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SCOPUS

AN EXPLANATION FOR THE DISJUNCT DISTRIBUTIONS OF *MODULATRIX OROSTRUTHUS* AND *APALIS* (OR *ORTHOTOMUS*) *MOREAUI*

Simon N. Stuart

Of the rare species of forest bird occurring in the Usambara Mountains, Tanzania, documented by Stuart & van der Willigen (1978), two are remarkable for their disjunct distributions. These are the Dappled Mountain Robin *Modulatrix orostruthus* and the Long-billed Apalis *Apalis moreaui*. An explanation for their extraordinary distributions is offered below.

MODULATRIX OROSTRUTHUS

This species is known from Namuli Mountain in northern Mozambique (Vincent 1933), and the East Usambara Mountains in northeastern Tanzania (Sclater & Moreau 1935). These two localities represent the northern and southern ends of a chain of isolated mountain blocks known for their similar avifaunas (termed the Tanganyika-Nyasa montane forest group by Moreau (1966)). It is reasonable to assume that *M. orostruthus* is a relic that once occurred in most of the intervening mountain forests. The species was initially considered to be a greenbul (*Phyllastrephus orostruthus*), and perhaps for this reason Hall & Moreau (1970) suggested that it had been overrun, and largely replaced, by the Olive Mountain Greenbul *Phyllastrephus placidus*. Virtually nothing is known of the habits of *M. orostruthus*, there being very few sightings of it in the field. Stomach samples show its food to be insects. It seems likely that it feeds on the ground, and this is supported by its relatively long tarsus (mean 27.2 mm ± 0.6 mm, standard error from a sample (n) of 7 birds). Stronger evidence comes from the very dirty rings found on retrapped birds (pers. obs.) which indicate ground-feeding. Also, *M. orostruthus* tends to be caught low down in mist nets, very rarely as high as 1 m off the ground. *Phyllastrephus placidus*, on the other hand, though living in the ground stratum, forages almost entirely in vegetation where it feeds on insects. It almost never alights on the ground, and it is doubted, therefore, that it competes in any way with *M. orostruthus*.

Benson & Irwin (1975) re-classified the bird as a robin in the genus *Modulatrix*. The only other member of this genus, the Spot-throat *M. stictigula*, would appear to be a more likely candidate for competition with *M. orostruthus*. This species is endemic to the Tanganyika-Nyasa montane forest group, occurring in virtually all the mountain forests from the Usambaras south to the Nyika Plateau in northern Malawi. It is, however, absent from Namuli Mountain, where *M. orostruthus* occurs. It is also very rare in the East Usambaras (the only other recorded locality for *M. orostruthus*). *Modulatrix stictigula* is abundant in most parts of its range, being confined to montane forest. However, the forests of the East Usambaras at only 900 m are not truly montane; indeed, they

were termed 'Intermediate Evergreen Forests' by Moreau (1935). It would appear that these forests are not very suitable for *M. stictigula*. *Modulatrix orostruthus* survives, therefore, in two localities: one where *M. stictigula* is absent and one where it is very rare. This suggests that *M. orostruthus* was once widespread in the forests of the Tanganyika-Nyasa highlands, but was later displaced by *M. stictigula*. If this is the case, *M. orostruthus* could be present in other parts of the Tanganyika-Nyasa highlands where *M. stictigula* is rare or absent. Such localities are probably very few, but the Intermediate Evergreen Forests on the eastern slopes of the Uluguru and Nguru Mountains in eastern Tanzania may be suitable (although Th. Andersen collected many birds at 1000 m in the Ulugurus, he did not take this species (P.L. Britton pers. comm.)). The close interlocking of the ranges of the two members of *Modulatrix* lends strong support to the reclassification of Benson & Irwin (1975).

There are also ecological reasons for suspecting *M. orostruthus* and *M. stictigula* to be in competition. *Modulatrix stictigula* is also insectivorous, foraging almost entirely on the ground. Both species are of similar size, weights being as follows:

M. orostruthus	31.2 g SE ± 1.4 g, n = 7
M. stictigula	30.3 g SE ± 2.0 g, n = 133

It may be objected that if *M. orostruthus* has been displaced by its congener, then there should be nothing to prevent it from occurring in some of the lowland forests of eastern East Africa, where *M. stictigula* is absent. In particular, why is it absent from the foothill forests of the East Usambaras, which are contiguous with the Amani forests? There is another possible competitor in these low altitude forests, the Pale-breasted Illadopsis *Trichastoma rufipennis*. This is common in the East Usambara foothill forests, but occurs in smaller numbers, where it is sympatric with either species of *Modulatrix* from 900 m at Amani up to at least 1200 m in the West Usambaras. It is only slightly smaller than the other two species (27.3 g ± 2.9 g, n = 23), is insectivorous, and feeds at least partially, if not mainly, on the ground. It may be that the presence of the genus *Modulatrix* in the Tanganyika-Nyasa highlands accounts, at least in part, for the very poor representation of the genus *Trichastoma* in this region.

The Orange Ground Thrush *Turdus gurneyi* is sometimes mentioned as a competitor with *M. stictigula*. It is considered most unlikely that it competes with either species of *Modulatrix* since it is about twice the size and feeds to a large extent on berries.

In conclusion, it appears possible that the disjunct distribution of *M. orostruthus* has arisen as a result of competition with *M. stictigula,* and, to a lesser extent, *Trichastoma rufipennis*. It seems unlikely that other species such as *Phyllastrephus placidus* and *Turdus gurneyi* could be competitors.

APALIS (or *ORTHOTOMUS*) *MOREAUI*

This species is known from the Njesi Plateau in northern Mozambique (Benson 1945), and from the East Usambara Mountains (Sclater 1931). As with the previous species, it seems likely that it once occurred in most of the forests of the Tanganyika-Nyasa highlands, but has now been largely displaced. *Apalis moreaui,* with its dull plumage and skulking habits, shows few characteristics of the genus *Apalis*. It therefore seems unlikely that it should have been overrun by another member of this genus. Even the Bar-throated Apalis *A. thoracica* usually occurs markedly higher above the ground. Hall & Moreau (1962) suggested that *A. moreaui* should be placed in the genus *Orthotomus*. There is a strong morphological and behavioural similarity between this species and the Red-capped Forest Warbler *Orthotomus metopias*. This latter species is endemic to the Tanganyika-Nyasa highlands, occurring on most of its mountain blocks,

though absent from Mt Rungwe and all of Malawi. It has not been recorded from the East Usambaras for over 40 years, its rarity here probably being due to the presence of *A. moreaui*. The two species are sympatric on the Njesi Plateau, and if the number of specimens that have been collected of each species (see Benson 1946) can be related to the birds' abundance, then perhaps they occur here in similar numbers. This indication could be pure chance, and one or the other might be declining to eventual local extinction (as seems to apply to *O. metopias* in the East Usambaras). Interestingly, Benson's collector reported that on the Njesi Plateau *A. moreaui* occurred in the canopy (Benson 1946). This seems surprising in view of the species' observed habits in the Usambaras, and as a result Benson wonders if a mistake was made (see Hall & Moreau 1970). However, it is possible that *A. moreaui* has avoided competition with *O. metopias* on the Njesi Plateau by becoming a canopy species, allowing both to occur in similar numbers.

The weights of the two species appear to be similar, as shown below:

A. moreaui	8.8 g, n = 1
O. metopias	8.4 g, ± 0.9 g, n = 27

Both species are insectivorous, taking their food in patches of thick vegetation, nearly always within 10 m of the ground. It therefore seems possible that *O. metopias* has largely displaced *A. moreaui* from most of its former range.

Fry (1976), in his review of the systematics of African and Asian tailorbirds, considered *A. moreaui* a strong candidate for inclusion in *Orthotomus*, on the basis of physical characteristics and song. On the same grounds, he sank *Camaroptera* into *Orthotomus*. In view of this it is interesting to note that *A. moreaui* in the Usambaras is restricted to a very narrow altitudinal range around 900 to 1000 m. Below this altitude it is completely replaced by the Grey-backed Camaroptera *Camaroptera brachyura* (while at higher altitudes it is replaced by *O. metopias*). All three species are familiar to the author in the Usambaras and it is confirmed that they occupy very similar niches, favouring very dense undergrowth, especially in forest clearings, and along the forest edge. It seems, from field observations, (and regardless of whether or not all three species should be considered congeners), very likely that both *C. brachyura* and *O. metopias* are competing with *A. moreaui* and restricting its range. *Camaroptera brachyura* is not listed for the Njesi Plateau and if it does occur it would be at its maximum altitude (Benson & Benson 1977). It is possible, therefore, that this species has also played a part in fragmenting the range of *A. moreaui*. It is only slightly larger, weighing around 10 g.

CONCLUSION

Modulatrix orostruthus and *Apalis moreaui* are among the rarest birds in Africa. This paper shows that they are probably rare for natural reasons. However, their future is now in the balance owing to forest destruction, at least in the Usambaras, and probably in northern Mozambique as well. As they are not endemic to East Africa they were not considered by Turner (1977); nevertheless, their world populations are likely to be far lower than those of several East African Endemics treated by Turner.

ACKNOWLEDGEMENTS

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VOCAL AND OTHER BEHAVIOUR OF STIERLING'S WOODPECKER *DENDROPICOS STIERLINGI*

Lester L. Short & Jennifer F.M. Horne

Stierling's Woodpecker *Dendropicos stierlingi* is one of the least known African woodpeckers, inhabiting parts of southern Tanzania, Malawi, and Mozambique (White 1965, Snow 1978). During and after the Fifth Pan-African Ornithological Congress in Lilongwe, Malawi, in late August 1980 three days were spent studying, and especially recording vocalizations, of Stierling's Woodpeckers in the Dzalanyama Mountains, southwest of Lilongwe. This report, the first to treat this species in any detail, presents the results of these observations and an analysis of vocal data.

Equipment used in the study included binoculars up to ×12 and a Stellavox SP-7 tape-recorder and Schoeps CMT-42 condenser microphone with a 30-inch (approximately 76 cm) parabolic reflector. Horne performed all the sound recording in addition to observing, while Short observed and played back using a Sony cassette tape-recorder. Audiospectrographic analysis was done using the wide band pass fliter of a Kay Elemetrics Sonagraph 6061-B at the American Museum of Natural History. The studies took place on 26, 30 and 31 August 1980 in hilly *Brachystegia* (miombo) woodland at 1200 m in the Dzalanyama Forest Reserve 47 km south-southwest of Lilongwe. The population along 6 km of road through the woodland was estimated as at least five, and probably seven pairs. Altogether at least nine individuals were observed, and recordings were obtained of the voices of three males and two females. For vocal comparisons (Figs. 1,2,3 and Discussion) sonagrams of two other woodpeckers are included: Bearded Woodpeckers *Dendropicos namaguus* from the southern Ewaso Ngiro River area and the Laikipia region of Kenya, obtained in July and August 1977 and 1978, and of the Cardinal Woodpecker *D. fuscescens* obtained at Karen, Nairobi, in September 1977 and at the Olorgesailie Prehistoric Site south of Nairobi during July 1977.

Nomenclature is that of Morony, Bock & Farrand (1975), Snow (1978) and Short (in press A). Vocalizations are described and interpreted according to the terminology and discussion of Winkler & Short (1978).

CHARACTERISTICS AND ECOLOGY

Benson & Benson (1977) reported a breeding record for August in Malawi, and according to N. Hunter (pers. comm.) breeding takes place in September-October in the Dzalanyama region. This woodpecker was found to be at least as common during the present study, indeed, once its voice was learned, more common than the Cardinal Woodpecker (four seen). Other picids in the vicinity were Bennett's Woodpecker *Campethera bennettii* (one heard), the Golden-tailed Woodpecker *C. abingoni* (one glimpsed) and the Bearded Woodpecker (none seen, but reported by N. Hunter, pers. comm.).

In late August 1980 Stierling's Woodpeckers were active vocally and in Drumming (see below), and were common, although individuals and pairs were well spaced apart (two pairs observed, the individuals of which were loosely associated, plus at least five apparently single birds). The quavering Rattle Call, rather loud Drumming, and darting flight drew attention to the birds, which can be distinguished immediately from the slightly smaller Cardinal Woodpecker by the plain brown back, white-spotted dark underparts, blackish hind-crown and strong black moustachial mark which continues on to the lower neck. It appears much more manœuverable and agile than the Cardinal Wood-

pecker in its fast flight through dense tree cover, bursting through or darting around foliage and disappearing rapidly. Compared with the Cardinal Woodpecker it appears 'dumpy', heavier-bodied, longer-winged, and faster flying; perched, it more resembles a small Bearded than a Cardinal Woodpecker.

Stierling's Woodpeckers were not breeding at the time of these studies, although C.J. Vernon (pers. comm.) had reported one about a cavity in a stub 7 m up a live tree in the study area prior to the authors' arrival, but no roosting or other activity at the hole was found. A female was active briefly about a cavity 6 m up the trunk of a live tree on 30 August, and the hole appeared to be freshly worked. The Drumming and vocalizations reported below do indicate territorial activity, and the loose association and maintenance of contact between members of two pairs suggest that breeding was about to begin. The single series of Weep Calls reported below is also suggestive of the onset of breeding.

Foraging Stierling's Woodpeckers usually move somewhat rapidly over the trunk and branches of trees, almost continuously delivering loud taps (much more frequent than in foraging *D. fuscescens*). The birds can be followed about by the noise of their foraging taps and sounds of their occasional excavating deep into the bark. They forage on the trunk, and major branches of diverse trees, but especially on branches 4-12 cm in diameter. Only occasionally do they feed at the tips of branchlets and bases of twigs (they were never seen hanging upside down from the tip of a twig, as is frequently seen in the Cardinal Woodpecker). They also utilize small trees, foraging up the trunk and branches to the top. Usually they forage at mid and upper levels in the canopy. Although this woodpecker moves frequently, pausing to tap here and there and probe under the bark, it also settles in place to work for up to ten minutes or more at rough places in the bark or broken tips of branches, from which they were seen to extricate insect larvae and an apparent centipede. The few Cardinal Woodpeckers seen in the vicinity foraged more frequently at lower levels in the trees, they worked over smaller trees and shrubs, they fed frequently in twigs and small branchlets, they tapped less often and more weakly, and they excavated into the bark less frequently.

Participation in mixed-species foraging flocks was noted, but Stierling's Woodpeckers seem to associate only loosely with the foraging groups, moving a short distance (perhaps through a part of their territory), then remaining behind or diverging from the flocks. These foraging flocks included the Drongo *Dicrurus adsimilis,* the Spotted Creeper *Salpornis spilonota,* the White-breasted Cuckoo Shrike *Coracina pectoralis,* and various flycatchers, warblers and other species.

When reacting to playback, Stierling's Woodpeckers move frequently, often perching crosswise on branches as they search for the source of the sound, and issuing a challenge in the form of Rattle Calls or Drumming (see below). Visual displays include Crest Raising (in both sexes), especially in Rattle-Calling individuals; the crest is erected and the feathers variably are thrust forward. The only other visual display observed was Wing Flicking, repeated fast spreading of the wings, especially in agitated, playback-responding birds.

Few interactions were noted with other species. A Lesser Honeyguide *Indicator minor* perched near a male Stierling's Woodpecker at one point, then followed it to another perch, but the woodpecker seemed unconcerned and the honeyguide flew off. One actively calling and Drumming male was silenced by the sudden appearance in the same tree of a Golden-tailed Woodpecker; both birds then flew off. Because vocalizations of Stierling's Woodpecker were played back, reactions of Cardinal Woodpeckers to the Stierling's Woodpecker playback were observed: on three occasions involving different Cardinal Woodpeckers, repetitive playback of Stierling's Woodpecker's calls

and Drumming elicited approach by the Cardinal Woodpecker, in a wary, alert manner. These approached to within 10 m, and one male very weakly drummed three times as playback continued, suggesting that these two species may interact. In two areas a Cardinal Woodpecker was found in the vicinity of Stierling's Woodpeckers, but the other Cardinal Woodpeckers tended to be in open, woodland-edge situations and secondary growth, whereas Stierling's Woodpeckers consistently were found within tall woodland.

Reactions of the Stierling's Woodpeckers to playback may have elicited some intraspecific interactions; indeed, the strong reactions of males seemed several times to result in withdrawal or moving away of a female. When both sexes were present in proximity to one another it was difficult to distinguish their interactions from their more or less simultaneous reactions (vocalizations) to the playback.

ACOUSTICAL SIGNALS

FLIGHT RUSTLE: like many woodpeckers (see, for example, Short 1971, 1972; Winkler & Short 1978) Stierling's Woodpecker is able to flutter or Rustle its wings when it chooses to do so, as when startled or when interacting with (chasing, supplanting, fleeing from) other conspecific birds. The Rustling sounds were evident particularly during playback-stimulated interactions between a male and a female. Tape-recorded examples are few and sonagrams show too much background noise for illustration here. The Rustling sounds occur at a tempo of 20-22/s.

SIGNAL TAPPING and DRUMMING: this is the only African woodpecker known to employ Signal Tapping - single, loud taps on the surface of a tree, usually interspersed with regular Drumming. The latter is a signal given at intervals, and often in response to playback of Rattle Calls or of its Drumming. Over 200 bursts of Drumming by both sexes were heard in three days, most of them stimulated by playback of Rattle Calls and Drumming. Analyses showed there to be two types of Drumming, Slow Drumming (Fig. 1a) at 20-24 beats/s (three examples), and Fast Drumming at an average of 28.5 beats/s (range 25.8 - 30.5). Both types are delivered by the same bird, even in the same sequence of Drumming bursts. Fast Drumming (Fig. 1b) is the commoner form; in 21 examples the duration was 0.43 - 1.19 s (mean 0.727 s) and they contained 11-36 (mean 19.22) beats per burst. Almost all have the first beat well separated from the others, two-thirds are louder near the start than at the end, and some show breaks or weakening at one or several points in a burst. Drums in a series may alternate or vary irregularly in loudness at a single Drumming site. Compared with the Fast Drumming (Fig. 2a,b) of the Cardinal Woodpecker the Fast Drumming of Stierling's Woodpeckers is similar but louder, usually faster, and the bursts are fewer per unit time, i.e. at 5/min in three cases, than in at least some regularly Drumming individuals of the Cardinal Woodpecker (8-9/min). The Cardinal Woodpecker Drums much less frequently than does Stierling's Woodpecker, and its Drums are rarely noted by observers. The Bearded Woodpecker Drums (Fig. 3a) more loudly, its bursts are delivered much more slowly (at 9-14 beats/s), and there is a detectable slow-down as each burst progresses.

When Drumming, the actual taps with the beak seem to hit over a wide area; there is movement of the head such that the bill covers a wide area of bark surface. In response to playback the bird moves upwards in a tree, Drumming at intervals on a branch to its tip, where it may Drum several times. It also often backs down to an apparently better Drumming site, if a higher one proves less suitable. It keeps moving upwards in the tree until near the top on a good resonating branch (e.g. a dead branch), where it may Drum for a period of 3-45 min before departing, to Drum in another tree nearby. Thus, the Drumming varies considerably in loudness and quality, depending upon the

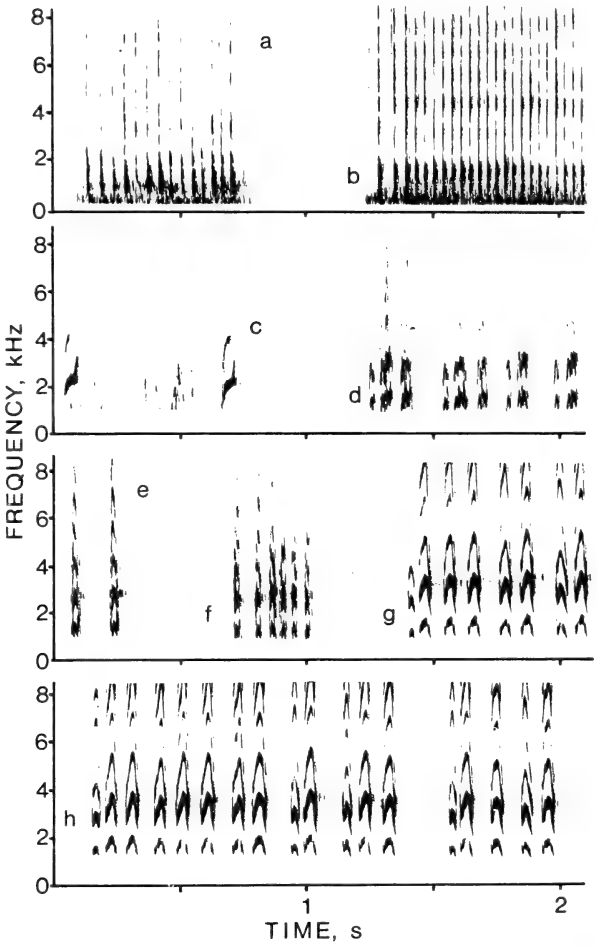

Fig. 1 *Acoustical signals (audiospectrograms) of Stierling's Woodpecker* Denropicos stierlingi. *Wide-band sonagrams of sounds tape-recorded in south-western Malawi.*

a) Slow Drum
b) Drum
c) Weep
d) Fast Rattle
e) Pits
f) Short Rattle
g, h) Rattle

resonance of the particular Drumming site, as well as upon the type of Drumming and the force that may be used in this action. It was clear that a Stierling's Woodpecker Drums more frequently in response to playback (of voice or Drums) if in a dead tree or tree with dead limbs, but responds vocally (see below) if it is in a live tree. Drumming, as in other picids, seems to indicate the presence of a territorial woodpecker, and its location, perhaps particularly to its mate. Generally the context is aggressive.

PIK NOTES: single soft *pik* notes, or a series of them, were heard several times, but tape-recorded only once, too weakly to be analyzed fully. The notes are fast, mechanically sounding, sonagraphically inverted V-shaped, and have a frequency of 2.1 kHz, with a strong harmonic tone. The function, motivation and meaning of these notes, in the sense of Winkler & Short (1978), remain to be established.

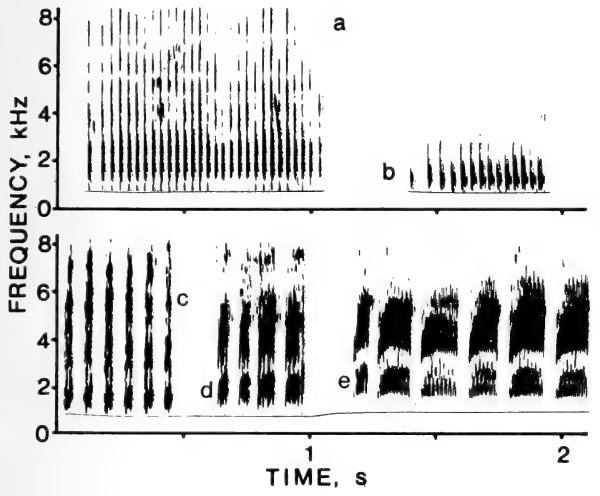

Fig. 2 *Acoustical signals (audiospectrograms) of the Cardinal Woodpecker* Denropicos fuscescens. *Wide-band sonagrams of sounds tape-recorded in Kenya.*

a, b) Drums
c) Rattle-begging of a juvenile male
d) intermediate juvenile call
e) Short Rattle

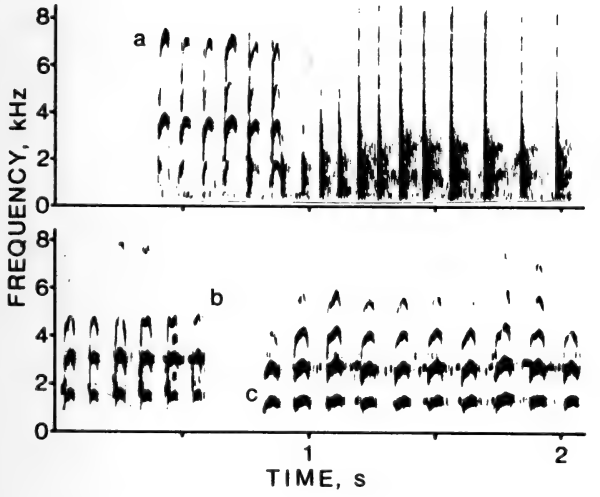

Fig. 3 *Acoustical signals (audiospectrograms) of the Bearded Woodpecker* Dendropicos namaquus. *Wide-band sonagrams of sounds tape-recorded in Kenya.*

a) Wikka and Drum
b, c) Wik Rattles

WEEP CALL: also heard rarely and tape-recorded but once is a *weep*-sounding note (Fig. 1c), uttered in an irregular series over 7 s. Each note is 0.05 - 0.06 s in duration, and rises from 1.5 - 2.5 kHz, then ends sharply in a rise to 3.0 kHz; there is a weak overtone at 2.5 - 4.5 kHz. This vocalization closely resembles Kweek Calls of such species of *Picoides* as *P. nuttallii* and *P. scalaris* of North America (see Winkler & Short 1978, Fig. 22). In *Picoides,* Kweek Calls particularly are prevalent prior to breeding, and mark interactions between the sexes, but the present data are too sparse to

allow postulation on the function of the Stierling's Woodpecker's Weep Call.

FAST RATTLE CALL: soft series of repetitive notes composed of Pik-like elements were delivered by a male on 31 August, as part of its reaction to playback of its Rattle Calls (see below). The notes consist of from one to five peaked, connected elements (Fig. 1d) and sound like *bdddt* when close enough to the bird to hear them. The frequency of the peak is at 2.0 kHz, with a strong first harmonic tone in the three series (total of 24 notes) available for analysis. Single notes may be as short as 0.02 s, and compound notes with five elements are 0.1 s in duration. Their context suggests an aggressive motivation (*sensu* Winkler & Short 1978: 92), as the calling male was singularly 'tame' and strongly reacted to playback as if seeking the 'calling' (playback) bird. This is one of the two calls of this woodpecker which shows any similarity to the main call (Short Rattle Call) of the Cardinal Woodpecker (Fig. 2e; and see Discussion).

PIT RATTLE NOTES: commonly heard from both sexes in reaction to playback were sharp *pit* calls, usually in loose series, and identical to notes of Short Rattle Calls (see below). These are 0.02 - 0.04 s in duration and sonagraphically (Fig. 1e) appear peaked in structure with strong overtones and initial and terminal vertical elements which connect the various tones. The fundamental tone is at about 1.5 kHz but the first harmonic tone at 3.0 kHz usually is dominant (in 15 of 19 analyzed) or else is codominant with the fundamental tone. As many as five overtones can be distinguished, and the elements connecting these provide sound at all frequencies at least up to 8 kHz. Functionally these notes are of the 'I am here', 'go away' type; motivationally they show arousal and aggression; and their likely meaning is to indicate the location and motivation (aroused, aggressive woodpecker) of the calling bird (see Winkler & Short 1978: 85-86, 92, 94).

SHORT RATTLE CALL: another quite frequent vocalization is this call, a series of four to seven Pit Notes lasting 0.23 - 0.47 s. All eight calls analyzed show a gap between the first and second notes, thus a lead note is followed by a rapid series of three to six notes (Fig. 1f). As can be seen in that figure, the individual notes are structurally identical to Pit Calls described above. In fact, the Short Rattle Calls occur mainly in series of calls interspersed with Pit Calls, suggesting similarities in function, motivation and meaning of these calls. Basically, Short Rattle Calls were associated with apparent searching behaviour, the bird appearing to seek the calling (playback) intruder, and they seem to reflect greater aggression than do the associated Pit Calls. The Short Rattle Call differs strikingly from that of the Cardinal Woodpecker (Fig. 2e; see Discussion).

RATTLE CALL: the commonest vocalization appears to be the Rattle Call, which is the loudest, most far-carrying of the Stierling's Woodpecker's array of calls, and that most likely to call the attention of the human observer to it. Rattle Calls are uttered in flight (often when flying towards the playback sound) or while the bird is perched. Analysis of nine complete and two incomplete Rattle Calls (Fig. 1g, h) shows this vocalization to consist of a series of usually asymmetrically peaked notes with strong overtones delivered in 0.4 - 2.53 s. Its duration is difficult to determine at times because of the major feature of this Rattle Call; the call starts with a short, low-pitched, soft pik-like note associated closely with a following, longer, louder and higher-pitched note, and there is a strong tendency for the calls to split into parts by interspersion of such shorter notes and an associated note in each case. Overall the calls have a wavering quality and sound as if there were double or triple notes within the Rattle Call. Since the calls are

often uttered in sequence it sometimes is difficult to separate one Rattle Call from another. Very long calls have these numbers of notes: a) one of 2.52 s has five short notes and 22 long notes (thus five subsections); b) another of 1.87 s has two short and 18 long notes; c) a third, of 1.83 s (Fig. 1h) has four short and 14 long notes.

The peaked short notes of the Rattle Call are 0.015 - 0.03 s in duration, and are separated by 0.01 - 0.02 s from the following associated long note (long notes are 0.04 - 0.07 s or more apart in series). The fundamental tone of short notes is 1.3 - 1.4 kHz for lead notes of a Rattle Call, but short notes of subsections are pitched higher, at 1.4 - 1.55 kHz. As in the long notes, the first harmonic (3.0 kHz) is dominant. Because the note is softer, fewer overtones are usually evident (up to 5 or 6) than in long notes. The latter notes vary, especially when paired, in which case the first note of a pair is lower pitched and shorter, tending thus towards the short notes just described. The fundamental tone of long notes varies between 1.5 and 2.0 kHz, but is often weak; at best it is codominant with the first harmonic tone at 3.0 - 3.8 kHz, but often higher overtones are louder than the fundamental tone. At least five overtones occur up to 8 kHz (and continuing above that), contributing to the ringing quality of the call. The long notes are 0.05 - 0.07 s in duration. Essentially unpaired long notes (several 0.5 - 0.6 s sequences) have a tempo of 11 notes/s; the dual nature of the notes of Rattle Calls and their subsectioning tendency makes it difficult to estimate an average tempo for all notes of the call, but 11/s is approximately that for most longer calls. All long notes show asymmetry, as mentioned, tending usually to rise slowly and drop off more sharply, the peak being skewed towards the end of the note. Sometimes there is a break in the rising section, tending to form a sub-peak. The short notes are more symmetrical than are long notes and they and initial long notes of couplets may even peak in the first half of the note (Fig. 1h), the reverse of the usual condition in long notes.

The Rattle Call is uttered sporadically as a foraging Stierling's Woodpecker moves about its presumed territory. Playback may initially cause it to approach silently, then perhaps to Drum, but repeated playback, and sometimes initial playback, brings in the woodpecker giving Rattle Calls in flight, as if in challenge. It was noted that males more often give Rattle Calls, whereas females more frequently utter Fast Rattle, Pit, and Short Rattle calls in response to playback. It is suggested that the Rattle Call of this species is its chief long-distance call, indicating location and presence of an aroused, aggressive territorial Stierling's Woodpecker. Its function, meaning and motivation (Winkler & Short 1978) are more nearly similar to the commonly heard Rattle Call (Fig. 3b, c) and to the Wikka Call (Fig. 3a) of the Bearded Woodpecker than to the Short Rattle Call, the chief distance vocalization of the Cardinal Woodpecker (see Discussion).

DISCUSSION

The abundance of Stierling's Woodpecker over its range is unknown; that is, the paucity of specimens, observations and localities of occurrence of this species suggest that it may be patchily distributed and perhaps rare in much of its range. Its range in southernmost Tanzania and in northern Mozambique remains relatively little known, and it could prove to be locally common other than in the Dzalanyama Mountains, although it is surprising that there have been so few records of it (Benson & Benson 1977) from ornithologically well known Malawi. Factors affecting its distribution remain to be determined, and could prove essential for the preservation of the species if it is indeed rare in most of its range. Benson & Benson (1977: 116) suggested that competition by the Cardinal Woodpecker could be adversely affecting Stierling's

Woodpecker. There is evidence that these two species interact, and it may be that the Cardinal Woodpecker restricts the distribution or numbers of Stierling's Woodpeckers in some areas. However, in the area of the present studies Stierling's Woodpeckers appear at least to hold their own in mature hilly *Brachystegia* woodland. Undoubtedly the Cardinal Woodpecker is favoured, and indeed the Stierling's Woodpecker may be eliminated by human activities which open these woodlands or reduce them to secondary vegetation.

Stierling's Woodpecker appears relatively distinctive behaviourally, yet the vocal and other data presented here support the view (Short *in* Snow 1978, Short in press A, B) that this species taxonomically connects the Cardinal Woodpecker subgroup (*Dendropicos sensu stricto*) with the Bearded Woodpecker subgroup (*'Thripias', 'Mesopicos'* in part, i.e. *Dendropicos namaquus, D. xantholophus* and *D. pyrrhogaster*) of *Dendropicos*. The Drumming of Stierling's Woodpecker closely resembles that of the Cardinal Woodpecker (compare Fig. 1b and 2a, b), even to having several forms of this signal (Slow Drumming and Drumming, tempi similar in both species). The Drumming of Stierling's Woodpecker is generally louder, it is rendered more frequently and probably in a different context, and it therefore may have a different meaning, motivation or function (*sensu* Winkler & Short 1978) from that of the Cardinal Woodpecker. However, the similarity of their Drumming affords a possibility of their Drumming serving as interspecific communication, perhaps in territorial exclusion, although that requires demonstration.

The common vocalizations of Stierling's Woodpecker are the Fast Rattle Call (Fig. 1d), the Short Rattle Call (Fig. 1f) and the Rattle Call (Fig. 1 g, h). These differ markedly from the Short Rattle Call (Fig. 2e) of the Cardinal Woodpecker and more closely resemble the Wik Rattle Call (Fig. 3c) of the Bearded Woodpecker. In Fig. 2, however, there is depicted a rattle-begging call (Fig. 2c) of a juvenile male Cardinal Woodpecker, attended by an adult female at Karen, Nairobi, and a call (Fig. 2d) of the same juvenile which is intermediate between the juvenile rattle-begging call and the adult Short Rattle Call series (Fig. 2e). The close resemblance of the Cardinal Woodpecker's juvenile rattle-begging call to the Short Rattle Call of Stierling's Woodpecker (Fig. 1f) is remarkable, and the ontogenetic connexion of that form of call to the apparently (and in its sound to the human ear, actually) very different adult Cardinal Woodpecker Short Rattle Call provided by the intermediate Call (Fig. 2d) indicates that the adult Short Rattle Calls of the two species basically share a similar derivation, despite their structural differences.

The Rattle Call of Stierling's Woodpecker (Fig. 1g, h), compared with the Wik Rattle Call of the Bearded Woodpecker (Fig. 3c, and variant such call, Fig. 3b), both from the southern Ewaso Ngiro River area, Kenya, show great structural similarity, although the latter species lacks the effect of grouping or pairing of notes and shorter initial notes which characterize the Rattle Call of Stierling's Woodpecker. A Wikka Call of the Bearded Woodpecker (Fig. 3a, from the Laikipia area of central Kenya) given during an interaction between an adult male and adult female (the Drumming in Fig. 3a follows immediately after the Wikka Call, as shown), also resembles the Rattle Call of Stierling's Woodpecker, but less closely than does the Bearded's Wik Rattle Call.

Other intraspecific calls of the Bearded Woodpecker and of the Cardinal Woodpecker also bear similarities to various calls of Stierling's Woodpecker (e.g. Kweek Calls, Mutter Calls, Short & Horne in prep.; see also Winkler & Short 1978), but the examples just discussed suffice to demonstrate the general similarities as well as some differences among the three species. In appearance, posture and demeanour Stierling's Woodpecker is more like a small

version of the Bearded Woodpecker than like the Cardinal. Although it is not the purpose of this report to treat the relationships of these woodpeckers in detail, it should be emphasized that behaviourally Stierling's Woodpecker shows approaches to both the Cardinal Woodpecker and Bearded Woodpecker groups, and that these taxa appear from behavioural evidence to be phylogenetically closely related congeners.

On a broader level, too little is known of the vocalizations of African woodpeckers to place the vocal repertoire of Stierling's Woodpecker fully in perspective, but comparison with the acoustical signals of the widely distributed large genus *Picoides* (one African species, *P. obsoletus,* placed along with Stierling's Woodpecker in *'Ipophilus'* by Mackworth-Praed & Grant 1957) shows its repertoire to be generally similar, including Tapping, Drumming, wing-movement signals, and both Short Rattles and Rattle Calls (Winkler & Short 1978). Short (1971, in press B) considers *Picoides* to have been derived from *Dendropicos,* and a detailed comparison of the acoustical repertoires of both genera would be very rewarding from a behavioural as well as from an evolutionary point of view, as shown above by the vocal comparison of juvenile and adult Cardinal Woodpecker and Stierling's Woodpecker Short Rattle Calls. However, the analysis of vocal data on *Dendropicos* has barely begun, and does not permit more than speculative comments. It is hoped that this report will stimulate the generation of further such data on other East African picids, additional to the authors' continuing studies

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NOTES ON THE ANDERSEN COLLECTION AND OTHER SPECIMENS FROM TANZANIA HOUSED IN SOME WEST GERMAN MUSEUMS

P.L. Britton

The thousands of specimens from Tanzania amassed by Thorkild Andersen between 1947 and 1967 represent one of the most comprehensive collections of birds from East Africa. The 8532 skins traced by Britton (1978) included 971 from Stuttgart and 1578 from Bonn. No details were available then for these specimens in Bonn, and none of the specimens in Stuttgart had been personally examined by the author at that time. During December 1979 a visit was made to West Germany, where Andersen's specimens in Bonn, Stuttgart and Munich were examined, and other specimens from Tanzania in these collections were noted. In total, 11 400 Andersen specimens of 690 species have been examined by the author, while details are available for a further 285 specimens in Basel and New York. The stay in West Germany was of necessity very short, in particular the single week in Munich, where the Andersen collection (of over 3200 skins) was far more comprehensive than had been expected. Thus, there was insufficient time for the critical examination of certain species and it is hoped that a return to Munich to complete this work can be made later in 1981.

SYSTEMATIC LIST

With the exception of *Malaconotus alius* the Uluguru Bush Shrike, detailed by Britton, Stuart & Turner (in press), no specimen data included here were incorporated in the distribution accounts given in Britton (1980). Most of the selected data presented below add significantly to those accounts, which are referred to frequently (by using the symbol '+') in an effort to render records meaningful to the reader. Others, in particular dated records for some Palaearctic and intra-African migrants, are worth giving for completeness. In addition to providing full details for various species, including three species previously unrecorded in Tanzania, Britton (1978) listed several other species and subspecies new to the avifauna of Tanzania, mainly from Minziro in West Lake. Circumstances did not allow fuller details to be included then, but several of these species (in the large collection of Andersen specimens in Copenhagen) are also represented in West Germany (mainly in Munich), so that fuller details can now be given (marked '*'). *Oriolus brachyrhynchus* the Western Black-headed Oriole is the only further addition to the avifauna included in this paper (marked '**'). Britton (1978) gave details of altitude, administrative Region and coordinates for most of the localities mentioned here, while coordinates for many of these may be found in the gazetteer in Britton (1980). The following were not included in either work:

Kibwesa, 900 m, Kigoma Region, 6°30'S, 29°57'E.
Kisangara, 800 m, Kilimanjaro, 3°45'S, 37°36'E.
Kurasini, near sea-level, Coast, 6°51'S, 39°17'E.
Mlalo, altitude not known, Tanga, *c.* 4°35'S, 38°20'E.
Usa River, 1200 m, Arusha, *c.* 3°25'S, 36°50'E.
Vikindu, 90 m, Coast, 6°59'S, 39°17'E.

IXOBRYCHUS MINUTUS Little Bittern +
Male of the Palaearctic nominate race at Kidugallo, 19 May 1953; few East African records.

IXOBRYCHUS STURMII Dwarf Bittern +
Males at Mikindani, 16 Feb and 8 Mar 1964; Lembeni, 5 May 1959. Dates accord

with its likely migratory status.

ARDEOLA RUFIVENTRIS Rufous-bellied Heron
One at Soga. Harvey & Howell (in press) give only one record for the Dar es Salaam area.

CIRCUS RANIVORUS African Marsh Harrier +
Male at Soga, 20 Nov 1960; first coast record.

ACCIPITER OVAMPENSIS Ovampo Sparrowhawk +
Female at Lembeni, 25 Aug 1959; few East African records.

ACCIPITER RUFIVENTRIS Rufous Sparrowhawk +
Male in bamboo forest at 1600 m in the Nguru̇s, 10 Jan 1949. In Tanzania it is known from only Arusha in the northeast and Songea in the southeast.

MELIERAX METABATES Dark Chanting Goshawk +
One from east of the Ulugurus at 500 m and two from Kidugallo extend its range in Morogoro Region north from Mikumi National Park.

AVICEDA CUCULOIDES Cuckoo Hawk +
Mikindani, 11 Aug; Soga, 1 Aug and 4 Nov; Kidugallo, 31 Jly; further evidence for the conclusion that it is a migrant to eastern Tanzania, Apr-Nov.

FALCO AMURENSIS Eastern Red-footed Falcon +
Females at Mikindani, 8 Mar and 14 Feb 1964; an uncommon Palaearctic migrant for which there are few coastal records.

FALCO FASCIINUCHA Taita Falcon
Male in open miombo woodland at Namabengo, 29 May 1964. The bird from Namabengo mentioned in Britton (1980) was a female collected there on 16 Nov 1964.

FALCO PEREGRINUS Peregrine Falcon +
Birds of the Palaearctic race *calidus:* male at Mikindani, in a Baobab on the beach, 1 Nov 1962, wing 325 mm; female at Lake Manyara, 27 Nov 1958, wing 355 mm, weight 800 g, collected by A. von Nagy. There is one previous East African specimen of this race, which is, however, probably regular in small numbers in the east.

CREX EGREGIA African Crake
Males at Soga on 9 May 1961 and 19 Jan 1962; males at Mikindani on 23 Feb and 22 Mar 1963. Harvey & Howell (in press) give no record for the Dar es Salaam area.

GALLINULA ANGULATA Lesser Moorhen
Male on a small rain pool in bushland at Lembeni, 28 Apr 1959.

PLUVIALIS DOMINICA Lesser Golden Plover +
Male on fallow land in sisal at Soga, 14 Nov 1961; female on sandy patch in sisal at Soga, 29 Nov 1961. Of seventeen previous East African records, four were from Soga and one was from nearby Dar es Salaam. It is noteworthy that all six Soga birds were collected in the same Palaearctic winter (14 Nov - 5 Jan), though Andersen's usually complete labels do not mention any party or flock of birds.

GALLINAGO MEDIA Great Snipe
Males at Kidugallo, 10 and 12 May 1953.

BURHINUS CAPENSIS Spotted Thicknee
Female at Soga, 12 Feb 1962; not listed by Harvey & Howell (in press).

RHINOPTILUS CHALCOPTERUS Violet-tipped Courser +
Females at Kidugallo, 31 May, 17 Jun 1954; female at Soga, 14 Dec 1961. The

migratory status of this species is uncertain. Two collected in June were the only records available to Harvey & Howell (in press).

RHYNCHOPS FLAVIROSTRIS African Skimmer
Male on a small lake at Kidugallo, 6 Jly 1953; pair from large numbers on the Kilombero River in Ulanga, 8 Nov 1961. The Kidugallo bird, with testes enlarged, was presumably a southern breeder (for full discussion see Britton & Brown 1974).

CERCOCOCCYX MONTANUS Barred Long-tailed Cuckoo
Two at Soga on 6 Dec 1961; see discussion in Britton (1980a).

CHRYSOCOCCYX CUPREUS Emerald Cuckoo +
Male at Lembeni, 18 Apr 1960; male at Kisangara, 25 Mar 1959. There are few recorded localities in northeastern Tanzania.

