



Rapid survey of the birds of North Lorma, Gola and Grebo National Forests

Author: Demey, Ron

Source: A Rapid Biological Assessment of North Lorma, Gola and Grebo National Forests, Liberia: 34

Published By: Conservation International

URL: <https://doi.org/10.1896/978-1-934151-01-3.34>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Chapter 4

Rapid survey of the birds of North Lorma, Gola and Grebo National Forests

Ron Demey

SUMMARY

During 20 days of field work in three Liberian National Forests, between 19 November and 11 December 2005, 211 bird species were recorded: 143 at North Lorma, Lofa County, 145 at Gola, Gborpolu County, and 157 at Grebo, River Gee County. Of these, 14 are of conservation concern (eight in North Lorma, six in Gola and 10 in Grebo), amongst which one is classified as Endangered (Gola Malimbe *Malimbus ballmanni*), six as Vulnerable, six as Near Threatened and one as Data Deficient. Twelve of the 15 species restricted to the Upper Guinea forests Endemic Bird Area and 136 (or 74%) of the 184 Guinea-Congo forests biome species recorded in Liberia were found during the study. Range extensions or new localities were noted for several species. All three sites qualify as Important Bird Areas. Considering the high conservation value of these forests, it is recommended that further surveys be conducted in order to complete avifaunal data.

INTRODUCTION

Birds have been proven to be useful indicators of biological diversity of a site, because they occur in most habitats on land throughout the world and are sensitive to environmental change. Their taxonomy and global geographical distribution are relatively well known in comparison to other taxa (ICBP 1992). The conservation status of most species has been reasonably well assessed and is being regularly updated (BirdLife International 2000, 2004). This permits rapid analysis of the results of an ornithological study and the presentation of conservation recommendations. Birds are also among the most charismatic species, which can facilitate the acceptance of the necessity to implement protective measures by policy makers and stakeholders. Hotspots for birds are generally of importance for plants or other animals as well (ICBP 1992).

As West African forests are rapidly disappearing, the survival of the birds of the Upper Guinea forests is becoming increasingly dependent on ever fewer areas. Despite a number of surveys conducted in the region in recent or relatively recent years (e.g. Allport et al. 1989; Gartshore 1989; Gartshore et al. 1995; Demey and Rainey 2004, 2005; Rainey and Asamoah 2005), the avifaunas of the majority of these forests are still inadequately known.

The most recent and extensive study of the Liberian avifauna is that of Gatter (1997), on which the selection of Liberia's nine Important Bird Areas (IBAs) by Robertson (2001) was largely based. However, site-specific avifaunal information is scarce and in many cases the presence of species at sites that were selected as IBAs was inferred from the species' known distributions in the region or in areas adjacent to the site (Robertson 2001). Much thus remains to be learned on the precise distribution of species and the ornithological importance of certain sites. In view of the ongoing forest destruction, updating the scarce existing information is also indispensable.

Liberia lies almost entirely within the Upper Guinea forest block, which forms the western part of the West African Guinean Forests hotspot, one of the 34 biologically richest and most endangered terrestrial ecoregions in the world (Mittermeier et al. 2004). The Upper Guinea forests have also been identified as an Endemic Bird Area with the highest priority ranking for conservation action, based on its biological importance and current threat level (Stattersfield et al. 1998). All three forests visited during the present survey lie wholly or in part in IBAs: North Lorma National Forest lies entirely within the Wologizi mountains IBA (LR001), part of Gola National Forest is included in Lofa-Mano IBA (LR003), which is contiguous with the Gola Forest Reserves IBA on the other side of the border in Sierra Leone, and part of Grebo National Forest forms the Cavalla River IBA (LR009), situated on the frontier with Côte d'Ivoire, in the extreme east of the country and lying close to Côte d'Ivoire's Taï National Park IBA (Robertson 2001).

STUDY SITES AND METHODS

We carried out 20 days of field work: seven days at North Lorma National Forest (19–25 November), eight days at Gola National Forest (27 November–3 December), and five days at Grebo National Forest (7–11 December).

At North Lorma National Forest, the habitat consisted of closed-canopy forest on flat and undulating terrain crossed by numerous small streams. The camp was situated at the intersection of a large river, the Lawa, and a tributary (at 08°01'53.6"N, 09°44'08.6"W). The path to the camp commenced at the small village of Luyema, where agricultural plots alternated with patches of forest left standing. For the first few kilometres past the village and its immediate surroundings, the forest was degraded and open, with dense second-growth along the edge of the path which used to be a logging road. A large grassy clearing surrounded by low bushy vegetation marked the site of a former sawmill situated at the edge of closed-canopy forest. The first and last night camp was set up at Luyema, with six nights spent at the camp inside the forest.

In Gola National Forest, the main camp (07°27'09.9"N, 10°41'33.2"W) was established in closed-canopy forest on hilly terrain crossed by small, rocky streams. Traces of artisanal diamond mining were still visible. The forest was accessed from a small settlement in a large clearing, where a sawmill (now entirely destroyed) of the SLC timber company used to be (07°26'56.3"N, 10°39'05.0"W). The lateritic soil of the clearing was partly overgrown by grasses, *Chromolaena odorata* and bushes, with virtually no traces of the sawmill's structures left. The main track to the SLC clearing cut through high forest and crossed a rocky river about 1 km south of the settlement. Four nights were spent camping in the SLC clearing and four inside the forest.

In Grebo National Forest, parts of the forest had obviously been heavily logged in the relatively recent past. Patches

of closed-canopy forest alternated with more open and degraded areas. Access was along a path starting at the village of Jalipo. The path had apparently been a motorable road a few years prior to our visit, but is now mostly overgrown and bordered by secondary vegetation. The first and last night, camp was set up at the edge of Jalipo (05°22'10.5"N, 07°46'14.5"W), with three nights spent at the camp inside the forest (05°24'10.4"N, 07°43'56.2"W). Before returning to Monrovia, a night was spent at the UNMIL camp in Fishtown (05°11'48.6"N, 07°52'28.8"W), allowing some bird observations to be made there on the afternoon of 11 December and the following morning.

The principal method used during this study consisted of observing birds by walking slowly along tracks and trails, if any, and stopping frequently. Notes were taken on both visual observations and bird vocalizations. Some tape-recordings were made for later deposition in sound archives. Field work was carried out from dawn (usually 06:30) until 14:00–16:00, and on a few occasions from 17:00 until sunset (around 18:30). Some species were recorded opportunistically during the night or captured in mist-nets set up for bats. Although attempts were made to cover as much ground as possible, the difficulty of access of the first two sites, North Lorma and Gola National Forests, due to the scarcity or absence of paths, meant that the areas visited in the interior of these forests were relatively limited and mostly restricted to the vicinity of the base camps. However, additional observations were made on the way to and from those camps at the start and the end of each survey.

For each field day a list was compiled of all the species that were recorded. Numbers of individuals or flocks were noted, as well as any evidence of breeding, such as the presence of juveniles, and basic information on the habitat in which the birds were observed. An attempt has been made to give indices of abundance based on the encounter rate. However, it should be noted that many bird species were not singing (e.g. cuckoos and owls) and many thus have remained unnoticed.

The weather was variable, usually overcast with some sunny spells and frequent rain, which occurred mostly at night and was occasionally heavy.

For the purposes of standardization, we have followed the nomenclature, taxonomy and sequence of Borrow and Demey (2001, 2004).

RESULTS

North Lorma National Forest

Over seven days of field work, 143 species were recorded (see Appendix 7), of which eight are of global conservation concern (BirdLife International 2000, 2004; Table 4.1). Among these, two are classified as Vulnerable (Yellow-bearded Greenbul *Criniger olivaceus* and Yellow-headed Picathartes *Picathartes gymnocephalus*), five as Near Threatened (Brown-cheeked Hornbill *Bycanistes cylindricus*, Yellow-casqued Hornbill *Ceratogymna elata*, Black-headed Rufous War-

bler *Bathmocercus cerviniventris*, Rufous-winged Illadopsis *Illadopsis rufescens* and Copper-tailed Glossy Starling *Lamprotornis cupreocauda*), while one is considered Data Deficient (Yellow-footed Honeyguide *Melignomon eisentrauti*).

Seven of the 15 restricted-range species, i.e. landbird species which have a global breeding range of less than 50,000 km², that make up the Upper Guinea forests Endemic Bird Area (the area from Sierra Leone and south-east Guinea to south-west Ghana that encompasses the overlapping breeding ranges of restricted-range species: Stattersfield et al. 1998) were found during the study: all the above-mentioned species apart from the Yellow-casqued Hornbill *Ceratogymna elata* and the Yellow-footed Honeyguide *Melignomon eisentrauti* are of restricted range as is the non-threatened Sharpe's Apalis *Apalis sharpii* (Table 4.2). The reserve thus holds an important proportion of the Upper Guinea endemics. Of the 184 Guinea-Congo forests biome species recorded in Liberia (Robertson 2001), 97 or 53%, were recorded in North Lorma National Forest (Table 4.3). In addition, the

little-known Olive Ibis *Bostrychia olivacea*, which is generally rare in Upper Guinea, was observed.

