

# CÔTE D'IVOIRE

LINCOLN FISHPOOL



Blue Cuckoo-shrike *Coracina azurea*. (ILLUSTRATION: MARK ANDREWS)

## GENERAL INTRODUCTION

The Republic of Côte d'Ivoire is approximately rectangular in shape and has a surface area of 322,460 km<sup>2</sup>. It is bordered to the east by Ghana, to the north by Burkina Faso and Mali, to the west by Guinea and Liberia while its southern boundary is formed by the Atlantic Ocean. Côte d'Ivoire extends from about 04°20'N to 10°50'N and between about 02°30'W and 08°40'W. The country slowly increases in altitude from south to north. The coastal plain lies below 200 m and rises gently inland to meet the interior penplain which, other than for a few granite inselbergs that reach 600–700 m, has an average height of around 300 m. This uniform topography is, however, relieved in the north-west by an area of highland, the eastward extension of the mountainous massifs of Guinea and northern Liberia, where seven peaks rise to over 1,000 m, of which the highest, Mount Nimba (1,752 m), marks the meeting point of Côte d'Ivoire's joint frontier with Liberia and Guinea. Another important geophysical feature is the series of lagoons which extend along the length of the coast in the eastern half of the country. The principal drainage features are four rivers, the Comoé, the Bandama, the Sassandra and the Cavally, which flow approximately parallel, north to south, along the length of the country with the Cavally forming the international frontier with Liberia for much of its length. The extreme north-west of the country, however, forms part of the Niger river's catchment and therefore has northward-flowing watercourses.

The country is divided into two main climatic zones, equatorial in the south, tropical in the north. Thus, there are two rainy seasons in the south, the longer and wetter extending from April to July with a peak in June, the shorter during October and November. There is, therefore, a short dry season in August and September, which in wet years in the extreme south may be much abbreviated, and a longer one between December and March, during which time the continental, hot, dry Harmattan winds may penetrate as far south as the coast. Average annual rainfall in the south ranges between 1,250 and 2,400 mm with temperatures averaging around

27°C all year. In the north there is only a single wet season, from May to October, during which an average of 900–1,500 mm of rain falls annually. The dry season extends, therefore, from November to April. Average annual temperatures range between 21° and 35°C. Thus, broadly, rainfall decreases with increasing latitude. There are, however, some departures from this. Areas receiving the highest rainfall are the extreme south-west, the extreme south-east and also, due to orographic influence, the highlands around Mount Nimba; the centre of the country is therefore somewhat drier. In addition, the north-east receives rather less rain than the north-west.

The distribution of the main vegetation belts largely reflect the rainfall gradient. Lowland rainforest used to cover much of the southern part of the country, the belt being widest in the east and west, narrowest in the centre. Areas of mangrove and swamp-forest (*Raphia* palm spp.) fringe the coastal lagoons, while in places along the littoral fringe, where extremely fast-draining sandy soils occur, wooded grassland rather than forest occurs, or occurred. Inland, two main types of forest may be distinguished: moister evergreen forest nearer the coast, where average annual rainfall exceeds 1,600 mm, and drier, semi-deciduous forest further inland, in areas where the average annual rainfall ranges between 1,300–1,600 mm. In the highlands of the north-west some montane elements enter the vegetation, such as the tree *Parinari excelsa*. North of the forest block lies the southern Guinea Savanna, a zone of forest-savanna mosaic. This zone is narrow in the east and west, but is wider in the centre of the country, penetrating southwards along the Bandama river to nearly 06°N, only some 120 km from the coast. This southward projection of the savanna into the forest zone is known as the 'V Baoulé' after its shape and the name of the principal ethnic group of the area. The dominant vegetation comprises tall grasses (*Hyparrhenia*, *Loudetia*, *Imperata* spp.) under woodland (*Piliostigma*, *Cussonia*, *Crossopteryx* spp.) in which *Borassus* palm (*Borassus aethiopum*) may be common. North of about 08°N and the 1,200 mm isohyet is the northern Guinea Savanna zone, typified by a dense woodland in which *Daniella*, *Isoberlinia*, *Lophira*,



**Map 1.** Location and size of Important Bird Areas in Côte d'Ivoire.

*Diospyros* and *Uapaca* spp. are conspicuous elements. The woodland is broken in places by gallery forest fringing river courses, and by inselbergs and lateritic plateaus. Along the northern fringe of the country there is a belt, widest in the north-east, of Sudanian woodland in which *Monotes*, *Burkea*, *Isoperlinia* and *Erythrophleum* species are typical elements.

Table 1. Summary of Important Bird Areas in Côte d'Ivoire.			14 IBAs covering 23,553 km <sup>2</sup>			
IBA code	Site name	Administrative region	Criteria (see p. 11; for A2/A3 codes, see Tables 2/3)			
			A1	A2 084	A3 A04	A05
CI001	Comoé National Park	Bondoukou, Korhogo, Bouaké			✓	
CI002	Mont Sangbé National Park	Man, Odienné	✓	✓	✓	✓
CI003	Mont Nimba Strict Nature Reserve	Man	✓	✓		✓
CI004	Guéoulé, Mont Glo, Mont Momi and Sangouiné Forest Reserves	Man	✓	✓		✓
CI005	Mont Péko National Park	Man	✓	✓		✓
CI006	Marahoué National Park	Daloa	✓	✓	✓	✓
CI007	Bossematié Forest Reserve	Abengourou	✓	✓		✓
CI008	Cavally and Goin-Débé Forest Reserves	Man	✓	✓		
CI009	Lamto Ecological Research Station	Abidjan	✓	✓		✓
CI010	Mabi and Yaya Forest Reserves	Abidjan	✓	✓		✓
CI011	Taï National Park and Nzo Faunal Reserve	Sassandra, Man	✓	✓		✓
CI012	Mopri Forest Reserves	Abidjan	✓	✓		✓
CI013	Yapo and Mambo Forest Reserves	Abidjan	✓	✓		✓
CI014	Azagny National Park	Abidjan	✓	✓		✓
Total number of IBAs qualifying:			13	13	3	12

The human population of Côte d'Ivoire is 14.75 million, which includes the 60 indigenous ethnic groups, together with a large number of economic migrants and, more recently, refugees from neighbouring countries; the annual growth-rate is 2.9% (1996 estimates). Areas of highest population density include the commercial capital Abidjan, the southern central parts around the 'V Baoulé' and the cities of Bouaké and Yamoussoukro, the political capital, the highlands of the north-west and around Korhogo in the north. About 50% of the population is urban. The country is divided administratively into 16 Régions, 58 Départements and 230 Sous-préfectures. Coffee and cocoa are by far the most important commercial crops, generating more than half the country's revenue. Additionally, oil-palm, rubber and banana plantations are widespread in the south, while in the north the cotton industry is important.

Côte d'Ivoire has the dubious distinction of being the country which has experienced the most rapid rate of deforestation in the world. In the southern third, once almost entirely forested, there is now hardly any stretch of natural, unmodified vegetation left. The original forest-cover is estimated to have been about 230,000 km<sup>2</sup>; by 1987 only some 27,464 km<sup>2</sup> or 12% remained (Sayer *et al.* 1992). The timber trade has consequently dwindled to be of only minor economic importance now. The pervasiveness of the loggers has, however, resulted in the opening up of almost all of the forest zone to hunters, settlement and agriculture; large mammals and birds are now rare everywhere other than in certain protected areas.

## ORNITHOLOGICAL IMPORTANCE

In 1985, when a review of the avifauna of Côte d'Ivoire was published, the number of species known for the country stood at 683, of which 102 were Palearctic migrants, 38 were intra-African migrants breeding elsewhere and 25 were intra-African migrants

**Table 2.** The occurrence of restricted-range species at Important Bird Areas in Côte d'Ivoire. Sites that meet the A2 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**.

<b>084 – Upper Guinea forests Endemic Bird Area</b> (14 species in Côte d'Ivoire; 13 sites meet the A2 criterion)														
IBA code:	001	002	003	004	005	006	007	008	009	010	011	012	013	014
<i>Agelastes meleagrides</i>						?				✓	✓			
<i>Scotopelia ussheri</i>			?		✓				✓					?
<i>Ceratogymna cylindricus</i>	?	✓		✓	✓	✓	✓				✓	✓	?	✓
<i>Campephaga lobata</i>			✓			✓					✓	✓		
<i>Bleda eximia</i>			✓				✓			✓	✓		✓	
<i>Criniger olivaceus</i>			✓							✓	✓	✓	✓	
<i>Illadopsis rufescens</i>		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Picathartes gymnocephalus</i>		✓	✓	✓	✓				✓		✓			
<i>Prinia leontica</i>			?	?										
<i>Apalis sharpei</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Bathmocercus cerviniventris</i>			✓			✓			?		✓			
<i>Melaenornis annamarulae</i>			?		✓	✓					✓	✓		
<i>Malimbus ballmanni</i>								✓						
<i>Lamprotornis cupreocauda</i>				✓	✓	✓					✓	✓	✓	✓
Number of species recorded:	4	7	5	7	7	4	1	4	4	4	12	7	5	4

? Status unconfirmed; or records from the general area, not the site itself; or old records, etc.

breeding within the country, while the remainder were considered resident (Thiollay 1985). Since then, some 47 more species have been recorded, such that the total currently stands at around 730 species. Although some parts of the country have been relatively well-studied ornithologically, many others, particularly the north-west, north-central and south-eastern parts, have yet to be properly explored. Hitherto, studies have largely been confined to a small number of sites, particularly within the forest zone, so the within-country distribution of many species is imperfectly known.

Twenty species of global conservation concern are known from the country, of which three, *Circus macrourus* (NT), *Falco naumanni* (VU) and *Gallinago media* (NT), are merely rare migrants from the Palearctic. The remainder are all forest or forest-edge species, two of which are considered Endangered (*Scotopelia ussheri* and *Malimbus ballmanni*), nine of which are Vulnerable (*Agelastes meleagrides*, *Melignomon eisentrauti*, *Campephaga lobata*, *Bleda eximia*, *Criniger olivaceus*, *Picathartes gymnocephalus*, *Prinia leontica*, *Bathmocercus cerviniventris* and *Melaenornis annamarulae*), while the other six are Near Threatened (*Ceratogymna cylindricus*, *C. elata*, *Phyllastrephus baumanni*, *Malaconotus lagdeni*, *Illadopsis rufescens* and *Lamprotornis cupreocauda*). The whole of the forest zone of Côte d'Ivoire falls within the Upper Guinea forests Endemic Bird Area (EBA 084) and 14 of the 15 restricted-range species that make up this EBA occur in the country (Table 2). Of these, 13 are also species of global conservation concern, listed above, the one exception being *Apalis sharpei*. The country is split sub-equally between two biomes. The Sudan–Guinea Savanna biome (A04) covers somewhat more than the northern half of the country with the Guinea–Congo Forests biome (A05) occupying the remaining southern part. Thirty-nine species of the Sudan–Guinea Savanna biome and 185 species of the Guinea–Congo Forests biome have been recorded in Côte d'Ivoire. Although a large number of waterbird species have been recorded in the country, none is known to occur in internationally important numbers.

