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Preliminary check-list of the birds of the Bossematié area, Ivory Coast

by Matthias Waltert¹, K.H. Yaokokore-Beibro², M. Mühlenberg¹ & W.E. Waitkuwait³

¹Zentrum für Naturschutz (Abt. I), Universität Göttingen, Von-Siebold-Straße 2, 37075 Göttingen, Germany ²University of Abidjan/Cocody, Dept of Zoology, B.P. 368, Abidjan 22, Ivory Coast ³Coopération Allemande au Développement (GTZ), Quartier de la Policlinique des Deux Plateaux, 01 B.P. 7172 Abidjan, Ivory Coast

Received 11 March 1999; revised 8 July 1999

Summary

A species list is given of the previously undescribed bird fauna of the Bossematié area, SE Ivory Coast, which consists mainly of heavily logged forest and surrounding farmland. During 13 months of fieldwork between April 1995 and August 1997, 235 species were identified, including five species of conservation concern: Green-tailed Bristlebill Bleda eximia (Vulnerable), the Near-Threatened species Brown-cheeked Hornbill Ceratogymna cylindricus, Yellow-casqued Wattled Hornbill C. elata and Rufous-winged Illadopsis Illadopsis rufescens, and the restricted-range species Sharpe's Apalis Apalis sharpii. White-breasted Guineafowl Agelastes meleagrides, previously occurring in the forest, seems to have become extinct. Marsh Owl Asio capensis was recorded for the first time in Ivory Coast.

Résumé

On donne ici une liste de l'avifaune encore non décrite de la région de Bossematié, SE de la Côte d'Ivoire, qui consiste surtout en forêt fortement exploitée et en terrains de cultures avoisinants. Au cours des 13 mois de travail de terrain entre avril 1995 et août 1997, 235 espèces furent identifiées, dont cinq aux risques d'extinction inquiétants: le Bulbul à queue verte Bleda eximia (Vulnérable), le Calao à joues brunes Ceratogymana cylindricus espèce Quasi-menacée, le Calao à casque jaune C. elata et l'Akalat à ailes rousses Illadopsis rufescens, et l'espèce à distribution circonscrite l'Apalis de Sharpe Apalis sharpii. La Pintade à poitrine blanche Agelastes melagrides, que l'on rencontrait naguère dans la forêt, semble avoir disparu. Le Hibou du Cap Asio capensis fut observé pour la première fois en Côte d'Ivoire.

Introduction

Timber exploitation and the continuing conversion of forest into farmland have led in the last 20 years to a dramatic decrease of forest cover in Ivory Coast, Recent activities by the government aim to stop uncontrolled exploitation on public land and include it in controlled land-use planning and management. In eastern Ivory Coast seven forest areas have been re-classified as state forests (Forêts Classées) and are now the subject of a rehabilitation programme of SODEFOR (Société de Développement des Forêts) in co-operation with the German aid agency GTZ. Faunistically, the best studied of these is the Bossematié Forest. In the present paper we present current knowledge about its avifauna and compare the results with known bird distribution in Ivory Coast (Thiollay 1985a,b, Demey & Fishpool 1991, 1994, Gartshore et al. 1995), Ghana (Grimes 1987) and Liberia (Gatter 1998). Our data from the moist semi-deciduous forest zone may fill in a north-south data gap, as most studies on Ivory Coast's forest avifauna have been undertaken in wet forests or savanna. Nevertheless, it has to be remembered that the original species composition and abundance of forest species have been altered in the area due to intensive logging and forest fragmentation.

The Bossematié Forest and surrounding area

Bossematié Forest forms part of the proposed trans-national Bia-Bossematié network area, which contains the six areas in eastern Ivory Coast and western Ghana, where the African Forest Elephant Loxodonta africana cyclotis still occurs (Parren & de Graaf 1995). The 22,200 ha forest is located 40 km south of Abengourou (6°35′–6°20′N and 3°35′–3°20′W). To the north, a 6-km strip of cultivated land separates the Bossematié from the neighbouring Forêt Classée de la Beki. To the east it is bordered by the Abengourou-Bettié road, to the south by the Comoé River and to the west by the small Bossematié River (Fig. 1). Several villages are situated in its immediate vicinity and the forest block is totally surrounded by farmland.

The area has an altitude of 140–240 m and is slightly hilly, with humid valleys, dry ridges, no permanent water but several small streams in the rainy season. It receives an average annual rainfall of 1400 mm and belongs to the moist semi-deciduous forest zone (Hall & Swaine 1976). Characteristic tree species are *Triplochiton scleroxylon* and *Celtis spp.* in the north, and *Khaya ivorensis* and *Piptadeniastrum africanum* in the south. The Bossematié has been selectively logged five or six times between the early 1960s and 1990, when timber exploitation stopped. Existing banana and cocoa plantations were abandoned with the beginning of the project in 1990. What is left is a forest with a canopy cover of not more than 40% and extremely patchy vegetation. The valleys have a very open character and differ from the hills in having an understorey that is largely dominated by the

agressive introduced herb *Chromolaena odorata*, and a less well developed midstorey. However, the drier hills are also characterized by a dense understorey under an open midstorey and canopy; many clearings contribute to the open character.