Gola National Forest

During eight days of field work, 145 species were recorded at this site (see Appendix 7), six of which are of global conservation concern (BirdLife International 2000, 2004; Table 3.1). One of these, Gola Malimbe *Malimbus ballmanni* is classified as Endangered, another, Yellow-bearded Greenbul *Criniger olivaceus*, as Vulnerable, while the remaining four are considered Near Threatened (Brown-cheeked Hornbill *Bycanistes cylindricus*, Yellow-casqued Hornbill *Ceratogymna elata*, Rufous-winged Illadopsis *Illadopsis rufescens* and Copper-tailed Glossy Starling *Lamprotornis cupreocauda*).

Six of the 15 restricted-range species that make up the Upper Guinea forests Endemic Bird Area (Stattersfield et al. 1998) were recorded from this site: all the above-mentioned species, apart from the Yellow-casqued Hornbill *Ceratogymna elata*, plus Sharpe's Apalis *Apalis sharpii* (Table 4.2).

Table 4.1. Species of global conservation concern recorded during the Liberia RAP survey.

Species	Common Name	Threat Status	Sites		
			North Lorma	Gola	Grebo
<i>Agelastes meleagrides</i>	White-breasted Guineafowl	VU			U
<i>Bycanistes cylindricus</i>	Brown-cheeked Hornbill	NT	C	C	C
<i>Ceratogymna elata</i>	Yellow-casqued Hornbill	NT	C	C	C
<i>Melignomon eisentrauti</i>	Yellow-footed Honeyguide	DD	R		
<i>Lobotos lobatus</i>	Western Wattled Cuckoo-shrike	VU			R
<i>Bleda eximius</i>	Green-tailed Bristlebill	VU			U
<i>Criniger olivaceus</i>	Yellow-bearded Greenbul	VU	F	U	U
<i>Bathmocercus cerviniventris</i>	Black-headed Rufous Warbler	NT	R		
<i>Melaenornis annamarulae</i>	Nimba Flycatcher	VU			F
<i>Picathartes gymnocephalus</i>	Yellow-headed Picathartes	VU	U		
<i>Illadopsis rufescens</i>	Rufous-winged Illadopsis	NT	F	R	C
<i>Malaconotus lagdeni</i>	Lagden's Bush-shrike	NT			R
<i>Lamprotornis cupreocauda</i>	Copper-tailed Glossy Starling	NT	U	C	C
<i>Malimbus ballmanni</i>	Gola Malimbe	EN		F	
Number of species recorded:		14	8	6	10

Threat Status (BirdLife International 2000, 2004, 2006b):

EN = Endangered: species facing a high risk of extinction in the immediate future

VU = Vulnerable: species facing a high risk of extinction in the medium-term future

NT = Near Threatened: species coming very close to qualifying as Vulnerable

DD = Data Deficient: species for which there is inadequate information to make an assessment of its risk of extinction

Encounter rate:

C – Common: encountered daily, either singly or in significant numbers

F – Fairly common: encountered on most days

U – Uncommon: irregularly encountered and not on the majority of days

Of the 184 Guinea-Congo forests biome species recorded in Liberia (Robertson 2001), 91 or 49%, were recorded in Gola National Forest.

Grebo National Forest

In five days of field work, 157 species were recorded here (see Appendix 7), of which 10 are of global conservation concern (BirdLife International 2000, 2004). Among these, five are classified as Vulnerable (White-breasted Guineafowl *Agelastes meleagrides*, Western Wattled Cuckoo-shrike *Lobotos lobatus*, Green-tailed Bristlebill *Bleda eximius*, Yellow-bearded Greenbul *Criniger olivaceus* and Nimba Flycatcher *Melaenornis annamarulae*) and five are considered Near Threatened (Brown-cheeked Hornbill *Bycanistes cylindricus*, Yellow-casqued Hornbill *Ceratogymna elata*, Rufous-winged Illadopsis *Illadopsis rufescens*, Lagden's Bush-shrike *Malaconotus lagdeni* and Copper-tailed Glossy Starling *Lamprotornis cupreocauda*).

Nine of the 15 restricted-range species that make up the Upper Guinea forests Endemic Bird Area (Stattersfield et al. 1998) were found at this site: all the above-mentioned species, apart from the Yellow-casqued Hornbill *Ceratogymna elata* and Lagden's Bush-shrike *Malaconotus lagdeni*, are of restricted range as is Sharpe's Apalis *Apalis sharpii* (Table 4.2). The site thus holds the most important proportion of the Upper Guinea endemics of the three reserves visited. Of the 184 Guinea-Congo forests biome species recorded in Liberia (Robertson 2001), 114 or 62%, were recorded in Grebo (Table 4.3). In addition, a number of rare and poorly known species were observed, including Spot-breasted Ibis

Bostrychia rara, Congo Serpent Eagle *Urotriorchis spectabilis* and Blue-headed Bee-eater *Merops muelleri*.

NOTES ON SPECIFIC SPECIES

See Table 4.1 for explanation of threat status. Status and distribution in Liberia from Gatter (1997) and in West Africa from Borrow and Demey (2001, 2004).

Species of conservation concern

Agelastes meleagrides White-breasted Guineafowl (VU)

Two groups, numbering three and six birds respectively, were encountered at two locations in Grebo National Forest. This Upper Guinea forest endemic was formerly a not uncommon and widespread resident in Liberia, but is now rare to locally common, with its population divided in a western part (centered around Kpelle and Gola National Forests) and an extended eastern part. Together with western Côte d'Ivoire, Liberia retains the largest population of this species, which is threatened by habitat loss and hunting (BirdLife International 2006a).

Bycanistes cylindricus Brown-cheeked Hornbill (NT)

This species was common in all three forests, with daily observations of up to six individuals. This generally scarce to locally frequent Upper Guinea endemic is a not uncommon resident in high-forest blocks in Liberia.

Table 4.2. Species restricted to the Upper Guinea forests Endemic Bird Area recorded during the Liberia RAP survey.

Species	Common Name	Sites		
		North Lorma	Gola	Grebo
<i>Agelastes meleagrides</i>	White-breasted Guineafowl			x
<i>Bycanistes cylindricus</i>	Brown-cheeked Hornbill	x	x	x
<i>Lobotos lobatus</i>	Western Wattled Cuckoo-shrike			x
<i>Bleda eximius</i>	Green-tailed Bristlebill			x
<i>Criniger olivaceus</i>	Yellow-bearded Greenbul	x	x	x
<i>Bathmocercus cerviniventris</i>	Black-headed Rufous Warbler	x		
<i>Apalis sharpii</i>	Sharpe's Apalis	x	x	x
<i>Melaenornis annamarulae</i>	Nimba Flycatcher			x
<i>Picathartes gymnocephalus</i>	Yellow-headed Picathartes	x		
<i>Illadopsis rufescens</i>	Rufous-winged Illadopsis	x	x	x
<i>Lamprotornis cupreocauda</i>	Copper-tailed Glossy Starling	x	x	x
<i>Malimbus ballmanni</i>	Gola Malimbe		x	
Number of species recorded		7	6	9

***Ceratogymna elata* Yellow-casqued Hornbill (NT)**

This species was also common in all three forests, with daily observations of up to six individuals. A not uncommon and widespread resident in high forest in Liberia, which is rare to uncommon and local elsewhere in its fragmented range from south-west Senegal to western Cameroon.

***Melignomon eisentrauti* Yellow-footed Honeyguide (DD)**

One was heard singing at the edge of a mixed-species flock inside the forest at North Lorma National Forest. A rare and little-known resident throughout its range, previously recorded only from the Mt. Nimba area, Wonegizi, Mt. Balagizi and south of Vahun (Gatter 1997).

***Lobotos lobatus* Western Wattled Cuckoo-shrike (VU)**

One was seen in a mixed-species flock at a height of c.10 m in Grebo National Forest. This Upper Guinea endemic is a locally rare to uncommon resident in Liberia, where it is known from 21 localities (Gatter 1997); it is rare elsewhere in its fragmented range.

***Bleda eximius* Green-tailed Bristlebill (VU)**

A pair and a single were observed at two locations in Grebo National Forest. One member of the pair and the single were singing; the former was tape-recorded and reacted strongly to playback by flying towards the observer, singing continuously. Apparently a common and widespread resident in Liberia (Gatter 1997), but this Upper Guinea endemic is rare elsewhere.

***Criniger olivaceus* Yellow-bearded Greenbul (VU)**

Fairly common at North Lorma National Forest and uncommon at Gola and Grebo National Forests. It was always observed in mixed-species flocks, usually in pairs, but six individuals were seen in a single flock at the first site. A not uncommon to locally common forest resident in Liberia (Gatter 1997), but this Upper Guinea endemic is generally rare elsewhere.

***Bathmocercus cerviniventris* Black-headed Rufous Warbler (NT)**

A pair was found in dense vegetation near a small stream at the forest edge at Luyema, North Lorma National Forest. An uncommon to fairly common resident in Liberia (Gatter 1997); this Upper Guinea endemic has a fragmented range and is rare to uncommon and very local elsewhere.

***Melaenornis annamarulae* Nimba Flycatcher (VU)**

Five individuals, singing from the canopy of tall trees, were found along the main track in Grebo National Forest. A rare, though probably overlooked forest resident in Liberia, where it is known from the Nimba area, Glaro and Wologizi; this Upper Guinea endemic is rare to scarce and local throughout its restricted range.