The remaining forests in Côte d'Ivoire are extremely important for the continued survival of the avifauna of the Upper Guinea forests. Of particular significance are those forests in the south-west of the country, west of the Sassandra river. This area, extending into eastern Liberia, is thought to have been a Pleistocene refuge. Some bird species, such as *Malimbus ballmanni* and *Phyllastrephus leucolepis* (not reported from Côte d'Ivoire but may occur), appear to be confined to it. It is also extremely important for other biodiversity. The forested mountains of the west, in the area from around Man to the borders with Guinea and Liberia, are significant for *Prinia leontica*, otherwise only known from highland areas of Sierra Leone and the Mont Nimba region in Liberia and Guinea. Another species of limited distribution is *Coccycolius iris*, which elsewhere occurs only in parts of Sierra Leone and Guinea, and appears to be confined to a narrow zone in the central part of Côte d'Ivoire, west of the Bandama river.

**Table 3.** The occurrence of biome-restricted species at Important Bird Areas in Côte d'Ivoire. Sites that meet the A3 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**.

<b>A04 – Sudan–Guinea Savanna biome</b> (39 species in Côte d'Ivoire; three sites meet the A3 criterion)				
IBA code:	001	002	006	009
<i>Falco alopex</i>	?			
<i>Poicephalus senegalus</i>	✓	✓	✓	✓
<i>Musophaga violacea</i>	✓	✓	✓	?
<i>Merops bulocki</i>	✓	✓		
<i>Coracias cyanogaster</i>	✓	✓	✓	✓
<i>Lybius dubius</i>	✓			
<i>Galerida modesta</i>	✓		✓	
<i>Hirundo leucosoma</i>	✓			
<i>Lanius gubernator</i>	✓	✓		
<i>Corvinella corvina</i>	✓			
<i>Cossypha albicapilla</i>	✓	✓		
<i>Myrmecocichla albitrons</i>	✓	✓		
<i>Turdoides reinwardtii</i>	✓	✓		?
<i>Cisticola ruficeps</i>	?			
<i>Cisticola rufus</i>				
<i>Hypergerus atriceps</i>	✓	✓	✓	
<i>Eremomela pusilla</i>	✓	✓	✓	✓
<i>Muscicapa gambagae</i>	✓			
<i>Anthoscopus parvulus</i>	?			
<i>Nectarinia coccinigaster</i>	✓	✓	✓	✓
<i>Emberiza affinis</i>	✓			
<i>Nesocharis capistrata</i>	?	✓		
<i>Pytilia phoenicoptera</i>	✓	✓		
<i>Pytilia hypogrammica</i>	✓	✓		
<i>Euschistospiza dybowskii</i>		✓		
<i>Lagonosticta rufopicta</i>	✓	✓		
<i>Lagonosticta rara</i>	✓	✓		
<i>Lagonosticta larvata</i>	✓			
<i>Estrilda caerulescens</i>	✓	✓		
<i>Estrilda troglodytes</i>	?			
<i>Vidua interjecta</i>				
<i>Vidua togoensis</i>	✓		✓	
<i>Petronia dentata</i>	✓			
<i>Plocepasser superciliosus</i>	✓			
<i>Ploceus heuglini</i>	?			✓
<i>Coccycolius iris</i>		✓	✓	
<i>Lamprotornis purpureus</i>	?			?
<i>Lamprotornis chalcurus</i>	?		✓	
<i>Ptilostomus afer</i>	?			
Number of species recorded:	26	19	10	5

? Status unconfirmed; or records from the general area, not the site itself; or old records or vagrants, etc.

**Table 3 ... continued.** The occurrence of biome-restricted species at Important Bird Areas in Côte d'Ivoire. Sites that meet the A3 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**.

<b>A05 – Guinea–Congo Forests biome</b> (185 species in Côte d'Ivoire; 12 sites meet the A3 criterion)														
IBA code:	001	002	003	004	005	006	007	008	009	010	011	012	013	014
<i>Tigriornis leucolophus</i>	?				✓				✓		✓		✓	✓
<i>Bostrychia rara</i>					✓				✓		✓			
<i>Pteronetta hartlaubii</i>	✓	✓			✓	✓					✓		?	✓
<i>Dryotrionchis spectabilis</i>					✓						✓	✓	✓	
<i>Accipiter erythropus</i>	✓				✓		✓		✓		✓	✓	✓	✓
<i>Urotrionchis macrourus</i>		✓			✓	✓	✓		✓		✓	✓	✓	
<i>Spizaetus africanus</i>			✓			✓			?		✓		✓	
<i>Francolinus lathamii</i>	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Francolinus achantensis</i>	✓	?	✓	✓	✓	✓	✓		?		✓	✓	✓	
<i>Agelastes meleagrides</i>						?				✓	✓			
<i>Sarothrura pulchra</i>	?	✓	✓	✓	✓		✓		✓		✓	✓	✓	
<i>Himantornis haematopus</i>	?	?		✓			✓		✓		✓	✓	✓	✓
<i>Canirallus oculus</i>											✓		✓	✓
<i>Columba uncinata</i>			✓	✓	✓	✓	✓		✓		✓	✓		
<i>Columba iriditorques</i>	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	
<i>Turtur brehmeri</i>	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Psittacus erithacus</i>				✓	✓		✓		✓		✓	✓	✓	✓
<i>Agapornis swindermanus</i>											✓		✓	✓
<i>Tauraco persa</i>	✓	✓	✓	✓	✓	✓			✓		✓			✓
<i>Tauraco macrorhynchus</i>	?		✓	✓	✓	✓	✓		?	✓	✓	✓	✓	
<i>Cercococcyx mechowii</i>					✓		✓		?		✓	✓	✓	
<i>Cercococcyx olivinus</i>			✓	✓	✓	✓	✓				✓	✓	✓	
<i>Chrysococcyx flavigularis</i>											✓			
<i>Centropus leucogaster</i>	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Otus icterorhynchus</i>			✓		✓		✓						?	
<i>Bubo poensis</i>		✓	?		✓	✓	✓		?		✓	✓	✓	✓
<i>Bubo shelleyi</i>			?								✓			
<i>Bubo leucostictus</i>				✓		✓					✓	✓	✓	
<i>Scotopelia ussheri</i>			?		✓				✓		✓			?
<i>Jubula lettii</i>											✓			
<i>Glauclidium tephronotum</i>					✓		✓				✓	✓	✓	
<i>Caprimulgus binotatus</i>				✓							✓	✓	✓	
<i>Caprimulgus nigriscapularis</i>	✓	✓			✓	✓						✓		
<i>Telacanthura melanopygia</i>			?	✓	✓		✓				✓		✓	
<i>Rhaphidura sabini</i>				✓	✓	✓			✓		✓		✓	
<i>Neafrapus cassini</i>					✓		✓				✓		✓	✓
<i>Apus batesi</i>														
<i>Alcedo leucogaster</i>	?		?		✓	✓			?	✓	✓		✓	
<i>Ispidina lecontei</i>		✓	?		✓	✓	✓		?	✓	✓		✓	
<i>Halcyon badia</i>			?	✓	✓		✓		?	✓	✓		✓	
<i>Merops gularis</i>		✓	?	✓	✓	✓	✓		✓		✓	✓	✓	
<i>Merops muelleri</i>			✓	✓			✓				✓	✓	✓	
<i>Merops breweri</i>						✓								
<i>Merops malimbicus</i>														
<i>Eurystomus gularis</i>	✓	✓		✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Phoeniculus castaneiceps</i>	?			✓	✓	✓	✓				✓	✓	✓	
<i>Tockus albocristatus</i>	?	✓		✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Tockus hartlaubi</i>	?	✓		✓	✓	✓	✓		✓		✓	✓	✓	
<i>Tockus camurus</i>	?		✓		✓	✓	✓			✓	✓	✓	✓	✓
<i>Tockus fasciatus</i>	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Ceratogymna fistulator</i>	✓	✓		✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Ceratogymna subcylindricus</i>	✓	✓	?	✓	✓	✓	✓				✓	✓	✓	
<i>Ceratogymna cylindricus</i>	?	✓		✓	✓	✓	✓				✓	✓	?	✓
<i>Ceratogymna atrata</i>		✓	✓	✓	✓	?	✓			✓	✓	✓	?	
<i>Ceratogymna elata</i>	?	✓	✓	✓	✓	✓	✓				✓	✓		✓
<i>Gymnobucco calvus</i>			✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Gymnobucco peli</i>	?				✓		✓		✓		✓	✓	✓	
<i>Pogoniulus scolopaceus</i>	?	✓		✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Pogoniulus atroflavus</i>				✓	✓	✓	✓				✓	✓	✓	
<i>Pogoniulus subsulphureus</i>	?			✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Buccanodon duchaillii</i>											✓	✓	✓	✓
<i>Tricholaema hirsuta</i>	?	✓		✓	✓	✓	✓		✓		✓	✓	✓	✓

**Table 3 ... continued.** The occurrence of biome-restricted species at Important Bird Areas in Côte d'Ivoire. Sites that meet the A3 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**.