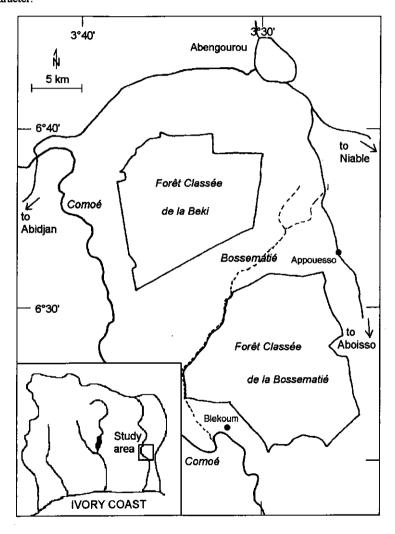


Figure 1. Ivory Coast, Bossematié area. Observations made in the Forêt Classée de la Beki are not included in this paper.

Poaching was reduced in the first years of the project, but has since increased again and is still high. In addition to the Forest Elephant, the mammal fauna includes Chimpanzee *Pan troglodytes verus*. About 300 butterfly species have been found and some 500 are expected to occur (Larsen unpubl., Dall'Asta & Fermon unpubl.).

Since 1990, the following management activities have been begun: establishment of plantations of *Triplochiton scleroxylon* and *Terminalia* spp. in former cocoa plantations and deforested areas (1076 ha), enrichment planting of potential crop trees in very degraded areas (2034 ha), and the free cutting of selected trees to reduce liana cover and minimize competition from trees of secondary interest (9522 ha). Three strict biological reserves have been established within the forest borders, containing one third of the total forest area (7404 ha). The planned management activities will be conducted until 2014. Controlled timber exploitation has been proposed for 2005–2014 on c. 4515 ha with an intensity of 1.3 trees per ha (SODEFOR 1994). In order to monitor possible effects of management activities, a programme using 30 bird and 20 mammal species as biological indicators was started in 1992. The animals' densities are assessed from 16 permanent 2-km transects inside the forest. Fieldwork is carried out by teams recruited from villagers around the forest, mainly experienced hunters. For more background information see Waitkuwait 1992, Mühlenberg et al. 1995.

The area surrounding the Forêt Classée is largely dominated by cocoa and coffee plantations. Small patches of logged forest exist, with the understorey slightly regenerated, as well as overgrown former plantations, but their size is not significant and their surface is declining due to the continuing planting of cocoa and coffee. Several small ponds are used for pisciculture and there is a large water reservoir near Abengourou. There are also many ricefields, which are used as occasional resting places by waterbirds. Fishing, hunting and farming activities prevent these wetlands from being suitable as breeding sites for waterbirds.

Methods

Ornithological fieldwork was carried out between Apr 1995 and Aug 1997 (181 days). Of these, 52 days were in the dry season (Dec 1995 to Mar 1996, Dec 1996) and 129 in the rainy months (Apr–Jul 1995, Sep–Oct 1996, Jun–Aug 1997). The number of observation days in the Bossematié Forest was 161, while observations in the surrounding farmland were only made during 38 days (including days with visits in both habitats). Field work between Apr and Jul 1995 was carried out mainly along 16 permanent 2-km transects, which are used in the Bossematié forest for biological monitoring (see Waitkuwait 1992). A 110 ha plot with a 100 x 100 m grid of footpaths, established in the northern part of the forest, has been surveyed six times from Jun to Aug 1997. An additional mark-recapture study on understorey birds was carried out on this plot using three mist-netting phases (Feb–Mar 1996, Sep–Oct 1996 and Jul–Aug 1997), which produced 1282 captures of 746 individuals. In addition,

mist-netting has been done in a small forest patch of c. 4 ha, c. 5 km from the Forêt Classée, in Jun 1995 (56 captures).

Results

In total, 235 bird species were recorded. One species, *Asio capensis* (English names in systematic list, below), seems to be recorded for the first time in Ivory Coast. In the Bossematié Forest 158 species were identified, of which 109 (70%) were observed only within the forest borders. In the surrounding farmland 122 species were counted.

