

**WILDLIFE DIVISION
(FORESTRY COMMISSION)**



REPUBLIC OF GHANA

**Wildlife Division Support Project
(WDSP)**

**ORNITHOLOGICAL SURVEYS
IN MOLE NATIONAL PARK
(AUGUST-SEPTEMBER 2004)**

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(WDSP Report No.)

November 2004

In collaboration with
IUCN
The World Conservation Union

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1. INTRODUCTION

Mole National Park, covering some 4840 km², is the largest wildlife reserve in Ghana, protecting a sizeable chunk of Sudanian (= Guinea-Sudanian) woodland in the north of the country. The elevation ranges from 120 to 490 m a.s.l. (Schmitt & Adu-Nsiah 1993); the topography is mostly flat, with the narrow Konkori Scarp running north-south. Most of the rivers and streams (which drain into the White Volta) are seasonal. The Park was gazetted in 1971 (having been a Game Reserve since 1958).

With the creation of an important system of roads in the late 1960s, and the challenge presented by the conservation of (initially) important populations of large mammals, the park has attracted a certain amount of scientific activity in past decades, including a few bird surveys. The latter were conducted mainly by students from overseas with no local experience, and in particular the status of many bird species remained uncertain due to the lack of year-round observations. The present survey took place in the peak of the rains in August-September 2004: we recorded 220 species in just over a month, operating in a small section of the south and around some of the boundary camps -- the interior of the Park being inaccessible at this time of year. In addition we have assessed and incorporated all published

and a number of unpublished records in order to produce a consolidated list of "acceptable" species for Mole. For the sake of clarity the annotated bird list is split into three sections: species directly observed by us (220 species), species reliably reported by other observers (115) and rejected species (52). Mole has been visited often enough that we find it superfluous to present a fourth list of unrecorded species that are likely to occur. A few of the species "rejected" for the time being (reasons are given for every rejection) are mentioned as indeed possible.

Other sections of the report deal with ecological and biogeographical considerations (i.e. biome-restricted species, species of special interest showing extensions of known range). We also present our assessment of the ecotourism potential of Mole for birds (Appendix 3), and include a preliminary "Visitors' guide" to the birds of Mole N.P. (Appendix 4). The details of our itinerary and timetable, and a gazetteer of the main sites mentioned, can be found in Appendices 1 & 2.

Weather conditions. We had significant rain showers on 19 out of 32 days; these can happen at any time of day or night. Heavy morning storms were often followed by cloudy and cool conditions for most of the day; on the other hand temperatures rise quickly on intermittent dry, sunny days.

Local staff. On 8 August we were accompanied by Wildlife Guard James Biney; from 9-14 and 16-24 by Christopher; from 25 August to 8 September by James Jimah. In addition Zakariah Wareh (no longer a member of the ecotourism team) was able to accompany us on parts of 16-17 August, and 25-28 August at Mognori.

2. HABITAT CLASSIFICATION

The whole of Mole N.P. falls within the Sudanian vegetation zone (White 1983, synonym "Guinea savanna"), and Sudanian woodland is the most extensive vegetation type. The park is traversed by several rivers and streams, the most important being the Mole river (which enters from the west and leaves the park at Mognori in the south-east). The vegetation map in Schmitt & Adu-Nsiah (1993) shows an extensive area of floodplain in the basin of the Mole river in the south-east, and many small patches of woodland elsewhere get waterlogged in the rainy season. The Konkori escarpment traverses the eastern section of the park from north to south; the rocky sites associated with this feature were inaccessible on this survey. For the purpose of describing birds' ecology, the following broad habitat types can be recognized:

Fresh-water swamps. The Samole river was dammed just below the Mole escarpment (in the 1960s), thus creating "Dam 1" and "Dam 2" as permanent pools: these have no floating vegetation but are bordered by trees on one side and flooded grassland on the other. Seasonally flooded grassland and seasonal pools are frequent in the Mole river basin (e.g. "Asibey's pools", not visited by us); sedges occur in the wetter sections, but no reedbeds (*Phragmites*, *Typha*) as such were seen anywhere nor were reported by the Wildlife Guards we questioned. An important comment made by James Jimah is that the flooded grassland below the Motel is no longer as tall and dense as in the 1970s-1980s, following intensive grazing by Elephants and other mammals. Some 20-25 years ago Elephants were less concentrated in the area and the grass cover (in the rains) was well over 2 m and very dense. Some large seasonal pools retain water until well into the dry season, and are dry for only a few months. According to Wildlife Guards maximum flooding in the Mole marsh (i.e. below

the Motel) is normally attained in July or early August, but in 2004 this was not so before late August. A large pool we saw near Mognori (west of the camp) was covered in *Nymphaea*.

Bovals. These are a special kind of dry edaphic grassland characteristic of the Sudanian region (spelled "Bowal" by White 1983: 108). The soil, on ironstone pans, is too shallow for any trees to grow, and is covered (in the rains) by thin, short grassland, rarely more than 40 cm tall (except when seeding). A few small pools may form in rocky shallows. Bovals are especially conspicuous in the vicinity of Brugbani camp (we visited several): the three largest are one c. 1 km to the south of Brugbani camp (by the Mole-Brugbani track), one 2 km to the north-east (by the track to Haraba-Haraba pool) and one 6 km to the north (just before "Steep Hill", on the track to Lovi camp). Some of these are shown on the vegetation map of Schmitt & Adu-Nsiah (1993); the largest are at least 1 km², i.e. up to 2 km long and a few hundred metres wide. Schmitt & Adu-Nsiah also mentioned a boval north of Seriseeni camp (in the east), not indicated on their vegetation map, and they referred to Houston (1974; a report not seen) in respect of the boval on "Sambara Flats", the location of which is not indicated either.

Wooded grassland and woodland. Woodland in Mole is often rather open, with reduced tree cover, thus the distinction between woodland and wooded grassland (the latter with less than 40% tree cover) is not essential: often more open woodland (or wooded grassland, strictly speaking) replaces closed woodland in slightly water-logged sections of the plateau.

A particular type of open, wooded grassland is the seasonally flooded *Mitragyna inermis* community associated with floodplain grassland; *Anogeissus leiocarpus* is often present on the edge of floodplain in very shallow water; *Ziziphus mauritiana* is also common.

Dry woodland and wooded grassland away from floodplains are represented by many of the tree species characteristic of Sudanian woodland: *Afzelia africana*, *Combretum fragrans*, *Daniellia oliveri*, *Detarium microcarpum*, *Erythrophleum africanum*, *Isoberlinia doka*, *Lophira lanceolata*, *Parkia biglobosa*, *Piliostigma thonningii*, *Pterocarpus erinaceus*, *Terminalia avicennioides*, *Vitellaria paradoxa*. *Detarium* is dominant on shallow soils locally (as near Brugbani), sometimes in monospecific stands (8-10 m high). Much of the woodland or wooded grassland elsewhere is 12-15 m tall; along the southern boundary woodland on deeper soil is more luxuriant and reaches a height of c. 20 m (with *Afzelia*, *Daniellia*, *Isoberlinia*, *Parkia*, *Vitellaria* among the larger trees). Schmitt & Adu-Nsiah (1993) distinguished several subcategories of woodland according to dominant species and soil types; these are of no importance for birds as far as broad-leaved species are involved. On the other hand, the dominance of *Acacia* trees may attract a few particular bird species. The small *Acacia gourmaensis* occurs in very small numbers in many localities (e.g. Mognori, Ducie). Only near Jang did we see a significant presence of *Acacia* species (mixed with broad-leaved species such as *Vitellaria* and *Pterocarpus erinaceus*, which are both very common): *Acacia gourmaensis*, medium-sized *A. dudgeoni*, and large (12-15 m) *A. sieberiana* all occur in dry woodland, with *A. polyacantha* (16-18 m) near small streams. Baobabs (*Adansonia digitata*) are very uncommon in Mole (e.g. Jang camp).

Forest. Semi-evergreen forest is essentially riparian and is found on most of the streams or rivers in the Park; the width varies from a single line of trees to at least 100 m on one or both sides of the river.

On the Samole below the Motel, the riparian vegetation is not wide, but consists of a dense low thicket of *Cola laurifolia*, *Morelia senegalensis*, *Nauclea latifolia*, scandent *Uvaria chamae* with the occasional tall tree (*Diospyros mespiliformis*, *Manilkara multinervis*, *Syzygium guineense*, *Vitex doniana*) and especially *Khaya senegalensis* which can reach over 30 m.

The best example of dense riparian forest we saw is at Mognori on the Mole river, where the forest is up to 20-25 m tall and at least 50 m wide, with an abundance of liane tangles: *Celtis integrifolia*, *Cola laurifolia*, *Diospyros mespiliformis*, *Pterocarpus santalinoides* are all important large trees; *Parinari congensis* occurs in the flooded section, *Lonchocarpus cyanescens* is the largest woody liane, and understory species include *Aphania senegalensis*, *Xylopiya parviflora*, *Flacourtia indica*, *Vitex chrysocarpa*.

Another impressive example of tall, riparian forest is the large patch near Kananto camp which reaches a width of at least 100 m on the southern side of the Samole stream, and several trees are over 30 m tall (*Ceiba pentandra*, *Khaya senegalensis*). The canopy however contains more deciduous species than at Mognori and is more open (with *Anogeissus*, *Ceiba*, *Diospyros mespiliformis*, *Khaya*, *Trichilia emetica*, *Vitex doniana*, the palm *Borassus aethiopum*, then *Berlinia grandiflora*, *Breonadia (=Adina) salicina* and *Syzygium guineense* on the edge of water, and huge *Daniellia oliveri* on the outside edge). Big lianes include *Lonchocarpus cyanescens* and the buffalo bean *Mucuna pruriens*. In the understory *Voacanga africana* is particularly common in the section which can get flooded; *Phyllanthus discoideus*, *Allophylus abyssinicus* also occur.

In a small patch of forest on the edge of Haraba-Haraba pool several *Nauclea pobeguinii* stand in the water, reaching a height of 15-18 m: this tree is typical of swamp forest in the Guineo-Congolian region and was not reported from Mole by Schmitt & Adu-Nsiah (1993).

We are told that the riparian forest on the Lovi and near the Lovi/Mole confluence is also particularly dense, but these locations remained inaccessible in the present survey. Unfortunately Schmitt & Adu-Nsiah (1993) gave no indication of where the best developed patches of evergreen riparian forest can be found.

Away from streams, patches of tall (20-25 m) dry forest type dominated by *Anogeissus leiocarpus* occur locally, as near the entrance road. This is apparently on an old village site but *Anogeissus* can only grow where the water table is high; some groves of *Anogeissus* can also be found on the edge of floodplain, often mixed with *Ceiba pentandra* (e.g. near Degbere camp). Dry thickets or forest may form also on the edge of bovals (e.g. near Brugbani) with deciduous tree species such as *Pterocarpus lucens*.

Rocky hills. The Konkori escarpment was not accessible, but we believe (from some bird records) that rocky hills with exposed boulders must occur in the area. Interestingly 1-2 species of birds associated with rocky hills have adapted to buildings in the Motel area, especially Rock Nightjar *Caprimulgus tristigma*.

3. THE AVIFAUNA

3.1. *References and past reports*

We have had access to all that has been published on the birds of Mole, as well as to many unpublished reports and observations. The main published papers on the ornithology of Mole (Harvey & Harrison 1970, Greig-Smith 1976) are the result of University expeditions from UK, and the authors lacked the local experience that would have enabled them to appreciate the importance or unusualness of certain records, and to use a more critical approach for some of their own identifications. Greig-Smith in particular made an effort to produce a complete checklist of the birds of Mole at the time; he missed a few published records (e.g. by Sutton 1970), misplaced others (e.g. some published records from the Damongo scarp or Tumu, which are not in the Park and should not have been included) and accepted a number of doubtful ones. Two other papers were by observers who missed much, produced only short lists of species, and included some misidentifications (Genelly 1969, Maze 1971). Grimes (1987), in his synthesis of the Ghana avifauna as a whole, was also uneven in his treatment of doubtful records (some he accepted, others he rejected).

Of unpublished reports, that by Wilson (1993) has to be treated with some caution: the author (a mammalogist) knows his larger non passerines but his bird list (from doves onwards) contains many omissions and some confusions. Lists of observations by birders on short visits from overseas (e.g. Baha el Din & Baha el Din 1996, Plat 1997, R. Cruse *in litt.*) need to be treated with considerable caution where unusual sightings are concerned. A checklist for Mole has been produced by Wareh & Cavanagh (1998); there are a number of unexpected species in it, which (in the absence of any supporting details) we have had to reject here.

All of the existing references and reports have been examined critically in order to present a more acceptable list of bird records for Mole: this was done by assessing other people's records in the light of our own field experience, and of the ecological requirements and normal distributions of bird species in West Africa. Unfortunately, even the most complete summary hitherto (that of Greig-Smith 1976) presented only a brief (and sometimes erroneous) statement of each species' status, and next to nothing on preferred habitat or range within the park. What we can do to remedy this is also limited by ours being a singleseason visit, at a time of year when much of Mole is inaccessible.

3.2. *Species monitoring rate and totals recorded.*

In just over a month (32 days) at the peak of the rains we recorded 220 species. The species accumulation rates were monitored daily and show the following pattern:

- Day 1 (Motel area): 110; +19 (walk to Brugbani); +6 (woodland near Motel) (135);
- Day 4 (move to near Ducie where got stuck): + 7; +1 (143);
- Day 6 (move to Degbere): +17; +3; +1 (164);
- Day 9 (Motel): +8; +6; +4 (182);
- Day 12 (move to Brugbani camp): +0; +7 (Haraba-Haraba pool); +1 (Steep Hill); +2 (Haraba-Haraba); +2 (194);
- Day 17 (Motel): +1; +1; +1 (197);
- Day 20 (move to Mognori): +4; +3; +2 (206);
- Day 23 (move to Kananto): +1; +1; +0 (208);

- Day 26 (Motel) +1; +2; +2 (213); - Day 29 (move to Jang): +1; +2; +1 (217); - Day 32 (Motel): +3 (220).

Another 115 species reported by other people appear acceptable (listed below), and this gives an overall total of some 335 species. Of the 115 species we "missed", the great majority are present in the dry season only, either as Palaearctic visitors or intra-African migrants (some of which may breed). Several, especially among waterbirds and some Palaearctics, are probably no more than vagrants or their status requires clarification. Some have apparently disappeared, e.g. Black Coucal (habitat no longer suitable), or Fish Eagle (reasons unknown); the Black Crowned Crane has not been recorded since 1975.

Another 52 species mentioned for Mole in various publications and reports have to be rejected for the time being (listed below); most are clearly the result of misidentification, a few may turn out to be correct at a later date but convincing details are lacking at present.

Surprisingly, we observed as many as 8 species for the first time in this much-visited park: African Finfoot, Thick-billed Cuckoo, Red-chested Cuckoo (albeit known to a couple of Wildlife Guards), Green Coucal, Horus Swift (new to Ghana), Narina Trogon, Fan-tailed Cisticola and African Quailfinch. Long-tailed Glossy Starling had never been reported before but had been known to Wildlife Guards for some 20 years at least. Yellow-breasted Apalis was missed by Greig-Smith (1976), while Grimes (1987) surprisingly rejected his own record; we can re-establish it as a locally common species.

3.3. Ecological considerations.

General. A large number of species are found across a wide range of habitats, i.e. woodland, thicket clumps, wooded grassland and forest: this is especially true of wide-ranging raptors, parrots and parakeets, Violet Turaco and Grey Plantain-eater, various doves, Bearded Barbet, Yellow-fronted Tinkerbird, Grey Woodpecker, a number of seed-eaters... Fig trees (e.g. *Ficus ingens*, *F. platyphylla*) occurring in woodland, riparian forest and on the edge of floodplains attract a special guild of frugivores, including Green Pigeons, Turacos, Barbets and Golden Orioles, among others.

Water-dependent or swamp species. The number of waterbirds permanently visible around the Mole dams during our stay was not high: a couple of Storks (Saddle-billed starting to establish a nest in the area), one duck species (White-faced), two dozen Hadada Ibises, a few Green-backed Herons (at least one pair nesting) and Jacanas, and the Black Crake was the only regular member of its family. Lesser Gallinule has certainly become scarcer than in the past (possibly due to overgrazing of flooded grassland by Elephants), herons and waders are no more than occasional or rare visitors. On the other hand Golden (Yellow-crowned) Bishops and other *Euplectes* species were in full display in flooded grassland and two cisticola warblers are common (Croaking, Black-backed in sedges). At dusk, Broad-billed Rollers and occasionally nightjars may come to feed over the surface of the water; by day some swifts and swallows may do that at times too.

The one natural open pond we visited near Mognori (with water-lilies) had Jacana, Greenbacked Heron and not much else. It is possible that waterbirds are especially thin on the ground in the rainy season, as water is everywhere and birds are very dispersed. Certainly more waterbirds have been reported in the dry season, especially in the larger pools in the process of drying out.

Bovals. The avifauna of bovals is not species-rich but includes some species that cannot be found in any other habitat, especially the Forbes's Plover and Sun Lark. These are well represented in most or all (in the case of the lark) of the bovals visited; other species that favour bovals without being restricted to this habitat include the Black-bellied Bustard, Abyssinian Ground Hornbill, Flappet Lark, and more locally (where the grass is denser and moister) Croaking Cisticola, Red Bishop, Yellow-mantled Whydah and Quailfinch. Redbilled Hornbills often feed on the edge of bovals. (In the dry season one would expect to find also Finch Larks, Plain-backed Pipits and Cinnamon-breasted Buntings).

Woodland and wooded grassland. This is by far the most extensive and species-rich habitat. This may not be immediately apparent until a mixed bird party gets going: this phenomenon involves all local insectivorous species moving conspicuously through trees and grassland to feed, which is done with much calling until the party "dies down". Up to 25-30 species can be seen in a short space of time in the "best" parties, including 2-3 woodpecker species, White-fronted Black Chat, Green-backed Eremomela, Northern Crombec, Rufous and other Cisticolas, Tawny-flanked Prinia and Red-winged Warbler, Pallid Flycatcher, Senegal Batis, White-winged Black Tit, Spotted Creeper, Scarlet-chested and Coppery Sunbirds, Brubru, Northern Puffback, Black-crowned Tchagra, Fork-tailed Drongo, Bush Petronia, Chestnut-crowned Sparrow Weaver, Red-winged Pytilia, Blackfaced Firefinch, Cordon-bleu, Yellow-fronted and Streaky-headed Canaries, Brown-rumped Bunting. Red-headed Weavers often move about with groups of White Helmet Shrikes. Most "woodland" species probably have a wide distribution in Mole. The structure of the woodland is important for some: the White-breasted Cuckoo-shrike prefers tall stands, as also does the Cabanis's Bunting. The Brown-rumped Bunting is partial to short, open woodland (including regenerating stages).

Little Weavers nest preferably in *Acacia* trees (as in *A. dudgeoni* and *A. gourmaensis*), often building the nest next to a wasps' nest for protection. In the Jang area where *Acacia* (and wasps' nests) are frequent, other species indulge in this behaviour, including Common Bulbuls, sunbirds and Chestnut-crowned Sparrow Weavers.

Sudanian woodland is poorer than its equivalent in southern Africa, Zambezan woodland, in arboreal insectivorous species (e.g. with only one tit species instead of four), but richer in grassland warblers, especially cisticolas. Whereas the Zambezan miombo woodland has mainly one species (Neddicky *C. fulvicapillus*) with another at higher altitudes (*C. woosnami*), and two on the ecotone (Singing and Short-winged), Sudanian woodland in Mole harbours six common, widespread *Cisticola* species. This diversity must be in part the consequence of the open nature of the woodland and the relatively narrow crowns of the trees, which leads to a much greater development of the grass layer than in the more closed-canopy miombo and other Zambezan woodlands. The Rufous Cisticola (a Sudanian endemic) is dominant in any dry woodland (and is the ecological equivalent of Neddicky in south-central Africa); Whistling Cisticola is very widespread and tends to be associated with clumps of trees, being more arboreal (especially in the dry season) than other species; Singing Cisticola is widespread too but uses more the shrub layer (in Zambezia it is absent from closed woodland but occurs in regenerating stages); Short-winged Cisticola occurs in the more open woodland types and especially humid sections, and is also common in floodplain wooded grassland (its favourite habitat in Zambezia, as on the edge of dambos); Croaking Cisticola is only in the more open sections of wooded grassland, often next to Dorst's Cisticola. This last (a Sudanian endemic) is mainly in water-logged short woodland, but also in dry short woodland on sand (with similar structure). While Dorst's is completely absent from the Zambezan region, Croaking is locally common there, but only in flooded

grassland and dambos, not venturing into woodland. The same comment could apply to Redwinged Warbler, a species of rank grass that appears extremely common in Mole woodlands; in the Zambebian region it is far more localized, being mainly a species of escarpments in miombo woodland.