***Picathartes gymnocephalus* Yellow-headed Picathartes (VU)**

A large rock with 20 nests in good condition was found within North Lorma National Forest. In the evening, just

before dusk, five birds were observed as they came to the nesting site. A generally scarce and very local resident in the forest zone, endemic to Upper Guinea. Rare to not uncommon in Liberia; the country probably holds the largest population of this threatened species.

***Illadopsis rufescens* Rufous-winged Illadopsis (NT)**

Recorded at all three forest sites: fairly common at North Lorma National Forest, rare at Gola National Forest and common at Grebo National Forest. At the first site a previously unknown song was tape-recorded and found to be from a member of a duetting pair, of which the other member uttered the well-known song presented by Chappuis (2000). A generally uncommon forest resident, endemic to Upper Guinea, but not uncommon to locally common and widespread in Liberia.

***Malaconotus lagdeni* Lagden's Bush-shrike (NT)**

A single and a pair were observed in mixed-species flocks at two localities in Grebo National Forest. The single was silently foraging at c.10 m height inside the forest, but sang briefly in response to playback. The pair occurred in the canopy of tall trees at the forest edge and was singing; it was eventually seen displaying on a big horizontal branch, one member of the pair approaching the other with head held backwards while uttering a dry *kerrrrrr kerrrrrr*. This species has a disjunct distribution across West and Central Africa, with the scarce to rare nominate subspecies being endemic to Upper Guinea. Liberia's forests are estimated to hold the largest population of this taxon (BirdLife International 2004, 2006b).

***Lamprolornis cupreocauda* Copper-tailed Glossy Starling (NT)**

Rather uncommon at North Lorma National Forest, but small numbers were observed daily at Gola and Grebo National Forests. A fairly common to locally common forest resident, endemic to Upper Guinea and widespread in Liberia.

***Malimbus ballmanni* Gola Malimbe (EN)**

A pair with a juvenile was found in the same mixed-species flock on two consecutive days, foraging at mid-level in the interior of Gola National Forest. Another pair, also with a juvenile, was found in another mixed flock at c.1 km from the first. Gola Malimbe is a rare to locally common and rather poorly known forest resident endemic to Upper Guinea. It is known only from eastern Sierra Leone, Liberia, south-east Guinea (where discovered in Diéké Forest during a RAP in 2003), and western Côte d'Ivoire.

Other noteworthy records and range extensions***Bostrychia olivacea* Olive Ibis**

A single and a pair were seen on two consecutive days in North Lorma National Forest. The former flew along a forested river and eventually landed on the bank, allowing good views; the pair was flushed from a small stream in the forest

Table 4.3. Species restricted to the Guinea-Congo Forests biome recorded during the Liberia RAP survey.

Species	Common Name	Location		
		North Lorma	Gola	Grebo
<i>Tigriornis leucolopha</i>	White-crested Tiger Heron			x
<i>Bostrychia rara</i>	Spot-breasted Ibis			x
<i>Pteronetta hartlaubii</i>	Hartlaub's Duck			x
<i>Dryotriorchis spectabilis</i>	Congo Serpent Eagle			x
<i>Urotriorchis macrourus</i>	Long-tailed Hawk	x		
<i>Francolinus lathamii</i>	Latham's Forest Francolin	x	x	x
<i>Francolinus abantensis</i>	Ahanta Francolin		x	x
<i>Agelastes meleagrides</i>	White-breasted Guineafowl			x
<i>Himantornis haematopus</i>	Nkulengu Rail			x
<i>Sarothrura pulchra</i>	White-spotted Flufftail	x	x	x
<i>Turtur brehmeri</i>	Blue-headed Wood Dove	x	x	x
<i>Columba iriditorques</i>	Western Bronze-naped Pigeon	x	x	x
<i>Columba unicincta</i>	Afep Pigeon	x		
<i>Psittacus erithacus</i>	Grey Parrot	x	x	x
<i>Agapornis swindernianus</i>	Black-collared Lovebird			x
<i>Tauraco macrorhynchus</i>	Yellow-billed Turaco	x	x	x
<i>Cercococcyx mechowi</i>	Dusky Long-tailed Cuckoo			x
<i>Cercococcyx olivinus</i>	Olive Long-tailed Cuckoo	x	x	x
<i>Centropus leucogaster</i>	Black-throated Coucal	x	x	x
<i>Glaucidium tephronotum</i>	Red-chested Owlet			x
<i>Rhaphidura sabini</i>	Sabine's Spinetail	x	x	x
<i>Halcyon badia</i>	Chocolate-backed Kingfisher	x	x	x
<i>Ceyx lecontei</i>	African Dwarf Kingfisher	x	x	x
<i>Alcedo leucogaster</i>	White-bellied Kingfisher	x		x
<i>Merops muelleri</i>	Blue-headed Bee-eater			x
<i>Merops gularis</i>	Black Bee-eater		x	x
<i>Eurystomus gularis</i>	Blue-throated Roller	x	x	
<i>Phoeniculus castaneiceps</i>	Forest Wood-hoopoe	x		x
<i>Tropicranus albocristatus</i>	White-crested Hornbill	x	x	x
<i>Tockus hartlaubi</i>	Black Dwarf Hornbill			x
<i>Tockus camurus</i>	Red-billed Dwarf Hornbill	x	x	x
<i>Tockus fasciatus</i>	African Pied Hornbill	x	x	x
<i>Bycanistes fistulator</i>	Piping Hornbill	x	x	x
<i>Bycanistes cylindricus</i>	Brown-cheeked Hornbill	x	x	x
<i>Ceratogymna atrata</i>	Black-casqued Hornbill	x	x	x
<i>Ceratogymna elata</i>	Yellow-casqued Hornbill	x	x	x
<i>Gymnobucco calvus</i>	Naked-faced Barbet	x	x	x
<i>Pogoniulus scolopaceus</i>	Speckled Tinkerbird	x	x	x
<i>Pogoniulus atroflavus</i>	Red-rumped Tinkerbird	x	x	x

continued

Table 4.3. *continued*

Species	Common Name	Location		
		North Lorma	Gola	Grebo
<i>Pogoniulus subsulphureus</i>	Yellow-throated Tinkerbird	x	x	x
<i>Buccanodon duchailui</i>	Yellow-spotted Barbet	x	x	x
<i>Tricholaema hirsuta</i>	Hairy-breasted Barbet	x	x	x
<i>Trachylaemus purpuratus</i>	Yellow-billed Barbet			x
<i>Prodotiscus insignis</i>	Cassin's Honeybird		x	x
<i>Melignomon eisentrauti</i>	Yellow-footed Honeyguide	x		
<i>Melichneutes robustus</i>	Lyre-tailed Honeyguide	x		
<i>Indicator maculatus</i>	Spotted Honeyguide	x		
<i>Campethera maculosa</i>	Little Green Woodpecker	x		x
<i>Campethera nivosa</i>	Buff-spotted Woodpecker	x		x
<i>Campethera caroli</i>	Brown-eared Woodpecker	x		x
<i>Dendropicos gabonensis</i>	Gabon Woodpecker	x	x	x
<i>Dendropicos pyrrhogaster</i>	Fire-bellied Woodpecker	x	x	x
<i>Smithornis rufolateralis</i>	Rufous-sided Broadbill	x		x
<i>Psalidoprocne nitens</i>	Square-tailed Saw-wing	x	x	x
<i>Hirundo nigrita</i>	White-throated Blue Swallow		x	
<i>Lobotos lobatus</i>	Western Wattled Cuckoo-shrike			x
<i>Coracina azurea</i>	Blue Cuckoo-shrike	x	x	x
<i>Andropadus gracilis</i>	Little Grey Greenbul	x	x	x
<i>Andropadus ansorgei</i>	Ansorge's Greenbul	x	x	x
<i>Andropadus curvirostris</i>	Cameroon Sombre Greenbul	x	x	x
<i>Calyptocichla serina</i>	Golden Greenbul	x	x	x
<i>Baeopogon indicator</i>	Honeyguide Greenbul	x	x	x
<i>Ixonotus guttatus</i>	Spotted Greenbul	x	x	x
<i>Chlorocichla simplex</i>	Simple Leaflove	x	x	x
<i>Thescelocichla leucopleura</i>	Swamp Palm Bulbul	x	x	x
<i>Phyllastrephus icterinus</i>	Icterine Greenbul	x	x	x
<i>Bleda syndactylus</i>	Red-tailed Bristlebill	x	x	x
<i>Bleda eximius</i>	Green-tailed Bristlebill			x
<i>Bleda canicapillus</i>	Grey-headed Bristlebill	x		x
<i>Criniger barbatus</i>	Western Bearded Greenbul	x	x	x
<i>Criniger calurus</i>	Red-tailed Greenbul	x	x	x
<i>Criniger olivaceus</i>	Yellow-bearded Greenbul	x	x	x
<i>Nicator chloris</i>	Western Nicator	x	x	x
<i>Stiphrornis erythrothorax</i>	Forest Robin	x	x	x
<i>Cossypha cyanocamptor</i>	Blue-shouldered Robin Chat			x
<i>Aethya diademata</i>	Fire-crested Alethe	x	x	x
<i>Neocossyphus poensis</i>	White-tailed Ant Thrush	x	x	x
<i>Stizorbina finschi</i>	Finsch's Flycatcher Thrush	x	x	x

