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## BREEDING AND DISTRIBUTIONAL NOTES ON SOME ANGOLAN BIRDS

by

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### INTRODUCTION

Little published information exists on breeding in the birds of Angola, of which Traylor (1963) summarised all the available data. More recently, Pinto (1966 and in prep.) has detailed gonad condition in birds collected in Angola by the Instituto de Investigação Científica de Angola, Sá da Bandeira, and, where active, these are referred to. Cannell (1968) published some breeding data, and Brooke and Jeffrey (1972 a and b), in papers on the Palmnut Vulture *Gypohierax angolensis* in Angola, give considerable information on that species. However, serious deficiencies still remain in our knowledge of bird breeding distribution and seasons in Angola.

During the periods 18 July to 10 September, 1972, 1 - 17 May, 1973, and 6 August to 3 October, 1973, a number of birds were found breeding in the districts of Cabinda, Uige, Luanda, Cuanza Norte, Cuanza Sul, Malanje, Huambo, Huila and Cunene while I was engaged on collecting expeditions on behalf of the Peabody Museum of Natural History, Yale University, U.S.A. The co-ordinates of the localities where nests were found are given in Appendix I.

In this paper I give only the date, locality and nest contents, except in species the breeding biology of which is still poorly known, when supplementary information has been added. Nest record-cards

for all species listed here have been deposited with the Percy Fitzpatrick Institute of African Ornithology, Cape Town. In addition to breeding data, several new distributional records are included in the present paper. A number of birds were found building nests, which were not subsequently examined. These records are listed succinctly in Appendix II.

Order and nomenclature in the main follow Traylor (1963).

### SYSTEMATIC LIST

#### **Ardea cinerea**

Grey Heron

A colony of more than 10 nests on sandstone cliffs at the mouth of the Quiçombo River, 20 July, 1972. At least four birds were incubating. A similar site is used by Blackheaded Herons *A. melanocephala* (Cannell (1968)). Two well-feathered young in a nest in a *Casuarina* tree on the island in Luanda, 10 May, 1973. On 13 August, 1973, there were three nests with young at the same locality, and one nest that had either eggs or small young, all in similar sites to the 10 May nest.

#### **Plectropterus gambensis**

Spurwinged Goose

An adult with two young about half adult size were observed at a lake 30km south of Negola, 17 May, 1973.

#### **Accipiter melanoleucus**

Black Sparrowhawk

c/2 hatching, 27 August, 1972, about 10km west of Culamagia. Traylor (1963) has no records for Malanje. The present nest was in riverine forest in *Brachystegia* woodland.

#### **Accipiter ovampensis**

Ovambo Sparrowhawk

Incubating eggs or small young on an inaccessible nest at Cusseçe, 14 September, 1973.

#### **Hieraaetus spilogaster**

African Hawk Eagle

An adult was observed on a nest about 40km north of Pereira de Eça, 6 August, 1973. Young were suspected in the nest as there were eggshells on the ground below.

#### **Aquila rapax**

Tawny Eagle

One young about 8 - 10 weeks old, 10 September, 1972, 9km north of Pereira de Eça, on a nest about 15m up in a baobab *Adansonia digitata* in mopane woodland. A Tawny Eagle was incubating on a nest about 10m up in an *Acacia* in mopane woodland about 5km south of Quiteve, 6 August, 1973.

**Aquila wahlbergi** Wahlberg's Eagle  
Incubating on an inaccessible nest at Catanha, 2 October, 1973.

**Haliaeetus vocifer** Fish Eagle  
One young about eight weeks old, 29 July, 1972, about 5km south-west of Bom Jesus. Two nests found on 11 May, 1973, in the same area were both in *Euphorbia conspicua* trees on a cliff and both contained two eggs. The nests were about 100m apart. Erard and Etchecopar (1970) recorded Fish Eagles in the general area, but they were not recorded here by Traylor (1963). Four nests with adult birds present were found along the Cuanza River from about 10km east to 15km west of the SV pumphouse below Caua Camp between 25 July and 11 August, 1972.

**Necrosyrtes monachus** Hooded Vulture  
Numbers were seen at Quiçama National Park, 15 August, 1973. Also observed near the Lucala River bridge on the Dondo - Salazar road, 18 August, 1973. These records extend the known Angolan range of this bird about 150km north of Brooke, Cannell and Jeffery's (1971) records.