Forest. Well-developed riparian forest harbours a characteristic avifauna, the following species being generally widespread in riparian or gallery forest in Mole and elsewhere in the Sudanian region: Narina Trogon, Blue-breasted Kingfisher, Golden-tailed Woodpecker, Yellow-throated Leaflove, White-crowned Robin Chat (with Snowy-headed extending also into dry thickets), Yellow-breasted Apalis, Oriole Warbler, Common Wattle-eye, Blue Flycatcher, Blackcap Babbler, Green-headed Sunbird, Tropical Boubou, Gonolek (extending into dry thickets), Square-tailed Drongo and Black-necked Weaver. These were for example all found in our recent surveys of gallery forest in southern Mali, and most of them do not occur in Guineo-Congolian rain forest to the south. The Green Coucal is a bird of dense tangles in forest (common also in the Guineo-Congolian region) which does not extend as far into the Sudanian region as the above species; Mognori is probably near its northern limit in Ghana.

Rocky hills and buildings. The Konkori escarpment was not visited in this survey, but Rock Nightjar has adapted to buildings (Mole Motel). A few pairs of Little Swift also breed on the buildings. A pair of Familiar Chats are sometimes seen near the Motel buildings. Some swallows breed under cement culverts: e.g. Lesser Striped and Wire-tailed along the southern boundary road, Wire-tailed under the new, unfinished bridge on the Samole (road to Brugbani); White-rumped Swifts were also associated with culverts on the southern boundary road and probably breed there.

Large raptors. Some of the large raptors are not dependent on a specific vegetation type, especially vultures. The presence of large mammals necessarily influences that of vultures, i.e. the large White-backed Vulture: these are concentrated in the southern sector of the park, a small area which (thanks to the presence of tourists) benefits from more efficient game protection than other parts of Mole.

3.4. Biome-restricted species.

Sudanian. We are concerned almost exclusively with the Sudanian biome, as Mole falls entirely within the Sudanian floristic region. A total of 37 Sudanian species are recorded from Ghana, of which 35 (and not 29 as in Ntiamoa-Baidu *et al.* 2001, who overlooked published records) occur in Mole. Of the two missing, Fox Kestrel *Falco alopex* might be found (at least seasonally) on the Konkori escarpment, and Bronze-tailed Starling *Lamprotornis chalcurus* in savanna; both have been claimed (Plat 1997, Greig-Smith 1976 respectively) but not yet confirmed. The 35 Sudanian species that occur are: *Poicephalus senegalus*, *Musophaga violacea*, *Merops bulocki*, *Coracias cyanogaster*, *Lybius dubius*, *Galerida modesta*, *Hirundo leucosoma*, *Cossypha albicapilla*, *Myrmecocichla (Thamnolaea) albifrons*, *Eremomela pusilla*, *Cisticola guinea (=C. dorsti)*, *C. rufus*, *Hypergerus atriceps*, *Muscicapa gambagae*, *Turdoides reinwardtii*, *Anthoscopus parvulus*, *Nectarinia coccinigastra*, *Corvinella corvina*, *Lanius gubernator*, *Ptilostomus afer*, *Lamprotornis purpureus*, *Petronia dentata*, *Plocepasser superciliosus*, *Ploceus heuglini*, *Nesocharis capistrata*, *Pytilia hypogrammica*, *P. phoenicoptera*, *Lagonosticta rufopicta*, *L. rara*, *L. larvata*, *Estrilda caerulescens*, *E. troglodytes*, *Vidua interjecta*, *V. togoensis*, *Emberiza affinis*.

Sahel. This arid region does not reach Mole, but the Sahel dove *Streptopelia roseogrisea* has been reported once, as a vagrant (Taylor & Macdonald 1978).

Guineo-Congolian. Floristically, the forest region does not reach even the southern limit of Mole: the Guineo-Congolian/Sudanian transition zone ranges to about 8°N (White 1983), or a little higher (Kyabobo at 8°30'N: Dowsett-Lemaire & Dowsett 2004). Only one Guineo-Congolian near-endemic bird has been claimed for Mole: the Guinea Turaco *Tauraco persa*. We failed to find this forest species (albeit we were very limited in our movements) and its status is uncertain (possibly it is no more than a vagrant). The Fanti Saw-wing *Psolidoprocne obscura* is present in the Guineo-Congolian region and is often classified as a Guineo-Congolian near-endemic; but it migrates widely into the Sudanian region in the rains, so far north in fact that it might be more appropriately termed as a Guineo-Congolian/Sudanian linking species (to use F. White's terminology). It has been reported in Mole even in the dry season. Contrary to Fishpool & Evans (2001) we do not consider the race *nigriscapularis* of Fiery-necked Nightjar as Guineo-Congolian, as it extends too widely and at all seasons into the Sudanian region (including in Mali and Cameroon).

3.5. Globally-threatened species.

Following BirdLife International (2000), three "Near threatened" species are on the Mole list: the Northern Crowned Crane *Balearica pavonina*, Denham's Bustard *Neotis denhami*, and Great Snipe *Gallinago media*. The crane (whose normal distribution is centred on the Sahel plains) has not been seen since 1975 and is decreasing everywhere through human persecution; the status of the Denham's Bustard is probably that of an infrequent visitor (it requires for breeding grass plains far more extensive than those present in Mole) and the Palearctic Great Snipe has been recorded only once (it is not considered threatened in its winter quarters). Overlooked by BirdLife International (2000) in the Red list for Ghana, the Lesser Kestrel *Falco naumanni* should also be considered, as "Vulnerable"; there is a small wintering population in West Africa but the species feeds mainly on locusts in large plains and its occurrence in Mole (with only one record so far) can be no more than highly irregular. Thus Mole is of no significant conservation importance for any of these species.

In addition, Dorst's Cisticola (*Cisticola guinea*, ex-*C. dorsti*) was considered by BirdLife as "Data deficient": the taxonomic position of this species has recently been re-evaluated. *C. dorsti* appears to be synonymous with what has been considered hitherto the West African (Upper Guinea) race *guinea* of *C. ruficeps*. It is in fact moderately widespread in Sudanian savanna in West Africa and locally common in Mole (see species list).

3.6. The biogeographical importance of Mole.

Mole harbours a diversified avifauna typical of well-developed woodland and riparian forest of the Sudanian region. Most of the species found for the first time during this survey (albeit one or two were already known to Wildlife Guards) are of biogeographical interest in a broader context:

Thick-billed Cuckoo *Pachycoccyx audeberti*: was previously unrecorded from the north of Ghana (cf. also our observation in Kyabobo: Dowsett-Lemaire & Dowsett 2004). Our observation at Mognori (9°18'N) is a significant extension north from the previous most northerly record at Amedzofe (6°52'N: Sutton 1965).

Red-chested Cuckoo *Cuculus solitarius*: completely unknown and overlooked north of the forest zone in Ghana -- the most northerly locality hitherto being Kete Kratchi at 7°48'N (R.E. Crabbe in Grimes 1987) -- this cuckoo appears to be common in Mole north to at least 9°27'N (Jang). It was also found in Kyabobo, and further north into the galleries of southern Mali (as recently as May-June 2004, pers. obs.).

Green Coucal *Ceuthmochares aereus*: a species of Guineo-Congolian forest but also in drier forest types elsewhere (especially in eastern Africa), which was not known in Ghana north of Kete Kratchi (Grimes 1987).

Fiery-necked Nightjar *Caprimulgus pectoralis (nigriscapularis)*: another much overlooked species in Ghana, this being now the third locality for the country (and firm second record, see Kyabobo report: Dowsett-Lemaire & Dowsett 2004).

Narina Trogon *Apaloderma narina*: like Red-chested Cuckoo completely unknown and overlooked north of the forest zone in Ghana, this species has been encountered in several localities of suitable dry forest in Mole. Similarly it is reasonably widespread in gallery forest in southern Mali (north to 12°31'N, pers. obs. 2002 and 2004). The most northerly records in Ghana otherwise are at 6°38'N: Bia N.P. (Davidson 1978) and Bobiri (R. Cruse *in litt.*).

Horus Swift *Apus horus*: completely new for the country, extending the range considerably from southern Niger (Tapoa in Parc national du W, at 12°15'N, 2°15'E: Crisler *et al.* 2003). This species breeds in large sandbanks (often in bee-eater holes) and could be more widespread in West Africa.

Other species of interest include:

Red-billed Hornbill *Tockus erythrorhynchus*: usually widespread in Sudanian and Sahel regions, this bird has undergone a slight spread south into Mole, being recorded for the first time in the late 1980s (see species list). It has become resident.

Dorst's Cisticola *Cisticola guinea*: previously confused with Red-pate Cisticola *C. ruficeps*, Dorst's is in fact a lot more widespread in West Africa than was supposed until recently (see above under Globally threatened species). The type of *C. (ruficeps) guinea* came from Kintampo in Ghana, not far south of Mole. It is locally common in Mole.

Yellow-breasted Apalis *Apalis flavida*: greatly overlooked in the north of the country, this is one of the most typical small insectivores of Sudanian gallery forest and thicket.

Black-headed Weaver *Ploceus melanocephalus*. Mole is the only locality known for this species in Ghana, but it may have been overlooked elsewhere. (We recently found it to be not uncommon in riparian situations in southern Mali).

African Quailfinch *Ortygospiza atricollis*. The discovery of a small population at Mole represents a slight extension to the south of the northern population (from Tumu: Sutton 1970).

3.7. Conservation of fragile or critical habitats.

The main threat to Mole habitats is in the form of fierce fires in the late dry season. We have seen too little of the park to assess the situation and the height of the grass in August would in any case make such an assessment difficult. We gather that some deliberate early burning is in theory undertaken, and it is important that this, in conjunction with firebreaks, be used as a tool to prevent fierce, uncontrollable fires later. The extent of fires each year should be monitored and mapped, and if possible the timing of burning of susceptible areas be changed from year to year. Any fire policy should take into account the ecology of the park as a whole, not just the requirements of the larger mammals.

3.8. *Mist-netting.*

A limited amount of mist-netting was carried out, with precise aims: one day at a boval near Brugbani in an unsuccessful attempt to capture and examine *Galerida modesta*, and one day in forest near Kananto, in order to determine the breeding/moult condition of the two robin chat species. In all, 28 birds of 12 species were caught; all were examined in detail (measurements, moult, breeding condition), ringed and released.

3.9. *Breeding records.*

Our observations suggest some active egg-laying in the rains from June to Aug., and even a bit later for some species (various seed-eaters, Short-winged Cisticola):

Green-backed Heron: pair replacing each other on nest (brooding) in a Mitragyna early Sep. (eggs would have been laid Aug.).

Vinaceous Dove: mating 21 Aug.

Red-eyed Dove: nest-building 19 Aug.

Black-billed Wood Dove: mating 28 Aug.

Little Swift: at least 3 nests with nestlings at the Motel (Aug.): egg-laying June-July.

Red-shouldered Cuckoo-shrike: feeding noisy fledgling 29 Aug.: egg-laying late June-July.

Common Bulbul: feeding a juvenile 29 Aug.: egg-laying late June-July. Three of four adults handled were half-way through post-breeding moult late Aug.

West African Thrush: feeding noisy fledgling 26 Aug.: egg-laying late June-July. A female caught had an "active" brood-patch 29 Aug.

White-crowned Robin Chat: female caught with "active" brood-patch 30 Aug. (brooded Aug., nestling stage). A male (and two male Snowy-headed Robin Chats) had started postbreeding moult at this time.

Green-backed Eremomela: large fledgling fed 12 Aug.: egg-laying June.

Rufous Cisticola: adults feeding small young hidden in grass 13 Aug. (egg-laying July or late June); feeding at nest 25 Aug. (egg-laying July or early Aug.). Short-winged Cisticola: nest-building 7 Sep. (Mitragyna floodplain).

Whistling Cisticola: full-grown immatures, still with parents 22 Aug., and also 5 Sep., suggesting breeding is over.

Singing Cisticola: fresh immatures, recently independent (with adults) 27 Aug. and 5 Sep.

Tawny-flanked Prinia: feeding at nest 4 Sep.: egg-laying Aug.

Pallid Flycatcher: immature feeding itself next to adults 24 Aug.

Senegal Batis: pair with big juvenile, still begging but nearly independent 16 Aug.; another feeding juvenile 21 Aug.: egg-laying June (2 x).

Common Wattle-eye: female begging from male 25-26 Aug., thus incubating (egg-laying Aug.).

Blue Flycatcher: female feeding a juvenile (almost full-grown) 18 Aug., and another 19-21 Aug.: egg-laying June (2 x).

Paradise Flycatcher: feeding a noisy fledgling 30 Aug.: egg-laying late June-July.

Scarlet-chested Sunbird: female nest-building in tall Daniellia 17 Aug., had laid before end Aug.; a female feeding a large juvenile 19 Aug. (egg-laying June); a female feeding small fledgling (short tail) 29 Aug. (egg-laying July); another feeding at nest in *Acacia dudgeoni* 6 Sep. (egg-laying Aug.).

Yellow White-eye: pair with full-grown juvenile, still begging but also trying to feed itself 5 Sep.

Northern Puffback: female nest-building at the Motel 15 Aug., but a male mist-netted at Brugbani 22 Aug. had already started post-breeding moult.

Little Weaver: several fresh and old nests situated in *Acacia gourmaensis* and *A. dudgeoni* in the Jang area, including one where female was brooding (5 Sep.): egg-laying prob. Aug.
Black-headed Weaver: male displaying in bush and by nest over water (Haraba-Haraba) and mating seen 21 Aug.

Golden Bishop: female nest-building 1 Sep.

Orange-cheeked Waxbill: nest-building 26 Aug.

Yellow-fronted Canary: pair with dependent juvenile 15 Aug. (egg-laying June?).

4. ANNOTATED SPECIES LIST.

4.1. *Species observed in Mole during the present survey*

Biome-restricted species are indicated by "Sud" (Sudanian).

Reed Cormorant *Phalacrocorax africanus*: Occasional visitor: singles in marsh/streams below Motel (16 Aug.) and flying along Mole river at Mognori (27 Aug.).

Black-crowned Night Heron *Nycticorax nycticorax*: Heard at night at Kananto camp (Samole stream), and one flushed at stream near Jang. Presumably resident in small numbers, although extreme dates seem to be 7 Aug. (Dutson & Branscombe 1990) late Mar. (Sutton 1965), and some Palaeartic birds probably occur.

Green-backed Heron *Butorides striata*: Common in marsh below Motel (several, including one pair breeding in a *Mitragyna* late Aug.), along streams and in flooded grassland. One on the edge of a pool near Mognori.

Yellow-billed Egret *Egretta intermedia*: One visiting the pools below Motel 14 Aug. Wilson (1993) reportedly saw a group of 5 in the dry season.

Grey Heron *Ardea cinerea*: Two visiting the streams below Motel 7-9 Sep. Extreme dates recorded: 6 Aug. (Genelly 1969) and 20 Apr. (A.S. Riley *in litt.*); despite the suggestion by the first author that these would have been African birds, the dates suggest that all might be Palaeartic migrants.

Black-headed Heron *Ardea melanocephala*: One visiting pools below Motel 14 Aug. Other records are for 9 Oct. (Genelly 1969) and Jan. to Apr. (several observers).

Hamerkop *Scopus umbretta*: Widespread at pools and rivers throughout, even very small pools in bovals.

Woolly-necked Stork *Ciconia episcopus*: One pair feeding daily in flooded grassland and along streams below Motel. Listed by Greig-Smith (1976) as an intra-African migrant; probably resident, although extreme dates at present appear to be early Aug. (Dutson & Branscombe 1990; pers. obs.) and 20 Apr. (A.S. Riley *in litt.*).

Saddle-billed Stork *Ephippiorhynchus senegalensis*: One pair feeding daily in flooded grassland below Motel, and also to the south (below the school); seen visiting a tree together in the mornings (early Sep.) and male carrying nesting material there on 7 Sep. The basis of the nest consists of an old nest of Hamerkop (in a *Vitex doniana* c. 22 m tall, on the edge of the Samole), no eggs had been laid by the time we left. Also one seen flying over Haraba-Haraba pool. In early Jan. 2002 a nest in a *Khaya senegalensis* tree contained two young 4-6 weeks old (B. Portier 2002, *Bull. Afr. Bird Club* 9: 145). On 27 Feb. 2003 two juveniles were with an adult (A. Riley 2004, *Bull. Afr. Bird Club* 11: 174).

Hadada *Bostrychia hagedash*: Common (up to 15-20) in flooded grassland and edge of pools below Motel and along streams/rivers elsewhere (Samole, Mole, Brugbani).

White-faced Tree Duck *Dendrocygna viduata*: Several dozen in marsh below Motel; a few elsewhere on pools near Samole, Mole rivers and Haraba-Haraba pool. Greig-Smith (1977a) considered it present only in the wet season, but there are a number of records for Jan. to Apr. (several observers).

Spur-winged Goose *Plectropterus gambensis*: Up to 3 feeding on occasion in marsh below Motel. Possibly mainly a wet season visitor (Taylor & Macdonald 1978), with extreme dates 4 Aug. (Harvey & Harrison 1970)- 27 Feb. (A.S. Riley *in litt.*).

African Cuckoo Hawk *Aviceda cuculoides*: Pair seen several times along escarpment near Motel; also one edge of boval between Brugbani and Haraba-Haraba pool. Classed as an Intra-African migrant by Greig-Smith (1976), but with no details; the only other dated record, in addition to ours for Aug., is 16 Mar. (A.S. Riley *in litt.*).

Black Kite *Milvus migrans*: The Yellow-billed Kite *M. m. parasitus* is largely absent in the rains; one passing through (flying south) over Brugbani boval 22 Aug. was rather early. Records fall between late Jul. (Harvey & Harrison 1970) and Apr. (Maze 1971), and are likely to be mostly of this population. There is one report of a probable Palearctic *M. m. migrans* on 5 Apr. (Taylor & Macdonald 1978).

Palm-nut Vulture *Gypohierax angolensis*: Up to 4 adults and 3 immatures in marsh below Motel; one immature at Haraba-Haraba pool. Thus not uncommon even though *Elaeis* and *Raphia* palms are very few.

Hooded Vulture *Necrosyrtes monachus*: Common in small numbers, seen everywhere except near Ducie.

White-backed Vulture *Gyps africanus*: Seen daily around Motel (up to 7), and the odd one elsewhere (Haraba-Haraba).

White-headed Vulture *Trigonoceps occipitalis*: One-two pairs seen regularly near Motel; also the odd pair near Brugbani and Degbere.

Brown Snake Eagle *Circaetus cinereus*: One over the Motel scarp 24 Aug. Several observers have reported this species.

Bateleur *Terathopius ecaudatus*: Widespread, seen everywhere except near Ducie.

Gymnogene *Polyboroides typus*: One immature near Jang 4 Sep.

Shikra *Accipiter badius*: One flying past the Motel scarp once (Aug.).

Lizard Buzzard *Kaupifalco monogrammicus*: The commonest small raptor in woodland and riparian forest, strongly territorial.

Red-necked Buzzard *Buteo auguralis*: One seen over the Motel scarp 7 Aug. Listed as a "passage" migrant by Greig-Smith (1977a), but no dates given, although he had displaying birds in Nov. (Greig-Smith 1977b). Sutton (1970) saw one 19 Dec. and A.S. Riley (*in litt.*) saw it on several dates between Feb. and Apr. Status unclear.

African Hawk Eagle *Hieraaetus spilogaster*: Widespread: singles or pairs seen over the Motel scarp (once), near Brugbani (pair calling to each other) and Jang; an immature (all tawny below) at Mognori.

Ayres's Hawk Eagle *Hieraaetus ayresii*: One (with a pale face) seen closely twice over the Motel scarp. The species is also reported in Feb. by R. Cruse (*in litt.*) and in Feb. and Mar. by A.S. Riley *in litt.*.

Martial Eagle *Polemaetus bellicosus*: An immature over Motel scarp 2 Sep. (used to breed just below the Motel according to Wildlife Guards, but this stopped several years ago).

Grey Kestrel *Falco ardosiaceus*: Singles or pairs seen regularly in woodland and floodplain near the Motel, also near Degbere.

Red-necked Falcon *Falco chicquera*: One seen near the Motel once.

Lanner Falcon *Falco biarmicus*: One flying past the Motel scarp once. One seen 9 Apr. by Taylor & Macdonald (1978), and reported Feb. (R. Cruse *in litt.*) and Mar. (A.S. Riley *in litt.*).

White-throated Francolin *Francolinus albogularis*: Appears widespread in woodland (clearly avoids floodplains) as was singing frequently in the rains (e.g. near Kananto, Degbere, Jang, Mognori); especially common in the Brugbani area, including edge of bovals.

Double-spurred Francolin *Francolinus bicalcaratus*: Very common and widespread, in any grassland.