<b>A05 – Guinea–Congo Forests biome ... continued</b> (185 species in Côte d'Ivoire; 12 sites meet the A3 criterion)														
IBA code:	001	002	003	004	005	006	007	008	009	010	011	012	013	014
<i>Trachyphonus purpuratus</i>		✓		✓	✓		✓		✓		✓	✓	✓	
<i>Indicator maculatus</i>	✓	✓			✓	✓			?		✓		✓	
<i>Indicator willcocksii</i>									?		✓		✓	
<i>Melichneutes robustus</i>		✓	?			✓					✓			
<i>Melignomon eisentrauti</i>						✓								
<i>Prodotiscus insignis</i>	?				✓				✓		✓	✓	✓	
<i>Sasia africana</i>												✓	✓	
<i>Campethera maculosa</i>		✓	?	✓	✓	✓			✓		✓	✓	✓	
<i>Campethera nivosus</i>	✓	✓		✓	✓		✓		✓	✓	✓	✓	✓	
<i>Campethera caroli</i>			✓		✓	✓			?		✓		✓	
<i>Dendropicos gabonensis</i>	?			✓	✓	✓	✓		✓		✓	✓	✓	
<i>Dendropicos pyrrhogaster</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Smithornis rufofasciatus</i>			?	✓	✓		✓			✓	✓	✓	✓	
<i>Hirundo nigrita</i>	?	✓				✓	✓		✓		✓			✓
<i>Psalidoprocne nitens</i>	?	✓		✓	✓						✓		✓	
<i>Psalidoprocne obscura</i>	✓	✓				✓							?	
<i>Coracina azurea</i>			✓	✓	✓		✓		?		✓	✓	✓	✓
<b><i>Campephaga lobata</i></b>			✓			✓					✓	✓		
<i>Andropadus gracilis</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Andropadus ansorgei</i>			✓	✓	✓		✓				✓	✓	✓	
<i>Andropadus curvirostris</i>				✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Calyptocichla serina</i>				✓	✓	✓	✓		?	✓	✓	✓	✓	✓
<i>Baeopogon indicator</i>	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Ixonotus guttatus</i>				✓			✓		?	✓	✓		✓	
<i>Chlorocichla simplex</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Thescelocichla leucopleura</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Phyllastrephus scandens</i>	✓	✓		?	✓	✓			✓					
<b><i>Phyllastrephus baumanni</i></b>		✓	?		✓									
<i>Phyllastrephus albigularis</i>		✓	?	✓	✓	✓	✓		✓		✓	✓		?
<i>Phyllastrephus icterinus</i>	?		✓		✓	✓	✓			✓	✓	✓	✓	✓
<i>Bleda syndactyla</i>			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<b><i>Bleda eximia</i></b>			✓				✓			✓	✓	✓	✓	
<i>Bleda canicapilla</i>	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Nicator chloris</i>	✓	✓		✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Criniger barbatus</i>	?	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓
<i>Criniger calurus</i>			✓	✓	✓	✓	✓		✓		✓	✓	✓	
<b><i>Criniger olivaceus</i></b>			✓				✓			✓	✓	✓	✓	
<i>Dryoscopus sabinus</i>				✓	✓	✓	✓		✓		✓	✓	✓	
<i>Laniarius leucorhynchus</i>				✓		✓			?				?	
<i>Malaconotus cruentus</i>			?	✓	✓	✓								✓
<i>Prionops caniceps</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Neocossyphus fraseri</i>		✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Neocossyphus poensis</i>	✓		✓	?	✓	✓	✓		✓	✓	✓		✓	✓
<i>Zoothera princei</i>	?		?						?		✓		✓	
<i>Alethe diademata</i>	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Stiphornis erythrothorax</i>		✓	✓	✓	✓	✓	✓		✓?	✓	✓	✓	✓	✓
<i>Sheppardia cyornithopsis</i>			✓		✓						✓		✓	
<i>Cossypha cyanocamptus</i>		✓							?			✓		
<i>Cercotrichas leucosticta</i>	✓		✓		✓	✓			✓		✓	✓	?	✓
<i>Illadopsis cleaveri</i>			?	✓	✓		✓		?	✓	✓	✓	✓	✓
<b><i>Illadopsis rufescens</i></b>		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Illadopsis puveli</i>	✓				✓	✓			✓					
<i>Illadopsis fulvescens</i>	?	✓		✓	✓	✓	✓		✓		✓		✓	✓
<i>Phyllanthus atripennis</i>	✓	✓		✓		✓			✓					
<b><i>Picathartes gymnocephalus</i></b>		✓	✓	✓	✓				✓		✓			
<b><i>Prinia leontica</i></b>			?	?										
<i>Apalis nigriceps</i>	?			✓	✓	✓			?		✓	✓	✓	
<i>Apalis sharpei</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Camaroptera superciliosus</i>	?	✓	✓	✓	✓		✓		✓		✓	✓	✓	
<i>Camaroptera chloronota</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	
<b><i>Bathmocercus cerviniventris</i></b>			?			✓			?		✓			
<i>Eremomela badiceps</i>				✓	✓	✓	✓		✓		✓	✓	✓	

**Table 3 ... continued.** The occurrence of biome-restricted species at Important Bird Areas in Côte d'Ivoire. Sites that meet the A3 criterion are highlighted in **bold**. Species of global conservation concern are highlighted in **bold blue**.

<b>A05 – Guinea–Congo Forests biome ... continued</b> (185 species in Côte d'Ivoire; 12 sites meet the A3 criterion)														
IBA code:	001	002	003	004	005	006	007	008	009	010	011	012	013	014
<i>Sylvietta virens</i>	?	✓		✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Sylvietta denti</i>	?	✓		✓	✓	✓			✓		✓	✓	✓	
<i>Macrosphenus kempii</i>			?	✓	✓		✓				?	✓	✓	
<i>Macrosphenus concolor</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Hylia prasina</i>	?	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Hyliota violacea</i>			✓	✓	✓	✓	✓		✓		✓	✓	✓	
<i>Melaenornis annamarulae</i>			?		✓	✓					✓	✓		
<i>Fraseria ocreata</i>	?				✓		✓		✓	✓	✓	✓	✓	
<i>Fraseria cinerascens</i>	✓	✓			✓	✓			✓		✓			✓
<i>Muscicapa ussheri</i>			✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Muscicapa olivascens</i>			?		✓				?		✓	✓	✓	
<i>Muscicapa epulata</i>				✓	✓	✓	✓		?		✓		✓	
<i>Muscicapa comitata</i>						✓			?		✓		✓	
<i>Muscicapa tessmanni</i>			?	✓	✓				?					
<i>Muscicapa cassini</i>	✓	✓		✓	✓				✓		✓			✓
<i>Myioparus griseigularis</i>			?	✓	✓	✓			✓		✓	✓	✓	
<i>Bias flammulatus</i>				✓	✓	✓			✓		✓	✓	✓	✓
<i>Batis occulta</i>					✓				?		✓	✓	✓	
<i>Platysteira castanea</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Platysteira blissetti</i>		✓		✓	✓	✓	?		✓					
<i>Erythrocerus mccallii</i>	?		✓	✓	✓		✓		✓		✓	✓	✓	✓
<i>Trochocercus nigromitratus</i>				✓	✓					✓	✓		✓	
<i>Trochocercus nitens</i>		✓	?	✓	✓	✓	✓		?	✓	✓	✓	✓	
<i>Terpsiphone ruiventer</i>	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Parus funereus</i>			✓	✓		✓	✓				✓			
<i>Anthoscopus flavifrons</i>					✓									✓
<i>Anthreptes fraseri</i>	?				✓		✓			✓	✓	✓	✓	✓
<i>Anthreptes gabonicus</i>	✓	✓			✓				✓		✓			✓
<i>Anthreptes rectirostris</i>	?		✓	✓	✓	✓	✓		✓				✓	
<i>Nectarinia seimundi</i>	?			✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Nectarinia batesi</i>				✓	✓									✓
<i>Nectarinia reichenbachii</i>														✓
<i>Nectarinia cyanolaema</i>					✓	✓	✓		✓		✓	✓	✓	✓
<i>Nectarinia fuliginosa</i>														✓
<i>Nectarinia adelberti</i>	?	✓		✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Nectarinia minulla</i>				✓	✓	✓					✓	✓	✓	
<i>Nectarinia johannae</i>	?		?	✓		✓			✓		✓	✓	✓	✓
<i>Nectarinia superba</i>	?		✓	✓	✓	✓					✓	✓	✓	
<i>Pholidornis rufiae</i>				✓	✓	✓	✓		✓		✓	✓	✓	
<i>Parmoptila rubrifrons</i>											✓	✓	✓	
<i>Nigrita fusconota</i>			✓		✓	✓	✓				✓	✓	✓	
<i>Nigrita bicolor</i>	?	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Nigrita luteifrons</i>											✓			
<i>Pyrenestes sanguineus</i>	?						✓						?	✓
<i>Spermophaga haematina</i>	✓				✓		✓		✓	✓	✓	✓	✓	✓
<i>Ploceus aurantius</i>														✓
<i>Ploceus nigerrimus</i>	?	✓		✓	✓	✓	✓				?		✓	✓
<i>Ploceus tricolor</i>				✓	✓	✓	✓		✓		✓	✓	✓	
<i>Ploceus albinucha</i>				✓	✓	✓	✓		?		✓	✓	✓	
<i>Ploceus preussi</i>					✓		✓				✓		?	
<i>Malimbus ballmanni</i>								✓						
<i>Malimbus scutatus</i>				✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Malimbus nitens</i>	?	✓			✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Malimbus malimbicus</i>		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Malimbus rubricollis</i>	?	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
<i>Poeoptera lugubris</i>				?	✓	✓	✓		✓		✓		✓	
<i>Onychognathus fulgidus</i>	?				✓	✓	✓		✓		✓	✓	✓	✓
<i>Lamprotornis cupreocauda</i>				✓	✓	✓					✓	✓	✓	✓
<i>Oriolus brachyrhynchus</i>	?		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
<i>Oriolus nigripennis</i>	✓	✓		✓	✓	✓	✓		✓		✓	✓		
<i>Dicurus atripennis</i>	?		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Number of species recorded:	31	72	61	111	144	117	112	1	95	35	157	115	135	80
? Status unconfirmed; or records from the general area, not the site itself; or old records or vagrants, etc.														

Other than in protected areas, large birds (raptors, bustards, hornbills, turacos, etc.) of almost all species are now scarce throughout the country as a result of hunting and other forms of persecution.

## CONSERVATION INFRASTRUCTURE AND PROTECTED-AREA SYSTEM

The designation and classification of protected areas, control of the forest estate and responsibility for environmental matters in Côte d'Ivoire all come under the Ministère de l'Environnement, de l'Eau et de la Forêt (Ministry of Environment, Water and Forests). The main pieces of conservation legislation are Law 65-425 of 1965, concerning the forest code, Law 94-442 of 1994, modifying Law 65-255 of 1965 and relating to faunal protection and the regulation of hunting, and Law 96-766 of 1996, regarding environmental protection.