In the heavily logged Forêt Classée many of the "primary forest species" (sensu Thiollay 1985b) were present. Five forest species are classified as species of conservation concern or restricted-range species (Collar et al. 1994, Stattersfield et al. 1998). These are Bleda eximia (Vulnerable) and the Near-Threatened Ceratogymna cylindricus, C. elata and Illadopsis rufescens. The restricted range species Apalis sharpii was also found. However, several of the characteristic forest species were rare or uncommon and it is questionable whether the conditions in the remaining forest are suitable for their survival. Agelastes meleagrides (Vulnerable), whose former presence was reported by locals, now seems to be completely absent, although it still occurs c. 30 km south of the Bossematié area, in the less exploited Mabi Forest (pers. obs.). The populations of some of the forest birds, especially the Ceratogymna hornbills, are very small and their situation must be considered as critical. On the other hand, several species that are uncommon in undisturbed forest seem to profit from the secondary character of the Forêt Classée, e.g. Francolinus ahantensis, Tockus semifasciatus, Gymnobucco peli, Pogoniulus scolopaceus and Trachyphonus purpuratus. In the understorey, Nectarinia olivacea, Andropadus latirostris, Bleda canicapilla and Alethe diademata are the most dominant species in mistnet samples. followed by Hylia prasina, Phyllastrephus albigularis and Andropadus virens. Abundant also are Chrysococcyx cupreus and Dicrurus adsimilis, regularly seen in mixed bird flocks.

The 122 species recorded in the surrounding farmland represent a completely different avifauna. The most common birds include ubiquitous species such as *Pycnonotus barbatus* or *Corvus albus*, and forest edge species such as *Cisticola lateralis* and several estrildine finches. No *Ceratogymna* hornbills and only a few Pycnonotidae were recorded in the farmland. Of the forest understorey avifauna, only a few species remain common in dense farmbush, for example *Andropadus virens* and *Francolinus ahantensis*. Some forest species, such as *Bleda canicapilla* or *Andropadus latirostris* can be found in small remnant forest patches in the farmed area, but most of the 48 forest species that were recorded outside the forest were less common in farmland. Although most of the time was spent inside the Bossematié Forest and many forest species present in farmland may have been missed, the species loss that we observed may be ecologically significant. Kofron & Chapman (1995), in

a Liberian study, also found that 70% of the species present in virgin forest could not be found in surrounding farmland.

Systematic list

Nomenclature follows Brown et al. (1982), Urban et al. (1986), Fry et al. (1988), Keith et al. (1992), Urban et al. (1997) and Dowsett & Forbes-Watson (1993). In assessment of abundance, we follow the suggestions of Morel & Tye (1995):

Very abundant (VA) >100 may be seen or heard in suitable habitat per day
Abundant (A) 11–100 may be seen or heard in suitable habitat per day
Common (C) 1–10 may be seen or heard in suitable habitat per day

Frequent (F) often seen but not every day
Uncommon (U) several records per year

Rare (R) one record per several years (resident species)
Vagrant (V) one record per several years (non-residents)

Other abbreviations: BF, recorded inside the Bossematié forest; NF, recorded in areas surrounding the Bossematié forest.

Phalacrocoracidae

Phalacrocorax africanus Long-tailed Cormorant. Four, NF, 18 Jun 1995.

Anhingidae

Anhinga rufa African Darter. One, NF, Feb 1996.

Ardeidae

Ardeola ralloides Squacco Heron. Five, NF, 18 Jun 1995, One, NF, 14 Mar 1996.

Bubulcus ibis Cattle Egret. C, NF.

Butorides striatus Green Heron. F, NF.

Egretta garzetta Little Egret. U, NF.

E. intermedia Yellow-billed Egret, F, NF.

Ardea purpurea Purple Heron. R, NF

A. cinerea Grey Heron. F, NF.

Scopidae

Scopus umbretta Hamerkop. One, NF, 9 Mar 1996.

Acciptridae

Pandion haliaetus Osprey. One, NF, 25 Dec 1995.

Aviceda cuculoides African Cuckoo Falcon. F, BF.

Pernis apivorus Honey Buzzard. One, NF, Mar 1996.

Elanus caeruleus Black-shouldered Kite. R, NF, 18 Jun 1995.

Milvus migrans Black Kite. C, NF.

Gypohierax angolensis Palm-nut Vulture. C, NF; C, BF.

Necrosyrtes monachus Hooded Vulture. C, NF.

Circaetus cinerascens Smaller Banded Snake-Eagle. One, NF, 2 Jun 1995; one, BF, 6 Feb 1996.

Polyboroides typus Harrier Hawk. C, NF; C, BF.

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Accipiter tachiro African Goshawk. C, NF, C, BF.

- A. badius Shikra. One, NF, 10 Apr 1995.
- A. erythropus Red-thighed Sparrowhawk, F, BF.
- A. melanoleucos Black Sparrowhawk, U. BF.

Urotriorchis macrourus Long-tailed Hawk. F, BF.

Aquila wahlbergi Wahlberg's Eagle. One, BF, 7 Feb 1996.

Stephanoaetus coronatus Crowned Eagle. F, BF.

Hieraaetus ayresii Ayres's Hawk Eagle. One, BF, 19 Aug 1997.