Stone Partridge *Ptilopachus petrosus*: Very common and widespread, in any grassland and also interior of riparian forest, *Anogeissus* closed forest near entrance.

Helmeted Guineafowl *Numida meleagris*: Particularly conspicuous near the Motel, more discreet elsewhere (southern boundary, Brugbani...).

Black Crake *Amaurornis flavirostra*: Several in marsh below Motel; also Haraba-Haraba pool.

Allen's Gallinule (Lesser Gallinule) *Porphyryla alleni*: Uncommon; one seen in marsh below Motel on two occasions. Harvey & Harrison (1970) reported it frequently in the rains, while seen as late as Apr. (Maze 1971).

African Finfoot *Podica senegalensis*: Two well seen swimming in Mole river under tree cover, Mognori.

Black-bellied Bustard *Eupodotis melanogaster*: A male present on boval just south of Brugbani on 8 and 22 Aug. Unwilling to go far when disturbed, and likely with a nesting female.

African Jacana *Actophilornis africanus*: Several in marsh below Motel. A pair in floodplain near Haraba-Haraba pool, and at a pool near Mognori.

Forbes's Plover *Charadrius forbesi*: A pair with full-grown immature at boval south of Brugbani; two pairs at a boval to the north-east (on the way to Haraba-Haraba); one male alarming (nesting female suspected) at a small boval nearby. None seen on the big boval near Steep Hill. Doubtless resident: Dec.-Jan. (Sutton 1970), Mar. (Wilson 1993), Apr. (Maze 1971), breeding Jul.-Aug. (Greig-Smith 1977b).

African Wattled Lapwing (Senegal Wattled Plover) *Vanellus senegallus*: One or two present on Motel marsh 1st week Aug., not later. Perhaps largely resident in the area: breeding Jul. (Greig-Smith 1977b), and birds noted Jan. to Apr. (several observers).

Wood Sandpiper *Tringa glareola*: Small group in marsh below Motel on 14-15 Aug. Noted from 27 Jul. (Harvey & Harrison 1970) to at least Jan. (Maze 1971).

Common Sandpiper *Actitis hypoleucos*: One by Dam 1 on 2 Sep. Greig-Smith (1977a) noted birds from 29 July to mid-Nov.; late July is a normal arrival date of birds from Eurasia, and not a sign of over-summering, as he suggested. Also one 17 Mar. (A.S. Riley *in litt.*)

- Laughing Dove *Streptopelia senegalensis*: Common near habitation (Motel) and all camps, even those which are now unoccupied.
- Vinaceous Dove *Streptopelia vinacea*: Commonest species, throughout woodland and other vegetation types. Greig-Smith (1977a) considered there were very few Jun.-Sep. (which was not the case in 2004), with numbers greatly augmented in the dry season, and a huge influx then is supported by Taylor & Macdonald (1978).
- Red-eyed Dove *Streptopelia semitorquata*: Particularly common in riparian formations and floodplain (*Anogeissus*).
- Black-billed Wood Dove *Turtur abyssinicus*: Very common throughout (riparian and dry woodland).
- Blue-spotted Wood Dove *Turtur afer*: Confined to riparian formations (Samole, Mole river, Haraba-Haraba pool), thus much more local than congener.
- Bruce's Green Pigeon *Treron waalia*: Some numbers feeding on *Ficus platyphylla* and *F. ingens* below Motel; pairs seen at Mognori and Jang.
- African Green Pigeon *Treron calvus*: More widespread than last; feeding on same fig trees, but also throughout on ripe fruits of *Nauclea latifolia*, *Vitex doniana*, *Cissus populnea*.
- Brown-necked Parrot *Poicephalus robustus*: This large parrot was encountered locally in pairs or family parties (4) near Degbere camp and Kananto, feeding on the last fruits (seeds) of *Daniellia oliveri* (in riparian situations, the *Daniellia* in woodland having dropped their fruit long ago). Also some in flight over Mognori.
- Senegal Parrot *Poicephalus senegalus* (Sud.): Common and throughout, feeding on *Daniellia* fruit as the last species, and also *Mitragyna*.
- Red-headed Lovebird *Agapornis pullarius*: Confined to riparian situations; a male was feeding a begging female (with pink face) on the edge of Haraba-Haraba pool 19 Aug.
- Rose-ringed Parakeet *Psittacula krameri*: Very common, often in small flocks. Investigated a broken stump of a *Khaya* below the Motel on 1 Sep. Seemed very fond of seeds of *Margaritaria* (*Phyllanthus*) *discoidea* (Kananto).
- Violet Turaco *Musophaga violacea* (Sud.): Widespread in riparian forest and floodplain (as below the Motel), thicket clumps in woodland. Fond of figs and other fruits (such as *Vitex doniana*).
- Western Grey Plantain-eater *Crinifer piscator*: Very common, throughout woodland and riparian formations. Fond of fruit (including *Nauclea latifolia* close to the ground) and also especially of young foliage of *Daniellia oliveri*.
- Levaillant's (Striped) Cuckoo *Clamator levaillantii*: Widespread and noisy throughout Aug., in dense woodland, riparian forest and floodplain. Still singing in Sep. (this cuckoo parasitizes babblers). Several in late Mar. (Sutton 1965), and three 20 Apr. (A.S. Riley *in litt.*).
- Thick-billed Cuckoo *Pachyoccyx audeberti*: One heard clearly at Mognori on 27 Aug. (the species parasitizes helmet-shrikes). Two were reportedly seen 25 Feb. (Baha el Din & Baha el Din 1996).
- Red-chested Cuckoo *Cuculus solitarius*: Widespread, especially in riparian forest and floodplain. Commonly heard around the Motel and at all localities visited except Ducie. Singing activity decreased during Aug., but some were still calling early Sep. (This cuckoo parasitizes robins).

African (Grey) Cuckoo *Cuculus gularis*: One seen near Haraba-Haraba pool (21 Aug.). An early breeder (it parasitizes drongos), not singing in Aug. and thus likely to be much under-recorded. Calls much in the dry season (Z. Wareh pers. comm.), and sound records 27 Feb. to 20 Apr. (A.S. Riley *in litt.*).

Klaas's Cuckoo *Chrysococcyx klaas*: Widespread in riparian situations (Samole, Mole, Brugbani, Haraba-Haraba). Also recorded Oct. (Greig-Smith 1977b), Jan. (Maze 1971) and Apr. (A.S. Riley *in litt.*) and probably resident.

Didric Cuckoo *Chrysococcyx caprius*: Widespread in riparian situations and floodplain. Very active in Aug.-Sep. (a parasite of bishops and weavers, more likely the former in Mole, and one chased by *Euplectes hordeaceus* at Jang). Last date 20 Apr. (A.S. Riley *in litt.*).

Yellowbill (Green Coucal) *Ceuthmochares aereus*: At least two birds calling in liane tangles and dense canopy in semi-evergreen forest on the Mole river at Mognori. Also well seen, as called up by imitating the whistle call.

Senegal Coucal *Centropus senegalensis*: Very common and widespread, all habitats.

Barn Owl *Tyto alba*: Heard at Jang camp.

African Scops Owl *Otus senegalensis*: Heard in a few places, woodland and *Anogeissus* forest (Degbere, Brugbani, Mognori ...).

White-faced Owl *Otus leucotis*: Heard in short woodland on the edge of Mole airstrip and in tall woodland and *Anogeissus* on the edge of Mognori camp.

Spotted Eagle Owl *Bubo africanus*: Two seen at night on the entrance road. Pairs heard at Brugbani, Mognori and Kananto camps, and Jang.

Pel's Fishing Owl *Scotopelia peli*: An immature calling between 05 and 06h on 7 Sep. at Dam 2, and again in the evening. Two were reported in Feb. and Mar. 2003 (R. Cruse 2003, *Bull. Afr. Bird Club* 10: 135; A.S. Riley *in litt.*). The species is well known to Wildlife Guards.

Pearl-spotted Owlet *Glaucidium perlatum*: Not heard in the immediate vicinity of the Motel, but heard or seen everywhere else, in woodland and riparian; especially common Jang.

Fiery-necked (Black-shouldered) Nightjar *Caprimulgus pectoralis (nigriscapularis)*: Three seen feeding over Dam 1 at dusk (31 Aug.); short tail, squat silhouette and wellmarked white patch in wing. Whistled song well known to several Wildlife Guards (around Mole Motel and elsewhere). Not singing in Aug. (but imitated by *Cossypha albicapilla* at Kananto).

Freckled (Rock) Nightjar *Caprimulgus tristigma*: One singing irregularly around the Motel, often from the roof of chalets, and especially after rain. Also seen at dusk. Reported from the same area in Feb. and Mar. (R. Cruse *in litt.*; A.S. Riley *in litt.*), and Sutton (1970) found it on the Konkori scarp. Usually confined to rocky escarpments.

Long-tailed Nightjar *Caprimulgus climacurus*: Not singing at this time of year. One seen in flight at dusk, Brugbani camp. Likely more widespread and common (in woodland). Mottled Spinetail *Telacanthura ussheri*: Very local, as it nests in hollow Baobab trees (which are uncommon in Mole): one pair seen near the south-west boundary (9 Aug.), and one passing by Jang camp and flying around Baobabs for 10 min on 5 Sep.

African Palm Swift *Cypsiurus parvus*: Widespread in small numbers (nests in *Borassus* palms).

- Common (European) Swift *Apus apus*: A few seen on several dates, first on 7 Aug. then several at Mognori 27-28 Aug. Greig-Smith (1977a) had records late Oct./early Nov. Return passage noted 20 & 21 Apr. (A.S. Riley *in litt.*).
- Little Swift *Apus affinis*: At least 3 nests occupied at Motel shower block, feeding nestlings in Aug.
- White-rumped Swift *Apus caffer*: A few pairs located near culverts along the southern boundary road, west and east of Degbere camp. One small group of 6-7 birds (with juveniles?).
- Horus Swift *Apus horus*: At least two seen on the southern boundary road 13 Aug, next to *Apus caffer*. Identified by its only moderately forked tail but far more extensive white on the rump than *A. caffer*. It normally breeds in bee-eater holes. This is the first record for Ghana, extending its range westwards from southern Niger.
- Narina Trogon *Apaloderma narina*: Found in tall canopy of riparian forest at Degbere (*Anogeissus* grove), Mognori (Mole river), Brugbani (thicket edge of boval and riparian below Steep Hill, close to the Lovi river), and the Kananto area (Samole river). Seen and also located by song.
- Shining-blue Kingfisher *Alcedo quadibrachys*: One-two seen flying over the Mole river at Mognori; likely only on well-wooded, wide rivers.
- Malachite Kingfisher *Alcedo cristata*: A few by stream and pools below the Motel; also at a pool near Haraba-Haraba.
- African Pygmy Kingfisher *Ceyx pictus*: Widespread in riparian situations, thicket clumps in floodplains or on edge of bovals. One ringed. Probably mainly a rains visitor; Taylor & Macdonald (1978) found none at the end of Apr., though there are sightings for 27 Feb. and 20 Apr. (A.S. Riley *in litt.*).
- Blue-breasted Kingfisher *Halcyon malimbica*: Common in riparian situations (riparian forest and woodland, *Anogeissus* groves), even on small streams, as at Brugbani. Throughout; often displays aerially, calling high over the canopy. Three ringed.
- Woodland (Senegal) Kingfisher *Halcyon senegalensis*: Less common than last; edge of riparian forest on Samole (below Motel and at Degbere), Haraba-Haraba pool. An intra-African migrant (Greig-Smith 1976); reported nesting Jul.-Aug. (Greig-Smith 1977b), and seen in Oct. (Genelly 1969).
- Striped Kingfisher *Halcyon chelicuti* : Common in open woodland, on telegraph lines in the Motel area. Not noted elsewhere (where woodland is denser), except near Jang.
- Giant Kingfisher *Ceryle maxima*: One individual frequently visiting the stream below the Motel (Aug.-Sep.); one seen over the Mole river at Mognori.
- Little Bee-eater *Merops pusillus*: A few in moist grassland below the Motel and near Haraba-Haraba pool.
- Swallow-tailed Bee-eater *Merops hirundineus*: A woodland species that might be expected to be absent at the peak of the rains. However, 3 groups (of 3, 3 and at least 2 birds) were seen in woodland between Brugbani and Steep Hill on 20 Aug. Thought to be resident by Greig-Smith (1976). Harvey & Harrison (1970) also had rains records, juveniles were reported in Jul. (Greig-Smith 1977b), and single birds seen 17 Oct. (Genelly 1969) and 19 Dec. (Sutton 1970).
- Red-throated Bee-eater *Merops bullocki* (Sud.): Not breeding at this time, and found throughout open areas, on floodplain, near rivers, edge of roads and bovals. Two ringed.

European Bee-eater *Merops apiaster*: First passage noted 7 Sep. (a small group). Recorded mid-Oct. by Greig-Smith (1977a).

Blue-bellied Roller *Coracias cyanogaster* (Sud.): Uncommon; one in woodland near the western boundary (Ducie) and one near Brugbani. Harvey & Harrison (1970) saw up to 4 together during the rains, while R. Cruse (*in litt.*) reports it for Feb. A passage migrant according to Greig-Smith (1977a), or it may just be very thin on the ground. Broad-billed Roller *Eurystomus glaucurus*: Silent in Aug.-Sep. (breeding over), but seen occasionally at dusk, up to 10 feeding over Dam 1 below Motel; one seen over the Mole river at Mognori. Genelly (1969) saw it into Oct. and Greig-Smith (1977a) had

mostly wet season records, Apr. to Sep., though noted it also in Jan., and there have been small numbers to 16 Mar. (A.S. Riley *in litt.*).

Green (Red-billed) Wood-Hoopoe *Phoeniculus purpureus*: Widespread in woodland and riparian forest, small noisy parties.

Black Wood-Hoopoe (Scimitarbill) *Phoeniculus aterrimus*: Less common than last, usually in pairs and widespread.

Red-billed Hornbill *Tockus erythrorhynchus*: Singles or pairs seen in *Anogeissus* floodplain below the Motel, edge of bovals in Brugbani area, and woodland near Ducie and Jang. The only previous reports were of two 7-9 Aug. 1988 (Dutson & Branscombe 1990), although well known to Wildlife Guards for at least the last 4 years..

African Grey Hornbill *Tockus nasutus*: Almost absent from the park at this time. Singles noted on 6 Aug. (near Motel), 10 Aug. (near Ducie) and 1 Sep. (below Motel). Passage noted 17-23 Oct. (Genelly 1969), and there are a number of records Jan. to Apr. (several observers).

Abyssinian Ground Hornbill *Bucorvus abyssinicus*: A pair and a single male on a boval just north-east of Brugbani on 21 Aug. (also heard at dawn from Brugbani camp); one pair on the road near Jang (4 Sep.).

Yellow-fronted Tinkerbird *Pogoniulus chrysoconus*: Common in woodland and riparian forest throughout, and heard daily. Seen feeding on figs and mistletoes.

Vieillot's Barbet *Lybius vieilloti*: Widespread in woodland in small numbers, more often located by song. Seen on figs below Motel.

Bearded Barbet *Lybius dubius* (Sud.): Widespread in woodland and riparian formations. Fond of figs, and also seen on *Nauclea* fruit and *Cissus populnea*.

Greater Honeyguide *Indicator indicator*: Widespread in woodland, particularly common in the Brugbani area, and guiding behaviour by males (adults and immatures) very frequent there. Still singing sporadically in Aug. until the 20th. The suggestion that they occur "invariably in pairs" (Harvey & Harrison 1970) seems excessively odd for this polygamous, lekking species. We found that birds which tried to lead us were all males, usually adult.

Lesser Honeyguide *Indicator minor*: More local than last, usually in riparian formations (Degbere, stream below Motel, Mognori on the Mole). One in song at Mognori late Aug.

Fine-spotted Woodpecker *Campethera punctuligera*: In relatively tall woodland (requires large trees), Mole to Brugbani and along the southern boundary to Jang, etc.

Golden-tailed Woodpecker *Campethera abingoni*: Confined to riparian forest and rather local. Noted at Degbere, Kananto (Samole river), Mognori (Mole river) and

- HarabaHaraba pool. Calls frequently and this is the best way to locate the species, for which Mole is still the only known Ghanaian locality.
- Cardinal Woodpecker *Dendropicos fuscescens* : Mainly in riparian situations (Samole below the Motel, Degbere and Kananto), Brugbani. More rarely in very tall woodland (Degbere).
- Grey Woodpecker *Mesopicos goertae*: Mainly in riparian situations (very widespread), *Ceiba/Anogeissus* groves.
- Brown-backed Woodpecker *Picoides obsoletus*: Not uncommon in bird parties in woodland, Mole-Brugbani area, southern boundary, Mognori. Often feeds quite low down.
- Flappet Lark *Mirafraga rufocinnamomea*: Local, particularly common on bovals, rare elsewhere (hill at shooting range, woodland at Kananto, escarpment south of Mole). Much display in Aug.
- Sun Lark *Galerida modesta* (Sud.): Common on all 6 bovals visited. Singing on the ground and aerially, but breeding seemed to be over (in pairs and small groups of up to 6). This species was previously listed from Mole as Crested Lark *G. cristata* (see list of rejected species).
- Fanti Saw-wing *Psalidoprocne obscura*: A few pairs and family groups in riparian situations, throughout. Immatures recognisable by shorter tail, and still interacting with adults. Reported Jan. (Maze 1971), but this needs confirmation, and A.S. Riley (*in litt.*) found none in Feb., the first one 17 Mar. Small numbers noted in late Mar. and Apr. (several observers).
- Common (European) Sand Martin *Riparia riparia*: A couple with European Swallows over Dam 1 on 1 Sep. As many as 200 reported in Oct. (R.B. Payne in Greig-Smith 1977a).
- Rufous-chested (Red-breasted) Swallow *Hirundo semirufa*: A pair around one or two bovals near Brugbani.
- Mosque Swallow *Hirundo senegalensis*: More widespread than last, seen below Motel and in woodland in several places along the southern boundary. One pair called for periods of up to 30 min around two Baobabs at Jang (5 Sep.).
- Lesser Striped Swallow *Hirundo abyssinica*: A few pairs in woodland along the southern boundary, especially around culverts. Reported nesting in Aug. (Dutson & Branscombe 1990).
- Wire-tailed Swallow *Hirundo smithii*: A few near water, occasionally visiting dams below the Motel; one pair breeding under a new culvert on the Samole (road to Brugbani); also over bovals (Brugbani area), some of the culverts on the southern boundary road, and the Mole river at Mognori.
- Barn (European) Swallow *Hirundo rustica*: Passage of at least 30 on 1 Sep. near Dam 1, and next day too more feeding at dusk over water, with passage continuing on 7 Sep. Return passage noted 20 Apr. (A.S. Riley *in litt.*).
- Red-chested Swallow *Hirundo lucida*: A few at park headquarters (occasionally over water), near Degbere, Mognori and Jang.
- Red-shouldered Cuckoo-shrike *Campephaga phoenicea*: Common in riparian formations (throughout), *Anogeissus* groves or floodplains, thickets. In post-juvenile moult Aug.Sep. (Greig-Smith 1977b). A partial migrant, with numbers augmented in the wet season (Greig-Smith 1977a). Recorded rarely in the dry season, but common 20 & 21 Apr., one a yellow-shouldered male (A.S. Riley *in litt.*).