CLAMATOR LEVAILLANTII Levaillant's Cuckoo +
Seven at Mikindani, 5 Dec - 10 Jan; North Pare Mts, 12 Jan and 15 Feb. Movements of this intra-African migrant are not well understood except in the extreme southeast, Nov - Apr.

CUCULUS CANORUS Eurasian Cuckoo +
Nine at Mikindani, 12 Jan - 14 Feb; female collected at Lake Manyara by A. von Nagy, 2 Mar 1959. It is hardly recorded in East Africa during January to mid March.

CUCULUS GULARIS African Cuckoo
Male at Soga, 18 Jan 1962; not listed by Harvey & Howell (in press).

CUCULUS POLIOCEPHALUS Lesser Cuckoo +
Mikindani, 3 Dec 1965; Soga, 4 Apr and 5 Apr 1961; Ulugurus at 1700 m, 23 Feb (2) and 27 Feb 1960. All are nominate males or hepatic females (assumed to be nominate). It is not listed by Harvey & Howell (in press); there are few East African records of this Palaearctic migrant outside the period March - April.

CUCULUS SOLITARIUS Red-chested Cuckoo
Six at Mikindani, 7 Nov - 29 Jan; see discussion in Britton (1980a).

PACHYCOCCYX AUDEBERTI Thick-billed Cuckoo +
Five at Soga, 5 Oct - 13 Dec 1961; one at Mikindani, 30 Jly 1963. This uncommon species is not listed by Harvey & Howell (in press); there is no previous record from the coast south of Bagamoyo and Soga.

GLAUCIDIUM CAPENSE Barred Owlet
Twelve *schlefferi* at Soga; two nominate birds west of Kitangari. This species is not given for the Dar es Salaam area by Harvey & Howell (in press) or Britton (1980); previous records of the nominate race from the southeast are east to Tunduru and Nachingwea.

CAPRIMULGUS EUROPAEUS Eurasian Nightjar
Male *unwini* west of Kitangari, 28 Jan 1966; male *unwini* Dodoma, 10 Jan 1962; female, not raced, west of Kitangari, 18 Jan 1966. January (i.e. presumed overwintering) records are noteworthy.

APUS APUS Eurasian Swift +
Nominate male from large numbers at 800 m in the North Pare Mts, 23 Jan 1960. January (i.e. presumed overwintering) flocks are unusual so far north.

APALODERMA NARINA Narina's Trogon
Six at 1800 - 2000 m in the North Pare Mts; two east of the Ulugurus at 400 m.

APALODERMA VITTATUM Bar-tailed Trogon +
One at 1700 m in the North Pare Mts; one east of the Ulugurus at 400 m.

Typically, this species is segregated at higher altitudes in areas of apparent sympatry with *narina*.

ISPIDINA PICTA Pygmy Kingfisher
Seven nominate birds at 900 - 1400 m in the North Pare Mts; single examples of *natalensis* at Mikindani in Jly and Aug, Kidugallo in Apr, and Soga in Jun.

MEROPS BULLOCKOIDES White-fronted Bee-eater +
Female from pair in forest by a watercourse in the foothills of the Ngurus at 700 m, 25 Aug 1949; not given for the Ngurus by Stuart & van der Willigen (1978), but known from nearby Kilosa.

MEROPS NUBICUS Carmine Bee-eater +
Bushland by swamp at Mikindani: nominate male and female on 8 Jan 1963 and nominate male on 12 Jan 1963; previously recorded south to Rufigi and Pande.

CORACIAS NAEVIA Rufous-crowned Roller
Mbuyuni, on the Great Ruaha River, 14 Jly 1952.

POGONIULUS SIMPLEX Green Tinkerbird +
Two males in secondary miombo woodland west of Kitangari, 12 Jan 1966; not previously recorded in Tanzania south of Dar es Salaam.

INDICATOR [?MELIPHILUS] Pallid Honeyguide
A female in forest at 900 m in the Ulugurus on 4 Jly 1955, and a female collected by J. Popp at 1200 m on the Usa River on 23 Feb 1960 probably belong here. This tentative identification, made in the absence of comparative material, will be clarified later.

PRODOTISCUS REGULUS Wahlberg's Honeybird +
Male on the west side of the North Pare Mts at 1500 m, 26 Jun 1961; not known in eastern Tanzania north of Soga and Kidugallo.

JYNX RUFICOLLIS Red-throated Wryneck +
Male at Nandembo, 12 Sep 1963; east of other recorded localities.

CAMPETHERA NIVOSA Buff-spotted Woodpecker *
Female at Minziro, 23 Jly 1953.

DENDROPICOS STIERLINGI Stierling's Woodpecker +
Female at Nandembo, 14 Sep 1963; this rare and restricted species is known from very few localities in Tanzania.

PITTA ANGOLENSIS African Pitta
Eleven at Mikindani, 10 Dec - 26 Mar; male in bushland thicket at Nambengo, 26 Nov 1964.

MIRAFRA ALBICAUDA Northern White-tailed Bush Lark +
Male collected by A. von Nagy at Lake Manyara, 26 Dec 1958; sparingly distributed in Tanzania.

ORIOLUS BRACHYRHYNCHUS Western Black-headed Oriole **
Female *laetior* in cultivation with scattered trees at Minziro, 11 Mar 1954; an addition to the avifauna of Tanzania, known from the nearby Malabigambo Forest in Uganda (Friedmann & Williams 1969). A female Black-headed Oriole *O. larvatus* was collected in banana groves at Minziro on 2 Jun 1950.

TRICHASTOMA FULVESCENS Brown Illadopsis +
Male at Minziro, 27 Dec 1953. The only recorded locality in Tanzania is Kabogo Forest, on the shore of Lake Tanganyika, but it is known from Malabigambo Forest in Uganda.

TRICHASTOMA RUFIPENNIS Pale-breasted Illadopsis *
Female of the nominate race at Minziro, 26 Dec 1953.

BLEDA SYNDACTYLA Bristlebill *
Female at Minziro, 29 Dec 1953.

NICATOR CHLORIS Nicator
Three at 1700 m in the North Pare Mts.

PHYLLASTREPHUS SCANDENS Leaflove
Male from a pair in open bush country at Kibwesa, 29 Sep 1949. Kibwesa is on the south shore of the Kungwe Peninsular, immediately south of Mahari Mt; previous records from Mahari Mt are from gallery forest at 1100 m (Ulfstrand & Lamprey 1960).

ALETHE FUELLEBORNI White-chested Alethe +
Nominate female at 2000 m at Uwembe, 26 Sep 1950; male *usambarae* at 2000 m in the South Pare Mts, 5 Feb 1960; recorded from the Livingstone Mts and the Usambaras respectively.

COSSYPHA CAFFRA Robin Chat +
Female from a pair in bushland thicket at 500 m, north of the Ulugurus, 28 Sep 1948; in East Africa previously recorded as low as 1100 m.

DRYOCICHLOIDES LOWEI Iringa Ground Robin
Male at 2000 m at Uwemba, 26 Sep 1950; endemic to Iringa Region where it is known from very few localities (Britton *et al.* in press).

MODULATRIX STICTIGULA Spot-throat +
Male in bushland at 600 m, north of the Ulugurus, 6 Dec 1950; previously recorded above 900 m, and typically in forest.

SHEPPARDIA SHARPEI Sharpe's Akalat +
Nominate female at 2000 m at Uwemba, 29 Sep 1950; otherwise known in Njombe District from the Poroto Mts.

STIZORHINA FRASERI Rufous Thrush *
Male at Minziro, 17 Mar 1954.

ACROCEPHALUS GRISELDIS Basra Reed Warbler
Females at Mikindani, 29 Mar 1964 and 13 Jan 1965; west of Kitangari, female on 25 Dec 1965, male on 7 Jan 1966; female at Kidugallo, 20 Dec 1952; female at the Ngerengere River, 25 Jan 1949. See Pearson, Britton & Britton (1978) for a review of the status of this Palaearctic migrant in East Africa.

APALIS BINOTATA Masked Apalis *
Nominate male in forest canopy at Minziro, 9 Mar 1954.

BRADYPTERUS BARRATTI Evergreen Forest Warbler +
Female from a pair at 2000 m in the South Pare Mts, 5 Feb 1960; known from mountain ranges to the north and south.

CHLOROPETA NATALENSIS Yellow Warbler +
North of the Ulugurus and at the Ngerengere River, both at 500 m; in East Africa previous records are from above 800 m, including several localities in Morogoro Region.

CISTICOLA NANA Tiny Cisticola +
Male collected by A. von Nagy at Naberera, 29 Sep 1958; known from few localities in Tanzania, all in the northeast.

SCHOENICOLA PLATYURA Fan-tailed Warbler +
Female at Minziro, 16 Mar 1954; no previous records from the Lake Victoria

basin in Tanzania.

TROCHOCERCUS NIGROMITRATUS Dusky Crested Flycatcher *
Male at Minziro, 18 Dec 1953.

MALACONOTUS ALIUS Uluguru Bush Shrike
Males at Bagilo, 22 Sep 1952, 30 May 1962, 8 Jun 1962; immature female in the Ulugurus at 1800 m (very likely Bagilo), 22 May 1952; endemic to the Ulugurus, and known from only thirteen records, all of specimens (Britton *et al.* in press).

MALACONOTUS QUADRICOLOR Four-coloured Bush Shrike +
One at 2000 m in the North Pare Mts; all previous East African records are from below 1200 m.

CORVINELLA MELANOLEUCA Magpie Shrike
Male collected by A Fischer at Kurasini, Dar es Salaam, 15 Dec 1910. This is well east of recorded localities in Ruaha National Park and the southern part of Arusha Region. Along with various other species of the semi-arid interior recorded by Harvey & Howell (in press), it is best regarded as a wanderer.

POEOPTERA STUHLMANNI Stuhlmann's Starling
At 1500 m on Mahari Mt, male from seven on 19 Oct 1949 and female from four on 20 Oct 1949; a party of six at Mahari Mt on 18 Oct 1949, detailed by Britton (1978), is the only previous record from Tanzania.

ONYCHOGNATHUS WALLERI Waller's Chestnut-winged Starling +
One at 1600 m in the North Pare Mts; female at 1500 m on Mahari Mt, 19 Oct 1949, wing 119 mm; one collected by H. Kalchreuter at 2000 m on Mahari Mt, 30 Jly 1958, wing 126 mm. On size, Mahari Mt birds have been regarded as intermediate between the nominate race and the western *elgonensis*, while the North Pare Mts represent a new locality.

SPECULIPASTOR BICOLOR Magpie Starling
Female from a party of eight, west of the North Pare Mts at 900 m, 7 Jan 1957. This party is one of the two Tanzanian records given in Britton (1980); the other is a party reported by Keith (1968). No date has been published for either record.

ANTHREPTES LONGUEMAREI Violet-backed Sunbird
Male from a party of 4-6 in open bushland at Kidugallo, 4 Sep 1952. Britton (1978) argued that a reference to the occurrence of this species in eastern Tanzania as far north as Dar es Salaam was probably erroneous. More recently, P.R. Colston (*in litt.*) has confirmed that a bird collected by N.R. Fuggles-Couchman at Niberichi Vikundu (Dar es Salaam) on 22 May 1936 is a male *longuemarei*. The Vikindu Forest Reserve is part of a small plateau (rising to 160 m) on the main south road from Dar es Salaam. This plateau, unique in the area, has quite large remnants of well-grown miombo woodland, with many bird species typical of that habitat (W.G. Harvey *in litt.*). Kidugallo and Dar es Salaam are 120 km apart on virtually the same latitude, some 4° north of other recorded localities (all with miombo woodland) in the southeast. Evidently, interdigitating habitats allow both *longuemarei* and the very similar *A. neglectus* to occur sparingly in the Dar es Salaam area and around Kidugallo. Typically, *neglectus* is a bird of forest or forest edge, while *longuemarei* (races *nyassae* and *angolensis*) is found in woodland and wooded grassland. Both have been collected in open bushland at Kidugallo, and there is a specimen of *neglectus* from Kurasini, south of Dar es Salaam and only about 15 km from Vikindu (see next species for details). The only recent records of either species for the Dar es Salaam area are from the Pugu Hills (Harvey & Howell in press).

ANTHREPTES NEGLECTUS Uluguru Violet-backed Sunbird
Twenty specimens are from varied habitats: bushland (often with tall trees) at Soga, the Ngerengere River, Kidugallo and Mikindani; forest or forest edge in the Ngurus (as low as 900 m) and Ulugurus. The specimen from Kidugallo, and a male collected by A Fischer at Kurasini, Dar es Salaam in 1909, are of particular interest (see discussion under ***A. longuemarei***).

ANTHREPTES RUBRITORQUES Banded Green Sunbird +
Three males from the Ulugurus (including Bagilo at 1800 m); male from the eastern slopes of the Ngurus at 1400 m, 27 Sep 1954; few records from either of these mountain ranges are known.

NECTARINIA MANOENSIS Miombo Double-collared Sunbird +
Male of the race *pintoi* collected by A. Fischer at Mlalo in 1905. Mlalo, given by the collector as 'Mlalo, Wilhelmstal, Usambara', is some 300 km northeast of other known sites, mainly in miombo woodland.

NECTARINIA VENUSTA Variable Sunbird
Two males from Mahari Mt at 1500 m are referable to *falkensteini,* as is the single specimen from Mahari Mt mentioned in Britton (1980).

NECTARINIA VEROXII Mouse-coloured Sunbird
Bushland at Kidugallo: males on 3 Jly and 27 Jly 1952, females on 24 Jly and 7 Sep 1952. A specimen from Kidugallo was one of only two inland records from East Africa given in Britton (1980).

PLOCEUS WEYNSI Weyns' Weaver
Male from a pair in undergrowth of tall forest at Minziro, 26 Feb 1954. Britton (1980) omitted to include Bukoba District for this species, though it was stated to occur in Tanzania. White (1963) and others have noted that this western species reaches extreme northwestern Tanzania in Bukoba.

QUELEA QUELEA Red-billed Quelea
Mikindani, male and female from a small party on 9 Jan 1963, male from a small party on 16 Jan 1963; its southern limits are given in Britton (1980) as Rukwa and the Rufiji River.

LAGONOSTICTA RHODOPAREIA Jameson's Firefinch
Male from a pair in a patch of open woodland at Namabengo, 31 Oct 1963; female from several feeding in cultivation in woodland at Namabengo, 26 Jun 1964. Britton (1980) records it south to Dodoma and northern Iringa, and states that this species and the African Firefinch *L. rubricata* do not occur on the same ground in East Africa. There are two specimens of *rubricata* from open woodland at Nambengo, where these two species might be sympatric.

MANDINGOA NITIDULA Green-backed Twinspot
Male on the eastern slopes of the Ngurus at 1500 m, 23 Sep 1954; not given for the Ngurus by Stuart & van der Willigen (1978).

PYRENESTES MINOR Lesser Seed-cracker
Seven specimens from the Ulugurus at 400-900 m; female collected by A. Fischer at Kurasini, Dar es Salaam in Jly 1911. The only other records from the Dar es Salaam area are old specimens from the Pugu Hills (Stuart & van der Willigen 1978).

LONCHURA FRINGILLOIDES Magpie Mannikin
Several specimens from the Ulugurus as high as 1400 m.

EMBERIZA CABANISI Cabanis' Bunting
Nandembo and west of Kitangari: Britton (1980) and Hall & Moreau (1970) gave no localities in extreme southeastern Tanzania.

SERINUS CITRINELLOIDES African Citril +
Female at 400 m on the slopes of the Ulugurus, 3 Mar 1960; in East Africa it has not been recorded below 1100 m.

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ROSEATE AND SOOTY TERNS *STERNA DOUGALLII* AND *FUSCATA* BREEDING ON ISLETS IN SOUTHERN SOMALIA

J.S. Ash & A.A. Karani

Roseate Terns *Sterna dougallii* attempted to breed on two islets just offshore a few kilometres south of Mogadishu, southern Somalia, in 1979. Their failure was due to repeated egg-removal by the local people. Because hundreds of several other species of terns, including Noddy *Anous stolidus*, Lesser Noddy *A. tenuirostris*, Lesser Crested Tern *S. bengalensis*, Crested Tern *S. bergii*, Bridled Tern *S. anaethetus* and Sooty Tern *S. fuscata*, joined the colony, plans were made by the Wild Life Department to protect the islands if the birds returned in 1980, particularly to see if any of these other species would also breed.

Immense numbers of terns occur in coastal areas near Mogadishu, and large numbers in other parts of the country, but there are surprisingly few breeding records from anywhere in Somalia. Of the 17 *Sterna* and *Anous* species recorded in Somalia, eight are known to have bred: Archer & Godman (1937) refer to White-cheeked Terns *S. repressa* and Bridled Terns breeding on Aibat Is. (11° 31'N, 43°27'E) and Saad al Din Is. (11°27'N, 43°28'E) off Zeila in the Gulf of Aden, Lesser Crested Terns on Aibat and Crested Terns on Aibat and Komaleh Is. (11°28'N, 43°22'E); Heuglin (1869-74) and North (1946) discuss Sooty Terns and Noddies breeding on Mait Is. (11°16'N, 47°15'E), also in the Gulf of Aden; North (1944) records Little Terns *S. albifrons* breeding near Brava (1°06'N, 44°03'E) and also Roseate Terns attempting to breed on an islet only 60 yards (55 m) in diameter, named Chilani, at the same place. One of us (JSA) has found Little Terns breeding in 1978-1980 all along the coast from 105 km north-east of Mogadishu to 37 km southwest, and also at Brava. He also saw *c.* 100 pairs of White-cheeked Terns with eggs on 22 September 1979 on a small islet at 37 km north of Ras Kiamboni (1°39'S, 41°37'E), where there were also 20 Roseate Terns present; on the following day there were many White-cheeked Terns, probably breeding, on one islet at 20 km northeast of Ras Kiamboni, and *c.* 50 Roseate Terns on another islet at 5 km northeast. On the first of these islets there were also many small dark feathers suggesting that Sooty Terns or Noddies may also breed in the Baijun archipelago. There were also many Sooty Terns over Chimoni Is. (0°21'S, 42°31'E) off Kismayu on 6 October 1978, and over an island off Ras Kiamboni on 19 September 1979, but these could only be viewed from the mainland. It is very probable that terns breed or attempt to breed on many islands off the Somalia coast, particularly in the Baijun, but these still await investigation.

THE MOGADISHU ISLETS

There are four small islets south of Mogadishu, all of which can be reached by wading at low tide. At their highest points they are only 4.5 - 7.0 m above low water mark.

a) '1st Mosque Is.' at Gezira (1°56'N, 45°11'E), 23 km southwest of Mogadishu. This island has a small mosque, and is not used by terns.

b) 'North Is.' (1°55'N, 45°05'E), 32 km southwest of Mogadishu, 78 m × 23 m, and 170 m offshore. About half the island is bare sea-eroded coral rock, the other half having a sparse covering of coarse grass *Sporobolus virginicus*.

c) '2nd Mosque Is.' lies only 13 m south of North Is., 171 m × 41 m, and has a small mosque at its highest point. Much of this island is covered with a low *Suaeda*, mostly less than 1.4 m high, but there are also areas of coarse grass

and bare rock.

d) Buntapsi Is. (1°58'N, 45°04'E), 35 km southwest of Mogadishu, 55 m × 25 m, and 180 m offshore, and is mainly (95 per cent) covered with *Sporobolus*.

HISTORY OF ATTEMPTED BREEDING IN 1979

22 June: Buntapsi Is.: many Roseate Terns seen from mainland, and thought to be breeding.
26 June: Buntapsi Is.: hundreds of eggs said to have been taken by local people today.
29 June: Buntapsi Is.: *c.* 600 Roseate Terns present; three local boys removed 100 eggs.
30 June: 2nd Mosque Is.: local people reported hundreds of terns breeding.
13 July: 2nd Mosque Is.: *c.* 600 Roseate Terns, apparently breeding, seen from mainland. No terns present at Buntapsi Is.
25 August: Buntapsi Is.: 300+ Roseate Terns present, probably breeding.

During these observations the other species of terns present included a few Lesser Crested and Crested Terns on Buntapsi, where there were four Sooty Terns on 26 June. There were usually up to five Bridled Terns on Buntapsi in June and August, and on 2nd Mosque Is., in July. There were over 100 Lesser Noddies on Buntapsi Is. on the first visit on 22 June, increasing to 400 on 29 June, and 400 again on 2nd Mosque Is. on 10 July, when the Roseate Terns returned to breed there; they then returned to Buntapsi Is. with the Roseate Terns, for there were 120 there on 25 August (Ash 1980). Noddies arrived on the scene later, when there were over 300 on Buntapsi Is. on 24 August.

HISTORY OF BREEDING IN 1980

Roseate Terns began to return to the Mogadishu area in numbers in mid April.

30 May: at Buntapsi Is. there were over 200 adults displaying on the mainland beach opposite the island, and 400-500 roosted on North Is. that evening.
6 June: no terns on Buntapsi Is. but *c.* 1000 Roseate Terns on North Is., of which some probably had nests.
7 June: 1642 Roseate Terns were counted flying south past a headland near 1st Mosque Is.
8 June: *c.* 1000 Roseate Terns on North Is. A camp for two guards was established on the mainland opposite the island.
13 June: *c.* 1000 Roseate Terns had now moved on to 2nd Mosque Is., where they had just begun to lay. A Brown-necked Raven *Corvus ruficollis* made three crossings to the island and removed an egg each time, but only after considerable time spent in searching.
16 June: all the birds left 2nd Mosque Is. at 07:00 and moved to Buntapsi Is., where there were also four Sooty Terns.
27 June: Buntapsi Is.: many nests with 1 egg only. Local people claimed to be removing eggs (guards still at 2nd Mosque Is.); nine Sooty Terns present, confined to small area in centre of colony.
4 July: Buntapsi Is.: *c.* 800 Roseate Terns - many on nests all over island. Seven Sooty Terns present, of which one appeared to be incubating.
11 July: Buntapsi Is.: *c.* 2000 Roseate Terns, and at least 500 nests, all with C/1 or C/2, except one with C/3. Fourteen Sooty Tern nests each with C/1.
17 July: Buntapsi Is.: the northern half of the island completely deserted. Eleven Sooty Terns counted.
25 July: Buntapsi Is.: Roseate Terns just hatching, but most still with eggs. Eggs present in the deserted part of the colony. Seventeen Sooty Terns there.
1 August: Buntapsi Is.: probably over half the Roseate Terns had hatched, but

there were more dead than live chicks in all stages from newly hatched to well feathered (so some presumably hatched before 25 July). At least 12 Sooty Terns present, with one hatched egg and others with C/1.

10 August: North Is.: the guards reported that large numbers of Roseate Terns with some Sooty Terns returned to this island today.

12 August: Buntapsi Is.: the young Roseate Terns were now at the flapping stage (one had reached the mainland beach where it was very agile); only 20 young could be seen on the island through a telescope, and it was considered that not more than 50 had survived. The whole island was littered with dead young in all stages of development, and the hundreds of nests in the deserted half of the colony mainly contained C/2. There were 11 adult Sooty Terns on the island and the single pullus was ringed, but 19 other single egg clutches were deserted and contained dead embryos at various stages from mid incubation to chipping. At this date it was considered that heavy sea-spray at night was a possible cause for the desertion of eggs by both species, and possibly also for the dead young.

12 August: North Is.: *c.* 1500 Roseate Terns and at least 20 Sooty Terns.

14 August: North Is.: terns present but not incubating.

19 August: Buntapsi Is.: *c.* 100 Roseate Terns present, but not breeding. Recommended that guards return to North Is. site.

9 September: North Is.: several hundred Roseate Terns and about ten Sooty Terns, but only a few of the former attending nests. Most of the birds had now transferred to 2nd Mosque Is., where they were apparently not breeding.

10 September: Gezira: two juvenile Roseate Terns seen, presumably of local origin.

12 September: North Is.: *c.* 20 Roseate Terns' nests, only one with C/3, but most chipping or with small chicks near nests. According to local people they had been removing eggs daily from this island in spite of the presence of guards. No Sooty Terns here or on 2nd Mosque Is.

12 September: Buntapsi Is.: over 1000 adult Roseate Terns and at least three juveniles (presumably locally bred). Nine adult Sooty Terns and the ringed juvenile almost flying.

28 November: no terns on any islands.

During the 1980 breeding season small numbers of both Lesser Crested and Crested Terns visited the colonies, of particular interest in June being several, up to ten in a day, *S. bergii thalassina*, the southern race of the Crested Tern, not previously recorded in Somalia. A few Bridled Terns usually present but never more than six, at all the colonies. This year noddies were present throughout the breeding season, reaching a peak of about 50 on 13 June, but the Lesser Noddy, although present throughout the period, was in much smaller numbers than in 1979, reaching a peak of 100 ± 5 on 4 July.

BILL COLOURATION OF ROSEATE TERNS

North (1944) noted that in June the bills of Roseate Terns at Brava were all-black, but in August they were red with dark tips (apical 1.5 mm brown, remainder bright red, in one bird collected on 12 August). Warman (1979) described the change in bill colour of adult Roseate Terns *S. dougallii arideensis* through the breeding season on Aride Is., Seychelles. This race demonstrates a change in colour from an all-black bill prior to breeding to an all-red bill at the end of the cycle, the red colouration first appearing at the base. The Somalia birds show similar stages of development, although the apical one-third always remains black in this, the nominate race. In May and June practically all the adult Roseate Terns had all-black bills, although from about the middle of June an increasing number were showing traces of red at the base of the bills. On 4 July about half of *c.* 800 Roseate Terns checked

at the colony had bills which were about half and half red and black, and by 29 July practically all had red bills with only the tip black. No Roseate Terns were seen with all-red bills. An anomalous bird on 24 April had a black-tipped red bill like the July birds, but this is an exceptional condition at this time of the year in this area.

BREEDING SEASONS IN INDIAN OCEAN

The breeding season on Aride Is. is given as 22 April - 18 August by Warman (1979) for the race *arideensis* of the Roseate Tern. In Kenya nominate birds breed late July to early September (Britton 1980), whereas the same race in Somalia starts to breed between these periods, from 30 May - early October (although the picture is distorted here owing to disturbance at the colonies). However, the timing of events in the Somalia colonies follows closely that on Aride, but *c.* 30 days later, as can be seen in Table 1.

TABLE 1

Breeding and bill colour stages in Roseate Terns Sterna dougallii *in Somalia and Seychelles*

Stage of breeding and bill colour	Aride (Seychelles)	Somalia	Difference (in days)
Colonies occupied	7 May	6 June	30
First few eggs	12 May	13 June	32
Trace of red at bill base	12 May	13 June	32
Most with proximal ½ of bills red	6 June	4 July	28
First eggs hatched	*c.* 17 June	*c.* 18 July	31
First flying young	14 July	12 August	29

BREEDING FAILURES

Dr W.R.P. Bourne (*in litt.*, 26 July 1980) has pointed out that Atlantic populations of Roseate Terns have been suffering from inexplicable breeding failures, so that their numbers are now at a very low level. It is tempting to suggest that breeding failures in Somalia may be attributable to the same cause or causes, whatever they may be, but in both 1979 and 1980 failures were almost certainly caused by two factors: egg removal by man, and drenching by spray from high seas. In 1979, desertion in June and August at Buntapsi Is., and in July at 2nd Mosque Is. could be attributed to egg-removal, which was known to be occurring. In 1980, the Roseate Terns moved in June from North Is., where they were probably breeding, to the adjoining 2nd Mosque Is., where they certainly laid eggs. They then moved again after a few days, to lay again on Buntapsi Is. at the end of June, where they suffered from egg-removal by man. Later they received protection here from egg-removal, but apparently suffered heavy loss of eggs and young from drenching spray (possibly at night). It may have been these unsuccessful birds which then returned to North Is. in August, where they again lost eggs, apparently to man, and most moved to 2nd Mosque Is., but apparently did not breed. Owing to lack of observers we have no records after 12 September.

Warman (1979) referred to two species of *Mabuya* skinks being egg-predators on Aride, and mentioned the possible effects of the ticks *Amblyomma loculosum* and their associated arbovirus on young birds. At the Somalia colonies, a skink lives commonly just above the waterline on all the colony islets, but is too small to break a tern's egg and there was no suspicion that they might

be doing so. All the colonies were searched in the usual sites for resting ticks but none was found.

Brown-necked Ravens are very common on the mainland opposite the colonies, but on only one day was a single bird seen, which removed an egg each time on three sorties to the island and flew back to the mainland each time to eat them. Often ravens flew along the shore close to Buntapsi Is., but made no attempt to cross the narrow strip of water.

The restless behaviour of these terns may have been due to disturbance by sea and man, or possibly it may be a characteristic of new colonizers.

CONSERVATION

Unfortunately there is no clear evidence as to the exact cause of the relatively poor breeding success, although egg-removal by local people was clearly an important contributory cause, which could be controlled. If egg desertion and chick mortality are caused by breaking waves, then it is pointless to attempt to conserve these colonies, but another season with close observation by a trained observer is required to prove this point.

Roseate Terns are vulnerable birds, and their decrease in the Atlantic gives cause for concern. In the Indian Ocean, the situation is clearly much better, and with improved conservation, such as on Aride, the position may be better now than it has been for a long time. Nevertheless, a conservation effort is worthwhile in Somalia, where it is a relatively simple operation, for a large colony of sea-birds close to the capital city is of educational, touristic and scientific interest. The following recommendations are made if it is decided to give full protection to the birds if they return in 1981:

1. Guards should be placed near the colonies as soon as the birds arrive. They require reasonable living accomodation and protection from the heat and strong winds, and adequate food and water.
2. One person with biological training should visit the site(s) at least one day per week and preferably be present all the time.
3. The guards need to be educated in the reasons for protecting the birds.
4. The local people need to be instructed in the purpose of conservation, and consideration might be given to them being permitted to harvest the first crop of eggs.
5. The co-operation of local sheikhs might be sought to provide a religious reason for protecting the birds.
6. Nobody except the biologist should ever visit an islet after it has been colonized.

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THE LESLIE BROWN TRUST FUND

At the close of the 5th Pan African Ornithological Congress held at Lilongwe it was unanimously decided to set up a Leslie Brown Trust Fund for ornithological research in Africa.

But for his untimely death, Leslie would have been one of the Vice-Chairmen at Lilongwe, and, as such, it is hoped that a fund of this nature will stimulate and encourage others to emulate Leslie's ideals and aspirations in the field of ornithological research.

A sizeable amount has already been raised, but before such a fund can become operational, many more contributions are needed. All contributions, no matter how small, or in what currency, are welcomed and will, of course, be acknowledged.

Please send your contribution to:

The Leslie Brown Trust Fund,
c/o Box 24916,
Nairobi, Kenya.

All cheques, bank drafts and transfers should be made payable to The Leslie Brown Trust Fund.

RINGING AND MIGRATION AT NGULIA, TSAVO, NOVEMBER 1980 - JANUARY 1981

G.C. Backhurst & D.J. Pearson

During 1980/81, Ngulia Lodge was manned on 40 nights over the main period of southward migration of Palaearctic passerines. On 20 of these nights, moonless conditions combined with mist resulted in large concentrations of birds around the lights. Coverage, and incidence of misty weather, were thus much as in 1979 but the Palaearctic ringing total was only slightly over half that of the previous season (Backhurst & Pearson 1980). This was due to two factors: firstly a full moon late in November coincided with the migration peak, and secondly, a limited number of experienced operators was present on most of those occasions when large falls did occur early in December.

No new Palaearctic species was caught during the season, although three migrants new to Ngulia at this time of year - Sooty Falcon *Falco concolor*, Lesser Grey Shrike *Lanius minor* and White Wagtail *Motacilla alba* - were seen. This year was notable for the number and variety of nightjars caught, for the totals of Spotted Flycatcher, Nightingale and Basra Reed Warbler ringed, and for the number of Little Bitterns recorded. Totals of Palaearctic birds ringed at Ngulia during October - February are shown in Table 1 for 1980/81 and for the whole period of operations at the Lodge, 1969/81; scientific names are given in the table.

Coverage in November 1980 was complete from 2nd until 17th, when a growing moon intervened. Unfortunately, up to 12th, productive weather conditions occurred on only two nights. Mist with light showers on 7th, and then continuous mist from midnight to dawn on 8th, resulted in catches of 274 and 400 migrants respectively, in which Whitethroat was the main species although Spotted Flycatchers, Nightingales, Rufous Bush Chats, Eurasian Nightjars and Olive-tree Warblers featured prominently. The nights of 13-17 November were all productive to some extent, but with changeable weather conditions catches differed greatly from night to night. Thus, 733 birds on 14th after a dry night with continuous low mist, were followed by a mere 112 on 15th after the heaviest rain (*c.* 80 mm in 24 h, mostly at night) recorded at the Lodge for many years, and then 245 on 16th almost all arriving in mist and drizzle between 04:15 and 05:00 hrs. This mid November period produced a record daily catch of Nightingales (26 on 14th), good numbers of Eurasian Nightjars, including examples of the central Asian race *plumipes*, the first River Warblers of the season and a variety of shrikes, including an adult male Red-tailed with the characters of the central Asian race *speculigerus* (see Pearson 1979). The generally heavy rain was presumably responsible for unusual numbers of Eurasian Rollers and birds of prey in the Ngulia area during mid November. Over 1000 Rollers were counted passing south to the west of the ridge during less than 20 min on the afternoon of 14th. Two Eleonora's Falcons, three Sooty Falcons, 21 Eastern Red-footed Falcons *Falco amurensis* and a few Hobbies *F. subbuteo* were identified; in addition, some 20 more 'probable' Sooties were seen, and a group of 40 small falcons flying high up the valley in the mist on 16th were probably Eastern Red-footed. Lesser Spotted Eagles *Aquila pomerina* and Steppe Eagles *A. nipalensis* were both common, feeding on termites along the Park roads.

Over the period 30 November - 15 December mist, with or without rain, brought birds to the lights on all but three nights. The species composition of the early December catch, which totalled over 5000 Palaearctic birds, was typical of that normally found at this stage of the season, with less variety than in

Scopus 5: 28-30, March 1981

TABLE 1

Numbers of Palaearctic night migrants ringed at Ngulia Safari Lodge between October and February in the years 1969-1981

Species	1980/81	%*	1969/81
Little Bittern *Ixobrychus minutus*	1	-	3
Eurasian Nightjar *Caprimulgus europaeus*	41	202	203
Eurasian Roller *Coracias garrulus*	3	120	25
Eurasian Swallow *Hirundo rustica* (at night)	33	334	112
Golden Oriole *Oriolus oriolus*	2	200	11
Rufous Bush Chat *Cercotrichas galactotes*	126	191	667
Irania *Irania gutturalis*	106	90	1056
Sprosser *Luscinia luscinia*	1484	141	10 008
Nightingale *L. megarhynchos*	71	177	393
Rock Thrush *Monticola saxatilis*	15	174	85
Isabelline Wheatear *Oenanthe isabellina*	10	157	61
Northern Wheatear *O. oenanthe*	11	157	67
Pied Wheatear *O. pleschanka*	5	148	32
Great Reed Warbler *Acrocephalus arundinaceus*	4	152	25
Basra Reed Warbler *A. griseldis*	93	224	427
Marsh Warbler *A. palustris*	2178	118	17 057
Sedge Warbler *A. schoenobaenus*	8	156	59
Reed Warbler *A. scirpaceus*	4	63	56
Upcher's Warbler *Hippolais languida*	9	37	207
Olive-tree Warbler *H. olivetorum*	46	182	251
Olivaceous Warbler *H. pallida*	44	144	291
River Warbler *Locustella fluviatilis*	215	106	1859
Willow Warbler *Phylloscopus trochilus*	123	131	882
Garden Warbler *Sylvia borin*	17	38	383
Whitethroat *S. communis*	2246	138	15 411
Barred Warbler *S. nisoria*	25	51	421
Spotted Flycatcher *Muscicapa striata*	190	287	550
Tree Pipit *Anthus trivialis*	1	-	17
Red-backed Shrike *Lanius collurio*	85	114	685
Red-tailed Shrike *L. isabellinus*	52	84	554
Hybrid *collurio* x *isabellinus*	3	-	7
Total ringed	7251		51 937

*The 1980/81 total expressed as a percentage of the 1972/80 mean for each species

Totals of species ringed in previous seasons but not in 1980/81 are as follows: Eleonora's Falcon *Falco eleonorae* 1, Corncrake *Crex crex* 6, Spotted Crake *Porzana porzana* 1, Eurasian Cuckoo *Cuculus canorus* 2, Lesser Cuckoo *C. poliocephalus* 1, Scops Owl *Otus scops* 1, Sand Martin *Riparia riparia* 5, Redstart *Phoenicurus phoenicurus* 1, Whinchat *Saxicola rubetra* 2, Icterine Warbler *Hippolais icterina* 1, Savi's Warbler *Locustella luscinioides* 1, Wood Warbler *Phylloscopus sibilatrix* 1, Blackcap *Sylvia atricapilla* 45 and Yellow Wagtail *Motacilla flava* 3.

mid November, and only very small numbers of Nightingales, Rufous Bush Chats and Eurasian Nightjars, for example. Basra Reed Warblers were prominent in the catch on most days. Little Bitterns were regularly heard at night, and on 7th, when several groups (including one of eight) had passed in the mist, a single bird of the nominate race was caught, whilst two others bounced from

nets. *Aquila* passage was much reduced during December, and falcons were hardly seen.

During the period 28 December - 3 January there was a marked absence of mist at night and consequently, few birds were attracted to the lights. However, the bush south of the Lodge was lush and provided a rich habitat for a number of warblers, some of which had been in the area for up to three weeks previously. Two Reed Warblers caught on the afternoon of 28th were both in active wing moult as were some of the retrapped Whitethroats. The small total of 146 migrants caught during the period comprised mostly Whitethroats and Marsh Warblers; the two late migrants, the Garden Warbler and Upcher's Warbler, were poorly represented while the Blackcap was not recorded at all.

Afrotropical region migrants occur at Ngulia in small numbers during the southward Palaearctic movement (Backhurst & Pearson 1977): Black and White Cuckoos *Clamator jacobinus*, Harlequin Quails *Coturnix delegorguei* and five species of nightjar formed the majority of the Afrotropical birds. Other species of interest were: a Green-backed Heron *Butorides striatus* at the end of December, a Dwarf Bittern *Ixobrychus sturmii* early in the month, several Button Quails *Turnix sylvatica* (December and January), a Black Cuckoo Shrike *Campephaga flava* in mid November, a juvenile Gambaga Flycatcher *Muscicapa gambagae* in early November, an African Reed Warbler *Acrocephalus baeticatus* at the end of December and occasional Golden Pipits *Tmetothylacus tenellus* throughout.

ACKNOWLEDGEMENTS

We thank Mr Bill Woodley, the Warden of Tsavo National Park (West), for allowing us to ring in the Park. The Lodge Manager, Mr Roger Chambers and his wife Jan gave us every assistance - we cannot thank them enough for all they did. We should also like to thank especially Mrs A.M. Forbes-Watson, Mrs D.E.G. Backhurst, Mrs J. Dirks and L. Bennon. Thanks are also due to J. Halliday, A.D. Lewis, P.L. & Mrs H.A. Britton, M.A.C. Coverdale, T. & Mrs D. Mathews, A.E. Butterworth, Mrs B. Couldrey, Mrs M. Gross and members of the EANHS who helped with operations on 6 and 7 December.

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G.C. Backhurst, Box 24702, Nairobi and *D.J. Pearson, Box 30197, Nairobi.*

(Received 15 January 1981)

THE AFROTROPICAL REGION

The Ornithological Sub-Committee would like to mention that it has been swayed by the arguments of Benson *et al.* (1979) in *Ibis* 121: 518, and intends to use the term Afrotropical Region in place of Ethiopian Region. Ed.

SHORT COMMUNICATIONS

WILSON'S STORM PETREL *OCEANITES OCEANICUS* IN KENYA On 6 April 1980, some 3 km off Malindi, I watched a Wilson's Storm Petrel *Oceanicus* through ×10 binoculars for at least 2 min. When disturbed by the boat at about 20 m range, it was immediately recognizable as one of the small, dark-bodied, white-rumped storm petrels. The tail was virtually square (appearing very slightly cleft in the centre), the wings were all-dark below and only slightly angled at the carpal joint, and the legs were long, projecting beyond the tail. Most texts stress that the webs of the feet of this species are yellow. The webs of this bird were apparently dark, as was the case with several individuals I observed in the South Atlantic in January 1968. In fact, the photographs and text of Boswall (1979) show that web colour is seldom a useful field character. Long legs, projecting beyond the tail, combined with other features such as tail shape and wing shape, allow Wilson's Storm Petrel to be identified with certainty if a reasonable view is obtained. In contrast, a bird which I saw off Watamu on 23 April 1978, most probably Leach's Storm Petrel *Oceanodroma leucorhoa* (E.A. Bird Report 1978), had a slightly forked tail, markedly angled wings, and legs short (apparently concealed beneath the tail).

Britton (1980) refrained from admitting Wilson's Storm Petrel to the East African avifauna, despite the liklihood that most of the small storm petrels seen annually in our waters are this species (rather than Leach's Storm Petrel, for which there is, however, one specimen record from Kenya). These earlier sightings, often involving several individuals on several dates, were made by fishing enthusiasts without the benefit of binoculars or a knowledge of critical field characters.

Mackworth-Praed & Grant (1957), Penny (1974) and others have considered it likely that the Storm Petrel *Hydrobates pelagicus* occurs off the coasts of eastern Africa. White (1965), on the other hand, noted that, although the species is common off the Cape Province of South Africa during November to May, there is no proper record of the Storm Petrel from the Indian Ocean or the Red Sea. In response to Penny's comments, Feare & Bourne (1978) have established that there is no specimen of the Storm Petrel north of its accepted winter quarters off South Africa, whereas a large series of the superficially similar Wilson's Storm Petrel has now been collected all round the Indian Ocean.

ACKNOWLEDGEMENT
I would like to thank Major R. and Mrs L. Didham for inviting me as a passenger on the *Lallie Lee* on 6 April 1980.

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P.L. Britton, Box 90163, Mombasa Received 17 February 1981

THE DUNLIN *CALIDRIS ALPINA* IN ETHIOPIA AND SOMALIA The confusing situation regarding occurrences of Dunlins *Calidris alpina* in East Africa, clarified by Backhurst *et al.* (1973), prompted us to review records of the species in Ethiopia and Somalia. It now appears that there are three acceptable records, all inland, from Uganda and Kenya (Britton 1980), none from Tanzania, and that it is therefore a rare vagrant to East Africa. It is reported from as far south as South Africa (McLachlan & Liversidge 1980), but Dowsett (1980) is sceptical of all records south of the equator. However, those from Rwenzori and Nakuru, accepted in Britton (1980), are actually just south of the equator.

On the Red Sea coast of Eritrea Dunlins are stated to be regular in small numbers on coastal mudflats in winter (Smith 1957). This is confirmed by Ash from mid winter visits to the Massawa (15°37'N, 39°28'E) and Assab (13°01'N, 42°43'E) areas where the following birds were seen:

> Assab area: 25 December 1970 - 1 January 1971. Not very common; maximum 30 in one locality, and small numbers elsewhere. On 24-30 December 1973 there were a scattered few.
>
> Massawa area: 26-28 December 1972. Up to 15 in a day.

However, elsewhere the species is obviously of only very rare occurrence at a few inland sites. In the years 1969-1977, Ash saw Dunlins only four times inland:

> Akaki (8°52'N, 38°08'E), 3 on 18 November 1969.
>
> Koka (8°27'N, 39°06'E), 1 on 16-17 December and 2 on 18-21 December 1970; 1 on 3 and 6 March 1973.
>
> Langano (7°35'N, 38°45'E), 1 adult in partial breeding plumage on 24-25 August 1974.

