack of information has limited the selection of sites on Río Muni. Two sites in particular may subsequently prove to qualify as IBAs, but are omitted here for want of data. The first of these includes the beaches and seasonally flooded coastal grasslands of Ecucu-Bolondo, south of Bata, which may prove to hold important numbers of migrant waders and terns, etc. The second area is the Muni estuary, in the south of the territory along the border with Gabon, which is likely to be even more important seasonally for migrant waterbirds, attracted to the extensive areas of tidal mud- and sandflats and mangrove. The Muni Estuary Natural Reserve is contiguous with the south-western boundary of Monte Alen National Park (GQ004). Detailed surveys of both of these sites are needed.

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During visits to Equatorial Guinea much valuable support and unpublished information was provided by CUREF and by Rafael Delgado and the Asociación de Amigos de Doñana. The Ministerio de Bosques y Medio Ambiente provided the necessary authorizations and permits. Mario Sarsa, Juan Enrique García, Luis Arranz and Cristina Campos all provided help in obtaining data for the Muni estuary and Monte Alen, as well as hospitality. The Curator of Birds and Mammals, Josefina Barreiro, of the Museo Nacional de Ciencias Naturales, Madrid, kindly permitted the use of its facilities in the writing this inventory. Françoise Dowsett-Lemaire and Robert Dowsett are thanked for providing a revised account for Monte Alen National Park and information of birds species recorded from Río Muni. Alan Tye provided valuable information regarding Annobón and a visit to the island was supported by the African Bird Club.

SITE ACCOUNTS

Annobón — GQ001

Admin region Annobón
Coordinates 01°26′S 05°38′E — A1, A2 (081), A4i
Area 23,000 ha **Altitude** 0–613 m — Natural Reserve

Site description

Annobón is a volcanic island of 2,088 ha and is surrounded by a number of scattered rocky islets, all within 2.5 km of the shore. The site includes the whole island, the islets and surrounding seas up to three nautical miles offshore. The coastline is rugged with a predominantly rocky coast and a few small beaches. Forest, including the now-abandoned cocoa and coffee plantations, covers around 75% of the island. The Natural Reserve, and the IBA, includes the surrounding sea to a distance of three nautical miles.

Birds

See Box and Table 2 for key species. Although information on Annobón's birds has been recently updated, the last complete survey was undertaken in the 1950s. Nineteen species of bird have been so far been recorded, of which 12 are thought to be resident; only eight are terrestrial species. In addition to that listed below, other breeding seabirds include *Sula leucogaster*, *Phaethon lepturus* (50 pairs), *Sterna anaethetus* (200 pairs) and *Anous stolidus* (1,500 pairs).

Key species

A1	*Terpsiphone smithii*	*Zosterops griseovirescens*	
A2 (081)	Annobón EBA: All three species of this EBA occur at this site.		
A4i		Breeding (pairs)	Non-breeding
	Anous minutus	13,500	—

Other threatened/endemic wildlife

Fourteen angiosperm plants, nine land-snails and two reptiles are endemic to the island and a further six plants, three land-snails and one reptile occur which are endemic to more than one of the Gulf of Guinea islands. At least two species of turtle—*Eretmochelys imbricata* (CR) and *Dermochelys coriacea* (EN)—nest on the beaches of Annobón. The whales *Balaenoptera musculus* (EN), *B. physalis* (EN), *B. borealis* (EN) and *Megaptera novaeangliae* (VU) reach the offshore coasts of Annobón.

Conservation issues

Although Annobón has been identified as a protected area since 1988, no official protection measures have been implemented, nor are any research or conservation projects being undertaken or planned. The human population of the island does not appear to be increasing significantly and no major clearance of forest is anticipated. Hunting of birds and the collection of eggs, particularly of *Sula leucogaster*, the largest bird, indeed wild animal, on the island is, however, a problem. Introduced mammals, particularly domestic cats *Felis catus* and rats *Rattus norvegicus*, are not thought to significantly affect the two endemic birds, since their nests are inaccessible, but these predators probably do have an impact on *Columba malherbii*. Plans for tourism have been made repeatedly, but have hitherto come to nothing. However, a new airfield is being finished which may change things.

Further reading

Basilio (1957), Fry (1961), Gascoigne (1994), Harrison (1990), Jones (1994), Pérez del Val (2001), Peris (1961), Robins (1966).

Basilé Peak National Park — GQ002

Admin region Bioko
Coordinates 03°35′N 08°45′E — A1, A2 (086)
Area 33,000 ha **Altitude** 800–3,011 m — National Park

Site description

Located in the northern half of Bioko island, the area, designated a National Park in 2000, comprises the montane area of Basilé Peak, above the 800 m contour. Relief is extremely rugged. The vegetation comprises montane forest and, at highest altitudes, montane bushland and thicket, and is relatively undisturbed. There are no settlements above 800 m, but levels of human activity on the site are high. There is a trail up the north-eastern slope to a radio booster-station on the summit.