continued

Table 4.3. continued

Species	Common Name	Location		
		North Lorma	Gola	Grebo
<i>Cercotrichas leucosticta</i>	Forest Scrub Robin	x		x
<i>Bathmocercus cerviniventris</i>	Black-headed Rufous Warbler	x		
<i>Apalis nigriceps</i>	Black-capped Apalis	x		x
<i>Apalis sharpii</i>	Sharpe's Apalis	x	x	x
<i>Camaroptera superciliaris</i>	Yellow-browed Camaroptera	x	x	x
<i>Camaroptera chloronota</i>	Olive-green Camaroptera	x	x	x
<i>Macrosphenus kempii</i>	Kemp's Longbill	x	x	x
<i>Macrosphenus concolor</i>	Grey Longbill	x	x	x
<i>Eremomela badiceps</i>	Rufous-crowned Erememela		x	x
<i>Sylvietta virens</i>	Green Crombec	x		x
<i>Sylvietta denti</i>	Lemon-bellied Crombec	x		x
<i>Hyliota violacea</i>	Violet-backed Hyliota		x	x
<i>Hylia prasina</i>	Green Hylia	x	x	x
<i>Fraseria ocreata</i>	Fraser's Forest Flycatcher	x	x	x
<i>Fraseria cinerascens</i>	White-browed Forest Flycatcher	x		
<i>Melaenornis annamarulae</i>	Nimba Flycatcher			x
<i>Muscicapa cassini</i>	Cassin's Flycatcher	x	x	
<i>Muscicapa olivascens</i>	Olivaceous Flycatcher			x
<i>Muscicapa ussheri</i>	Ussher's Flycatcher		x	x
<i>Myioparus griseigularis</i>	Grey-throated Flycatcher		x	x
<i>Erythrocerus mccallii</i>	Chestnut-capped Flycatcher		x	x
<i>Elminia nigromitrata</i>	Dusky Crested Flycatcher	x		
<i>Trochocercus nitens</i>	Blue-headed Crested Flycatcher	x	x	x
<i>Terpsiphone rufiventer</i>	Red-bellied Paradise Flycatcher	x	x	x
<i>Megabyas flammulatus</i>	Shrike Flycatcher	x	x	x
<i>Dyaphorophya castanea</i>	Chestnut Wattle-eye	x	x	x
<i>Dyaphorophya blissetti</i>	Red-cheeked Wattle-eye	x		x
<i>Batis poensis</i>	Bioko Batis		x	
<i>Picathartes gymnocephalus</i>	Yellow-headed Picathartes	x		
<i>Illadopsis fulvescens</i>	Brown Illadopsis	x		x
<i>Illadopsis cleaveri</i>	Blackcap Illadopsis	x		x
<i>Illadopsis rufescens</i>	Rufous-winged Illadopsis	x	x	x
<i>Pholidornis rushiae</i>	Tit-hylia		x	x
<i>Anthreptes gabonicus</i>	Brown Sunbird	x		
<i>Anthreptes rectirostris</i>	Green Sunbird		x	x
<i>Anthreptes seimundi</i>	Little Green Sunbird	x		
<i>Deleornis fraseri</i>	Fraser's Sunbird	x	x	x
<i>Cyanomitra cyanolaema</i>	Blue-throated Brown Sunbird	x	x	x
<i>Chalcomitra adelberti</i>	Buff-throated Sunbird		x	x

continued

Table 4.3. continued

Species	Common Name	Location		
		North Lorma	Gola	Grebo
<i>Cinnyris johannae</i>	Johanna's Sunbird		x	x
<i>Cinnyris superbus</i>	Superb Sunbird		x	
<i>Dryoscopus sabini</i>	Sabine's Puffback		x	x
<i>Laniarius leucorhynchus</i>	Sooty Boubou	x		
<i>Prionops caniceps</i>	Red-billed Helmet-shrike		x	x
<i>Oriolus brachyrhynchus</i>	Western Black-headed Oriole	x	x	x
<i>Dicrurus atripennis</i>	Shining Drongo	x	x	x
<i>Onychognathus fulgidus</i>	Forest Chestnut-winged Starling	x		x
<i>Lamprotornis cupreocauda</i>	Copper-tailed Glossy Starling	x	x	x
<i>Malimbus ballmanni</i>	Gola Malimbe		x	
<i>Malimbus scutatus</i>	Red-vented Malimbe	x	x	x
<i>Malimbus malimbicus</i>	Crested Malimbe	x	x	x
<i>Malimbus nitens</i>	Blue-billed Malimbe	x	x	x
<i>Malimbus rubricollis</i>	Red-headed Malimbe			x
<i>Ploceus nigerrimus</i>	Vieillot's Black Weaver	x		x
<i>Ploceus albinucha</i>	Maxwell's Black Weaver		x	
<i>Nigrita bicolor</i>	Chestnut-breasted Negrofinch	x	x	x
<i>Spermophaga haematina</i>	Western Bluebill		x	x
<i>Pyrenestes sanguineus</i>	Crimson Seedcracker		x	
Number of species recorded		97	90	116

interior. All birds were silent. A not uncommon resident in large forest blocks in Liberia, but not mentioned for the Wologizi area by Gatter (1997).

Bostrychia rara Spot-breasted Ibis

One flew over the village of Jalipo, Grebo National Forest, at dawn, calling loudly, on 7 and 11 December. A rare resident in Liberia and elsewhere in Upper Guinea.

Ciconia episcopus Woolly-necked Stork

One flew over the main track to the SLC clearing, Gola National Forest, on 3 December. A new locality for this resident and not uncommon passage migrant.

Pteronetta hartlaubii Hartlaub's Duck

A female and a pair were observed at two sites in Grebo National Forest. A not uncommon and widespread resident in Liberia. Formerly considered Near Threatened (BirdLife International 2000, 2004), but recently downlisted to Least Concern because of its large range and global population size. In West Africa, however, it seems to have suffered major declines and is now very scarce, with perhaps fewer than 1,000 individuals remaining (BirdLife International 2006c).

Dryotriorchis spectabilis Congo Serpent Eagle

One landed on a perch inside the forest near the main track to Jalipo village, Grebo National Forest, on 11 December. The adult plumage still had some traces of immaturity (a few white tips to the feathers of the small crest, a few pale-tipped wing-coverts, underparts pure white heavily blotched dark brown without barring on the flanks). A not uncommon, but rarely seen resident of high and old secondary forest in Liberia.

Accipiter melanoleucus Black Sparrowhawk

An adult of the typical form and a melanistic individual were seen in the SLC clearing, Gola National Forest. A not uncommon forest resident; widespread in Liberia, but not previously recorded in Gola National Forest.

Poicephalus gularis Red-fronted Parrot

A group of six silently flew over the village of Jalipo, Grebo National Forest, on 11 December. Birds in the westernmost part of the species' range, from Liberia to Ghana, are from the race *fantiensis*, which is generally rare to uncommon. In Liberia, it is an uncommon and local resident, known only from the east.

Agapornis swindernianus Black-collared Lovebird

Observed at two locations in Grebo National Forest, on 8 December (one individual) and the next day (two together). The nominate subspecies is a rare Upper Guinea endemic and Gatter (1997) mentions that it is a very rare or extinct resident in Liberia.

Glaucidium tephronotum Red-chested Owlet

Singles heard calling at two localities in Grebo National Forest, at night and during the daytime on 9–10 December, were the only owls heard during the entire survey. The nominate subspecies is an Upper Guinea endemic and a rare to not uncommon forest resident in Liberia.

Merops muelleri Blue-headed Bee-eater

A pair was observed along the main track near the village of Jalipo, Grebo National Forest, on 11 December. In West Africa, this species is generally a scarce to rare and local forest resident; in Liberia it is uncommon but widespread.

Phoeniculus castaneiceps Forest Wood-hoopoe

One record each for North Lorma (one individual) and Grebo (two) National Forests. A generally scarce to uncommon and local forest resident in West Africa, but not uncommon in Liberia. Care should be taken when mapping this species on call alone, as at both localities we observed Shining Drongo *Dicrurus atripennis* uttering an almost perfect imitation of *P. castaneiceps*' call.

Prodotiscus insignis Cassin's Honeybird

One at Gola National Forest and another at Grebo National Forest. New localities. A rare to uncommon resident in Liberia.

Dendropicos gabonensis Gabon Woodpecker

Recorded at all three sites. Although this is a locally not uncommon to common resident in Liberia, it is considered rare in forest blocks by Gatter (1997), who does not map it in Gola or Grebo National Forests.

Cossypha cyanocampter Blue-shouldered Robin Chat

A singing bird was observed near Jalipo village, Grebo National Forest, on 11 December (with another at Fishtown the next day). Not mapped for the area by Gatter (1997).

Cercotrichas leucosticta Forest Scrub Robin

Recorded at North Lorma and Grebo National Forests. Although mapped for these areas by Gatter (1997), there seem to be few records.

Turdus pelios African Thrush

Although stated to be confined to coastal and northern savannas and not entering clearings in the large forest blocks (Gatter 1997), we recorded singles in the SLC clearing, Gola National Forest, on 27 November and 2 December.