There are six other inland records listed in the collection of data being used in preparing distribution maps for Ethiopia. Three of these are from Eritrea (E. Johnson and K.D. Smith, pers. comm., but no details), one from Lake Basaaka (8°53'N, 39°53'E) in May 1969, one at Lake Langano (A. Vittery, pers. comm.), and one from Lake Tana (Moltoni & Ruscone 1944). In addition, Mann (1971) saw three at sea among the Dahlac Islands on 3 September 1962. We believe that all these are acceptable records.

Dunlins have only been recorded in 14 of the ½ × ½-degree squares used in the Ethiopian distribution maps (Ash & McConnel 1975) as follows: 7A, 11AD, 12ACD, 26CD, 34B, 35A, 69B, 70BC and 83B.

There are at least five records of 1-2 birds from Somalia, as follows:

> Berbera (10°26'N, 45°02'E), 1 male collected, no date (Elliott 1897), a record overlooked by Archer & Godman (1937).
>
> Berbera, 1 male collected 27 November, year not given (Archer & Godman 1937).
>
> Shonde (1°10'N, 42°33'E), one with a few black feathers on belly, 27 February 1980 (authors' pers. obs.). Inland locality.
>
> Gezira lagoon (1°57'N, 45°11'E), one in full breeding plumage, 1 April 1980 (authors' pers. obs.); 1 in winter plumage 10 December 1980 and 2 between 13 December 1980 and 10 January 1981 (Ash pers. obs.).

These records are placed in three of the ½ × ½-degree squares of the Somalia distribution maps: 11C, 66D and 69A (Ash & Miskell in prep.).

In conclusion, in Ethiopia Dunlins are fairly common on the coast south to Assab, but are rare inland. They are apparently unknown in Djibouti, where

Ash saw none in a detailed survey on 24-27 December 1975. Further south, in Somalia, there are only five records of 1-2 birds, two on the coast in the north and two on the coast and one inland in the south. It appears that the regular wintering area in northeastern Africa does not extend south of a line through Aden and Assab. South of this line the bird occurs irregularly as a vagrant.

ACKNOWLEDGEMENTS
We thank Peter Hay, Brother Edmond Johnson, C.F. Mann, the late K.D. Smith and Alan Vittery for providing information on Dunlins in Ethiopia.

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J.S. Ash, Division of Birds, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A. and *J.E. Miskell, c/o UNDP, Box 24, Mogadishu, Somalia.*
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Scopus 5: 32-33, March 1981

NOTES FROM THE RWENZORI MOUNTAINS, INCLUDING A DESCRIPTION OF THE NEST AND EGGS OF ARCHER'S GROUND ROBIN *DRYOCICHLOIDES ARCHERI* During early January 1959, I visited the Rwenzoris in western Uganda as one of a party from Rhodesia (now Zimbabwe). Recollections are a little hazy, but my few observations and specimens include some items of interest. All species noted above about 4000 m are mentioned, even if no proper identification was made. Most were in the vicinity of Bujuku Lake and Kitandara, but we reached the Stanley glacier and the summit of Mount Speke.

Buteo tachardus Mountain Buzzard
A pair of dull brown buzzards with a nest on the southern side of the eastern approaches to the Stuhlmann Pass, about two-thirds of the way up from the Bujuku huts, was evidently this species. In East Africa as a whole, Britton (1980) records it as high as 3800 m.

[Sarothrura affinis Chestnut-tailed Pygmy Crake
I have no proper notes on 'some crake-like birds flushed by a porter near Bujuku Lake'. Nevertheless, it is worthwhile noting the *possibility* that they were this species, which has a discountinuous and relict distribution (essentially montane) in eastern and southern Africa. Keith, Benson & Irwin (1970) state that it 'doubtless remains to be discovered in many further localities, especially in Tanzania'.

Schoutedenapus myoptilus Scarce Swift
A dead bird picked up in the snows of the glacier atop Mount Speke. A number of unidentified swifts were noted elsewhere.

[Corvus albicollis White-necked Raven
A 'couple of ravens' were noted.

Dryocichloides archeri Archer's Ground Robin
On 17 January one parent and two well set eggs were collected from a grove of 5-m tall senecios about 100 m upstream from the top lake at Kitandara. Accord- to Brown & Britton (1980) the nest and eggs are still undescribed.

The nest was a neat cup of rootlets and tendrils let into a depression about 1.2 m up on the side of a great mass of moss that clung to the trunck of one of the senecios. There was no outer bulk to the nest as the moss itself provided the support for the cup. When taken, the eggs were a pale blue, freckled with a few small insipid brown spots, mostly about the middle and towards the top, but not forming any distinct ring of markings. They measured 24.4 × 15.7 and 23.5 × 16.0 mm.

Bradypterus cinnamomeus Cinnamon Bracken Warbler
This was the most numerous species. To my ear, its simple, slightly protracted *seee* call was significantly different from those of the three *Bradypterus* spp. (*baboecala, barratti, sylvaticus*) familiar to me in southern Africa. A nest near Nyamleju on 9 January had two slightly incubated eggs, but each of the several other nests found was empty. All were bulky structures of straw, leaves and fern fronds, in tangles against the truncks of senecios, with a neat cup lined with fine dry grasses.

[Phylloscopus umbrovirens Brown Woodland Warbler
A small warbler seen was probably this species.

[Onychognathus tenuirostris Slender-billed Chestnut-winged Starling
Some red-winged starlings seen were presumably this species.

Nectarinia johnstoni Scarlet-tufted Malachite Sunbird
We paid particular attention to this common species and found a dozen or more nests. Apart from a single egg on the point of hatching, all nests were empty. Some nests were tucked into the dead growth under the green leaves at the top of big senecios, while others hung in more typically sunbird fashion from the trailing end of creepers or branches. The occupied nest was built into the leaves and twigs of an upright sprig of tree heath where it was well supported by the surrounding growth. One nest was almost snow white, having apparently been built very largely of the downy material from the underside of the petioles of the senecios. This material was usually used for lining alone.

Serinus striolatus Streaky Seed-eater
This was another common species, though only one nest was found (C/2).

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A.N.B. Masterson, Box 2093, Salisbury, Zimbabwe Received 16 November 1980

DESERT WHEATEARS *OENANTHE DESERTI* IN ETHIOPIA AND SOMALIA Desert Wheatears *Oenanthe deserti* overwinter in parts of Ethiopia and Somalia, but the limits of their distribution are not well known. They are said to be common in NE Ethiopia (Urban & Brown 1971) and in (ex-British) Somaliland, "but it does not penetrate as far south as the Equator" (Archer & Godman 1961). White (1962) states that it winters in both countries (two races), but according to Moreau (1972) only one race is involved. There are no certain records further south in Kenya and Uganda (Britton 1980).

DISTRIBUTION IN ETHIOPIA

The species occurs mainly in the sandy coastal plains of Eritrea, where it is also found in the west of the country up to 1300 m in open acacia country (Moreau 1972). Further south I found it to be regular in small numbers in the Awash valley in the Danakil north of 10°30'N and in the area round the Djibouti and Somali borders to 10°N. There are a few scattered records outside this area: a male collected and identified by Patrizi (?1941) at Addis Ababa (and thus at about 2300 m); it is included in Hay's (1969) list of the birds of the Awash National Park as a winter visitor; and another from an area just north of the Park from a plot on my unpublished distribution maps, but I do not have a note of the original reference.

DISTRIBUTION IN SOMALIA

In northern (ex-British) Somalia, where it occurs in great numbers, the majority are on the coastal plain, but they also occur on the central plateau up to 240 km from the sea (Archer & Godman 1961). However, further east and south I have not been able to trace any records at all in ex-Italian Somaliland, although presumably it should be as common in the north as it is further to the west, for it also occurs on Socotra. In the past two winters I have found several birds in the Mogadishu area, which opens up the possibility that probably they occur further north throughout coastal Somalia. As these birds, all males, extend the known wintering range by some 1000 km southwards, they are recorded below in detail:

Hal Hambo (1°54'N, 45°05'E), 32 km southwest of Mogadishu, 1 on 14 and 21 December 1979.

Mallable (2°12'N, 45°37'E), 35 km northeast of Mogadishu, 1 on 11 January 1980.

Buntapsi (1°53'N, 45°04'E), 34 km southwest of Mogadishu, 1 on 8 February 1980.

near Gezira (1°57'N, 45°11'E), 21 km southwest of Mogadishu, 1 on 15 February 1980.

12 km northeast of Mogadishu (2°05'N, 45°26'E), 1 on 16 February 1980.

Gezira, 2 on 10 January 1981.

SUBSPECIES

Desert Wheatears have been separated into four races, nominate, *atrogularis, oreophilus* and *homochroa*. According to Moreau (1972) *deserti* and *homochroa* are mainly sedentary in the northern part of the desert belt, *oreophilus* winters in Iran and Arabia and *atrogularis* winters from India westwards to Lake Chad. Birds in Ethiopia and Somalia therefore should be *atrogularis*. However, White (1962) lists *deserti* only for Ethiopia and British Somaliland, *atrogularis* for Somaliland *[sic]* and *oreophila [sic]* for southern Arabia and Socotra. Urban & Brown (1971) follow White in listing only *deserti* for Ethiopia, and Mackworth-Praed & Grant (1960) and Archer & Godman (1961) also agree

in listing only *deserti*. It would thus be of interest to know the basis for White's inclusion of *atrogularis* in Somalia. I was impressed by the brownish-buff colouration of the upperparts of the birds I saw in southern Somalia, appearing appreciably darker than the birds (*deserti*) that I know well in Ethiopia and North Africa. Presumably they are either *oreophilus* or *atrogularis*, the former being more likely, but a specimen is needed to settle the question.

DATES

Smith (1957) states that birds are present in Eritrea from the last week of September to the end of March; Archer & Godman's extreme dates are 20 September - 17 March. My own for these countries fall within these periods.

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J.S. Ash, Division of Birds, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A. Received 20 February 1981

Scopus 5: 35-36, March 1981

MAPPING SCHEMES IN THE AFROTROPICAL REGION One of the notable developments in Afrotropical ornithology in the past decade has been the initiation of schemes to map the distribution of birds. As a result of this interest, an informal meeting was held at the 5th Pan-African Ornithological Congress, Malawi, 1980, to discuss the topic. The main objectives of these schemes have been to establish a baseline upon which to measure future trends, but valuable data have also been accumulated to indicate changes in distribution during the past century, and longer. Fortunately, most schemes have followed the Ethiopian model (Ash 1972), which was begun in 1969. Consequently they are compatible, and can be used in the future for an Atlas of the Afrotropical region.

The Hall & Moreau (1970) *Atlas* did much to stimulate interest in mapping, to which the Snow (1978) *Atlas* has provided added impetus. Already further countries have plans for an Atlas, and clearly, others will follow. Obviously it is desirable for all Atlases to adopt the same basic format, and for this reason we present here a list of schemes known to us, together with information on the year started, status, progress and people/organizations involved.

PROPOSED FORMAT

We believe that the following suggestions should apply to all future projects. They are divided into two groups: the essential minimum, and what we have termed 'optional data'. The latter category embraces various additional

records which might be considered by countries with above-average numbers of observers.

Essential data

1. Mapping units should be ½ × ½-degree squares, or smaller compatible units (e.g. ¼ × ¼-degree). For international co-ordination, squares should be referred to by the co-ordinates of their southwest corners (e.g. 04S 32½E) although other numbering schemes may be preferred for internal use.
2. Records should generally refer to the period 1970 to 1990.
3. Records of each species in each square should be allocated to one of the following categories:
   a. Present but no evidence of breeding.
   b. Present and possibly breeding.
   c. Present, breeding confirmed.
4. It is assumed that the organizer(s) of each scheme will accept responsibility for the accuracy of records published.

Optional data

Depending upon conditions, the collection of additional relevant data may be considered.

5. Pre-1970 records for each species in each square.
6. More detailed categories of breeding records (as per the European Atlas Scheme).
7. Monthly records (as per the Natal Atlas Scheme).
8. A five-point abundance rating for each species in each square, namely:
   0 - believed to be absent
   1 - present but only a few pairs/birds
   2 - uncommon and/or local
   3 - common and/or widespread
   4 - Abundant throughout
9. Basic habitat data for the parts of the square visited. This needs further consideration if a degree of conformity is to be achieved.

LIST OF AFROTROPICAL ATLAS SCHEMES

Country/ Province	Year started	Status	Co-ordinator/Address
Natal	1976	Published	Cyrus & Robson, Publication of the University of Natal Press, 1980.
Transvaal	1975	in press	Mrs M. Kemp, Transvaal Museum, Pretoria.
South Sudan	1978	advanced	G. Nikolaus, c/o Box 47051, Nairobi, Kenya.
Ethiopia	1969	advanced	J.S. Ash, UNDP, Box 24 Mogadishu, Somalia.
Somalia	1978	advanced	J.S. Ash, as above.
Zambia	1976	advanced	R.J. Dowsett, Private Bag, Chilinda, P.O. Rumphi, Malawi.
Malawi	1979	started	
Madagascar	1979	started	D.A. Turner, Box 48019, Nairobi, Kenya.
Kenya, Tanzania, Uganda	1980	started	D.A. Turner, as above. (½ × ½-degree □s)
Kenya	1980	started	G.R. Cunningham-van Someren, Section of Ornithology, Division of Natural Sciences, National Museums of Kenya, Box 40658, Nairobi. (10-km□s)
Namibia	1978	started	C. Clinning, P.Bag 13186, Windhoek, SWA.
Mauritania	-	planned	-
Zimbabwe	-	planned	Ornithological Society of Zimbabwe, Box 4382, Causeway, Salisbury.
Cameroun	-	planned	M. Louette, Africa Museum, B-1980, Tervuren, Belgium.
Zaïre	-	planned	

The following were also reported, but are not presently planned as Atlases:
Mali: detailed list exists G. Morel,
Senegal: detailed data on B.P. 20,
distribution exist Richard-Toll, Senegal.
In addition, the check-list of The Gambia (Jensen & Kirkeby 1980), published in book form, contains distribution maps in a non-grid format.

Enquiries about individual schemes should be addressed to their respective co-ordinators.

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J.S. Ash, UNDP, Box 24, Mogadishu, Somalia and *D.E. Pomeroy, Box 43844, Nairobi*

Scopus 5: 36-38, March 1981 Received 12 February 1981

THE EAST AFRICAN DISTRIBUTIONAL MAPPING SCHEME - A PROGRESS REPORT This scheme was formally launched in 1980, and areas covered by observers in Kenya and Tanzania are shown in Fig. 1. While showing reasonably good coverage over much of Kenya and Tanzania, there is still much ground to be covered and it is hoped that many of the gaps will be filled during the coming years.

For the benefit of new readers, and anyone contemplating assisting in the mapping scheme, the basic principles to be noted are as follows:

1. The three East African countries are divided into 1 × 1-degree squares which are numbered 1-178 (see Fig. 1). These squares are further divided into four ½ × ½-degree squares, labelled a, b, c and d as shown in the inset. The basic squares follow the lines of latitude and longitude. These lines are shown on the Shell Road Maps for Kenya, Tanzania and Uganda and these maps will be found most useful for participants.

2. All that is required from contributors is simply a list of the species recorded in each ½ × ½-degree square they have records from, between 1965 and the present. Species may be given two symbols: a tick (✓) for 'present' or a cross for 'breeding confirmed'. The lists themselves may be submitted on a monthly basis (preferred) or annually. The data sheets will be provided by the writer, from the address below.

   Contributors may send in data sheets for either their home area, areas they visit regularly, as well as for areas which might be visited only on a casual basis. All records are welcomed, but please remember to show clearly which ½ × ½-degree square is covered as well as the month (or year) your data were collected.

Coverage during 1980, and in some cases during the previous two years, has been extremely encouraging, and will, I hope, encourage others to participate in the scheme. Our ultimate aim is to produce a Distributional Atlas of East African Birds and, as such, the scheme is styled on similar mapping exercises currently being undertaken elsewhere in Africa (Ash & Pomeroy, *Scopus* 5: 36-38, above).

This initial progress report would not be complete without due acknowledgement to all those who have contributed so far, and in particular to the following who have submitted considerable quantities of data on a monthly basis, often covering vast areas of their respective countries:

Kenya: F.N. Bruce-Miller (Western), M.A.C. Coverdale (south coast), N. Hartley (Western and central), J. Miskell (northeastern), D.J. Pearson

[Continued on page 40

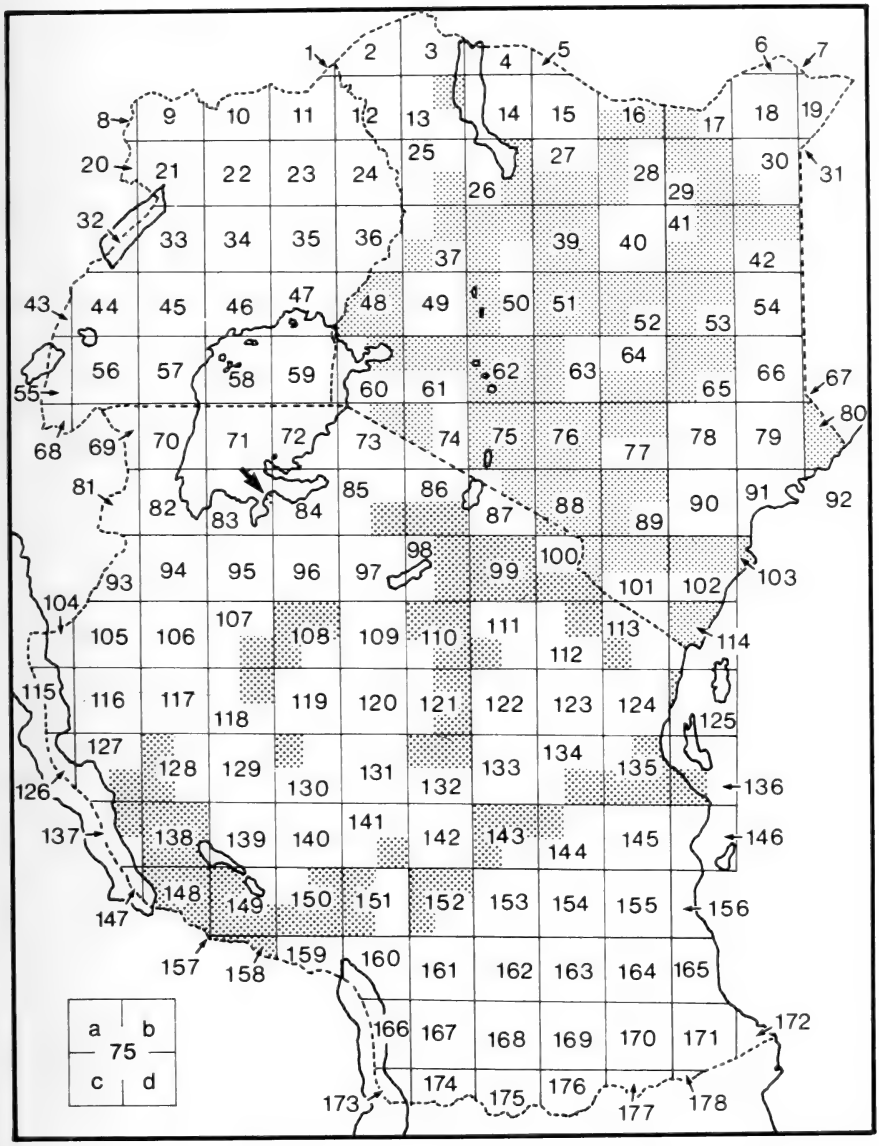

Fig. 1. *Map showing the 178 1 x 1-degree squares in East Africa. Shading indicates that records have been received for the ½ x ½-degree squares concerned.*
Inset: *showing method of labelling the ½ x ½-degree squares*

(eastern and northern), T. Stevenson (Lake Baringo).

Tanzania: J.S.S. Beesley (northern and central), K. M. Howell (Dar es Salaam area), D. Moyer (southwestern), Father E. Sion (Mbeya District, southern Tanzania), S.J. Tyler (southwestern and southern), R.K. Walton (Tabora Region).

Anyone requiring further information, data sheets, etc. please contact me at the address below or by telephone (Nairobi 48772).

D.A. Turner, Box 48019, Nairobi *Scopus* 5: 38-40, March 1981

NOTICES

CHECK-LIST OF THE BIRDS OF KENYA

This 40 page list, *Scopus*-size (i.e. A5), has been produced by the OS-C and is likely to prove very useful. It consists of a list of all the birds recorded for Kenya in *Birds of East Africa*. The nomenclature and order of the book are followed and each species is provided with four 'boxes' - useful for ticking for different localities, months, etc. The *Check-list* may be bought by personal callers from the EANHS office in the National Museum, Nairobi for Shs.10/- per copy - this price applies to EANHS members and *Scopus* subscribers only.

Postal orders (to D.A. Turner, Box 48019, Nairobi, cheques or drafts made payable to 'Birds of East Africa') are at the following rates, per copy.

1. By surface to anywhere in East Africa: Shs. 12/-
2. By airmail to East African addresses: Shs. 15/-
3. By surface to anywhere in the world: Shs. 12/- or £0.70 or $1.50
4. By airmail to anywhere in the world: Shs. 18/- or £1.00 or $2.20

THE EAST AFRICAN BIRD REPORT 1980

Please send all records as soon as possible, preferably before the end of April, to D.A. Turner, Box 48019, Nairobi (all non-Palaearctic species) or to Dr D.J. Pearson, Department of Biochemistry, Box 30197, Nairobi (Palaearctics).

THE BIRDS OF THE WESTERN PALEARCTIC

The compilers of this fine handbook are anxious to hear from ornithologists who have information on species which are not well known in the Western Palaearctic itself. Anyone who may be able to help is asked to write to Stanley Cramp, the Chief Editor, 32 Queen Court, London WC1N 3BB.

BIRDS OF EAST AFRICA

Copies of this 270 page book are still available, but for how long, we don't know. It seems likely that our printers will not be able to fulfil the original order. Copies may be obtained by post from D.A. Turner, Box 48019, Nairobi; cheques or drafts should be made out to 'Birds of East Africa'. Post-free prices (surface mail) are as follows: to East Africa Shs. 130/-, to the rest of the world, £8.00 or $17.00. East African residents wishing to send copies to friends abroad may do so for Shs. 130/- per copy.

Continued from inside front cover

'References'; the name(s) of the author(s) and date(s) of publication should be given in the text in the normal way. A list of the works concerned is given below.

All contributions should be sent to Dr D.J. Pearson, Department of Biochemistry, University of Nairobi, Box 30197, Nairobi, Kenya.

WORKS WHICH SHOULD NOT BE LISTED UNDER 'REFERENCES'

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EAST AFRICAN BIRD REPORT

This forms the fifth issue of *Scopus* and each report covers one calendar year. Records of Afrotropical Region (i.e Ethiopian Region and Malagasy Sub-Region) birds should be sent to D.A. Turner, Box 48019, Nairobi; records of Palaearctic Region birds to Dr D.J. Pearson, Department of Biochemistry, Box 30197, Nairobi.

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Scopus welcomes original contributions in English on all aspects of the ornithology of eastern Africa pertinent to Kenya, Tanzania and Uganda. Contributions will be assessed by the Sub-Committee and by independent referees. The material published in *Scopus* will be divided into 'papers' and 'short communications', the latter will usually be less than two *Scopus*-pages in length. Contributions which are submitted as 'papers' should be written in the third person (except in the 'Acknowledgements' section); 'short communications' may be written in the first or third person. Authors of papers are entitled to five copies of their contribution, free of charge, but they should be requested when the MS is submitted. Extra copies, which will be supplied at cost, *must* be ordered when the MS is submitted.

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Tables, which should be numbered, *should appear in the typescript, not grouped on separate sheets at the end*. Metric units should be used. If non-metric units were used in the original observation or experiment, the approximate metric equivalent should be given in brackets.

Illustrations should be on bristol board, good quality white paper or tracing paper, in line - i.e. black on white, and should not be larger than 19 × 23 cm. Lettering (in black) will be the responsibility of the author and should be done neatly in Letraset, no larger than 14 point (3.9 mm). Each illustration should be numbered (Fig. 1, etc.) and provided with a legend typed on a separate sheet of paper. Photographs will be considered if they are absolutely necessary.

Continued inside back cover

Scopus 5 (2) June 1981

SCOPUS

THE RESIDENTIAL STATUS OF THE MADAGASCAR BEE-EATER *MEROPS SUPERCILIOSUS* IN AFRICA

C.H. Fry

One of the more interesting species of its genus is the Madagascar Bee-eater ***Merops superciliosus***. With its allospecies ***M. persicus*** and ***M. (s.) philippinus*** it is strongly suspected to fish (Fry 1981). Its breeding distribution is unusual amongst Afrotropical birds and its migrations are mysterious.

Its status in East Africa has been clarified in Britton (1980), which states that it is widespread from May to September as a migrant from southeast Africa and perhaps Madagascar. Similar caution as to the provenance of these migrants, especially the notion that they are from Madagascar, has been expressed by Rand (1936), Benson (1960), Moreau (1966) and Clancey (1971); yet many people still regard the species as a straightforward migrant between Africa and Madagascar.

The purpose of this paper is to integrate more recent information with the full discussion of the problem by Clancey (1971). The conclusion may be anticipated by adding to Moreau's remark (1966, p. 252) that "large-scale migration of ***Merops superciliosus*** from Madagascar remains to be proved", that, in the author's view, there may be no such migration at all.

BREEDING DISTRIBUTION

On present evidence there are five reproductive foci of ***M. superciliosus*** in the Afrotropical Region, as shown in Fig. 1. Populations (i) and (ii) are quite discrete and (v) may be so; but there is probably movement and gene flow between (iii) and (iv) which should hence not be treated as similarly distinct from each other.

(i) In southwestern Africa ***M. s. alternans*** Clancey is abundant along the lower Cunene River, breeding there and probably in the desert coastal strip north of its mouth (Lucira) and north to the lower Cuanza River. The race ranges in the south to Ondagua, Ovamboland, in the east to the valley of the Okavango River and in the north to about Luanda.

(ii) In the Guban area of northwest Somalia there resides a population morphologically indistinguishable from the nominate race but breeding much earlier in the year than it. The species is common and widespread there, nesting being known at Saad-ed-Din Island, Bulhar and Saba Wanak on the coast and at Sheikh, Burao and Oadweina in the hinterland (Archer & Godman 1961, whose records were inadvertently omitted from Map 310 of Snow 1978). Two more recent breeding records - a colony of 20 nests, and three pairs feeding fledglings, which may be ascribed to this population, are from the Awash valley, Ethiopia (J.S. Ash *in litt.*).

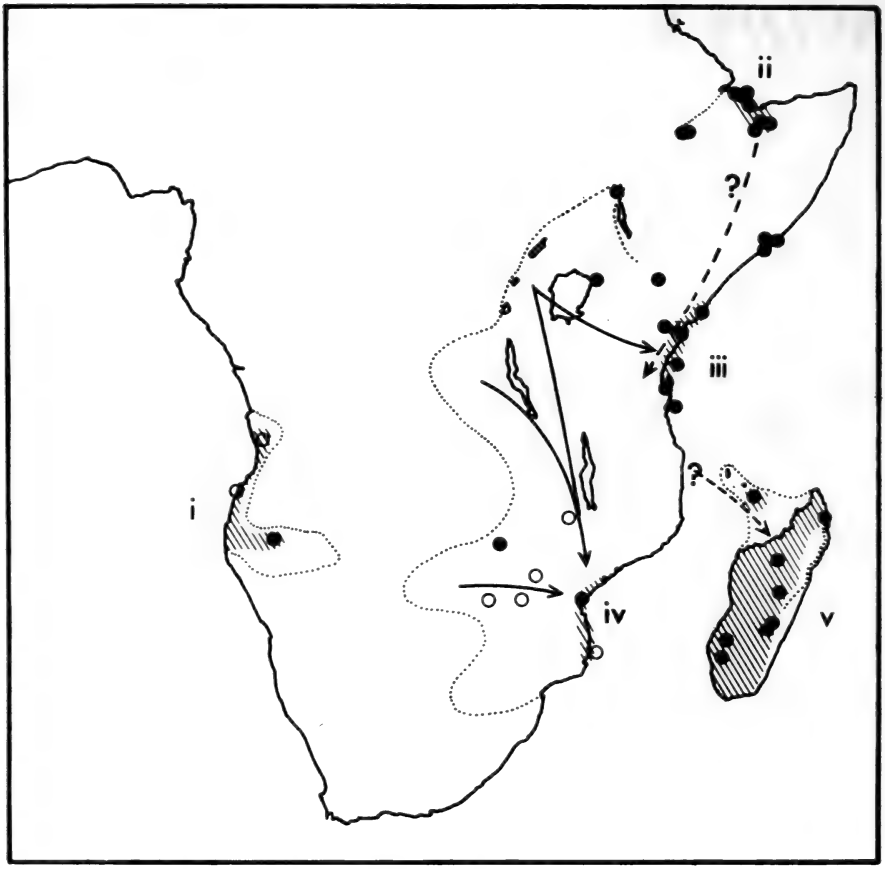

Fig. 1. *The Afrotropical range of* Merops superciliosus. *Hatched areas (i) to (v) are the main breeding foci (see text); filled circles, known nesting, open circles, probable nesting. Dotted lines, approximate non-breeding ranges. Arrows, pre-breeding migrations.*

(iii) Breeding of *M. s. superciliosus* on the East African coast has been reported to occur with any regularity only on Pemba Island (Pakenham 1979). It is likely to nest regularly also in the Lamu archipelago and adjacent Kenya coast (although nesting has only once been found there), and around Mogadishu. Breeding colonies or indications of breeding have been reported once each on or near the coast at Malindi, on the Galana River, near Dar es Salaam and on Mafia Island, and inland near Kisumu, on the upper Tana River, and perhaps on the Athi River; also near the Omo River north of Lake Turkana and at three localities near Mogadishu on the Somali coast (J.S. Ash *in litt.*). The last records, geographically isolated, could almost as easily refer to population (ii) as to (iii).

(iv) On the African coast of the Moçambique Channel the nominate race has nested at Masambeti near Beira, and it probably breeds regularly and numerously from that area south to Bazaruto and Santa Carolina Islands (22° and 23°S). Inland, a colony has been found on the Zambezi at Mana Pools (Zimbabwe) and an evident fledgling near Furancungo (Moçambique) (Brooke & Hougaard 1971). There are Zimbabwe nest record cards, marked 'European Bee-eater' (*M. apiaster*), and dated 1921, 1928 and 1953 at Wedza (100 km southeast of Salisbury) and 1956 at Fort Victoria. The author of the 1953 and 1956 records now feels that his identification must have been erroneous (*in litt. per* B. Donnelly) and the first two records are also unacceptable as *M. apiaster* (M.P.S. Irwin, *in litt.*). In point of fact, all four very probably mean *M. superciliosus*. In addition, there is an unconfirmed report of a 1980 nesting colony of *M. superciliosus* near Bulawayo.

In areas (iii) and (iv) breeding inland appears to be sporadic, and the species has been described as abundant in the breeding season only within the hatched coastal zones shown in Fig. 1, namely at Lamu, Pemba, Masambeti and Sta. Carolina.

(v) The nominate race is widespread and common as a breeding bird in the Malagasy Subregion, on Madagascar and Mayotte Island (Comoro archipelago).

BREEDING SEASONS AND MIGRATIONS

(i) *M. s. alternans* lays in November-December; whether and to what extent it is migratory within its rather circumscribed range is not known.

(ii) *M. s. superciliosus* lays in April on the north Somali coast and in May inland at 1400 m altitude (Archer & Godman 1961). The birds were seen in all seasons and were thought to be entirely sedentary in the Guban area. Nonetheless, it is possible that this population contributes to the East African presence (see below). On the Awash River laying is from mid April to late May.

(iii) Inferred egg-laying times, by climatic regions (see Brown & Britton 1980, Map 1), are: Region B, Kano Plains near Kisumu, April-May; Region C, Momela Crater Lake, early September (Britton 1979); Region D, upper Tana River, early August (Bullock & Bullock 1976 - not January-February as given by Pakenham 1979), Galana River at Sala, early May (Lack, Leuthold & Smeenk 1980), Dar es Salaam, March, Mafia Island, September, Pemba Island, late June to early August, Omo Valley, April-May, and near Mogadishu, April-May; Region E, Malindi, late November - early December, Lamu, late November.

It occurs all year in southern Somalia but is not necessarily sedentary there (J.S. Ash *in litt.*). On the Kenya coast the species occurs erratically throughout the year and at Lamu abundantly in August - September (Britton 1980). Pakenham (1979) found it on Pemba in at least nine months (not April or May), and commonly in mangrove roosts for four or five months after the breeding season; but on nearby Zanzibar Island, where nesting has not yet been found, it occurs only from May to November. Also close by, it visits Dar es Salaam in March - August, and further south near the coast at Mikindani occurs only in July - August (Britton 1980), presumably on passage. In Tsavo East and Tsavo West and in the region to the north, flocks occur in February and March, and further inland the bird is a visitor from May to September, west to the Albertine Rift and north to Kidepo Valley. P.C. Lack and D.J. Pearson have noted (*in litt.*) that the Tsavo and east Kenyan bushland birds in February - March are in fresh plumage, leading them to suggest that the birds might be pre-breeding migrants bound for Somalia. The idea receives some support from Pearson's additional observation that these east Kenyan bee-eaters seem to prefer drier habitats, like the Somali ones (Archer

& Godman 1961), than do the birds found later in the year around Lake Victoria; perhaps the latter are from the wetter area (iv).

(iv) Egg-laying at Masambeti was in October, at Mana Pools in September, at Wedza in late October - early November, and at Fort Victoria in early December. Madagascar Bee-eaters are regular non-breeding visitors to the eastern Congo savannas from late April to August, and are passage migrants in Zambia and Malawi from late August to early October, mainly in September, and (less commonly) in April and May.

(v) On Mayotte egg-laying is in early November and in Madagascar in early September (once) and in October (often). The species has been seen on Mayotte in February (common), May, and August - November (common). On Madagascar it is present in all months and remains common in May - September (M. Nicholl, pers. comm.) when, it was formerly supposed, part of the population is wintering in Africa (data from Benson 1960 and Benson, Colebrook-Robjent & Williams 1976).

DISCUSSION

It is still impossible to draw firm conclusions about the status and migrations of *Merops superciliosus* in Africa. However, the above data for areas (iii) and (iv) are broadly consonant with some post-breeding dispersal west, and perhaps north, from area (iii) and west and north from area (iv), and with temporally and spatially more concentrated pre-nuptial migrations back again (unbroken arrows in Fig. 1) to essentially coastal breeding stations.

All populations of the Blue-cheeked Bee-eater *M. persicus* and the Oriental Blue-tailed Bee-eater *M. (s.) philippinus*, both very close relatives of *Merops superciliosus*, are highly migratory; in fact they are probably the most migratory of all bee-eaters except *M. apiaster*. It makes it likely that *M. s. superciliosus* in area (ii) is not quite as sedentary as was argued by Archer & Godman (1961). It also means that Malagasy birds may move in part to Africa for their non-breeding season as conventionally supposed; elsewhere, in the Red Sea for example, the superspecies readily crosses water. But there is no need to invoke migration from the Malagasy Subregion to explain adequately the picture of intra-African migrations, and since some evidence suggests that Madagascan Bee-eaters are sedentary in Madagascar it seems safer to put the idea of their crossing to Africa in obeyance until better evidence for it should arise.

ACKNOWLEDGEMENTS

I am grateful to P.L. Britton, B. Donnelly, M.P.S. Irwin and M. Nicholl and especially so to J.S. Ash for the provision of information, and to D.J. Pearson for reading and materially adding to a draft.

SUMMARY

Fig. 1 summarizes the distributional data assembled, and shows inferred pre-nuptial migrations of *Merops superciliosus*. Migration between Africa and Madagascar need not be invoked.

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(Received 5 May 1981)

SOME ADDITIONS TO THE FOREST AVIFAUNA OF THE UZUNGWA MOUNTAINS, TANZANIA

S.N. Stuart, K.M. Howell, T.A. van der Willigen and A.A. Geertsema

The Uzungwa Mountains are one of the most extensive highland regions in Tanzania, encompassing an area of some 23 000 km²; the highest peaks are around 2500 m. In Britton (1980) they are referred to either as 'Uzungwe', or the Iringa Highlands, while the Dabaga Highlands are part of the same area.

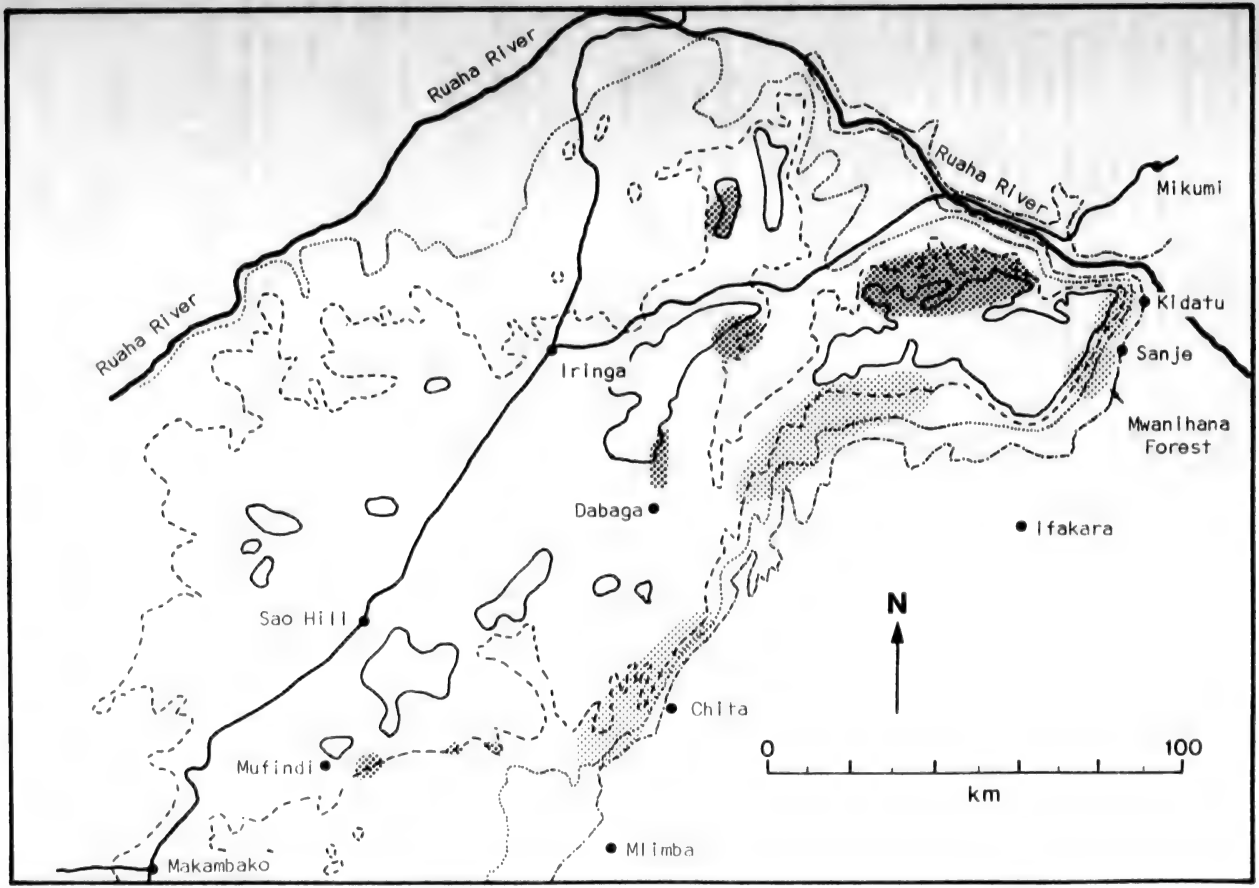
Compared with other mountains of eastern and southern Tanzania, the Uzungwa Mountains have been very poorly studied from a biological point of view. This fact is particularly emphasized by the discovery of a new and very isolated subspecies of the Crested Mangabey *Cercocebus galeritus* in late 1979 in the Mwanihana Forest, near Sanje (Homewood & Rodgers, in press). Ornithological work has been very limited, perhaps the most significant contribution being that of Bangs & Loveridge (1933). More recently, Ripley & Heinrich (1966, 1969) mention some interesting records from the Dabaga area which include the first records of the Iringa Ground Robin *Dryocichloides lowei* from the Uzungwa Mountains. However, no detailed account of the avifauna exists.

Fig. 1 shows the Uzungwa Mountains with the main settlements and forests. Like other mountain ranges in eastern Tanzania the Uzungwa Mountains have wet eastern and southern sides facing the Indian Ocean, and a drier area to the north and west. In the Uzungwa Mountains the very high rainfall area is restricted to the southeast scarp slope running approximately from Kidatu, south to Mlimba. The natural vegetation of this area is rain forest, covering a wide range of altitudes from 300 m to over 2000 m. The canopy of this forest rises to more than 40 m in places, as high as the forests of the Usambaras, Ngurus and Ulugurus. The plateau country, which encompasses most of the mountains, is considerably drier, especially to the north and northwest. Where forest does occur it is of a dry and scrubby type, often with a canopy below 20 m. It appears that most past ornithological work has been concentrated in these drier forests. Certainly Heinrich's work at Dabaga comes under this category. The scarp rain forests have, until very recently, remained virtually unstudied.

In order to at least partially fill the gap in our knowledge of the forest avifauna of these mountains, visits have been made to two previously unstudied forests in the last two years. In late August and early September 1979 SNS and TAvdW worked in Mufindi Forest, at 1800 m on the Brooke Bond-Liebig tea estate. This is an example of the dry plateau forests. In June 1980 AAG visited Mwanihana Forest Reserve on the steep scarp slope above Sanje village. This is an example of the scarp rain forests. In early January 1981 SNS and KMH also paid a visit to this locality. So far it has not been possible for any visits to be made to the higher part of the Mwanihana forest scarp, above

Fig. 1 (right). *Map of the Uzungwa Mountains.*
Contours: -·-·-·-·- *500 m,* ····· *1000 m,*
- - - - - - *1500 m,* ——— *2000 m;*
wet scarp forests; *dry plateau forests.*

Scopus 5: 46-50, June 1981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Mlimba
Makambako

1800 m. Most of the observations were made below 1500 m.

As a result of these visits a few tentative suggestions as to the affinities of the forest avifauna can be made. The scarp rain forest avifauna shows a strong similarity to the other rain forests in eastern Tanzania, especially those of the Ngurus and Ulugurus, and also of Mt Rungwe in Mbeya Region. The plateau forests show more similarities with the other dry montane forests, notably the Ukagurus and Mdando Forest in the Southern Highlands.

It is still too early to make a comprehensive list of the forest birds of the Uzungwa Mountains. The records given below refer to range extensions, of which the most important must be the White-winged Apalis *Apalis chariessa*. It is worth mentioning that the Mountain Buzzard *Buteo tachardus* was found to be common both at Mufindi and Mwanihana Forests. Dowsett & Dowsett-Lemaire (1979) confirm that a specimen from the Uzungwa Mountains (Bangs & Loveridge 1933) is correctly identified. This species has obviously been very under-recorded, not only in the Uzungwa Mountains, but also in many other mountain forests in Tanzania (see Turner 1980).

SPECIES LIST

Guttera pucherani Kenya Crested Guineafowl
This is fairly common in Mwanihana Forest up to at least 1500 m, a range extension to the southwest from the Ulugurus.