Birds

See Box and Table 2 for key species. A total of 70 bird species, all thought to be resident, have been recorded. These include, in addition to the endemic *Speirops brunneus* which is restricted to this site, 28 species which occur as endemic races on Bioko. It is possible that *Picathartes oreas* may yet be found in the less explored areas.

Key species

A1	*Psalidoprocne fuliginosa*	*Nectarinia ursulae*
	Speirops brunneus	
A2 (086)	Cameroon mountains EBA: 11 of the 13 species of this EBA that occur in Equatorial Guinea have been recorded at this site; see Table 2.	

Other threatened/endemic wildlife

Five species of primate of global conservation concern occur—*Cercopithecus preussi* (EN), *C. erythrotis* (VU), *Colobus satanas* (VU), *Procolobus badius* (LR/nt) and *Mandrillus leucophaeus* (VU)—as does the ungulate *Cephalophus ogilbyi* (LR/nt). One fish and three reptile species are endemic to the island.

Conservation issues

Although identified as a protected area since 1988, Basilé Peak was only given legal status, as a National Park, in 2000. No management plans yet exist and there are no research or conservation projects in progress or planned. Hunting by snare and shotgun is widespread and the trail to the radio station is used for shipping bush-meat out by vehicle for sale in Malabo. Fires in 1983 and 1992 burned 500 ha of forest and thicket between 2,000 m and 2,700 m. Since 1992, the bark of the tree *Prunus africana* has been harvested for its pharmaceutical properties. This practice which, because of the methods employed, kills the trees, is threatening the integrity of the montane forest between 1,800 m and 2,500 m, where *P. africana* is a dominant species.

Further reading

Butynski and Koster (1994), Eisentraut (1973), Exell (1973), FAO (1992), Fernández Casas and Morales (1995), Pérez del Val (1996, 2000), Pérez del Val *et al.* (1994).

Luba Caldera Scientific Reserve — GQ003

Admin region Bioko
Coordinates 03°21′N 08°33′E — A1, A2 (086)
Area 51,000 ha **Altitude** 0–2,261 m — Scientific Reserve

Site description

This site, centred on the volcanic Mount Luba in southern Bioko, is one of the wettest places in the world; annual rainfall may reach 10,000 mm. It includes the only undisturbed lowland forest on Bioko which merges, in an unbroken catena, into montane forest above 800 m. The terrain is extremely rugged. There is one village within the reserve, with fewer than 200 inhabitants, while some 2,000 people, living along its borders or close to them, make use of the site.

Birds

See Box and Table 2 for key species. To date, 120 species have been recorded, but future fieldwork may be expected to reveal more. Those so far recorded, in addition to the endemic *Batis poensis* (found only in lowland forest), include 35 species which occur as endemic races on Bioko. This site is the only place in Bioko where populations of larger, hunted species such as *Ceratogymna atrata* and *Bostrychia hagedash* occur.

Key species

A1	*Psalidoprocne fuliginosa*	*Nectarinia ursulae*
	Picathartes oreas	
A2 (086)	Cameroon mountains EBA: 11 of the 13 species of this EBA that occur in Equatorial Guinea have been recorded at this site; see Table 2.	

Other threatened/endemic wildlife

Five primate species of global conservation concern occur; *Cercopithecus preussi* (EN), *C. erythrotis* (VU), *Colobus satanas* (VU), *Procolobus badius* (LR/nt) and *Mandrillus leucophaeus* (VU). The population of the last is possibly the largest remaining. Four species of turtle—*Chelonia mydas* (EN), *Eretmochelys imbricata* (CR), *Lepidochelys olivacea* (EN) and *Dermochelys coriacea* (EN)—nest on the southern beaches.

Conservation issues

Although identified as a protected area since 1988, the site was given legal status only in 2000, as a Scientific Reserve. No official protection measures have been implemented, but the Spanish NGO Asociación Amigos de Doñana worked in the area between 1992 and 1998, on a turtle conservation and ecotourism project. Threats include commercial hunting of mammals and birds.

Further reading

Butynski (1996), Butynski and Koster (1994), Butynski *et al.* (1996), Eisentraut (1973), Exell (1973), FAO (1992), Fernández Casas and Morales (1995), García (1996), Pérez del Val (1996), Pérez del Val *et al.* (1994), Pérez del Val *et al.* (1995), Tomás *et al.* (1999).

Monte Alen National Park — GQ004

Admin region Río Muni
Coordinates 01°30′N 10°15′E — A1, A2 (085), A3 (A05)
Area 200,000 ha **Altitude** 300–1,250 m — National Park

Site description

This site is entirely covered with primary rainforest over an altitudinal range of 300–1,250 m. At 1,250 m, Monte Alen and Monte Mitra (also within the National Park) are thought to be the highest massifs in mainland Equatorial Guinea, although altitudinal information is incomplete. The park is bordered by the large and fast-flowing Uoro river to the west, while the main road from Niefang to Gabon forms the eastern boundary. There are no natural savannas, although some small areas of exposed rock with low bush occur locally near the summit; one small lake (Lake Atoc) is entirely surrounded by forest.