Hippolais (pallida) opaca Western Olivaceous Warbler

Up to three were observed in detail as they foraged at the edge of a patch of *Chromolaena odorata* in the SLC clearing, Gola National Forest, on 27 November–3 December. New locality. Only two previous records of this Palearctic migrant mentioned by Gatter (1997).

***Cisticola brachypterus* Short-winged Cisticola**

A singing pair in the SLC clearing, Gola National Forest, on 27 November–3 December. New locality. Said to occur only in coastal and northern savannas by Gatter (1997).

***Apalis nigriceps* Black-capped Apalis**

Common in Grebo National Forest, with daily records of up to four singing birds. New locality; not mapped for the east by Gatter (1997). Also recorded in North Lorma National Forest (once a single singing bird). According to Gatter (1997), a rare to not uncommon resident in northern highlands, above 500 m, but our observations confirm that this species also occurs in lowland forest.

***Apalis sharpii* Sharpe's Apalis**

This Upper Guinea endemic was common at all three sites, with daily observations of up to seven birds.

***Myioparus griseigularis* Grey-throated Flycatcher**

One singing bird was seen and tape-recorded at Gola National Forest on 2 December and singles were found at two locations in Grebo National Forest, on 7 and 9 December. New localities; previously only recorded from Yekapa/Nimba and considered a rare, though probably overlooked, resident (Gatter 1997).

***Myioparus plumbeus* Lead-coloured Flycatcher**

One was singing at Luyema and another at a clearing 3 km further, North Lorma National Forest, on 19 November, and one was heard and seen well at the SLC clearing, Gola National Forest, on 27 November–3 December. The only records mentioned by Gatter (1997) are two collected in 1891 near Monrovia.

***Cinnyricinclus leucogaster* Violet-backed Starling**

Two females in the SLC clearing, Gola National Forest, on 1 December. New locality. A common dry season visitor to coastal savannas, but rare inland (Gatter 1997).

Evidence of breeding***Stiphornis erythrothorax* Forest Robin**

An immature was mist-netted in Grebo National Forest on 9 December.

***Apalis sharpii* Sharpe's Apalis**

A pair with a juvenile along the road to the SLC clearing on 1 December.

***Hylia prasina* Green Hylia**

A pair with a juvenile in Grebo National Forest on 10 December.

***Dyaphorophya castanea* Chestnut Wattle-eye**

Parents accompanied by a juvenile were seen at two sites in Grebo National Forest, on 7 and 10 December.

***Batis poensis* Bioko Batis**

A pair was observed at its nest in Gola National Forest on 27 November. The moss-covered nest was at 20 m height on a bare horizontal branch of a tall tree next to a wide forest track. On 3 December, it was seen to contain two feathered nestlings. New locality for this rare, but probably overlooked forest resident in Liberia and the third nest record for its entire range (Urban et al. 1997).

***Spermophaga haematina* Western Bluebill**

A few juveniles with an adult in Gola National Forest on 1 December.

***Pyrenestes sanguineus* Crimson Seedcracker**

Several juveniles with adults in the SLC clearing, Gola National Forest, 27 November – 3 December.

Miscellaneous noteworthy records made outside the three surveyed forests

A few records, made outside the surveyed forests, are worthy of note, as they constitute new localities for the species involved, based on the species accounts and distribution maps in Gatter (1997).

***Falco biarmicus* Lanner Falcon**

One seen at Monrovia on 14 December (with O. Langrand, F. Molubah and K.-D. Dijkstra). Only mapped for the north of the country by Gatter (1997), where said to be a dry-season visitor.

***Dendropicos fuscescens* Cardinal Woodpecker**

A male seen well on one of the few trees in the UNMIL compound at Voinjama (08°25'N, 09°45'W) on 26 November. Only one record, from 1984 near Bawomai (08°28'N, 09°55'W), mentioned by Gatter (1997).

***Psalidoprocne obscura* Fanti Saw-wing**

Up to 25 seen at Fishtown on 11–12 December. This African migrant, said to be rare to not uncommon in Liberia, is not mapped for the area by Gatter (1997).

***Hirundo abyssinica* Lesser Striped Swallow**

Up to four seen at Fishtown on 11–12 December. Not mapped for the south-east by Gatter (1997).

***Hirundo preussi* Preuss's Cliff Swallow**

A colony of c.100 active nests under the eaves of the UNMIL headquarters at Voinjama. Said to be a rare (dry season?) visitor by Gatter (1997).

***Anthus leucophrys* Plain-backed Pipit**

A pair, one member of which was singing, on farmland at Fishtown on 12 December. Not mapped for the area by Gatter (1997).

Oriolus nigripennis Black-winged Oriole

One at Fishtown on 12 December. Not mapped for the area by Gatter (1997).

DISCUSSION

The total number of 211 species recorded across all three sites, representing about a third of Liberia's avifauna, is relatively high considering the short study period (20 days of field work) and the limited area that could be covered due to the difficulty of access to two of the sites. Several records represent range extensions, as compared to the distribution maps in Gatter (1997) and Borrow and Demey (2004). New and reliable information on the avifauna of the three forests and on the distribution of birds species within Liberia has thus been gathered. By comparison, 179 species were recorded in Haute Dodo and Cavally Forest Reserves, Côte d'Ivoire, over 15 days in 2002 (Demey and Rainey 2005) and 170 in Draw River, Boi Tano and Krokosua Hills Forest Reserves, Ghana, over 17 days in 2003 (Rainey and Asamoah 2005).

Twelve of the 15 restricted-range species, i.e. species which have a global breeding range of less than 50,000 km², that make up the Upper Guinea forests Endemic Bird Area and 136 of the 184 Guinea-Congo forests biome species recorded in Liberia (Stattersfield et al. 1998, Robertson 2001), or 74%, were found during the study. Several of the biome-restricted species had not been recorded for the IBAs in which the three forests are partly or entirely included (Robertson 2001): **four in North Lorma National Forest, 24 in Gola National Forest, and 11 in Grebo National Forest (Table 4.3).**

For North Lorma National Forest, the good condition of the forest and the records of the poorly-known Yellow-footed Honeyguide and the colony of the charismatic Yellow-headed Picathartes are particularly noteworthy.

Although only six species of global conservation concern were found in Gola National Forest, **one of these was the Gola Malimbe**, the rarest and most threatened species on our list. This is especially noteworthy as access to this forest was particularly difficult and field work inside the forest proper was limited to three days in a small area in the camp environs.

Despite the heavy logging to which parts of Grebo National Forest were subjected in the past, the site still contained substantial patches of good forest, as attested by the presence of White-breasted Guinea fowl, which was recorded at this site only. Although only a small part of Grebo National Forest, east of our study site, was selected by Robertson (2001) to form the Cavalla River IBA, presumably because that area was proposed as a Nature Reserve in 1983, our field work suggests that a much larger part, possibly even all of the National Forest, qualifies as an IBA. We have therefore compared our Grebo National Forest species list given in Table 4.3 with the list given for the more restricted Cavalla River IBA by Robertson (2001).

Overall, the rapid survey of the three National Forests was definitely successful in its aim to collect fresh and reliable data on their avifauna and thus produce a rapid, first-cut assessment of the value for birds of these relatively poorly-known sites. The species accumulation rates suggest that the number of species will continue to rise substantially after further survey work.

CONSERVATION RECOMMENDATIONS

Considering the high conservation value of the three forests, the following recommendations are made:

Carry out further surveys at different times of year to complete the avifaunal species lists, evaluate the threats to species of conservation concern and estimate their population sizes.

Associate Liberian conservation NGOs and local villagers with the survey work, to strengthen capacity of the former and generate awareness of conservation issues in the latter.

Keep substantial portions of all three forests free from logging, in order to aid survival of plant and animal species that require intact high forest and permit recolonisation of logged areas. Although many forest birds may survive in logged forest for some time at least, certain species, such as White-breasted Guinea fowl, need an open understorey to survive in the long term; this kind of habitat can only be found in intact forest. Although Grebo National Forest had been logged fairly recently, the alternation of closed-canopy forest patches with degraded areas made for a high bird diversity with species dependent on good forest also venturing into logged areas.

Rigorously control the awarding of logging concessions and the logging process itself. The type of logging can indeed make a crucial difference to the ultimate survival of forest-restricted species. Carefully implemented selective logging, causing a limited amount of collateral damage and leaving a significant percentage of 'uneconomic' tree species standing, may allow certain bird species to remain in the area and also favor forest regeneration. The majority of the species of global conservation concern recorded during this study occurred within or at the edge of high forest and were absent from the more degraded areas that had been extensively logged.

Curtailed hunting within the three forests. Although hunters currently mainly target mammals, certain large bird species, such as White-breasted Guinea fowl, Crested Guinea fowl, Great Blue Turaco and large hornbills, also fall victim to hunting, which could constitute a major threat to the survival of these species.

Include the whole or at least the major part of Grebo National Forest into an enlarged Cavalla River IBA, as our data suggest that the site holds both significant numbers of globally threatened species and a significant component of species restricted to the Guinea-Congo forests biome.

Examine the feasibility to confer National Park status to Grebo National Forest in order to raise the protection status

of the site. As stated before our data suggests that there are significant numbers of species of conservation concern that are restricted to these forests.

Put in place monitoring programs to assess the impact of all human activities on bird populations and associate local communities (especially hunters) with these.