Falconidae

Falco ardosiaceus Grey Kestrel. One, NF, 7 Feb 1996.

F. biarmicus Lanner Falcon. C, NF; Two juveniles, 21 Mar 1996.

F. tinnunculus Common Kestrel. One, NF, 10 Apr 1995.

Phasianidae

Guttera pucherani Crested Guineafowl. C, BF.

Francolinus lathami Latham's Forest Francolin. C, BF.

F. ahantensis Ahanta Francolin. C, BF; C, NF.

F. bicalcaratus Double-spurred Francolin. U, BF; F, NF.

Rallidae

Himantornis haematopus Nkulengu Rail. F, BF.

Sarothrura pulchra White-spotted Flufftail. C, BF; F, NF.

Amaurornis flavirostris Black Crake. C, NF.

Crex egregia African Crake. Two, NF, 2 Aug 1997.

Jacanidae

Actophilornis africana African Jacana. C, NF.

Glareolidae

Glareola nuchalis Rock Pratincole. F, NF.

Charadriidae

Tringa ochropus Green Sandpiper. Two, NF, 25 Dec 1995.

T. glareola Wood Sandpiper. One, NF, 14 Mar 1996.

Actitis hypoleucos Common Sandpiper. Two, NF, 25 Dec 1995 and 16 Mar 1996.

Columbidae

Treron calva African Green Pigeon. A, BF; A, NF.

Turtur brehmeri Blue-headed Wood Dove. F, BF.

T. tympanistria Tambourine Dove. C, BF; F, NF.

T. afer Blue-spotted Wood Dove. F, BF; C, NF.

Oena capensis Namagua Dove. One, NF, Feb 1996.

Columba iriditorques Western Bronze-naped Pigeon. C, BF.

C. unicincta Afep Pigeon. F, BF.

Streptopelia semitorquata Red-eyed Dove. C, BF; C, NF.

S. senegalensis Laughing Dove. C. NF.

Psittacidae

Psittacus e. erithacus Grey Parrot. F, BF.

Poicephalus gulielmi Red-fronted Parrot. C, BF, with flocks up to 15. One sighting of ten over-flying birds, NF. Rare and local in Ivory Coast (Thiollay 1985a, Demey & Fishpool 1994, Gartshore et al. 1995).

Poicephalus senegalus Senegal Parrot. One, NF, 8 Jun 1997.

Musophagidae

Corvthaeola cristata Great Blue Turaco, C, BF.

Tauraco macrorhynchus Yellow-billed Turaco. C, BF; R, NF.

Crinifer piscator Western Grey Plantain-eater. F, NF.

Cuculidae

Oxylophus levaillantii African Striped Cuckoo. One, NF, 7 Feb 1996.

Cuculus solitarius Red-chested Cuckoo. F. BF.

C. clamosus Black Cuckoo, F, BF.

Cercococcyx mechowi Dusky Long-tailed Cuckoo. One, BF, 13 May 1995.

C. olivinus Olive Long-tailed Cuckoo, F, BF.

Chrysococcyx Emerald Cuckoo. C, BF; F, NF.

C. klaas Klaas's Cuckoo, C, BF; C, NF.

C. caprius Diederik Cuckoo. C, NF.

Ceuthmochares aereus Yellowbill. F, BF.

Centropus leucogaster Black-throated Coucal. C, BF; U, NF.

C. senegalensis Senegal Coucal. F, BF; C, NF.

Tytonidae

Tyto alba Barn Owl. C, NF.

Strigidae

Bubo poensis Fraser's Eagle Owl. A captive immature was photographed in Abengourou, 7 Jun 1997. Calling Bubo owls commonly heard inside Bossematié Forest were probably this species. Common in Yapo Forest (Demey & Fishpool 1994). Said to be well adapted to logged forest in Liberia (Gatter 1998).

Glaucidium tephronotum Red-chested Owlet. Tape-recorded song, 2 May 1995, confirmed as this species by C. Chappuis (in litt.). Previously recorded in Tai, Yapo and a few other forest areas (Thiollay 1985a, Demey & Fishpool 1994, Gartshore et al. 1995). Strix woodfordii African Wood Owl. C, BF; F, NF. An immature, 7. Jun 1997.

Otus icterorhynchus Sandy Scops Owl. One, BF, 21 Jun 1997, observed flying off after being mobbed by several small birds. Recognised from size and sandy, unmarked plumage. We were familiar with this species from a mist-netted individual in the Nimba area in Jun 1997 (Yaokokore-Beibro & Waltert unpubl.). A drawn-out whistle, emitted by us after our observation, again caused mobbing by Macrosphenus kempi and Malimbus nitens. Previously known from very few locations (Thiollay 1985a, Demey & Fishpool 1994).