The following categories of protected area are recognized by statute (those mentioned above and others):

- Réserve naturelle intégrale (Strict Nature Reserve): no human activity of any form, other than patrols, is allowed. Scientific research is permitted only with authorization. The only Strict Nature Reserve in Côte d'Ivoire is Mont Nimba.
- Parc national (National Park): National Parks are reserved exclusively for the protection, conservation and management of vegetation and wild animal populations. Hunting, slaughter and capture of animals and the destruction or collection of plants are prohibited except for scientific or management purposes, and only then under strict control. Visits are permitted for recreational, educational and cultural purposes. There are eight National Parks in Côte d'Ivoire: Azagny, Banco, Comoé, Iles Ehotilé, Marahoué, Mont Péko, Mont Sangbé and Taï.
- Réserve de faune et de flore (Faunal and Botanical Reserve): as National Parks except that mineral prospecting may, with authorization, be permitted. Visits are permitted for recreational, educational and cultural purposes.
- Réserve de faune (Faunal Reserve): these are areas set apart for the conservation, management and increase of wild animal populations as well as the conservation and management of their habitats. Hunting, slaughter and the capture of wildlife are prohibited, except by the authorities responsible for the reserve or those operating under their direction or control. Exploitation of vegetation may be permitted. Other human activities, including residing within the reserve, are forbidden or controlled. Visits are permitted for recreational, educational and cultural purposes. There are three faunal reserves in Côte d'Ivoire, Abokouamékro, Haut-Bandama and N'Zo.
- Réserve botanique (Botanical Reserve): these are areas set apart for the conservation of their flora. Exploitation of animal populations may be permitted (but only if the national ban on hunting is rescinded.)
- Fôrets classées (Forest Reserves): a large part of the remaining forest estate is designated as Forest Reserves. Their function is to satisfy the country's industrial and traditional wood requirements. Within these areas, land may be set aside to stabilize the water regime and climate, for soil conservation, the preservation of an area, nature conservation, public health and national defence. Attempts are now being made to manage some Forest Reserves in such a way that regeneration may occur naturally and species diversity is maintained. Further, parts of some Forest Reserves are being set aside as réserves biologiques (Biological Reserves) in which no exploitation is allowed, but to which visits are permitted for recreational, educational and scientific purposes.

National Parks and Strict Nature Reserves cover 17,504 km<sup>2</sup> or 5.4% of the country. This system includes nearly all major habitat-types in the country, although only 5,000 ha of the biologically important mountains of the north-west are conserved by the Mont Nimba Strict Nature Reserve, which is under pressure from factors operating in and from neighbouring Liberia, including logging and fire.

Côte d'Ivoire is, with support from the World Bank, the European Union and some bilateral partners, preparing an

ambitious 12-year Programme Cadre de Gestion des Aires Protégées (PCGAP). This programme is to include new legislation for protected areas, the creation of a central management authority and the establishment of a foundation to ensure long-term funding. In the interim, a Programme Transitoire is being funded by the European Union, under which the management of three National Parks is being shared with different international conservation NGOs.

## INTERNATIONAL MEASURES RELEVANT TO THE CONSERVATION OF SITES

Côte d'Ivoire has ratified the Convention on Biological Diversity, the Convention on Climate Change, the Convention to Combat Desertification, CITES, the Ramsar Convention and the World Heritage Convention, under which Taï and Comoé National Parks have been designated World Heritage sites. Both of these are also Biosphere Reserves under UNESCO's Man and Biosphere Programme, in which Côte d'Ivoire also participates. It has also signed, but not ratified, the Bonn Convention and, regionally, it is a signatory to the Africa Convention on Nature and Natural Resources.

## OVERVIEW OF THE INVENTORY

The inventory comprises 14 Important Bird Areas (IBAs), covering a total area of 23,553 km<sup>2</sup> or 7.3% of the country (Map 1, Table 1). One site encompasses the wooded savannas of the north, three sites are located on the forest-savanna ecotone, three are medium-altitude forests of the centre-west, six are lowland rainforest and one is swamp-forest and mangrove. Seven sites are legally fully protected as National Parks and Strict Nature Reserves (although part of one is only a Faunal Reserve), one operates as an unofficial nature reserve for which formal protection is being sought, while the remaining six have some limited protection as Forest Reserves. All but one site qualify both for Category A1 and for the Upper Guinea forests EBA; between them they hold 13 of the 14 restricted-range species of this EBA that are known from Côte d'Ivoire, while the remaining species, *Prinia leontica*, may occur at at least two sites (Table 2). Three sites have been selected for the Sudan–Guinea Savanna biome, collectively holding 32 of the 39 species of this biome recorded nationally, while there are records of all but one of the remaining species at one of the sites selected, but their current status is unclear (Table 3). The 12 sites selected for the Guinea–Congo Forests biome hold 182 of the 185 species of the biome that are known to occur in the country (Table 3). Of the three species not included, one is a non-breeding bee-eater *Merops* known from very few records, one a swift *Apus* whose occurrence in the country is not proven, while the last is *P. leontica*.

## COMMENTS ON THE INVENTORY

Ornithological data come from published sources and the unpublished observations of the author and correspondents; data for two of the sites in particular are extremely sparse and the importance of the site is adduced from the known presence of one or two key species only and, inferentially, from suitable habitat. In addition, there are a number of other sites that may well be found to qualify as IBAs but for which data are currently lacking. Three such potential sites are Haut-Bandama Faunal Reserve in the centre-north and Haut-Sassandra and Scio Forest Reserves in the west.

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## ■ SITE ACCOUNTS

**Comoé National Park**

Admin region Bondoukou, Korhogo, Bouaké

Coordinates 09°11'N 03°42'W

Area 1,149,150 ha

Altitude 119–658 m

**CI001**

A3 (A04)

National Park, Biosphere Reserve,

World Heritage Site

## ■ Site description

Situated in north-eastern Côte d'Ivoire, near the borders with Ghana and Burkina Faso, Comoé National Park is the largest national park in West Africa. Much of the park is drained by the Comoé river which flows south through the park for some 230 km. Savanna woodlands cover 70% of the park, with tree cover varying between 2% and 70%. Dominant tree species vary, often with soil type, and include *Isoberlinia doka*, *Crossopteryx febrifuga*, *Daniella oliveri*, *Burkea africana* and *Terminalia avicennioides*. Between the trees there is a herb layer up to 2 m high in which grasses such as *Brachiaria jubata*, *Andropogon africanus* and *Hyparrhenia rufa* are common. The woodlands are burnt by bush fires, most anthropogenic, every dry season (November–March). Riparian forests fringe the Comoé river and its larger tributaries to a distance varying from a few to several hundred metres; larger tree species include *Cynometra megalophylla*, *Cola cordifolia* and *Manilkara multinervis*. In addition, isolated forest patches of varying size, non-riparian in origin, occur throughout the woodland. Some of these are wetter types, similar in composition to the riparian forests; others are drier, possibly representing a closed form of savanna woodland. Other habitat-types include alluvial plains and flat ironstone outcrops, both of which are covered with sparse seasonal marsh vegetation. Average annual rainfall is 1,100–1,300 mm.

## ■ Birds

See Box and Table 3 for key species. A total of 494 species has been recorded from the park. This total includes five species of global conservation concern. Three of these, *Circus macrourus*, *Falco naumanni* and *Gallinago media*, are merely rare migrants from the Palearctic for which there are few recent records. The other two are the hornbills *Ceratogymna elata* and *C. cylindricus* (the latter also restricted-range), both of which are now very rare. In addition, there are also a few old records of the restricted-range *Apalis sharpei*. The high species-diversity is a reflection of both the large size of the site and the range of habitat-types that occur. Fifty species of raptor have been recorded and there are breeding populations of species that have become rare over much of West Africa, such as *Leptoptilos crumeniferus*, *Ephippiorhynchus senegalensis*, *Haliaeetus vocifer* and *Neotis denhami*. In addition, at least 31 species of the Guinea–Congo Forests biome have been recorded from this site; see Table 3.

**Key species**

A3 (A04) Sudan–Guinea Savanna biome: At least 26 of the 39 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.

## ■ Other threatened/endemic wildlife

Of the 54 species of larger mammal that occur, the following are of conservation concern: *Pan troglodytes verus* (EN), *Colobus vellerosus* (VU), *Cercocebus atys lunulatus* (EN), *Cercopithecus diana rolowayi* (EN), *Lycan pictus* (EN), *Mungos gambianus* (DD), *Panthera leo* (VU), *Loxodonta africana africana* (EN), *Hylochoerus meinertzhageni ivoriensis* (VU), *Syncerus caffer* (LR/cd), *Cephalophus maxwellii* (LR/nt), *C. rufilatus* (LR/cd), *C. niger* (LR/nt), *C. sylvicultor* (LR/nt), *C. dorsalis* (LR/nt), *Ourebia ourebi* (LR/cd), *Redunca redunca* (LR/cd), *Kobus kob kob* (LR/cd), *Kobus ellipsiprymnus defassa* (LR/cd), *Alcelaphus buselaphus major* (LR/cd) and *Hippotragus equinus* (LR/cd).

## ■ Conservation issues

Created a National Park in 1968, Comoé is a UNESCO Biosphere Reserve and a World Heritage Site. Despite this, a number of problems affect the park. Against the background of a rising human population density around the park's periphery, poaching is widespread, there is much fishing of the Comoé river within the park, and agriculture and cattle-grazing encroach along its northern fringe. Attempts are currently being made to address these issues: a park management project, as part of the nationwide multi-donor effort to improve

protected-area management, is being executed in Comoé by government authorities with technical assistance provided by WWF and funding from the European Union.

## ■ Further reading

Fischer and Gross (1998), FGU-Kronberg (1979), Lauginie *et al.* (1996), Lauginie and Sournia (1977), Mühlenberg *et al.* (1990), Poilecot *et al.* (1991), Porembski (1991), Salewski (1999, 2000).

**Mont Sangbé National Park**

Admin region Man, Odienné

Coordinates 07°58'N 07°14'W

Area 95,000 ha

Altitude 200–1,072 m

**CI002**

A1, A2 (084), A3 (A04, A05)

National Park

## ■ Site description

Mont Sangbé is located north-east of Man, west of Séguéla in the north-west of the country, immediately west of the Sassandra river, which forms its eastern boundary. Sangbé forms part of the eastern end of the highland chain that extends through Guinea and northern Liberia. The terrain is rugged, with many granitic inselbergs and several peaks that reach over 700 m. The Bafing river, an affluent of the Sassandra, flows east across the southern part of the park. The vegetation is mostly dense savanna woodland with some small patches of deciduous forest as islands in the savanna or as galleries along watercourses. In the southern part of the park the savanna is of two types. On well-drained soils the dominant grasses are *Brachiaria serrata* and *Andropogon macrophyllus* and the principal tree species are *Daniella oliveri* and *Lophira lanceolata*, while on seasonally waterlogged soils there are few ligneous species and the grass *Loudetia phragmitoides* predominates. In the drier north, Sudanian woodland occurs in which *Isoberlinia doka* is extremely common. Average annual rainfall is 1,350 mm.

## ■ Birds

See Box and Tables 2 and 3 for key species. The park has only been incompletely surveyed, but has recently been found to hold an interesting mixture of species of the Sudan–Guinea Savanna and Guinea–Congo Forests biomes, including poorly known species such as the bulbul *Phyllastrephus baumanni* and the starling *Coccycolius iris*, both fairly common.

**Key species**

A1	<i>Ceratogymna cylindricus</i>	<i>Illadopsis rufescens</i>
	<i>Ceratogymna elata</i>	<i>Picathartes gymnocephalus</i>
	<i>Phyllastrephus baumanni</i>	
A2 (084)	Upper Guinea forests EBA: Four of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.	
A3 (A04)	Sudan–Guinea Savanna biome: 19 of the 39 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.	
A3 (A05)	Guinea–Congo Forests biome: At least 72 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.	