**Neophron percnopterus** Egyptian Vulture  
A single bird at the mouth of the Quiçombo River, 5 May, 1973. Brooke, Cannell and Jeffery (1971) record a pair at the mouth of the Cuula River, about 120km south of the Quiçombo.

**Gypohierax angolensis** Palmnut Vulture  
c/1 on 29 July, 1972, near Cacoba Lake, Quiçama. Nest was in a stout lateral fork of a baobab and about 7m above ground. The nest was lined with fibre and dung. The egg was heavily incubated. Brooke and Jeffery (1972a) discuss and list nest sites of *Gypohierax* in Angola. I found eight nests in *Euphorbia conspicua* trees, three nests in baobabs and two nests in mangrove trees. No nests were found in oil palms despite careful searching, thus supporting the negative report of Brooke and Jeffery (1972a).

**Terathopius ecaudatus** Bateleur  
One large young on a nest about 4km east of Maubi Camp, 6 September, 1973. Young capable of sustained flight but still being fed by the adult female.

**Pandion haliaetus** Osprey  
A single bird was observed 10km south-east of Bom Jesus, 6 August, 1972. On 10 May, 1973, there was a single bird at Barra do Cuanza and on 24 August, 1973, a pair were seen at a lake near Massangano. Not recorded by Traylor (1963) for Angola

**Falco ardosiaceus**

Grey Kestrel

A female (by relative size) was incubating eggs or brooding small young in an inaccessible old Hamerkop *Scopus umbretta* nest, Cusseçe, 29 September, 1973. The male was observed to bring four prey items (all lizards; by size and appearance possibly *Agama* sp.) between 2 p.m. and 6 p.m. As the male flew towards the nest he began to call. On reaching the prey perch, about 25m from the nest, the female would fly from the nest, take the food item and begin to eat it there. The male would immediately fly off. The female ate some of the food at the prey perch and returned to the nest with the remainder. No sign or sound of young was detected, though the female returning to the nest with the food strongly suggests young.

**Fracolinus coqui**

Coqui Francolin

c/5, fresh, 28 August, 1972, at Maubi Camp, Cangandala.

**Fracolinus finschii**

Finsch's Francolin

Two young about a quarter adult size, 29 August, 1972, at about 8km west of Culamagia. They were observed in scrub in a clearing in *Brachystegia* woodland.

**Pternistis afer**

Redthroated Francolin

Six sets of young ranging from one to three-quarters adult size recorded at Quiçama between 23 July and 11 August, 1972, and four young about three-quarters adult size on 13 May, 1973, at Quiçama; see also Pinto (1966).

**Lissotis melanogaster**

Blackbellied Bustard

One young about three-quarters adult size at Caua camp, Quiçama, on 12 May, 1973.

**Actophilornis africanus**

African Jacana

c/4 highly incubated, 31 July and c/4 fresh, 23 August, 1972, on the edge of the Cuanza River about 10km west of Caua camp, Quiçama.

**Rostratula benghalensis**

Painted Snipe

c/1 fresh, locality as previous species, 27 August, 1972: not recorded in the Luanda district by Traylor (1963).

**Stephanibyx lugubris**

Lesser Blackwinged Plover

c/3 highly incubated, 21 August, 1972, 15km north of Cabinda.

**Hoplopterus armatus**

Blacksmith Plover

Three pairs with one young each at Roçadas, 3 October, 1973. The young were all about three-quarters adult size.

**Hemiparra crassirostris** Whitewinged Plover  
c/3, 25 July, 1972, locality as *Actophilornis*. Eggs moderately incubated. Not listed by Traylor (1963) for Angola, but recorded by Erard and Etchecopar (1970) for the same reserve.

**Charadrius pecuarius** Kittlitz's Sand Plover  
c/2 moderately incubated at Cacoba, Quiçama, 24 August, 1972.

**Glareola pratincola** Pratincole  
A colony of five nests with more than 20 pairs of birds present was found at Cacoba Lake, Quiçama, 24 August, 1972. Nests contained 1y, 1y + 1 egg, c/2 and two nests with one egg each. In October, 1969, Erard and Etchecopar (1970) found them behaving as if about to lay.