Columba delegorguei Bronze-naped Pigeon
Fairly common in forest both at Mufindi and Mwanihana, a considerable range extension to the southwest.

Apaloderma vittatum Bar-tailed Trogon
Recorded twice in Mwanihana Forest, partially filling a gap in the distribution between the Ulugurus and the Southern Highlands. The species has probably been overlooked in the Uzungwas.

Buccanodon leucotis White-eared Barbet
Recorded once in Mwanihana Forest. It is not mentioned in Britton (1980) from the Uzungwas, though a plot which may refer to Mwanihana Forest is marked in Snow (1978). However, it is possible that this plot refers to one of the nearby lowland forest patches, such as Magombera Forest. The Uzungwa birds are presumably referable to the race *leucogrammicum*, previously known from the Ulugurus and Mahenge.

Buccanodon olivaceum Green Barbet
Common in Mwanihana Forest up to at least 1800 m. The subspecific identity of these birds is unclear, *rungweensis, uluguruensis* and nominate all being possibilities.

Pogoniulus bilineatus Golden-rumped Tinkerbird
Common in Mwanihana Forest up to at least 1800 m, in the absence of the two green tinkerbirds, *P. leucomystax* and *P. simplex*. *Pogoniulus leucomystax* is recorded from the drier forests further west in the Uzungwas, including Mufindi, where *P. bilineatus* apparently does not occur, suggesting allopatry between these two species in these mountains.

Smithornis capensis African Broadbill
Common in Mwanihana Forest up to at least 1500 m. This appears to be the first record for the Uzungwa Mountains.

Oriolus chlorocephalus Green-headed Oriole
Very common in Mwanihana Forest up to at least 1800 m, a range extension southwest from the Ulugurus.

Andropadus virens Little Greenbul
Locally common in forest at Mufindi, and common in Mwanihana Forest. These records effectively fill an apparent gap in the distribution between the Ulugurus and Tukuyu (Southern Highlands).

Phyllastrephus flavostriatus Yellow-streaked Greenbul
Common in Mwanihana Forest to over 1500 m. Britton (1980) does not record this species from the Uzungwas, though there is a plot that may correspond to Mwanihana Forest in Hall & Moreau (1970). It is possible that this plot refers to a nearby lowland forest patch.

Turdus gurneyi Orange Ground Thrush
Records from Mufindi and Mwanihana Forest effectively fill the apparent gap in the distribution of this species between the Ulugurus and the Southern Highlands.

Apalis chariessa White-winged Apalis
A few, maximum four, of this very rare bird were seen clearly in a mixed species flock at 1100 m in Mwanihana Forest on 3 January 1981. They were in the top of the canopy, at least 30 m above the ground, moving very actively through the foliage, and seemed to be associating with a much larger number of the Black-headed Apalis *A. melanocephala*. Also in the flock were Green Barbet, Green-headed Oriole, Grey Cuckoo Shrike *Coracina caesia*, Square-tailed Drongo *Dicrurus ludwigii*, Yellow-streaked Greenbul and Dark-backed Weaver *Ploceus bicolor*. Later on the same day what was almost certainly this species was seen in a similar mixed species flock at 1500 m. These records represent a range extension from the Uluguru Mountains, and Mwanihana Forest becomes the third locality from which this species is known in East Africa. It has, however, not been recorded in Tanzania since 1938 (Moreau 1940), nor in East Africa as a whole since 1961 (Britton 1980). The Mwanihana Forest birds are presumably referable to the race *macphersoni*.

Apalis melanocephala Black-headed Apalis
Common in Mwanihana Forest to over 1500 m. These birds could be either the race *moschi* or *muhuluensis*. At higher altitudes in Mwanihana it may be replaced by the Chestnut-throated Apalis *A. porphyrolaema*, as is the case in the Uluguru and Nguru Mountains. Further west in the Uzungwas, including Mufindi, it is certainly absent with both *A. porphyrolaema*, and the Brown-headed Apalis *A. alticola* occurring instead.

Camaroptera brachyura Grey-backed Camaroptera
Fairly common in Mwanihana Forest up to at least 1500 m, especially in natural clearings. One bird caught in a mist net was found to be of a green-backed race, presumably *fugglescouchmani* previously known only from the Ulugurus and Mahenge. No previous records of this species have been traced from the Uzungwas, but if there are any they are probably of the grey-backed race *intercalata* which has been recorded from Iringa Region (Britton 1980) and may occur on the plateau.

Macrosphenus kretschmeri Kretschmer's Longbill
Present in small numbers in Mwanihana Forest, probably up to 1500 m, being especially partial to natural clearings. This represents an extension of the range of the nominate race southwest from the Ulugurus.

Phylloscopus ruficapilla Yellow-throated Woodland Warbler
A few were noted in Mwanihana Forest, an extension of the range (presumably of the race *minulla*) southwest from the Ulugurus.

Batis soror East Coast Batis
A few in Mwanihana around 600 m, extending the range inland.

ACKNOWLEDGEMENTS

SNS and TAvdW would like to thank the staff of Brooke Bond-Liebig Ltd., especially Mr J. Niblett, for helping us during our stay at Mufindi. SNS, KMH and AAG would like to thank Dr W.A. Rodgers for making our visits to Mwanihana Forest possible. We would also like to thank Dr Rodgers for his helpful comments on a draft of this paper.

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S.N. Stuart, Box 44, Soni, Tanzania, K.M. Howell, Box 35064, Dar es Salaam, Tessa A. van der Willigen, Box 9543, Dar es Salaam and *Aadje A. Geertsema, Box 1501, Karatu, Tanzania.*

(Received 1 April 1981)

CORRECTION

In the paper by Short and Horne, Vocal and other behaviour of Stierling's Woodpecker *Dendropicos stierlingi* (*Scopus* 5: 5-13) we regret that the names of C. Chappuis, R. Stjernstedt and C.J. Vernon were omitted from the Acknowledgements section on p. 13. *Ed.*

SHORT COMMUNICATIONS

STORK AND RAPTOR MIGRATION IN SOUTH NYANZA, KENYA During the morning of 17 March 1981, just to the south of Homa Bay, South Nyanza, Kenya (0°28'S, 34°27' E), we watched a large scale migration of storks and raptors.

At 10:15 hrs, a lucky glance at the sky overhead revealed four dense flocks making use of thermal currents, totalling at least 2500 birds. One huge circling mass alone contained an estimated 1000 individuals.

The birds were predominantly White Storks *Ciconia ciconia*, accompanied by very subordinate numbers of other species. Afrotropical storks were represented by a separate flock of 90 Abdim's *Ciconia abdimii*, and a straggling group of four Open-billed Storks *Anastomus lamelligerus*.

Raptors were seen at first moving singly or in loose groups, and included one Tawny Eagle *Aquila rapax*, two Lesser Spotted Eagles *A. pomarina*, one Steppe Eagle *A. nipalensis*, and a total of 20 Steppe Buzzards *Buteo buteo vulpinus*. In addition to these ungrouped birds, a flock in a thermal over us at 10:35 hrs contained singles of Lesser Spotted Eagle, Wahlberg's Eagle *A. wahlbergi*, Booted Eagle *Hieraaetus pennatus*, Steppe Buzzard and Honey Buzzard *Pernis apivorus*. It is quite possible that we missed other raptors within or associated with the large soaring masses of storks, and our counts in general must be considered minima. We may have missed the start of the passage, for on the following morning, which was similarly hot and sunny, we noted at nearby Rongo that Black Kites *Milvus migrans* started using the thermals at 09:30 hrs, so that we could have missed the initial 30-45 min of the previous day's movement.

The birds had moved on out of sight by 10:40 hrs, although occasional Wahlberg's Eagles and Steppe Buzzards were still in the vicinity around 11:00 hrs. Three other parties of birds seen later on the same day were probably also associated with this northwards movement. Later in the morning, about 16 km south of the above sightings, two Hobbies *Falco subbuteo* were moving north together. In the afternoon, about 15 km west of Migori (1°04'S, 34°28' E), separate groups of 70 and 700 Abdim's Storks were soaring in thermals.

These migrants may well have been grounded while on passage the previous day by heavy rain in and to the south of the Homa Bay area. With the exception of the two afternoon flocks of Abdim's Storks, they were all drifting steadiliy to the north-northeast, presumably about to pass over the narrow Winam Gulf. The path that they were taking was thus parallel to, and just to the west of, the Tarime-Wire Hill-Ng'iya line, which Britton (1980) notes as an established migration route for Steppe Buzzards.

Britton & Britton (1976) and Britton (1980) record northwards migration of White and Abdim's Storks around the eastern edge of Lake Victoria in spring, but in maximum flocks of only 700 and 250 individuals respectively; P.L. Britton (pers. comm.) considers the numbers reported here to be exceptional.

There appear to be no previous definitive Nyanza records of Lesser Spotted Eagle or Honey Buzzard; Booted Eagle and Steppe Eagle occur on passage in Nyanza only rarely (Backhurst *et al.* 1973, Britton & Britton 1976, Britton 1980).

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Adrian D. Lewis, Department of Geology and *D.J. Pearson, Department of Biochemistry, Box 30197, Nairobi*

Scopus 5: 51, June 1981 Received 15 May 1981

BREEDING OF THE SPUR-WINGED GOOSE *PLECTOPTERUS GAMBENSIS* IN ETHIOPIA
The Spur-winged Goose, although locally abundant in Ethiopia, is not nearly so widespread as indicated by Urban & Brown's *Checklist* (1971), and there are now four breeding records for the country. The distribution of this goose is confined to two areas, one in central Ethiopia extending from Lake Tana (12°00'N, 37°20'E) in the north to the Rift Valley as far south as Awasa (7°03'N, 38°27'E), and eastwards to Awash Park (9°N, 40°E); the other is along the Baro River from Gambela (8°15'N, 34°38'E) westwards to the Sudan border at Jokau (8°22'N, 33° 47'E).

The species is present in every month of the year, often in flocks of up to 200-300 birds (although there are no reports of flocks in excess of 50 birds in May, June, November and December). Since the publication of the *Checklist* (*op. cit.*), at which time breeding was unknown, there have been four records:

1. Lake Abiata (7°41'N, 38°37'E), Rift Valley, 9 goslings *c.* 2 weeks old on 9 October 1971 (pers. obs.).

2. Bahar Dar (11°35'N, 37°25'E), Lake Tana, 5 goslings about two-thirds grown on 27 December 1971 (pers. obs.).

3. Lake Zwai (8°05'N, 38°50'E), a young bird hand-reared from one of 11 chipping eggs found on the north shore in mid October 1976 (Alamargot 1980).

4. Awash Park area. (I do not have the original reference for this record shown on the Ethiopian Distribution Scheme map.)

The first two and the last of these breeding areas, together with other sightings of non-breeding birds are shown on Snow's (1978) map.

The paucity of breeding records indicates that this species is merely an irregular breeder in Ethiopia. It has a wide range within the Afrotropical Region, and breeds in many areas within this range to as far north as 17° on the Niger and in Senegal in West Africa, south to the Cape. In Ethiopia, eggs are laid in August - September towards the end of the big rains when the country is at its wettest.

Although unknown in Ethiopia east of the Rift Valley, it occurs in Kenya, where it is widespread, as a locally numerous resident breeder and wanderer from 3000 m down to the coast (Britton 1980, Snow 1978). It is unknown in Somalia, but may be expected to occur in the southern wetlands.

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Scopus 5: 52, June 1981 Received 2 March 1981

A BREEDING RECORD FOR CASSIN'S HAWK EAGLE *HIERAAETUS AFRICANUS* Cassin's Hawk Eagle is perhaps one of the least known of Africa's large raptors, being restricted to tropical forests where observation of the species is difficult. Though its distribution ranges from West Africa, across the equatorial forest belt, and into the forests of western Uganda (Bannerman 1953, Mackworth-Praed & Grant 1957, Williams 1967) it appears that there are no breeding records

for this species (Brown 1970, Brown & Britton 1980, G.R. Cunningham-van Someren, pers. comm.).

While conducting field studies on primate ecology in the Kibale Forest of western Uganda (0°13' to 0°41'N and 30°19' to 30°32'E) I recently had an opportunity to observe a pair of Cassin's Hawk Eagles at the nest, the details of which are given below.

Nest construction was initiated on or about 3 October 1980 when I first saw an adult bird wildly flapping its wings while hanging upside-down from the terminal branchlets of a *Parinari excelsa*, eventually causing the branchlet to break, which the bird subsequently departed with. Both adult birds continued to return to this tree and a neighbouring *Aningeria altissima*, breaking off and carrying away branchlets for the better part of the day. The nest platform itself was located at a height above the ground of approximately 27 m (visual estimate) in a mature *A. altissima*. By 19 October the nest structure was still transparent from below, appearing to be about a third complete. Nest construction was completed sometime in the interval 4 - 18 November. When fully complete, the dimensions of the nest structure were approximately 1.0 m in diameter and 0.25 m in vertical section (visual estimate, using the known length of *Aningeria* leaves for scale). The nest was roughly circular and in general resembled a typical raptor 'stick' nest. Incubation was first detected on 4 December and continued until 8 January 1981 when this nesting attempt failed, apparently due to the disappearance of one of the adult birds.

The nest tree was located in a section of Kibale Forest which had been extensively felled for timber between September 1968 and April 1969. Accordingly, extensive and numerous breaks in the forest canopy exist, and whether the degraded nature of this habitat had any influence on the timing or end result of this nesting attempt is unknown. It should be noted though that a pair of Crowned Eagles *Stephanoaetus coronatus* were nesting simultaneously in a tree only 200 m from the Cassin's Hawk Eagle nest and they fledged an eaglet successfully.

During the course of these observations, the Cassin's Hawk Eagles were heard to give two distinctive types of vocalization. One is a gull-like two-noted call which may be rendered as *kee-wee*. It was noted under various circumstances (soaring over the forest, perched, etc.) and was the call most frequently heard. A second vocalization was heard only in the vicinity of the nest, and only in those instances in which a food exchange was taking place between the male and the incubating female. I have rendered this call as *wee-wee-wee.....ree-ree*, repeated rhythmically, though rarely the first part of the call would be abbreviated to only one or two notes. The call appeared to be given only by the male and in response the female invariably left the nest, returning shortly with a food item. This contrasted sharply with the neighbouring Crowned Eagles, in which the female would vocalize vigourously upon sighting the male in the vicinity of the nest, and the male invariably brought food items directly to the nest. It is hoped that the description of the second call of Cassin's Hawk Eagle will facilitate the location of other nests in the future.

ACKNOWLEDGEMENTS

I have benefited greatly from the correspondence of G.R. Cunningham-van Someren (National Museums of Kenya). My field studies in the Kibale Forest are supported by the New York Zoological Society and the World Wildlife Fund. I also wish to thank the President's Office of Uganda, Uganda National Research Council and Uganda Forest Department for permission to conduct field work in the Kibale Forest.

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Scopus 5: 52-54, June 1981 Received 1 April 1981

AYRES' HAWK EAGLE *HIERAAETUS DUBIUS* IN ETHIOPIA AND SOMALIA Throughout its range in Africa Ayres' Hawk Eagle is regarded generally as a rare bird. Undoubtedly its scarcity, or apparent scarcity, is partly due to difficulties in field identification. *Hieraaetus dubius* is one of a group of small eagles, which in some species are mainly brownish in some stage of their plumage sequence, and requiring, in our present state of knowledge, great care and experience in their identification in the field. Recently, as notable advances have been made in establishing diagnostic recognition characteristics, some of these species are being identified much more frequently, resulting in a better understanding of their distribution and abundance. However, much remains to be discovered, particularly with regard to birds in intermediate, and often indeterminate, plumages, and for most observers (including myself) there will still be a rather large proportion of unidentified birds. The situation is complicated further because some species are dimorphic in having both dark and light forms, and others show much variability within any one plumage phase.

Species from which *H. dubius* has to be distinguished in Ethiopia and Somalia, assuming that the observer has narrowed down the identification to this 'group of four', are immature and dark phase Booted Eagles *H. pennatus*, sub-adult African Hawk Eagles *H. spilogaster*, and Wahlberg's Eagles *Aquila wahlbergi*. I have critically reviewed my own notes resulting from observations on smaller eagles throughout Ethiopia in the years 1969-1977, and exchanged a valuable correspondence on the subject of their identification with the late Dr Leslie Brown. As a result, a record of *H. dubius* has been discarded, and as this affects the distribution map in Snow (1978) it is listed here, together with all other records which are definitely assigned to *H. dubius*, in both Ethiopia and Somalia.

One plumage character given for *H. dubius* by Brown & Amadon (1968) led to both my misidentification of one *H. pennatus* as the aforementioned *H. dubius*, and also to my inability to identify other birds which are now recognizable as *H. pennatus*. From these authors' description of the field characters of *H. dubius* I assumed earlier that any eagle of the 'group of four' with white shoulder patches had to be this species. Later I came to realize in Somalia, where *H. pennatus* is common, that quite a large proportion of this species also possessed white shoulders. On acquiring a copy of Porter *et al.* (1978) this point was confirmed, so that white shoulder patches on a bird within the 'group of four' could no longer be regarded as a monospecific diagnostic character. Nevertheless, its presence was still of value in eliminating *A. wahlbergi* and immature *H. spilogaster* from consideration. The white shoulder patches, although small, are visible from above or head-on for a considerable distance in bright light.

ETHIOPIA

Urban & Brown (1971) summarize the situation of *H. dubius* in Ethiopia, as being uncommon to rare in the South-East Highlands, West Ethiopia and South Ethiopia, and possibly in the Rift Valley, but its range is uncertain; it is

said to occur at 300-3200 m in a variety of woodland, including lowland riverine *Ficus/Acacia*, lowland subtropical humid forest, Olive/*Podocarpus*/Juniper forest, Juniper/*Podocarpus* woodland, and probably combretaceous woodland. I have traced two published records from Ethiopia, and have five subsequent records of my own:

1. Burca (9°16'N, 41°17'E), in the South-East Highlands (Moltoni & Ruscone 1942).

2. Godare (7°18'N, 34°58'E), in West Ethiopia, one on 10 February 1969 (Brown & Urban 1970).

3. 7 km east of Jimma (7°40'N, 36°50'E), in the West Highlands, one on 11 January 1972. A dark bird with conspicuous white shoulder patches, pale throat, darker blobs on dark underparts, three or four bands on tail.

4. 21 km east of Ambo (8°59'N, 37°52'E), in the Western Highlands, on 10 June 1975. A pale bird with conspicuous white shoulder patches, barred tail, primaries and secondaries.

5. Bulcha Forest (6°25'N, 38°11'E), in the Rift Valley, two on 7 December 1976. Two similar dark birds together, feeding on a White-bellied Go-away Bird *Corythaixoides leucogaster*, of which only one had white shoulder patches; remiges and tails boldly barred below.

Two other birds, one at Gambela (8°15'N, 34°35'E) in West Ethiopia on 24 July 1971, and another at Koka (8°27'N, 39°06'E) in the Rift Valley on 23 January 1977, were almost certainly this species.

The record of mine in Snow (1978) at Aseita (11°33'N, 41°26'E) should be deleted as I have now clearly identified it as *H. pennatus*.

SOMALIA

Ayres' Hawk Eagles are apparently confined to a restricted area of riverine forest along the Juba River in southern Somalia, whence there are three records, of which the first two have been published:

1. Hanole (*c.* 0°25'N, 42°43'E), 1 July 1901 (Erlanger 1904, Hilgert 1908, Zedlitz 1914-1916, Moltoni 1936, Snow 1978).

2. Serenli (2°26'N, 42°17'E), January 1923 (van Someren 1929, Moltoni 1936, Snow 1978).

3. Gelib (= Jilib) (0°29'N, 42°46'E), a sub-adult on 23 February 1980 (JSA and J.E. Miskell). A pale bird with barred tail, secondaries and inner primaries from below; white underparts, streaked on breast and spotted on flanks.

Ayres' Hawk Eagle is at present only known as a rare bird in Ethiopia, where the seven records are scattered over a wide area of the western and southern parts of the country south of 10°N and west of 41°E. The three records from Somalia are from the Juba River. The respective distribution maps' squares are, Ethiopia: 58B, 69A, 81B, 97C, 109A; Somalia: 60C, 71D.

ACKNOWLEDGEMENT

I am grateful to the late Dr L.H. Brown for the trouble he took over answering my queries about the field identification of *Hieraaetus* eagles.

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Scopus 5: 54-56 **Received 18 April 1981**

SOME OBSERVATIONS ON THE BAT HAWK *MACHEIRAMPHUS ALCINUS* I have watched a Bat Hawk in Langata, Nairobi between 7 and 24 November 1980; some of the more noteworthy observations are given below:

7 November: I saw the Bat Hawk flying both in the morning and afternoon. The bird resembled a large falcon; it made fast circles about 10 m above the ground. The appearance, flight-style, irregular dull brown markings of the underside and its large size led me to think at first that it was a Saker Falcon *Falco cherrug*. However, the lack of barring on the tail and wing distinguished it as a Bat Hawk.

10 November: the Bat Hawk was flying round at about 60 m when it was attacked by a Lanner Falcon *Falco biarmicus*. The Lanner was evidently disturbed, as it was 'hecking' loudly when it closed in. The Bat Hawk was flying at a slower rate yet easily avoided the Lanner's half-hearted stoops. After the Lanner had left, the Bat Hawk landed on a tree and I was able to confirm the original identification.

16 November: at 17:00 hrs, in bright daylight during a break in a storm, I saw it leave its favorite tree, fly around, and reappear with a bird (probably a swift *Apus* sp.) in its foot. It was being chased by a Hobby *Falco subbuteo*, but, before landing, the Bat Hawk swallowed the prey.

17 November: during heavy rain a dark phase Eleonora's Falcon *Falco eleonorae* was occupying the Bat Hawk's habitual perch; on the approach of the Bat Hawk the falcon flew away.

18 November: again, during heavy rain, the Bat Hawk was seen to chase a Steppe Buzzard *Buteo buteo vulpinus* but took no notice of 20-30 Eastern Red-footed Falcons *Falco amurensis* which were hawking termites overhead. Three days later it chased a Black Kite *Milvus migrans* and attempted to strike it.

Simon Thomsett, c/o Wilderness Trails, Private Bag, Isiolo, Kenya
Scopus 5: 56, June 1981 **Received 25 February 1981**

RED-FOOTED FALCON *FALCO VESPERTINUS* IN TSAVO On 26 April 1980, at about 07:00 hrs, I encountered a large group of falcons on the edge of low cloud near Kamboyo, Tsavo National Park (West). Well over 100 birds, most of them Hobbies *Falco subbuteo*, moved slowly north around and past me, feeding as they went. I was aware of a few smaller birds which were not Hobbies, but only three such were seen close enough for identification, a male Lesser Kestrel *Falco naumanni*, a female Eastern Red-footed Falcon *F. amurensis*, with dark slaty upperparts, cap and moustaches, heavily streaked white underparts and red feet, and an adult male Red-footed Falcon. The last of these, slightly smaller than an accompanying Hobby, flew past me in leisurely fashion, and was seen in good light through 10 x 40 binoculars at a minimum distance of about 40 m. It was entirely dark grey on the body, apart from a rusty red patch on the thighs and undertail area. The underwing was clearly seen, and was also entirely dark grey. The feet were red.

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Scopus 5: 57, June 1981 Received 10 March 1981

RED-FOOTED FALCON *FALCO VESPERTINUS* AT NAIROBI An immature male Red-footed Falcon was seen by myself and Dr E. Muller on the eastern grasslands of Nairobi National Park at about 09:00 hrs on 3 May 1980. Initially it was seen perched on acacias with a pair of Lesser Kestrels *Falco naumanni*, when good views were obtained in direct sunlight for about 4 min, at ranges decreasing from about 100 to 30 m, and using 10 x 40 and 8 x 60 binoculars. The bird was then deliberately flushed to show the wing plumage, and together with the Lesser Kestrels made off in a leisurely manner northwards.

The bird was the same size as the Lesser Kestrels. The upperparts were all dark grey, with a dark cap and black moustaches on a white face. The throat was white, the upper breast unmarked rufous, and the rest of the ventral torso unmarked grey except for dull red thighs and vent. The underwing was all dark grey. The red of the thighs was difficult to see except at close range in good light. Bill and foot colour were not noted.

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Scopus 5: 57, June 1981 Received 10 March 1981

[The above constitute only the third and fourth records for Kenya. Ed.]

A SECOND ZAMBIAN RECORD OF THE LITTLE RINGED PLOVER *CHARADRIUS DUBIUS*
On 27 September 1980 I saw a Little Ringed Plover at Makoma Sewage Ponds, Luanshya, Zambia; this was the same locality that produced the first Zambian record of the species (Taylor 1980). Colour transparencies (now lodged, with full field notes, at the British Museum (Natural History), Tring) were kindly examined by J.H. Marchant who confirms the identity as a first-autumn *C. dubius*.

These two records from Luanshya suggest that this species may have been overlooked in Zambia in the past, and it may possibly reach the country regularly. Although it is described as regular in Tanzania only in the northeast (Britton 1980), in view of the Zambian records it may occur more frequently in central and southern Tanzania than has previously been supposed.

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P.B. Taylor, Box 87336, Mombasa, Kenya
Scopus 5: 57, June 1981 Received 17 January 1981

SOME NOTES ON THE RED-CHESTED CUCKOO *CUCULUS SOLITARIUS* IN TANZANIA In view of the recent interest in the status and distribution of the Red-chested Cuckoo in East Africa, and in particular in Tanzania (Howell, Msuya & Stuart 1980, Britton 1980a), some notes on the species made between 1930 and 1962 may be worth recording, expanding a previously published short note (Fuggles-Couchman 1939).

I agree with Britton (1980a) that the Red-chested Cuckoo is a bird of wide altitudinal and regional distribution in Tanzania. In the old Eastern Province it occurred near sea level; in the Kilombero Valley (Rufiri, *c.* 300 m); generally throughout the intermediate levels of Morogoro and Kilosa Districts at 500-600 m, up to about 1900 m at Tchenzema, in the western Uluguru Mountains.

In the old Northern Province, of Moshi, Arusha, Masailand and Mbulu Districts, it ranged from the bottom of the Rift Valley at Engaruka (*c.* 1000 m), to over 2000 m on Mt Hanang and at Kilema and Rongai on Mt Kilimanjaro; in the Crater Highlands it was found at 1800 m at Kavenjiro. I have also one record from Bukoba District, Lake Province, at *c.* 1300 m on 15 May, when it was in full song.

The Red-chested Cuckoo was more catholic in its choice of habitat than is suggested by Mackworth-Praed & Grant (1957). While it frequented forest edges at higher altitudes, it was to be found widely distributed in miombo woodland, *Acacia pallens* - *Combretum* woodland and *Combretum* bushland at intermediate levels. It was also a bird of well-treed townships and cultivated areas such as at Morogoro and Kilosa and round Mts Meru and Kilimanjaro. But I never met it in the dry acacia scattered tree grasslands, and its appearance at Engaruka, in an arid area of the Rift Valley, could be accounted for by the existance of a narrow strip of evergreen trees and bush along the stream at the bottom of the Rift wall.

The song was heard over a long season in Morogoro, but the period could have been prolonged by the arrival of migrants. In 1937-38 the familiar call was first heard in Morogoro township on 27 October 1937, although it had been heard already at Tchenzema on 9 October. The last date it was heard at Morogoro was 26 June 1938. This date was later than that given in Fuggles-Couchman (1939), the earlier date having been the latest up to the time of submission of the MS. There was a high frequency of calls during November to early February, falling off into April and early May, but still usually heard on most days. Song then became increasingly noticeable towards the end of May. In the Northern Province first dates varied from 30 October at Monduli to 18 November on Mt Kilimanjaro, and the latest date recorded was 6 June on the western slopes of Kilimanjaro.

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 Received 19 March 1981

THE IDENTITY OF TWO *FICEDULA* FLYCATCHERS RECENTLY COLLECTED IN KENYA Britton (1980a) has pointed out that there appears to be no entirely satisfactory record of the Pied Flycatcher *Ficedula hypoleuca* for East Africa. Confusion has arisen in the past because of the close similarity of this species to the Collared Flycatcher *F. albicollis,* and in particular its eastern race *semitorquata*. Some authors (e.g. Mackworth-Praed & Grant 1960) have actually regarded *semitorquata* as a race of *hypoleuca* rather than of *albicollis,* while others (e.g. Voous 1977) have accorded *semitorquata* specific rank.

Individuals recently claimed in East Africa as *hypoleuca* have included adult males seen in the field and adult female/first year birds examined in the hand. From the descriptions available, all these birds could well have been *semitorquata*.

I have been able to examine two Kenya specimens in the National Museum, Nairobi, collection which were originally assigned to *hypoleuca*. Both are first year birds, one collected at Kakamega on 24 December 1970 and the other at 2550 m on Mt Elgon on 16 January 1976. I have compared these two birds with a Nairobi Museum specimen of nominate *albicollis,* a first year bird identifiable by the white bases of the hindneck feathers, which was collected at Ng'iya on 2 October 1972. I have also compared all these Nairobi Museum birds with a series of *hypoleuca,* nominate *albicollis* and *semitorquata* in the British Museum (Natural History) study collections at Tring.

Adult male *semitorquata* is readily distinguishable from *hypoleuca* by the greater amount of white in the wing, including a more extensive 'speculum', formed by the bases of the inner primaries, and an additional narrow bar formed by the tips of the median coverts (see, for example, Svensson 1975). It is typically much blacker above than *hypoleuca* and often shows a white half collar and a greyish rump; with good views these characters can be seen in the field. Adult female and first winter *semitorquata* resemble nominate *albicollis* in colour, being grey-brown above rather than the olive-brown colour of *hypoleuca*. Like nominate *albicollis,* they also show more white in the wing than female/first winter *hypoleuca,* with a broad bar formed by the greater covert tips and secondary bases, broad white tertial edges, and a small visible speculum formed by the bases of the inner primaries, which is typically hidden by the primary coverts in female/first winter *hypoleuca*.

In the hand, wing formula would also appear to be a useful character in many birds. I noted the position of the second primary tip relative to that of the fifth in British Museum specimens, and numbers of birds in various categories were as follows:

	P2 < P5	P2 = P5	P2 > P5
Ficedula hypoleuca	46	4	1
Ficedula a. albicollis	3	11	36
Ficedula a. semitorquata	5	19	20

In *hypoleuca,* the second primary was typically 2-3 mm shorter than the fifth, and only in *albicollis* (both races) was it commonly longer, or even equal.

The Nairobi Museum birds from Kakamega and Mt Elgon match specimens of *albicollis* as regards colour of upperparts, being paler and greyer than any *hypoleuca* examined. One, the Elgon bird, had as much white in the wing as the Nairobi Museum Ng'iya *albicollis,* and both had a small visible speculum in the primary bases extending back to about level with the primary tips. The Elgon bird, like the one from Ng'iya, had the second primary equal to the fifth; in the Kakamega bird it was marginally (< 1 mm) shorter.

Thus, judging mainly by the colour of the upperparts, but also taking into account the visible primary speculum, the amount of white in the wing generally, and the length of the second primary, I would assign both the Kakamega and Elgon specimens to *semitorquata*.

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I am grateful to I.C.J. Galbraith for facilities afforded me at the British Museum (Natural History) and to G.R. Cunningham-van Someren for the loan of material from the National Museum, Nairobi.

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Scopus 5: 59-60, June 1981 Received 10 March 1981

A RECORD OF THE COLLARED FLYCATCHER *FICEDULA ALBICOLLIS* FROM NAIROBI Britton (1980a) summarizes the status of *Ficedula* flycatchers in East Africa. For Kenya, the only definite records of the Collared Flycatcher are of an adult male at Mara River on 3 March 1973, referable to the eastern race *semitorquata*, a female/first winter male at Ng'iya on 2 October 1972 and the Kakamega and Mt Elgon birds assigned to *semitorquata* by Pearson (1981). A number of other *Ficedula* records from Kakamega Forest, Mt Elgon, Mau Narok and Nairobi are indeterminate (Britton 1980a).

At noon on 16 November 1980 I located a female/first autumn male *Ficedula* around tall trees in my garden in Spring Valley, Nairobi. There had been heavy rain in the night and several other Palaearctic migrants were also visible. The *Ficedula* was intermittently in view for 30 min as it flitted about in typical flycatcher fashion in the open tree canopy. It also climbed on slanting trunks like a treecreeper *Certhia* sp., and twice chased off and mobbed single Red-eyed Doves *Streptopelia semitorquata*. It was watched through 10 x 40 binoculars, in good light, at ranges between 30 and 50 m.

The upperparts were unmarked grey-brown, with a definite paler grey patch on the rump visible in direct sunlight. There was no hint of a paler collar, and no white on the frons. The closed wing was dark brown or blackish, with a broad white bar in the region of the greater covert tips and prominent white edges to the tertials. The dorsal tail surface was also dark brown or blackish. The eyes, legs and bill were dark. The chin and throat were whitish above a very pale greyish breast that merged *via* very diffuse streaks to an unmarked white belly and vent. The bird was silent.

In view of the grey tone to the upperparts, the pale rump and the large amount of white in the wing, I identified the bird as a Collared Flycatcher rather than a Pied *F. hypoleuca*. The absence of any visible pale neck collar despite the excellent views obtained would suggest that the bird was of the eastern race *semitorquata*.

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SCOPUS

SURVIVAL AND INTERCOLONY MOVEMENTS OF WHITE-BROWED SPARROW WEAVERS *PLOCEPASSER MAHALI*

Nicholas E. Collias & Elsie C. Collias

From 17 March to 17 June 1976, we ringed 45 White-browed Sparrow Weavers *Plocepasser mahali* with individual combinations of coloured rings and, in some cases, with aluminium rings as well, in the Samburu-Buffalo Springs Game Reserve, Kenya; 26 in seven colonies at the Samburu Game Lodge area and 19 in four colonies near the Buffalo Springs bandas. The natural vegetation is largely acacia wooded grassland. A map showing the location of 13 nesting colonies at Samburu has been published with details of behaviour (Collias & Collias 1978a).

SURVIVORSHIP

Each colony had its nests in an acacia tree. During 6-12 April 1978 (Collias & Collias 1978b) and again from 6-10 September 1980 we returned to the two study sites to look for surviving individuals. In April 1978 we found 21 (47 per cent) of the colour-ringed birds still present after two years. None of the young fledged during the breeding season of 1976 apparently survived these two years, and all but one disappeared within three months of age. In September 1980 we found 11 birds (24 per cent) of those ringed in 1976, still present after a period of just over four years. The birds had the same combination on both legs and colour ring loss was not serious during the first two years (Collias & Collias 1978b), while enough rings persisted so that all but one survivor could be identified in 1980. The high survivorship minimized the importance of ring loss.

We found that 21 of 43 birds ringed as adults in 1976 survived the first two years, and were still present in the study area, while of these 21 survivors, 11 survived to September 1980. If the probability of an individual dying during any one month is q then the probability of surviving one year is $(1-q)^{12}$. From this formula (R. Vance, pers. comm.) we calculated the average annual survival. The annual survival of birds ringed as adults in 1976 averaged 70 per cent during the first two years and 77 per cent from April 1978 to September 1980. These figures are rather similar to the figure for adult annual survival for *P. mahali* found by Lewis (1980) for two years in mopane woodland in northeast Zambia of 74 per cent and 69 per cent, and indicate high survival rates for adults in this species. Like ourselves, Lewis checked for movements of colour-ringed birds beyond a peripheral zone of colonies surrounding the study area and also found very little, if any, such movement, indicating that disappearance of birds was probably largely, if not entirely,

due to mortality rather than to emigration. We checked for ringed birds in 14 neighbouring colonies 50-150 m from the ringing sites, and all were unringed except for movement of ringed birds one to two colonies away from a ringed colony. We were generally able to census all the birds within a colony within one hour, but repeated the census in doubtful cases.

MOVEMENTS AND RESIDENCE

The birds reside at their colonies the year round, and defend a group feeding territory about 50 m in diameter around the acacia tree in which their nests are located. In 1978, after two years, 11 of 20 colour-ringed survivors had moved from their original home to an adjoining territory (7 birds), or to a colony only two territories removed (4 birds), while the remaining nine still lived in the same colonies. But in 1980, nine of the 11 survivors from birds ringed in 1976 still resided on the same territories as in 1978, and only two birds had moved to an adjacent territory. It would appear that attachment to a given colony became firmer after two years, while more shifting took place during the first two years after being ringed as adults.

Male YO was found in the same colony in 1976, 1978 and 1980, and each year appeared to be the most dominant bird in this colony. In a neighbouring colony, Male AY was the most dominant bird in 1976 and 1978, but had disappeared by 1980, his place as dominant male being taken by Male AB. Male AB was originally ringed two territories away in 1976, and he circulated between three different colonies in 1978 when he slept in the colony adjoining the one in which he was found in 1980. Male BB was repeatedly and almost constantly attacked by the dominant male of the colony in which he was ringed in 1976, and BB eventually left this colony for another in which he was found in both 1978 and 1980.

In each colony of *P. mahali* there was only one brood female who did all the incubating and most of the feeding of the young. Female AA left her home colony for another colony two territories removed in which she was found to be the brood female in both 1978 and 1980. In 1978, on the same day as she was incubating, Female AA was seen to feed nestlings in another colony two territories away. In that colony, Female GR became the brood female, after the original brood female of 1976 disappeared, and Female GR was apparently the brood female both in 1978 and 1980, though not in 1976 (although she was then a colony member).

COLONIES AND POPULATION DENSITY

Territorial boundaries remained essentially the same, with few exceptions, in some 27 colonies observed over the period of 4½ yr, despite turnover of most of the population. Thus, territorial boundaries were traditional, and their locations survived the individuals composing the colonies. The same trees were often used in boundary disputes between neighbouring groups in 1976, 1978 and 1980.

Between 1976 and 1978, one colony at Samburu Lodge became extinct, apparently because of human disturbance, while one new colony appeared. By 1980, the colony that had become extinct was replaced by one in a tree next to the original colony tree. The birds prefer isolated trees for their nests. At Buffalo Springs, between 1976 and 1978, the birds of one colony moved their nests over to another tree about 12 m away after the canopy of the original colony tree and that of two adjoining trees grew to overlap.

The strong territorial behaviour of *P. mahali* appears to exert considerable stabilizing influence on population density, but at Samburu there was an increase in population size of over 40 per cent between 1976 and 1980. In 18 Samburu colonies, in April 1976, April 1978 and September 1980, we counted in all 88, 110 and 126 adults and fledged young, respectively. The average number

of adults per colony in each of these three years was 5, 6 and 7 respectively. The year 1976 was relatively dry and survival of the young was generally poor. Most breeding takes place during the rains, but some young may be raised even during the dry season. In September 1980, towards the end of the long dry season, we saw three fledged young at the Samburu Lodge site and one at the Buffalo Springs bandas area.

To summarize: 1) Over a period of about 4½ yr, *P. mahali* populations showed a high annual adult survival, and the population density and average colony size increased by about 40 per cent. 2) The birds are sedentary and the location of colony trees and of territorial boundaries generally outlast the life of the individuals composing the populations. 3) About half the ringed birds moved to neighbouring or other nearby colonies during the first two years after ringing, but the great majority remained in the same colonies from the second to the fourth year.

DISCUSSION

One of the nearest relatives of *Plocepasser* is *Pseudonigrita*. In April-June 1978 we colour-ringed 56 individuals of the Grey-capped Social Weaver *Pseudonigrita arnaudi* at the Olorgesailie National Prehistoric Site some 70 km south-west of Nairobi. In September 1980 we and Dr Derek Pomeroy found only six ringed individuals still present, and only one of these had been certainly ringed as an adult. However, of 29 adults which we had colour-ringed, Mr G.R. Cunningham-van Someren observed 14 (48 per cent) still present about 9 months later, equivalent to an annual survival rate plus dispersion out of the study area, of about 38 per cent for adult *P. arnaudi*, much less than the 70-80 per cent average annual survival indicated for adult *Plocepasser mahali*. It is possible that many of the birds dispersed widely in *P. arnaudi*. *Pseudonigrita arnaudi* is a smaller bird, weighing about 20 g compared to an average 42 g for *P. mahali*, and correlated with its apparently greater population turnover rate it usually lays three eggs to a clutch instead of the two characteristic of *P. mahali*. *Pseudonigrita arnaudi* does less communal feeding of the nestlings than does *P. mahali* (Collias & Collias 1980). Its maximum life span in nature is probably shorter since only six of 56 ringed individuals were found after 2½ yr in contrast to 11 of 45 *P. mahali* still alive after 4½ yr. The greatest maximum age we found for any of our colour-ringed individuals was 2 years and 10 months for *P. arnaudi* and 5 years and 4 months for *P. mahali*. Another closely related species, *Philetairus socius* the Sociable Weaver of southwestern Africa, is often put into the same subfamily, the Plocepasserinae, with the two preceding genera. Based on extensive ringing at the Kalahari Gemsbok National Park in South Africa, Maclean (1973: 232) thought it "unlikely that the Sociable Weaver's maximal longevity ever exceeds about 3½ years." It resembles *Pseudonigrita arnaudi* and differs from *Plocepasser mahali*, in addition to its shorter life, in usually laying a larger clutch (four eggs), and in that communal feeding of nestlings is less common than in *P. mahali*.

Plocepasser mahali resembles many small land birds of tropical regions and differs from most of those of temperate and colder regions in high survival of adults, in relatively long life once adulthood is reached, in having an enclosed nest, in laying a very small clutch of eggs (usually two), and in that more than two birds usually feed the nestlings and fledglings. The relatively long life span of adults may be a key factor in this complex of differences from small land birds of temperate or colder zones. Survival rates for adults of most species of small temperate zone land birds range between 40 to 60 per cent (Ricklefs 1969, Cody 1971). In contrast, Snow & Lill (1974) have reported annual adult survival rates of 70 to 90 per cent for 15 species of ringed forest birds of various species of the New World tropics in Trinidad, and Fogden (1972) of 86 per cent for various land birds, excluding hole

nesters, of the Old World tropics in Sarawak. One would expect greater average adult survival of small land birds in the tropics than in the temperate or colder zones because the hazards of migration and seasonal cold are much less in the tropics. Many species of tropical birds lay small clutches, and one reason for this may be that high adult survival means fewer places available for young birds. Fewer young birds are needed to replace a long-lived adult population. Communal nesting with more than two birds caring for the brood, is much more common in the tropics than in higher latitudes (Rowley *et al.* 1976). Here again, in the face of a saturated population, with many long-lived adults, one of the best evolutionary strategies that young birds could adopt would be to help their parents raise younger brothers and sisters, until they could establish a place for themselves as independent breeders. Brown (1974) and Woolfenden (1976) have expressed similar views for communal nesting jays of warm temperate latitudes, as has Fry (1980) after a survey of the world literature comparing longevity in tropical and temperate zone birds. Fry points out that, "scant as tropical studies have been, small land birds of low latitudes commonly attain the advanced ages known for only a tiny fraction of high latitude birds." Brown & Pomeroy (in press) have developed data from tropical Africa which indicate that large birds generally live longer than small birds, and that communal or co-operative breeders tend to live longer than species where only the mated pair raises the young.

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THE PAST AND PRESENT STATUS AND DISTRIBUTION OF THE GREY-CRESTED HELMET SHRIKE *PRIONOPS POLIOLOPHA*

Adrian D. Lewis

Hall & Moreau (1970) refer to the Grey-crested Helmet Shrike *Prionops poliolopha* as replacing the Helmet Shrike *P. plumata* in the Kenya highlands. *Prionops poliolopha* is described in Britton (1980) as endemic to woodlands east and south of Lake Victoria at 1200-2000 m, typically in *Acacia drepanolobium* or leleshwa *Tarchonanthus*.