- White-breasted Cuckoo-shrike *Coracina pectoralis*: Local, in woodland; seen near southern boundary, at shooting range near Mole, Mognori and north of Brugbani.
- Yellow-throated Leaflove *Chlorocichla flavicollis*: A pair in song regularly in thick riparian forest on the Mole at Mognori (and probably more widespread upriver).
- Common Bulbul *Pycnonotus barbatus*: Very common, throughout. Four ringed.
- African (West African) Thrush *Turdus pelios*: Common, throughout woodland, riparian and also commensal (around camps). Four ringed.
- Snowy-headed Robin Chat *Cossypha niveicapilla*: In thickets, usually riparian but also small thickets under *Anogeissus* or on the edge of bovals, i.e. often deciduous thickets, from which presumably absent in the dry season. Vocal imitations included Red-chested Cuckoo, Orange-breasted Bush Shrike, Stone Partridge, Greater Honeyguide, Lizard Buzzard, European Bee-eater, Striped Cuckoo, African Golden Oriole. Three ringed. Greig-Smith (1976) suggested it was resident (though gave no dated records) and A.S. Riley (*in litt.*) had records 27 Feb. and 20 Apr. However, we believe that it is probably overwhelmingly a rains visitor (Taylor & Macdonald 1978) as elsewhere, these last authors finding none at the end of the dry season.
- White-crowned Robin Chat *Cossypha albicapilla* (Sud.): More restricted than last species, to riparian forest with an evergreen element (and normally resident): Haraba-Haraba pool, Samole river at Kananto, Mole river at Mognori. Dominates its smaller congener in evergreen situations. Vocal imitations include Lizard Buzzard, Greater Honeyguide, Blue-breasted Kingfisher, Stone Partridge, Grey Hornbill, Fiery-necked Nightjar. Two ringed.
- Familiar Chat *Cercomela familiaris*: Normally a species of rocky woodland: a pair seen occasionally around buildings at the Motel: 16 Aug. and 7 Sep. Also known from the Konkori scarp (Sutton 1970).
- White-fronted Black Chat *Thamnolaea albifrons* (Sud.): In pairs in woodland, between Mole and Brugbani and beyond (locally common), also edge of bovals.
- African Moustached Warbler *Melocichla mentalis*: Common in tall grass, usually near water, in floodplain or water-logged grassland, near streams etc. -- throughout.
- Senegal (Green-backed) Eremomela *Eremomela pusilla* (Sud.): Possibly the commonest species in woodland, also all other wooded habitats.
- Northern Crombec *Sylvietta brachyura*: In small numbers in woodland, edge of riparian, thickets on the edge of bovals.
- Yellow-bellied Hyliota *Hyliota flavigaster*: A local species of woodland, mainly near the southern boundary (near Degbere and Kananto), also once or twice near Brugbani.
- Zitting (Fan-tailed) Cisticola *Cisticola juncidis*: One-two noted in marsh below Motel in Aug., where grass fairly short.
- Croaking Cisticola *Cisticola natalensis*: Common in floodplain grassland, on some bovals (near Brugbani), also in patches of water-logged grassland with few trees (in open woodland near Ducie for example).
- Dorst's Cisticola *Cisticola guinea* (Sud.) (ex-*C. dorsti* and previously misidentified as *C. ruficeps*): Locally common in short, open woodland, either on sand (as between Brugbani and Haraba-Haraba pool) or on water-logged clay (near Ducie, between Mole and Brugbani, near Mognori, Degbere). Once in well-drained, open woodland north of Kananto. Often associated with Croaking Cisticola in wet situations, and with Rufous and Singing Cisticolas and Brown-rumped Bunting in dry woodland. This is

the species listed erroneously as Red-pate Cisticola *C. ruficeps* by Greig-Smith (1976) and others.

Rufous Cisticola *Cisticola rufus* (Sud.): The commonest species of dry woodland overall, occurring throughout, singing from the top of tall trees. The identity of this species was mistakenly questioned by Greig-Smith (1976). One ringed.

Short-winged Cisticola *Cisticola brachypterus*: May be confused with Rufous Cisticola, but less warmly coloured, and different voice and ecology. Although may overlap marginally, is overall in moister situations, edge of water-logged grassland, floodplain with bush layer or small trees (*Ziziphus*, *Mitragyna*), moist ecotone between riparian forest and dry woodland. Common.

Whistling Cisticola *Cisticola lateralis*: Very common in rank grass/shrubs and thicket clumps in woodland, edge of riparian. Sings from tall trees and feeds in trees or thickets, as well as in grassland. Tends to be in better-developed woodland than other *Cisticola* species, and has larger territories. Throughout.

Red-faced Cisticola *Cisticola erythropis*: More local than other cisticolas, as always near water (marsh and streams), in rank grass and shrubs. Always found alongside Moustached Warblers.

Singing Cisticola *Cisticola cantans*: Very widespread in dry woodland, favouring the shrub layer. More scattered than Rufous Cisticola, but nevertheless quite common.

Winding (Greater Black-backed) Cisticola *Cisticola galactotes*: Confined to marsh below Motel, particularly in sedges.

Tawny-flanked Prinia *Prinia subflava*: Any rank grass/shrubs in woodland or floodplain; very common. Can feed in trees and shrubs (and will be obliged to do so when grass is burnt).

Red-winged Warbler *Heliolais erythropterus*: Almost as common as the last species in woodland, rank grass and shrubs, also locally in floodplain/edge of riparian. Frequently counter-sings with Prinias!

Yellow-breasted Apalis *Apalis flavida*: Common in riparian thickets or forest, including shrub layer or small trees (e.g. *Morelia* and *Cola laurifolia* on the Samole below the Motel), but feeding also in taller riparian trees, including *Anogeissus*. Found at all suitable localities visited (Mole, Degbere, Kananto, Mognori, Haraba-Haraba pool). It is not understood why Grimes (1987) rejected his own observation from Mole!

Grey-backed Camaroptera (Bleating Bush Warbler) *Camaroptera brachyura*: Very common in riparian formations throughout, and small thickets on floodplain or edge of bovals, more locally in small thicket clumps in woodland. Four ringed.

Oriole Warbler *Hypergerus atriceps* (Sud.): Common in riparian forest or thickets which are mainly evergreen (on the Samole from Kananto to Mole; Haraba-Haraba pool; Mole river at Mognori, and presumably upriver too; riparian below Steep Hill). Very conspicuous at Kananto in a big patch of riparian forest; feeds in the shrub layer and mid-stratum.

Pale (Pallid) Flycatcher *Bradornis pallidus*: Fairly common throughout in woodland.

Northern (Western) Black Flycatcher *Melaenornis edolioides*: Common on the edge of riparian and floodplain (especially *Anogeissus*), in tall trees with open ground nearby.

- Swamp Flycatcher *Muscicapa aquatica*: A pair on the edge of Dam 1, and also HarabaHaraba pool. In riparian forest and low trees over water; it is probably more widespread (e.g. on large rivers with suitable wooded banks).
- Ashy Flycatcher *Muscicapa caerulescens*: One seen in tall *Nauclea pobeguinii* trees in water at Haraba-Haraba pool; certainly confined to riparian forest, its status needs to be checked later along the larger rivers.
- Lead-coloured Flycatcher *Myioparus plumbeus*: Usually in riparian formations (forest and woodland), but also in dry *Anogeissus* forest (near the park entrance), and thickets on the edge of bovals. Widespread.
- Senegal Batis *Batis senegalensis*: Widespread in woodland and on the edge of riparian forest.
- Common (Scarlet-spectacled) Wattle-eye *Platysteira cyanea*: Confined to riparian forest but quite common (even thin riparian on the Samole or Brugbani stream) and riparian woodland. One ringed.
- African Blue Flycatcher *Elminia longicauda*: In the same habitat as the last species, but in smaller numbers.
- African Paradise Flycatcher *Terpsiphone viridis*: Riparian forest and woodland, also dry *Anogeissus* forest, thickets on the edge of bovals, some thicket clumps in woodland. A partial migrant, with numbers augmented in the wet season, according to GreigSmith (1977a); there are few dated observations, but reported to at least 6 Oct. (Genelly 1969) and again a few in Feb. to 20 Apr. (R. Cruse *in litt.*; A.S. Riley *in litt.*). At Tumu, further north, apparently present only in the rains (Sutton 1970).
- Brown Babbler *Turdoides plebejus*: Widespread and common in woodland, edge of (open) riparian.
- Blackcap Babbler *Turdoides reinwardtii* (Sud.): Much more habitat-specific than the Brown Babbler, as confined to riparian forest with some evergreen elements (but then quite common, as on the Mole river at Mognori, Samole at Kananto, Haraba-Haraba pool). White-shouldered (White-winged) Black Tit *Parus leucomelas*: Common in all woodland types.
- Yellow (West African) Penduline Tit *Anthoscopus parvulus* (Sud.): Uncommon; observed in three places in woodland, normally in pairs (western boundary near Ducie, Brugbani and Jang). Seen feeding on the flowers of *Detarium*.
- Spotted Creeper *Salpornis spilonotus*: A very discreet species, usually noted in mixed bird parties in woodland, Mole to Brugbani and beyond, the southern boundary road and Mognori. One at a nest 8 Feb. (Plat 1997).
- Western Violet-backed Sunbird *Anthreptes longuemarei*: Uncommon; a pair seen on *Ziziphus* flowers below the Motel (once), and in woodland near Mognori.
- Green-headed Sunbird *Nectarinia verticalis*: Fairly common in rich riparian forest (including *Anogeissus*) at Degbere, Kananto and Mognori, also visiting mistletoe flowers in a *Ceiba* in Brugbani camp.
- Scarlet-chested Sunbird *Nectarinia senegalensis*: The commonest sunbird, throughout woodland, thickets and forest.
- Variable (Yellow-bellied) Sunbird *Nectarinia venusta*: Rare; 1-2 in eclipse plumage in riparian at Haraba-Haraba pool.
- Copper (Coppery) Sunbird *Nectarinia cuprea*: Locally common in wet, open bush and woodland, especially in *Ziziphus* and *Mitragyna* in the Motel marsh, *Mitragyna* near Mognori and Haraba-Haraba pool, woodland (edge of riparian) at Kananto. Seen feeding on nectar of Teak flowers at Mognori.

Splendid Sunbird *Nectarinia coccinigastra* (Sud.): In riparian forest and woodland, also tall woodland not too far from rivers; often at mistletoes growing on *Ceiba* trees planted in camps.

Beautiful Sunbird *Nectarinia pulchella*: Most birds seen in Aug. were in (partial) eclipse plumage: on *Ziziphus* flowers (below Motel), riparian woodland/floodplain (near Haraba-Haraba pool), riparian forest at Mognori and *Mitragyna* in floodplain. Considered resident (Greig-Smith 1977a); breeding Aug.-Oct. (Genelly 1969; Greig-Smith 1977b).

Yellow White-eye *Zosterops senegalensis*: Usually common in riparian forest and woodland, also in thickets (as on the edge of bovals), dry *Anogeissus* forest and, more locally, in woodland, especially near water.

African Golden Oriole *Oriolus auratus*: Widespread during Aug.-Sep. in riparian formations, *Anogeissus/Mitragyna* floodplain (feeding mainly on figs), and locally in woodland and dry *Anogeissus* forest. Apparently resident, and not just a dry season visitor, *contra* Greig-Smith (1977a); also recorded Jan. to Apr. (several observers). Yellow-billed Shrike *Corvinella corvina* (Sud.): In monospecific groups, in fairly open woodland, but not continuously distributed; likes some open ground to hunt in, as on the edge of bovals and bush camps.

Brubru *Nilaus afer*: Widespread in woodland, in small numbers, also in escarpment woodland and the edge of floodplain.

Northern Puffback *Dryoscopus gambensis*: Common in riparian forest and woodland, thicket edge of bovals, *Anogeissus* forest, and generally around thicket clumps in woodland. Two ringed.

Black-crowned Tchagra *Tchagra senegalus*: Very common throughout woodland and on the edge of floodplain.

Tropical Boubou *Laniarius aethiopicus*: Local, in dense thickets in riparian forest (on the Samole river at Degbere and Kananto, near Haraba-Haraba pool).

Yellow-crowned Gonolek *Laniarius barbarus*: Common in riparian thicket and riparian forest (the Motel marsh, Samole river throughout, Mole river, Brugbani etc.).

Sulphur-breasted (Orange-breasted) Bush-Shrike *Malaconotus sulfureopectus*: Common in riparian forest and woodland, and floodplain with tall trees (especially *Anogeissus*).

Grey-headed Bush-Shrike *Malaconotus blanchoti*: Smaller numbers than the last species, but more widespread, as also in tall woodland.

White Helmet Shrike *Prionops plumatus*: Widespread in woodland, *Anogeissus* forest; in monospecific groups, sometimes accompanied by other species (especially Redheaded Weaver and Fork-tailed Drongo).

Square-tailed Drongo *Dicrurus ludwigii*: In tall riparian forest, hunting in the understorey; on the Mole river at Mognori and in a large patch of forest on the Samole river at Kananto.

Fork-tailed Drongo *Dicrurus adsimilis*: Widespread in all woodland types.

Pied Crow *Corvus albus*: A rare visitor at this season to Mole headquarters, where one on 16 Aug. Greig-Smith (1977a) had records only in the latter half of the dry season.

Purple Glossy Starling *Lamprotornis purpureus* (Sud.): The only "glossy" starling definitely identified in Aug.: big flocks flying in the evening into the park at Ducie (having fed in fields outside); a few at Jang and Mognori; a pair once in grassland below the Motel (7 Aug.).

Long-tailed (Northern Long-tailed) Glossy Starling *Lamprotornis caudatus*: Very local, in open wooded floodplain: a group of up to 6 birds in the marsh below the Motel; a few near Haraba-Haraba pool; a pair near Jang. Although not reported by previous visitors, Wildlife Guards with long experience of Mole assure us it has been present for at least the past 20 years.

Yellow-billed Oxpecker *Buphagus africanus*: Evidently rare; we saw only one, on a Warthog in the marsh below the Motel on 7 Aug. This was also the host for one seen by Dutson & Branscombe (1990). It may be expected to occur on the few buffalo left in the park, but we were not able to get a view of these. This is the only locality known for the oxpecker in Ghana, exterminated elsewhere by cattle dipping.

Northern Grey-headed Sparrow *Passer griseus*: In part commensal, and common, but also in woodland and on the edge of floodplain.

Bush Petronia *Petronia dentata* (Sud.): Very uncommon in Aug., with 1-2 in woodland (Ducie, Degbere and near Mole headquarters). Reported to be much more common in the dry season; hundreds in Feb. though none noted late Apr. (A.S. Riley *in litt.*).

Chestnut-crowned Sparrow Weaver *Plocepasser superciliosus* (Sud.): Widespread and quite common (in any woodland), usually in more thickly-wooded areas.

Little Weaver *Ploceus luteolus*: The most widespread weaver in Mole, in territorial pairs in riparian woodland, *Acacia* (Jang), floodplain (*Anogeissus*, *Ziziphus*, *Mitragyna*). Several nests in *Acacia dudgeoni* and *A. gourmaensis* at Jang, next to wasps' nests. Black-necked Weaver *Ploceus nigricollis*: Singles or pairs seen in rich riparian forest at Mognori and Kananto.

Heuglin's Masked Weaver *Ploceus heuglini* (Sud.): An old nest and a fresher one in a big *Acacia sieberiana* on the edge of the new camp at Jang were not occupied early Sep. Village Weaver *Ploceus cucullatus*: A few nesting in a tree over Dam 1; some feeding in riparian forest at Mognori (nesting in the nearby village); and in *Acacia* woodland near Jang (nesting by stream outside park).

Black-headed (Yellow-backed) Weaver *Ploceus melanocephalus*: At least one active male displaying and chasing females in low bushes over water at Haraba-Haraba pool (1921 Aug.), and one fresh nest seen there, low over water. Also one male displaying by the Mole river at Mognori (25-28 Aug.); 3 nests and a single one (some fresh) seen in low bush 1 m over water on the Samole river (road to Brugbani) 8 Sep. Mole is the only known locality for this species in Ghana, although it is likely to occur elsewhere in the Volta drainage system.

Red-headed Weaver *Anaplectes melanotis*: Occasional in woodland, *Anogeissus* forest and on the edge of riparian. Often in association with groups of White Helmet Shrikes. Red-headed Quelea *Quelea erythrops*: A group of at least 20 birds (6 males in breeding dress) in *Mitragyna* floodplain near Haraba-Haraba pool, feeding on grass seeds 1921 Aug. Breeding activity has been noted Jul. and Sep. (Greig-Smith 1977b); Maze (1970) reported large numbers Jan. and Apr.

Yellow-crowned Bishop *Euplectes afer*: Common in floodplain (flooded grassland and sedges) below the Motel; also near Haraba-Haraba pool and the Mole floodplain near Mognori. A female seen nest-building 1 Sep.

Black-winged Red Bishop *Euplectes hordeaceus*: Groups of territorial males established in tall grassland with bushes in open woodland, edge of floodplain: near Mole

headquarters, along the southern boundary, near Haraba-Haraba pool, and particularly common at Jang.

Northern Red Bishop *Euplectes franciscanus*: In floodplain grassland (with *Mitragyna*), near Mole headquarters, Haraba-Haraba pool, particularly common at Mognori (even into tall mint scrub near village), and locally on bovals such as the big one before Steep Hill, where singing from tall trees on the edge!

Yellow-mantled Widowbird (Whydah) *Euplectes macrourus*: Widespread in open woodland with extensive grass cover, also in *Mitragyna* floodplain (e.g. below Mole Motel, Haraba-Haraba pool), and in some large bovals (near Brugbani).

Yellow-winged Pytilia *Pytilia hypogrammica* (Sud.): Rare; one male well seen in short woodland just north of Mole headquarters. Also reported (as rare) by N.C. Davidson (in Greig-Smith 1976). It seems possible a report of Melba Finch *Pytilia melba* (D. Kpelle in Wilson 1993) was in error for this species.

Red-winged Pytilia *Pytilia phoenicoptera* (Sud.): More widespread, in woodland with small thickets: between Mole and Brugbani, Mognori and near the park entrance.

Bar-breasted (Brown) Firefinch *Lagonosticta rufopicta* (Sud.): In riparian thickets, as below the Motel, riparian forest and thicket at Mognori (on the Mole river), and near Degbere.

Red-billed Firefinch *Lagonosticta senegala*: Thickets and short woodland near settlements (Mole, Mognori, Jang), but also far from them as on the edge of bovals near Brugbani.

Black-bellied Firefinch *Lagonosticta rara* (Sud.): In ranker growth than other firefinches: very tall grass and rich woodland in valley bottoms (Degbere), edge of riparian forest (Kananto, Brugbani stream) and rare in riparian thickets below the Motel.

Black-faced Firefinch *Lagonosticta larvata* (Sud.): The most widespread firefinch, in woodland (short woodland near the park entrance, denser on the edge of bovals, and open Sudanian woodland anywhere). Recorded in all sites visited.

Lavender Waxbill *Estrilda caerulescens* (Sud.): A few in thickets edge of floodplain (Mole etc. to Jang) and riparian forest (Mognori, Haraba-Haraba pool).

Orange-cheeked Waxbill *Estrilda melpoda*: Common in rank grass, open woodland and near water.

Black-rumped Waxbill *Estrilda troglodytes* (Sud.): Several feeding on grass seeds edge of Jang camp, and in woodland on the boundary road near Jang (seen next to Orangecheeked Waxbills).

Red-cheeked Cordon-bleu *Uraeginthus bengalus*: Common in woodland with small thicket clumps and on the edge of floodplain and riparian formations.

African Quailfinch *Ortygospiza atricollis*: Several pairs or singles noted in marsh below the Motel, in a boval near Brugbani, and flying over short woodland between Mole and the Samole crossing (on the Brugbani road).

Bronze Mannikin *Spermestes cucullatus*: Very common in any grassland (often feeding next to waxbills and canaries).

Village Indigobird *Vidua chalybeata*: Identified definitely only near Mole headquarters.

Cameroon Indigobird *Vidua camerunensis*: Several males in breeding dress singing near Kananto camp, producing clear imitations of the calls and songs of its breeding host, the Black-bellied Firefinch.

- Baka Indigobird *Vidua larvaticola*: Identified definitely in three places: Brugbani area (boval near Steep Hill and near the camp), and between the park entrance and Mole headquarters (where several males sing by the side of the road). The host is Blackfaced Firefinch.
- Wilson's (Pale-winged) Indigobird *Vidua wilsoni*: Identified with certainty only at Mognori, on the edge of riparian forest, where a male and female were seen associating with Bar-breasted Firefinch, the known host.
- Pin-tailed Whydah (Widow) *Vidua macroura*: Any open and relatively short grassland, floodplain, open woodland, bovals.
- Exclamatory Paradise Whydah (Uelle Paradise Widow) *Vidua interjecta* (Sud.): The more widespread of the two Paradise Widows; near Mole, Brugbani, Haraba-Haraba, Mognori (in woodland, floodplain and the edge of bovals). The identity of a specimen that was once in the museum at Mole was confirmed by R.B. Payne (*in litt.* 2004). The host is Red-winged Pytilia.
- Togo Paradise Whydah (Widow) *Vidua togoensis* (Sud.): Two males in breeding dress seen once in short woodland between the park entrance and headquarters. The host is Yellow-winged Pytilia.
- Yellow-fronted Canary *Serinus mozambicus*: Very common, and throughout (woodland, floodplain).
- Streaky-headed Seedeater *Serinus gularis*: Common in well-developed woodland along the southern boundary, Mole to Brugbani and beyond, also near Mognori. It has a very complex song, a succession of phrases, several being imitations of other species (especially the call-notes of Swallow-tailed Bee-eater, and of Black Tit).
- Brown-rumped Bunting *Emberiza affinis* (Sud.): Locally common in woodland, especially fairly open, short woodland: near Mole, Ducie, Brugbani area, Mognori and Kananto.
- Cabanis's Bunting *Emberiza cabanisi*: More local than the last species, in relatively tall woodland: near Degbere-Kananto, Mognori, Brugbani area (including the edge of some bovals). One ringed.