**Rynchops flavirostris** African Skimmer  
c/3 moderately incubated, 6 August, 1973, at Quiteve.

**Treron australis** Green Pigeon  
c/1 fresh, 5 September, 1973, in the Maubi camp area.

**Streptopelia semitorquata** Redeyed Dove  
c/2, 23 August, 1972, at Quiçama; see also Pinto (1966).

**Streptopelia capicola** Cape Turtle Dove  
c/2, 23 August, 1972, at Quiçama and two young at Caconda, 3 September, 1972. c/2 fresh, 2 September, 1973, in the Maubi camp area. See also Pinto (1966).

**Streptopelia senegalensis** Laughing Dove  
c/2, 9 August, 1972, at Quiçama; see also Pinto (1966).

**Poicephalus meyeri** Meyer's Parrot  
Three young with feathers just emerging, 30 August, 1972, about 30 km west of Culamagia. Pinto (1966) records gonads enlarging in April. Traylor (1963) has a record of a juvenile about to leave the nest on 26 August at Chitau, Bié.

**Poicephalus rueppellii**, Rüppell's Parrot  
Young in a nest-hole about 5m up in a roadside baobab north of Humbe, 2 May, 1973.

**Corythaixoides concolor** Goaway Bird  
One young, 5 September, 1972, at Canalonga: see also a breeding record for a month later from Quiçama National Park by Erard and Etchecopar (1970). Pinto (1966 and pers. comm.) has numerous records of eggs but the data on these are not available.

**Tyto alba** Barn Owl  
c/5 well incubated in a nest on a concrete ledge under a road bridge across the Lucala River at Lucala, 28 August, 1973.

**Bubo africanus** Spotted Eagle Owl  
C/2 moderately incubated, 15 August, 1972, about 10km south of Cabinda.

**Bubo lacteus** Giant Eagle Owl  
A pair in riverine forest on the Caralongombe River, 5 August, 1972, and a pair roosting in a lone big tree at Cacoba Lake, 6 August, 1972. Although recorded by Traylor (1963) from this area, the status of this large owl in Angola seems to be obscure.

**Caprimulgus pectoralis** Fierynecked Nightjar  
c/2 fresh, 28 August and c/2 fresh, 31 August, 1972, both about 15km west of Culamagia.

**Cosmetornis vexillarius** Pennantwinged Nightjar  
c/2 fresh, 26 August, c/2 fresh, 30 August and c/1 fresh, 31 August, 1972. Two sets of two eggs, fresh, 2 September, and c/2, fresh, 3 September, 1973, all in the Maubi camp area. One flying young about two-thirds adult size, 25 September, 1973, at Catanha.

**Apus caffer** Whiterumped Swift  
c/2 moderately incubated, 24 August, 1973, at Massangano. Nest was an old nest of a Lesser Striped Swallow *Cecropis abyssinica*.

**Apus horus** Horus Swift  
Several pairs breeding in old nesting burrows of a bee-eater *Merops* sp., south of Landana Cabinda, 21 August, 1972. Six nests examined had 2y, 2y, 2y, 2y, 2y + 1 egg and 1y. The dark rumped *toulsoni*, believed to be a colour phase of *A. horus*, was not noted at this colony, but was seen 10km north of Landana.

**Cypsiurus parvus** Palm Swift  
Six nests were observed in a *Hyphaene* palm 20km south of Novo Redondo, 5 May, 1973. The nests were unusually low, the lowest being about 2m above ground level. Two nests contained c/2 moderately incubated and two young with feathers still in sheaths.

**Ispidina picta** Natal Kingfisher  
c/1 fresh at Calulo, 2 September, 1972; see also Pinto (1966).

**Halcyon leucocephala** Greyhooded Kingfisher  
c/5 fresh, 26 August, c/4 fresh, 27 August, and c/4, slightly incubated, 28 August, 1972. c/4 fresh, 6 September and c/4 fresh, 9 September, 1973. All nests in the Maubi camp area, and all in similar sites, were tunnelled into the roofs of antbear *Orycteropus* burrows.

**Merops pusillus** Little Bee-eater  
c/2 fresh, 14 September, 1973, at Cusseçe.

**Merops bullockoides** Whitefronted Bee-eater  
c/2 fresh, 29 August, 1973, about 20km south of Quibocolo. In one nest of the small colony a snake, possibly *Dasyveltis* sp., was seen in the egg chamber of the burrow.