However, despite the fact that this species exhibits the noisy and prominent habits of its family, confirmed records of its occurrence are few, and several authors comment on its rarity (e.g. van Someren 1932, Jackson 1938, Turner 1977, Britton 1980). Mackworth-Praed & Grant (1960) describe its occurrence in Kenya as "somewhat erratic".

This paper reviews the past and present records of *P. poliolopha*, and relates a new series of observations from the Nakuru area. For convenience, the species' range is considered under four main areas.

THE RECORDS

Naivasha-Kedong Valley area

Fischer & Reichenow (1884) recorded the type at Naivasha, from a female killed "off the nest" on 11 May. Jackson (1901) described the collection of an adult female and a juvenile male from a small flock in the Kedong Valley on 17 April 1896, and this record is also quoted by Reichenow (1900-1905).

Van Someren (1922) mentioned it as collected by Doherty at Escarpment Station, Uplands (1°03'S, 36°39'E); he also remarked on the destruction of its habitat. On 4 February 1923, V.G.L. van Someren collected a female at Naivasha; this was followed by a male and a subadult male on 26 June 1925, in the Kedong Valley (*Catalogue of East Africa and Uganda birds collected by V.G.L. van Someren 1910-1951*). Van Someren (1932) mentioned what are presumably these specimens, while summing up the species' status as "not very common".

On 12 February 1926 E.H. Ward collected a male from 'Sterndale', Naivasha (National Museum Collection, Nairobi). Sclater (1930) mentioned the locality 'Naivasha', which presumably includes Doherty's Escarpment specimen.

Jackson (1938) derived his summary of the distribution of the species from Sclater (1930), and quoted the Escarpment record (van Someren 1922), and the type from Naivasha (Fischer & Reichenow 1884). His only personal observation of the bird was the Kedong family party in 1896.

Mackworth-Praed & Grant (1960) referred to the occurrence of the species in central Kenya, and mentioned the breeding at Naivasha, while White (1962) and Hall & Moreau (1970) also used earlier records from this area.

Turner (1977) noted the absence of recent records from Naivasha-Kedong and attributed its apparently complete disappearance to recent rural development. P.L. Britton (*in litt.*) notes the absence of published records from this area during the last 50 years.

Kenya-Tanzania border areas

Reichenow (1900-1905) recorded the collection of the species by O. Neumann in January from Ssero (or Scero) (1°15'S, 35°30'E), which is in the Loita Plains area.

The Willoughby-Lowe catalogue (housed in the National Museum, Nairobi) lists a female, taken on the Amala River (0°45'S, 35°25'E) on 14 October 1912, which was also mentioned by Jackson (1938). Van Someren (1932) also collected a bird

from this locality, and Sclater (1930) presumably used one or both of these specimens to define the range from this locality southwestwards into Tanzania. Bowen (1931) found it to be common in the Ikoma (2°05'S, 34°37'E) region of northern Tanzania.

F.N. Betts (unpublished MS) encountered it several times in the Narok District between 1948 and 1952, between the town of Narok (1°05'S, 35°52'E) and the southern part of the Uaso Nyiro (1°55'S, 36°07'E), and at the foot of the Loita Hills. In his account of the resident breeding birds of southwest Kenya (Betts 1966) he mentions one record, of a flock "of several adults and a number of newly fledged young" near Narok on 27 May (no year given but between 1948 and 1952).

J.G. Williams collected an adult male on 19 August 1959, at Mosiro (1°30'S, 36°06'E) in Narok District, altitude 1200 m (National Museum, Nairobi). Williams (1963) described it as uncommon in the bush of central southern Kenya and northern Tanzania, but not uncommon around Loliondo (2°03'S, 35°37'E) in northern Tanzania, where he observed it in mixed flocks with *P. plumata*. This constitutes the only record of sympatry between these two species, and is quoted by Hall & Moreau (1970). Williams (1967) recorded it without details or comment from the Masai Mara Reserve in Kenya, while Williams & Arlott (1980) repeat the Loliondo sympatry note, but now (as opposed to Williams (1963)) consider it a "very uncommon" bird of the bush country.

D.A. Turner (pers. comm.) notes it as a local and uncommon resident of the northern Serengeti (Mara Region), Tanzania, particularly where whistling thorn *Acacia depanolobium* is dominant. He has also recorded it "many times" within a 5 km radius of Keekorok Lodge (1°38'S, 35°16'E), Masai Mara Game Reserve, and considers that it is possibly resident in this part of Kenya.

L.L. Short collected two specimens from Lion Camp, Olonganaiyo Lugger (1°18'S, 35°49'E), 25 km south southwest of Narok, both at an altitude of 1770 m. The first was a female on 10 July 1978, while the second was a male two days later (National Museum, Nairobi); the habitat is described as "riparian fever trees", i.e. *Acacia xanthophloea*.

Britton (1980) states that "most records are from border areas in Narok and Serengeti."

South of Lake Victoria

Reichenow (1900-1905) quoted three records from this area from previous German collectors. O. Neumann took the species in June in Muansa, which Reichenow's map shows to be modern Mwanza (2°31'S, 34°54'E), and from the Ngarre Mousse River (1°45'S, 35°00'E) during January. R. Böhm and von Trotha collected it during December from the Ugalla River, which is a tributary of the Malagarisi River, which flows into Lake Tanganyika just south of Kigoma (4°52'S, 29°37'E).

Jackson (1938) quotes localities from Reichenow (1900-1905), including Unyamwezi, which is also in the Kigoma-Tabora area.

These early records thus extend the range dramatically southwestwards to about 5°S in the Kigoma-Tabora region, but appear to form the only evidence for the occurrence of the species there. They are utilized, in one form or another, by Sclater (1930), Mackworth-Praed & Grant (1960), White (1962) and Hall & Moreau (1970), the last noting the range "into much lower and drier country as far as Tabora" (5°01'S, 32°48'E).

As for Naivasha-Kedong, Britton (1980) could detail no records from the Tabora Region "in recent decades".

Nakuru area

Williams (1967) describes the species as "uncommon" in Lake Nakuru National Park, but gives no supporting details; for this reason the locality is not included by Britton (1980). The following recent series of observations thus properly documents the occurrence of the bird up to 60 km north of its hither-

to known range, as well as providing the first records from the central Kenya rift since 1926.

Table 1

Recent Nakuru area sight records of the Grey-crested Helmet Shrike

Date	No.	Habitat	Area	Observers
25.10.78	9	Riverine *Acacia xanthophloea*	1.6 km N of Naishi Ranger Post, LNNP	I.G.Marshall
04.02.79	3	*A. xanthophloea* woodland	near Makalia Bridge LNNP	I.G.Marshall
02.10.80	5	ditto	SE corner LNNP	R.R.Izagiriza & ADL
09.11.80	11	ditto	between Naishi & Makalis Falls, LNNP	I.G.Marshall
14.12.80	6	*Tarchonanthus, Protea,* patches of richer woodland and coarse grasses	W side of Menengai Crater, Nakuru	P.L. & H.A. Britton & R. Boy

'No.' refers to the number of birds in the flock; LNNP = Lake Nakuru National Park

The concentration of records from Lake Nakuru does not mean that the bird is common there. I.G. Marshall has extensively searched the vicinity of his sightings on foot and failed to relocate the birds, as did the author and R.R. Izagiriza on the day after their record. Ornithologists currently resident in the Park and routinely noting birds there for over a year have not seen this species (V. Haas, pers. comm.); earlier resident observers report irregular sightings in the periods February-May and even July-August, but these records lack detail and confirmation.

DISCUSSION AND SUMMARY

Changes in distribution

From the existing records, it is clear that the Grey-crested Helmet Shrike has never been a numerous bird, certainly far less abundant than the closely related *P. plumata*. Only Bowen (1931) regarded *P. poliolopha* as common, in northern Tanzania.

Since its discovery in 1884, it has apparently become extinct in the Naivasha-Kedong area, and possibly also in areas of Tanzania south of Lake Victoria. Apart from the Nakuru sightings, recent records suggest that its range has contracted into the Kenya-Tanzania border areas in the Serengeti-Mara and Loita-Loliondo regions.

The reasons for these changes are not clear. V.G.L. van Someren, as early as 1922, noted that the forest and scrub from which Doherty had collected his Escarpment specimen(s) had since been cut down or burnt, "and the entire aspect of the country altered". Turner (1977) also blames "recent rural development" for the disappearance of the species from the Naivasha-Kedong area, and makes the point that little is known of its breeding biology or habitat requirements. Several of the recent records have been from *Acacia xanthophloea* country, which certainly still exists around Naivasha.

A possible explanation for the lack of records is misidentification as *P. plumata*, particularly by observers not acquainted with *P. poliolopha*, and/or

assuming the commoner of the two species. The plumage of both species is essentially black and white, with a white bar visible on the closed wing (varying racially in *plumata*) and a white tip to the tail; both have a grey crown and nape, becoming darker behind the ear coverts.

The unique features of *poliolopha* are the yellow eye, the lack of eye wattles, the tuft-like grey crest on the rear of the crown, and the blackish spot on the side of the breast. But in the field, the author considered that the eye colour of *poliolopha* could be mistaken for the wattle colour of *plumata*, i.e. as a yellow flash/colouration in the eye area, while, unless seen clearly, the crest could be taken for part of the general grey crown colour of *plumata;* both species have a whiter crest on the forehead. P.L. Britton, H.A. Britton and I.G. Marshall all comment on the larger size of *poliolopha,* i.e. compared to *plumata,* but this point is really useful only to observers with previous knowledge of at least one of the species.

Hence, the only unmistakable feature of *poliolopha* is the blackish spot on the side of the breast, which is most distinctive when the bird is viewed from the front. Interspecific confusion is thus quite possible.

While the recent absence of sightings in the Naivasha-Kedong area cannot be attributed to lack of observers, this could well be a factor in less frequently visited regions, such as Mwanza, Tabora and Loliondo. Hence, the recent absence of the species in these regions could be, at least in part, illusory.

The Nakuru records

The five recent sightings around Nakuru fall between October and February, while the only two breeding records for the species are in April and May (Brown & Britton 1980). Presence of the species at Nakuru during the breeding season requires confirmation.

The various *Prionops* species have a tendency to forage for food over long distances (Britton 1980), and I.G. Marshall (pers. comm.) comments on this point with reference to his Nakuru *poliolopha* sightings. Van Someren (1932) gives three examples of the erratic appearance of the related *plumata,* which were probably due to these long distance movements. The clustering of the sightings in the southeast corner of Lake Nakuru National Park could reflect the habit, recorded by Mackworth-Praed & Grant (1960) for *plumata,* of flocks repeatedly following the same foraging route, though in these cases over widely spaced intervals.

The Nakuru records probably refer to highly mobile flocks foraging long distances from their breeding areas. Judging from the above discussion, these areas are probably to the southwest, along the Kenya-Tanzania border, such that, to reach Nakuru, birds would have to cross the Mau highlands, or circumvent them to the south. Williams' (1967) reference to the species at Nakuru implies that these movements are none too recent an innovation. Certainly the under-watched nature of the Mau and its forested western slopes could preclude detection of any 'passage'.

CONCLUSIONS

Since its discovery 97 years ago, the Grey-crested Helmet Shrike has apparently become extinct in the Naivasha-Kedong area of Kenya, and possibly also in the Mwanza-Tabora area of northern Tanzania. The reasons for these changes are not clear, but probably involve habitat modifications.

The population now appears to be centred on, and presumably breeding in, the Kenya-Tanzania border areas, between the eastern rift and Lake Victoria. Foraging parties regularly reach Nakuru.

The paucity of records probably reflects a small total population of the species, moving erratically through large, poorly observed areas, combined with possible misidentification as *P. plumata*.

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SPRING PASSAGE OF WHIMBREL *NUMENIUS PHAEOPUS* AND OTHER WADERS OFF THE COAST OF SOMALIA

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I have lived close to the sea in Mogadishu (2°03'N, 45°21'E), Somalia, for parts of three spring migrations in 1979-1981, and have been impressed by the substantial numbers of Whimbrel *Numenius phaeopus* passing north offshore each year. As I have been unable to trace any reference to similar Whimbrel migration in Africa the situation in Somalia is worth recording. It is sufficiently spectacular to have attracted the attention of several visitors to Mogadishu, none of whom has had any particular interest in birds, but local fishermen I questioned, rather surprisingly, had not noticed them.

The passage is apparently a normal annual event judging from my experience in three successive springs, but no really systematic observations have been made, so that the conclusions which follow must be tentative to some extent. I have, however, recorded every flock seen in the three years, and in 1981, besides estimating numbers I also noted height of flight, distance off-shore and time of day. Times of observation were mainly restricted to after 15:00 local time, except for one day a week when observations continued throughout the day, and for a few other days when I observed for an hour or so following dawn. Many flocks, especially low-flying ones, were found whilst I was scanning the sea with a telescope or binoculars for sea-birds; others were first seen with the naked eye, my attention often being drawn to them by distant calls. Approaching flocks could sometimes be found at a great distance to the southwest by scanning the horizon.

In the Mogadishu area the coastline runs about ENE-WSW, but further north and south it runs NE-SW. It therefore provides an excellent leading-line for migrants by day, and also by night because of its line of surf. From about mid March to about the end of April is a season of relatively very little wind between the two monsoons, and with generally good meteorological conditions for migration. However, the situation in 1981 was dissimilar from 1979 and 1980, for on every day there was considerable atmospheric instability with heavy rain showers active in the area or within sight, and the light winds were usually from between south and west, instead of in the opposite quadrant. This may have been the reason for more Whimbrel flocks being further from land (see below).

DATES

The dates of the first flocks passing north varied from year to year (I use the direction 'north' throughout, whereas when passing Mogadishu the birds are actually flying ENE): 6 April 1979, 5 April 1980 and 26 March 1981 (when they were heard but not seen, far overhead). I was away from home from 26 April 1979 and 15 April 1980.

NUMBERS

Over 13000 birds were counted in 145 flocks, and these are summarized in Table 1, where over half the flocks comprised between 31 and 120 individuals. The bulk of the birds (68 per cent) passed in the two weeks 9-22 April when the data for all years are examined, and the figures for more extensive data in 1981 are nearly similar (66 per cent) for the same period (Table 2). Throughout the period of six weeks during which passage occurred in 1981, only 10 per cent of the migration was in the first two weeks, and 24 per cent in the last two. Thus migration gets under way rather slowly, and terminates

more quickly.

TABLE 1

Flock size of Whimbrel Numenius phaeopus *passing north along the coast of Somalia*

Flock size	Number	Flock size	Number	Flock size	Number
1-10	14	71-80	7	151-200	11
11-20	8	81-90	6	201-250	6
21-30	13	91-100	9	251-300	4
31-40	15	101-120	10	301-350	3
41-50	13	121-130	1	351-400	1
51-60	10	131-140	1	401-450	0
61-70	7	141-150	5	451-500	1

TABLE 2

Weekly numbers of Whimbrel Numenius phaeopus *passing Mogadishu in spring 1981*

Dates	26.3-1.4	2-8.4	9-15.4	16-22.4	23-29.4	30.4-6.5	Total
Observation (h)	16.2	14.2	11.2	17.4	16.3	15.3	90.6
Numbers of birds	457	362	2476	2792	1808	80	7975
Birds/h	32	26	221	161	111	5	88
per centage of total birds	5.7	4.5	31.0	35.0	22.7	1.0	99.9

HEIGHT

Height of flight was judged for 95 flocks in 1981, of which 47 per cent were at or below 15 m, and the highest at 150 m. However, these figures are not very meaningful, for although high-flying birds remained at a more or less constant height, lower flying birds changed their altitude, often dropping to sea-level and *vice versa*. Migrating flocks flew higher later in the season, but the reason for this is unknown. The average height of 74 flocks between 26 March and 22 April was 25 m, whereas afterwards the height of 21 flocks averaged much higher at 71 m. The later birds were also closer inshore (see below).

DISTANCE OFFSHORE

In 1979 and 1980 many more flocks were seen close inshore than in 1981, when there were many more days with tail-winds. Birds pass on a front at least 8 km wide, extending from a position above the coastal dunes (rarely) out to sea to the farthest extent of visibility through a telescope. Against the sky the flocks are visible with the naked eye up to perhaps 5 km, but when low over the sea, probably seldom for distances over 1 km. In 1981 I estimated the distances offshore for 93 flocks as:

Over beach	7 (7 per cent)
Within reef (< 1 km)	14 (15 per cent)
Over reef (1 km)	12 (13 per cent)
Beyond reef to 2 km	18 (19 per cent)
Beyond reef to 4 km	33 (35 per cent)
Beyond reef to 8 km	9 (10 per cent)

It is mentioned above that the later flocks flew higher. They also flew nearer

inshore: 11 flocks between 24 April and 3 May averaged 0.9 km offshore, compared with 3.0 km for 82 flocks in the earlier period. This marked difference in behaviour between early and late birds cannot be explained by conditions of weather, which remained similar throughout.

FLIGHT SPEED AND FORMATIONS

I failed in my attempts to assess the speed of flying flocks over a measured distance, but I was impressed by the apparent rapid speed of some of them. When viewed through a telescope the birds appeared to be 'straining forward', whereas the flight of coastal non-migrating Whimbrel always appears rather leisurely. Passing flocks rapidly outpaced flocks of migrating terns, which are themselves moving rapidly. I guessed that Whimbrel ground-speed was in the region of 65 km h^{-1}. Often birds in a flock called with their usual 'whinnying' call, and occasionally with a spring 'bubbling' call. Occasionally one or two birds were seen to drop out of flocks and fly to the shore, but these were always restless and soon took off again, apparently without feeding. However, a few feeding birds seen at times along the shore may have left passing flocks.

Almost always flocks took up a V-formation in flight, and with the larger ones there was often a compact group at the lead, but characteristically there was usually a long line of birds trailing behind in one arm, or sometimes both, of the V. At times they adopted a W-formation, or even a series of Vs as they advanced on a broader front. Lower flying flocks often changed altitude, and there was frequent change in formation among the leading birds, as if they were trying to forge ahead. A line of birds approaching frequently wavered or undulated, producing a rippling effect along the line.

TIME OF DAY

As most of my time for observation was in the late afternoon this was naturally when I mostly saw Whimbrel. I was usually out soon after 15:00, but only twice saw flocks before 15:30 on these days; I never saw Whimbrel at dawn watches or at other times of the day, except once. On 19 April, during the period of peak passage, I watched from 10:00-17:30 when flocks passed at 12:10, 12:40, and from 13:50 to 17:10. Thus there may be some other movement earlier in the day which I have not otherwise observed. Whilst moon-watching on 15 April about ½ h after sunset, I saw a V-formation of *c.* 30 birds cross the face of the moon and remain outlined against illuminated clouds for some time. They appeared to be Whimbrel, and were flying NE very high, probably about over the coastline. On many occasions flocks of migrating Whimbrel were seen around sunset, which in this area is at *c.* 18:00, and for as long afterwards as enough light remained to see them, but no change in behaviour was noted.

AUTUMN PASSAGE

There is little evidence for a corresponding return passage in autumn. I have only four observations of from 3 to 23 birds flying south over the sea between 8 August and 25 November. The only indication that large numbers of birds might be involved was a record of hundreds sitting in mangrove trees at high tide south of Kismayu (0°22'S, 42°32'E) on 10 October 1978. This is in contrast to the situation in Kenya where there is a large autumn passage (D.J. Pearson *in litt.*).

OTHER SPECIES

Occasionally other smaller waders accompany the Whimbrel flocks, which I think are mostly Grey Plovers *Pluvialis squatarola*. A few Curlew *Numenius arquata* also join them, and I have also seen Crab Plovers *Dromas ardeola*, Oyster-

catchers *Haematopus ostralegus*, and once Ringed Plovers *Charadrius hiaticula*.

Generally other species of waders fly separately, but no spectacular passage has been noted for any of them. The following notes refer only to flocks of birds judged to be actively migrating; they do not include reference to birds on the shore or lagoons which are misleading indicators of the migration actually taking place (*vide* the Whimbrel for example). All are from the Mogadishu area, except where stated otherwise:

Oystercatcher *Haematopus ostralegus* Only noted on three occasions, 6 March - 6 April. Largest party 11, on 6 March; 4 accompanied a flock of Whimbrel on 6 April. All were flying low over the sea.

Caspian Plover *Charadrius asiaticus* Very large numbers pass through in February and March, when flocks fly low over the dunes and beach. However, most probably migrate at night.

Ringed Plover *Charadrius hiaticula* Only seen once: 10 with a flock of 90 Whimbrel on 6 April.

Grey Plover *Pluvialis squatarola* Only noted in 1981, when 16 flocks containing 3 to 115 birds (average 44) passed, 23 April - 10 May. They were probably overlooked in earlier years, for characteristically they fly very high, usually directly above the coastline; the larger flocks are spread out in wide Vs.

Curlew *Numenius arquata* Very few seen, but probably overlooked when accompanying Whimbrel, or even misidentified as such, 2-29 April. One flock of 33 on 2 April.

Greenshank *Tringa nebularia* A few only, mostly single birds, but dates not recorded.

Terek Sandpiper *Xenus cinereus* My only records were 5 flocks, 1-3 April, in 2 years. Two of these contained 40 and 49 birds, and all passed over high above the coastline. A flock of 46 on 8 May 1980 as Garas Wadi (11°16'N, 49° 02'E) on the north coast were flying about at sunset in an excited manner whilst other waders were leaving, as if they themselves were about to leave. They do not get into formation in flight.

Sanderling *Calidris alba* Only noted in 1981 when 18 flocks, of 12-80 birds passed between 23 April and 10 May. Many of these flew in compact flocks just above the sea and only a few metres from the beach, but a few, very low, were identified up to 1 km offshore. Possibly many of the unidentified flocks of waders over the sea were this species. Following a day, 27 April 1980, when thousands of Sanderling were present along 47 km of beach at Hafun (10°25'N, 51°20'E), the next morning thousands of small waders in a succession of flocks flew low over the sea round the headland after dawn. They were probably this species, although the possibility that they may have been phalaropes should be considered.

Turnstone *Arenaria interpres* Only 4 flocks seen, of 5-29 birds between 10 and 14 May, all flying high over the head of the beach. One of 29 birds in V-formation, but the others in loose flocks. At Garas Wadi, on the north coast, I watched successive flocks at dusk on 8 May flying out of the estuary, rising high and flying off about northeast.

Crab Plover *Dromas ardeola* Movements are difficult to interpret, particularly as there seem to be long distance feeding flights up and down the coast. Apparently most migration is low over the sea and far offshore, when in spring such flocks were noted between 2 April and 4 May. The largest flock consisted of *c.* 400 birds, but otherwise they have been in flocks of 30 or fewer. Birds

accompanying Whimbrel flocks may fly higher, but exceptions were 2 flying together steadily north at about 100 m above the shore on 4 May, and birds calling over Mogadishu at night on several occasions. It is likely that migrating flocks of Crab Plovers 'pick-up' additional birds as they pass within sight of them along the shore-line. On 2 April 1980 I watched through a telescope a flock of 226 leave the shore-line and fly straight out to sea to join a passing flock of *c.* 400 others some 8 km offshore. It seems hardly credible that they could have seen or heard them at this distance from a low position on the shore, but their behaviour left no doubt that this was not a chance encounter.

Many other wader flocks must be missed as they pass high overhead along the shore-line. On many occasions I have heard them calling, including Whimbrel, but have failed to see them against a blue sky.

DISCUSSION

The questions arise as to where these birds originate, where they are heading, and whether they stop to feed or rest anywhere? Obviously, I am seeing only a (probably small) fraction of the birds which pass, so that the total passage must be considerable. Relatively few Whimbrel overwinter in the Mogadishu area, and if one assessed the spring passage on the basis of birds seen along the shore one would conclude it was virtually non-existent. Thus I conclude that passage is *through* the area, and is rapid. I have no evidence of concentrations of Whimbrel elsewhere in Somalia, either further south or further north. I have not visited the south in the spring, so the position south of Kismayu is unknown; but further north at Hafun, for example, where there were large numbers of waders and sea-birds at the end of April 1980, there was only one flock of Whimbrel. The flock of 65 birds flew NE low over the sea, but on reaching the headland turned and returned southwards.

Further south in eastern Africa, Dr D.J. Pearson (*in litt.*) informs me that he has not observed Whimbrel passing north offshore in April, although he has occasionally heard them over Watamu (3°21'S, 40°01'E) at night. The regular coasting movement of adult waders in early autumn are not seen at all in spring. Similarly, P.L. Britton states (*in litt.*) that there is no evidence of coastal passage or large numbers of Whimbrel in spring, but reports also that they have been heard at night over Watamu. Britton (1980) records it as a common winter visitor to East Africa, as do McLachlan & Liversidge (1980) for South Africa, where they note that it occasionally occurs in flocks of up to 50. The birds which pass the Mogadishu area could thus be drawn from the whole of the east African coastline, and doubtlessly pass along its entire length just offshore. Even so, there are presumably areas of concentration somewhere, where several hundred birds can get together into one flock, but if this is the case they do not seem to have been found yet. Alternatively, passing flocks may be augmented as they proceed, but I have no evidence for this from Somalia (but see under Crab Plover for evidence of flock accretion in that species).

It is tempting to conclude from the Somalia evidence that Whimbrel are passing on an uninterrupted long distance flight. As the bulk are seen to pass in the last three hours before sunset, it is conceivable that their non-appearance off the Kenya coast is because they pass there at night, and the observations quoted above by Britton and Pearson support this view. Mogadishu is 593 km northeast of the northern tip of the 440 km-long Kenya coastline. Assuming a ground speed of 65 km h^{-1}, the birds arriving at Mogadishu at 18:00 (sunset), must have joined the Kenya coast at 02:00 that morning, if travelling non-stop. Further observations elsewhere should be able to delineate their flight route throughout the western Indian Ocean. To the north, on reaching

the Asian land mass they must pass overland to their breeding grounds. One wonders what the advantage of a flight over the sea must be in the southern sector of their migration. There is no evidence for anything other than a meagre overland passage of Whimbrel within Africa (Dowsett 1980).

Assuming that the Whimbrel passing Mogadishu at 65 km h^{-1} are on an uninterrupted long distance coastal flight, and it is hardly conceivable that they could travel for more than 72 h without a break, then they would be near Lindi in Tanzania 24 h earlier, near Beira, Mozambique, 48 h earlier and near Maputo, Mozambique, 72 h earlier. However, Whimbrel are seen continuing their flight over the sea after sunset at Mogadishu, and birds almost certainly this species were seen crossing the face of the moon ½ h after sunset, so that it is most unlikely that they had already travelled for 72 h, and thus that they must have begun their journey somewhere north of southern Mozambique (and probably south of Kenya). There is much evidence that many waders begin migration around sunset, so possibly the birds seen at Mogadishu leave somewhere along the coast of Mozambique or Tanzania.

North of Mogadishu there are no very suitable areas for Whimbrel until one reaches Hafun, some 1150 km or 18 h flying time to the north, but more information is required from there before further suppositions can be made.

Some support for the estimate of flight speed was obtained from near Merca on 24 April 1981. Birds were passing this site some 64 km south of my usual one near Mogadishu between 14:20 and 15:10, and thus about one hour's flying time away. The earliest of these birds would arrive at 15:20, which is close to the time of 15:30 when I normally expect to see them.

CONCLUSION

A large coastal passage of Whimbrel, with smaller numbers of some other waders, occurs in eastern Somalia in spring. The bulk of the Whimbrel seem to pass in the late afternoon between 26 March and 6 May, with the majority passing 9-22 April. Flocks may number up to 500 birds, but over half number 31-120. They extend from the coast up to 8 km out to sea, flying at altitudes from sea-level to 150 m, but later in the season flocks fly higher and nearer inshore. Some of these birds probably originate from as far away as SE Africa, and pass rapidly north in (presumably) a series of non-stop flights, probably passing the length of the Kenya coast at night. At a later stage they must undergo a long overland trans-Asian flight to their breeding grounds. It is possible that a series of traditional stop-over sites for food and rest exist along their flight-route, but these have yet to be discovered. However, it is suggested that one may be along the coast of Tanzania or northern Mozambique.

ACKNOWLEDGEMENTS

I thank P.L. Britton and Dr D.J. Pearson for their comments on Whimbrel in Kenya.

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(Received 21 May 1981)

SHORT COMMUNICATIONS

PINTADO PETREL *DAPTION CAPENSE* IN KENYA The Pintado Petrel *Daption capense* has occurred as far north on the east coast of Africa as Mocambique town (15°00'S, 40°44'E), Moçambique (Saccarao 1951); there is also a record from further south in Moçambique, at Beira (Long 1964). Around Mauritius it is "rare but regularly recorded vagrant" (Temple 1976). It has also strayed north of the equator in the Indian Ocean where it has been acceptably recorded once (no date given) in the Gulf of Manaar between India and Sri Lanka (Hume 1870). This present note reports more fully a sighting of a single Pintado Petrel in Kenyan coastal waters (Sinclair 1979).

At 05:00 East African Time on 26 September 1974 the *MV Asia*, on which I was travelling, hove to 10 km off Mombasa, Kenya (4°04'S) to await permission to enter Mombasa Harbour. Garbage had been thrown overboard from the galley which attracted about 30 Sooty Gulls *Larus hemprichii* and one Lesser Black-backed Gull *L. fuscus*. These were joined at 08:15 by one Pintado Petrel which flew around the ship several times before alighting on the water near the stern. The bird stayed with the ship for some 10 min before flying out to sea. The black and white checkered back, dark head and two white patches on each wing were clearly seen - characters which make this petrel unmistakable. A small dark brown patch was visible on the white belly which might have been an oil smear. The general condition of the bird was good and it appeared to be strong and healthy.

This sight record seems to be the first for Kenya and for East Africa.

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Scopus 5: 77, September 1981 Received 30 March 1981

WHITE-EYED POCHARDS *AYTHYA NYROCA* IN CENTRAL KENYA DURING EARLY 1981
The White-eyed Pochard *Aythya nyroca* winters commonly in the Lower Nile basin, and to a lesser extent within the West African savannah belt (Moreau 1972, Cramp & Simmons 1977). It is regular in small numbers south to Ethiopia (Moreau 1972, Ash 1980), but there are few records from East Africa. Backhurst *et al.* (1973) give six records from the Kenya highlands, and there is a single old record from northwestern Uganda (Jackson 1938). Despite increased observation and interest in wintering Palaearctic duck in recent years, we know of only four further records during the 1970s, a bird shot at Ol Bolossat during the season 1972/73 (Davey & Harrison 1976), one in March and one in April 1973 on Lake Turkana (Hopson & Hopson 1975), and one seen at Lake Paradise, Marsabit, on 22 April 1974 (Harper & Harper 1974). A series of records of the

species from Central Kenya early in 1981 is therefore noteworthy. Birds were recorded as follows:

Dandora Oxidation Ponds, Nairobi: 4 (1 ad m.) 1 Jan (DJP)
2 (1 ad m.) 2 Jan (BSM, A.D. Lewis)
1 (ad m.) 3, 4 Jan (DJP, D.A. Turner, D.E.G. Backhurst)

Thika Oxidation Ponds: 1 f./juv 3 Jan (BSM)
1 ad m. 4 Feb (DJP, A.D. Lewis)

Lake Naivasha: 2 (1 ad m.) 1 Mar (BSM)

The White-eyed Pochard is known to fluctuate markedly in wintering numbers in West Africa. Thus, it is apparently absent from Nigeria in some years, yet a single flock at Kano numbered 1500 during 1963/64 (Elgood, Sharland & Ward 1966). The above Kenya records probably reflect a genuine small influx during 1980/81. It is quite possible, however, that the species has been overlooked amongst flocks of Southern Pochard *Netta erythrophthalma*. Features which proved useful in separating the 1981 birds from Southern Pochards are shown in Fig. 1 and discussed below.

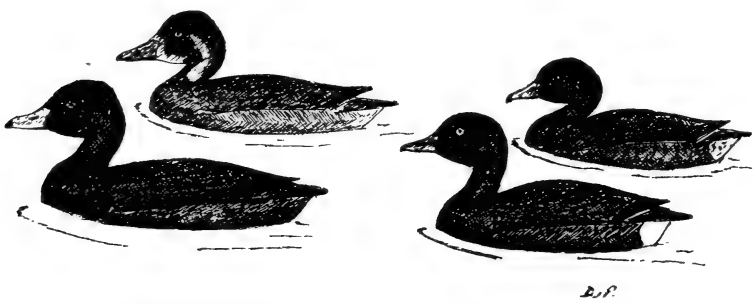

Fig. 1. *Left, Southern Pochard: female (upper), male (lower). Right, White-eyed Pochard: female or juvenile (upper), male (lower)*

At a distance, or in awkward light, adult male *A. nyroca* often appeared as dark as *N. erythrophthalma*, but were readily picked out by their pure white under-tail coverts, smaller size and higher carriage in the water. At close range, the rich mahogany head and neck, reddish medium brown back and wings, and white eye were also distinctive. The flanks were dark brown; the white belly was not visible in swimming birds. As compared to *N. erythrophthalma*, the neck was typically held straighter, and the head was more rounded, with a steeper forehead and a narrower tipped bill with a more pronounced hook.

Despite the size and 'jizz' characters outlined above, female/juvenile *A. nyroca* were usually difficult to pick out from flocks of swimming *N. erythrophthalma*. They were duller brown than males, and the flanks contrasted more with the back, being barred and generally paler and more yellowish. The eye was pale, but not strikingly white. Female/juvenile *A. nyroca* of course lacked the white head markings of a female *N. erythrophthalma*. They had 'dirty' white undertails, but in some birds this was partly obscured by brownish blotching, and it should be noted that female *N. erythrophthalma* can appear pale under

the tail in some lights.

In flight, *A. nyroca* were relatively easily picked out by their smaller size and their broader, more curved white wing-bar. The distinctive, curved wing-bar is a feature which would distinguish White-eyed Pochard from Tufted Duck *A. fuligula* as well as from *N. erythrophthalma*. The white belly was not at all easy to see in flight.

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Scopus 5: 77-79, September 1981 Received 13 August 1981

LONG-TAILED SKUAS *STERCORARIUS LONGICAUDUS* AT THE KENYA COAST During an afternoon seawatch from Ras Ngomeni, 25 km north of Malindi, on 19 October 1980, two Long-tailed Skuas *Stercorarius longicaudus* were observed flying south over the sea at 15:30 and 15:45 respectively. The first bird was observed at ranges of 100-150 m, whilst the second was very much closer, at ranges down to *c.* 30 m. Light conditions were excellent, with the sun behind the observer, and both birds were seen well with 10 × 40 binoculars.

Body size was larger than that of Roseate Terns *Sterna dougallii* seen in the same field of view, and judged to be that of Gull-billed Tern *Gelochelidon nilotica*. Unmistakable 'jizz', with very pointed wings, slight build, and extremely long projecting central tail feathers (judged to be at least one third body length in the nearer bird).

Both birds were in adult plumage with clear-cut blackish cap, medium dark grey-brown back and upperwing coverts, and rather darker flight feathers and tail. Underwing and undertail dark, with slight off-white bases to the primaries; rest of underparts otherwise white, with no breast band. Bill dark. A pale orange-buff wash to the nape was seen on the nearer bird.

Flight of both birds was buoyant and tern-like, with graceful wingbeats. Further bird flying some 5 m above the waves, nearer bird up to 10 m above the waves. Both seen to make sorties towards nearby terns.

The skuas were observed during a period of quite heavy southward tern passage (about 800 per hour, mostly Roseates), in wind conditions NE force 3-4. Other seabirds of note recorded the same day were a Common Noddy *Anous stolidus* flying south at 16:55 during the same seawatch, and three large dark brown shearwaters, thought to have been Wedge-tailed *Puffinus pacificus*, seen from a boat 3 km offshore earlier in the day.

There is only one previous record of this species for East Africa, also an adult at Lake Turkana, 25-26 August 1961 (Britton 1980).

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Scopus 5: 79, September 1981

THE OCCURRENCE OF BOTH RED-THROATED AND WHITE-FRONTED BEE-EATERS IN THE VIRUNGA PARK, EASTERN ZAIRE The two species *Merops bulocki* and *M. bullockoides* (the Red-throated and the White-fronted Bee-eater, respectively), are sometimes considered to be conspecific (e.g., White 1965); however, Mackworth-Praed & Grant (1970) and Snow (1978) recognize both as good species on the basis of plumage, weight and vocal differences. The ranges of the two have not previously been recorded to overlap, therefore our observation is of interest.

On 19 June 1978, as we stood on the eastern bank of the Rwindi river in the Virunga Park, Zaire (00°46'S, 29°19'E), we were able to overlook a small patch of riparian forest and observe White-fronted Bee-eaters (brown crown, white forehead and chin noted) hawking insects from the topmost branches. This is a species with which in Zambia we are both familiar. After a few minutes we realized that at least one bird was different and was, in fact, a Red-throated Bee-eater (green crown and crimson chin and throat noted). We watched these birds for some ten minutes, during which time both species alighted on the same branch and the Red-throated Bee-eater was harassed and chased by a Scaly-throated Honeyguide *Indicator variegatus*.

The distribution map in Snow (1978) separates the two, at their closest point of contact, by some 240 km, the Red-throated ranging southwards to approximately 2°N, 31½°E and the White-fronted northwards to approximately ½°N, 29½°E. Our sighting was within this general area of supposedly no contact and extends the range of the Red-throated 370 km further south, overlapping that of the White-fronted by 130 km.

The Red-throated Bee-eater is not known to be migratory and whilst the bird we observed may merely have been a non-breeding wanderer, we believe it could indicate that the two species do co-exist regularly in the Virunga Park. There is no shortage of breeding habitat along the Rwindi and Rutshuru rivers, so it is an area worth investigating for a study of the relationship between the two closely allied species.

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Scopus 5: 80, September 1981 Received 27 June 1981

SPRING FALLS OF PALAEARCTIC PASSERINES AT MTITO ANDEI, KENYA The bushland of southeastern Kenya tends to contain remarkably few Palaearctic passage migrants during April, even when luxuriant after recent rain. In particular, such species as the Sprosser *Luscinia luscinia*, the Marsh Warbler *Acrocephalus palustris* and the River Warbler *Locustella fluviatilis* are presumed to routinely overfly this area in spring, and in view of the lack of records, north-east Kenya also. These three species, together with many Whitethroats *Sylvia communis* and Sedge Warblers *A. schoenobaenus*, have only occasionally been revealed on northward migration in mist or heavy rain at the lights of Ngulia Lodge (Pearson 1980). Observations of many Palaearctic migrants at Mtito Andei after rainy moonless nights on 1 and 7 April 1981 are therefore of some interest.

A violent thunderstorm at Mtito Andei early on the night of 31 March/1 April was followed by about three hours of heavy rain. An overcast dawn with high cloud revealed scores of Sprossers, together with a few Whitethroats, Upcher's

Warblers *Hippolais languida*, and Palaearctic shrikes. These birds appeared to have been attracted to the light of the township. They were particularly abundant in scrub around the small river valley immediately to the west, where a number of strong lights surround an electricity transformer. Practically no migrants were present in attractive-looking bushland habitat 5 km northwest of the township, nor in scrub 2 km to the southeast. On the night of 6/7 April, heavy rain at nearby Ngulia Lodge brought migrants within view of the lights at night, but practically none landed. At Mtito, on the other hand, the rain-sodden scrub contained hundreds of migrants at 07:00-09:00 on 7th. Whitethroats, were predominant, but there were many Sprossers, and a few Marsh Warblers, Olive-tree Warblers *H. olivetorum*, Upcher's Warblers and Sedge Warblers. The large proportion of Sprossers in the two Mtito Andei falls is noteworthy, as also is the presence of 29 among the 110 migrants caught in showers and mist at Ngulia by the author and D.E.G. Backhurst on 5 April 1981. Other recorded Tsavo spring falls (at Ngulia) have been in mid to late April, when the bulk of the Sprosser passage appears to be over.

It is interesting that on northward migration birds can be grounded by rain at Mtito when they are not grounded at Ngulia Lodge; the reverse tends to be the case during November-December. This presumably stresses the unfavourable position of the Ngulia lights during spring, situated as they are on the north-eastern side of the main ridge.

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Scopus 5: 80-81, September 1981 Received 13 August 1981

BASRA REED WARBLERS *ACROCEPHALUS GRISELDIS* OVERWINTERING IN SOMALIA The existing knowledge of the wintering range of the Basra Reed Warbler *Acrocephalus griseldis* in eastern Africa has been summarized by Pearson, Britton & Britton (1978). They also presented new information to show that it overwinters in substantial numbers in eastern Kenya, and predicted that it may well be found by the rivers of southern Somalia. The only occurrence of *griseldis* in Somalia until recently is the bird recorded at Kismayu (0°22'S, 42°32'E) by van Someren (1929) and Moltoni (1936).

On visits to Dannow (1°44'N, 44°32'E), close to the river Webi Shebelle in southern Somalia, one of us (JSA) saw and heard many large *Acrocephalus* warblers on 8, 9 and 21 November 1978. Many of these were obviously Lesser Swamp Warblers *A. gracilirostris*, previously unknown in Somalia, but at least one other species was present but clear views could not be obtained in the dense cover. On 4 December 1978 JSA with A.A. Murshid erected two mist nets at the same site and captured two Basra Reed Warblers. At the time it was not suspected that these were anything other than passage birds.

On 2 March 1979 we visited the site together, watched a *griseldis* singing, and soon caught it in a net. We returned on 31 March, and placed a line of seventeen 12-m mist nets across a small portion of the marsh. Three *griseldis* were caught that evening and a further four on the following morning. Associated species netted with these birds were Reed Warblers *A. scirpaceus* on 2 and 31 March and 1 April, African Reed Warblers *A. baeticatus* on 31 March and 1 April, Sedge Warblers *A. schoenobaenus* on 2 and 16 March and 1 April, and large numbers of Lesser Swamp Warblers and Winding Cisticolas *Cisticola galactotes*.

The area at Dannow consists of several large man-made lakes, embanked as water storage areas for irrigation schemes. Two of these, totalling 200-300 ha, have become almost entirely overgrown with a dense stand of *Typha* sp., from 3-4 m high, and it is in this habitat that all these birds were found. The *Typha* stands are a major roosting site for Red-billed Quelea *Quelea quelea*, which was the main object of our visits, but the area is a major wetland habitat in Somalia for large numbers of birds and the only known locality in the country for several species.

The birds caught on 4 December might well have been on passage, for further north in Ethiopia passage continues until at least 12 December (Ash 1980) and to the south at Ngulia in Kenya until 13 January (Pearson *et al.* 1978). The bird at Dannow on 2 March must have been overwintering, for return migration from further south does not seem to begin until the end of March. At this time, and in early April, birds are laying down pre-migratory fat in Kenya (Pearson *et al.* 1978) and southern Malawi (Hanmer 1979).

We have heard birds singing at Dannow, and at another site (difficult to work because of dense vegetation and the presence of elephants) at 38 km south of Afgoi (1°58'N, 44°57'E) between 26 October and 3 February. We suspect this rich song with some of the qualities of a Nightingale's *Luscinia megarhynchos*, the paired notes of Reed Warblers (but lacking their 'scratchiness'), and without the 'croakiness' of Great and Clamorous Reed Warblers (*A. arundinaceus* and *A. stentoreus* respectively), may be *griseldis*, but confirmation is required.

One of the birds ringed at Dannow on 1 April 1979 was retrapped on 6 November 1979, though *Ortstreue* has been demonstrated already for this species on migration in Ethiopia (Ash 1978) and in winter quarters in Malawi (Hanmer 1979).