4.2. SPECIES REPORTED BY OTHER OBSERVERS

- Great (Common) Bittern *Botaurus stellaris*: A specimen of this Palaearctic migrant, collected Oct./Nov. 1971 (Grimes 1987) and the only Ghanaian record, is no longer in existence.
- Little Bittern *Ixobrychus minutus*: Reported in the past from the Motel marsh and Asibey's pools, in both the rainy season (Harvey & Harrison 1970) and dry season (Wilson 1993), and considered resident (Greig-Smith 1976).
- Dwarf Bittern *Ixobrychus sturmi*: Reported by several observers, and considered resident by Greig-Smith (1976), but we would expect it to be essentially a rains visitor to marshy areas, and dry season records may be due to confusion with Green-backed Heron. Genelly (1969) listed this species, but not the common Green-backed Heron. We saw one early Sep. outside the park, east of Damongo.
- White-backed Night Heron *Gorsachius leuconotus*: Evidently occurs rarely on the Samole river below the Motel, judging by convincing descriptions from Z. Wareh.

- Squacco Heron *Ardeola ralloides*: Greig-Smith (1976) considered that both intra-African and Palaearctic migrants occur, but the only dated records fall between 12 Oct. (Genelly 1969) and Apr. (Maze 1971), all suggestive of just Palaearctic birds.
- Cattle Egret *Bubulcus ibis*: An intra-African migrant, present quite commonly in the dry season, extreme dates 22 Oct. (Genelly 1969) and 20 Apr. (A.S. Riley *in litt.*).
- Little Egret *Egretta garzetta*: One or two recorded 10 Feb. (R. Cruse *in litt.*) to 17 Mar. (A.S. Riley *in litt.*), probably as a Palaearctic migrant.
- Great (Great White) Egret *Egretta alba*: There are a few records, dated ones falling between 20 Aug. (Harvey & Harrison 1970) and 20 Apr. (A.S. Riley *in litt.*), and the species is more likely a Palaearctic migrant, rather than intra-African as suggested by Greig-Smith (1976).
- Purple Heron *Ardea purpurea*: Greig-Smith (1976) considered that both intra-African and Palaearctic migrants occur; dated records are for 22 Aug. to 20 Apr. (several observers), and probably refer just to Palaearctic birds.
- Goliath Heron *Ardea goliath*: There are sight records of single birds 25 Aug. (Harvey & Harrison 1970), sometime Jan.-Mar. (Wilson 1993) and 23-26 Mar. (Grimes 1987).
- Yellow-billed Stork *Mycteria ibis*: Maze (1971) had records of up to 15 in Jan., Apr. and Aug. but there are no other firm reports, and its status needs clarification. A nesting colony in a village east of the park, reported to Harvey & Harrison (1970), may have been misidentified (Grimes 1987).
- African Openbill Stork *Anastomus lamelligerus*: Probably an intra-African migrant (Greig-Smith 1976); of the few records the only dated one is for late Jan. (Wilson 1993).
- Abdim's Stork *Ciconia abdimii*: One on the early date of 27 Feb. (A.S. Riley *in litt.*). This intra-African migrant is on passage between winter quarters in southern Africa and breeding areas in the Sahel, and is also known from nearby Damongo on 2 Apr. (Macdonald 1979). Two other records from Mole on dates sometime between Jan. and Mar. (Maze 1971; Wilson 1993) lack details to separate them from the easily confused European Black Stork *C. nigra*.
- Black Stork *Ciconia nigra*: Definite records of this Palaearctic migrant are: one from at least 13-26 Feb. 2002 (R. Cruse, 2002, *Bull. Afr. Bird Club* 9: 145) and one 27 Feb. 2003 (A. Riley 2004, *Bull. Afr. Bird Club* 11: 174). Two reports of Abdim's Stork may have been the present species (see above).
- White Stork *Ciconia ciconia*: One of these Palaearctic migrants was apparently collected in Mole (Greig-Smith 1976; Grimes 1987: 240), but the specimen and hence date and other details have been lost.
- Marabou Stork *Leptoptilos crumeniferus*: There is at least one colony, long-established, in Mole (Grimes 1987) north of the Lovi river (Wilson 1993), with nests occupied Mar. (Greig-Smith 1977b). Seen frequently late Mar. 1964 (Sutton 1965).
- Sacred Ibis *Threskiornis aethiopicus*: The only dated record is of one at Asibey's pools in Mar. (Wilson 1993). A nesting colony north of the Lovi river attributed tentatively to this species (Harvey & Harrison 1970) is considered to be certainly in error for Marabou Storks.
- Knob-billed Duck *Sarkidiornis melanotos*: The only record of this intra-African migrant is of 3 in Jan. (Maze 1971).

- African Pygmy Goose *Nettapus auritus*: Claimed as resident by Greig-Smith 1976, but this is unlikely to be other than an irregular visitor: the only dated records (both from below the Motel) are of a pair sometime Jan.-Mar. (Wilson 1993) and two pairs on 22 Aug apparently prospecting old trees for nest sites (Harvey & Harrison 1970).
- European Honey Buzzard *Pernis apivorus*: There is one acceptable record of this Palearctic migrant: one 8 Oct. (R.B. Payne *in litt.*; Grimes 1987). There is also a possible sighting dated 20 Sep. (Genelly 1969).
- Black-shouldered Kite *Elanus caeruleus*: A.S. Riley (*in litt.*) saw one 27 Feb. and Wilson (1993) one on a date between Jan. and Mar. There was apparently a skin collected in Mole (Grimes 1987: 241), no longer available.
- African Fish Eagle *Haliaeetus vocifer*: It used to nest on occasion on the Samole below the Motel (e.g. N.C. Davidson in Greig-Smith 1977b), but has not done so in recent years (Wildlife Guards' reports).
- Beaudouin's Snake Eagle *Circaetus beaudouini*: A single adult well seen on 10 and 11 February 2003 (R. Cruse *in litt.*). Harvey & Harrison 1970 reported "a pair" well seen on several occasions up to mid-Aug. near the Motel; the dates certainly suggest this species, rather than the European Short-toed Snake Eagle *C. gallicus*, separable with difficulty. Status remains to be confirmed.
- Western Banded Snake Eagle *Circaetus cinerascens*: Greig-Smith (1976) reported it as a rare resident in riverine situations, a comment erroneously changed to "occasionally in wet season" by Grimes (1987). Thiollay (1977) reported a probable breeding pair 27-29 Mar., and the species was noted 20 Apr. (A.S. Riley *in litt.*).
- Eurasian Marsh Harrier *Circus aeruginosus*: Examples of this Palearctic migrant were seen 8-9 Feb. 1997 (Plat 1997) and 27 Feb. 2003 (A.S. Riley *in litt.*).
- Dark Chanting Goshawk *Melierax metabates*: The only records are of one near the Motel 14 Aug. (Harvey & Harrison 1970) and singles 25 & 27 Feb. (R. Cruse *in litt.*; A.S. Riley *in litt.*). Greig-Smith (1976) attributes a record to M. Edmunds and L. Grimes, but this is not repeated in Grimes (1987).
- Gabar Goshawk *Melierax gabar*: Reported by several observers, including a melanistic individual (Genelly 1969), and we saw one outside the park not far from the western boundary.
- Ovambo Sparrowhawk *Accipiter ovampensis*: A melanistic bird was reportedly seen on 16 Mar. (A. Riley 2004, *Bull. Afr. Bird Club* 11: 174). A "probable" sighting over the Motel marsh 31 Jul. (Harvey & Harrison 1970) lacks any description on which to judge its correctness or not.
- Grasshopper Buzzard *Butastur rufipennis*: An intra-African migrant, occurring in Mole only in the dry season, when apparently common, with up to 35 birds at a grass fire sometime between Jan. and Mar. (Wilson 1993). Dated records in Feb. (R. Cruse *in litt.*; A.S. Riley *in litt.*).
- Booted Eagle *Hieraetus pennatus*: A dark phase individual of this Palearctic migrant was reported on 10 Feb. 2003 (R. Cruse 2003, *Bull. Afr. Bird Club* 10: 135).
- Long-crested Eagle *Lophaetus occipitalis*: Occurs, but few definite records (Greig-Smith 1976, Wilson 1993).
- Secretary Bird *Sagittarius serpentarius*: Occurs occasionally in open grassland; Wilson (1993) saw it only once in three dry season months. Reported by some Wildlife Guards from bovals.

- Lesser Kestrel *Falco naumanni*: Some 50 of this Palaearctic migrant were reported from Mole in Jan. 1968, including 20 at one bush fire on 7th (Maze 1971).
- Common Kestrel *Falco tinnunculus*: Two reported early Sep. over the scarp (Harvey & Harrison 1970); there was apparently a specimen (Grimes 1987: 241); and singles were seen 14 Feb. and 17 Mar. (R. Cruse *in litt.*; A.S. Riley *in litt.*). In none of these is it possible to be sure if the African or European population is involved. Greig-Smith (1977a) mentioned records Oct.-Dec., but they include those that Greig-Smith (1976) credited to R.W.W. Sutton, which were not from Mole, but from Tumu, in the far north of Ghana, Nov.-Dec. (Sutton 1970). The status of this species in Mole requires confirmation.
- African Hobby *Falco cuvierii*: A sub-adult photographed on 20 Apr. (A.S. Riley & D.J. Hoddinott *in litt.*). Said by Greig-Smith 1976 to be resident in small numbers, but some reports, e.g. a bird seen in flight 28 Feb. 2003 (R. Cruse *in litt.*), might refer to this species or Eurasian Hobby *F. subbuteo*.
- Eurasian Hobby *Falco subbuteo*: One was seen 6 Apr. (Taylor & Macdonald 1978).
- Blue Quail *Coturnix chinensis*: Resident in small numbers in grassland, according to Greig-Smith (1976). The only other reports are also surprising, for an elusive species which is normally a rainy season visitor: "seen occasionally, but not as common as one would expect" in the period Jan.-Mar. (Wilson 1993) and two in Jan. (Maze 1971). Further investigation needed.
- Common Moorhen *Gallinula chloropus*: Reported occasionally from Asibey's pools and the Motel dams (Greig-Smith 1976, Wilson 1993).
- Black (Northern) Crowned Crane *Balearica pavonina*: There are a couple of reports, the latest of one on 15 Oct. 1975 at Lovi (Payne in Greig-Smith 1976; R.B. Payne *in litt.*). This species has become very rare in most of West Africa in recent years, a result in part of human persecution.
- Denham's Bustard *Neotis denhami*: A dry season visitor in very small numbers, extreme dates 20 Dec. (Sutton 1970) and Apr. (Maze 1971). Wilson (1993) saw single birds on three occasions during aerial surveys in the period Jan.-Mar.
- Greater Painted-Snipe *Rostratula benghalensis*: A male was caught on 8 Apr. and two seen the next day (Taylor & Macdonald 1978). Also four females on 12 Feb. (R. Cruse *in litt.*).
- Black-winged Stilt *Himantopus himantopus*: Four birds were present for several days in Jan. at pools below the Motel (Wilson 1993), and the species is known to Wildlife Guards as an occasional visitor.
- Senegal Thick-knee *Burhinus senegalensis*: Dated records are between Jan. and Apr. (several observers), with up to 12 calling at night below the Motel, on dates between 27 Feb. & 20 Apr. (A.S. Riley *in litt.*).
- Spotted Thick-knee (Dikkop) *Burhinus capensis*: Reported only by Greig-Smith (1976), and perhaps only a rare dry season visitor, as suggested by Grimes (1987).
- Egyptian Plover *Pluvianus aegyptius*: Two were seen at pools below the Motel in the period Jan.-Mar. (Wilson 1993), and there was at one time a specimen in the collection at Mole (Grimes 1987: 242).
- Bronze-winged Courser *Rhinoptilus chalcopterus*: There are a few records, including three specimens 31 Dec. to 19 Mar. (Grimes 1987), and sight records (on the road at night) late Mar. (Sutton 1965).

Temminck's Courser *Cursorius temminckii*: A group of 11 was on the playing field at Mole sometime Jan.-Mar. (Wilson 1993), and a group of four were at the same place on an unrecorded date, another year (Z. Wareh pers. comm.).

Kittlitz's Plover *Charadrius pecuarius*: There is a single sighting by N.C. Davidson, apparently in the wet season (Greig-Smith 1976, Grimes 1987).

White-headed Lapwing (White-crowned Plover) *Vanellus albiceps*: Sutton (1970) saw two at Nyanga on the Mole river, 20 Dec.

Spur-winged Lapwing (Plover) *Vanellus spinosus*: There are acceptable, undated, reports from Wildlife Guards, in the grassland below the Motel in the dry season. The only dated report is of one there 27 Feb. (A.S. Riley *in litt.*).

Lesser Black-winged Plover *Vanellus lugubris*: Two were by the pools below the Motel, 27 Feb. 2003 (A.S. Riley *in litt.*).

Common Snipe *Gallinago gallinago*: Listed by Greig-Smith (1977a) on several dates during Nov.

Great Snipe *Gallinago media*: There was a specimen from Mole, apparently in Oct. (Greig-Smith 1977a; Greig-Smith in Grimes 1987: 242).

Whimbrel *Numenius phaeopus*: Three individuals of this coastal wader were reported seen and heard in flight over the Motel 21 Aug. (Harvey & Harrison 1970) - erroneously given as Sep. (Greig-Smith 1977a).

Marsh Sandpiper *Tringa stagnatilis*: Reported by Greig-Smith (1977a) in late Nov.

Common Greenshank *Tringa nebularia*: Reported by Greig-Smith (1977a) in early Dec.

Green Sandpiper *Tringa ochropus*: Small numbers between 19 Dec. (Sutton 1970) and 17 Mar. (A.S. Riley *in litt.*).

Ruff *Philomachus pugnax*: Reported by Greig-Smith (1977a), early Dec.

Four-banded Sandgrouse *Pterocles quadricinctus*: Evidently a regular dry season visitor, though perhaps not as common as the "abundant" reported by Greig-Smith (1976). Extreme dates are Dec.-Jan. (when Sutton (1970) found it "numerous" at the Motel dam) to 28 Feb. (A.S. Riley *in litt.*), although Greig-Smith (1977a) presumably saw it in Nov. Well known to Wildlife Guards.

European Turtle Dove *Streptopelia turtur*: Singles collected in Mole 12 Oct. and 12 Nov. 1971 (Walsh & Grimes 1981), and Greig-Smith (1977a) had records in the second half of Nov. and early Dec. Probably no more than irregular this far south.

African Collared (Rose-grey) Dove *Streptopelia roseogrisea*: Two, well seen on 5 Apr. (Taylor & Macdonald 1978), were vagrants from the Sahel.

Namaqua Dove *Oena capensis*: There are two undated records, including one collected (Greig-Smith 1976, Grimes 1987: 242).

Green (Guinea) Turaco *Tauraco persa*: Reportedly seen occasionally by Greig-Smith (1976) without a locality, and by Wildlife Guards (pers. comm., including a vagrant on the Samole below the Motel). A brief sighting by Maze (1971) may be doubted, as he did not record the far more common Violet Turaco. Seasonal status of this forest species ought to be investigated.

Jacobin Cuckoo *Clamator jacobinus*: White-breasted birds reported four times in the rains by Harvey & Harrison (1970), and also listed by Greig-Smith (1976), without dates.

Black Coucal *Centropus grillii*: Greig-Smith (1976) considered it resident in small numbers, but no evidence is given, apart from "held territory, July and Aug 1974" (Greig-Smith

1977b): this is likely to have been the flooded grassland below the Motel. It is unlikely to have been any more than a rains visitor. One was reported on 8 Aug. 1988 (Dutson & Branscombe 1990). There have been no subsequent records, and the species is unknown to the more knowledgeable Wildlife Guards; it was also stressed to us (by Wildlife Guards) that the height of the grassland in the Mole marsh has decreased considerably in the last 1-2 decades (through Elephant use and other game) and the present habitat is considered unsuitable for this species.

Verreaux's (Giant) Eagle Owl *Bubo lacteus*: An adult seen at 17h in Mar. 1993 (Helsens 1996). An "almost certain" sighting of one on the Damongo scarp (Harvey & Harrison 1970) became "a certain sighting Mole" (Grimes 1987); it would, in any case, have been outside the park.

Standard-winged Nightjar *Macrodipteryx longipennis*: This intra-African migrant is reported from Jan. (Macdonald 1979) to Apr (Maze 1971), especially in Mar. when as many as four males on the airstrip on 16th (A.S. Riley *in litt.*) and many on roads at night at the end of the month (Sutton 1965).

Pallid Swift *Apus pallidus*: Two were seen on 19 Dec. 1971 (J.F. Walsh in Walsh & Grimes 1981).

Grey-headed (Chestnut-bellied) Kingfisher *Halcyon leucocephala*: Apparently a common dry season visitor, Nov.- 21 Apr. (Grimes 1987; A.S. Riley *in litt.*). A report of one on 3 Aug. (Harvey & Harrison 1970) is odd.

Pied Kingfisher *Ceryle rudis*: Wanderers occur occasionally, up to 3 reported (Genelly 1969).

White-throated Bee-eater *Merops albicollis*: An intra-African migrant (Greig-Smith 1976), probably just a passage migrant in the dry season to and from its Sahel breeding areas. The only dated record is of a flock 20 Apr. (A.S. Riley *in litt.*).

Northern Carmine Bee-eater *Merops nubicus*: There is a well-known breeding colony (Grimes 1987), on the Mole river just north of Nyanga camp, with some 24 nests and 100 birds present early 1993 (Wilson 1993), presumably the large colony reported by Sutton (1965) late Mar. 1964. Dated records appear to fall between mid-Aug. (Harvey & Harrison 1970) and Apr. (Maze 1971).

European Roller *Coracias garrulus*: Singles seen 17 Mar. (A.S. Riley *in litt.*) and 6 Apr. (Taylor & Macdonald 1978).

Abyssinian Roller *Coracias abyssinicus*: Apparently an annual and common dry season visitor, definite dated records falling between Nov. and 21 Apr. (Greig-Smith 1976; A.S. Riley *in litt.*), with an exceptional one on 7 Aug. (Dutson & Branscombe 1990). Rufous-crowned (Purple) Roller *Coracias naevius*: An intra-African migrant in small numbers, between 8 Feb. (Plat 1997) and 20 Apr. (A.S. Riley *in litt.*).

Hoopoe *Upupa epops*: There are a few dry season records, apparently involving both African and Palaearctic populations (Greig-Smith 1976, Taylor & Macdonald 1978); extreme dates appear to be 10 Dec. (Sutton 1970).-7 Apr. (Taylor & Macdonald 1978).

Eurasian Wryneck *Jynx torquilla*: Seen in early Nov. near the Motel (Greig-Smith 1977a); a specimen (Grimes 1987: 244), no longer in existence, may relate to this or to another record.

Chestnut-backed Sparrow Lark *Eremopterix leucotis*: Reported once on 13 Feb. (R. Cruse *in litt.*) and sometime between Jan. and Mar. by Wilson (1993). Listed as a rare intraAfrican migrant by Greig-Smith (1976), presumably only in the dry season.

- Plain (African Sand) Martin *Riparia paludicola*: Three seen on 3 Apr. and one next day (Taylor & Macdonald 1978). A report of as many as 100-200 on 10 Feb. 2003 (R. Cruse 2003, *Bull.Afr. Bird Club* 10: 135 & *in litt.*) is surprising, and possibly some European Sand Martins were involved.
- Grey-rumped Swallow *Pseudhirundo griseopyga*: Between 4 and 9 Apr. Taylor & Macdonald (1978) saw a few scattered flocks, probably 50-100 individuals in all (including one mist-netted).
- Pied-winged Swallow *Hirundo leucosoma* (Sud.): Greig-Smith (1976) listed it as a common migrant in moderate numbers, but gave no dates. The only dated records are of up to 3 birds from Mognori and the Motel, late Jul.-early Aug. (Harvey & Harrison 1970), and we doubt it can be common.
- Common House Martin *Delichon urbicum*: This Palaearctic migrant is evidently numerous at times (Greig-Smith 1976, 1977a), from 23 Oct. (Genelly 1969) but probably earlier, to 9 Apr. (Macdonald 1978a). There have been flocks of as many as 750+ on 20 Dec. (Sutton 1970) and 300-400 in Mar. (Grimes 1987), perhaps mainly on double passage (although also one Jan. record).
- Yellow Wagtail *Motacilla flava*: This migrant from Europe has been reported on several occasions from 5 Oct. (Genelly 1969) to at least 16 Mar. (A.S. Riley *in litt.*).
- African Pied Wagtail *Motacilla aguimp*: Occurs only irregularly Aug. and Oct. (Grimes 1987, Harvey & Harrison 1970).
- Plain-backed Pipit *Anthus leucophrys*: Small numbers said to be resident in bovals (Greig-Smith 1976), and present near the Motel late Jul./early Aug. (Harvey & Harrison 1970), but must be irregular.
- Tree Pipit *Anthus trivialis*: This Palaearctic migrant is said to be quite common (Greig-Smith 1976); it winters, from late Oct. (Greig-Smith 1977a) to 9 Apr. (Macdonald 1978a).
- Red-throated Pipit *Anthus cervinus*: Two of this migrant from Eurasia noted 5 Apr. (Taylor & Macdonald 1978).
- Yellow-throated Longclaw *Macronyx croceus*: One seen in the marsh below the Motel on 20 Apr. 2002 (A.S. Riley & D.J. Hoddinott *in litt.*). There are also undated reports by Z. Wareh (pers. comm.).
- Common Nightingale *Luscinia megarhynchos*: A Palaearctic migrant, reported by R.B. Payne (in Greig-Smith 1976), on 8 Oct. (Payne *in litt.*). Greig-Smith (1977a) lists a Mar. record, but without details.
- Common Redstart *Phoenicurus phoenicurus*: This Eurasian migrant was represented by a male in Mar. 1993 (Helsens 1996) and another 26 Feb. 2002 (R. Cruse 2002, *Bull. Afr. Bird Club* 9: 145). Greig-Smith (1976, 1977a) listed it on the basis of a record by Sutton, presumably in Dec., but that observer's observations were from Tumu (Sutton 1970).
- Whinchat *Saxicola rubetra*: This Palaearctic migrant is locally quite common (Z. Wareh pers. comm.), and reported by several observers (Greig-Smith 1976), extreme dates Dec.-Mar. (Greig-Smith 1977a).
- Cliff Chat (Mocking Chat) *Thamnolaea cinnamomeiventris*: This rock-associated species was found on the Konkori scarp in Mole by Sutton (1970).
- Sedge Warbler *Acrocephalus schoenobaenus*: An example of this Palaearctic migrant seen 27 Feb. 2003 (A.S. Riley *in litt.*).