## ■ Other threatened/endemic wildlife

Mammals of conservation concern include *Pan troglodytes verus* (EN), *Colobus polykomos* (LR/nt), *Cercocebus atys lunulatus* (EN), *Cercopithecus diana rolowayi* (EN), *Epixerus ebi* (LR/nt), *Poiana richardsoni liberiensis* (DD), *Loxodonta africana africana* (EN), *Hyemoschus aquaticus* (LR/nt), *Syncerus caffer* (LR/cd), *Tragelaphus euryceros* (LR/nt), *Cephalophus maxwellii* (LR/nt), *C. rufilatus* (LR/cd), *C. niger* (LR/nt), *C. sylvicultor* (LR/nt), *C. dorsalis* (LR/nt), *Neotragus pygmaeus* (LR/nt), *Ourebia ourebi* (LR/cd), *Redunca redunca* (LR/cd), *Kobus kob kob* (LR/cd), *Kobus ellipsiprymnus defassa* (LR/cd), *Alcelaphus buselaphus major* (LR/cd), *Hippotragus equinus* (LR/cd). Two crocodiles of conservation concern occur: *Crocodylus cataphractus* (DD) and *Osteolaemus tetraspis* (VU).

## ■ Conservation issues

Mont Sangbé was created a National Park in 1976. Although eight small villages occur within the park boundary, the effects of the subsistence agriculture of their inhabitants are limited and not thought to present a serious threat. However, poaching and the fires lit by

poachers do, especially the effects of the latter on the isolated forest patches. There has also been some illegal logging of these forests. The park benefits from a French regional aid project which, with funding from the European Union, seeks to improve the park's facilities and management.

#### Further reading

Lauginie *et al.* (1996), WCMC (1991).

### Mont Nimba Strict Nature Reserve

**CI003**

Admin region Man

Coordinates 07°35'N 08°25'W

A1, A2 (084), A3 (A05)

Area 5,000 ha Altitude 500–1,752 m

Strict Nature Reserve

#### Site description

Situated at the point where the boundaries of Côte d'Ivoire, Liberia and Guinea meet, Mount Nimba is one of highest points in West Africa at 1,752 m. Only a relatively small amount of the extremely steeply sloping eastern side of Mount Nimba occurs on the Ivorian side of the border; more falls in Guinea where 13,000 ha is also protected as a strict nature reserve within boundaries exactly contiguous with those on the Ivorian side (IBA GN017). About half of the mountain is in Liberia, where it is unprotected (IBA LR004). The vegetation is of three main types; montane grassland, dominated by *Loudetia kagerensis*, at and immediately below the summit, which intergrades from around 1,600 m with *Parinari excelsa*-dominated montane forest in which epiphytes are conspicuous. *P. excelsa* extends down to about 700 m and is progressively replaced by lowland forest species such as *Piptadeniastrum africanum*, *Lophira alata* and *Entandrophragma* spp.

#### Birds

See Box and Tables 2 and 3 for key species. There is no comprehensive avifaunal list for Ivorian Nimba, but it may be expected to be similar, at corresponding altitudes, to that for Liberia which has been well studied. Species listed below and in Tables 2 and 3 qualified with '?' have been reported in the Ivorian literature as occurring on Nimba, but it not clear whether these are based only on inferences from Liberian records—further surveys are required. Nimba, at least the Liberian sector, is a stronghold for *Prinia leontica*, a species with a very limited distribution in West Africa, most common at higher altitudes. It is also the only locality in the country from which some species are known, because it is the only place where montane grassland occurs. These include *Mirafra africana henrici*, *Anthus similis bannermani*, and *Saxicola torquata nebulorum*; all these subspecies are restricted to Upper Guinea while the race of *M. africana* is endemic to Nimba.

#### Key species

A1	<i>Scotopelia ussheri?</i>	<i>Illadopsis rufescens</i>
	<i>Ceratogymna elata</i>	<i>Picathartes gymnocephalus</i>
	<i>Campephaga lobata</i>	<i>Prinia leontica?</i>
	<i>Phyllastrephus baumanni?</i>	<i>Bathmocercus cerviniventris</i>
	<i>Bleda eximia</i>	<i>Melaenornis annamarulae?</i>
	<i>Criniger olivaceus</i>	

A2 (084) Upper Guinea forests EBA: At least seven of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.

A3 (A05) Guinea–Congo Forests biome: At least 61 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.

#### Other threatened/endemic wildlife

About 2,000 species of plant are known from Nimba of which 16 are considered strict endemics. The mammal fauna includes a number of threatened species such as *Pan troglodytes verus* (EN), *Ptilocolobus badius* (VU), *Colobus polykomos* (VU), *Cercopithecus d. diana* (VU), *Micropotamogale lamottei* (EN), the last of which is endemic to Nimba. The Mount Nimba viviparous toad *Nectophrynoides occidentalis* (EN) is also endemic to the mountain. At least 20 species of insect are thought to be endemic to the mountain.

#### Conservation issues

Much of Liberian Nimba has been destroyed by industrial open-cast mining of bauxite which has resulted not only in the removal of much of the mountain itself, but also in considerable pollution and soil erosion of the surrounding area. Although this has not directly affected

the Ivorian side, associated activities such as poaching (including lighting of fires to flush game) by and for mine staff certainly has, such that, for example, primate numbers have been severely reduced.

#### Further reading

Adam (1981), Colston and Curry-Lindahl (1986), Gartshore (1989), Lamotte (1998), WCMC (1991).

### Guéoulé, Mont Glo, Mont Momi and Sangouiné Forest Reserves

**CI004**

Admin region Man

Coordinates 07°25'N 07°52'W

A1, A2 (084), A3 (A05)

Area 60,773 ha Altitude c.500–1,268 m

Forest Reserves

#### Site description

These classified forests occupy much of the highlands between the town of Man and Mount Nimba (IBA CI003). The terrain is extremely rugged, with several peaks reaching over 1,000 m. The vegetation is a mixture of lowland deciduous forest, forest with montane elements at higher elevations, and savanna-like vegetation with grasses and deciduous trees on the exposed slopes of the inselbergs.

#### Birds

See Box and Tables 2 and 3 for key species. These forest reserves have been only very briefly surveyed and unquestionably more species remain to be discovered. From the number of inselbergs in the area, *Picathartes gymnocephalus* is likely to be present in good numbers, while at higher altitudes *Prinia leontica* probably occurs. Tables 2 and 3 also include some species, indicated by '?', known from the immediate vicinity of these reserves but, as yet, unconfirmed within them.

#### Key species

A1	<i>Ceratogymna cylindricus</i>	<i>Picathartes gymnocephalus</i>
	<i>Ceratogymna elata</i>	<i>Lamprotornis cupreocauda</i>
	<i>Illadopsis rufescens</i>	
A2 (084)	Upper Guinea forests EBA: At least five of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.	
A3 (A05)	Guinea–Congo Forests biome: At least 111 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.	

#### Other threatened/endemic wildlife

None known to BirdLife International.

#### Conservation issues

These forests are under considerable pressure from the surrounding large and increasing human population. Encroachment is widespread; forest clearance for agriculture and poaching are serious threats to the integrity of these forests. Sangouiné seems to have suffered particularly, but good forest remains in Mont Glo and Guéoulé at least.

#### Further reading

Francis *et al.* (2001).

### Mont Péko National Park

**CI005**

Admin region Man

Coordinates 07°00'N 07°16'W

A1, A2 (084), A3 (A05)

Area 34,000 ha Altitude c.200–1,002 m

National Park

#### Site description

Mont Péko National Park is located to the north of the town of Duékoué, south-east of Man, and is one of the easternmost outliers of the highland range that extends from western Côte d'Ivoire into Guinea and northern Liberia. The terrain is therefore rugged, with numerous granitic inselbergs in the north of the site, the highest of which rises to 1,000 m, while in the south it drops away to lowland where semi-deciduous forest occurs extending to the fringes of the Sôn river. The Sôn forms the southern boundary of the site before it reaches the Sassandra river a little way downstream. Forest covers 80% of the park and commonly includes such tree species as *Triplochitom scleroxylon*, *Celtis* spp., *Pterygota macrocarpa* and *Mansonia altissima*. Swamp-forest occurs in places in which *Mitragyna*

*ciliata* and *Raphia* spp. are common. Forest grows up to the edges of the inselbergs, climbing them where soil depth permits. A relatively low, dense, dry forest grows on the summits and on some slopes in which *Hildegardia barkeri* and *Holarrhena floribunda* are common. Elsewhere, an open, specialized herbaceous layer covers parts of the otherwise bare rock surfaces. Average annual rainfall is c. 1,350 mm.

### Birds

See Box and Tables 2 and 3 for key species. Some 240 species have been recorded. Recent surveys have revealed that Péko holds a large number of the Guinea–Congo Forests biome species as well poorly known species of conservation concern including *Scotopelia ussheri*, *Melaenornis annamarulae* and *Phyllastrephus baumanni*.

#### Key species

A1	<i>Scotopelia ussheri</i>	<i>Illadopsis rufescens</i>
	<i>Ceratogymna cylindricus</i>	<i>Picathartes gymnocephalus</i>
	<i>Ceratogymna elata</i>	<i>Melaenornis annamarulae</i>
	<i>Phyllastrephus baumanni</i>	<i>Lamprotornis cupreocauda</i>
A2 (084)	Upper Guinea forests EBA: Seven of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.	
A3 (A05)	Guinea–Congo Forests biome: 144 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.	

### Other threatened/endemic wildlife

A population of *Pan troglodytes verus* (EN) occurs. Some *Loxodonta africana cyclotis* (EN) persist. *Cephalophus maxwellii* (LR/nt) and *Neotragus pygmaeus* (LR/nt) remain reasonably common, but other species such as *Syncerus caffer* (LR/cd), *Tragelaphus euryceros* (LR/nt), *Cephalophus niger* (LR/nt), *C. sylvicultor* (LR/nt), *C. dorsalis* (LR/nt) are now rarely seen. *Hexaprotodon liberiensis* (VU) may still occur in low numbers.

### Conservation issues

Mont Péko was created a National Park in 1968, but people who were displaced at that time were not properly compensated and some errors were made when demarcating the boundaries on the ground. The marked boundaries and those defined by the 1968 decree do not coincide, but the total areas under the two systems are similar (around 28,000 ha). Poaching is widespread and the forests of Péko are now isolated as a result of clearance of land for agriculture in the surrounding area. Attempts are currently being made to address these issues; a park management project, as part of the nationwide multi-donor effort to improve protected area management, is being executed in Péko by government authorities, with technical assistance provided by BirdLife International and funding from the European Union. The official area of the park is 34,000 ha, but a re-evaluation using remote-sensing and GIS reveals the true areas (according to the boundaries in the original decree) to be 28,581 ha.