**Upupa africana** African Hoopoe  
Three young, well-feathered but unable to fly, Cabinda, 18 August, 1972. c/6 highly incubated and "eggs", 1 September, 1973, Maubi camp, and c/2 + Cusseçe, 27 September, 1973.

**Phoeniculus purpureus** Redbilled Woodhoopoe  
Two young, with feathers just emerging from sheaths, 30 August, 1972, in the Maubi camp area. c/2 fresh, 13 September, 1973, at Cusseçe. Pinto (1966) records gonad activity in January and March.

**Rhinopomastus aterrimus** Black Woodhoopoe  
c/3 slightly incubated, 14 September, 1973, at Cusseçe.

**Stactolaema anchietae** Anchieta's Barbet  
c/5 fresh, 27 August, 1972, about 10km south-east of Maubi camp. The eggs were white and measured 24 x 17, 22,5 x 17,3, 22,9 x 17,4, 22,5 x 17,4 and 22,5 x 17,7mm. The nest-hole was bored into the dead main stem of a *Brachystegia* tree at about 2m above ground level. A Lesser Honeyguide *Indicator minor* attempted to enter this nest but was driven off by the barbets.

**Pogoniulus chrysoconus** Yellowfronted Tinker-bird  
Feeding young in an inaccessible nest-hole at Tundevala, Sá da Bandeira, 2 October, 1973.

**Dendropicos fuscescens** Cardinal Woodpecker  
Young in a high nest-hole, 2 September, 1973, in the Maubi camp area.



FIG. 1

Nesting habitat of *Mirafra nigricans*, 4 September, 1973.

The nest is in the left foreground.

### ***Mirafra nigricans***

### Dusky Lark

The breeding range of the Dusky Lark has been a controversial subject for some time. In his paper on the seasonal movements and variation in the southern populations of the Dusky Lark, Clancey (1968) reviewed the literature and showed almost conclusively that this lark breeds in the north of its range in the dry season and migrates south during the non-breeding season.

There are two equivocal breeding records from the extreme south of the Dusky Lark's non-breeding range: a nest containing two eggs found by Bell-Marley on 20 September, 1933, at Mkusi Flats, Zululand, and described in Roberts (1940), and a nest with three eggs found on 24 October, 1971, at Dingaans Kraal, Zululand (Martin (1972)).

At Cangandala National Park the Dusky Lark was fairly common on burnt grassland and burnt open woodland. Two nests were found, both in similar situations and of similar construction. The first nest was found about 5km south of Maubi camp, in a recently burnt off clearing between the *Brachystegia* woodland and the Maubi River. This nest was found on 30 August, 1972, and contained two young (see fig. 3).





FIG. 2

Nest of *Mirafra nigricans*, 4 September, 1973

Note the neatly excavated nest, the coarse grass lining and the large pieces of bark around the entrance to the nest.