European Reed Warbler *Acrocephalus scirpaceus*: A few recorded early Oct. to early Nov. (Greig-Smith 1977a).

Melodious Warbler *Hippolais polyglotta*: Small numbers of this migrant noted early Nov. (Greig-Smith 1977a), Feb. (R. Cruse *in litt.*) and late Mar. (Walsh & Grimes 1981). Although Grimes (1987) quotes Greig-Smith (1977a) as giving records Oct.-Apr., especially from closed canopy at "sites of abandoned villages": we are unaware of the evidence for Grimes's statements as these are not in the reference cited.

Olivaceous Warbler *Hippolais pallida*: One seen 27 Feb. 2003 (A.S. Riley *in litt.*). This is perhaps most likely to have been the form *opaca*, often treated as a separate species.

Willow Warbler *Phylloscopus trochilus*: A common Palaearctic migrant (Greig-Smith 1976), apparently wintering (Greig-Smith 1977a), latest date 17 Mar. (A.S. Riley *in litt.*). Garden Warbler *Sylvia borin*: A Palaearctic migrant, quite common from early Oct. to at least early Dec. (Greig-Smith 1977a).

Common Whitethroat *Sylvia communis*: A Palaearctic migrant, present in small numbers from early Oct. (Greig-Smith 1977a) to at least 11 Jan. (Sutton 1970).

Pied Flycatcher *Ficedula hypoleuca*: A common Palaearctic migrant in woodland from early Oct., wintering (Greig-Smith 1977a), recorded to 9 Apr. (Macdonald 1978a).

Spotted Flycatcher *Muscicapa striata*: Recorded by R.B. Payne (in Greig-Smith 1976), at the beginning of Oct. (Greig-Smith 1977a), 5-6 Jan. (Macdonald 1978a) and 8-9 Feb. (Plat 1997); most birds are probably on passage to wintering areas further south in Africa.

Gambaga Flycatcher *Muscicapa gambagae* (Sud.): There is a sight record of two seen (under the name *M. striata gambagae*) 7 and 8 Apr. (Taylor & Macdonald 1978).

Pygmy Sunbird *Anthreptes platurus*: A common visitor in the dry season (Greig-Smith 1977a), but with few dated records: Jan. (Maze 1971) to 16 Mar. (A.S. Riley *in litt.*). A suggestion that some might be present from as early as mid-Aug. (Harvey & Harrison 1970) may be the result of misidentification (there are no other rains records).

Emin's Shrike *Lanius gubernator* (Sud.): A male of this rare northern savanna species was seen near Konkori on 12 Jan. (Sutton 1970).

Woodchat Shrike *Lanius senator*: This Palaearctic migrant has been reported by several observers (Greig-Smith 1976), extreme dates Dec.-9 Apr. (Greig-Smith 1977a; Macdonald 1978a) .

Marsh Tchagra *Tchagra minutus*: Harvey & Harrison (1970) found it in "orchard bush" near water, and collected a specimen, while Greig-Smith (1976) reported it in small numbers. While it may still be present (it is a discreet bird), it is possible that habitat changes in the area around the dams at Mole have resulted in its disappearance (see under Black Coucal).

Piapiac *Ptilostomus afer* (Sud.): This is apparently a rare bird in Mole, the only certain observations being of one accompanying a Warthog (Z. Wareh), date not recorded and five on 27 Feb. 2002 (R. Cruse *in litt.*). Maze (1971) had reported up to 30 in Aug. and Greig-Smith (1976) said it was in small numbers in riparian: these large numbers and the habitat do not ring true; neither observer lists Long-tailed Starling, which has been known to Wildlife Guards in Mole for at least the past 20 years, and we believe these records of Piapiac were very likely misidentifications.

- Greater Blue-eared Starling *Lamprotornis chalybaeus*: Recorded by R.B. Payne (in Greig-Smith 1977a) in Oct. and Nov., while glossy starlings arriving in the dry season were thought to include this species (Greig-Smith 1977a). More investigation needed.
- Lesser Blue-eared Starling *Lamprotornis chloropterus*: Sutton (1970) saw 10 with Purple Glossy Starlings 18-20 Dec.; Macdonald (1978b) reported seeing two daily in Jan.; reported in Feb. (R. Cruse *in litt.*) - all near the Motel scarp.
- Violet-backed Starling *Cinnyricinclus leucogaster*: Small numbers of this intra-African migrant noted 23 Aug. (Harvey & Harrison 1970), Feb. to Apr. (several observers), while Greig-Smith (1977a) reported large numbers in Jun., fewer Jul. and Dec.
- Speckle-fronted Weaver *Sporopipes frontalis*: Found breeding by R.B. Payne and C.J. Risley in Oct. 1975 (Greig-Smith 1977b), which is far to the south of its usual distribution. Full details have been supplied by R.B. Payne (*in litt.*): On "acacia" flats (probably meaning *Ziziphus*) below the motel scarp, near the dam on Samole River, on 5 Oct. there were "many" nests. The contents were not examined, but the birds were quite active and in and out of the nests, and numbered at least 20. Some were tape recorded on 5 Oct., but none was examined in the hand. The species was again noted there 26 Oct, and birds but not nests were seen near Larabanga on 6 Oct. There would seem to have been an exceptional irruption in that year, as there are no other records.
- White-cheeked Oliveback *Nesocharis capistrata* (Sud.): Occasional in riverine vegetation (Greig-Smith 1976), the only record with details being of one feeding in the canopy at Lovi, 15 Aug. (Harvey & Harrison 1970).
- African (Warbling) Silverbill *Spermestes cantans*: Two small groups were seen by Macdonald (1978b) 4-6 Jan. 1978, to the south of their normal distribution.
- Cut-throat Finch *Amadina fasciata*. A few seen once in the dry season (date not recorded) near the water tank in the headquarters area (Z. Wareh pers. comm.).
- Cinnamon-breasted Rock Bunting *Emberiza tahapisi*: A locally common visitor, 1 Oct. (Genelly 1969)-May (Greig-Smith 1977a), essentially in the dry season.

4.3. REJECTED RECORDS

- Fulvous Whistling (Tree) Duck *Dendrocygna bicolor*: Reportedly listed by D. Kpelle (in Wilson 1993), but confirmation desirable.
- Egyptian Goose *Alopochen aegyptiaca*: Two were reportedly seen on three occasions early Aug. (Genelly 1969), but as this would be only the second Ghanaian record and the observer made no mention of Spur-winged Goose, it is best considered uncertain.
- Egyptian Vulture *Neophron percnopterus*: A sighting of an adult along the Motel scarp on 9 Aug. (Harvey & Harrison 1970) cannot be accepted as the only record for Ghana in the absence of supporting information, despite its inclusion by Grimes (1987).
- Rüppell's Griffon Vulture *Gyps rueppellii*: Grimes (1987) apparently accepted an "uncertain" sighting of one in Mole 11 Jan. (Sutton 1970), but it, and even more so an undocumented sighting in the forest zone of southern Ghana, seems not to warrant inclusion on the Ghana List without more convincing details. Both this species and the last were rejected from Mole by Greig-Smith (1976), correctly in our view.
- Short-toed Eagle *Circaetus gallicus*: Sightings from Mole in Mar. (Grimes 1987) and 5 and 8 Apr. (Macdonald 1978a) might refer to this Palearctic migrant, but the possibility of

the very similar intra-African migrant Beaudouin's Snake Eagle *C. beaudouini* cannot be ruled out.

Black Sparrowhawk (Goshawk) *Accipiter melanoleucus*: Harvey & Harrison (1970) reported several sightings of a pair from the Motel and (extra-limital) Damongo scarps, but this is a forest species in West Africa, and there was probably confusion with a species such as Ayres's Hawk Eagle *Hieraaetus ayresii*. Thus Greig-Smith (1976) was right to drop this species, contra Grimes (1987).

Chestnut-flanked Sparrowhawk *Accipiter castanilius*: This forest species is not even known from West Africa, and so a claimed sighting of one at close range near the Motel (Harvey & Harrison 1970) has rightly been dropped by other writers.

African Goshawk *Accipiter tachiro*: Reports of this forest species from Mole require confirmation; we neither saw it nor heard its distinctive aerial display. Records that can be rejected are those of Genelly 1969 (whose description of the voice of this bird is totally inaccurate), and Harvey & Harrison (1970) who reported only "what was probably an immature". Of the remaining claims, a sight record by R.B. Payne (in Greig-Smith 1976; Payne *in litt.* 2004) does not seem entirely convincing.

Wahlberg's Eagle *Aquila wahlbergi*: This eagle is considered to be resident by Greig-Smith 1976, but it can surely be no more than an intra-African migrant anywhere in West Africa. Dated claims from Mole are "mainly in mid-late August" (Harvey & Harrison 1970), 9 Aug. (Dutson & Branscombe 1990) and sometime between Jan. and Mar. (Wilson 1993): these are months when the species has just arrived in (Aug.) or may start to leave (from Feb.) its southern African breeding quarters, so we believe its occurrence in Mole remains to be proven.

Tawny Eagle *Aquila rapax*: Said by Greig-Smith (1976) to be resident, but he did not find it himself. The only records we know of are of "an adult and an immature" in the Motel area on at least 30 different days centred on Aug. (Harvey & Harrison 1970); one seen with Grasshopper Buzzards sometime Jan.-Mar. (Wilson 1993); listed for Feb. (Baha el Din & Baha el Din 1996). This species is well known to be a dry season migrant to the more arid parts of West Africa, and some records may be correct; however, this is a raptor that presents identification problems, and its occurrence in Mole cannot be claimed with certainty at present.

Fox Kestrel *Falco alopex* (Sud.): Plat (1997) mentioned seeing one at the Motel in early Feb. 1997, but in the absence of supporting details we prefer not to include this biome endemic on the Mole List (see p. 7 above).

Red-footed (Western Red-footed) Falcon *Falco vespertinus*: Greig-Smith (1976) queried to which species his rare sightings of small numbers referred, and Grimes (1987) rightly decided not to admit this species to the Ghana List on such uncertain evidence.

Peregrine Falcon *Falco peregrinus*: The only report is by N.C. Davidson (in Greig-Smith 1976), apparently in the rains; confirmation is desirable.

Black-rumped Buttonquail *Turnix hottentottus*: Maze (1971) claimed to have seen 5 in Apr, but this (one of only two, unsatisfactory, reports for Ghana) cannot be accepted in the absence of supporting details.

Grey Plover *Pluvialis squatarola*: Two sightings of this coastal species, in Apr. (Maze 1971) and more surprisingly Feb. (Wilson 1993) are not acceptable in the absence of identification details.

Common Redshank *Tringa totanus*: One reportedly seen near Damongo 23 Aug. (Harvey & Harrison 1970) would have been outside the park. This record is wrongly given as Sep.? by Greig-Smith (1977a).

African Mourning Dove *Streptopelia decipiens*: Greig-Smith (1976) listed it as a scarce resident, but its status is ambiguous. Maze (1971) reported it in Apr. and Aug., but did not list the much commoner Vinaceous Dove, so his were probably misidentified. A few reported in the rains in dove "feeding flights" (Harvey & Harrison 1970) must also be rejected, given the difficulties for inexperienced observers of identifying doves in flight. Taylor & Macdonald (1978) wrote that it is rather uncommon in the wet season (though it is not clear if this is based on their own observations), but they failed to find it at the end of the dry season. The presence and status of this dove remain to be confirmed.

Black Cuckoo *Cuculus clamosus*: A sound record in Feb. 2003 (R. Cruse 2003, *Bull. Afr. Bird Club* 10: 135) must be considered unproven, for what is certainly a wet season visitor only to northern Ghana. Possibly it was an imitation by a robin *Cossypha*. Common Cuckoo *Cuculus canorus*: This Palearctic migrant is listed by Greig-Smith (1977a) for early Dec., but there may have been confusion with the African Cuckoo *C. gularis*, and the record was not repeated by Grimes (1987).

Plain Nightjar *Caprimulgus inornatus*: Listed as an intra-African migrant by Greig-Smith (1976), on the basis of "nightjars which were probably of this species" (Harvey & Harrison 1970) and unpublished records by M. Edmunds and L. Grimes, the latter observer crediting Greig-Smith (1976) with reporting both wet and dry season records (Grimes 1987). A male was claimed on 6 Aug. by Dutson & Branscombe (1990). The presence and status of this nightjar, which presents identification difficulties, remain unproven.

Speckled Mousebird *Colius striatus*: Accepted by Grimes (1987) as occurring in Ghana on the basis of its simply being listed as "rare (seen regularly in small numbers)" in savanna by Greig-Smith (1976), with no indication that the latter was aware of how astonishing would be this, the first report from west of Nigeria. Grimes interpreted Greig-Smith (1976)'s "small numbers" as meaning "c. 5 or less", and even attributed this to the race *nigricollis*, although neither specimen nor photo exist. The only other observer to mention this species is Wilson (1993), who wrote: "seen in small flocks on eight occasions in different parts of the Mole National Park. Appears to be widespread and common". This species is quite unknown to the more experienced Wildlife Guards. It could, under certain circumstances, be confused with Yellowbilled Shrike, but both Greig-Smith (1976) and Wilson (1993) also listed that species. Given the very great zoological interest that an isolated population in Mole would represent, we believe proof is required before it can be accepted as occurring.

Dwarf Kingfisher *Ceyx lecontei*: A sight record claimed for this species of the southern Ghanaian forests (R. Cruse 2002, *Bull. Afr. Bird Club* 9: 145) has subsequently been withdrawn by the observer (R. Cruse *in litt.*).

Little Green Bee-eater *Merops orientalis*: Two reportedly seen in Apr. by Maze (1971), but this - the only record as far south as Ghana - was rejected by Grimes (1987), and it is noticeable that Maze (1971) did not report the not uncommon Little Bee-eater.

Rosy Bee-eater *Merops malimbicus*: One reported seen near Lovi 7 Aug. (Harvey & Harrison 1970), but in the absence of identification details it should be considered as unproven.

- Double-toothed Barbet *Lybius bidentatus*: Listed by Genelly (1969), but clearly in error for the very similar Bearded Barbet, of more northern distribution.
- Crested Lark *Galerida cristata*: Greig-Smith (1976) listed it as "seen regularly in small numbers" in bovals, and although he gave no supporting details, this was accepted by Grimes (1987) as the first and only record for Ghana. As shown above, this was clearly a misidentification of Sun Lark *G. modesta*. In West Africa, Crested Larks are confined to extensive sandy plains in the Sahel, and have never been observed on laterite bovals within the Sudanian region.
- Square-tailed Saw-wing *Psalidoprocne nitens*: A sighting of this southern forest species on the Lovi river, 4 Aug. (Harvey & Harrison 1970) is surely a misidentification of a moulting or immature Fanti Saw-wing, with which this bird associated.
- Red-rumped Swallow *Hirundo daurica*: Reportedly present as an intra-African migrant with "considerable numbers between 22 and 28 August" (Greig-Smith 1976, 1977a), records that would be unprecedented anywhere in West Africa. Tentatively identified in Aug. by Genelly (1969). In view of the difficulty some inexperienced observers have separating various red-rumped species of swallow, these records require confirmation. Wareh & Cavanagh (1998) list Preuss's Swallow *Hirundo preussi*: we know of no details, but it and *H. daurica* could have been confused.
- Rock Martin *Hirundo fuligula*: The only definite records claimed are by Harvey & Harrison (1970), but as theirs were on the Damongo scarp they were outside the park.
- Simple Leaflove (Greenbul) *Chlorocichla simplex*: Supposedly seen on several occasions in thick orchard bush (Harvey & Harrison 1970), but the presence of this forest species seems unlikely.
- Leaflove *Pyrhurus scandens*: One reportedly seen in riparian at Mognori (Harvey & Harrison 1970), but we could not find this noisy, sociable species there, and there may be an error of identification.
- Grey Ground Thrush *Zoothera princei*: Listed by D. Kpelle (in Wilson 1993), but this rare species of primary rain forest cannot possibly occur in the savanna zone.
- Rufous Bush Chat *Erythropygia galactotes*: An example of this Palaearctic migrant was claimed on 10 Feb. 2003 (R. Cruse 2003, *Bull. Afr. Bird Club* 10: 135). This was not well seen, and it was not realised that the species was hitherto unknown from Ghana, so the record has subsequently been withdrawn by the observer (R. Cruse *in litt.*).
- Greater Swamp Warbler *Acrocephalus rufescens*: A pair "almost certainly of this species" was seen on several dates in Aug. in "reeds" below Mole Motel (Harvey & Harrison 1970). There are now no reeds or other habitat suitable for this species there (pers. obs.) and this record must be considered unproven.
- Icterine Warbler *Hippolais icterina*: One "almost certainly this species" was seen on 4 April (Taylor & Macdonald 1978). There are few authentic records of this Palaearctic migrant from West Africa, and it is difficult to separate from Melodious Warbler.
- Yellow-bellied Eremomela *Eremomela icteropygialis*: Although reported on four dates in Aug. in "orchard bush" (Harvey & Harrison 1970), and twice in Apr. (Taylor & Macdonald 1978) we believe the possibility of confusion with Senegal Eremomela has not been ruled out. Taylor & Macdonald suggested it might extend south from more arid areas in the late dry season.

Green Crombec *Sylvietta virens*: An individual of this forest species was reportedly seen in company with Northern Crombecs (Harvey & Harrison 1970), but this is more likely to have been the result of a misidentification.

Chiffchaff *Phylloscopus collybita*: Greig-Smith (1977a) thought that some birds in Mole might be this species, but was unable to separate them with certainty from Willow Warbler.

Rock-loving (Rock) Cisticola *Cisticola aberrans*: Listed from Mole by Greig-Smith (1976), on the basis of observations by Harvey & Harrison (1970); but these were on the Damongo scarp, and thus outside the park.

Olive-green Camaroptera *Camaroptera chloronota*: Two immatures of this forest species were said to have been collected in dry forest (Harvey & Harrison 1970); this is most unlikely to have been correct, and was doubtless a misidentification of Grey-backed Camaroptera.

Ussher's Flycatcher *Muscicapa ussheri*: A record claimed for this species of high forest (Plat 1997) is erroneous.

Collared Sunbird *Anthreptes collaris*: Listed by Baha el Din & Baha el Din (1996), doubtless in error for Pygmy Sunbird.

Blue-throated Brown Sunbird *Nectarinia cyanoaema*: A male of this forest species claimed to have been seen in riverine forest in Aug. (Harvey & Harrison 1970) cannot be accepted (although it was by Grimes 1987), being doubtless a misidentification.

Common Fiscal (Fiscal Shrike) *Lanius collaris*: Wet season sightings claimed by Genelly (1969) and Harvey & Harrison (1970) were accepted by Grimes (1987). However, Genelly's report of birds seen "searching for insects" and Harvey & Harrison's of birds in "thick cover" suggest not this species but Tropical Boubou (which neither report listed).

Bronze-tailed Glossy Starling *Lamprotornis chalcurus* (Sud.): Maze (1971) recorded up to 70 in Jan. and Apr., and Harvey & Harrison (1970) thought they had a certain flock of 20 near Lovi in early Aug. Greig-Smith (1976) was unsure of the species concerned. The separation of the various glossy starlings is not always easy, and the status of this one remains to be clarified.