### Further reading

Francis *et al.* (2001), Lauginie *et al.* (1996), Rainey (2000), WCMC (1991).

## Marahoué National Park

**CI006**

Admin region Daloa

Coordinates 07°05'N 06°00'W A1, A2 (084), A3 (A04, A05)

Area 101,000 ha Altitude 90–320 m National Park

### Site description

Marahoué is situated in south-central Côte d'Ivoire, immediately west of the town of Bouaflé. The Marahoué or Bandama Rouge river forms part of the eastern boundary of the park, but flows through its northern section. Part of the south-western boundary is formed by the main Yamassoukro–Daloa road. The terrain consists of a series of hills and valleys. The park is located on the ecotone between the forest zone and savanna woodland. It is therefore a mosaic of gallery forest and semi-deciduous forest patches, in which tree species such as *Triplochiton scleroxylon*, *Celtis* spp., *Khaya grandifolia*, *Erythrophleum ivorense* and *Terminalia superba* commonly occur and, particularly in the eastern half, savanna woodland, where *Diospyros mespiliformis*, *Azelia africana*, *Lophira lanceolata* and *Daniellia oliveri* are common. The Marahoué river and a number of pools provide a variety of wetland habitats. Average annual rainfall is 1,100 mm.

### Birds

See Box and Tables 2 and 3 for key species. A total of 287 species has been reported, reflecting the wide variety of habitat-types. In addition, *Agelastes meleagrides* has been reported to occur, but this needs confirmation. This is one of only two IBAs in the country at which *Coccycolius iris* is known to occur. The recent discoveries of *Melignomon eisentrauti* and *Merops breweri* are of considerable interest.

#### Key species

A1	<i>Ceratogymna cylindricus</i>	<i>Illadopsis rufescens</i>
	<i>Ceratogymna elata</i>	<i>Bathmocercus cerviniventris</i>
	<i>Melignomon eisentrauti</i>	<i>Melaenornis annamarulae</i>
	<i>Campephaga lobata</i>	<i>Lamprotornis cupreocauda</i>
A2 (084)	Upper Guinea forests EBA: At least seven of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.	
A3 (A04)	Sudan–Guinea Savanna biome: 10 of the 39 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.	
A3 (A05)	Guinea–Congo Forests biome: At least 117 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.	

### Other threatened/endemic wildlife

Mammals of conservation concern include *Pan troglodytes verus* (EN), *Ptilocolobus badius* (VU), *Loxodonta africana africana* (EN) (100–150 individuals), *Syncerus caffer* (LR/cd), *Tragelaphus euryceros* (LR/nt), *Cephalophus maxwellii* (LR/nt), *C. rufilatus* (LR/cd), *C. sylvicultor* (LR/nt), *C. dorsalis* (LR/nt), *Kobus kob kob* (LR/cd), *Kobus ellipsiprymnus defassa* (LR/cd) and *Alcelaphus buselaphus major* (LR/cd).

### Conservation issues

Marahoué was created a National Park in 1968. Agricultural encroachment (including fires to clear land) and illegal logging have resulted in the destruction or heavy degradation of the vegetation across about a quarter of the park. Poaching is a serious and widespread problem such that numbers of antelope and primates in particular are now much reduced. Pesticide pollution has affected some of the marshes. Attempts are currently being made to address these issues; a technical assistance project, as part of the nationwide multi-donor programme to improve protected area management, is being executed in Marahoué by Conservation International, with funding from the European Union.

### Further reading

Christy and Schulenberg (1998), Lauginie *et al.* (1996), WCMC (1991).

## Bossematié Forest Reserve

**CI007**

Admin region Abengourou

Coordinates 06°31'N 03°33'W A1, A2 (084), A3 (A05)

Area 22,848 ha Altitude 140–240 m Forest Reserve

### Site description

The site is located 40 km south of Abengourou in the semi-deciduous forest zone and, although bordered to the south by the Comoé river and to the west by the small Bossematié river, the forest is in effect entirely surrounded by farmland. The topography is gently undulating with a series of ridges and valleys; the site is traversed by a number of small seasonal streams, but there is no permanent water. Characteristic tree species include *Triplochiton scleroxylon*, *Khaya ivorense*, *Piptadeniastrum africanum* and *Celtis* spp. The site was selectively logged up to six times between 1960 and 1990 when exploitation stopped, leaving a canopy cover of about 40%, and in many places, particularly the valley bottoms, the understorey has been invaded by the introduced weed *Chromolaena odorata*. Average annual rainfall is 1,400 mm.

### Birds

See Box and Tables 2 and 3 for key species. A total of 248 species has been recorded. Populations of large species such as some of the hornbills have been much reduced by poaching.

#### Key species

A1	<i>Ceratogymna cylindricus</i>	<i>Bleda eximia</i>
	<i>Ceratogymna elata</i>	<i>Illadopsis rufescens</i>
A2 (084)	Upper Guinea forests EBA: Four of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.	

A3 (A05) Guinea–Congo Forests biome: At least 112 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.

#### Other threatened/endemic wildlife

The mammals *Loxodonta africana cyclotis* (EN) and *Pan troglodytes verus* (EN) occur. Some 300 species of butterfly (Lepidoptera) have been recorded.

#### Conservation issues

Bossematié is one of seven classified forests included in a German-funded forest rehabilitation programme that began in 1990 when logging ceased. Since then a number of illegal cocoa and banana plantations operating within the forest have been abandoned. Poaching has been reduced, but still occurs. Forest management includes planting of commercially valuable native tree species (e.g. *Triplochiton scleroxylon*) and enrichment planting of particularly degraded places.

#### Further reading

Waltert *et al.* (1999).

### Cavally and Goin–Débé Forest Reserves

CI008

Admin region Man

Coordinates 06°10'N 07°48'W

Area 211,937 ha Altitude c.200–464 m

A1, A2 (084)

Forest Reserves

#### Site description

The site is located north-west of Taï National Park (IBA CI011) in south-western Côte d'Ivoire. The south-eastern border is formed by the Cavally river, which marks the frontier with Liberia. The site comprises lowland evergreen forest, punctuated in places by inselbergs.

#### Birds

See Box and Tables 2 and 3 for key species. No avifaunal survey of these forests has been published. The site is the only one in the country known to hold *Malimbus ballmanni*. The presence of inselbergs suggest that *Picathartes* may be expected as, given the quality of much of the habitat, may a full forest avifauna. The site will almost certainly qualify for the Guinea–Congo Forests biome once better known.

#### Key species

A1 *Malimbus ballmanni*

A2 (084) Upper Guinea forests EBA: One of the 14 species of this EBA known from Côte d'Ivoire has been recorded at this site; see Table 2.

#### Other threatened/endemic wildlife

None known to BirdLife International.

#### Conservation issues

These forests have, until recently, remained largely intact due to their remoteness—the lack of roads—but the situation is now changing with the increase in human population pressures in the region, such that there has been some significant encroachment in western part of Goin Forest Reserve.

#### Further reading

Gatter and Gardner (1993).

### Lamto Ecological Research Station

CI009

Admin region Abidjan

Coordinates 06°13'N 05°00'W

Area 2,500 ha Altitude c.50–100 m

A1, A2 (084), A3 (A05)

Unprotected

#### Site description

The Station Ecologique de Lamto is situated 170 km north-west of Abidjan on the eastern bank of the Bandama river, just downstream of the hydroelectric dam at Taabo. It is located at the zone of transition between forest and savanna woodland at the southernmost point of the 'V Baoulé', the V-shaped incursion of savanna woodland into the forest belt in central Côte d'Ivoire. Lamto is an ecological research station of

the University of Abidjan and is run as a nature reserve. The main habitats are riparian gallery forests, often with dense undergrowth, of between 10 and several hundred metres width that fringe both the Bandama river and a number of its small affluents that traverse the reserve. These forest fingers permeate the savanna woodland which occupies the majority of the site. A conspicuous and common element of the savanna is the Borassus palm *Borassus aethiopum* which dominates the open shrubby woodland; Lamto is one of the few places in the country where mature Borassus palm-savanna still exists. Typical grasses include *Loudetia simplex* and *Hyparrhenia* spp. The woodland is often better-developed on and around the numerous rocky outcroppings that punctuate the savanna, while along and beside the watercourses, particularly the Bandama, there are numerous large boulders. Average annual rainfall is 1,200 mm.

#### Birds

See Box and Tables 2 and 3 for key species. A number of species are qualified below and in Tables 2 and 3 with “?” because they have been reported in the literature to occur in the Lamto area, but whether they have been recorded within the reserve is uncertain. The site is one of the few at which *Scotopelia ussheri* is known to occur. While *Picathartes gymnocephalus* regularly forages within the reserve, its only known breeding site lies just outside the reserve boundary. However, others sites may yet be discovered on rocks within its limits in the poorly explored, extremely densely tangled vegetation that fringes parts of the Bandama. In addition, at least four species of the Sudan–Guinea Savanna biome occur (see Table 3).

#### Key species

A1 *Scotopelia ussheri*

*Illadopsis rufescens*

A2 (084) Upper Guinea forests EBA: At least four of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.

A3 (A05) Guinea–Congo Forests biome: At least 95 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.

*Picathartes gymnocephalus*

*Bathmocercus cerviniventris?*

#### Other threatened/endemic wildlife

Among mammals, a small herd of *Syncerus caffer* (LR/cd) and a few *Kobus kob kob* (LR/cd) still persist.

#### Conservation issues

Although not currently legally designated as a protected area, plans are in hand for Lamto to be given formal protection, possibly as a Faunal and Botanical Reserve. The reserve is surrounded by a dense and increasing human population; there are periodic incursions by poachers. The forest around at least part of the *Picathartes* colony, just beyond the reserve boundary, has been cleared for a banana plantation; birds are still seen in the vicinity and it is not known whether the rocks on which they nested have been abandoned or whether there are as yet undiscovered nesting sites nearby.

#### Further reading

Demey and Fishpool (1991), Thiollay (1970, 1972, 1998).

### Mabi and Yaya Forest Reserves

CI010

Admin region Abidjan

Coordinates 05°56'N 03°33'W

Area c.83,900 ha Altitude c.50–150 m

A1, A2 (084), A3 (A05)

Forest Reserves

#### Site description

These contiguous forest reserves are located some 100 km north-east of Abidjan and south of the town of Bettié near the border with Ghana. They are bordered to the east by the Comoé river. Mabi (59,800 ha), to the north, contains one village enclave and associated areas of cultivation in the west, but much of the forest adjacent to the Comoé is in excellent condition. Yaya (24,100 ha) is surrounded by fewer villages than Mabi and, especially in the north where it merges with Mabi, the forest is relatively undisturbed. The vegetation of both reserves is predominantly moist lowland evergreen forest.