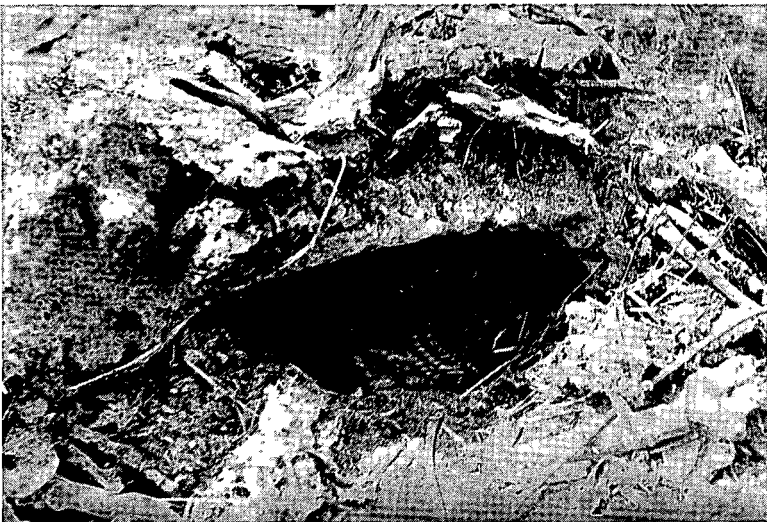


FIG. 3

Nest of *Mirafra nigricans*, 30 August, 1972

The second nest was found about 3km east of Maubi camp on 4 September, 1973, and contained two fresh eggs. The eggs are dull white in colour with a zone of sepia and dark brown freckles around the broad end in one egg. The other egg is marked all over and is a runt egg. They measure 24,8 x 17,7mm and 16,6 x 13,1mm (runt). This nest is shown in Fig. 2. Both nests had pieces of bark scattered about on the ground around the nests — this can be clearly seen in the photograph — and were of similar size. The 1972 nest measured 100mm across the entrance and was about 100mm front to back. The 1973 nest measured 107mm across the entrance, 100mm front to back and the entrance hole was 60mm top to bottom. Both nests were thinly lined with coarse grass stems. The bark pieces around the 1973 nest ranged from 64mm - 110mm long and 10mm - 30mm wide. Both nests faced south. Fig. 1 shows the nest habitat of the 1973 nest. The birds at both nests were very wary and when flushed from the nest would fly to a perch on top of a tree and remain there for some time. Not by sound or action did they indicate that they were nesting.

It appears that one of the primary requirements of a suitable nesting habitat is that it has been very recently burnt. An area of grass and open woodland near Maubi camp was burnt on 6 September, 1973, and by 8 September four Dusky Larks were displaying over an area of about 10 hectares. This display consisted of the bird rising in a slow spiral flight climbing to about 30m and then circling for about two minutes with alternate flapping and gliding and, finally, returning in a series of gliding stalls to a perch on top of a tree. Throughout this display the birds made a "zhree" call. The aerial song with fluttering wings that Benson (1959) observed at Kawamba, Zambia, was not seen. However the display at Maubi camp was probably at a low intensity due to the woodland having burnt so recently.

The *Type* of *Pinarocorys nigricans occidentis* Clancey is a breeding female collected at Cangandala, Malanje, on 27 August, 1965 (Clancey (1968)).

### **Hirundo angolensis**

Angola Swallow

c/4 highly incubated and three naked young, 10 September, 1973, at the Cuanza Rapids south of Cangandala village.

### **Hirundo nigrita**

Whitethroated Blue Swallow

c/3 moderately incubated from a cup nest of mud lined with grass built into the fractured end of a horizontal dead tree trunk over the water at the Lucala River bridge between Dondo and Salazar, 23 August, 1973.

**Hirundo smithii** Wiretailed Swallow  
Three young with feathers just emerging from sheaths, 30 July, 1972, at Barra do Cuanza.

**Cecropis abyssinica** Lesser Striped Swallow  
c/3 slightly incubated and two naked young, 29 July, 1972, at Bom Jesus. At a derelict building near Bom Jesus there were 48 occupied nests on the same date. One nest had three young. The closest nests were about 25cm apart.

Seven nests were found on three adjacent baobabs next to the Cuanza River on 27 July, 1972. None of the nest contents was examined. The nests were all under thick branches and against the trunk.

A nest found at Quiteve on 7 August, 1973, was built under a stout branch and against the main stem of an *Acacia albida*. The birds were lining the nest and had not yet laid.

**Petrochelidon rufigula** Redthroated Cliff Swallow  
Five sets of two eggs, five sets of three eggs and two young *c.* 2 days old, 22 July, 1972, Quibala. This was a colony of about 200 birds under a road bridge, apparently their favourite site in Angola (Cannell (1968)). The eggs were all fresh or slightly incubated. On 9 May, 1973, the birds were present and building at this colony but on 12 August, 1973, the colony had been deserted.

c/2 fresh was collected from a large colony under a road bridge 20km south of Caconda on 11 August, 1973. The furthest south nesting colony seen was about 20km west of Negola, where birds were feeding young and incubating eggs on 17 September, 1973.

At an old colony of *P.rufigula* on 31 August, 1972, at 30km west of Malanje, some nests had been repaired by *Apus affinis*, which had also built nests of their own among those of *P.rufigula*. None of the *A.affinis* nests examined had eggs or young. Hall (1960) records *A.caffer* using old nests of *P.rufigula*.

**Psalidoprocne nitens** Squaretailed Roughwing  
c/2 fresh on 21 August, 1972, about 15km north of Cabinda. The nest was in a burrow about 4cm in diameter and 35cm long low down in a sand-bank. The eggs were laid on a pad of *Usnea* in a chamber at the end of the burrow.

**Coracina pectoralis** Whitebreasted Cuckoo Shrike  
c/1 infertile, 26 August, c/1 moderately incubated, 28 August, and two sets of two eggs, hatching, 30 August, 1972, all in the Maubi camp area.