Asio capensis Marsh Owl. One roosting in a tree in a park-like area near ricefields in the vicinity of Abengourou, 8 June 1997. It was being mobbed by several *Pycnonotus barbatus*. It was a pale brown owl, size and general appearance of an *Asio*, with dark eyes and no visible ear tufts, which sat in an almost horizontal position while staring

at the observer. When approached, it flew off low, showing pale buff patches on the primaries. The wings appeared longer than in A. flammeus. First record for Ivory Coast. In West Africa, resident in grassy valleys and swamps in arid regions, e.g. in Senegambia, Mali, Benin, Burkina Faso, Nigeria and Niger (Fry et al. 1992). Not recorded in Ghana or Liberia (Grimes 1987, Gatter 1998), but reported as far south as Lagos, Nigeria (Elgood et al. 1994).

Caprimulgidae

Caprimulgus inornatus Plain Nightjar. One, NF, 18 Jan 1996.

Macrodipteryx longipennis Standard-winged Nightjar. U, NF.

Apodidae

Telacanthura melanopygia Black Spinetail. Four, BF, 16 Jul 1997.

T. ussheri Mottled Spinetail. Ten, BF, 14 Jun 1997.

Neafrapus cassini Cassin's Spinetail. Two, NF, 12 Jun 1997.

Cypsiurus parvus African Palm Swift. C, NF.

Apus pallidus Pallid Swift. Fifteen, NF, 14 Mar 1996.

A. affinis Little Swift. C, NF.

Trogonidae

Apaloderma narina Narina's Trogon. F, BF.

Alcedinidae

Halcyon badia Chocolate-backed Kingfisher. F, BF.

H. malimbica Blue-breasted Kingfisher. One, BF, 17 Jun 1995.

H. senegalensis Woodland Kingfisher. C, BF; C, NF.

Ceyx lecontei Dwarf Kingfisher. One, BF, 12 Sep 1996.

C. picta Pygmy Kingfisher. F, NF.

Corvthornis cristata Malachite Kingfisher. One, NF, 2 May 1995.

Alcedo quadribrachys Shining Blue Kingfisher. One, NF, 18 Jun 1995.

Meropidae

Merops muelleri Blue-headed Bee-eater. Three observations in the southern part of the Bossematié Forest. Known from Tai and Yapo (Thiollay 1985a, Demey & Fishpool 1994, Gartshore et al. 1995).

M. gularis Black Bee-eater. F, BF; U, NF.

M. pusillus Little Bee-eater. F, NF.

M. albicollis White-throated Bee-eater. F, NF.

Coracidae

Eurystomus gularis Blue-throated Roller. C, BF.

Phoeniculidae

Phoeniculus castaneiceps Forest Wood-Hoopoe. F, BF.

P. bollei White-headed Wood-Hoopoe. F, BF.

Bucerotidae

Tockus albocristatus White-crested Hornbill, C, BF; U, NF.

T. hartlaubi Black Dwarf Hornbill. F, BF.

T. camurus Red-billed Dwarf Hornbill. F, BF.

T. fasciatus African Pied Hornbill. A, BF; A, NF.

Ceratogymna fistulator Piping Hornbill. F, BF; U, NF.

C. subcylindricus Black-and-white-casqued Hornbill. Only two observations, BF: Ten, 6 Jan and four, 7 Feb 1996. The dry season occurrence in the Bossematié area strongly suggests seasonal movements.

C. cylindricus Brown-cheeked Hornbill. F, BF. A pair with one young, 9 Feb 1996. A group of six, 16 Mar 1996. All other groups comprised only 2–3 birds. As in Ghana (Grimes 1987), the local population has declined seriously (reported by hunters). Near-threatened (Collar et al. 1994).

C. atrata Black-casqued Wattled Hornbill. Three observations, BF: a flock of eight, 11 Apr 1995; two, 21 Dec 1995; a single male, 9 Feb 1996. The main distribution may be wet evergreen rain forest, (see Thiollay 1985a), but according to locals, it was previously much more common in the area. Contrary to the situation in the Bossematié area, this species is more numerous than C. elata in Bia National Park (Grimes 1987). This may suggest that atrata may be more vulnerable than elata.

C. elata Yellow-casqued Wattled Hornbill. F, BF. Groups of up to ten. A juvenile in company of nine adults de-barking branches of a tall tree, 17 Jun 1997. The higher abundance of this species in comparison to C. atrata is in accordance with J.-M. Thiollay (in litt.), who considers it more a species of gallery forest and more adaptable to secondary habitats. Near-threatened (Collar et al. 1994).

Capitonidae

Gymnobucco peli Bristle-nosed Barbet. C, BF; F, NF.

G. calvus Naked-faced Barbet. F, BF; C, NF.

Pogoniulus scolopaceus Speckled Tinkerbird. C, BF; C, NF.