Comparing the present choice of habitat with those recorded by Pearson *et al.* in Kenya (coastal scrub and areas of *Suaeda*), and by Hanmer in Malawi (mostly in dense thicket, less often in *Typha* and mulberry), it is interesting to note the range of biotope selected by *griseldis*. The bird is now being found in many areas, and overwinters in southern Somalia and eastern Kenya from just north of the equator to as far south as southern Malawi and southern Mozambique, i.e. from *c.* 1°N to 16°S, a remarkably large area, but in which it may not occur throughout, for a bird with such a restricted breeding range in southern Iraq.

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 Received 9 March 1981

THE SOMALI SPARROW *PASSER CASTANOPTERUS*: A BREEDING RECORD FOR EAST AFRICA Hall & Moreau (1970) describe the nominate race of the Somali Sparrow *Passer castanopterus* as the "common house sparrow of the coastal plain" of northern Somalia, also extending into adjacent highlands. Much less, however, is known of the distinctive race *fulgens*, which occurs in northern Kenya around the Lake Turkana basin, in areas to the east and west of the lake, and in adjacent border areas of Ethiopia (Hall & Moreau 1970, Britton 1980). Recent sightings of *fulgens* in the Dida Galgalla desert and between Lodwar and Ferguson's Gulf (all in northern Kenya) are the first "for many years" (East African Bird Report 1978 and 1979, *Scopus* 2: 105-144 and *Scopus* 3: 105-140).

On 23 May 1981, I found a solitary nest of the race *fulgens* at 2°04'N, 37°37'E, about 4 km northeast of Korr, in the Kaisut Desert of northern Kenya. The nest was at a height of about 4 m in the canopy of a solitary acacia, about 100 m from a dry, acacia-lined wadi.

The young birds could not be seen due to the position of the nest, but they kept up a continuous loud high chirruping. At first only the female of the pair was seen, perched a little distance from the nest. But the male appeared later, flying from the nearby wadi with a 3-cm green caterpillar, which was fed to the nestlings. The bright yellow tinge to the ventral torso and sides of the face of the male confirmed the racial identity.

This race presumably breeds regularly in northern Kenya and southernmost Ethiopia, but this appears to be the first confirmed record of its breeding for East Africa.

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Scopus 5: 83, September 1981 Received 11 June 1981

RAPTOR AND STORK MIGRATION AT NAMANGA, SOUTHERN KENYA During the morning of 24 November 1980, immediately to the east of Namanga, Kenya/Tanzania border (2°33'S, 36°47'E), we watched a large-scale migration of raptors and storks.

At around 08:00, a flock of large eagles *Aquila* was noted soaring over the northern end of the Oldoinyo Orok ridge, immediately to the north of Namanga township. This flock, comprising about 30 birds, moved south-southwest along the top of the ridge and was lost to view; poor light conditions prevented their identification.

A little later, larger numbers of eagles began to soar over the northern end of the ridge and, instead of moving southwards along it, began to drift south-southwestwards over the Namanga township area. We were positioned on the main A104 road, and these large flocks passed directly and impressively overhead.

Between 08:25 and 09:25, we counted a minimum of 250 Steppe Eagles *Aquila nipalensis*, all of which were in the distinctive immature plumage. They were accompanied by a total of 150 White Storks *Ciconia ciconia*, in loose groups.

An immature Imperial Eagle *Aquila heliaca* was identified by the following features: flying amongst the Steppe Eagles along the western slopes of Oldoinyo Orok, it was first distinguished by the very dark, even blackish, colouration of the upperparts, which also showed a paler rump, a small whitish area at the base of the primaries, and a pale head. It then flew out from the hillside and directly over us, in the company of three immature Steppe Eagles and along with the general movement of the eagle flocks. From below, it was at once distinguished by its great size, being markedly larger than the immediately adjacent Steppe Eagles, at first giving the impression that the nearby Steppe Eagles were at a much greater height. The bird was generally dark below, with a very diffuse pale panel on the inner primaries.

The eagle and stork flocks moved on out of sight to the south or south-southeast. Extrapolation of this route would take the birds between Mts Meru

and Kilimanjaro, which may well be an established migration corridor. There appear to be no previous references to this in the literature.

Other raptors seen during the morning were probably related to this southerly movement. At 06:30, an immature Sooty Falcon *Falco concolor* and another unidentified falcon were moving south in heavy mist near Bissel (2°06'S, 36°48'E). During the late morning, small numbers of Tawny Eagles *Aquila rapax* and immature Steppe Eagles, and a single immature Lesser Spotted Eagle *Aquila pomarina*, were observed from the A104 between Namanga and Bissel.

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Scopus 5: 83-84, September 1981 Received 18 August 1981

NOTICES

WBC SYMPOSIUM

The Witwatersrand Bird Club, a branch of the Southern African Ornithological Society, announces that a three day symposium on 'Birds and Man' will be held in Johannesburg in April 1983. Invited overseas and local speakers will present papers. For further information please write to the Symposium Secretary, Witwatersrand Bird Club, Box 72091, Parkview, Johannesburg 2122, South Africa.

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Recent legislation in Kenya regarding foreign exchange procedures has made the following announcement necessary:

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The practical reason for this is that Kenya banks now make a minimum charge of 40 Shillings for handling foreign drafts drawn in Kenya Shillings on local banks.

Kenya residents wishing to take out gift subscriptions to *Scopus* for friends overseas are asked to contact the Hon. Treasurer, D.A. Turner for the rates.

Continued from inside front cover

Any references cited should be listed at the end of the contribution following the form used in this issue. *Names of periodicals MUST be given in full and, in the case of books, the town of publication and the publisher should be given.* A number of works, which are cited frequently, should not be listed under 'References'; the name(s) of the author(s) and date(s) of publication should be given in the text in the normal way.
All contributions should be sent to Dr D.J. Pearson, Department of Biochemistry, University of Nairobi, Box 30197, Nairobi, Kenya.

WORKS WHICH SHOULD NOT BE LISTED UNDER 'REFERENCES'

BACKHURST, G.C., BRITTON, P.L. & MANN, C.F. 1973. The less common Palaearctic migrant birds of Kenya and Tanzania. *Journal of the East Africa Natural History Society and National Museum* 140: 1-38. = Backhurst *et al.* 1973.

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EAST AFRICAN BIRD REPORT

This forms the fifth issue of *Scopus* and each report covers one calendar year. Records of Afrotropical Region (i.e. Ethiopian Region and Malagasy Sub-Region) and Oceanic birds should be sent to D.A. Turner *[tel. 48772]*, Box 48019, Nairobi; records of Palaearctic Region birds to B.S. Meadows *[tel. 48535]*, Box 30521, Nairobi. Records should be sent in early in the new year to ensure the speedy production of the Bird Report. Reports of rare birds may be phoned through to any OS-C member.

BIRDS OF EAST AFRICA

Copies of this 270 page book are available from D.A. Turner, Box 48019, Nairobi at the following post-paid prices. All cheques should be made out to 'Birds of East Africa'. Those overseas *MUST* remit in Sterling, US$ or the equivalent in a convertible currency; drafts in Kenya Shillings cannot be accepted.

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SCOPUS

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SCOPUS

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All material for *Scopus*, including papers, short communications, letters and notices, should be sent in the first instance to the Chairman of the Ornithological Sub-Committee, Dr D.J. Pearson *[tel. 47041]*, Department of Biochemistry, University of Nairobi, Box 30197, Nairobi.

Other Sub-Committee members are as follows: G.C. Backhurst *[tel. 891419]*, Editor of *Scopus* and Ringing Organizer, Box 24702, Nairobi; J.S.S. Beesley, Box 634, Arusha, Tanzania; P.L. and Mrs H.A. Britton (U.K.); Dr Margaret Carswell, Box 7051, Kampala; Dr K.M. Howell, Box 35064, Dar es Salaam; Dr A.D. Lewis, Department of Geology, Box 30197, Nairobi; B.S. Meadows *[tel. 48535]*, Box 30521, Nairobi; Dr D.E. Pomeroy *[tel. Kahawa 439]*, Box 43844, Nairobi; J.F. Reynolds (U.K.); D.K. Richards *[tel. 501501]*, Box 30750, Nairobi; P.B. Taylor, Nest Record Scheme Organizer, *[tel. Karen 2019]*, Box 25138, Nairobi.

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Scopus welcomes original contributions in English on all aspects of the ornithology of eastern Africa. Contributions will be assessed by the Sub-Committee and by independent referees. The material published in *Scopus* will be divided into 'papers' and 'short communications', the latter will usually be less than two pages in length. 'Papers' should be written in the third person (except in the 'Acknowledgements' section); 'short communications' may be written in the first or third person. Authors of 'papers' are entitled to five copies of their contribution *gratis*. Extra copies, which will be supplied at cost, *must* be ordered when the MS is submitted.

Contributions should be typed in 1½ or double spacing on one side of the paper only, with wide margins all round, and should be submitted in duplicate. Exceptionally, clear hand-written MSS will be considered but these too should be sent in duplicate. Both English and scientific names of birds should be given when the species is first mentioned, thereafter only one should be used. English and scientific names should be those of *Birds of East Africa* unless the species does not occur in that work.

Tables, which should be numbered, *should appear in the typescript, NOT grouped on separate sheets at the end*. Metric units should be used. If non-metric units were used in the original observation or experiment, the approximate metric equivalent should be given in brackets.

Illustrations should be on bristol board, good quality white paper or tracing material, in line - i.e. black on white, and should not be larger than 19 x 23 cm. Lettering (in black) will be the responsibility of the author and should be done neatly in Letraset (or similar), no larger than 14 point (3.9 mm). Each illustration should be numbered (Fig. 1, etc) and be provided with a legend typed on a separate sheet of paper. Photographs will be considered if they are absolutely necessary.

Continued inside back cover

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SCOPUS

BIRD-RINGING RESULTS AND RINGED BIRD RECOVERIES IN ETHIOPIA

J.S. Ash

A bird-ringing scheme commenced in Ethiopia in 1969, and remained active through 1980. Interim results and the totals ringed appeared in duplicated reports (Ash 1972-1975, 1977-1979) and one printed report (Ash 1976), but these had limited circulation and are not readily available. As active ringing has now ceased, except of *Quelea quelea* by W. Erickson in connexion with an FAO project, and there is little likelihood of any further recoveries, it is expedient to summarize all the results in one place.

An attempt was made, by contacting the main ringing schemes, to trace all the recoveries of ringed birds in Ethiopia, so the opportunity is also taken to publish all the recoveries known to me of ringed birds in the country. Some of these have incomplete data, and others may not have been traced, so I shall be grateful for *addenda* and *corrigenda* to the list included here.

The following participated in the ringing scheme during the years shown against their names, with individual ringing totals in parentheses:

Dr J.S. Ash, 1969-1977 (42 304); Dr R.W. Ashford, 1972 (296); C. Erard, 1971 (18); W. Erickson, 1977-1980 (12 410); Brother Edmund Johnson, 1974-1977 (250); G. Nikolaus, 1972-1976 (1516); Dr C.S. Olson, 1973-1975 (280); H. Pain, 1975-1976 (1194); Dr S.J. Tyler, 1973-1976 (2710); Dr E.K. Urban, 1973-1974 (325).

A grand total of 61 303 birds was ringed of 495 species during the period, but a degree of selection was involved, and only about half the birds captured were actually ringed. Those mainly ringed included the following: samples of 50 Afrotropical species in each of five areas in connexion with arbovirus studies, all Palaearctic migrants, all known intra-tropical migrants, and others in special studies (e.g. garden bird studies in Addis Ababa, a White Pelican study, etc.).

Only British Trust for Ornithology rings were used. The recovery rate was very low, as might be expected, for largely there is indifference to birds in Ethiopia, and most migrants leaving pass over large tracts of country with small human populations with a high degree of illiteracy - factors which militate against the reporting of recoveries. The only other bird-ringing undertaken in Ethiopia so far as I know is a small number (560) by a Swedish group (Broberg 1967), and some colour-ringing in 1968 in an Addis Ababa garden (Urban 1975). Other results from ringing in Ethiopia, in addition to the reports quoted above, have been published elsewhere, notably in Ash (1978a), Tyler (1979) and Urban & Jefford (1977).

The total list of species ringed is too long for inclusion here, but can be found in the separate annual reports. Table 1 includes only the totals of

Palaearctic migrants ringed, together with those of other species for which recoveries were reported by the British Trust for Ornithology. For those Palaearctic species which have Afrotropical representitives, such as Little Bittern, Scops Owl, Hoopoe, etc., only those are included for which subspecific identification was certain. Others which cannot be separated, such as Squacco Heron, are excluded.

TABLE 1

Ringing totals of Palaearctic migrants and of those other species for which recoveries were reported by the British Trust for Ornithology

Species	Ringed	Recov
Pelecanus onocrotalus White Pelican	420	4
Ixobrychus minutus Little Bittern	14*	-
Phoenicopterus ruber Greater Flamingo	8	-
Alopochen aegyptiacus Egyptian Goose	22	1
Anas acuta Pintail	3	-
Anas clypeata Shoveler	2	-
Anas querquedula Garganey	8	-
Circus aeruginosus Eurasian Marsh Harrier	1	-
Circus macrourus Pallid Harrier	6	-
Circus pygarus Montagu's Harrier	2	-
Accipiter tachiro African Goshawk	17	1
Buteo augur Augur Buzzard	35	2
Buteo buteo Common Buzzard	2	-
Milvus migrans Black Kite	25	1
Falco chicquera Red-necked Falcon	4	1
Falco peregrinus Peregrine Falcon	1	-
Coturnix coturnix Quail	4	-
Crex crex Corncrake	2	-
Porzana porzana Spotted Crake	1	-
Charadrius alexandrinus Kentish Plover	8	-
Charadrius asiaticus Caspian Plover	1	-
Charadrius dubius Little Ringed Plover	77	-
Charadrius hiaticula Ringed Plover	94	-
Charadrius mongolus Mongolian Sandplover	1	-
Pluvialis squatarola Grey Plover	1	-
Vanellus spinosus Spur-winged Plover	471	2
Actitis hypoleucos Common Sandpiper	451	-
Tringa glareola Wood Sandpiper	666	-
Tringa nebularia Greenshank	17	-
Tringa ochropus Green Sandpiper	42	-
Tringa stagnatilis Marsh Sandpiper	188	-
Tringa totanus Redshank	20	-
Xenus cinereus Terek Sandpiper	21	-
Gallinago gallinago Common Snipe	177	-
Gallinago media Great Snipe	3	-
Calidris alpina Dunlin	1	-
Calidris ferruginea Curlew Sandpiper	268	-
Calidris minuta Little Stint	1390	1
Calidris temminckii Temminck's Stint	233	-
Limicola falcinellus Broad-billed Sandpiper	2	-

Table 1, Continued

Species	Ringed	Recov
Limosa limosa Black-tailed Godwit	3	-
Philomachus pugnax Ruff	558	2
Arenaria interpres Turnstone	1	-
Pluvianus aegyptius Egyptian Plover	36	2
Larus ridibundus Black-headed Gull	4	-
Clidonias leucopterus White-winged Black Tern	17	-
Gelochelidon nilotica Gull-billed Tern	1	-
Pterocles quadricinctus Four-banded Sandgrouse	22	1
Streptopelia decipiens Mourning Dove	1655	2
Streptopelia lugens Dusky Turtle Dove	126	1
Streptopelia turtur Turtle Dove	30	2
Cuculus canorus Eurasian Cuckoo	7	-
Asio flammeus Short-eared Owl	1	-
Otus scops Scops Owl	22*	-
Caprimulgus europaeus Eurasian Nightjar	15	-
Apus apus Eurasian Swift	1	-
Ceryle rudis Pied Kingfisher	271	3
Halcyon leucocephala Chestnut-bellied Kingfisher	562	2
Merops apiaster Eurasian Bee-eater	3	-
Merops persicus Blue-cheeked Bee-eater	3	-
Upupa epops Hoopoe	74*	1
Jynx torquilla Eurasian Wryneck	86	1
Hirundo rustica Eurasian Swallow	1019	4
Riparia riparia Sand Martin	382	1
Oriolus oriolus Golden Oriole	15	1
Pycnonotus barbatus Common Bulbul	1440	1
Cercotrichas galactotes Rufous Bush Chat	25	-
Irania gutturalis Irania	19	-
Luscinia luscinia Sprosser	154	-
Luscinia megarhynchos Nightingale	510	1
Luscinia svecica Bluethroat	25	-
Monticola saxatilis Rock Thrush	7	-
Monticola solitarius Blue Rock Thrush	2	-
Oenanthe hispanica Black-eared Wheatear	2	-
Oenanthe isabellina Isabelline Wheatear	32	-
Oenanthe oenanthe Northern Wheatear	12	-
Oenanthe pleschanka Pied Wheatear	56	-
Phoenicurus phoenicurus Redstart	294	-
Saxicola rubetra Whinchat	24	-
Saxicola torquata Stonechat	18*	-
Turdus abyssinicus Northern Olive Thrush	168	2
Turdus litsipsirupa Groundscraper Thrush	9	1
Turdus philomelos Song Thrush	6	-
Acrocephalus arundinaceus Great Reed Warbler	100	-
Acrocephalus griseldis Basra Reed Warbler	61	1
Acrocephalus palustris Marsh Warbler	77	-
Acrocephalus schoenobaenus Sedge Warbler	89	-
Acrocephalus scirpaceus Reed Warbler	1158	1
Acrocephalus stentoreus Clamorous Reed Warbler	2	-
Hippolais icterina Icterine Warbler	3	-

Table 1, Continued

Species	Ringed	Recov
Hippolais languida Upcher's Warbler	8	-
Hippolais pallida Olivaceous Warbler	297	-
Locustella fluviatilis River Warbler	11	-
Locustella luscinioides Savi's Warbler	68	-
Locustella naevia Grasshopper Warbler	6	-
Phylloscopus collybita Chiffchaff	406	-
Phylloscopus sibilatrix Wood Warbler	1	-
Phylloscopus trochilus Willow Warbler	1232	-
Sylvia atricapilla Blackcap	902	4
Sylvia borin Garden Warbler	361	-
Sylvia communis Whitethroat	505	-
Sylvia curruca Lesser Whitethroat	246	-
Sylvia hortensis Orphean Warbler	28	-
Sylvia mystacea Ménétries' Warbler	27	-
Sylvia nisoria Barred Warbler	162	-
Muscicapa striata Spotted Flycatcher	91	-
Anthus cervinus Red-throated Pipit	204	-
Anthus trivialis Tree Pipit	141	-
Motacilla alba White Wagtail	36	-
Motacilla cinerea Grey Wagtail	7	-
Motacilla flava Yellow Wagtail	1162	1
Dryoscopus gambensis Northern Puffback	36	1
Lanius collurio Red-backed Shrike	42	-
Lanius isabellinus Red-tailed Shrike	33	-
Lanius nubicus Nubian Shrike	54	1
Lanius senator Woodchat Shrike	2	-
Creatophora cinerea Wattled Starling	527	1
Lamprotornis chalybaeus Blue-eared Glossy Starling	510	1
Nectarinia tacazze Tacazze Sunbird	228	1
Ploceus baglafecht Baglafecht Weaver	236	1
Ploceus taeniopterus Northern Masked Weaver	819	2
Passer griseus Grey-headed Sparrow	491	1
Hypochera chalybeata Indigobird	502	1
Emberiza hortulana Ortolan Bunting	31	-

*Palaearctic migrant races only totalled.

RECOVERIES

In 1972 I circulated a list of all recoveries of birds known at that time in Ethiopia to 51 major ringing schemes asking for additions and amendments. The following were written to; those marked with one asterisk replied, stating that there were no additional data; those marked (*) stated that it was not possible to check their records, and those with two asterisks sent additional data; there was no reply from the others: Angola: Dr Pinto, Dr Santos. Belgium: Brussels. Bulgaria: Sofia**. Channel Islands: Jersey. Cyprus: Cyprus Ornithological Society, Dr G.E. Watson. Czechoslovakia: Prague. Denmark: Dansk Ornithologisk Central*, Ringmærknings Afdelingen*, Kalo*, Copenhagen*. East Germany: Hiddensee*. Egypt: Dr G.E. Watson. Estonia: Lihula*. Ethiopia: Dr E.K. Urban. Finland: Helsinki*. France: CRMMO. Hungary: Budapest. Iceland: Reykjavik. India: Dr Salim Ali. Iran: Dr D.A. Scott*. Italy: Bologna. Jordan: Dr G.E. Watson. Kenya: Nairobi. Morocco: Rabat*. Netherlands: Arnhem*. Nigeria: Dr C.H.Fry.

Norway: Vollebekk(*), Stavanger*. Poland: Varsovia**, Dr W. Rydzewski**. Portugal: Oporto*. Romania: Bucarest. Senegal: Dr G. Morel. South Africa: Rondebosch*. South West Africa: Dr R.A.C. Jensen. Spain: Grupo de Ciencias Naturales Aranzadi, Madrid. Sweden: Norrköping*, Stockholm(*). Switzerland: Sempach*. U.K.: B.T.O*. U.S.S.R.: Moscow. West Germany: Helgoland**, Radolfzell**. Yugoslavia: Zagreb. Zaire: Dr De Bont. Zambia: R.J. Dowsett. Zimbabwe: Dr R.M. Harwin.

The earlier results of such schemes as Radolfzell, Helgoland, and Rossitten are difficult to trace, and are probably incomplete, but some recoveries have been found in the literature. In addition, Gerhard Nikolaus kindly searched the Helgoland data files and was able to locate many recoveries, and the late Dr W. Rydzewski provided a valuable list. However, no exhaustive search of the literature has been possible.

From the 61 303 birds ringed in 1969-1980 only 58 recoveries were notified to the B.T.O. and passed to me (0.09 per cent), and of these only 30 were found in Ethiopia. As the value of ringing in Ethiopia largely lies in the need to recognize individuals in special studies, any recovery is to be regarded as a bonus, and almost every one of them is of special value, and provides new knowledge from an area that is virtually unknown as far as bird movements are concerned. Of the known 14 619 Palaearctic migrants ringed, 21 recoveries (0.14 per cent) were reported through the B.T.O. compared with 37 (0.07 per cent) from the other species. However, only two of the Palaearctic migrants were recovered in Africa (0.01 per cent), the remainder being recovered outside (0.13 per cent). Thus the chances of a ringed migrant being recovered outside Africa is 13 times greater than within the continent, and about two times greater than a non-Palaearctic migrant being recovered within Africa. This does not necessarily mean that its chance of survival is less outside Africa (although it may be), but that the chance of its ring being reported is greater. There are seven times fewer (0.01 per cent) Palaearctic migrants recovered within Africa than there are Afrotropical species (0.07 per cent), which suggests a lower mortality rate for the migrants within the continent, not allowing for the fact that they may be there for only about half the year. However, so many interacting factors are involved that the figures do not justify further analysis.

Table 2 details recoveries of birds ringed in Ethiopia, all by the present scheme (i.e. with B.T.O. rings), and recovered elsewhere, and of birds ringed in other countries and reported from Ethiopia. Recoveries within Ethiopia exclude a huge number of retrapped birds at the site of ringing, as well as others showing only local movements. Nomenclature and sequence, as in Table 1, follow Britton (1980). The conventions and symbols used follow Spencer & Hudson (1978), with the following additional abbreviations used for foreign ringing schemes: *BTO* - British Trust for Ornithology, *Mort.* - Mortensen.

In addition, the time elapsing between ringing and recovery follows Backhurst's (1974) convention, e.g. 1:7:13 indicates 1 year, 7 months and 13 days. For ease of reference the White Stork recoveries are grouped in numerical order under their respective ringing schemes, but only the first recovery in each group is identified by its scheme.

Geographical co-ordinates are given in degrees and minutes but the symbols for these units are omitted. Data given in parentheses are approximate while those enclosing the recovery date have the added meaning of denoting the date of the reporting letter (Spencer & Hudson 1978).

Besides the long series of White Stork recoveries, there are many others of special interest. Of particular note is the Squacco Heron, which is, I believe, the first more-than-presumptive evidence for a Eurasian bird in eastern Africa (*vide* Moreau 1972); the Terek and Curlew Sandpipers were presumably on trans-African migration northwards from South Africa, although the latter was

probably a non-breeding bird stopping-over in Ethiopia for the northern summer; a Ruff from the farthest extremity of its range in Siberia; evidence for intra-tropical migration in Egyptian Plover, Pied and Chestnut-bellied Kingfishers; evidence for the origin of east African Turtle Doves from the southern U.S.S.R.; an overwintering Eurasian Wryneck in Addis Ababa; a Nightingale from Armeniya confirming its identification as the race *L. m. africana;* four Blackcaps from Syria and Lebanon, and the first record for a Eurasian Starling from south of the Sahara (although since then there has been another, a sight record).

Fig. 1. *Map showing ringing sites of ringed birds recovered in Ethiopia, and localities where birds ringed in Ethiopia were recovered. Key opposite*

TABLE 2

Recoveries involving Ethiopia

***Note:** where no country name is given, the locality is in Ethiopia.*

PELECANUS ONOCROTALUS WHITE PELICAN

Z302--	1	May/Jun 72	Lake Shalla, 7.27N 38.28E, (Shoa).
	vv	21.06.72	Dit Bahari, 11.32N 41.16E, (Harrar), 548 km (0:1:0); seen until 05.07.72.
Z302--	1	May/Jun 72	Lake Shalla.
	vv	21.06.72	Dit Bahari; seen until 05.07.72.
Z33---	1	Apr/May 73	Lake Shalla.
	vv	08.08.73	Nderit River, 00.20S 36.05E, Lake Nakuru, KENYA, (0:3:0), 904 km; also seen 09.08.73.
Z33526	1	21.04.73	Lake Shalla.
	+	08.05.73	10 km W of Asosa, 10.02N 34.26E, (Wollega), 528 km, 0:0:17.
Z33581	1	26.05.73	Lake Shalla.
	+	03.06.73	Shenon, 8.23N 37.28E, (Shoa), 151 km, 0:0:8.
Z33657	1	04.05.74	Lake Shalla.
	X	27.05.74	Kwetu Farm, 00.29S 36.19E, Gilgil, KENYA, 913 km, 0:0:23.
Z33---	1	01.06.74	Lake Shalla.
	vv	15.06.74	Lake Langano, 7.34N 38.51E, (Shoa), 44 km, 0:0:14.

The first three records and the last are sightings of birds with coloured markers. Z33581 was reported killed whilst eating sheep!

ARDEA CINEREA GREY HERON

Varsovia	1	25.05.71	Krzyzowiec Forest Range, 51.56N 16.23 E, Wloszakowice, Leszno, POLAND.
	/?/	(00.07.73)	Ethiopia.

Table 2 continued overleaf

KEY TO RECOVERIES

A White Pelican 2	***M*** Ruff 1	***W*** Basra Reed W'bler 1
B Grey Heron 1	***N*** Terek Sandpiper 1	***X*** Reed Warbler 1
C Squacco Heron 1	***O*** Egyptian Plover 2	***Y*** Eurasian Swallow 4
E Black Stork 2	***P*** Lesser Black-backed Gull 6	***Z*** Sand Martin 1
F Greater Flamingo 3	***Q*** Caspian Tern 1	***a*** Nubian Shrike 1
G Lesser Flamingo 1	***R*** Pied Kingfisher 1	***b*** Golden Oriole 1
H Black Kite 2	***S*** Chestnut-bellied Kingfisher 2	***c*** Yellow Wagtail 1
J Common Buzzard 1	***T*** Hoopoe 1	***d*** Eurasian Starling 1
K Curlew Sandpiper 1	***U*** Nightingale 1	***e*** Turtle Dove 2
L Little Stint 1	***V*** Blackcap 4	***f*** Osprey 1

D and the hatched area indicate where the 54 White Storks recovered in Ethiopia were ringed.

ARDEOLA RALLOIDES SQUACCO HERON

Moscow E889558	1	20.06.74	Kzyl-Agach Reserve, Lenkoran, Azerbaijan, USSR, 39.00N 48.50E.
	v	13.09.75	Koka, 8.27N 39.06E, (Shoa), 3531 km, 1:2:24. Reringed *BTO* EF72162.

CICONIA ABDIMII ABDIM'S STORK

1080---	1	10.06.72	Lake Shalla, 7.27N 38.28E, (Shoa).
	vv	07.07.72	Debre Zeit, 8.44N 38.59E, (Shoa), 154 km, 0:0:27.

CICONIA CICONIA WHITE STORK

Bucarest B1910	1	24.06.66	Sf. Gheorghe, 44.55N 29.34E, Danube Delta,ROMANIA.
	/?/	late 11.66	'Around Gondar', (12.37N 37.27E), (Begemdir), (0:5:0), (3666 km).
Budapest 9373	1	summer 25	Komajati, Abauj *[untraced]* HUNGARY.
	+	00.12.26	Adua, 14.09N 38.53E, (Tigre), (1:6:0).
Helgoland E2840	1	12.07.69	Böhme, 52.47N 9.28E, (Lüneburg), WEST GERMANY.
	X	02.07.70	Golgol, 14.07N 38.44E, (Tigre), 5011 km, 0:11:20.
H4108	1	10.07.58	Grosswish, 53.51N 9.22E, (Schleswig Hostein), WEST GERMANY.
	X	(14.03.61)	Wollo Province, (2:8:4).
H9141	1	14.06.63	Freiburg-Laak, 53.49N 9.17E, (Stade), WEST GERMANY.
	/?/	(04.12.64)	SW of Lake Tana, (Gojjam), (1:5:21).
H7211	1	18.06.62	Rethem, 52.47N 9.23E, Aller, WEST GERMANY.
	X	(12.02.63)	Sinna, (7.05N 40.10E), (Bale), (0:7:25), (5793 km).
205062	3	00.00.34	Commerau b. Klix, 51.16N 14.32E, EAST GERMANY.
	()	(29.01.35)	Dera, 10.10N 38.59E, Salale, (Shoa), (0:7:0), 5079 km.
207671	1	14.07.31	Oersdorf/Segeberg, 53.55N 10.20E, WEST GERMANY.
	/?/	00.00.32	Adi Quala, 14.37N 38.50E, (Eritrea), 5021 km. *[see notes]*
207671	1	00.00.36	Rosenberg, 53.40N 11.14E, EAST GERMANY.
	+	12.04.38	38 km from Asmara, 15.20N 38.55E, 4829 km. *[see notes]*
210488	1	08.07.32	Thedinghausen, 53.00N 9.05E, Bremen, WEST GERMANY.
	()	(22.09.33)	Gondar, 12.36N 37.28E, (Begemdir), (1:2:0), 5144 km.
212595	1	summer 39	Oberneuland, 50.30N 17.20E, Nysa, *now* POLAND.
	X	09.12.39	Combolcia, 11.04N 39.43E, (Wolo), (0:6:0), 4834 km.
212946	3	10.07.33	Malini, 50.31N 18.18E, POLAND.
	/?/	29.08.36	S of Lake Tana, 11.35N 37.22E, (Gojjam), 3:1:19, 4662 km.
222133	1	27.06.57	Ochsenwerder, 53.29N 10.05E, Hamburg, WEST GERMANY.
	X	20.11.58	Asmara, 15.20N 38.58E, (Eritrea), 1:4:23, 4959 km.
223477	1	20.06.41	Fallersleben, 52.25N 10.44, WEST GERMANY.
	+	00.11.41	Lake Tana, (12.00N 37.18E), (0:5:0), (5080 km).

226999	?	01.07.39	Nysa, 50.30N 17.20E, POLAND.
	/?/	23.12.39	Between Quozien Mariam and Blue Nile, 0:5:22.
230716	1	08.07.47	Bekmünde, 53.55N 8.30E, WEST GERMANY.
	X	00.11.47	Bishoftu, 8.44N 38.59E, (Shoa), (0:4:0), 5708 km.
232981	1	21.06.51	Glückstadt, 53.47N 9.26E, Holstein, WEST GERMANY.
	X	(13.06.61)	Between Gore and Goba, 9.03N 38.42E, (Bale), 5613 km.
234676	1	09.07.53	Hemke, 52.24N 7.55E, Niedersachsen, WEST GERMANY.
	+	(13.06.61)	Between Gore and Goba, 5560 km.
238147	1	09.07.55	Wathlingen, 52.32N 10.09E, Lüneburg, WEST GERMANY.
	/?/	14.12.55	Gambela, (Tigre), 0:5:5. *[see notes]*
240504	1	09.07.55	Stellau/Wrist, 53.50N 9.45E, WEST GERMANY.
	+	00.12.57	Bahar Dar, 11.32N 37.25E, (Gojjam), (2:5:0), 5296 km.
242017	1	24.06.59	Artlenburg, 53.23N 10.28E, Lüneburg, WEST GERMANY.
	+	(09.12.60)	Tigre Province, (14N 38E), (1:5:0), (5000 km).
244928	1	10.07.68	Altrathjensdorf, 54.14N 11.00E, Oldenburg, WEST GERMANY.
	+	autumn 68	Dembi Woreda, 12.39N 37.29E, (Begemdir), 5169 km.
Hiddensee	1	11.07.73	Mühro, 52.01N 12.15E, Zerbst, EAST GERMANY.
8664	X	24.10.73	Near Woliso, 8.32N 37.59E, (Shoa), 0:3:13, 5367 km.
Kaunas	3	26.06.31	Sebaucius, 55.42N 24.50E, LITHUANIA.
B116	/?/	00.00.32	Danya, 6.30N 37.40E, (Gemu Gofa), 5584 km.
Mort.	3	17.07.19	Varde, 55.37N 8.23E, Janderup, DENMARK.
1638	()	24.10.19	Near Adua, 14.09N 38.53E, (Tigre), 0:3:7, 5296 km.
Radolfzell	1	21.06.58	Horka, 51.17N 14.54E, (Niesky), EAST GERMANY.
B51671	+	00.11.58	Teramni, 14.30N 39.00E, (Eritrea), (0:5:0), 4619 km.
BB994	1	06.06.68	Limnochorion, 40.37N 21.34E, Florina, GREECE.
	X	(16.12.68)	Engiabaia, 10.59N 37.00E, (Gojjam), (0:6:10), 3624 km.
BB8095	1	05.07.55	Bietikow, 53.19N 13.52E, Uckermark, EAST GERMANY.
	+	(14.02.56)	Kreis Bule, 6.20N 38.50E, (Sidamo), (0:7:9), 5688 km.
BB8720	1	29.06.57	Limberg, 51.43N 14.21E, Cottbus, EAST GERMANY.
	+	01.01.58	Wadla-Dawmt, 11N 39E, (Wollo), 0:6:3, (5040 km).
BB8743	1	29.06.58	Sergen, 51.42N 14.30E, Cottbus, EAST GERMANY.
	/?/	early 03.63	Kloster Dinssa Kidanne Meheret, 12.36N 37.10E, near Bahar Dar, (Gojjam), (4:8:0), 4797 km.
BB9262	1	24.06.62	Hofenstetten, 49.20N 12.15E, Oberpfalz, WEST GERMANY.
	/?/	09.11.62	S of Lake Tana, (Gojjam), 0:4:14.
BB13458	1	17.07.60	Molkenberg, 52.42N 12.13E, Magdeburg, EAST GERMANY.
	/?/	(17.01.61)	Begemdir Province, (0:6:0).
BB13668	1	25.06.60	Blindow, 53.22N 13.53E, Neubrandenburg, EAST GERMANY.
	X	(17.01.61)	Tigre Province, (0:6:23).
BB15556	1	07.07.66	Grosspetersdorf, 47.14N 15.19E, Burgenland AUSTRIA.
	/?/	end 11.66	Near Harar, 9.20N 42.10E, (0:4:20), (4912 km) .

Rossitten	?	?	? *[ringing data untraced]*
1282	/?/	05.03.40	Near Bishoftu, 8.45N 38.58E, (Shoa).
B31480	3	28.06.33	Lugowen, 54.37N 21.50E, Chernyakhovsk, USSR.
	+	05.03.34	Engababa, 10.58N 36.58E, (Gojjam), 0:7:5, 5030 km.
B55368	1	22.06.38	Diebowen, 53.46N 21.37E, *now* POLAND.
	X	21.06.39	Ponte sul Ghibbie, 8.55N 37.08 E, (Wolega), 1:0:0, 5173 km.
B60181	1	04.07.35	Hagenow, 53.27N 11.12E, Greifenberg, EAST GERMANY.
	+	(00.04.39)	Bejan Grande, 7.40N 36.49E, (Kaffa), (3:9:0), 5584 km.
B64056	1	26.06.36	Woosmer, 53.12N 11.10E, Mecklenburg, EAST GERMANY.
	+	07.04.40	Dessie, 11.07N 39.38E, (Wollo), 0:9:12, 5317 km.
BB5141	3	00.06.35	'Strickershagen', '30.05N 16.52E!. *[untraced, the co-ordinates are in Libya]*
	+	29.01.37	Bonga, 7.15N 36.14E, (Kaffa), (1:7:0).
BB 12132	1	16.06.39	Wiesenberg, 52.24N 17.32E, *now* POLAND.
	+	02.05.40	Gulliso, 9.10N 35.30E, (Wolega), 0:10:16, 5071 km.
Sofia	1	26.06.33	Borisovo, 43.55N 25.59E, Russe, BULGARIA.
S12624	X	winter 35/36	Lekempti, 9.05N 36.33E, (Wollega), 4003 km.
S20081	1	28.06.35	Krivina, 43.06N 25.21E, Svishtov, BULGARIA.
	X	00.00.35	Adua, 14.10N 38.54E, (Tigre), 3466 km.
S25674	1	12.07.36	Borisovo, BULGARIA.
	X	00.00.40	Neggio Nadseho, 9.29N 35.29E, (Wollega), 3935 km.
S34885	1	00.07.40	Borisovo, BULGARIA.
	X	22.11.40	Gewani, 10.05N 40.37E, (Harar), (0:4:0), 4015 km.
Varsovia	1	08.06.33	Nowa Huta Forest Range, 53.40N 18.25E, Bydgoszcz,
B2282			POLAND.
	+	00.12.33	Scire, 14.15N 38.15E, (Tigre), (0:6:0), 4711 km.
B522644	3	26.06.52	Tabory, 53.55N 19.31E, (Olsztyn), POLAND.
	/?/	00.06.53	400 km W of Addis Ababa in Illubabor Province, (9N 39E), (1:0:0), (5300 km).
B527337	1	27.06.59	Radziadz, 51.31N 16.58E, Wroclaw, POLAND.
	+	(09.12.60)	Eritrea or Tigre Province, (1:6:0).
B528813	1	15.06.60	Leszczewek, 54.14N 23.05E, Bialystok, POLAND.
	+	(09.12.60)	Eritrea or Tigre Province, (0:5:24).
B530360	1	09.07.58	Slowin, 53.01N 15.47E, Szczecin, POLAND.
	/?/	(06.12.58)	Alfelira, 14.30N 39.00E, (Eritrea), (0:4:27), 4742 km.
Zagreb	1	03.07.60	Idvor, 45.09N 20.36E, Kovacica, YUGOSLAVIA.
D105048	/?/	22.09.60	Saganeiti, 15.04N 39.12E, (Eritrea), 0:2:19, 3770 km.
D108847	1	20.06.63	Senta, 45.36N 20.05E, YUGOSLAVIA.
	+	00.10.63	Near Axum, (14N 38E), (Tigre), (0:4:0), 3893 km.
D103156	1	17.06.60	Aradac, 45.25N 20.24E, Zrcnjanin, YUGOSLAVIA.
	X	(21.12.60)	Agordat, 15.33N 37.53E, (Eritrea), (0:6:0) 3699 km.

D101789	3	16.06.54	Kadino Selo, 41.54N 21.40E, Makedonija, YUGOSLAVIA.
	X	00.12.54	Sakala District, (11.10N 37.15N), Gojjam, (0:6:0), (3740 km).

Notes: *Helgoland* E2840: a second recovery card for this ring is held by Vogelwarte Helgoland (Tigre Province, 05.08.70), however, the data given above are correct, for I reported the ring myself. *Helgoland* 207671: there are two sets of data for this ring number; the first has been confirmed as correct by Helgoland, so that the second is presumably correct ringing and recovery data but recorded under the wrong ring number. *Helgoland* 238147: there are several localities by this name in Ethiopia, but this one in Tigre Province cannot be traced.

CICONIA NIGRA BLACK STORK

Rossitten	1	15.07.38	Rominter Heide, (54.23N 22.23E), *now* POLAND.
B62851	+ ♂	30.01.39	Entotto, 9.07N 38.45E, (Shoa), 0:6:15, (5240 km).
Varsovia	1	09.06.49	Budy Forest Range, 50.25N 22.04E, Rzeszow,
B521404			POLAND.
	/?/	07.01.50	50 km E of Gondar, 12.35N 37.28E, (Begemdir), 0:6:29, 4431 km.

B62851 is this species (*Vogelzug* 11: 24); the entry as *Ciconia ciconia* in *Vogelwarte* 15: 168 is an error.

PHOENICONAIAS MINOR LESSER FLAMINGO

BTO	1	02.11.62	Lake Magadi, 1.55S 36.18E, KENYA.
1032064	X	09.07.64	Sodere, 8.25N 39.23E, (Shoa), (1:8:8), 1198 km.

PHOENICOPTERUS RUBER GREATER FLAMINGO

Iran	1	06.08.71	Ashk Is., 37.25N 45.30E, Lake Rezaiyeh, Azarbaijan, IRAN.
LL1036			
	/?/	00.09.71	Begemdir and Simien Province.
Iran	1	07.08.71	Ashk Is, IRAN.
LL1509	/?/	00.09.71	Begemdir and Simien Province.
Iran	1	25.08.73	Dowguzlar Isles, 37.18N 45.40E, IRAN.
LL3620	+	15.01.74	Massawa, (15.30N 39.30E), (Eritrea), 0:5:10, (2500 km).

[NEOPHRON PERCNOPTERUS EYGPTIAN VULTURE ?

Moscow	?	?	?
A19813	+	early 03.70	Alamata, 12.26N 39.35E, Rayano Kobo, (Wollo).

The description of the recovered bird suggested this species, but no information could be obtained from the Moscow Ringing Office.

BUTEO BUTEO COMMON BUZZARD

Rossitten	3	00.06.08	Dassow, 53.55N 10.59E, Mecklenburg, EAST GERMANY.
1286	+	02.11.23	Makalle, 13.31N 39.28E, Tembien, (Tigre), 15:5:0, 5133 km.

The identification of this bird has been queried (*vide Orn. Monatsber.* 34: 86).

MILVUS MIGRANS BLACK KITE

FS11041	2	09.12.72	Gambela, 8.15N 34.35E, (Illubabor).
	()	03.11.73	Kadogli, 11.00N 29.44E, Kordufan, SUDAN, 613 km, 0:10:25.
Varsovia	1	26.06.61	Bienowice, 51.16N 16.17E, Wroclaw, POLAND.
C29399	/?/	09.10.61	Near Dessie, 11.05N 39.40E,(Wollo), 0:3:13, 4942 km.

PANDION HALIAETUS OSPREY

Helsinki	1	29.06.64	Kullaa, 61.33N 22.07E, Järventausta, FINLAND.
M433	+	00.02.65	Adua, 14.10N 38.54E, (Tigre), (0:7:0), 5433 km.

FALCO CHICQUERA RED-NECKED FALCON

DS88423	2 ♂	07.12.72	Gambela, 8.15N 34.35E, (Illubabor).
	()	04.03.74	Gambela, 1:2:25.