**Dicrurus adsimilis** African Drongo  
c/3 slightly incubated, 27 August, two sets of three eggs slightly incubated, 29 August, c/2, 31 August, 1972, and two newly-hatched young on 2 September, 1973, all in the Maubi camp area. On 21 September, 1973, there were two inaccessible nests with eggs and young at Cusseçe.

**Oriolus auratus** African Golden Oriole  
A female was sitting on an inaccessible nest on 27 August, 1972, at about 15km west of Culamagia. African Golden Orioles were present in the area during the period 31 August - 10 September, 1973. Traylor (1963) regards the present species as a dry season visitor to the area.

**Parus leucomelas** Northern Black Tit  
c/2 fresh, 2 September, 1973, in the Maubi camp area. In the nest was an egg of a Yellowthroated Sparrow *Petronia superciliaris*.

**Salpornis spilonotus** Spotted Creeper  
One young out of the nest, 26 September, 1973, at Catanha. Also building: see Appendix II.

**Turdoides jardineii** Arrowmarked Babbler  
Three young with feathers just emerging from sheaths, 24 September, 1973, at Cusseçe.

**Turdoides leucopygius** Whiterumped Babbler  
c/3 slightly incubated, 31 August, 1973, at Culamagia. One young out of the nest but incapable of sustained flight, 1 September, 1973, at Maubi camp.

**Pycnonotus barbatus** Yellowvented Bulbul  
c/2 fresh, 5 September, 1973, about 5km south of Maubi camp, c/2 moderately incubated, 26 September, 1973, at Catanha, and three young feathers still in sheaths, 28 September, 1973, at Cusseçe.

**Turdus libonyana** Kurrichaine Thrush  
c/3 slightly incubated, 30 August, 1972, at Maubi camp.

**Turdus litsipsirupa** Groundscraper Thrush  
c/3 moderately incubated, 2 October, 1973, at Tundevala, Sá da Bandeira.

**Monticola angolensis** Angola Rockthrush  
Two young with feathers still in sheaths, 28 September, 1973, at Cusseçe.

- Myrmecocichla arnoti** Arnot's Chat  
c/4 moderately incubated, 28 August, 1972, about 10km south-east of Maubi camp.
- Erythropygia barbata** Bearded Scrub Robin  
c/2 highly incubated, 23 September, 1973, and two young, well-feathered, 24 September, 1973, at Cusseçe.
- Prinia subflava** Tawnyflanked Prinia  
c/2 fresh, 9 September, 1973, in the Maubi camp area.
- Myioparus plumbeus** Grey Tit-flycatcher  
Two young, 9 September, 1973, in an old nest of a woodpecker about 5km east of Maubi camp.
- Bradornis pallidus** Mousecoloured Flycatcher  
c/2 fresh, 16 August, 1972, 20km north of Cabinda, three feathered young, 2 September, three feathered young, 3 September, and c/2 fresh, 5 September, 1973, all in the Maubi camp area, Cangandala.
- Melaenornis pammelas** Black Flycatcher  
Three well-feathered young, 27 August, 1972, c/2 fresh and c/3 moderately incubated, 29 August, and two young with feathers still in sheaths, 30 August, 1972, in the Maubi camp area. Two young close to fledging in the Nova Lisboa area, 3 September, 1972. c/2 incubation slight, 1 September, two young and one egg, 3 September, 1973, both nests about 10km east of Maubi camp, Cangandala. c/3 incubation slight and c/2 fresh, 24 September, 1973, at Cusseçe.
- Batis molitor** Chinspot Batis  
Two young with feathers just emerging, 5 September, 1973, at Maubi camp.
- Anthus leucophrys** Dark Plainbacked Pipit  
Two young, well-feathered, 1 October, 1973, at Tundevala, Sá da Bandeira.
- Prionops plumata** Straightcrested Helmet Shrike  
Young, 26 August, c/1 fresh, 27 August, 1972, about 2km east of Maubi camp. Three young, feathers still in sheaths, 2 September, 1973, in the Maubi camp area. Eggs, number not known, Cusseçe, 12 September, 1973.
- Prionops retzii** Redbilled Helmet Shrike  
Three well-feathered young, 26 August, 1972, three young with feathers just emerging, 27 August, 1972, one well-feathered young, 31 August, 1972, and c/3 highly incubated, 31 August, 1972, all about 10km south of Maubi camp, Cangandala. One young, out of the nest but only just able to fly, 2 September, 1973, at Maubi camp. c/3 fresh, 1 October, 1973, at Cusseçe.