P. atroflavus Red-rumped Tinkerbird, F. BF.

P. subsulphureus Yellow-throated Tinkerbird. C, BF; F, NF.

P. bilineatus Yellow-rumped Tinkerbird, F. BF: F. NF.

Tricholaema hirsuta Hairy-breasted Barbet. C, BF; U, NF.

Lybius vieilloti Vieillot's Barbet. U, NF.

Trachyphonus purpuratus Yellow-billed Barbet. C, BF.

Indicatoridae

Indicator exilis Least Honeyguide. An adult in fresh plumage mist-netted, BF, 21 Feb 1996. Identification confirmed on the basis of photographs by M. Louette and R. Demey. Forest edge and galleries in Ivory Coast (Thiollay 1985a). Rare resident in Ghana (Grimes 1987); locally not uncommon in Liberia, where recorded along logging roads (Gatter 1998).

I. conirostris Thick-billed Honeyguide. Recorded once, BF, 11 Aug 1997, perching quietly in a tree in a clearing near a colony of Gymnobucco peli, considered to be its principal host in Ghana (Grimes 1987). Recorded in Tai and Yapo (Demey & Fishpool 1994, Gartshore et al. 1995).

Picidae

Campethera nivosa Buff-spotted Woodpecker. C, BF.

Dendropicos gabonensis Gabon Woodpecker. F, BF.

D. pyrrhogaster Fire-bellied Woodpecker. C, BF.

Eurylaimidae

Smithornis rufolateralis Rufous-sided Broadbill. F, BF.

Pittidae

Pitta angolensis African Pitta. A displaying individual, BF, 27 Dec 1995, seen well while perching on a low tree. It produced a purring noise with its wings and emitted repeatedly the curious froglike call. Uncommon in Ivory Coast (Thiollay 1985a, Gartshore et al. 1995).

Hirundinidae

Hirundo abyssinica Lesser Striped Swallow. A, NF.

H. nigrita White-throated Blue Swallow, U, NF.

H. daurica Red-rumped Swallow. Two, NF, 21 Jun 1997.

H. aethiopica Ethiopian Swallow. C in villages Apr-Oct. Mud-collecting individuals,

21 Jun 1997. Considered very local in Ivory Coast and Ghana (Thiollay 1985a, Grimes 1987), but our records confirm continuing westward range-extension (see Grimes 1987, Demey & Fishpool 1991).

H. rustica Barn Swallow, F, BF; F, NF.

H. semirufa Rufous-chested Swallow. C, NF.

Motacillidae

Motacilla flava thunbergi Yellow Wagtail. One, NF, 14 Mar 1996.

M. aguimp African Pied Wagtail. F, NF.

Anthus leucophrys Plain-backed Pipit. U, NF.

Campephagidae

Coracina pectoralis White-breasted Cukoo-Shrike. Two chasing each other in a tree in farmland, 10 Jun 1995. Seems to be the third record in Ivory Coast south of 8°N (Thiollay 1985a, Demey & Fishpool 1991). Southernmost record in western Ghana seems to be Bole (9°3′N) (Grimes 1987).

C. azurea Blue Cuckoo-Shrike. F, BF.

Pvcnonotidae

Andropadus virens Little Greenbul. A, BF; A; NF.

- A. gracilis Little Grey Greenbul. F, BF.
- A. ansorgei Ansorge's Greenbul. F, BF.
- A. curvirostris Plain Greenbul. C, BF.
- A. gracilirostris Slender-billed Greenbul. C, BF.
- A. latirostris Yellow-whiskered Greenbul. A, BF; F, NF.

Calyptocichla serina Golden Bulbul. U, BF.

Baeopogon indicator Honeyguide Bulbul. C, BF.

Ixonotus guttatus Spotted Bulbul. U, BF.

Chlorocichla simplex Simple Greenbul. F, NF.

Thescelocichla leucopleura Swamp Palm Bulbul. F, BF, F, NF.

Phyllastrephus icterinus Icterine Greenbul. U, BF.

P. albigularis White-throated Greenbul. C, BF; U, NF.

Bleda syndactyla Red-tailed Bristlebill. C, BF.

B. eximia Green-tailed Bristlebill. F, BF. Seven mist-netted. Primary moult 10 Feb 1996, 12 Sep 1996 and 12 Aug 1997. A female with large brood patch, 29 Jul 1997. The stomach of a male with enlarged testes, killed in a mist-net by an Accipiter tachiro, 27 Sep 1996, contained remains of two caterpillars, c. five diplopeds and one spider. Vulnerable (Collar et al. 1994). Rarely observed in Ivory Coast, mainly in wet evergreen forest (Thiollay 1985a, Demey & Fishpool 1994, Gartshore et al. 1995).

B. canicapilla Grey-headed Bristlebill, A. BF; U. NF.

Criniger barbatus Western bearded Bulbul, F, BF.