TRINGA TOTANUS REDSHANK

CJ05566	2	19.10.71	Lake Abiata, 7.36N 38.40E, (Shoa).
	v	19.12.71	Koka, 8.27N 39.06E, (Shoa), 0:2:0, 106 km.

XENUS CINEREUS TEREK SANDPIPER

Pretoria	6	25.02.73	Langebaan, 33.05S 18.02E, Cape, SOUTH AFRICA.
2-48356	v	21.04.76	Koka, 8.27N 39.06E, (Shoa), 3:1:27, 5125 km.

CALIDRIS FERRUGINEA CURLEW SANDPIPER

Pretoria	5	Jan/Apr 76	Langebaan, 33.05S 18.02E, Cape, SOUTH AFRICA.
-------	vv	14.06.76	Lake Abiata, 7.34N 38.34E, (Shoa), (0:2:0), 5011 km. (A sight record of a ringed and colour-dyed bird.)

CALIDRIS MINUTA LITTLE STINT

BP61799	2	22.01.76	Lake Langano, 7.34N, 38.51E, (Shoa).
	v	17.07.76	Lake Airkol, 48.28N 62.09E, Turgay Dolina, Kazakhstan, USSR, 0:6:25, 5044 km. *Moscow* K425413 added.

PHILOMACHUS PUGNAX RUFF

CN35959	2 ♀	31.10.70	Lake Abiata, 7.36N 38.40E, (Shoa).
	+	17.05.74	26 km from Yakutsk, 62.19N 129.50E, USSR, 3:7:17, 9314 km.
CN35992	2 ♀	01.11.70	Lake Abiata.
	/?/	(17.08.72)	Koka, 8.27N 39.06E, (Shoa), 1:9:16, 106 km.

PLUVIANUS AEGYPTIUS EGYPTIAN PLOVER

CJ06601	6	25.11.72	Gambela, 8.15N 32.38E, (Illubabor).
	v	25.08.75	Kosti, 13.11N 32.38E, Blue Nile, SUDAN, 2:9:0, 588 km.
CJ40966	5	23.04.75	Gambela.
	+	16.09.75	Khartoum, 15.33N 32.35E, SUDAN, 0:4:24, 840 km

LARUS FUSCUS LESSER BLACK-BACKED GULL

Helsinki	1	17.06.62	Vastamaa, 60.15N 26.13E, FINLAND.
C114775	+	00.08.62	Gore, 8.09N 35.32E, (Illubabor), (0:2:0), 5841 km.
Helsinki	1	28.06.64	Kustavi, 60.41N 21.03E, FINLAND.
H54378	X	17.10.64	Gambela, 8.36N 40.29E, (Harar), 0:3:20), 6007 km.
Helsinki	1	02.07.66	Pitkäkari, 60.48N 21.05E, Turku-Pori, FINLAND.
H65506	X	00.01.68	Lake Langano, 7.40N 38.45E, (Shoa), (1:5:0), 6084 km.
Helsinki	1	08.07.69	Mjölö, 60.06N 25.03E, (Uusimaa), FINLAND.
H105122	/?/	(15.06.70)	Archicho, 15.32N 39.28E, (Eritrea), (0:11:0), 5088 km.
Helsinki	1	06.07.71	Korkiainen, 60.24N 27.42E, (Kymi), FINLAND.
HT00601	X	27.02.72	Lake Tana, (12.00N 37.30E), 0:7:21, (5440 km).
Stockholm	1	08.07.62	Ängholmarna, 55.58N 14.26E, (Kristianstad),
8003025			SWEDEN.
	/?/	(27.10.62)	Wollega Province, (9N 35E), (0:3:0), (5500 km).

STERNA CASPIA CASPIAN TERN

Helsinki	1	02.07.66	Sköldharuklobb, 59.51N 23.39E, (Uusimaa), FINLAND.
H76493	X	00.00.67	Awasa, 7.10N 38.40E, (Sidamo), 5989 km.

STREPTOPELIA TURTUR TURTLE DOVE

DA10780	6	18.12.74	Koka, 8.27N 39.06E, (Shoa).
	+	15.09.76	Near Konstantinoviskiy, 47.36N 41.06E, (Rostov), USSR, 1:8:28, 4354 km.
DS88081	2	30.10.70	Lake Abiata, 7.36N 38.40E, (Shoa).
	+	31.08.74	Near Voznesensk, 47.34N 31.20E, Ukraine, USSR, 3:10:1, 4495 km.

CERYLE RUDIS PIED KINGFISHER

CN35308	2	21.08.70	Gambela, 8.15 34.35, (Illubabor).
	X	early 09.71	Lake Kyoga, 1.38N 32.48E, near Alemere, UGANDA, (1:0:10), 761 km.

Two other Pied Kingfishers moved 14 km.

HALCYON LEUCOCEPHALA CHESTNUT-BELLIED KINGFISHER

CJ40224	3	04.10.74	Aseita, 11.34N 41.27E, (Harar).
	+	01.03.75	Zombo, 4.00S 39.25E, near Mombasa, KENYA, 0:4:25, 1744 km.
CN35522	4	16.10.70	Lake Abiata, 7.36N 38.40E, (Shoa).
	v	19.11.74	Masogo, 0.10S 34.51E, Kano Plains, near Kisumu, KENYA, 4:1:3, 961 km.

CN35522 was captured and bled in an American arbovirus study in Ethiopia, and was similarly treated in a British arbovirus study in Kenya: a remarkable coincidence.

UPUPA EPOPS HOOPOE

CN36341	2	06.03.71	Koka, 8.27N 39.06E, (Shoa).
	+	00.08.73	Az Zilfi, 26.15N 44.50E, SAUDI ARABIA, (2:5:0), 2068 km.

JYNX TORQUILLA EURASIAN WRYNECK

BP25712	2	06.11.73	Addis Ababa, 9.02N 38.46E.
	+	15.03.74	Addis Ababa, 0:4:9.

This bird was killed and stuffed by the finder.

HIRUNDO RUSTICA EURASIAN SWALLOW

HV16353	2	15.10.71	Lake Abiata, 7.36N 38.40E, (Shoa).
	X	17.05.74	Near Babayurt, 43.37N 46.44E, Dagestan, USSR, 2:7:2, 4078 km.
HV16460	2	16.10.71	Lake Abiata.
	v	24.05.73	Near Blagordarnoye, 45.06N 43.26E, Stavropol', USSR, 1:7:8, 4192 km.
HV16920	2	28.10.71	Lake Abiata.
	X	27.05.72	Near Belye Vody, 42.23N 69.49E, Chimkent, Kazakhstan, USSR, 0:6:29, 4922 km.
JX11109	4	18.04.76	Lake Langano, 7.34N 38.51E, (Shoa).
	X	19.05.76	Near Uman', 48.44N 30.15E, Cherkassy, Ukraine, USSR, 0:1:1, 4645 km.

RIPARIA RIPARIA SAND MARTIN

JK11274	4	20.05.75	Koka, 8.27N 39.06E, (Shoa).
	X	28.08.75	Near Magaramkent, 41.36N 48.22E, Dagestan, USSR, 0:3:8, 3795 km.

ORIOLUS ORIOLUS GOLDEN ORIOLE

CJ40254	3	06.10.74	Aseita, 11.34N 41.27E, (Harar).
	+	04.07.75	Vonan Village, 34.34N 50.54E, IRAN, 0:8:28, 2729 km.

LUSCINIA MEGARHYNCHOS AFRICANA NIGHTINGALE

JJ20410	3	13.09.75	Koka, 8.27N 39.06E, (Shoa).
	+	26.07.76	Near Yekhegnadzor, 39.55N 45.18E, Armeniya, USSR, 0:10:13, 3550 km.

ACROCEPHALUS GRISELDIS BASRA REED WARBLER

JS33684	4	19.09.75	Koka, 8.27N 39.06E, (Shoa).
	X	(01.02.77)	Chire, 16.42S 35.20E, Morrumbala District, Zambezia, MOZAMBIQUE, (1:4:13), 2825 km.

ACROCEPHALUS SCIRPACEUS REED WARBLER

HV13605	2	18.04.70	Bahadu, 10.05N 48.37E, Gewani, (Harar).
	()	03.09.73	Ahmadi, 29.05N 48.04E, KUWAIT, 3:4:16, 2112 km.

SYLVIA ATRICAPILLA BLACKCAP

HV17537	2♀	30.10.71	Lake Abiata, 7.36N 38.40E, (Shoa).
	+	10.09.72	Damascus, 33.30N 36.19E, SYRIA, 0:10:11, 2888 km.
JJ19430	2♀	20.11.72	Bulcha, 6.27N 38.11E, (Sidamo).
	/♂?/	02.05.73	Tripolis, 34.27N 35.49E, LEBANON, 0:5:12, 3121 km.

JJ21251	4♂	27.01.74	Bulcha.
	+	21.04.74	Beirut, 33.52N 35.29E, LEBANON, 0:2:25, 3059 km.
KC56497	4♂	01.04.77	Debre Mariam Is., 11.38N 37.25E, (Shoa).
	X	20.04.79	Near Baabda, 33.50N 35.40E, LEBANON, 2:0:19, 2473 km.

MOTACILLA FLAVA YELLOW WAGTAIL

JJ19245	2	24.10.72	Filwoha, 10.00N 40.33E, Mataka, (Harar).
	X	23.10.75	Near Talovaya, 51.06N 40.43E, Voronezh, USSR, 2:11:29, 4567 km.

Note the difference in migration dates in the two years.

LANIUS NUBICUS NUBIAN SHRIKE

BN54172	5♀	02.04.72	Koka, 8.27N 39.06E, (Shoa).
	X+	13.05.73	Shuaiba, 29.03N 48.10E, Mina al Ahmadi, KUWAIT, 1:1:11, 2477 km.

STURNUS VULGARIS EURASIAN STARLING

Helgoland	1	19.05.32	Althaus, 50.37N 17.51E, POLAND.
619337	+	12.06.36	Dessie, 11.07N 39.38E, (Wolo), 4:0:24, 4817 km.

The leg and ring of this bird were returned. It was the first record from south of the Sahara of a Eurasian Starling (Jitschin 1938). Mrs Ute Bechtloff of Vogelwarte Helgoland kindly investigated this record for me (*in litt.* 19.02.73) and confirmed that there seemed to be no error. The bird was shot, the leg and ring returned, together with a map showing the locality; it was confirmed also by the Italian Associazione Provinciale del Cacciatori, Firenze.

CREATOPHORA CINEREA WATTLED STARLING

CN36951	2	22.10.71	Lake Abiata, 7.36N 38.40E, (Shoa).
	+	17.01.73	Dukem, 8.49N 38.54E, (Shoa), 1:2:26, 138 km.

ORTSTREUE

A total of 154 Palaearctic migrants of 29 species were retrapped in subsequent seasons, up to four or five years after the initial ringing. Some of these had clearly returned to previous winter quarters (e.g. *Sylvia mystacea*), but others of even more interest were returning to the same site on passage (e.g. *Acrocephalus griseldis*), indicating fidelity to migratory route. In the following list of species involved, the first figure refers to the number of seasons elapsed since ringing, and the figures in parentheses refer to the numbers of individuals involved each season. Eight birds were retrapped in more than one subsequent season, and these are detailed under month/year, where the first date shown is that of ringing:

Charadrius alexandrinus 2 (1)
Charadrius dubius 1 (2)
Actitis hypoleucos 1 (5), 2 (1), 3 (1), 4 (1)
Tringa glareola 1 (1), 3 (2), 4 (2), 5 (1); (one bird 12.71, 10.74, 09.75, another 12.71, 10.74, 09.76)
Calidris minuta 1 (5), 2 (2), 3 (3), 4 (2); (one bird 10.73, 03.74, 04.76)
Calidris temminckii 1 (2), 2 (4)
Philomachus pugnax 1 (2)
Upupa epops 1 (1), 2 (1)
Jynx torquilla 1 (1), 2 (1)
Luscinia luscinia 1 (1), 2 (1)
Luscinia megarhynchos 1 (21), 2 (3), 3 (3), 4 (2); (one bird 11.71, 10.72,

L. megarhyncos, contd.: 02.75; another 04.71, 02.73, 02.75)
Oenanthe pleschanka 1 (1)
Phoenicurus phoenicurus 1 (1), 2 (4), 3 (1)
Acrocephalus arundinaceus 1 (1)
Acrocephalus griseldis 1 (2), 2 (1); (one bird 10.74, 09.75, 10.76)
Acrocephalus scirpaceus 1 (8), 2 (6), 3 (1); one bird 01.71, 11.71, 10.72
Hippolais pallida 1 (5), 2 (1), 4 (1)
Locustella luscinioides 1 (2)
Sylvia atricapilla 1 (1), 2 (1)
Sylvia borin 1 (3)
Sylvia curruca 2 (5)
Sylvia communis 1 (6)
Sylvia mystacea 3 (1)
Sylvia nisoria 1 (1), 2 (2)
Anthus trivialis 1 (1)
Motacilla alba 1 (2)
Motacilla flava 1 (10), 2 (4), 3 (4), 4 (1)
Lanius isabellinus 1 (1), 2 (2); one bird 03.71, 03.72, 02.73
Lanius nubicus 1 (1), 2 (1).

ACKNOWLEDGEMENTS

I wish to thank: the British Trust for Ornithology for permission to use their rings in Ethiopia (but with the best will in the world were unable to produce more recoveries) and for providing a list of ringing schemes, and R. Hudson, C. Mead and R. Spencer for much correspondence over the years. Dr C.C.H. Elliott (AFRING); Gerhard Nikolaus for much help in abstracting Helgoland data; Mekuria Ayele, my field assistant for much of the time I was in Ethiopia; the late Prof. W. Rydzewski for his list of Ethiopian recoveries; and the ringers listed above for all their friendly collaboration. Graeme Backhurst greatly exceeded his normal duties as an editor with much help and advice in the preparation of the manuscript, and checked all, and added further details to some, of the recoveries; for his help I am most grateful.

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POSTSCRIPT

The following recovery was notified after the above was set.

CALIDRIS MINUTA LITTLE STINT

BP60178	2	21.10.74	Koka, 8.27N 39.06E, (Shoa).
	+	01.01.79	Suq Ash Shuyukh, 30.53N 46.28E, IRAQ, 4:2:11, 2607 km.

The following bird has been recovered but the details have not yet been received by the author.

CIRCAETUS GALLICUS PECTORALIS BLACK-CHESTED SNAKE EAGLE

1080714	6	04.05.76	Chifra, 11.39N 40.01E, (Wollo).

THE FOOD REQUIREMENTS OF OWLS COMPARED WITH THOSE OF DIURNAL RAPTORS

Dale B. Hanmer

Little has been published on the food requirements of owls since the work of Craighead & Craighead (1956) in the U.S.A. A Verreaux's Eagle Owl *Bubo lacteus* was kept for four months in 1975/76 and two White-faced Scops Owls *Otus leucotis* for three months in 1978/79 at Nchalo, Malawi (16°16'S, 34°55'E). The birds were weighed at intervals, as was their food, to the nearest gram.

OBSERVATIONS

VERREAUX'S EAGLE OWL

The immature Verreaux's Eagle Owl was given initially 70-80 g daily and later 80-95 g. Food consisted of small birds, small rodents, insects (crickets, grasshoppers, locusts, dragonflies and alate termites), minced beef, ox heart and liver. The owl was fed at dawn, dusk and about 21:00 hrs, but seldom appeared to be particularly hungry, being generally rather slow to take and eat food. However, there were two occasions when bird specimens being prepared for the museum were grabbed and eaten. The bird's weights and the average quantities of food it received over three periods are given in Table 1.

TABLE 1

Weight of food eaten daily and body weight changes of one Bubo lacteus

Age/sex		1st Wt (g)	2nd Wt (g)	Average Wt food/day (g)	Days	Wt/day gained (g)
Immature male	Period 1	1505	1536	77.2	28	1.1
	Period 2	1536	1603	88.5	58	1.2
	Period 3	1603	1625	85.2	34	0.7

It was assumed to be male (wing at six months old 445 mm; see Ginn (1976) for male and female wing-lengths). It gained weight slowly during the period it was kept and its daily food requirement was apparently just met; this seemed to be about 5.5 per cent of the body weight. This figure probably provided for the equivalent of hunting energy, as the bird had the run of the house and spent much time in play. Wastage of about 10 per cent is included in the food figures in Table 1, leaving an actual daily consumption need of about 5 per cent of body weight. Wastage was determined by weighing some of the daily castings and discarded food (mainly bird heads and wings and the hard parts of large insects).

WHITE-FACED SCOPS OWL

One White-faced Scops Owl was probably an adult female (wing 202 mm) and the other an immature, possibly male (wing at four months old 192 mm), just learning to fly in October 1978 (see McLachlan & Liversidge (1978) for male and female wing-lengths). Initially both birds were fed 30-35 g daily, the immature usually eating a little more than the adult. Food consisted of insects, minced beef, small birds and small rodents; the birds and rodents were usually chopped into four pieces. Generally both owls were fed at the same time, each bird being handed a similar sized food item at the same moment, but sometimes mince or alate termites were placed in a dish for the owls to help themselves.

After about six weeks both birds almost stopped eating, so their food was reduced to 20-25 g daily. After 16 days on this regime both birds became very hungry and so were given 30-35 g daily to fatten them before release. The adult bird averaged 241 g over the whole period that it was kept and the young bird 205 g after the first six weeks, this early period being ignored since the bird was very light and apparently starved when first obtained. These weights fit with the weights of wild White-faced Scops Owls as detailed by Ginn (1976) and Worden & Hall (1978).

TABLE 2

Weight of food eaten daily and body weight changes of two Otus leucotis

Age/sex		1st Wt (g)	2nd Wt (g)	Average Wt food/day (g)	Days.	Wt/day gained (g)
Adult female	Period 1	225	252	32.7	52	0.5 (gain)
	Period 2	252	241	22.8	16	0.7 (loss)
	Period 3	241	246	33.2	10	0.5 (gain)
Immature male	Period 1	146	214	32.7	52	1.3 (gain)
	Period 2	214	193	22.8	16	1.3 (loss)
	Period 3	193	208	33.2	10	1.5 (gain)

Table 2 shows the average quantity of food given, the initial and final weights and the rate of weight gain or loss of both birds over the three separate feeding periods mentioned above. Rates of weight gain on about 33 g of food daily over periods 1 and 3 were similar to the rate of loss on about 23 g daily during period 3, suggesting that the actual requirement was about midway between, i.e. at about 28 g per day. This may be complicated by the differing requirements of male and female, adult and immature, but it gives a figure of about 12-14 per cent for food needs as a percentage of body weight. Wastage, determined by weighing castings and discarded food (mainly hard parts of insects and bird bills, legs and wings), averaged about 5 per cent of the food provided, so that the actual daily consumption need was only about 11-13 per cent of body weight. This figure probably provided for the equivalent of hunting energy, as the birds had the run of the house and spent much time in play.

DISCUSSION

COMPARISON WITH OTHER OWLS

Worden & Hall (1978) noted that breeding White-faced Scops Owls ate 40-45 g each daily, but it is not clear whether this referred to adults, chicks or both. The adults weighed 192 and 206 g, so the food eaten averaged 19.4 to 23.4 per cent of adult body weight, which seems high, but might imply low body weights during breeding. Breeding birds probably require more energy for hunting and perhaps waste more food when feeding chicks. It should be noted in this context that Snelling (1969) found from the food requirements of captive chicks of the Tawny Eagle *Aquila rapax*, that an adult pair feeding chicks would need to catch more than 1½ times their usual weight of food daily.

Summer food needs for owls in the U.S.A., as reported by Craighead & Craighead (1956), are included in Table 3. Requirements were similar, for birds of similar weight, to those found for the two African species. Winter needs in the U.S.A. were higher, except in the Great Grey Owl *Strix nebulosa* which has a very efficient body insulation (L.H. Brown, pers. comm.)

TABLE 3

Food, as a percentage of body weight, required by raptors

Species	Body weight (g)	Wt of food daily (g)	Food as % body wt	References for %
Screech Owl *Otus asio* (summer)	134	14	10.3	Craighead & Craighead 1956
White-faced Scops Owl *O. leucotis*	205-240	26-27	11-13	this study
Great Horned Owl *Bubo virginianus* summer	1100-1200	82-85	7.0-7.4	Craighead & Craighead 1956
Verreaux's Eagle Owl *B. lacteus* (male) (female)	1600-1625 2525-2610	80-82 126-130	5 5?	this study
Eurasian Sparrowhawk *Accipiter nisus*	240	50	21	Brown 1970
African Hawk Eagle *Hieraaetus dubius*	714-940	120-125	15	Brown & Davey 1978
Wahlberg's Eagle *Aquila wahlbergi*	800-1000	80-100	10	Brown 1970
Tawny Eagle *A. rapax*	2150-2326	150	6.5-7.0	Snelling 1969
Fish Eagle *Haliaeetus vocifer*	2634-2900	132-145	5	Brown (pers. comm.)
Crowned Eagle *Stephanoaetus coronatus*	3500	210	6	Brown 1970, 1971
Golden Eagle *A. chrysaetos*	3500-4000	230-240	6.0-6.5	Brown 1971, 1976

COMPARISON OF OWLS WITH DIURNAL RAPTORS

Table 3 lists the reported food requirements and body weights of a variety of owls and diurnal raptors, data being taken both from Africa and from temperate latitudes in summer. Where given, body weight data were taken from the authority cited for food requirement, otherwise they were taken from Ginn (1976), Britton (1970) or Skead (1977). Within both groups of birds of prey, daily food requirement as a percentage of body weight clearly decreases with body size, but it would seem that an owl of given weight requires less food than a diurnal raptor of the same weight. This conclusion is emphasize by Fig. 1, in which daily food requirement is plotted against body weight.

L.H. Brown (pers. comm.) suggested that the Fish Eagle *Haliaeetus vocifer* is not an energetic hunter and hence requires less food than other eagles of similar body weight; owls are also not very energetic hunters and may be better insulated than diurnal raptors, so that their food requirement would be less

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I am grateful to the late Dr L.H. Brown for supplying references and much

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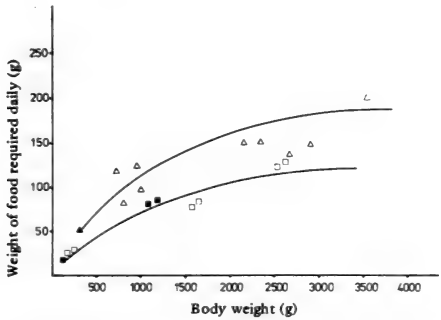

Fig. 1 *Weight of food required by diurnal raptors and owls. African diurnal raptors = △, European diurnal raptors =▲, African owls =□, U.S.A. owls (summer) =■*

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FURTHER RANGE EXTENSIONS AND OTHER NOTABLE RECORDS OF FOREST BIRDS FROM TANZANIA

S.N. Stuart & F.P. Jensen

Stuart & Turner (1980) and Stuart, Howell, van der Willigen & Geertsema (1981) have documented some recent range extensions of forest birds in Tanzania. In this paper we present the latest discoveries, which, we believe, amount to the most extraordinary and unexpected ornithological finds in East Africa in recent years. Of particular interest are the new records from Mwanihana Forest on the eastern scarp of the Uzungwa Mountains. It seems likely that this forest has an avifauna at least as rich in species and endemics as the Usambaras and Ulugurus, which have hitherto been regarded as the centres of species richness in eastern Tanzania (Stuart 1981).

The species list for Mwanihana Forest is still incomplete. However, among the more interesting species so far found are a new species of sunbird *Nectarinia* (Jensen in press), Swynnerton's Forest Robin *Swynnertonia swynnertoni* (new to East Africa), the Dappled Mountain Robin *Modulatrix orostruthus*, the White-winged Apalis *Apalis chariessa* and the Usambara Weaver *Ploceus olivaceiceps nicolli*. Virtually all the ornithological work so far done has been restricted to the area below 1500 m, so clearly it is possible that much more remains to be discovered here, especially at higher elevations.

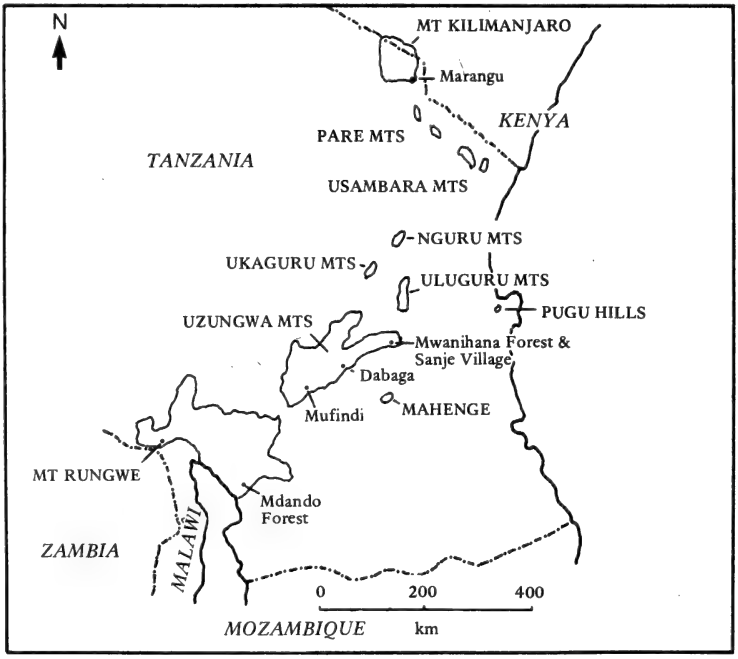

Fig. 1 *Forest areas in Tanzania mentioned in the text*

This paper also includes many records from the Uluguru Mountains. Several species have been added to the area list, these being mainly lowland forest birds. Of particular importance is the rediscovery of the endemic Uluguru Bush Shrike *Malaconotus alius*.

Many of the records refer to highland forest birds occurring at unusually low altitudes. This appears to be a widespread phenomenon in eastern Tanzania where wide altitudinal spans of forest occur from the mountain tops down to the surrounding plains. Many records of species from levels far lower than those at which they normally occur fall between the months April to September. This is suggestive of altitudinal movements of birds to foothill forests in the cold months (probably after breeding at higher altitudes).

Not included in this paper are records from the Pugu Hills. These are being documented by Howell, Baker & Stuart (in prep.).

The areas mentioned in the text are all marked on Figs. 1-3. Appendix 1 lists those birds so far recorded from Mwanihana Forest, an asterisk denoting what are considered to be forest species. Appendix 2 details the distributions of species endemic to the Tanganyika-Nyasa forests (in the sense of Moreau 1966). It is an updated version of Appendix 1 of Stuart & Turner (1980).

SPECIES LIST

Circaetus fasciolatus Southern Banded Snake Eagle
One at Kimboza Forest, 300 m, 19 Jly 1981, first record from the Ulugurus. One near Sanje, 300 m, 27 Jly 1981, first record from the Uzungwas.

Accipiter minullus Little Sparrowhawk
One at Kimboza Forest, 300 m, 19 Jly 1981, and one near Sanje, 300 m, 27 Jly 1981. These may be new localities.

Accipiter ovampensis Ovampo Sparrowhawk
One netted in Mwanihana Forest, 800 m, 28 Jly 1981, and another netted on 18 Sep 1981 at 1350 m in the same locality. These are new records for the area and also an unusual habitat for the species.

Accipiter rufiventris Rufous Sparrowhawk
One in Shume *Juniperus* forest, 5 May 1981, at 1900 m was new to the Usambaras, the nearest confirmed localities being Arusha (Britton 1980), and the Nguru Mountains (Britton 1981).

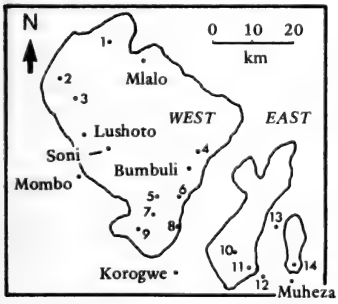

Fig. 2 *The Usambaras*

1 Shagayu Forest	8 Kwenhondwe Forest
2 Shume *Juniperus* forest	9 Ambangulu
3 Shume-Magamba Forest	10 Amani
4 Mazumbai	11 Amani-Sigi Forest
5 Balangai	12 Kihuhwi-Sigi Forest
6 Mahezangulu	13 Kiwanda
7 Dindira	14 Magrotto Estate

Hieraaetus dubius Ayres' Hawk Eagle
One at Sanje, 300 m, 27 Jly 1981, new to the Uzungwas.

Stephanoaetus coronatus Crowned Eagle
Recorded in July 1981 in the Uluguru Mountains from 300 to 2150 m. Although widespread, we can trace no previous Uluguru records.

Aviceda cuculoides Cuckoo Hawk
One at Sanje, 300 m, 27 Jly 1981, new to the Uzungwas.

Aplopelia larvata Lemon Dove
Recorded at Kwenhondwe Forest, 450 m, 14 May 1981, and at Kimboza Forest, 300 m, 19 Jly 1981 - very low altitudes for a characteristically mountain forest bird.

Columba delegorguei Bronze-naped Pigeon
Many records as low as 300 m in the East Usambara foothills, and recorded in Kimboza Forest, 18-20 Jly 1981 at the same altitude (in the Ulugurus).

Poicephalus robustus Brown-necked Parrot
Common in Kimboza Forest, 300 m, 18-20 Jly 1981, an unusual habitat.

Chrysococcyx cupreus Emerald Cuckoo
One heard in Shume-Magamba Forest, 2200 m, 11 Feb 1981. Not previously recorded above 2000 m (Britton 1980).

Schoutedenapus myoptilus Scarce Swift
Common over Shagayu Forest, 2000 m, 30 Apr to 2 May 1981, and at Shume *Juniperus* Forest, 1900 m, 3-5 May 1981. Previously recorded only from Mazumbai in the West Usambaras.

Neafrapus boehmi Böhm's Spinetail
Common in Kimboza Forest, 300 m, 18-20 Jly 1981, new for the Ulugurus.

Telacanthura ussheri Mottle-throated Spinetail
Recorded over Kinole Forest, 1200 m, in mid-Jly 1981, and a few at Kimboza Forest, 300 m, 19 Jly 1981. New for the Ulugurus.

Ispidina picta Pygmy Kingfisher
One netted at 600 m in Mwanihana Forest, 3 Aug 1981, possibly new to the Uzungwas. One netted in Amani-Sigi Forest, 600 m, 22 Aug 1981, and two in Kihuhwi-Sigi Forest in early September 1981, 300 m, suggesting that this species might visit the East Usambara foothills in small numbers in the cold months.

Phoeniculus purpureus Green Wood Hoopoe
Occurs within forest in Mwanihana Forest up to at least 1500 m.

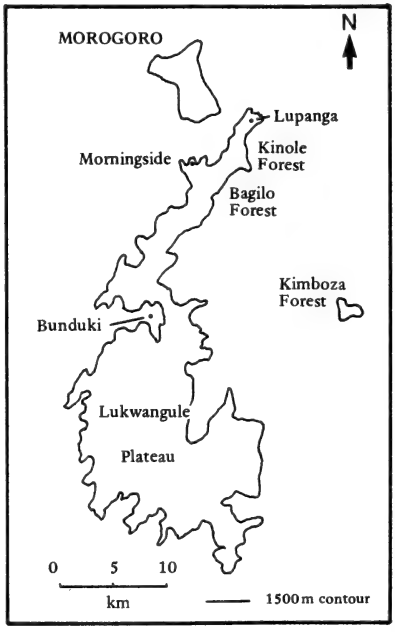

Fig. 3 *The Ulugurus*

Bycanistes bucinator
Bycanistes bucinator Trumpeter Hornbill
Abundant in Kimboza Forest, 300 m, 17-20 Jly 1981, and several at Sanje, 300 m, 27 Jly 1981.

Buccanodon olivaceum Green Barbet
A specimen taken from Mwanihana Forest, 17 Sep 1981 has been described as a new subspecies (Jensen & Stuart, in press). Birds from Mahenge can also be assigned to this new race, but we regard *B. o. ulugurensis* described by Ripley & Heinrich (1969) as invalid and prefer to treat Uluguru birds as nominate (see Jensen & Stuart, in press).

Pogoniulus leucomystax Moustached Green Tinkerbird
Occurs as low as 450 m in Kwenhondwe Forest, 14 May 1981. Not previously recorded below 900 m (Britton 1980).

Pogoniulus simplex Green Tinkerbird
Sympatric with the previous species in Kwenhondwe Forest, not previously recorded from the West Usambaras. Common in Kimboza Forest, 300 m, 18-20 Jly 1981, first confirmed record from the Ulugurus (see Britton 1980).

Indicator variegatus Scaly-throated Honeyguide
One at 800 m in Mwanihana Forest, 29 Jly 1981, possibly new to the Uzungwas.

Campephaga quiscalina Purple-throated Cuckoo Shrike
One seen in Kimboza Forest, 300 m, 18 Jly 1981, the first recent record of the subspecies *muenzneri*. A female was seen subsequently in Mwanihana Forest at 700 m, presumably the same subspecies, but certainly a new locality. The subspecies *muenzneri* appears to be both a highland and lowland form, though most of the specimens and observations are from low altitudes.

Coracina caesia Grey Cuckoo Shrike
Although usually a mountain forest species, it is common down to 300 m in Kihuhwi-Sigi Forest throughout the year. It has also been recorded in Kwenhondwe Forest, 450 m, 13-14 May 1981, Kimboza Forest, 300 m, 19 Jly 1981 and in Mwanihana Forest, 600 m, 6 Jan 1981.

Andropadus masukuensis Shelley's Greenbul
Common down to 500 m in the East Usambara foothills. No previous records below 900 m (Britton 1980).

Andropadus milanjensis Stripe-cheeked Greenbul
Although not previously recorded below 900 m, according to Britton (1980), there is a skin in the Nairobi Museum collected by R.E. Moreau at Kiwanda, East Usambara foothills, 150 m, 20 Jly 1932. In January 1980 a few were recorded at 600 m in Amani-Sigi Forest and a few at 800 m in Mwanihana Forest, early August 1981.

Phyllastrephus fischeri Fischer's Greenbul
A couple netted at 600 m in Mwanihana Forest, 31 Jly 1981, new to the Uzungwas. Common in Kimboza Forest, 300 m, 18-20 Jly 1981, new to the Ulugurus.

Phyllastrephus flavostriatus Yellow-streaked Greenbul
Birds from Mwanihana Forest have been described as a new subspecies (Jensen & Stuart, in press).

Phyllastrephus placidus Olive Mountain Greenbul
One netted at 600 m in Amani-Sigi Forest, 19 Jan 1980, another low altitude record. It is common at Amani at 900 m though Britton (1980) gives the lowest altitude as 1000 m.

Alethe fuelleborni White-chested Alethe
In the Usambaras this species is common down to 500 m throughout the year. Common in Kimboza Forest, 18-20 Jly 1981, at only 300 m, and at Mwanihana Forest at 800 m in late July 1981. No previous records below 900 m (Britton 1980).

Cossypha natalensis Red-capped Robin Chat
A few seen in Mahezangulu Forest, 1000 m, 15 Apr 1981, first record from the West Usambaras, with subsequent records from Dindira (900 m) and Kwendhondwe Forest (450 m).

Modulatrix orostruthus Dappled Mountain Robin
One netted at 1250 m in Mwanihana Forest, only the third locality for this

very rare bird known previously from Namuli Mountain, northern Mozambique, and the East Usambaras. The Mwanihana specimen has been described as a new subspecies (Jensen & Stuart, in press).

Modulatrix stictigula Spot-throat
Abundant up to 2200 m in the West Usambaras (in all localities, not just at Mazumbai as stated by Stuart & Turner (1980)) and up to 2400 m in the Ulugurus. Britton (1980) gives the maximum altitude as 1800 m.

Pogonocichla stellata White-starred Forest Robin
Several low altitude records, especially interesting in the light of the findings of Britton, Britton & Coverdale (1981) on the south Kenya coast: one immature, Kihuhwi-Sigi Forest, 300 m, 11 Feb 1981, two in Kwenhondwe Forest, 450 m, 14 May 1981, common in Kimboza Forest, 300 m, 18-20 Jly 1981, several in Kihuhwi-Sigi Forest, 300 m, 1-10 Sep 1981. Probably most common at lower altitudes in the cold months April to September.

Sheppardia sharpei Sharpe's Akalat
Common in Amani-Sigi Forest in August 1981 down to 600 m. This indicates a cold season movement down the East Usambara scarp, it being absent at this altitude in the hot season. Not previously recorded below 900 m (Britton 1980).

Swynnertonia swynnertoni Swynnerton's Forest Robin
An extraordinary range extension of 1300 km from Mozambique and Zimbabwe. Two were collected in Mwanihana Forest, both at 100 m, the first on 3 Aug 1981 and the second on 17 Sep 1981. They constitute a new subspecies (Jensen & Stuart, in press) and the first records of this species from East Africa.

Turdus gurneyi Orange Ground Thrush
Another species showing a cold season movement down the East Usambara scarp (as low as 450 m in this case). Not previously recorded below 900 m in the East Usambaras, though recently found at only 300 m on Mrima Hill (Britton *et al.* 1981).

Apalis chariessa White-winged Apalis
Several seen in mid July 1981 in Kinole Forest from 1250 to 1400 m. These are the first Uluguru records since 1938 (see Moreau 1940). Subsequent to its discovery in Mwanihana Forest in January 1981 (Stuart *et al.* 1981) there have been further records at this locality from July to September 1981.

Bathmocercus winifredae Mrs Moreau's Warbler
Recorded up to 2400 m on the Lukwangule Plateau, 21-22 Jly 1981. Not recorded previously above 2200 m (Britton 1980).

Camaroptera brachyura Grey-backed Camaroptera
A specimen taken from Mwanihana Forest on 31 Jly 1981 has been assigned to the race *fugglescouchmani*.

Hyliota australis Southern Hyliota
A pair on the forest edge at Dindira, 1000 m, 9 May 1981. This is the first record from the West Usambaras, presumably of the seldom recorded race *usambarae*.

Phylloscopus ruficapilla Yellow-throated Woodland Warbler
Recorded down to 450 m in Kwenhondwe Forest, 13-14 May 1981, and at 800 m in Mwanihana Forest, late July 1981. Not previously recorded below 900 m (Britton 1980). A specimen taken in Mwanihana Forest on 17 Sep 1981 was assigned to the race *minulla*.

Phylloscopus umbrovirens Brown Woodland Warbler
The rarely recorded race *fugglescouchmani* was found to be common in forest above 2250 m on the Lukwangule Plateau, 21-22 Jly 1981.

Muscicapa adusta Dusky Flycatcher
Seen at only 700 m in Mwanihana Forest, late July 1981. Not generally found below 900 m (Britton 1980).

Muscicapa caerulescens Ashy Flycatcher
Particularly common in Kimboza Forest, 300 m, 18-20 Jly 1981, and one seen at 800 m in Mwanihana Forest, 17 Sep 1981.

Myioparus plumbeus Lead-coloured Flycatcher
A pair was seen in Kimboza Forest, 300 m, 18 Jly 1981, and another at 900 m in Mwanihana Forest, 30 Jly 1981.

Bias musicus Black and White Flycatcher
Recorded in Kimboza Forest, 300 m, 18-20 Jly 1981, first record from the Ulugurus. Subsequently it was recorded in Mwanihana Forest at 700 m, late July 1981, new to the Uzungwas, and at the foot of the scarp at Sanje, 300 m, in mid September 1981.

Platysteira peltata Black-throated Wattle-eye
Recorded in Mwanihana Forest, late July 1981, from 500 to 700 m.

Erythrocercus holochlorus Little Yellow Flycatcher
Recorded at 450 m in Kwenhondwe Forest, 13-14 May 1981, first record from the West Usambaras.

Erythrocercus livingstonei Livingstone's Flycatcher
Seen in Mwanihana Forest at 600 m, 1 Aug 1981, new to the Uzungwas, and first record north of the Kilombero River (see Hall & Moreau 1970). The previous species appears to be absent at this locality.

Trochocercus albonotatus White-tailed Crested Flycatcher
Recorded down to 450 m in Kwenhondwe Forest, 13-14 May 1981, where it is sympatric with the next species. No previous records below 900 m (Britton 1980).

Trochocercus cyanomelas Crested Flycatcher
Recorded at 450 m in Kwenhondwe Forest, 13-14 May 1981, first record from the West Usambaras.

Malaconotus alius Uluguru Bush Shrike
An immature was seen very clearly at 1600 m, 2 Jly 1981 on the west side of Lupanga Mountain. An adult was seen nearby at 1650 m on 5 Jly 1981. This bird gave an unmistakable call enabling us to locate the species on both the east and west sides of Lupanga, and on the west scarp of the Lukwangule Plateau at 2100 m. No other birds were seen. It is probably very thinly spread throughout the Uluguru forest above 1500 m. Virtually all previous records of the species had been seen from Bagilo, the most recent in 1962 (Britton 1980).

Malaconotus multicolor nigrifrons Black-fronted Bush Shrike
There are several low altitude records, as follows: 450 m in Kwenhondwe Forest, 13-14 May 1981; 600 m in Mwanihana Forest, 6 Jan 1981; 300 m in Kimboza Forest, 19 Jly 1981; and 300 m, Kihuhwi-Sigi Forest, 4-9 Sep 1981. Not previously recorded below 900 m (Britton 1980).

Lamprotornis corruscus Black-breasted Glossy Starling
A few seen at Marangu, southeast slopes of Kilimanjaro on 6 Aug 1981 were a considerable extension of the range inland in Tanzania (Britton 1980). However, in the National Museum, Nairobi there is a specimen from nearby Old Moshi collected in April 1916. The species is described by the collector as being common at this locality.

Onychognathus walleri Waller's Chestnut-winged Starling
Recorded as low as 300 m in Kihuhwi-Sigi Forest in early February 1980, and 14 Mar 1981. Not previously recorded below 900 m (Britton 1980).

Poeoptera kenricki Kenrick's Starling
Low altitude records from Kimboza Forest, 300 m, 18 Jly 1981 and the Sigi Valley below Amani, 450 m in mid August 1981. Not previously recorded below 900 m (Britton 1980). A few at 1500 m, 17 Sep 1981 in Mwanihana Forest constitute the first record from the Uzungwa Mountains, partially filling a gap between the Ulugurus and Mdando Forest (Njombe).

Anthreptes neglectus Uluguru Violet-backed Sunbird
Recorded in Kimboza Forest, 300 m, 19 Jly 1981, first recent Uluguru observation. In Mwanihana Forest it was seen from 600 to 1150 m in July to September 1981, a range extension to the Uzungwas, inland from the Ulugurus.

Anthreptes rubritorques Banded Green Sunbird
A few seen in Magrotto Estate, extreme east East Usambaras at only 750 m, 7 Apr 1981. Not previously recorded below 900 m (Britton 1980).

Nectarinia loveridgei Loveridge's Sunbird
In July 1981 recorded up to 2400 m on the Lukwangule Plateau, not previously recorded above 2000 m (Britton 1980).

Nectarinia sp. nov.
A male of this most distinctive and recently described species (Jensen, in press), was netted on 2 Aug 1981 at 1000 m in Mwanihana Forest. A female was taken in the same place on 16 Sep 1981. Subsequently two males and one female were seen there but not caught.

Ploceus olivaceiceps nicolli Usambara Weaver
A family party at Shume, 17 Feb 1981. One pair at Balangai, 1400 m, 12 Apr 1981, a new West Usambara locality. One seen in Kinole Forest, 1350 m, only the third record for the Ulugurus. Three seen in Mwanihana Forest, 1200-1250 m, 17 Sep 1981, a range extension to the Uzungwas.

Pirenestes minor Lesser Seed-cracker
One seen in Kimboza Forest, 300 m, 19 Jly 1981, first record from the Ulugurus in recent years.