#### Birds

See Box and Tables 2 and 3 for key species. Although the avifauna of the site is very little-studied, significantly, *Agelastes meleagrides* is

known still to occur. The site will unquestionably be found to hold many more species of the Guinea–Congo Forests biome.

#### Key species

A1	<i>Agelastes meleagrides</i>	<i>Criniger olivaceus</i>
	<i>Bleda eximia</i>	<i>Illadopsis rufescens</i>
A2 (084)	Upper Guinea forests EBA: Four of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.	
A3 (A05)	Guinea–Congo Forests biome: 35 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.	

#### Other threatened/endemic wildlife

None known to BirdLife International.

#### Conservation issues

Poaching of large mammals is rife and large hornbills are uncommon.

#### Further reading

McGraw *et al.* (1997–1998), Waltert *et al.* (1999).

### Taï National Park and Nzo Faunal Reserve

**CI011**

Admin region	Sassandra, Man	A1, A2 (084), A3 (A05)
Coordinates	05°45'N 07°06'W	National Park,
Area	518,000 ha	Faunal Reserve, Biosphere Reserve,
Altitude	80–396 m	World Heritage Site

#### Site description

Located in the south-west corner of the country, between the Cavally and Sassandra rivers, Taï National Park (330,000 ha) is the largest and best-preserved remnant of Upper Guinea rainforest. Contiguous with its northern border is the Nzo Faunal Reserve (93,000 ha), which forms part of the buffer zone that surrounds the park, and which itself extends north to the southern edge of the artificial lake formed behind Buyo dam on the Sassandra river. Also included is the remainder of the park's buffer zone, which is also a Faunal Reserve and which occupies a further 96,000 ha. The terrain is gently undulating in the north, more deeply dissected by watercourses in the south, of which the largest are the Nzé, Hana and Meno rivers, about 1.5 m deep, 5 m wide in the dry season, seasonally flooding to a width of 60 m or more. The most prominent of a large number of granitic inselbergs is Mont Niénokoué in the south-west, which reaches 396 m. These inselbergs often support an open savanna-like vegetation with grasses and deciduous trees. Otherwise, almost the entire area is covered by forest, moist evergreen in the south-west in which *Diospyros* spp. and *Mapania* spp. are typical, and moist semi-evergreen in the north and south-east; typical elements include *Diospyros mannii*, *Parinari chrysophylla*, *Chrysophyllum prepulchrum* and *Chidlowia sanguinea*. Much of the forest in the park is unlogged, mature, old-growth with emergents rising to 60 m. There is some swamp-forest in the north-west of the park and in Nzo. Average annual rainfall varies between 1,700 mm in the north to 2,200 mm in the south.

#### Birds

See Box and Tables 2 and 3 for key species. This site, because of its size and the excellent condition of the forest, continues to support the full forest avifauna and is therefore probably unique in the country, in terms of both species diversity and population sizes. For example, all the large hornbill species and *Agelastes meleagrides* occur in large numbers, species which have been lost or much reduced elsewhere due to hunting. At least 250 species have been recorded and this number is likely to increase somewhat once all parts have been thoroughly explored. It is possible, for example, that *Malimbus ballmanni*, which was described from a specimen collected north-west of the town of Taï, may yet be found to occur within the site boundaries.

#### Key species

A1	<i>Agelastes meleagrides</i>	<i>Malaconotus lagdeni</i>
	<i>Scotopelia ussheri</i>	<i>Illadopsis rufescens</i>
	<i>Ceratogymna cylindricus</i>	<i>Picathartes gymnocephalus</i>
	<i>Ceratogymna elata</i>	<i>Bathmocercus cerviniventris</i>
	<i>Campephaga lobata</i>	<i>Melaenornis annamarulae</i>
	<i>Bleda eximia</i>	<i>Lamprotornis cupreocauda</i>
	<i>Criniger olivaceus</i>	

A2 (084) Upper Guinea forests EBA: 12 of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.

A3 (A05) Guinea–Congo Forests biome: At least 157 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.

#### Other threatened/endemic wildlife

The flora of Taï is estimated at around 1,300 species, of which 80–150 are thought to be endemic to the Upper Guinea region. The mammal fauna is rich and includes a number of threatened species such as *Pan troglodytes verus* (EN), *Procolobus verus* (EN), *Ptilocolobus badius* (VU), *Colobus polykomos* (VU), *Cercopithecus d. diana* (VU), *Liberictus kuhni* (EN), *Anomalurus peli* (EN), *Loxodonta africana cyclotis* (EN), *Hexaprotodon l. liberiensis* (VU), *Hylochoerus meinertzhageni ivoriensis* (EN), *Hyemoschus aquaticus* (LR/nt), *Syncerus caffer* (LR/cd), *Tragelaphus euryceros* (LR/nt), *Cephalophus maxwellii* (LR/nt), *C. zebra* (VU), *C. niger* (LR/nt), *C. sylvicultor* (LR/nt), *C. ogilbyi* (LR/nt), *C. dorsalis* (LR/nt), *C. jentinki* (EN), *Neotragus pygmaeus* (LR/nt). Two crocodiles of conservation concern occur, *Crocodylus cataphractus* (DD) and *Osteolaemus tetraspis* (VU), as does the tortoise *Kinixys homeana* (DD). In all, nearly 1,000 species of vertebrate are known from the park, and there are numerous invertebrate species known only from Taï.

#### Conservation issues

Initially designated a Forest Reserve in 1926 and created a National Park in 1972, Taï is a World Heritage Site and a Biosphere Reserve. All logging ceased in Taï in 1972, but large parts were never logged—logging, however, continued in Nzo Faunal Reserve until 1992. When the park was created the human population density in the surrounding area was of the order of 1 person/km<sup>2</sup>, but it has grown rapidly since with the opening up of adjacent areas to settlement following logging and, in particular, the arrival of refugees fleeing political unrest in neighbouring Liberia. Such has been the progressive clearance of forests around Taï and Nzo that they are becoming isolated. Problems that afflict the park include encroachment by farmers, logging, poaching and gold-digging; the eastern side of the park has suffered most.

#### Further reading

Chatelain *et al.* (1996), Francis *et al.* (1992), Gartshore (1989), Gartshore *et al.* (1995), Guillaumet *et al.* (1984), Lauginie *et al.* (1996), MAB (1986), Riezebos *et al.* (1994), WCMC (1991).

### Mopri Forest Reserve

**CI012**

Admin region	Abidjan	A1, A2 (084), A3 (A05)
Coordinates	05°50'N 04°55'W	Forest Reserve
Area	33,744 ha	Altitude c.10–100 m

#### Site description

The site is located south-west of the town of Tiassalé, about 130 km north-west of Abidjan. Situated in the transition zone between evergreen and semi-deciduous forests, much of the original forest was cleared in blocks, between 1967 and 1976, and planted with commercially valuable native species such as *Entandrophragma candollei*, *Khaya ivorensis* and *Terminalia ivorensis*. Blocks of exotic species such as teak were planted between 1975 and 1991. Some of the plantings failed and these plots have regenerated into scrubby secondary growth while others, such as *Terminalia ivorensis*, have developed into imposing stands reaching 30 m. There is a block of 900 ha of natural forest set aside as a Biological Reserve.

#### Birds

See Box and Tables 2 and 3 for key species. A total of 186 species has been recorded; in view of the drastic modifications to which the vegetation of the site has been subject, it holds a surprisingly large and diverse forest avifauna. The site is the easternmost locality known for *Melaenornis annamarulae* and also holds species which are nationally rare such as *Sasia africana*, *Cossypha cyanocampter* and *Bias musicus*.

#### Key species

A1	<i>Ceratogymna cylindricus</i>	<i>Malaconotus lagdeni</i>
	<i>Ceratogymna elata</i>	<i>Illadopsis rufescens</i>

A1 (continued)

*Campephaga lobata* *Melaenornis annamarulae*  
*Criniger olivaceus* *Lamprotornis cupreocauda*

A2 (084) Upper Guinea forests EBA: Seven of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.

A3 (A05) Guinea–Congo Forests biome: 115 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.

#### Other threatened/endemic wildlife

None known to BirdLife International.

#### Conservation issues

The commercial exploitation of this site seems certain to continue. Efforts need to be made to ensure this is done in a manner as sympathetic to the avifauna as the needs of commerce will allow.

#### Further reading

Gartshore *et al.* (1995).

### Yapo and Mambo Forest Reserves

CI013

Admin region Abidjan

Coordinates 05°42'N 04°06'W

A1, A2 (084), A3 (A05)

Area 18,062 ha Altitude c.75–100 m

Forest Reserves

#### Site description

The site is located 55 km north of Abidjan and comprises two Forest Reserves, separated by the Abidjan–Agboville road and the railway line linking Côte d'Ivoire and Burkina Faso, but known collectively as Yapo. The area is largely flat, cut by a number of small streams with a few swampy areas, and is covered almost entirely by evergreen forest in which typical species include *Diospyros* spp., *Dacryodes klaineana*, *Piptadeniastrum africanum*, *Heritiera utilis*, *Anopyxis klaineana* and *Scottellia chevalieri*. Yapo was established as a Forest Reserve in 1930 and has been selectively managed since as an experimental site for the sustainable extraction of indigenous forest timber. Initially, mature specimens of non-commercial tree species were selectively poisoned (but not removed) over large areas and subsequently replanted with commercially valuable native species such as *Khaya ivorensis*. More recently, the selective poisoning has not been followed by replanting, but the forest left to regenerate in the hope that marketable species, released from competition, would put on extra growth. Selective logging recommenced in 1989; 400 ha have been planted with trials of exotic tree species. Average annual rainfall is 1,750 mm.

#### Birds

See Box and Tables 2 and 3 for key species. A total of 225 species have been recorded. *Ceratogymna cylindricus* has been recorded once or twice, but it is not thought that a breeding population remains. Large species such as hornbills are very scarce due to hunting, but despite this and the management practices to which the forest has been subject, the site still contains a wide range of forest species including some rarely recorded species such as *Dryotriorchis spectabilis*, *Agapornis swindertiana* and *Batis occulta*. *Criniger olivaceus* appears to be much more common here than in the more extensive and less disturbed forests of Taï National Park (IBA CI011).

#### Key species

A1 *Bleda eximia* *Illadopsis rufescens*  
*Criniger olivaceus* *Lamprotornis cupreocauda*  
*Malaconotus lagdeni*

A2 (084) Upper Guinea forests EBA: At least five of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.

A3 (A05) Guinea–Congo Forests biome: At least 135 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.

#### Other threatened/endemic wildlife

None known to BirdLife International.