C. calurus Red-tailed Bulbul. C, BF.

Pycnonotus barbatus Common Bulbul. C, BF; A, NF.

Turdidae

Stiphrornis erythrothorax Forest Robin. F, BF.

Alethe diademata Fire-crested Alethe. C, BF.

Neocossyphus poensis White-tailed Ant-Thrush. F, BF.

N. finschii Finsch's Flycatcher-Thrush. F, BF.

Sylviidae

Cisticola lateralis Whistling Cisticola. A, NF.

Prinia subflava Tawny-flanked Prinia. F, NF.

Apalis sharpii Sharpe's Apalis. C, BF; most often encountered in mixed flocks. Rarely seen, but song regularly heard. A. nigriceps has not been recorded. Both species are common in Yapo (Demey and Fishpool 1994).

Camaroptera brachyura Bleating Warbler. U, BF; C, NF.

C. superciliaris Yellow-browed Camaroptera. C, BF; F, NF.

C. chloronata Olive-green Camaroptera. C, BF.

Macrosphenus kempi Kemp's Longbill. C, BF.

M. concolor Grey Longbill. C, BF.

Eremomela badiceps Rufous-crowned Eremomela. F, BF.

Sylvietta virens Green Crombec. C, BF; C, NF.

Hyliota violacea Violet-backed Hyliota. U, BF.

Hylia prasina Green Hylia. C, BF; F, NF.

Muscicapidae

Fraseria ocreata Fraser's Forest Flycatcher. C, BF.

Muscicapa striata Spotted Flycatcher. One, NF, 9 Mar 1996.

M. caerulescens Ashy Flycatcher. Observed twice along a road, BF, 8 and 20 Aug 1997. Not uncommon in forest clearings at the northern edge of the forest zone (Thiollay 1985a), but observed in Tai as well (Gartshore et al. 1995).

M. epulata Little Grey Flycatcher. Two observations and eight mist-netted, BF. Individuals with large brood patches, 19 Feb 1996 and 11 Aug 1997. An immature with spots on secondary coverts, 20 Mar 1996. Identification confirmed from photographs, by M. Louette. Field characters included: grey feet, lower mandible black

with whitish base, feathers of forehead and crown with blackish centres, washed-out greyish streaks on the flanks. A captured male sang when handled. Song, similar to *Stiphrornis erythrothorax*, a thin *dee-dee-didi-dee-di*, answered by a second bird (the female?) with a soft *huit*. Few records in Ivory Coast (Thiollay 1985a, Demey & Fishpool 1991, 1994, Gartshore *et al.* 1995). Uncommon in Ghana and Liberia (Grimes 1987, Gatter 1998) and said to occur mainly in primary forest (Gatter 1998). Demey & Fishpool (1994) observed the bird in midstorey, whereas Gatter (1998) and Gartshore *et al.* (1995) recorded it in canopy. However, our mist-net records suggest, that the species visits undergrowth as well, as suggested by Grimes (1987).

M. ussheri Ussher's Flycatcher. F, BF; F, NF.

Monarchidae

Erythrocercus mccallii Chestnut-capped Flycatcher. C, BF.

Trochocercus nitens Blue-headed Crested Flycatcher. C, BF.

Terpsiphone rufiventer Red-bellied Paradise-Flycatcher. C, BF; F, NF.

Platysteiridae

Bias musicus Black-and-white Flycatcher. One, NF, 10 Jun 1995.

Dyaphorophyia castanea Chestnut Wattle-eye. C, BF.

D. blissetti Red-cheeked Wattle-eye. A pair mist-netted, NF, 3 May 1995.

Timaliidae

Illadopsis fulvescens Brown Illadopsis. C, BF.

I. rufipennis Pale-breasted Illadopsis. F, BF.

I. cleaveri Blackcap Illadopsis. F, BF.

I. rufescens Rufous-winged Illadopsis. Song recorded at three locations, only inside the forest. An immature bird with yellowish gape-edges mist-netted, 28 Jul 1997. Near-threatened (Collar & Stuart 1985, Collar et al. 1994), and known from very few localities in Ivory Coast (Thiollay 1985, Demey & Fishpool 1991, 1994, Gartshore et al. 1995).

Remizidae

Pholidornis rushiae Tit-hylia. One observation of five individuals perching together in a low tree, NF, 10 Jun 1995. Few localities in Thiollay (1985). Recorded in canopy (Gartshore et al. 1995), observed in degraded habitats (Demey & Fishpool 1991, 1994).

Paridae

Parus funereus Dusky Tit. Five records of singing individuals, of which one seen, 4 Aug 1997, c. 25 m up in an isolated tree above degraded understorey, BF. Not recorded in Yapo (Demey & Fishpool 1994); generally rare and local (Thiollay 1985a, Grimes 1987, Gatter 1998, Gartshore et al. 1995).