Birds

See Box and Tables 2 and 3 for key species. At least 265 species have been recorded from the park. Of special note is the recent discovery of three montane species: *Coracina caesia* (at 750 m), *Dryoscopus angolensis* (common above 1,100 m) and *Phylloscopus herberti* (common above 800 m). *Phylloscopus budongoensis* also occurs (from 325 m), and this

site is the only one known so far in central Africa where these congeneric warblers coexist. *P. herberti* is also a restricted-range species of the Cameroon mountains EBA (086) (see Table 2); both it and *C. caesia* are, in addition, restricted to the Afrotropical Highlands biome (A07). *Picathartes oreas* is widespread and, indeed, its specialized habitat is well represented throughout the park. Other species of interest include *Melignomon zenkeri* (apparently not uncommon at forest edges), *Muscicapa tessmanni* and *Batis minima* (both recorded from open-canopy forest). There is a possible sight record of *Apus sladeniae*, but identification of this swift is so difficult that confirmation is necessary.

Key species

A1	*Batis minima*	*Picathartes oreas*
A2 (085)	Cameroon and Gabon lowlands EBA: All four of the species of this EBA that occur in Equatorial Guinea have been recorded at this site; see Table 2.	
A3 (A05)	Guinea–Congo Forests biome: 164 of the 176 species of this biome that occur in Equatorial Guinea have been recorded at this site: see Table 3.	

Other threatened/endemic wildlife

Among the primates are *Colobus satanas* (VU, quite common), as well as *Cercocebus torquatus* (LR/nt), *Mandrillus sphinx* (LR/nt), *Gorilla gorilla* (EN) and *Pan troglodytes* (EN). There are small numbers of elephant *Loxodonta africana* (EN). The rare shrew *Crocidura grassei* (VU) has been collected. The frog *Conraura goliath* (VU) occurs at the southern limit of its distribution.

Conservation issues

The park has been managed by the European-Union-funded ECOFAC project since 1992; the size of the park was doubled in October 1998 when the inclusion of Monte Mitra was ratified. A further section to the south was added under the protected-area legislation of 2000. Hunting of large mammals continues in the park (even of protected species such as gorillas) and is difficult to control, but this does not affect the birdlife. Logging of all other forested areas on the mainland proceeds at such a fast rate that the park is likely to become a forested 'island' soon.

Further reading

De la Riva (1994), Dowsett-Lemaire and Dowsett (1999), Larison *et al.* (1999), Lasso (1995), Lasso *et al.* (1996).

Nsork Highlands National Park — GQ005

Admin region Río Muni
Coordinates 01°12′N 11°08′E — A1, A2 (085), A3 (A05)
Area 70,000 ha **Altitude** 400–800 m — National Park

Site description

The Nsork (or Nsoc) Highlands are situated in the south-eastern corner of Río Muni and support one of the largest and best-preserved remaining areas of primary rainforest. The park is approximately triangular in shape and is bounded to the west by the Abang river, and to the south by the track linking the towns of Alum and Nsork. The north-eastern border is defined by the watershed between the Ouro river system to the north and the Abang and the Ncama rivers (the last flows through the eastern half of the park), affluents of the Ogooué river system to the south in Gabon. The park sits on a granitic plateau at about 500 m, from which a number of tall inselbergs protrude. The human population within the park is small, but probably exceeds 5,000 in the surrounding villages.

Birds

See Box and Tables 2 and 3 for key species. Nests of *Picathartes oreas* have been found and much habitat suitable for this species occurs. The site has, as yet, been extremely incompletely surveyed and it is expected that further work will reveal many more species of the Guinea–Congo Forests biome as well as, possibly, other restricted-range species of the Cameroon and Gabon lowlands EBA.

Key species

A1	*Picathartes oreas*
A2 (085)	Cameroon and Gabon lowlands EBA: Two of the four species of this EBA that occur in Equatorial Guinea have been recorded at this site; see Table 2.
A3 (A05)	Guinea–Congo Forests biome: 66 of the 176 species of this biome that occur in Equatorial Guinea have been recorded at this site: see Table 3.

Other threatened/endemic wildlife

The flora is, as yet, practically unsurveyed. Threatened mammals include four primate species of global conservation concern; *Colobus satanas* (VU), *Mandrillus sphinx* (LR/nt), *Gorilla gorilla* (EN) and *Pan troglodytes* (EN). The elephant *Loxodonta africana* (EN) also occurs.

Conservation issues

Although identified as a protected area since 1988, Nsoc was only given legal status, as a National Park, in 2000. No official protection measures have been implemented. There is no information on hunting pressure, but it is likely to be intense. There is a potentially high risk of forest clearance for shifting cultivation around the periphery of the site. Two timber companies own logging concessions and since 1995 there has been timber extraction, but the distance from and difficulties of access to ports has so far prevented large-scale forestry in the area.

Further reading

CUREF (1998), Eneme and Chahua (1996), Larison *et al.* (1999).

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