African Masked Weaver *Ploceus velatus*: Pairs reported on three occasions (apparently in Aug.) in the Motel marsh (Harvey & Harrison 1970: *contra* Grimes 1987, this species was not listed by Greig-Smith (1976)). We saw what appeared to be a female of this species at the clinic at Mole in early Sep. These records require confirmation, but Sutton (1965) reported it nesting at Damongo, late Mar.

Red-vented Malimbe *Malimbus scutatus*: Harvey & Harrison (1970) attribute several sightings to this forest species, but these are clearly misidentifications (very likely of Red Bishop when perched on tall trees). Grimes (1987) correctly rejected the record. Red-billed Quelea *Quelea quelea*: Reported by D. Kpelle (in Wilson 1993), without details; it might well occur as a dry-season visitor from further north.

Blue-billed Firefinch *Lagonosticta rubricata*: Harvey & Harrison (1970) considered they saw one at Lovi, but the species was not found by R.B. Payne during his detailed investigations of firefinches and indigobirds (Payne 2004), and its presence and status require confirmation.

Common Waxbill *Estrilda astrild*: Listed by Plat (1997), but doubtless in error for the similar *E. troglodytes*.

Zebra (Orange) Waxbill *Amandava subflava*: Harvey & Harrison (1970) record having found "Orange-cheeked Waxbill *Amandava subflava*" one of the commonest Estrildids; this is clearly a typing error for *Estrilda melpada*.

Jambandu Indigobird *Vidua raricola*: Payne (1982: 76-77) identified as this species a specimen collected at Lovi by Harvey & Harrison (1970), and originally named *V. camerunensis* by them; Payne (2004) has again reverted to *V. camerunensis*.

White-rumped Seedeater (Serin) *Serinus leucopygius*: Listed, without details, by D. Kpelle (in Wilson 1993); confirmation would be necessary of this species so far south.

5. ACKNOWLEDGEMENTS

We thank the Executive Director of the Wildlife Division, Forestry Commission (Y. OforiFrimpong) and the Regional Director of IUCN (I. Thiaw) for inviting us to undertake this survey. Wildlife Division staff at Accra (especially K. Menka) and Mole (Parks Manager Charles Haizel and colleagues) are thanked for much logistical support. The IUCN/WDSP Team Leader in Ghana, Peter Howard, was an enthusiastic supervisor, and his colleagues in Mole (Charles Mackie and Chris Fell) provided much practical help. In addition to the Wildlife Guards who were in the field with us, we warmly thank Z. Wareh for his interest in our work.

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APPENDIX 1: ITINERARY AND TIMETABLE

August 4: shopping in Accra (including visit to Conservation International office, looking for Moyer's Kyabobo bird report);
5: drive to Kumasi;
6: drive to Mole (arriving in mid-afternoon);
7: **Samole** floodplain (below the Motel);
8: walk to **Brugbani** boval (10 km) and back;
9: woodland just north of Motel, then transfer to **Ducie** area via Wa. The idea was to reach the Konkori escarpment, but the car got stuck in mud 2 km before reaching the western boundary; 10: woodland between camp site and western boundary (the road was a marsh all the way);
11: transfer to **Degbere** camp (as impossible to explore Ducie area any further), 11-14 observations in woodland on boundary road and *Anogeissus* grove near Samole river; 14: transfer midday to **Motel**; afternoon in short woodland near entrance;
15: short woodland near entrance (no Wildlife Guard available to walk any further);
16: **Samole** floodplain below Motel; p.m.: interview Zakariah Wareh;
17: walk in woodland north of Motel (Brugbani road); p.m.: interview Tourism Guides and Wildlife Guards involved in escorting tourists; evening: drive after dark from airstrip to Samole loop turn-off looking for nightjars;
18: walk to **Brugbani** camp for 5 nights: from there, walk to **Haraba-Haraba** pool (19 and 21), **Steep Hill** (20), bovalls around Brugbani (18 and 22);
23: walk back to Motel, the Samole crossing proving difficult after heavy rain; 24: **Samole** floodplain in afternoon;
25: short woodland near entrance; midday transfer to **Mognori** for 3 nights (25-27): riparian forest along Mole river (accessible along about 500 m then flooded) and woodland; 28: after morning birding at Mognori, transfer to **Kananto** camp for 2 nights (28-29): woodland and large patch of riparian on Samole river;
30: RJD has malaria, transfer back to Motel in afternoon; 31: rest;
September 1: **Samole** floodplain (FDL); 2: same below school;
3: transfer to **Jang** for 3 nights (3-5): local observations (woodland) limited by floods in woodland and boundary stream.
6: back to Motel midday;
7: **Samole** floodplain, inspection of nest of Saddle-billed Stork after crossing much water (FDL);
8: last walk in woodland and *Anogeissus* grove at start of "office loop"; p.m. drive to Samole bridge (Brugbani road) and drive back after dark looking for nightjars;
9: drive to Kumasi;
10: drive to Accra, IUCN & Wildlife Division office; 11: evening flight to London & Brussels.

APPENDIX 2: GAZETTEER

Brugbani camp	9°20'N,1°52'W
Degbere camp	9°13'N,1°57'W
Ducie village	9°47'N,1°57'W
Haraba-Haraba pool	9°21'N,1°51'W
Jang camp	9°27'N,2°11'W
Kananto camp	9°15'N,2°00'W

Konkori	9°37'N,1°47'W
Mognori camp	9°18'N,1°47'W
Mole Motel & headquarters	9°16'N,1°51'W
Steep hill	9°24'N,1°54'W

APPENDIX 3: POTENTIAL OF MOLE FOR BIRD ECOTOURISM

Being the only National Park in Ghana with visible large mammals (including Elephants), Mole N.P. is already much visited by tourists with a broad interest in natural history. One can discuss the potential of Mole for two types of bird ecotourists.

1. For the specialized bird tour. Few specialized bird tour companies offer Ghana to their clients (for instance neither of the two most experienced and successful, Birdquest nor Sunbird, do so). A few smaller companies however do so, mainly since the civil war in Côte d'Ivoire has made the forests of Upper Guinea there (with their many endemic birds) inaccessible. Such tours last c. 2 weeks and take their clients mainly to forest sites in the south-west of Ghana; Mole is always included, mainly to lengthen the country "tour list" with woodland species. Normally no more than 2-3 days are spent at Mole (R. Cruse *in litt.*, leader of such an annual bird tour); this is indeed sufficient to locate the few bird species that some clients may have "missed" on similar tours in Cameroon or The Gambia. A very large proportion of the "Sudanian" (or "Guinea-Sudanian") avifauna is present at Mole, but most of the constituent species have a wide range in West-Central Africa and can be seen on more classic bird tours elsewhere.

However, for the specialized bird tourists who have not yet visited this vegetation zone in West Africa, the following bird species are especially attractive: White-throated Francolin, Violet Turaco, Blue-bellied Roller, Bearded Barbet, Brown-backed Woodpecker, Sun Lark, White-fronted Black Chat, White-crowned Robin Chat, Dorst's and Rufous Cisticolas, Oriole Warbler, Blackcap Babbler, Yellow Penduline Tit, Splendid Sunbird, Chestnut-crowned Sparrow Weaver, Red-winged Pytilia, Lavender Waxbill, various finches and their hosts (*Vidua* indigobirds), Brown-rumped Bunting.

Some of these birds can be seen readily around the Motel, and in the woodland on the road to Brugbani. The Sun Lark requires a visit to at least one large boval, e.g. the one just before Brugbani camp. Some species are easier to find in the rainy season, e.g. cisticola warblers as they sing mainly in the wet months (only the best specialists will find them in the dry season). *Vidua* indigobirds and paradise widows are impossible to identify in non-breeding dress: even in breeding dress (from the middle of the rains to the end of the year) they are virtually identical to look at and identifying them is beyond the range of most birders, who need to have not only a good ear but the necessary sound reference material on tape. In general, the success of a specialized bird tour depends on the presence of a professional guide accompanied by a Tourism Guide with local expertise. There is no shortage of competent professional tour guides (indeed, we know several very good ones who are underemployed), but the prospect of this sort of tour becoming more frequent in a country like Ghana is slim, for obvious reasons: mainly the high cost of international flights and car hire, and the rather limited market.

The Wildlife Guards employed as tourist guides can identify a number of bird species; a few are aware of some of the difficult-to-find species that the keener birding tourist might wish to look for, such as Oriole Warbler.

2. For the non-specialized tourist. For those who derive pleasure from looking at birds without searching for rare species, a visit to Mole will always be rewarding and there is plenty to see in the immediate surroundings of the Motel. It seems that the majority of tourists visiting Mole at present belong to this category and are mainly people (of all nationalities) residing in Ghana, or foreign residents with contacts in the country. The system of walks as presently organized by the tourism unit down into the Samole floodplain, and in woodland around the Motel, seems perfectly adequate to meet the demands of non-specialists. It seems however essential that the Wildlife Guards accompanying the tourists be equipped with the paperback version of the most up-to-date field guide for West Africa by Borrow & Demey (2001 in hardback, the paperback version coming out in late 2004).

APPENDIX 4: VISITORS' GUIDE TO THE BIRDS OF MOLE NATIONAL PARK

Introduction

Mole headquarters and Motel remain accessible all year round. The start of the rains proper is in June and from about July to December the dirt roads are impassable as significant stretches of road are under water, and most of the rivers or streams cannot be crossed except sometimes (not always) on foot. The present guide is based mainly on our own wet season visit when access was very limited. Good woodland and riparian forest can, however, be reached within a short distance of the Motel, and it is reasonable to assume that a competent birder will find the great majority of desirable species in a space of two or three days. An annotated list of the 335 bird species of Mole N.P. is presented below. This is an amalgam of our personal observations (of 220 species) and of other (reliable) records from the literature or sent to us by visiting, experienced ornithologists.

Samole floodplain

This is immediately below the Motel and a walk in the morning or late afternoon will take the visitor through a good variety of habitats including floodplain grassland, riparian thickets, wooded grassland and *Anogeissus* groves. The floodplain is not particularly rich in waterbirds (Green-backed Heron, Hadada, White-faced Tree Duck and Jacanas at least are common) but a pair of Woolly-necked Stork and a pair of Saddle-billed Storks appear to be resident in the area; Golden (Yellow-crowned) Bishops are common in the flooded grassland, and Winding (Greater Black-backed) Cisticolas can be found in the sedges between Dam 1 and Dam 2. When in flower the *Ziziphus* trees attract large numbers of sunbirds (including Violet-backed) and it is well worth spending an hour or two checking the birds coming to feed on figs. There are several large fig trees in the area (*Ficus ingens*, *F. platyphylla*): they are ideal places for taking a close look at Green Pigeons (both species), Violet Turaco, Vieillot's and Bearded Barbets, African Golden Oriole and others. The riparian thicket near Dam 2 is inhabited by a few of the special riverine species (e.g. Oriole Warbler, Yellow-breasted Apalis, Common Wattle-eye, Blue Flycatcher) but these will be seen more easily elsewhere. The discreet Swamp Flycatcher can usually be seen feeding from low bush on the edge of Dam 1. In the rains the Snowy-headed Robin Chat can be heard singing in any patch of thicket near the dams and just below the Motel; Sulphurbreasted Bush Shrikes and Gonoleks are also common in thicket; the Little Weaver occurs in small numbers in *Ziziphus* and other small trees near the dams. Quailfinches can be encountered in

the areas of short grass; Short-winged Cisticola is common in wooded grassland, whether dry or flooded (*Mitragyna*) (Whistling and Singing Cisticolas also occur, but only in dry areas).

Motel grounds and adjacent woodland

The most startling sound of many evenings (or dawns) right at the Motel is the song of the Rock Nightjar, as one male has established its territory right on the buildings (he often sings from the roof of Chalet No. 5!). Otherwise the Red-chested Cuckoo is also a common evening sound in the rains. A large variety of seedeaters is visible in the small thickets and low bush growing on the rim of the escarpment (all along the Motel buildings), such as Lavender and Orange-cheeked Waxbills, Cordon-bleus and Yellow-fronted Canaries. Chestnut-crowned Sparrow Weavers (a Sudanian endemic normally highly local in West Africa) is surprisingly common: several occupied nests can be seen immediately below the viewpoint (below the restaurant), and the bird is in every bird party in short woodland nearby. In the short woodland between the Motel and the entrance, other interesting seedeaters occur, such as Red-winged Pytilia and Black-faced Firefinch. This is also the place to look for the respective hosts of these two species: Uelle (Exclamatory) Paradise Widow and Baka Indigobird: there is a small gathering of these Indigobirds singing and feeding around some dead trees about 1 km from the entrance. July-October is a good time of year to find these. Rufous Cisticola is the dominant cisticola warbler in this dry woodland; the first territorial male can be found just 100 m east of the Motel. The Black Flycatcher is prominent in tall tress on the edge of the floodplain.

Woodland on the Brugbani road

Tall woodland starts about 1 km north of the Motel on the way to Brugbani, and any stretch of woodland on the way to the Samole crossing and beyond to Brugbani camp is good for birds of primary Sudanian woodland. A couple of hours walk in the early morning can be very productive: look out for bird parties that should at least contain a couple of woodpeckers (Brown-backed is possible), White-fronted Black Chat, Green-backed (Senegal) Eremomela, Northern Crombec, Tawny-flanked Prinias and Red-winged Warblers, Pallid Flycatcher, Senegal Batis, White-winged Black Tit, Spotted Creeper, Chestnut-crowned Sparrow Weaver, Red-winged Pytilia, Black-faced Firefinch, Yellowfronted and Streaky-headed Canaries, Cabanis's and Brown-rumped Buntings. The Streaky-headed Canary is common everywhere in Mole (in tall woodland) and has a remarkable song, with several rolling phrases containing imitations of other birds' calls. As many as seven cisticola warblers occur on this road: Red-faced Cisticola is confined to the tall grass bordering the Samole stream; Dorst's and Croaking and Short-winged are in the rather open, wet woodland, Singing, Whistling and Rufous are common throughout dry woodland. Dorst's Cisticola is not terribly common in this area; for the specialists who are really keen not to miss this species, the best place is probably the short woodland between Brugbani camp and Haraba-Haraba pool, but this requires more walking.

Finally, the much sought-after White-throated Francolin is not uncommon in woodland around Brugbani; they sing mainly in the rains, sometimes perched conspicuously on a termitaria or on the edge of a boval.

Brugbani boval

It is essential to visit at least one large boval to find the Sun Larks: these are quite common but will not be found away from their specialized habitat. Flappet Lark and Forbes's Plover are also usually found on bovalls, and the odd Black-bellied Bustard or Abyssinian Ground Hornbill may be seen with luck. The nearest boval is c. 9 km north of the Motel just before

Brugbani camp; there are other large ones a few km to the north-east (road to HarabaHaraba) and to the north (road to Steep Hill).

Riparian forest (Mognori, Kananto)

The most accessible stretch of good riparian forest is that on the Mole river at Mognori on the south-eastern edge of the park: this can be reached on an all weather road in a 15-minute drive from the Motel (a bicycle can also be used as this is a boundary road). Most bird species typical of dry evergreen gallery forest in West Africa occur here: in a stretch of c. 500 m on the southern bank, we saw one or more pairs of Finfoot (swimming close to vegetation), Green Coucal, Narina Trogon, Blue-breasted Kingfisher, Shining-blue Kingfisher (most often flying low over the water), Golden-tailed Woodpecker, Yellowthroated Leaflove, both White-crowned and Snowy-headed Robin Chats, Yellow-breasted Apalis, Oriole Warbler, Common Wattle-eye, Blue Flycatcher, Blackcap Babbler, Greenheaded Sunbird, Square-tailed Drongo, Black-necked Weaver. The small Black-headed Weaver displays in open *Mimosa* bush right by the river (Little Weaver also occurs, check the identification criteria carefully). On the outside of the gallery and in adjacent *Mitragyna* flooded grassland Bar-breasted Firefinches can be found easily feeding on grass seeds in company with their parasites, the Pale-winged (Wilson's) Indigobirds.

The wide patch of riparian forest near Kananto camp (on the Samole stream), on the southern boundary road, is also very easy of access. The forest is 100 m wide and only 500 m beyond the camp (on the road to Lovi). It is somewhat drier than that at Mognori and there are fewer bird species: however, the more open and very tall canopy makes several understorey species a lot more conspicuous: in particular Blackcap Babbler, Square-tailed Drongo and Oriole Warbler. Tropical Boubous can be seen and heard in the thickets to the east of the patch. Narina Trogon also occurs. Kananto has the added attraction of harbouring a small population of Cameroon Indigobirds (with their hosts Black-bellied Firefinch): several singing males are in evidence in the tall trees right in Kananto camp and in the thick bush south (between the camp and the village on the main boundary road). Black-bellied Firefinch is rather more discreet but was seen in that thick bush as well as at the entrance into the riparian forest.

CHECKLIST OF THE BIRDS OF MOLE NATIONAL PARK

Compiled by R.J. Dowsett & F. Dowsett-Lemaire (2004) (e-mail: Dowsett@aol.com)

The names used generally follow the best field guide available (Borrow & Demey 2001. *Birds of Western Africa*. London: Helm.) Abbreviations used: Res. = Resident; PM = Palaearctic migrant; AM = Intra-African migrant; Com. = Common; Irreg. = Irregular. The status of many species is poorly known, especially because no competent observer has been resident in Mole at all seasons. Species that require further information are those whose status is irregular, rare or uncertain (?). Observers are encouraged to submit their observations on a copy of this list, giving in particular full details of any species not listed or otherwise rare, to:

Mole National Park, P.O. Box DM8, Damongo, Northern Region, Ghana.

Observer's name _____
 Dates _____

Address _____

Email _____

Species Status Observations

Reed Cormorant *Phalacrocorax africanus* Irreg.
 Common Bittern *Botaurus stellaris* PM (once) Oct-Nov?
 Little Bittern *Ixobrychus minutus*
 Irreg. Dwarf Bittern *Ixobrychus*
sturmi AM rains Black-crowned Night
 Heron *Nycticorax nycticorax* PM? Aug-Mar. White-backed Night
 Heron *Gorsachius leuconotus* Res. (rare)
 Common Squacco Heron *Ardeola ralloides* PM? Oct-Apr.
 Cattle Egret *Bubulcus ibis* AM Oct-
 Apr. Green-backed Heron *Butorides striata* Res.
 (com.) Little Egret *Egretta garzetta* PM? Feb
 & Mar. Yellow-billed Egret *Egretta intermedia*
 Irreg. Great White Egret *Egretta alba*
 PM? Aug-Apr.
 Purple Heron *Ardea purpurea* PM? Aug-Apr.
 Grey Heron *Ardea cinerea* PM? Aug-Apr.
 Black-headed Heron *Ardea melanocephala* Irreg. Aug-Apr.
 Goliath Heron *Ardea goliath* Irreg.
 (rare) Hamerkop *Scopus umbretta* Res.
 (com.) Yellow-billed Stork *Mycteria ibis*
 Rare Openbill Stork *Anastomus*
lamelligerus AM dry season Abdim's Stork *Ciconia*
abdimii AM Feb. Black Stork *Ciconia*
nigra PM Feb. Woolly-necked
 Stork *Ciconia episcopus* Res? Aug-Apr. (local) White Stork
Ciconia ciconia PM dry season Saddle-
 billed Stork *Ephippiorhynchus senegalensis* Res. (local)
 Marabou Stork *Leptoptilos crumeniferus* Res?
 Sacred Ibis *Threskiornis aethiopicus* AM (rare) Mar.
 Hadada *Bostrychia hagedash* Res. (com.)
 White-faced Tree Duck *Dendrocygna viduata* Res.
 (com.) Spur-winged Goose *Plectropterus gambensis* Irreg.
 Aug-Feb. Knob-billed Duck *Sarkidiornis melanotos*
 AM (rare) Jan. Pygmy Goose *Nettapus auritus*
 Irreg. African Cuckoo Hawk *Aviceda*
cuculoides Res? Aug & Mar. Honey Buzzard

Pernisapivorus PM (rare) Oct. Black-shouldered Kite *Elanus caeruleus* AM (rare) dry season Eur.
 Black Kite *Milvus m. migrans* PM Apr.
 Yellow-billed Kite *Milvus m. parasitus* AM Jul-Apr.
 African Fish Eagle *Haliaeetus vocifer*
Irreg. Palm-nut Vulture *Gypohierax angolensis* Res. (com.)

Species **Status**
**Observations**

Res. (com.)