Publicize the organisation of conservation-related actions in the three forests and make all information concerning these sites widely available.

REFERENCES

- Allport, G., M. Ausden, P.V. Hayman, P. Robertson and P. Wood. 1989. The Conservation of the Birds of Gola Forest, Sierra Leone. Study Report No. 38. International Council for Bird Preservation, Cambridge, UK.
- BirdLife International. 2000. Threatened Birds of the World. Lynx Edicions and BirdLife International. Barcelona, Spain and Cambridge, UK.
- BirdLife International. 2004. Threatened Birds of the World 2004. CD-ROM. BirdLife International. Cambridge, UK.
- BirdLife International. 2006a. Species factsheet: *Agelastes meleagrides*. Downloaded from <http://www.birdlife.org> on 3 August 2006.
- BirdLife International. 2006b. Species factsheet: *Malaconotus lagdeni*. Downloaded from <http://www.birdlife.org> on 3 August 2006.
- BirdLife International. 2006c. Species factsheet: *Pteronetta hartlaubii*. Downloaded from <http://www.birdlife.org> on 3 August 2006.
- Borrow, N. and R. Demey. 2001. Birds of Western Africa. Christopher Helm. London.
- Borrow, N. and R. Demey. 2004. Field Guide to the Birds of Western Africa. Christopher Helm. London.
- Chappuis, C. 2000. African Bird Sounds: Birds of North, West and Central Africa and Neighbouring Atlantic Islands. 15 CDs. Société d'Etudes Ornithologiques de France and British Library National Sound Archive. Paris and London.
- Demey, R. and H.J. Rainey. 2004. A preliminary survey of the birds of the Forêt Classée du Pic de Fon. *In*: McCullough, J. (ed.). A Rapid Biological Assessment of the Forêt Classée du Pic de Fon, Simandou Range, South-eastern Republic of Guinea. RAP Bulletin of Biological Assessment 35. Conservation International. Washington, DC. Pp. 63–68.
- Demey, R. and H.J. Rainey. 2005. A rapid survey of the birds of Haute Dodo and Cavally Classified Forests. *In*: Alonso, L. E., F. Lauginie and G. Rondeau (eds.). A Rapid Biological Assessment of Two Classified Forests in South-western Côte d'Ivoire. RAP Bulletin of Biological Assessment 34. Conservation International. Washington, DC. Pp. 84–90.
- Gatter, W. 1997. Birds of Liberia. Pica Press. Robertsbridge.
- Gartshore, M.E. 1989. An Avifaunal Survey of Tai National Park, Ivory Coast. Study Report No. 39. International Council for Bird Preservation, Cambridge, UK.
- Gartshore, M.E., P.D. Taylor and I.S. Francis. 1995. Forest Birds in Côte d'Ivoire. A survey of Tai National Park and other forests and forestry plantations, 1989–1991. Study Report No. 58. BirdLife International, Cambridge, UK.
- ICBP. 1992. Putting Biodiversity on the Map: Priority Areas for Global Conservation. International Council for Bird Preservation. Cambridge, UK.
- Mittermeier, R.A., P. Robles Gil, M. Hoffmann, J. Pilgrom, T. Brooks, C.G. Mittermeier, J. Lamoreux and G.A.B. da Fonseca (eds.). 2004. Hotspots Revisited. Earth's Biologically Richest and Most Endangered Terrestrial Ecoregions. CEMEX/Agrupación Sierra Madre, Mexico City.
- Rainey, H.J. and A. Asamoah. 2005. Rapid assessment of the birds of Draw River, Boi-Tano and Krokosua Hills. *In*: McCullough, J., J. Decher and D.G. Kpelle (eds.). A Biological Assessment of the Terrestrial Ecosystems of the Draw River, Boi-Tano, Tano Nimiri and Krokosua Hills Forest Reserves, Southwestern Ghana. RAP Bulletin of Biological Assessment 36. Conservation International. Washington, DC. Pp. 50–56.
- Robertson, P. 2001. Liberia. *In*: L.D.C. Fishpool and M.I. Evans (eds.). Important Bird Areas in Africa and Associated Islands: Priority Sites for Conservation. Pisces Publications and BirdLife International, Newbury and Cambridge, UK. Pp. 473–480.
- Stattersfield, A.J, M.J. Crosby, A.J. Long and D.C. Wege. 1998. Endemic Bird Areas of the World: Priorities for Biodiversity Conservation. BirdLife International. Cambridge, UK.
- Urban, E.K., C.H. Fry and S. Keith (eds.). 1997. The Birds of Africa. Vol. 5. Academic Press, London.

Appendix 7

Bird species recorded in North Lorma, Gola and Grebo National Forests.

Ron Demey

Encounter rate :

C = Common: encountered daily, either singly or in significant numbers

F = Fairly common: encountered on most days

U = Uncommon: irregularly encountered and not on the majority of days

R = Rare: rarely encountered, one or two records of single individuals

Breeding :

b = evidence of breeding observed (nest with eggs or young, or juveniles with parents)

Threat Status :

EN = Endangered

VU = Vulnerable

DD = Data Deficient

NT = Near Threatened

Endemism :

UG = endemic to the Upper Guinea forest block

Biome :

GC = restricted to Guinea-Congo Forests biome

Habitat :

f = primary or old secondary forest

d = degraded or heavily logged forest

e = forest edge

o = open areas (large clearings, cultivation, etc)

w = rivers, streams, swamps and ponds

a = aerial and flying overhead

Taxa	Common Name	North Lorma	Gola	Grebo	Threat Status	Endemism	GC Forests Biome	Habitat
ARDEIDAE								
<i>Tigriornis leucolopha</i>	White-crested Tiger Heron			R			GC	w
<i>Ixobrychus sturmii</i>	Dwarf Bittern		R					w
<i>Bubulcus ibis</i>	Cattle Egret		R					o
<i>Ardea cinerea / melanocephala</i>	Grey / Black-headed Heron			R				a
CICONIIDAE								
<i>Ciconia episcopus</i>	Woolly-necked Stork		R					a
THRESKIORNITHIDAE								
<i>Bostrychia hagedash</i>	Hadada Ibis	U	R					w
<i>Bostrychia olivacea</i>	Olive Ibis	U						w
<i>Bostrychia rara</i>	Spot-breasted Ibis			R			GC	a
ANATIDAE								
<i>Pteronetta hartlaubii</i>	Hartlaub's Duck			R			GC	w

continued

Taxa	Common Name	North Lorma	Gola	Grebo	Threat Status	Endemism	GC Forests Biome	Habitat
ACCIPITRIDAE								
<i>Gypohierax angolensis</i>	Palm-nut Vulture	U	F	C				f, d, a
<i>Dryotriorchis spectabilis</i>	Congo Serpent Eagle				R		GC	d
<i>Polyboroides typus</i>	African Harrier Hawk	U	R	F				f, d, a
<i>Accipiter tachiro</i>	African Goshawk	U	U	F				f, d
<i>Accipiter melanoleucus</i>	Black Sparrowhawk		R					o
<i>Urotriorchis macrourus</i>	Long-tailed Hawk	R					GC	f
<i>Stephanoaetus coronatus</i>	Crowned Eagle				R			d
PHASIANIDAE								
<i>Francolinus lathamii</i>	Latham's Forest Francolin	F	U	C			GC	f, d
<i>Francolinus ahantensis</i>	Ahanta Francolin		F	F			GC	e
NUMIDIDAE								
<i>Agelastes meleagrides</i>	White-breasted Guineafowl				U	VU	UG	GC
<i>Guttera pucherani</i>	Crested Guineafowl				R			d
RALLIDAE								
<i>Himantornis haematopus</i>	Nkulengu Rail				F		GC	d
<i>Sarothrura pulchra</i>	White-spotted Flufftail	F	F	C			GC	w
HELIORNITHIDAE								
<i>Podica senegalensis</i>	African Finfoot	U						w
GLAREOLIDAE								
<i>Glareola nuchalis</i>	Rock Pratincole		U					w
CHARADRIIDAE								
<i>Vanellus albiceps</i>	White-headed Lapwing	R						w
SCOLOPACIDAE								
<i>Actitis hypoleucos</i>	Common Sandpiper	U						w
COLUMBIDAE								
<i>Treron calvus</i>	African Green Pigeon	C	C	C				f, d, e
<i>Turtur brehmeri</i>	Blue-headed Wood Dove	C	C	C			GC	f, d
<i>Turtur tympanistria</i>	Tambourine Dove	F	F	U				d, e
<i>Turtur afer</i>	Blue-spotted Wood Dove	F	R	U				e, o
<i>Columba iriditorques</i>	Western Bronze-naped Pigeon	F	C	F			GC	f, d
<i>Columba unicincta</i>	Afep Pigeon	R					GC	f
<i>Streptopelia semitorquata</i>	Red-eyed Dove	F			F			e, o
PSITTACIDAE								
<i>Psittacus erithacus</i>	Grey Parrot	F	U	C			GC	f, d, a
<i>Poicephalus gulielmi</i>	Red-fronted Parrot				U			a
<i>Agapornis swindernianus</i>	Black-collared Lovebird				R		GC	d
MUSOPHAGIDAE								
<i>Corythaeola cristata</i>	Great Blue Turaco	C	R	F				f, d
<i>Tauraco macrorhynchus</i>	Yellow-billed Turaco	C	F	C			GC	f, d