**Prionops gabela** Angola Helmet Shrike

A flock of three was observed in dry forest south-west of Chio, 23 July, 1972. This is an extension of the known range northwards.

**Tchagra australis** Brownheaded Tchagra

c/2 moderately incubated, 27 August, 1972, about 15km south-east of Maubi camp, Cangandala.

**Malaconotus blanchoti** Greyheaded Bush-shrike

Two young, almost ready to leave the nest, 5 September, 1973, and c/3, highly incubated, 6 September, 1973, both nests in the Maubi camp area.

**Lanius souzae** Sousa's Shrike

c/4 fresh, 1 September, 1973, c/1 fresh, 5 September, 1973, both in the Maubi camp area. A female collected on 28 September, 1973, at Cusseçe had a fully formed and hard shelled egg in the oviduct.

**Lanius collaris** Fiscal Shrike

c/3 slightly incubated, 4 September, 1973, about 2km north of Maubi camp, Cangandala.

**Cinnyricinclus leucogaster** Violetbacked Starling

c/3 highly incubated, 28 September, 1973, at Cusseçe.

**Neocichla gutturalis** Whitewinged Starling

Young in an inaccessible nest about 10m up in a natural hole in the main stem of a *Brachystegia* tree about 115km north of Sá da Bandeira, 3 September, 1972. Young in an inaccessible nest at Cusseçe, 28 September, 1973.

**Lamprotornis acuticaudus** Sharptailed Glossy Starling

Three young, about four days old, 29 August, 1972, about 15km south-east of Maubi camp, Cangandala.

**Lamprotornis mevesii** Longtailed Glossy Starling

Three naked young, 2 May, 1973, north of Humbe.

**Nectarinia amethystina** Amethyst Sunbird

c/2 fresh, 5 May, 1973, about 50km from Lobito on the road to Novo Redondo.

**Nectarinia senegalensis** Scarletched Sunbird

One young, out of the nest but still under parental care, at Caua camp, Quiçama, 13 May, 1973.

**Petronia superciliaris** Yellowthroated Sparrow

c/3 highly incubated at Cusseçe, 12 September, 1973. See also *Parus leucomelas* above.

**Passer griseus** Greyheaded Sparrow

Two young out of the nest but still under parental care at Quiçama, 30 July, 1972.

**Ploceus xanthops** Large Golden Weaver

c/2 fresh, 26 August, 1972, about 5km south of Maubi camp, Cangan-dala.

**Anaplectes rubriceps** Redheaded Weaver

Young in an inaccessible nest at Cusseçe, 29 September, 1973.

**Euplectes hordeaceus** Blackwinged Red Bishop

c/2 fresh about 15km south of Sá da Bandeira, 2 May, 1973.

**Pytelia melba** Melba Finch

c/4 slightly incubated, 10 August, 1972, about 10km west of Caua camp, Quiçama, and two feathered young, 21 August, 1972, about 25km north of Cabinda.

**Lagonosticta rhodopareia** Jameson's Firefinch

c/5 slightly incubated at Tundevala, Sá da Bandeira, 3 May, 1973.

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## APPENDIX I

Localities cited in the text, followed by relevant district names and co-ordinates.