Nectariniidae

Anthreptes fraseri Fraser's Sunbird. C, BF.

A. rectirostris Yellow-chinned Sunbird. One, BF, 9 Aug 1997.

A. collaris Collared Sunbird. C, BF.

Nectarinia seimundi Little Green Sunbird. U, BF.

N. olivacea Olive Sunbird. A, BF; F, NF.

N. adelberti Buff-throated Sunbird. F, BF.

N. senegalensis Scarlet-breasted Sunbird. One, NF, 20 Jul 1997.

N. coccinigaster Splendid Sunbird. U, NF.

N. venusta Yellow-bellied Sunbird. One, BF, 11 Dec 1996.

N. cvanolaema Blue-throated Sunbird, U. BF.

N. chloropygia Olive-bellied Sunbird. C, BF; F, NF.

Zosteropidae

Zosterops senegalensis Yellow White-eye. F, NF.

Oriolidae

Oriolus auratus African Golden Oriole. One, BF, 12 Apr 1995.

O. brachvrhvnchus Western Black-headed Oriole, F. BF.

O. nigripennis Black-winged Oriole. U, BF.

Laniidae

Lanius collaris Fiscal Shrike. A pair, NF, 21 May 1995.

L. senator Woodchat Shrike. One, NF, 4 Feb 1996.

Malaconotidae

Dryoscopus sabini Sabine's Puffback. F, BF.

Nicator chloris Western Nicator. C, BF.

Prionopidae

Prionops caniceps Northern Red-billed Helmet Shrike. F, BF.

P. plumatus Straight-crested Helmet Shrike. Five, BF, 7 May 1995.

Dicruridae

Dicrurus atripennis Shining Drongo. F, BF.

D. adsimilis Fork-tailed Drongo, C, BF.

Corvidae

Corvus albus Pied Crow. C, NF.

Sturnidae

Poeoptera lugubris Narrow-tailed Starling. A flock of c. 70 birds roosting in a tall tree, BF, 8 Feb 1996. Already mentioned for Abengourou by Thiollay (1985), few observations in Tai (Gartshore et al. 1995) and Yapo (Demey & Fishpool 1994).

Onychognathus fulgidus Forest Chestnut-winged Starling. Three records, BF. A pair occupying a nest hole in a tree at a road, 24 Mar 1996. Habitat considered to be humid savannah by Thiollay (1985), but known to occur in the forest zone in Ghana and Ivory Coast (Grimes 1987, Demey & Fishpool 1994, Gartshore et al. 1995), and in Liberia, where it profits from logging (Gatter 1998).

Passeridae

Passer griseus Grey-headed Sparrow. A, NF.

Fringillidae

Serinus mozambicus Yellow-fronted Canary. One, NF, 6 May 1995.

Placeidae

Ploceus nigerrimus Vieillot's Black Weaver. A, NF.

P. cucullatus Village Weaver. A, NF.

P. nigricollis Spectacled Weaver. A male with nesting material, NF, 21 Jun 1997.

P. tricolor Yellow-mantled Weaver, F, BF.

P. albinucha Maxwell's Black Weaver, F, BF.

P. preussi Preuss's Weaver. One. BF, 9 Aug 1997.

Malimbus nitens Blue-billed Malimbe. C, BF; F, NF.

M. malimbicus Crested Malimbe. F, BF.

M. scutatus Red-vented Malimbe. F, BF.

M. rubricollis Red-headed Malimbe. C, BF.

Amblyospiza albifrons Thick-billed Weaver. F, BF; U, NF.

Estrildidae

Nigrita canicapilla Grey-crowned Negrofinch. C, BF.

N. bicolor Chestnut-breasted Negrofinch. C, BF.

N. fusconota White-breasted Negrofinch. F, BF.

Pyrenestes sanguineus Crimson Seed-cracker. U, BF.

Spermophaga haematina Bluebill. C, BF.

Mandingoa nitidula Green Twinspot. Three males mist-netted, BF, 28 Feb, 1 Mar and 16 Sep 1996, the last with a large brood patch. In Ivory Coast, mainly in secondary forest in the wettest parts of the forest zone (Thiollay 1985a), but recorded at northern border of Tai National Park (Gartshore et al. 1995).

Estrilda melpoda Orange-cheeked Waxbill. C, NF.

E. astrild Common Waxbill. U, NF.

Lonchura cucullata Bronze Mannikin. A, NF.

Viduidae

Vidua macroura Pin-tailed Widow. C, NF.

Acknowledgments

The Kreditanstalt für Wiederaufbau (KfW) and the Gesellschaft für Technische Zusammenarbeit (GTZ) supported this project. For technical help and for solving identification problems we thank M. Louette, C. Chappuis, R. Demey and L.D.C. Fishpool. J. Slowik. F. Hetzel, A. Fane, T. Kouablan helped in the field and gave valuable information on the occurrence of some birds.

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