continued

Taxa	Common Name	North Lorma	Gola	Grebo	Threat Status	Endemism	GC Forests Biome	Habitat
CUCULIDAE								
<i>Oxylophus levaillantii</i>	Levaillant's Cuckoo		R	R				e
<i>Cuculus clamosus</i>	Black Cuckoo			R				d
<i>Cercococcyx mechowi</i>	Dusky Long-tailed Cuckoo			F			GC	d
<i>Cercococcyx olivinus</i>	Olive Long-tailed Cuckoo	U	U	U			GC	f, d
<i>Chrysococcyx cupreus</i>	African Emerald Cuckoo	U	F	F				f, d
<i>Chrysococcyx klaas</i>	Klaas's Cuckoo	U	U					o
<i>Chrysococcyx caprius</i>	Didric Cuckoo		R					o
<i>Ceuthmochares aereus</i>	Yellowbill	C	F	F				f, d
<i>Centropus leucogaster</i>	Black-throated Coucal	U	U	F			GC	f, d
<i>Centropus senegalensis</i>	Senegal Coucal	R	R	R				e, o
STRIGIDAE								
<i>Glaucidium tephronotum</i>	Red-chested Owlet			R			GC	d
APODIDAE								
<i>Rhaphidura sabini</i>	Sabine's Spinetail	U	F	F			GC	a
<i>Apus apus</i>	Common Swift	F	C	C				a
TROGONIDAE								
<i>Apaloderma narina</i>	Narina's Trogon	F	U	F				f, d
ALCEDINIDAE								
<i>Halcyon badia</i>	Chocolate-backed Kingfisher	C	F	C			GC	f, d
<i>Halcyon leucocephala</i>	Grey-headed Kingfisher		R					o
<i>Halcyon malimbica</i>	Blue-breasted Kingfisher	F	F	U				f, d
<i>Halcyon senegalensis</i>	Woodland Kingfisher		R	R				o
<i>Ceyx lecontei</i>	African Dwarf Kingfisher	R	R	R			GC	f, d, e
<i>Ceyx pictus</i>	African Pygmy Kingfisher	R	U					o
<i>Alcedo leucogaster</i>	White-bellied Kingfisher	R		R			GC	w
<i>Alcedo quadribrachys</i>	Shining-blue Kingfisher	R	R	R				w
<i>Megaceryle maxima</i>	Giant Kingfisher	R						w
MEROPIIDAE								
<i>Merops muelleri</i>	Blue-headed Bee-eater			R			GC	e
<i>Merops gularis</i>	Black Bee-eater		U	R			GC	e
<i>Merops albicollis</i>	White-throated Bee-eater	F	C	C				o, a
CORACIIDAE								
<i>Eurystomus gularis</i>	Blue-throated Roller	R	R				GC	f, d
<i>Eurystomus glaucurus</i>	Broad-billed Roller			U				o
PHOENICULIDAE								
<i>Phoeniculus castaneiceps</i>	Forest Wood-hoopoe	R		R			GC	f, d
BUCEROTIDAE								
<i>Tropicranus albocristatus</i>	White-crested Hornbill	U	U	R			GC	f, d
<i>Tockus hartlaubi</i>	Black Dwarf Hornbill			R			GC	e
<i>Tockus camurus</i>	Red-billed Dwarf Hornbill	C	F	U			GC	f, d

continued

Taxa	Common Name	North Lorma	Gola	Grebo	Threat Status	Endemism	GC Forests Biome	Habitat
<i>Tockus fasciatus</i>	African Pied Hornbill	F	F	F			GC	f, d, e
<i>Bycanistes fistulator</i>	Piping Hornbill	R	U	F			GC	f, d, e
<i>Bycanistes cylindricus</i>	Brown-cheeked Hornbill	C	C	C	NT	UG	GC	f, d
<i>Ceratogymna atrata</i>	Black-casqued Hornbill	F	C	C			GC	f, d
<i>Ceratogymna elata</i>	Yellow-casqued Hornbill	C	C	C	NT		GC	f, d
CAPITONIDAE								
<i>Gymnobucco calvus</i>	Naked-faced Barbet	C	F	C			GC	f, d, e
<i>Pogoniulus scolopaceus</i>	Speckled Tinkerbird	C	C	C			GC	f, d, e
<i>Pogoniulus atroflavus</i>	Red-rumped Tinkerbird	C	C	C			GC	f, d
<i>Pogoniulus subsulphureus</i>	Yellow-throated Tinkerbird	C	C	C			GC	f, d, e
<i>Bucanodon duchaillui</i>	Yellow-spotted Barbet	C	C	C			GC	f, d
<i>Tricholaema hirsuta</i>	Hairy-breasted Barbet	R	U	C			GC	f, d
<i>Trachylaemus purpuratus</i>	Yellow-billed Barbet			F			GC	d
INDICATORIDAE								
<i>Prodotiscus insignis</i>	Cassin's Honeybird		R	R			GC	d
<i>Melignomon eisentrauti</i>	Yellow-footed Honeyguide	R			DD		GC	f
<i>Melichneutes robustus</i>	Lyre-tailed Honeyguide	R					GC	f
<i>Indicator maculatus</i>	Spotted Honeyguide	R					GC	f
<i>Indicator conirostris</i>	Thick-billed Honeyguide		R	R				d, e
PICIDAE								
<i>Campethera maculosa</i>	Little Green Woodpecker	R		F			GC	d
<i>Campethera nivosa</i>	Buff-spotted Woodpecker	R		U			GC	f, d
<i>Campethera caroli</i>	Brown-eared Woodpecker	U		R			GC	f, d
<i>Dendropicos gabonensis</i>	Gabon Woodpecker	R	R	R			GC	d
<i>Dendropicos pyrrhogaster</i>	Fire-bellied Woodpecker	R	R	R			GC	d
EURYLAIMIDAE								
<i>Smithornis rufolateralis</i>	Rufous-sided Broadbill	F		F			GC	f, d
HIRUNDINIDAE								
<i>Psalidoprocne nitens</i>	Square-tailed Saw-wing	F	C	F			GC	o
<i>Hirundo abyssinica</i>	Lesser Striped Swallow		R					o
<i>Hirundo nigrita</i>	White-throated Blue Swallow		R				GC	w
<i>Hirundo rustica</i>	Barn Swallow	U	R					o
MOTACILLIDAE								
<i>Motacilla flava</i>	Yellow Wagtail		U					o
<i>Motacilla clara</i>	Mountain Wagtail	R	F					w
<i>Motacilla aguimp</i>	African Pied Wagtail		U					o, w
CAMPEPHAGIDAE								
<i>Campephaga quiscalina</i>	Purple-throated Cuckoo-shrike	R		R				f, d
<i>Lobotos lobatus</i>	Western Wattled Cuckoo-shrike			R	VU	UG	GC	d
<i>Coracina azurea</i>	Blue Cuckoo-shrike	C	C	C			GC	f, d

continued

Taxa	Common Name	North Lorma	Gola	Grebo	Threat Status	Endemism	GC Forests Biome	Habitat
PYCNONOTIDAE								
<i>Andropadus virens</i>	Little Greenbul	C	C	C				d, e
<i>Andropadus gracilis</i>	Little Grey Greenbul	U	U	F			GC	d, e
<i>Andropadus ansorgei</i>	Ansorge's Greenbul	C	C	C			GC	f, d, e
<i>Andropadus curvirostris</i>	Cameroon Sombre Greenbul	R	U	F			GC	f, d, e
<i>Andropadus gracilirostris</i>	Slender-billed Greenbul	C	C	C				f, d, e
<i>Andropadus latirostris</i>	Yellow-whiskered Greenbul	C	C	C				f, d
<i>Calyptocichla serina</i>	Golden Greenbul	R	F	U			GC	f, d, e
<i>Baeopogon indicator</i>	Honeyguide Greenbul	C	C	C			GC	f, d, e
<i>Ixonotus guttatus</i>	Spotted Greenbul	C	C	C			GC	f, d
<i>Chlorocichla simplex</i>	Simple Leaflove	R	C	U			GC	o
<i>Thescelocichla leucopleura</i>	Swamp Palm Bulbul	C	C	F			GC	f, d
<i>Phyllastrephus icterinus</i>	Icterine Greenbul	C	U	C			GC	f, d
<i>Bleda syndactylus</i>	Red-tailed Bristlebill	U	F	F			GC	f, d
<i>Bleda eximius</i>	Green-tailed Bristlebill			U	VU	UG	GC	d
<i>Bleda canicapillus</i>	Grey-headed Bristlebill	C		C			GC	f, d
<i>Criniger barbatus</i>	Western Bearded Greenbul	C	F	C			GC	f, d
<i>Criniger calurus</i>	Red-tailed Greenbul	C	F	C			GC	f, d
<i>Criniger olivaceus</i>	Yellow-bearded Greenbul	F	U	U	VU	UG	GC	f, d
<i>Pycnonotus barbatus</i>	Common Bulbul		F					o
<i>Nicator chloris</i>	Western Nicator	C	C	C			GC	f, d, e
TURDIDAE								
<i>Stiphrornis erythrothorax</i>	Forest Robin	F	U	C / b			GC	f, d
<i>Luscinia megarhynchos</i>	Common Nightingale		U					o
<i>Cossypha cyanocampter</i>	Blue-shouldered Robin Chat			R			GC	e
<i>Alethe diademata</i>	Fire-crested Alethe	C	F	C			GC	f, d
<i>Alethe poliocephala</i>	Brown-chested Alethe	R						f
<i>Neocossyphus poensis</i>	White-tailed Ant Thrush	C	F	C			GC	f, d
<i>Stizorhina finschi</i>	Finsch's Flycatcher Thrush	C	C	C			GC	f, d
<i>Cercotrichas leucosticta</i>	Forest Scrub Robin	U		R			GC	f, d
<i>Turdus pelios</i>	African Thrush		U					o
SYLVIIDAE								
<i>Bathmocercus cerviniventris</i>	Black-headed Rufous Warbler	R			NT	UG	GC	e
<i>Hippolais pallida</i>	Olivaceous Warbler		U					o
<i>Cisticola lateralis</i>	Whistling Cisticola	R						o
<i>Cisticola brachypterus</i>	Short-winged Cisticola		F					o
<i>Prinia subflava</i>	Tawny-flanked Prinia		F	U				o
<i>Apalis nigriceps</i>	Black-capped Apalis	R		C			GC	f, d
<i>Apalis sharpii</i>	Sharpe's Apalis	C	C / b	C		UG	GC	f, d
<i>Camaroptera brachyura</i>	Grey-backed Camaroptera	U	F					e, o