|  | Lat.      | Long.     |
|--|-----------|-----------|
| Barra do Cuanza, Luanda . . . . .                                      | 9° 15' s  | 13° 10' e |
| Bicuar National Park, Huila . . . . . approx.                          | 15° 05' s | 14° 50' e |
| Bom Jesus, Luanda . . . . .  | 9° 11' s  | 13° 34' e |
| Cabinda, Cabinda . . . . .   | 5° 34' s  | 12° 12' e |
| Caconda, Huila . . . . .   | 13° 43' s | 15° 06' e |
| Cahama, Cunene . . . . .   | 16° 17' s | 14° 19' e |
| Calulo, Cuanza Sul . . . . .   | 10° 01' s | 14° 56' e |
| Cangalonga, Huila . . . . . approx.                                    | 15° 15' s | 13° 25' e |
| Cangandala National Park, Malanje . . . . . lies in the quarter degree |           | 916 D     |
| Culamagia, Cangandala N.P. . . . .                                     | 9° 44' s  | 16° 48' e |
| Maubi camp, Cangandala N.P. . . . .                                    | 9° 47' s  | 16° 41' e |
| Catalangombe River, Quiçama National Park . . . . .                    |           |           |
| Carmona, Uige . . . . .  | 7° 36' s  | 15° 03' e |
| Catanha, Huila . . . . . approx.                                       | 14° 15' s | 14° 17' e |
| Chio, Luanda . . . . .   | 9° 52' s  | 14° 02' e |
| Chitau, Bié . . . . .  | 11° 15' s | 17° 08' e |
| Cuanza Rapids, Malanje . . . . .                                       | 9° 52' s  | 16° 19' e |
| Cusseçe, Huila . . . . . approx.                                       | 14° 13' s | 14° 22' e |
| Humbe, Cunene. . . . .   | 16° 40' s | 14° 55' e |
| Landana (Guilherme Capelo), Cabinda . . . . .                          | 5° 13' s  | 12° 10' e |
| Luanda, Luanda . . . . .   | 8° 48' s  | 13° 14' e |
| Lucala, Cuanza Norte . . . . .   | 9° 14' s  | 15° 16' e |
| Lucala Bridge, between Dondo and Salazar . . . . .                     | 9° 25' s  | 14° 43' e |
| Massangano, Cuanza Norte . . . . .                                     | 9° 37' s  | 14° 16' e |
| Negola, Huila . . . . .  | 14° 20' s | 14° 28' e |
| Pereira de Eça, Cunene . . . . .                                       | 17° 03' s | 15° 47' e |
| Quibala, Cuanza Sul . . . . .  | 10° 48' s | 14° 59' e |
| Quibocolo, Uige. . . . .   | 6° 14' s  | 15° 04' e |
| Quiçama National Park, Luanda . . . . .                                |           |           |
| Cacoba Lake, Quiçama N.P. . . . . approx.                              | 9° 25' s  | 13° 15' e |
| Cauca camp, Quiçama N.P. . . . .                                       | 9° 20' s  | 13° 31' e |
| Quiçombo River mouth, Cuanza Sul . . . . .                             | 11° 18' s | 13° 48' e |
| Quiteve, Huila . . . . .   | 16° 02' s | 15° 11' e |
| Roçadas, Cunene . . . . .  | 16° 43' s | 15° 01' e |
| Sã da Bandeira, Huila . . . . .  | 14° 53' s | 13° 30' e |
| Tundevala, Huila . . . . .   | 14° 49' s | 13° 22' e |

## APPENDIX II

Nests found being built but not subsequently examined.

| Species                           | Locality             | Date               |
|-----------------------------------|----------------------|--------------------|
| <i>Accipiter badius</i>           | Cusseçe              | 13 September, 1973 |
| <i>Polyboroides typus</i>         | Cusseçe              | 25 September, 1973 |
| <i>Merops hirundineus</i>         | Bicuar Nat. Park     | 15 September, 1973 |
| <i>Merops hirundineus</i>         | South of Cahama      | 3 October, 1973    |
| <i>Oriolus larvatus</i>           | Maubi camp area      | 6 September, 1973  |
| <i>Salpornis spilonotus</i>       | Cusseçe              | 16 September, 1973 |
| <i>Cichladusa ruficauda</i>       | Carmona              | 28 August, 1973    |
| <i>Prinia subflava</i>            | Maubi camp           | 30 August, 1972    |
| <i>Sylvietta ruficapilla</i>      | Cusseçe              | 11 August, 1973    |
| <i>Sylvietta ruficapilla</i>      | Cusseçe              | 16 September, 1973 |
| <i>Anthus richardi</i>            |                      |                    |
| ( <i>A. novaeseelandiae</i> )     | Cacoba Lake, Quiçama | 24 August, 1972    |
| <i>Cinnyricinclus leucogaster</i> | Cangandala N.P.      | 28 August, 1972    |
| <i>Neocichla gutturalis</i>       | Cusseçe              | 27 September, 1973 |
| <i>Lamprotornis acuticaudus</i>   | Cusseçe              | 24 September, 1973 |
| <i>L. chalybaeus</i>              | Cusseçe              | 14 September, 1973 |
| <i>Buphagus africanus</i>         | Cauca camp, Quiçama  | 11 August, 1972    |