#### Conservation issues

There are few large mammals (or indeed large birds) as a consequence of widespread poaching. The suitability of the site for at least some of

the forest bird species depends upon the continuance of the current, relatively benign forest management practices.

#### Further reading

Demey and Fishpool (1994).

### Azagny National Park

CI014

Admin region Abidjan

Coordinates 05°13'N 04°53'W

A1, A2 (084), A3 (A05)

Area 19,400 ha Altitude 0–50 m

National Park, Ramsar Site

#### Site description

Azagny National Park is situated 100 km due west of Abidjan, at the western end of the Ebrié lagoon, separated from the beach by the canal that links the lagoon with the Bandama river, which forms the western boundary of the site, and adjacent to the town of Grand Lahou. The vegetation of the park is varied and mostly comprises swamps of various types which cover two-thirds of the park, swamp-forest, in which *Raphia* palms are common, inundated riverine forest, relatively small amounts of moist evergreen forest on areas of higher ground, mangrove (principally *Rhizophora racemosa* and *Avicennia africana*) and, depending upon water-level, some limited areas of mudflat fringing the lagoon and canal. There is also some littoral savanna woodland in which the palm *Borassus aethiopicum* is a conspicuous element. Average annual rainfall is 1,650 mm.

#### Birds

See Box and Tables 2 and 3 for key species. A total of 162 species have been recorded, but this figure will undoubtedly increase with further exploration. The number of true forest species is somewhat restricted by the limited amount of forest on dry land. It does, however, hold some species of the Guinea–Congo Forests biome such as *Ploceus aurantius*, *Nectarinia fuliginosa* and *N. reichenbachii* which are restricted to coastal vegetation and mangroves. Given the habitat, the site is likely to be important for *Scotopelia ussheri* which is believed to occur. The site holds a diversity of waterbirds which seasonally include Palearctic migrant waders on the mudflats.

#### Key species

A1 *Scotopelia ussheri?* *Illadopsis rufescens*  
*Ceratogymna cylindricus* *Lamprotornis cupreocauda*  
 A2 (085) Upper Guinea forests EBA: At least four of the 14 species of this EBA known from Côte d'Ivoire have been recorded at this site; see Table 2.  
 A3 (A05) Guinea–Congo Forests biome: 80 of the 185 species of this biome known from Côte d'Ivoire have been recorded at this site; see Table 3.

#### Other threatened/endemic wildlife

Azagny was originally created a protected area in part for the conservation of *Loxodonta africana cyclotis* (EN) and *Syncerus caffer* (LR/cd), both of which occur in good numbers, benefiting from the protection of the swamps. Other mammals of global conservation concern include *Pan troglodytes verus* (EN), *Procolobus verus* (EN), *Colobus vellerosus* (VU), *Cercocebus atys lunulatus* (EN), *Cercopithecus diana roloway* (EN), *Hexaprotodon l. liberiensis* (VU) at the eastern extremity of its range, *Hyemoschus aquaticus* (LR/nt), *Tragelaphus euryceros* (LR/nt), *Cephalophus maxwellii* (LR/nt), *C. rufilatus* (LR/cd), *C. niger* (LR/nt), *C. sylvicultor* (LR/nt), *C. dorsalis* (LR/nt) and *Neotragus pygmaeus* (LR/nt); *Trichechus senegalensis* (VU) occurs in the waters of the lagoon. The crocodile *Crocodylus cataphractus* (DD) also occurs.

#### Conservation issues

Azagny was declared a National Park in 1981 and designated a Ramsar Site in 1996. It has suffered from agricultural encroachment from along its northern border. Poaching of mammals is widespread within the park, such that numbers of arboreal monkeys, in particular, are much reduced. Illegal fishing is also widespread and there is much cutting of wood for fuel for smoke-drying fish. Overflying of the park at low altitude by planes from Abidjan looking for elephant and buffalo can cause severe disturbance.

#### Further reading

FGU-Kronberg (1979), Lauginie *et al.* (1996), WCMC (1991).

## BIBLIOGRAPHY

- ADAM, J. G. (1981) *Flore descriptive des Monts Nimba (Côte d'Ivoire, Guinée, Liberia)*. Paris: CNRS.
- CHATELAIN, C., GAUTIER, L. AND SPICIGER, R. (1996) A recent history of forest fragmentation in south-western Ivory Coast. *Biodiversity and Conservation* 5: 37–53.
- CHRISTY, P. AND SCHULENBERG T. S. (1998) Preliminary list of the birds of the Parc National de la Marahoué. Conservation International (unpubl. report).
- COLSTON, P. R. AND CURRY-LINDAHL, K. (1986) *The birds of Mount Nimba, Liberia*. London: British Museum (Natural History).
- DEMEY, R. AND FISHPOOL, L. D. C. (1991) Additions and annotations to the avifauna of Côte d'Ivoire. *Malimbus* 12: 61–86.
- DEMEY, R. AND FISHPOOL, L. D. C. (1994) The birds of Yapo forest, Ivory Coast. *Malimbus* 16: 100–122.
- FISCHER, F. AND GROSS, M. (1998) Die avifauna des Comoé-Nationalparks in der Republik Elfenbeinküste, Westafrika. *Natur und Museum* 128: 97–112.
- FRANCIS, I. S., PENFOLD, N., GARTSHORE, M. E. AND JARAMILLO, A. (1992) The White-breasted Guineafowl *Agelastes meleagrides* in Taï National Park, Côte d'Ivoire. *Bird Conservation International* 2: 37–72.
- FRANCIS, I. S., TAYLOR, P. D., MINER, J., MANH, G. AND RAINEY, H. (2001) The birds of Mont Péko National Park and other Forêt Classées in western Côte d'Ivoire. BirdLife International (unpubl. report).
- FGU-KRONBERG (1979) *Etat actuel des Parcs Nationaux de la Comoé et de Taï ainsi que la Réserve d'Azagny et propositions visant à leur conservation et à leur développement aux fins de promotion du tourisme*. Tome II: Parc National de la Comoé. Tome IV: Parc National d'Azagny. Kronberg.
- GARTSHORE, M. E. (1989) *An avifaunal survey of Taï National Park, Ivory Coast*. Cambridge, UK: ICBP (Study Report 39).
- GARTSHORE, M., TAYLOR, P. D. AND FRANCIS, I. S. (1995) *Forest birds in Côte d'Ivoire. A survey of Taï National Park and other forests and forestry plantations, 1989–1991*. Cambridge, UK: BirdLife International (Study Report 58).
- GATTER, W. AND GARDNER, R. (1993) The biology of the Gola Malimbe *Malimbus ballmanni* Wolters 1974. *Bird Conservation International*. 3: 87–103.
- GUILLAUMET, J.-L., COUTURIER, G. AND DOSSO, H. (1984) *Recherche et aménagement en milieu forestier tropicale humide: le Projet Taï de Côte d'Ivoire*. Paris: UNESCO (MAB 15).
- IUCN (1991) *Protected areas of the world. A review of national systems. Volume 3: Afrotropical*. Cambridge, UK: IUCN
- LAMOTTE, M., ED. (1998) *Le mont Nimba. Réserve de biosphère et site du patrimoine mondial (Guinée et Côte d'Ivoire)*. Paris: UNESCO.
- LAUGINIE, F., POILECOT, P., AKINDÉS, F., BELIGNÉ, V., BONFOU, K. AND OUATTARA, D. (1996) *Monographie des parcs nationaux*. Projet WWF - CI008 Revue générale des parcs nationaux et réserves de Côte d'Ivoire, Document 5. Minagri and WWF, Abidjan.
- LAUGINIE, F. AND SOURNIA, G. (1977) Essai de zoogéographie d'un milieu naturel protégé. Le Parc national de la Comoé. *Annales Université d'Abidjan* 7: 145–188.
- MAB (1986) Parc National de Taï. Pp. 143–146 in *MAB Information System: Biosphere Reserves*. Paris: UNESCO (Compilation No. 4).
- MACGRAW, W. S., MONAH, I. T. AND ABEDI-LARTEY, M. (1997–1998) Survey of endangered primates in the forest reserves of eastern Côte d'Ivoire. *African Primates* 3: 22–25.
- MÜHLENBERG, M., GALAT-LUONG, A., POILECOT, P., STEINHAEUER-BURKART, B. AND KÜHN, I. (1990) L'importance des îlots forestiers de savane humide pour la conservation de la faune de forêts dense en Côte d'Ivoire. *Rev. Ecol. (Terre et Vie)* 45: 197–214.
- POILECOT, P., BONFOU, K., LAUGINIE, F., N'DRI, K., NICOLE, M. AND SANGARÉ, Y. (1991) *Un écosystème de savane soudanienne: le Parc National de la Comoé (Côte d'Ivoire)*. Paris: UNESCO.
- POREMBSKI, S. (1991) Beiträge zur Pflanzenwelt des Comoé-Nationalparks (Elfenbeinküste). *Natur und Museum* 121: 61–83.
- RAINEY, H. (2000) The avifauna of the Parc National du Mont Péko. BirdLife International (unpubl. report).
- RIEZEBOS, E. P., VOOREN, A. P. AND GUILLAUMET, J. L. (1994) *Le Parc National de Taï, Côte d'Ivoire*. Wageningen, Netherlands: Tropenbos.
- SALEWSKI, V. (1999) Birding Comoé National Park, Ivory Coast. *Bull. African Bird Club* 6: 30–39.
- SALEWSKI, V. (2000) The birds of Comoé National Park, Ivory Coast. *Malimbus* 22: 55–76.
- SAYER, J. A., HARCOURT, C. S. AND COLLINS, N. M. (1992) *The conservation atlas of tropical forests: Africa*. Basingstoke, UK: Macmillan.
- THIOLLAY, J.-M. (1970) Recherches écologiques dans la savane de Lamto (Côte d'Ivoire): le peuplement avien. Essai d'étude quantitative. *Terre et Vie* 24: 108–144.
- THIOLLAY, J.-M. (1972) L'avifaune de la région de Lamto (moyenne Côte d'Ivoire). *Annales Université d'Abidjan* E, 4: 5–132.
- THIOLLAY J.-M. (1985) The birds of Ivory Coast. *Malimbus* 7:1–59.
- THIOLLAY J.-M. (1998) Long term dynamics of a tropical savanna bird community. *Biodiversity and Conservation* 7: 1291–1312.
- WALTERT, M., YAOKOKORÉ-BEIBRO, K. H., MÜHLENBERG, M. AND WAITKUWAIT, W. E. (1999) Preliminary checklist of the birds of the Bossematié area, Ivory Coast. *Malimbus* 21: 93–109.
- WCMC (1991) *Guide de la diversité biologique de Côte d'Ivoire*. Cambridge, UK: WCMC.
- WHITE, F. (1983) *The vegetation of Africa*. Paris: UNESCO.