(com.) Black Crake *Amaurornis flavirostra*
 Res. (local) Allen's Gallinule *Porphyryla alleni*
 AM? Aug-Apr. Common Moorhen *Gallinula chloropus*
 Irreg. Northern Crowned Crane *Balearica*
pavonina Rare (none since 1975) African Finfoot *Podica*
senegalensis Res. (local) Denham's Bustard
Neotis denhami AM Dec-Apr. Black-bellied
 Bustard *Eupodotis melanogaster* Res. (local) African
 Jacana *Actophilornis africanus* Res. (com.)
 Painted Snipe *Rostratula benghalensis* Irreg. Feb-Apr.
 Black-winged Stilt *Himantopus himantopus* Irreg. dry
 season Senegal Thick-knee *Burhinus senegalensis* AM?
 Jan-Apr. Spotted Dikkop *Burhinus capensis* Irreg.
 dry season Egyptian Plover *Pluvianus aegyptius*
 AM dry season Bronze-winged Courser *Rhinoptilus chalcopterus*
 AM Dec-Mar. Temminck's Courser *Cursorius temminckii*
 AM dry season Kittlitz's Plover *Charadrius pecuarius*
 Vagrant (once, rains) Forbes's Plover *Charadrius forbesi*
 Res. (bovals) African Wattled Lapwing *Vanellus*
senegallus Res? White-crowned Plover *Vanellus*
albiceps Vagrant (once, Dec) Spur-winged Plover *Vanellus*
spinosus AM? dry season Lesser Black-winged Plover
Vanellus lugubris AM? (once, Feb.) Common Snipe *Gallinago*
gallinago PM (rare) Nov. Great Snipe *Gallinago*
media PM (once, Oct.)
 Whimbrel *Numenius phaeopus* PM (once, Aug.)
 Marsh Sandpiper *Tringa stagnatilis* PM (once, Nov.)
 Greenshank *Tringa nebularia* PM (once, Dec.)
 Green Sandpiper *Tringa ochropus* PM Dec-Mar.
 Wood Sandpiper *Tringa glareola* PM Jul-Jan.
 Common Sandpiper *Actitis hypoleucos* PM Jul-Nov & Mar.
 Ruff *Philomachus pugnax* PM (once,
 Dec.) Four-banded Sandgrouse *Pterocles quadricinctus* AM Nov-Feb.
 (com.) European Turtle Dove *Streptopelia turtur* PM (rare)
 Oct-Dec.
 Laughing Dove *Streptopelia senegalensis*
 Vinaceous Dove *Streptopelia vinacea* Res. (com.)
 Rose-grey Dove *Streptopelia roseogrisea* Vagrant (once Apr.)
 Red-eyed Dove *Streptopelia semitorquata* Res. (com.)
 Black-billed Dove *Turtur abyssinicus* Res. (com.)

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Species **Status**
**Observations**

Res. (com.)

..... Blue-spotted Dove *Turtur afer* Res. (local)
 Namaqua Dove *Oena capensis* Irreg.
 Bruce's Green Pigeon *Treron waalia* Res. (com.)
 Green Pigeon *Treron calvus* Res. (com.)

 Brown-necked Parrot *Poicephalus robustus* Res.?
 Senegal Parrot *Poicephalus senegalus* Res. (com.)
 Red-headed Lovebird *Agapornis pullarius* Res. (rare)
 Rose-ringed Parakeet *Psittacula krameri* Res.
 (com.) Guinea Turaco *Tauraco persa*
 Vagrant? Violet Turaco *Musophaga violacea*
 Res. (com.) Western Grey Plantain-eater *Crinifer piscator*
 Res. (com.) Jacobin Cuckoo *Clamator jacobinus*
 AM (rare) rains Striped Cuckoo *Clamator levaillantii*
 AM Aug-Apr. (com.) Thick-billed Cuckoo *Pachycoccyx*
audeberti Res. (rare) Red-chested Cuckoo *Cuculus*
solitarius AM rains (com.)
 African Grey Cuckoo *Cuculus gularis* AM Feb-Aug..
 (com.) Klaas's Cuckoo *Chrysococcyx klaas* Res.
 (com.) Didric Cuckoo *Chrysococcyx caprius* AM Aug-
 Apr. (com.) Yellowbill *Ceuthmochares aereus*
 Res. (rare) African Black Coucal *Centropus*
grillii AM rains (last 1988) Senegal Coucal *Centropus*
senegalensis Res. (com.) Barn Owl *Tyto alba*
 Res. (local) African Scops Owl
Otus senegalensis Res. (com.) White-faced Owl
Otus leucotis Res. (rare) Spotted Eagle
 Owl *Bubo africanus* Res. (com.) Giant Eagle
 Owl *Bubo lacteus* Res. (rare)
 Pel's Fishing Owl *Scotopelia peli* Res. (scarce)
 Pearl-spotted Owlet *Glaucidium perlatum* Res.
 (com.) Fiery-necked Nightjar *Caprimulgus pectoralis*
 Res? Freckled Rock Nightjar *Caprimulgus tristigma*
 Res. (local) Long-tailed Nightjar *Caprimulgus climacurus*
 Res. Standard-winged Nightjar *Macrodipteryx*
longipennis AM Jan-Apr. Mottled Spinetail *Telacanthura ussheri*
 Res. (rare) African Palm Swift *Cypsiurus parvus*
 Res. (com.) Pallid Swift *Apus pallidus*
 PM? (once, Dec.) Common (European)
 Swift *Apus apus* PM Aug-Nov & Apr. Little Swift *Apus*

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Species **Status**
**Observations**

Res. (com.)

affinis Res. (local) African White-rumped Swift *Apus caffer* Res? (rare) Horus Swift *Apus horus* Res? (rare) Narina Trogon *Apaloderma narina* Res? (local) Shining-blue Kingfisher *Alcedo quadibrachys* Res. (local) Malachite Kingfisher *Alcedo cristata* Res. Pygmy Kingfisher *Ceyx pictus* AM? mostly rains (com.) Chestnut-bellied Kingfisher *Halcyon leucocephala* AM Nov-Apr. Blue-breasted Kingfisher *Halcyon malimbica* Res. (com.) Woodland Kingfisher *Halcyon senegalensis* AM Jul-Oct. Striped Kingfisher *Halcyon chelicuti* Res. (local) Giant Kingfisher *Megaceryle maxima* Res. Pied Kingfisher *Ceryle rudis* Irreg. Little Bee-eater *Merops pusillus* Res. (local) Swallow-tailed Bee-eater *Merops hirundineus* AM Jul-Dec. Red-throated Bee-eater *Merops bulocki* Res. (com.) White-throated Bee-eater *Merops albicollis* AM (irreg.) European Bee-eater *Merops apiaster* PM Sep-Oct. Northern Carmine Bee-eater *Merops nubicus* AM? Aug-Apr. European Roller *Coracias garrulus* PM (rare, Mar-Apr.) Abyssinian Roller *Coracias abyssinicus* AM most Nov-Apr. (com.) Purple Roller *Coracias naevius* AM Feb-Apr Blue-bellied Roller *Coracias cyanogaster* Res? (rare) Broad-billed Roller *Eurystomus glaucurus* Res? Red-billed Wood Hoopoe *Phoeniculus purpureus* Res. (com.) Black Wood Hoopoe *Phoeniculus aterrimus* Hoopoe *Upupa epops* AM/PM? Dec-Apr. Red-billed Hornbill *Tockus erythrorhynchus* Res. (local) African Grey Hornbill *Tockus nasutus* AM? most dry season Abyssinian Ground Hornbill *Bucorvus abyssinicus* Res. (rare) Yellow-fronted Tinkerbird *Pogoniulus chrysoconus* Res. (com.) Vieillot's Barbet *Lybius vieilloti* Res. (com.) Bearded Barbet *Lybius dubius* Res. (com.) Greater Honeyguide *Indicator indicator* Res. (com.) Lesser Honeyguide *Indicator minor* Res. (local) European Wryneck *Jynx torquilla* PM (once,

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Species **Status**
**Observations**

Res. (com.)

Nov.) Fine-spotted Woodpecker *Campethera punctuligera*
 Res. (com.) Golden-tailed Woodpecker *Campethera abingoni*
 Res. (local) Cardinal Woodpecker *Dendropicos fuscescens*
 Res. (local) Grey Woodpecker *Mesopicos goertae*
 Res. (com.) Brown-backed Woodpecker *Picoides*
obsoletus Res. (com.) Flappet Lark *Mirafra*
rufocinnamomea Res. (local) Sun Lark *Galerida*
modesta Res. (com. bovals) Chestnut-backed
 Sparrow-Lark *Eremopterix leucotis* ... AM dry season (rare) Fanti Saw-
 wing *Psalidoprocne obscura* AM Mar-Aug. (com.)
 European Sand Martin *Riparia riparia* PM Sep-Oct.
 African Sand Martin *Riparia paludicola* Irreg.
 Grey-rumped Swallow *Pseudhirundo griseopyga* AM dry
 season Red-breasted Swallow *Hirundo semirufa*
 Res? Mosque Swallow *Hirundo senegalensis*
 Res. (local)
 Lesser Striped Swallow *Hirundo abyssinica* Res. (local)
 Wire-tailed Swallow *Hirundo smithii* Res. (local)
 Pied-winged Swallow *Hirundo leucosoma* AM?
 European (Barn) Swallow *Hirundo rustica* PM Sep & Apr.
 Red-chested Swallow *Hirundo lucida* Res.
 (local) House Martin *Delichon urbicum* PM
 Oct-Apr. Yellow Wagtail *Motacilla flava*
 PM Oct-Mar. African Pied Wagtail *Motacilla aguimp*
 Irreg. Plain-backed Pipit *Anthus leucophrys*
 Irreg. Tree Pipit *Anthus trivialis*
 PM Oct-Apr. Red-throated Pipit *Anthus*
cervinus PM (once, Apr.) Yellow-throated
 Longclaw *Macronyx croceus* AM? dry season Red-
 shouldered Cuckoo-shrike *Campephaga phoenicea* ... Res? (com. rains)
 White-breasted Cuckoo-shrike *Coracina pectoralis* Res. (local)
 Yellow-throated Leaflove *Chlorocichla flavicollis* Res.
 (rare) Common Bulbul *Pycnonotus barbatus* Res.
 (com.) West African Thrush *Turdus pelios*
 Res. (com.) Nightingale *Luscinia megarhynchos* PM (rare,
 Oct & Mar.) Snowy-headed Robin Chat *Cossypha niveicapilla*
 AM? com. rains White-crowned Robin Chat *Cossypha albicapilla*
 Res. (com.) Redstart *Phoenicurus phoenicurus*
 PM Feb-Mar. Whinchat *Saxicola rubetra*
 PM Dec-Mar. Familiar Chat

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Species **Status**
**Observations**

Res. (com.)

<i>Cercomela familiaris</i>	Res. (rare)	White-fronted
Black Chat <i>Myrmecocichla albifrons</i>	Res. (local)	Mocking
Chat <i>Myrmecocichla cinnamomeiventris</i>	Res. (rare)	African
Moustached Warbler <i>Melocichla mentalis</i>	Res. (com.)	Sedge
Warbler <i>Acrocephalus schoenobaenus</i>	PM (once, Feb.)	Reed
Warbler <i>Acrocephalus scirpaceus</i>	PM (rare, Oct-Nov.)	
Melodious Warbler <i>Hippolais polyglotta</i>	PM Nov-Mar.	
..... Olivaceous Warbler <i>Hippolais pallida</i>	PM? (once,	
Feb.)	Green-backed Eremomela <i>Eremomela pusilla</i>	Res.
(com.)	Northern Crombec <i>Sylvietta brachyura</i>	
Res. (com.)		
Willow Warbler <i>Phylloscopus trochilus</i>	PM Oct-Mar	
Yellow-bellied Hyliota <i>Hyliota flavigaster</i>	Res. (local)	
..... Garden Warbler <i>Sylvia borin</i>	PM Oct-Dec.	
..... Common Whitethroat <i>Sylvia communis</i>	PM Oct-	
Jan. Fan-tailed Cisticola <i>Cisticola juncidis</i>	Res.	
(rare)		
Croaking Cisticola <i>Cisticola natalensis</i>	Res. (com.)	
Dorst's Cisticola <i>Cisticola guinea (dorsti)</i>	Res. (com.)	
Rufous Cisticola <i>Cisticola rufus</i>	Res. (com.)	
Short-winged Cisticola <i>Cisticola brachypterus</i>	Res. (com.)	
Whistling Cisticola <i>Cisticola lateralis</i>		
Red-faced Cisticola <i>Cisticola erythrops</i>	Res. (local)	
Singing Cisticola <i>Cisticola cantans</i>	Res. (com.)	
Winding Cisticola <i>Cisticola galactotes</i>	Res. (local)	
..... Tawny-flanked Prinia <i>Prinia subflava</i>	Res. (com.)	
..... Red-winged Warbler <i>Heliolais erythropterus</i>	Res. (com.)	
..... Yellow-breasted Apalis <i>Apalis flavida</i>	Res. (com.)	
..... Grey-backed Camaroptera <i>Camaroptera brachyura</i>	Res. (com.)	
..... Oriole Warbler <i>Hypergerus atriceps</i>	Res. (local)	
.....		
Pallid Flycatcher <i>Bradornis pallidus</i>	Res. (com.)	
..... Western Black Flycatcher <i>Melaenornis edolioides</i>	Res.	
(com.)	Pied Flycatcher <i>Ficedula hypoleuca</i>	PM
Oct-Apr. Spotted Flycatcher <i>Muscicapa striata</i>	PM	
(rare, Oct-Feb.)	Gambaga Flycatcher <i>Muscicapa gambagae</i>	
AM? (once, Apr.)	Swamp Flycatcher <i>Muscicapa aquatica</i>	
..... Res. (rare)		
Ashy Flycatcher <i>Muscicapa caerulescens</i>	Res. (rare)	
..... Lead-coloured Flycatcher <i>Myioparus plumbeus</i>	Res.	

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Species **Status**
**Observations**

Res. (com.)

(local) Senegal Batis *Batis senegalensis*
 Res. (com.) Common Wattle-eye *Platysteira cyanea*
 Res. (com.) Blue Flycatcher *Elminia longicauda*
 Res. (com.) Paradise Flycatcher *Terpsiphone*
viridis AM? most rains (com.) Brown Babbler *Turdoides*
plebejus Res. (com.) Blackcap Babbler
Turdoides reinwardtii Res. (com.) White-winged
 Black Tit *Parus leucomelas* Res. (com.) West
 African Penduline Tit *Anthoscopus parvulus* Res. (rare)
 Spotted Creeper *Salpornis spilonotus* Res. (local)
 W. Violet-backed Sunbird *Anthreptes longuemarei* Res. (local)
 Pygmy Sunbird *Anthreptes platurus* AM dry season
 (com.) Green-headed Sunbird *Nectarinia verticalis*
 Res. (local) Scarlet-chested Sunbird *Nectarinia senegalensis*
 Res. (com.) Variable Sunbird *Nectarinia venusta*
 Res. Coppery Sunbird *Nectarinia cuprea*
 Res. (com.) Splendid Sunbird *Nectarinia*
coccinigastra Res. (com.) Beautiful Sunbird
Nectarinia pulchella Res. (com.) Yellow
 eye Zosterops *Zosterops senegalensis* Res. (com.) African
 Golden Oriole *Oriolus auratus* Res. Emin's
 Shrike *Lanius gubernator* AM? (once, Jan.)
 Woodchat Shrike *Lanius senator* PM Dec-Apr.
 Yellow-billed Shrike *Corvinella corvina* Res.
 (local) Brubru *Nilaus afer*
 Res. (com.) Northern Puffback *Dryoscopus gambensis*
 Res. (com.) Marsh Tchagra *Tchagra minutus*
 Res? (no recent reports)
 Black-crowned Tchagra *Tchagra senegalus* Res. (com.)
 Tropical Boubou *Laniarius aethiopicus* Res.
 (local) Yellow-crowned Gonolek *Laniarius barbarus*
 Res. (com.) Sulphur-breasted Bush Shrike *Malaconotus sulfureopectus*
 Res. (com.) Grey-headed Bush Shrike *Malaconotus blanchoti*
 Res. (local) White Helmet Shrike *Prionops plumatus*
 Res. (com.) Square-tailed Drongo *Dicrurus ludwigii*
 Res. (local)
 Fork-tailed Drongo *Dicrurus adsimilis* Res. (com.)
 Piapiac *Ptilostomus afer*
 Irreg? Pied Crow *Corvus albus*
 Irreg. Purple Glossy Starling

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Species **Status**
**Observations**

Res. (com.)

Lamprotornis purpureus Res. Greater Blue-eared
 Starling *Lamprotornis chalybaeus* AM? (few dates) Lesser Blue-eared
 Starling *Lamprotornis chloropterus* ...AM (rare, Dec-Feb.) Northern Long-
 tailed Starling *Lamprotornis caudatus* Res. (local) Violet-backed
 Starling *Cinnyricinclus leucogaster* AM (irreg.)
 Yellow-billed Oxpecker *Buphagus africanus*Res. (rare)
 N. Grey-headed Sparrow *Passer griseus* Res. (com.)
 Bush Petronia *Petronia dentata* Res.? (com. dry season)
 Speckle-fronted Weaver *Sporopipes frontalis* Irreg. (1975 only)
 Chestnut-crowned Sparrow-weaver *Plocepasser superciliosus* Res. (com.)

 Little Weaver *Ploceus luteolus* Res. (com.) Black-
 necked Weaver *Ploceus nigricollis* Res. (local) Heuglin's
 Masked Weaver *Ploceus heuglini*Res. (rare) Village Weaver
Ploceus cucullatus Res. (local)

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Species Status Observations

Species	Status	Observations
Black-headed Weaver <i>Ploceus melanocephalus</i>	Res. (local)	
Red-headed Weaver <i>Anaplectes melanotis</i>	Res. (local)	Red-headed
Quelea <i>Quelea erythrops</i>	Res. (local)	Yellow-crowned
Bishop <i>Euplectes afer</i>	Res. (local)	Black-winged
Red Bishop <i>Euplectes hordeaceus</i>	Res. (com.)	Northern
Red Bishop <i>Euplectes franciscanus</i>	Res. (com.)	Yellow-mantled
Whydah <i>Euplectes macrourus</i>	Res. (com.)	White-cheeked
Olive-back <i>Nesocharis capistrata</i>	Res. (rare)	Yellow-winged
Pytilia <i>Pytilia hypogrammica</i>	Res. (rare)	
Red-winged Pytilia <i>Pytilia phoenicoptera</i>	Res. (com.)	Bar-breasted
Firefinch <i>Lagonosticta rufopicta</i>	Res. (local)	
Red-billed Firefinch <i>Lagonosticta senegala</i>	Res. (com.)	
Black-bellied Firefinch <i>Lagonosticta rara</i>	Res. (local)	
Black-faced Firefinch <i>Lagonosticta larvata</i>	Res. (com.)	
Lavender Waxbill <i>Estrilda caerulescens</i>	Res. (com.)	
Orange-cheeked Waxbill <i>Estrilda melpoda</i>	Res. (com.)	
Black-rumped Waxbill <i>Estrilda troglodytes</i>	Res. (local)	
Red-cheeked Cordon-bleu <i>Uraeginthus bengalus</i>	Res. (com.)	
Quail Finch <i>Ortygospiza atricollis</i>	Res. (local)	
Warbling Silverbill <i>Spermestes cantans</i>	AM? (1978 only)	
Bronze Mannikin <i>Spermestes cucullatus</i>	Res. (com.)	Cut-throat
Finch <i>Amadina fasciata</i>	AM (rare)	
Village Indigobird <i>Vidua chalybeata</i>	Res. (local)	
Cameroon Indigobird <i>Vidua camerunensis</i>	Res. (local)	
Baka Indigobird <i>Vidua larvaticola</i>	Res. (local)	
Pale-winged Indigobird <i>Vidua wilsoni</i>	Res. (local)	Pin-tailed
Widow <i>Vidua macroura</i>	Res. (com.)	Uelle
Paradise Widow <i>Vidua interjecta</i>	Res. (com.)	
Togo Paradise Widow <i>Vidua togoensis</i>	Res. (rare)	
Yellow-fronted Canary <i>Serinus mozambicus</i>	Res. (com.)	
Streaky-headed Seed-eater <i>Serinus gularis</i>	Res. (com.)	
Cinnamon-breasted Rock Bunting <i>Emberiza tahapisi</i>	AM Oct-May	
Brown-rumped Bunting <i>Emberiza affinis</i>	Res. (com.)	
Cabanis's Bunting <i>Emberiza cabanisi</i>	Res. (local)	

Note: Among species claimed in the past (but rejected here, for lack of supporting details) particular attention should be paid to: Short-toed Eagle *Circaetus gallicus*, African Goshawk *Accipiter tachiro*, Fox Kestrel *Falco alopex*, African Mourning Dove *Streptopelia decipiens*, Speckled Mousebird *Colius striatus*, Red-rumped Swallow *Hirundo daurica*, Fiscal Shrike *Lanius collaris*, African Masked Weaver *Ploceus velatus*. Please bring records of these to our attention, with full documentation.