continued

Taxa	Common Name	North Lorma	Gola	Grebo	Threat Status	Endemism	GC Forests Biome	Habitat
<i>Camaroptera superciliaris</i>	Yellow-browed Camaroptera	C	C	F			GC	e, o
<i>Camaroptera chloronota</i>	Olive-green Camaroptera	C	C	C			GC	f, d, e
<i>Macrosphenus kempii</i>	Kemp's Longbill	U	C	F			GC	e
<i>Macrosphenus concolor</i>	Grey Longbill	C	C	C			GC	f, d, e
<i>Eremomela badiceps</i>	Rufous-crowned Eremomela		U	U			GC	d, e
<i>Sylvietta virens</i>	Green Crombec	F		U			GC	e
<i>Sylvietta denti</i>	Lemon-bellied Crombec	U		U			GC	d, e
<i>Phylloscopus trochilus</i>	Willow Warbler		U					o
<i>Hylia violacea</i>	Violet-backed Hylia		U	U			GC	d, e
<i>Hylia prasina</i>	Green Hylia	C	C	C / b			GC	f, d, e
MUSCICAPIDAE								
<i>Fraseria ocreata</i>	Fraser's Forest Flycatcher	R	F	C			GC	f, d, e
<i>Fraseria cinerascens</i>	White-browed Forest Flycatcher	U					GC	w
<i>Melaenornis annamarulae</i>	Nimba Flycatcher			F	VU	UG	GC	d
<i>Muscicapa cassini</i>	Cassin's Flycatcher	C	U				GC	w
<i>Muscicapa olivascens</i>	Olivaceous Flycatcher			R			GC	e
<i>Muscicapa comitata</i>	Dusky-blue Flycatcher	R		R				e
<i>Muscicapa ussheri</i>	Ussher's Flycatcher		U	F			GC	d, e
<i>Myioparus griseigularis</i>	Grey-throated Flycatcher		R	R			GC	e
<i>Myioparus plumbeus</i>	Lead-coloured Flycatcher	R	R					e, o
MONARCHIDAE								
<i>Erythrocerus mccallii</i>	Chestnut-capped Flycatcher		U	U			GC	f, d
<i>Elminia nigromitrata</i>	Dusky Crested Flycatcher	R					GC	f
<i>Trochocercus nitens</i>	Blue-headed Crested Flycatcher	C	F	C			GC	f, d, e
<i>Terpsiphone rufiventer</i>	Red-bellied Paradise Flycatcher	C	F	C			GC	f, d, e
PLATYSTEIRIDAE								
<i>Megabyas flammulatus</i>	Shrike Flycatcher	R	R	R			GC	f, d
<i>Dyaphorophyia castanea</i>	Chestnut Wattle-eye	F	F	F / b			GC	f, d
<i>Dyaphorophyia blissetti</i>	Red-cheeked Wattle-eye	U		R			GC	e
<i>Dyaphorophyia concreta</i>	Yellow-bellied Wattle-eye	R	R					f
<i>Batis poensis</i>	Bioko Batis		R / b				GC	f
PICATHARTIDAE								
<i>Picathartes gymnocephalus</i>	Yellow-headed Picathartes	U			VU	UG	GC	f
TIMALIIDAE								
<i>Illadopsis rufipennis</i>	Pale-breasted Illadopsis	F		F				f
<i>Illadopsis fulvescens</i>	Brown Illadopsis	F		C			GC	e
<i>Illadopsis cleaveri</i>	Blackcap Illadopsis	U		C			GC	f, d
<i>Illadopsis rufescens</i>	Rufous-winged Illadopsis	F	R	C	NT	UG	GC	f, d

continued

Taxa	Common Name	North Lorma	Gola	Grebo	Threat Status	Endemism	GC Forests Biome	Habitat
REMIZIDAE								
<i>Pholidornis rufica</i>	Tit-hylia		R	U			GC	d, e
NECTARINIIDAE								
<i>Anthreptes gabonicus</i>	Brown Sunbird	R					GC	w
<i>Anthreptes rectirostris</i>	Green Sunbird		F	F			GC	d, e
<i>Anthreptes seimundi</i>	Little Green Sunbird	R		?			GC	f
<i>Deleornis fraseri</i>	Fraser's Sunbird	F	F	C / b			GC	f, d
<i>Cyanomitra cyanolaema</i>	Blue-throated Brown Sunbird	U	C	C			GC	f, d, e
<i>Cyanomitra olivacea</i>	Olive Sunbird	C	C	C				f, d, e
<i>Chalcomitra adalberti</i>	Buff-throated Sunbird		R	R			GC	d, e
<i>Hedydipna collaris</i>	Collared Sunbird	U	C	C				d, e, o
<i>Cinnyris chloropygius</i>	Olive-bellied Sunbird	F	F					o
<i>Cinnyris johannae</i>	Johanna's Sunbird		C	C			GC	f, d, e
<i>Cinnyris superbus</i>	Superb Sunbird		R				GC	d
MALACONOTIDAE								
<i>Malaconotus lagdeni</i>	Lagden's Bush-shrike			R	NT			d, e
<i>Malaconotus multicolor</i>	Many-coloured Bush-shrike	U	F	U				f, d
<i>Dryoscopus sabini</i>	Sabine's Puffback		F	C			GC	f, d
<i>Laniarius leucorhynchus</i>	Sooty Boubou	U					GC	e
PRIONOPIIDAE								
<i>Prionops caniceps</i>	Red-billed Helmet-shrike		R	U			GC	f, d
ORIOIIDAE								
<i>Oriolus brachyrhynchus</i>	Western Black-headed Oriole	C	C	C / b			GC	f, d
DICRURIDAE								
<i>Dicrurus atripennis</i>	Shining Drongo	F	F	F			GC	f, d
<i>Dicrurus modestus</i>	Velvet-mantled Drongo	F	R	C				f, d, e
STURNIDAE								
<i>Onychognathus fulgidus</i>	Forest Chestnut-winged Starling	R		R			GC	f, d
<i>Lamprotornis cupreicauda</i>	Copper-tailed Glossy Starling	U	C	C	NT	UG	GC	f, d, e
<i>Cinnyricinclus leucogaster</i>	Violet-backed Starling		R					o
PLOCEIDAE								
<i>Malimbus ballmanni</i>	Gola Malimbe		F / b		EN	UG	GC	f
<i>Malimbus scutatus</i>	Red-vented Malimbe	F	U	F			GC	f, d, e
<i>Malimbus malimbicus</i>	Crested Malimbe	U	U	U			GC	f, d, e
<i>Malimbus nitens</i>	Blue-billed Malimbe	F	U	C / b			GC	f, d, e
<i>Malimbus rubricollis</i>	Red-headed Malimbe			F			GC	d, e
<i>Ploceus nigerrimus</i>	Vieillot's Black Weaver	U		U / b			GC	o
<i>Ploceus cucullatus</i>	Village Weaver	C / b	C / b					o
<i>Ploceus albinucha</i>	Maxwell's Black Weaver		R				GC	f
<i>Euplectes hordeaceus</i>	Black-winged Red Bishop	R						o

continued

Taxa	Common Name	North Lorma	Gola	Grebo	Threat Status	Endemism	GC Forests Biome	Habitat
ESTRILDIDAE								
<i>Nigrita canicapillus</i>	Grey-headed Negrofinch	U	F	C				f, d, e
<i>Nigrita bicolor</i>	Chestnut-breasted Negrofinch	U	F	F			GC	f, d, e
<i>Estrilda melpoda</i>	Orange-cheeked Waxbill	U						o
<i>Spermophaga haematina</i>	Western Bluebill		U / b	R			GC	d, e
<i>Pyrenestes sanguineus</i>	Crimson Seedcracker		C / b				GC	e, o
<i>Spermestes bicolor</i>	Black-and-white Mannikin		F / b	R				o
TOTALS		143	145	156	14	12	136	
			211					