Serinus burtoni Thick-billed Seed-eater
A pair netted at Mufindi, 1800 m, 30 Aug 1979 in forest were originally identified as the Streaky Seed-eater *S. striolatus*. Recent re-examination of photographs of these birds has shown that they were, in fact, the highly distinctive subspecies of the Thick-billed Seed-eater *S. b. melanochrous*. In the National Museum, Nairobi there are two specimens of this race from Dabega, 2000 m, collected on 24-26 Mar 1952. These records from Dabaga and Mufindi extend the range of *melanochrous* some 200 km northeast from Njombe, into the Uzungwas. Records from Mt Rungwe in August 1980 extend the range 70 km westwards. Clearly *melanochrous* is far more widely distributed thatn was hitherto realized.

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APPENDIX 1

Birds recorded from Mwanihana Forest, eastern Uzungwa Mountains, up to September 1981. An asterisk (*) denotes what are considered to be forest birds in this locality

Gypohierax angolensis Palm-nut Vulture
**Circaetus fasciolatus* Southern Banded Snake Eagle
**Accipiter minullus* ? ssp. Little Sparrowhawk
A. ovampensis Ovampo Sparrowhawk
**A. tachiro sparsimfasciatus* African Goshawk
**Buteo tachardus oreophilus* Mountain Buzzard
**Hieraaetus dubius* Ayres' Hawk Eagle
**Stephanoaetus coronatus* Crowned Eagle
Aviceda cuculoides verreauxii Cuckoo Hawk
**Guttera pucherani* Kenya Crested Guineafowl
**Aplopelia l. larvata* Lemon Dove
**Columba a. arquatrix* Olive Pigeon
**C. delegorguei sharpei* Bronze-naped Pigeon
**Turtur tympanistria* Tambourine Dove
**Tauraco l. livingstonei* Livingstone's Turaco

**Cercococcyx montanus patulus* Barred Long-tailed Cuckoo
**Chrysococcyx klaas* Klaas' Cuckoo
**Apaloderma vittatum* Barred-tailed Trogon
**Ispidina picta* ?ssp. Pygmy Kingfisher
Upupa epops africana Hoopoe
**Phoeniculus purpureus marwitzi* Green Wood Hoopoe
**Bycanistes brevis* Silvery-cheeked Hornbill
**B. bucinator* Trumpeter Hornbill
**Tockus alboterminatus suahelicus* Crowned Hornbill
**Buccanodon leucotis* ?ssp. White-eared Barbet
**B. olivaceum* ssp. nov. Green Barbet
**Pogoniulus b. bilineatus* Yellow-rumped Tinkerbird
**Indicator variegatus* Scaly-throated Honeyguide
**Campethera abingoni* ?ssp. Golden-tailed Woodpecker
**Dendropicos fuscescens hartlaubi* Cardinal Woodpecker
**Mesopicos griseocephalus* ?ssp. Olive Woodpecker
**Smithornis capensis suahelicus* African Broadbill
Psalidoprocne pristoptera ?ssp. Black Roughwing
**Dicrurus ludwigii muenzneri* Square-tailed Drongo
**Oriolus chlorocephalus amani* Green-headed Oriole
Corvus albicollis White-necked Raven
**Campephaga flava* Black Cuckoo Shrike
**C. quiscalina muenzneri* Purple-throated Cuckoo Shrike
**Coracina caesia pura* Grey Cuckoo Shrike
**Andropadus masukuensis roehli* Shelley's Greenbul
**A. milanjensis striifacies* Stripe-cheeked Greenbul
**A. virens zombensis* Little Greenbul
**Phyllastrephus fischeri* Fischer's Greenbul
**P. flavostriatus* ssp. nov. Yellow-streaked Greenbul
**P. p. placidus* Olive Mountain Greenbul
Pycnonotus barbatus layardi Common Bulbul
**Alethe fuelleborni usambarae* White-chested Alethe
**Cossypha natalensis intensa* Red-capped Robin Chat
**Modulatrix orostruthus* ssp. nov. Dappled Mountain Robin
**Pogonocichla stellata orientalis* White-starred Forest Robin
**Swynnertonia swynnertoni* ssp. nov. Swynnerton's Forest Robin
**Sheppardia s. sharpei* Sharpe's Akalat
**Turdus abyssinicus nyikae* Northern Olive Thrush
**T. gurneyi otomitra* Orange Ground Thrush
**Apalis chariessa macphersoni* White-winged Apalis
**A. melanocephala* ?ssp. Black-headed Apalis
**Bradypterus barratti usambarae* Evergreen Forest Warbler
**Camaroptera brachyura fugglescouchmani* Grey-backed Camaroptera
**Macrosphenus k. kretschmeri* Kretschmer's Longbill
**Phylloscopus ruficapilla minulla* Yellow-throated Woodland Warbler
**Muscicapa adusta fuelleborni* Dusky Flycatcher
**M. caerulescens cinereola* Ashy Flycatcher
**Myioparus plumbeus* ?ssp. Lead-coloured Flycatcher
**Batis m. mixta* Forest Batis
B. soror East Coast Batis
**Bias musicus changamwensis* Black and White Flycatcher
**Erythrocercus livingstonei thomsoni* Livingstone's Flycatcher
**Terpsiphone viridis plumbeiceps* Paradise Flycatcher
**Trochocercus albonotatus subcaeruleus* White-tailed Crested Flycatcher

**T. cyanomelas bivittatus* Crested Flycatcher
Motacilla clara torrentium Mountain Wagtail
**Dryoscopus cubla* ?ssp. Black-backed Puffback
Laniarius ferrugineus ?ssp. Tropical Boubou
**Malaconotus multicolor nigrifrons* Black-fronted Bush Shrike
**Onychognathus w. walleri* Waller's Chestnut-winged Starling
**Poeoptera k. kenricki* Kenrick's Starling
**Anthreptes collaris zambesiana* Collared Sunbird
**A. neglectus* Uluguru Violet-backed Sunbird
**Nectarinia olivacea alfredi* Olive Sunbird
**Nectarinia* sp. nov. (see Jensen, in press)
**Zosterops senegalensis stierlingi* Yellow White-eye
**Ploceus bicolor kersteni* Dark-backed Weaver
**P. olivaceiceps nicolli* Usambara Weaver
**Cryptospiza reichenovii australis* Red-faced Crimson-wing
Lonchura bicolor nigriceps Rufous-backed Mannikin

APPENDIX 2

Endemic and near-endemic birds of the Tanganyika-Nyasa montane forests (as defined by Moreau 1966)

Species	Area												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Bubo poensis vosseleri			×										
Buccanodon olivaceum			×	×		×	×	×	×			×	
Oriolus chlorocephalus			×	×		×	×					×	×
Anropadus milanjensis	×	×	×	×	×	×	×	×			×	×	×
Alethe choloensis												×	
Alethe fuelleborni		×	×	×	×	×	×	×	×		×		×
Dryocichloides anomalus					×	×	×	×		×	×	×	
Dryocichloides lowei							×	×					
Dryocichloides montanus			×										
Modulatrix orostruthus			×				×					×	
Modulatrix stictigula			×	×	×	×	×	×		×	×		
Sheppardia sharpei			×	×		×	×	×			×		
Swynnertonia swynnertoni							×						×
Apalis chariessa						×	×					×	
Apalis moreaui			×							×			
Bathmocercus winifredae					×	×							
Orthotomus metopias			×	×	×	×	×	×		×			
Laniarius fuelleborni			×	×	×	×	×	×			×		
Malaconotus alius						×							
Anthreptes rubritorques			×	×		×							
Nectarinia loveridgei						×							
Nectarinia moreaui				×	×								
Nectarinia sp. nov.							×						
Ploceus olivaceiceps nicolli			×			×	×						
Total number of species	1	2	14	10	8	15	15	9	2	4	6	7	4

Key to areas

1 Taita Hills. 2 Pare Mts. 3 Usambara Mts. 4 Nguru Mts. 5 Ukaguru Mts. 7 Uzungwe Mts. 8 Southern Highlands, including Rungwe and Mdando Forest. 9 Mahenge. 10 Matengo Highlands, southern Tanzania and Njesi Plateau, northern Mozambique. 11 Northern Malawi. 12 Southern Malawi, and Namuli Mt and Chiperone Mt, Mozambique. 13 Mountains south of the Zambezi.

BIRD OBSERVATIONS FROM TABORA REGION, TANZANIA

R.K. Walton

This paper summarizes the observations made between 1978 and 1981 when the author was employed on soil survey over the whole of Tabora Region. These observations are compared with those of Reynolds (1968) made between 1959 and 1966.

Many of Reynolds' records come from within 20 miles (32 km) of Tabora town. The widening of the recording area to cover the entire region, together with the occurrence of a few new vagrants has meant the addition of a further 53 species to Reynolds' original list. These are given below with an estimation of their status.

The two sets of observations make it possible to identify those species which appear to have experienced an increase or decline in status in the vicinity of Tabora town over the last 20 years. The main trends are summarized and discussed.

ADDITIONAL SPECIES RECORDED 1978-1981

The species listed below all relate to the author's personal observations. Two species, *Platalea leucorodia* Eurasian Spoonbill and *Lamprotornis purpureus* Purple Glossy Starling are apparently new records for Tanzania and written descriptions have accordingly been submitted to the Ornithological Sub-Committee.

The order follows that given in *Birds of East Africa* (Britton 1980). For convenience in comparing with Reynolds' earlier list the Mackworth-Praed & Grant numbers are given in parentheses. For the same reason the assesment of status follows Reynolds (1968) but refers to the whole region rather than to his recording area. The definitions are repeated below:

R+ Considered to be resident. Definite breeding records.
R Considered to be resident. Presumed, but not proved, to breed.
B Breeds, but uncertain whether resident throughout the year.
B? Probably breeds, but uncertain whether resident throughout the year.
BM Breeds, but absent for part of the year.
B?M Probably breeds, but absent for part of the year.
OB Breeds, but species uncommon in the area.
F Frequently seen, with no clear-cut seasonal peaks. Includes some species which probably breed but for which there is insufficient evidence to warrant this assumption.
M Passage migrants and non breeding visitors.
OM Migrants which appear to be uncommon.
O Occasional or accidental visitors.
?? Status not clear. Includes species that are seldom seen but are probably resident breeding species.

18 (25)	*Phalacrocorax carbo* Greater Cormorant	R
56 (69)	*Platalea leucorodia* Eurasian Spoonbill	O
84 (161)	*Gypohierax angolensis* Palm-nut Vulture	O
92 (184)	*Circus aeruginosus* Eurasian Marsh Harrier	OM
94 (182)	*Circus pygarus* Montague's Harrier	M
101 (159)	*Terathopius ecaudatus* Bateleur	R
106 (174)	*Accipiter melanoleucus* Great Sparrowhawk	??
107 (170)	*Accipiter minullus* Little Sparrowhawk	R+
114 (138)	*Aquila nipalensis* Steppe Eagle	OM
115 (141)	*Aquila pomarina* Lesser Spotted Eagle	M
128 (143)	*Hieraaetus spilogaster* African Hawk Eagle	R

Scopus 5: 116-120, December 1981

130 (149)	*Lophaetus occipitalis* Long-crested Eagle	M
143 (134)	*Macheiramphus alcinus* Bat Hawk	R
147 (127)	*Falco ardosiaceus* Grey Kestrel	??
199 (239)	*Gallinula chloropus* Common Moorhen	R
231 (267)	*Charadrius dubius* Little Ringed Plover	OM
368 (443)	*Poicephalus robustus* Brown-necked Parrot	??
397 (404)	*Cuculus gularis* African Cuckoo	??
419 (538)	*Glaucidium perlatum* Pearl-spotted Owlet	??
444 (636)	*Apus apus* Eurasian Swift	M
459 (566)	*Colius striatus* Speckled Mousebird	R
475 (473)	*Halcyon senegalensis* Woodland Kingfisher	??
499 (459)	*Coracias spatulata* Racquet-tailed Roller	R
541 (583)	*Lybius melanocephalus* Black-throated Barbet	R
558 (601)	*Trachyphonus erythrocephalus* Red and Yellow Barbet	R
566 (608)	*Indicator minor* Lesser Honeyguide	R
578 (622)	*Campethera abingoni* Golden-tailed Woodpecker	R
594 (629)	*Thripias namaquus* Bearded Woodpecker	R
612 (659)	*Mirafra africana* Rufous-naped Lark	??
716 (1148)	*Nicator chloris* Nicator	??
887 (936)	*Hippolais olivetorum* Olive-tree Warbler	OM
928 (792/5)	*Bradornis pallidus* Pale Flycatcher	R
935 (799)	*Melaenornis pammelaina* Southern Black Flycatcher	R
1004 (1125)	*Laniarius ferrugineus* Tropical Boubou	R
1059 (1191)	*Lamprotornis purpureus* Purple Glossy Starling	O
1082 (1274)	*Anthreptes longuemarei* Violet-backed Sunbird	R
1084 (1274)	*Anthreptes orientalis* Eastern Violet-backed Sunbird	R
1091 (1261)	*Nectarinia amethystina* Amethyst Sunbird	R
1134 (1358)	*Amblyospiza albifrons* Grosbeak Weaver	??
1144 (1366)	*Euplectes gierowii* Black Bishop	??
1150 (1363)	*Euplectes orix* Southern Red Bishop	R
1171 (1326)	*Ploceus jacksoni* Golden-backed Weaver	R
1176 (1336)	*Ploceus nigricollis* Black-necked Weaver	R
1189 (1342)	*Ploceus xanthops* Holub's Golden Weaver	R
1208 (1307)	*Petronia pyrgita* Yellow-throated Petronia	R
1214 (1443)	*Vidua fischeri* Straw-tailed Whydah	R
1226 (1418)	*Estrilda astrild* Waxbill	R
1229 (1417)	*Estrilda melanotis* Yellow-bellied Waxbill	??
1263 (1433)	*Uraeginthus ianthinogaster* Purple Grenadier	R
1264 (1402)	*Amadina fasciata* Cut-throat	??
1269 (1383)	*Lonchura malabarica* Silver-bill	R
1280 (1459)	*Serinus atrogularis* Yellow-rumped Seed-eater	R
1293 (1450)	*Serinus sulphuratus* Brimstone Canary	R

In addition, the following species have been postively identified since 1966:

132 (180)	*Melierax metabates* Dark Chanting Goshawk	R
262 (298)	*Gallinago gallinago* Common Snipe	M
264 (300)	*Gallinago nigripennis* African Snipe	M
1020 (1099)	*Nilaus afer nigrotemporalis* Brubru	??

CHANGES IN THE RELATIVE ABUNDANCE OF SPECIES IN THE VICINITY OF TABORA TOWN SINCE 1966

Species recorded around Tabora in 1978-81 were given the qualitative ranking of status explained above. Species were said to have changed their status when they differed from that given in Reynolds' list, except where a species changed

from 'O' or '?' status to unrecorded, or the converse. As in Reynolds' original work, the status refers to within 20 miles (32 km) of Tabora town. In this non-quantitative approach, due allowance should be made for subjectivity in ranking.

The following species may be said to have increased in frequency of observation:

	1959-1966	1978-1981
Phalacrocorax carbo Greater Cormorant	no records	R
Ardea goliath Goliath Heron	O	F
Anastomus lamelligerus Open-billed Stork	O	F
Bostrychia hagedash Hadada	O	F
Dendrocygna viduata White-faced Whistling Duck	O	F
Netta erythrophthalma Southern Pochard	O	F
Nettapus auritus African Pygmy Goose	F	R
Circus ranivorus African Marsh Harrier	M	R
Polyboroides radiatus Harrier Hawk	O	M
Circaetus cinereus Brown Snake Eagle	O	OM
Accipiter minullus Little Sparrowhawk	no records	R+
Hieraaetus spilogaster African Hawk Eagle	no records	R
Lophaetus occipitalis Long-crested Eagle	no records	M
Macheiramphus alcinus Bat Hawk	no records	R
Falco ardosiaceus Grey Kestrel	no records	F
Gallinula chloropus Common Moorhen	no records	R
Fulica cristata Red-knobbed Coot	O	R
Vanellus crassirostris Long-toed Plover	O	R
Vanellus lugubris Senegal Plover	M	F
Apus apus Eurasian Swift	no records	M
Anthreptes longuemarei Violet-backed Sunbird	no records	F
Nectarinia amethystina Amethyst Sunbird	no records	F
Ambylospiza albifrons Grosbeak Weaver	no records	B?M
Estrilda astrild Waxbill	no records	R
Lonchura malabarica Silver-bill	no records	R
Serinus sulphuratus Brimstone Canary	no records	R

The following species may be said to have decreased in frequency of observation:

	1959-1966	1978-1981
Alopochen aegyptiacus Egyptian Goose	F	O
Buteo buteo Common Buzzard	OM	no records
Numenius arquata Curlew	OM	no records
Numenius phaeopus Whimbrel	OM	no records
Tringa totanus Redshank	OM	no records
Calidris minuta Little Stint	M	no records
Limosa limosa Black-tailed Godwit	OM	no records
Himantopus himantopus Black-winged Stilt	F	O
Rostratula benghalensis Painted Snipe	F	O
Glareola pratincola Common Pratincole	F	O
Oena capensis Namaqua Dove	OB	no records
Halcyon albiventris Brown-hooded Kingfisher	R	O
Halcyon leucocephala Chestnut-bellied Kingfisher	R+	no records
Ispidina picta Pygmy Kingfisher	R+	no records
Tockus deckeni Von der Decken's Hornbill	F	??
Smithornis capensis African Broadbill	B	no records
Delichon urbica House Martin	OM	no records

	1959-1966	1978-1981
Luscinia luscinia Sprosser	M	no records
Oenanthe pileata Capped Wheatear	B?M	??
Acrocephalus arundinaceus Great Reed Warbler	M	no records
Acrocephalus schoenobaenus Sedge Warbler	M	no records
Camaroptera brachyura Grey-backed Camaroptera	R+	no records
Sylvia atricapilla Blackcap	OM	no records
Sylvia borin Garden Warbler	M	no records
Sylvia communis Whitethroat	OM	no records
Motacilla flava Yellow Wagtail	M	no records
Lanius collaris Fiscal	R	no records
Malaconotus sulfureopectus Sulphur-breasted Bush Shrike	R	O
Creatophora cinerea Wattled Starling	M	O
Pseudonigrita arnaudi Grey-headed Social Weaver	R+	no records
Passer eminibey Chestnut Sparrow	M	no records
Estrilda erythronotus Black-cheeked Waxbill	R	no records

DISCUSSION

Bearing in mind the non-quantitative nature of the data, a number of remarks can be made. Of those species that have apparently increased in status, there has been a general increase in the number of species favouring permanent marsh. Of these, the Pygmy Goose, Common Moorhen and Red-knobbed Coot have apparently become breeding residents. Most of these records come from Kazima Dam near Tabora, which is no longer the town's main water supply and is comparatively undisturbed. This dam is shallow and well vegetated, in contrast to the larger Igombe Dam where the Greater Cormorant is recorded but few of the marshland species are present.

The increase in the variety of birds of prey observed is striking. Some species are migratory whilst others are apparently breeding residents.

A few passerine species generally associated in the region with undisturbed *miombo* woodland have recently been recorded close to Tabora, notably the Violet-backed and Amethyst Sunbirds. The locations of these observations tends to suggest that the regenerating *miombo* to the immediate east of the town is responsible.

Finally, a species remarkable for its expansion is the Silver-bill, although it is confined to areas with *Acacia*-dominated vegetation, particularly on seasonally poorly drained sites. This is especially interesting in view of the apparent contraction in range of a number of species with similar habitat preferences. This is discussed below.

The principal feature of the list of species that have apparently declined in status is the big reduction in the numbers and variety of Palaearctic migrants, particularly mud-flat feeding waders, and warblers. Perhaps this may be explained partly by habitat reductions as Kazima Dam gradually vegetates and cover declines in Tabora with the destruction of gardens for *shambas*, together with increased burning.

The reasons for the decline in kingfisher numbers are not known, but it is interesting to note that all three species are on the edge of their range in the region.

Several species commonly observed in the region in open *Acacia*-dominated bushland have declined northwards. These are the Namaqua Dove, Silverbird, Chestnut Sparrow, Grey-headed Social Weaver and Wattled Starling. These and other apparently regional residents, the Mourning Dove, Fischer's Lovebird, Red and Yellow Barbet, Grey Flycatcher, Karamoja Apalis, Straw-tailed Whydah,

Purple Grenadier, Blue-capped Cordon-bleu and the Superb and Ashy Starlings, are the main representatives of a species shift in bird populations, reflecting the major vegetation change from *miombo*, in the relatively moist south and west, to the dry bushland country of the northeast. Some of these species reach as far south as Tabora, as once did five species recorded by Reynolds. These are the Spotted Morning Thrush, Speckle-fronted Weaver and the Paradise and Steel-blue Whydahs. It would be interesting to note any future changes in the status of these species around Tabora.

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Ed.

PALAEARCTIC MIGRANTS NEW TO THE NORTH SUDAN

G. Nikolaus

During autumn ringing programmes in 1980 and 1981 at the Sudan Red Sea coast around Suakin (19°05'N, 37°20'E) and Erkowit (18°45'N, 37°10'E), five species of birds formerly unrecorded from the region were found. The species concerned are the Basra Reed Warbler *Acrocephalus griseldis*, the River Warbler *Locustella fluviatilis*, the Olive-tree Warbler *Hippolais olivetorum*, the Cyprus Warbler *Sylvia melanothorax* and the Red-breasted Flycatcher *Ficedula parva*. All but the first are new to the North Sudan while the last two are also new to the Afrotropical Region. A fuller account of these two ringing programmes will be published later.

In the accounts which follow all weights are in grams and wing-lengths in millimetres.

Acrocephalus griseldis Basra Reed Warbler

This species has been recorded previously from Juba, South Sudan (Nikolaus 1979) and Kampala, Uganda (Pearson 1972), so it was to be expected that some birds would migrate from their breeding grounds in Iraq along the west side of the Ethiopian highlands through the Sudan. The bulk of the population probably passes through the Ethiopian rift valley, where the bird is common at the end of August and in September (Ash 1978, pers. obs.)

In 1981 two birds were caught and ringed:

2 Sep 1981 in the mangroves south of Suakin (18°50'N, 37°25'E), weight 14, wing 78, primaries unmoulted; adult.

16 Sep 1981 in a green garden in Suakin, weight 15, wing 81; 1st year.

Other examples might have passed through from the middle to the end of August when there were no ornithologists in the area.

Locustella fluviatilis River Warbler

Cave & Macdonald (1955) listed the River Warbler as an 'expected' species while in Uganda there is only one record (Britton 1980). In September 1981 four examples were recorded:

7 Sep 1981 in the mangroves south of Suakin, weight 13.5, wing 77; 1st year.

8 Sep 1981 Erkowit, in *Acacia* bushes along the Khor Amat (a seasonal river with permanent springs, weight 12, wing 76, primaries worn; adult.

9 Sep 1981 another seen in the same locality at Erkowit, in tamarisk bushes by D.J. Pearson (pers. comm.).

11 Sep 1981 in the mangroves south of Suakin, a very weak individual, weight 11.5, wing 74; 1st year.

Adult birds passing through Ngulia, Kenya in November and December have a number of the outer primaries renewed, and this must be done somewhere between the Red Sea coast and southeastern Kenya (Pearson & Backhurst 1976).

Hippolais olivetorum Olive-tree Warbler

Cave & Macdonald (1955) and Moreau (1972) predicted that this species would be recorded in the Sudan, since it breeds from Yugoslavia east to Asia Minor and winters south of the Sudan. It is not reported from Uganda while in Kenya it is restricted to the eastern part of the country on passage from late September to mid December (Britton 1980). Urban & Brown (1971) record it as 'rare' from Eritrea and northeast Ethiopia. Jennings (1981) gives one sight record from southern Arabia on the Red Sea while Etchécopar & Hüe (1967) note two birds from Egypt, although Watson (1973) did not record it from Egypt nor did Bundy (1976) from Libya.

There are now seven early autumn records for the Sudan, four of which are

specimens, hitherto wrongly identified as Orphean Warblers *Sylvia hortensis*, in the Khartoum Museum:

3 Aug 1981 2 seen in the Sunt Forest (*Acacia*), Khartoum by D.J. Pearson (pers. comm.).

5 Aug 1981 1 seen by the author and D.J. Pearson in low coastal scrub near the mangroves south of Suakin during a big fall of other Palaearctic migrants

10 Jly 1924 Specimen No. 2787, juvenile female, Atbara (17°41'N, 34°00'E), wing 84.

28 Jly 1947 Specimen No. 6192, male, Wad Medani (14°24'N, 33°32'E), wing 85.

30 Aug 1942 Specimen No. 5294, male, as above, wing 84.

17 Sep 1941 Specimen No. 5143, male, as above, wing 87.

All these records support the idea that the Olive-tree Warbler enters Africa through the North Sudan and Eritrea. After a stop-over in the *Acacia* bushland around Kassala, Gedaref and Wad Medani the birds presumably pass along the west side of the Ethiopian escarpment and through eastern Kenya. The bird from Atbara in July might even indicate rare breeding in the Sudan.

Ficedula parva Red-breasted Flycatcher

This species migrates from Europe to wintering grounds in India and Pakistan. During this NW-SE migration birds pass regularly through northeast Africa and Saudi Arabia (Bundy 1976, Jennings 1981). It is not surprising therefore that this bird should have now been found at the Red Sea Coast on passage. A single example was grounded and caught at night during mist using strong lights (see Pearson & Backhurst 1976, Nikolaus 1980) on the escarpment at Erkowit at 1000 m on 2 November 1980. This fact now suggests the possibility that the Red-breasted Flycatcher may overfly NE Africa regularly on passage. Since this was the first definite record (see below) for the Afrotropical Region, the bird was collected and is now in the Stuttgart Museum, West Germany. The data are: female, weight 7.5, wing 68.

Sclater & Mackworth-Praed, in their list (1918) mention one sight record for Bhar-el-Ghazal, South Sudan. Even though the species' occurrence there is very unlikely (and has never been mentioned subsequently), it is possible that it was a vagrant. Further, Moreau (1972) speculates that a few Red-breasted Flycatchers might cross the Sahara to winter in west Africa.

Sylvia melanothorax Cyprus Warbler

The Cyprus Warbler is resident on the island of Cyprus and has been reported exceptionally in winter from Lebanon and Israel; there is also a rejected record of a male said to have been collected in February 1945 in western Saudi Arabia (Jennings 1981).

In the late autumn of 1980 there were three records of this bird at the Red Sea hills where it seemed to winter alongside Ménétries' Warbler *Sylvia mystacea*, feeding together with them in low *Acacia* bushes. The Cyprus Warblers were easily separated by their heavily spotted breast. They were very tame and passed only a few metres away. One bird was collected and is now in the Stuttgart Museum.

17 Nov 1980 1st year female, weight 9, wing 57 collected at Erkowit.

17/18 Nov 1980 at least one more bird seen in the same bushes after the first bird had been collected

22 Nov 1980 an adult female seen at the foothills of Erkowit. It was similar to the other two examples but had black ear-coverts, a light breast with large black spots, the cap was greyish like the back and the legs were reddish brown.

In addition to the five species dealt with above, three others are worth mentioning.

Porzana pusilla Baillon's Crake
There exist two old records of this species for the Sudan, but the bird is not mentioned by Cave & Macdonald (1955). One is still mounted in the Khartoum Museum (Bowen, No. 16, April 1921, male collected at Berber, 18°05'N, 34°00'E). The second bird was caught by Madden in his house on 26 September 1925 (Madden 1930). Without comparative material I am unable to determine the subspecies, but it seems likely that both are Palaearctic birds (nominate race) rather than of the poorly differentiated Afrotropical *intermedia*.

[Phoenicurus erythrogaster Güldenstädt's Redstart
This is not a definite record because, when I saw it at the Red Sea hills in the 1980 autumn, I was not able to identify it properly. Since there is a great possibility that it was *P. erythrogaster,* I think it is worth recording.

In the late evening of 8 and 9 October and then again of 2 and 3 November 1980, I saw, at two different places on the Erkowit escarpment, a large redstart with a dark head with a dirty whitish crown, a large white wing speculum and a reddish brown belly. The bird was very adept at hiding behind cliffs and bushes, so that nearly always only the white speculum on a dark bird with a reddish belly and rump could be seen. Both birds always stayed in their same territory. These records get some support from a recent field sighting in northern Saudi Arabia (M.C. Jennings, *in litt.*).

Güldenstädt's Redstart is a resident of the mountains west and south of the Caspian Sea (Dement'ev 1968). Up to now only altitudinal movements in autumn and spring have been reported.

Sylvia nana nana Desert Warbler
This bird is well known to winter in the northern part of the Sudan. In late autumn 1980 two examples were caught and ringed in the mangroves south of Suakin (19 and 29 October with weights 7.5 and 7 and wings 57 and 56); another was seen at Suakin on 9 November and a fourth individual in the Erkowit foothills on 11 November. All four were identified as nominate race even though they looked like two different species. The two November birds fitted well with the published descriptions (Williamson 1968, Cave & Macdonald 1955, Mackworth-Praed & Grant 1960, Svensson 1975); they were probably winter visitors from Iran or east of the Caspian Sea.

The two October birds were caught soon after arrival from across the Red Sea, in mangroves; however, the upper tail-coverts and the tail itself were bright rufous; the central tail feathers had dark shafts, there was white on the outermost tail feathers and the other outer tail feathers were tipped with white giving the tail a Cisticola- or Rufous Bush Chat-like appearance. This fits with the description given for the nominate race by Dement'ev (1968). Similar birds have also been described by Kitson (1979) from Mongolia. Antony Pettet (pers. comm.) also observed birds with rufous rump and tail at Suakin in early autumn and remarked that they were different from the 'normal' *nana* he knows as a regular winter visitor around Khartoum.

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SHORT COMMUNICATIONS

A BREEDING RECORD OF WHITE PELICANS *PELECANUS ONOCROTALUS* IN TANZANIA On 23 August 1981 a breeding colony of White Pelicans *Pelecanus onocrotalus* was found at the extreme southern end of Lake Natron in northern Tanzania. The colony was situated on two small islets of one or two hectares in extent, separated by a few hundred metres of water. The islets rose to about 10 m in height and were composed of hard soil or soft rock. The number of birds present was difficult to estimate as they were packed almost as closely as breeding penguins, and only one side of the islets was observed, but it was probably in the order of 10 000 individuals excluding those away feeding. The incubating birds occupied the higher part of the land.

The colony was surrounded by knee-deep water, and my companion, Mr Glyn Lewis of Arusha, only approached close enough to ascertain that eggs were present, as we had no wish to disturb the birds. Numerous footprints of jackals *Canis* sp. and Hyaenas *Crocuta crocuta* approached the water's edge, but fortunately turned back at that point. The birds were probably feeding in Lake Manyara, as the morning flight lines were in a southerly direction, and no birds were seen attempting to fish Lake Natron.

J.S.S. Beesley, Box 634, Arusha, Tanzania

Scopus 5: 125, December 1981 Received 19 September 1981

OVERSUMMERING PINTAIL *ANAS ACUTA* IN NORTHERN TANZANIA The Pintail *Anas acuta* is a regular migrant to northern Tanzania from November to April. However, in August and October 1980, a male was seen in the Arusha National Park and in August 1981 three males were seen on 3rd and one on 30th, all birds frequenting the same small area on Big Momela Lake. On 3 August I was accompanied by Dr C.C.H. Elliott and it was noted that the birds were reluctant to fly; one which did lacked a number of primaries.

J.S.S. Beesley, Box 634, Arusha, Tanzania

Scopus 5: 125, December 1981 Received 19 September 1981

RED-FOOTED FALCONS *FALCO VESPERTINUS* IN TSAVO WEST NATIONAL PARK On 20 March 1981 I was a passenger in a vehicle travelling through Tsavo West NP between Maktau and Taveta. Just before sunset, west of Maktau, I noticed at least 5 small falcons perched on roadside bushes. These birds were readily identifiable as female and immature *F. vespertinus* on the basis of their small size, rather slim appearance, the almost unmarked orange-buff underparts (adult females), the deep buff underparts with dark streaks (immatures) and the pale heads with rich buff crown, narrow dark moustachial stripe and dark colour below and beyond the eye (all ages). A short distance further on I saw a group of falcons flying over grassland near the road and closer observation revealed that there were many small falcons in the area, flying across the road in a general northerly direction. The light was by this time becoming poor, but I was able to identify most of the 30 birds which passed close to where I stood. Of these birds, at least 2 were Lesser Kestrels *F. naumanni* while at least 20 were *F. vespertinus*. Several of these were adult females with orange-buff underparts and underwing coverts; the others were young birds, having paler underparts with dark streaks, barred wings and tails, and the head pattern already described. One adult male flew directly overhead at close range, enabling me to see clearly its dark grey plumage with darker underwing coverts and its rufous thighs and undertail coverts. At least one bird could have been a subadult male but it was too far away to distinguish colours properly. As

the light faded I saw other birds passing over but I was unable to stay to examine them. The closest distance of observation was about 20 m and all observations were made using x10 binoculars. All young birds and adult females identified had pale heads (with paler foreheads) and were thus separable from both Hobby *F. subbuteo* and Eastern Red-footed Falcon *F. amurensis* on this character as well as on underside colour and pattern. I am very familiar with all the species mentioned, having seen them on many occasions in Zambia.

Most *F. vespertinus* appear to migrate to the west of East Africa (Britton 1980) and to winter in south-central and southwestern Africa (Moreau 1972). Britton (1980) gives two records from Kenya, and two further records are documented by Pearson (1981) and Lewis (1981), the former record being from near Kamboyo in Tsavo West NP. The occurrence of at least 25 birds, possibly a good many more, in Kenya is therefore noteworthy.

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P.B. Taylor, Box 25138, Nairobi

Scopus 5: 125-126, December 1981 Received 19 September 1981

ALTITUDE RECORD FOR RED-NECKED SPURFOWL *FRANCOLINUS AFER* On 10-11 June 1980 I saw several pairs of Red-necked Spurfowl *Francolinus afer* near Kawatera, 5 km northeast of Mbeya along the road to Chunya. The highest point of this road is conveniently marked at 8050 feet (2450 m). Britton (1980) gives the altitude range for this species as sea-level to 1500 m. My observations of several pairs at 2450 m is therefore a significant increase. The surrounding uplands are not much higher although the bare peak of Mbeya Mt reaches 2834 m.

The genus *Francolinus* includes several highland species which usually replace *afer* above 1500 m. However, there are no records in Snow (1978) for other species in this area and the range maps given in Mackworth-Praed & Grant (1957) leave the area blank (although only just in some cases). The natural evergreen forest and upland grassland have, in recent years, been replaced by stands of Holarctic evergreens *Pinus* spp. and local cultivation (*shambas*). It seems likely that any forest species have retreated to the remaining gallery forest on the escarpment slopes. *Francolinus afer* would then be the only member of the genus in a position to exploit the vacant habitat of cultivation and young plantations. However, it may well have been at this altitude all along, competing with other *Francolinus* spp. (if any) at the forest edge.

I could not assign any of the birds to a particular race as this is border country between nominate and *F. a. cranchii*.

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Scopus 5: 126, December 1981 Received 15 October 1981

FIRST EAST AFRICAN RECORD OF THE RED-NECKED STINT *CALIDRIS RUFICOLLIS* On 16 May 1981 C. Taylor and I visited the pans at Ngomeni Salt Works, which are about 25 km north of Malindi, Kenya coast. Some of the pans are disused and are partly overgrown with low vegetation, with pools of rainwater and large patches of mud. The area attracts good numbers of waders and on this occasion there were flocks of Curlew Sandpipers *Calidris ferruginea*, Little Stints *C. minuta* and Marsh Sandpipers *Tringa stagnatilis* with smaller numbers of other species including a Sanderling *C. alba* in breeding plumage. On our arrival at 10:30 hrs the first birds we saw were a flock of about 25 *C. minuta*, most in summer plumage, and our attention was immediately drawn to two birds which stood out from the rest of the flock by virtue of their strikingly-

coloured plumage and which we identified as *C. ruficollis*. We observed the birds for about 45 min in good light using x10 binoculars at distances down to 25 m, and noted down the following field description.

Fractionally larger than the *C. minuta* and appeared bulkier in the body, with larger more rounded heads and higher foreheads. Legs possibly slightly shorter than those of *minuta* and the general impression was that they were chunkier, more bulkily-built birds than *minuta*. The face, throat and upper breast were clear plain brick red with no markings in one bird and a few dark spots at the base of the red breast of the other. The brick-red colour ended abruptly to give a pure white underside. In contrast, even the most well-marked *minuta* were rather patchily-patterned on neck and breast, having dark speckling and paler areas as well as extensive orange colouration: none of them approached the uniform colouring of the *ruficollis*. Both *ruficollis* had little trace of a pale superciliary stripe and we did not notice any pale on the forehead of one bird, the other having a small pale patch there. Crown and nape were similar in colour to the face but with darker streaking on the crown and less streaking on the nape, which was also less patterned than the back. The back pattern was similar to that of *minuta*, being dark brown with orange-red feather edgings. The only noticeable difference was in the upperwing coverts, which in *ruficollis* seemed greyer overall, contrasting more with the back colour and having more white in them than *minuta*, which was buffier in this area. However, these differences were not prominent and it was not easy to pick out the *ruficollis* in rear view from a distance. The bills of the *ruficollis* were straight, black and rather stouter than those of *minuta*. The legs were black and the eyes dark.

In flight the white wing bar of *ruficollis* seemed more prominent than in *minuta* and the tail pattern showed more contrast between the pale outer feathers and the dark inners. Flight action was similar in both species. It was not possible to attribute any calls to the *ruficollis* as the whole flock was noisy in flight. Calls were all variants of the *pip, chip* and repeated notes of *minuta*. All the birds fed in shallow water and on mud and the *ruficollis* mixed freely with the *minuta* flock. On at least two occasions one of the *ruficollis* was aggressively approached by a *minuta* and was chased for a short distance.

The birds were seen at the same locality on 17 May by P.L. and H.A. Britton, who agree with our identification. Subsequent study of relevant literature showed that the characters noted agree with those given for breeding-plumage *ruficollis*, and the uniform brick-red colour of the head, neck and upper breast is a diagnostic character of this species (J.C. Sinclair, *in litt.*). We are therefore satisfied that our identification is correct, even though we are not familiar with this species. On minor plumage details it is interesting to note that Prater, Marchant & Vuorinen (1977) mention that the coverts of *ruficollis* in breeding plumage are grey-brown, inners fringed white, while those of *minuta* are brown with paler edges, and that both these authors and Wallace (1980) state that the outer tail of *ruficollis* may be paler than that of *minuta*. Wallace (*op. cit.*) also states that the wing bar of *ruficollis* is "at least as prominent" as in *minuta*.

Calidris ruficollis breeds in northeastern Siberia and western Alaska and winters south to Australasia (Slater 1970). In Africa it is regular in small numbers on the Natal coast and there are three records from Cape Province and one from Mozambique (J.C. Sinclair, *in litt.*). There is a recent record from Somalia (J.S. Ash *in litt.* to G.C. Backhurst) and two from the Seychelles (Feare & High 1977). There are no previous records from East Africa.

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P.B. Taylor, Box 25138, Nairobi Received 19 September 1981

Scopus 5: 126-128, December 1981

TURTLE DOVE *STREPTOPELIA TURTUR* IN KENYA The Turtle Dove is a regular visitor to northern Africa which also migrates across the Sahara to winter quarters in the Sudan and Ethiopia (Mackworth-Praed & Grant 1957). On 3 January 1981 we observed a Turtle Dove at Samburu Lodge, Kenya (0°40'N, 37°30'E). It was rather tame and walked among the guests looking for scattered food. Knowing the Turtle Dove from Europe and the Dusky Turtle Dove *S. lugens* from Kenya, we were able to identify it as *S. turtur*. At the time we were unaware of its rarity in Kenya and only made some rough field notes although we photographed the bird in colour. An examination of the prints (which are lodged with the Ornithological Sub Committee) reconfirmed the identification.

Because of the paleness of the plumage and the pronounced spots on the wings, we feel that it probably belongs to the Egyptian race *isabellina*.

Samburu Lodge is about 110 km southeast of the site of the first Kenya record at Barsaloi (Horne & Short 1977). The second observation of a Turtle Dove in northern Kenya indicates that it may not be such a rare visitor as one might have expected. It may be that wintering Turtle Doves are often taken to be Dusky Turtle Doves or that most observers, especially those from Europe, are not aware of its rarity.

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The practical reason for this is that Kenya banks now make a minimum charge of 40 shillings (=US$4.00) for handling the payments mentioned above.

Continued from inside front cover

Any references cited should be listed at the end of the contribution following the form used in this issue. *Names of periodicals MUST be given in full and, in the case of books, the town of publication and the publisher should be given.* A number of works, which are cited frequently, should not be listed under 'References'; the name(s) of the author(s) and date(s) of publication should be given in the text in the normal way.
All contributions should be sent to Dr D.J. Pearson, Department of Biochemistry, University of Nairobi, Box 30197, Nairobi, Kenya.

WORKS WHICH SHOULD NOT BE LISTED UNDER 'REFERENCES'

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EAST AFRICAN BIRD REPORT

This forms the fifth issue of *Scopus* and each report covers one calendar year. Records of Afrotropical Region (i.e. Ethiopian Region and Malagasy Sub-Region) and Oceanic birds should be sent to D.A. Turner *[tel. 48772]*, Box 48019, Nairobi; records of Palaearctic Region birds to B.S. Meadows *[tel. 48535]*, Box 30521, Nairobi. Records should be sent in early in the new year to ensure the speedy production of the Bird Report. Reports of rare birds may be phoned through to any OS-C member.

BIRDS OF EAST AFRICA

Copies of this 270 page book are available from D.A. Turner, Box 48019, Nairobi at the following post-paid prices. All cheques should be made out to 'Birds of East Africa'. Those overseas *MUST* remit in Sterling, US$ or the equivalent in a convertible currency; drafts in Kenya Shillings cannot be accepted.

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The 40 page *Check-list of the birds of Kenya* is also available from D.A. Turner. Post-paid: surface: East Africa Shs. 12.00, anywhere in the world £0.70 or US $1.50. Airmail to anywhere in the world £1.00 or US$2.20.

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SCOPUS

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NOTES FOR CONTRIBUTORS

Scopus welcomes original contributions in English on all aspects of the ornithology of eastern Africa. Contributions will be assessed by the Sub-Committee and by independent referees. The material published in *Scopus* will be divided into 'papers' and 'short communications', the latter will usually be less than two pages in length. 'Papers' should be written in the third person (except in the 'Acknowledgements' section); 'short communications' may be written in the first or third person. Authors of 'papers' are entitled to five copies of their contribution *gratis*. Extra copies, which will be supplied at cost, *must* be ordered when the MS is submitted.

Contributions should be typed in 1½ or double spacing on one side of the paper only, with wide margins all round, and should be submitted in duplicate. Exceptionally, clear hand-written MSS will be considered but these too should be sent in duplicate. Both English and scientific names of birds should be given when the species is first mentioned, thereafter only one should be used. English and scientific names should be those of *Birds of East Africa* unless the species does not occur in that work.

Tables, which should be numbered, *should appear in the typescript, NOT grouped on separate sheets at the end*. Metric units should be used. If non-metric units were used in the original observation or experiment, the approximate metric equivalent should be given in brackets.

Illustrations should be on bristol board, good quality white paper or tracing material, in line - i.e. black on white, and should not be larger than 19 x 23 cm. Lettering (in black) will be the responsibility of the author and should be done neatly in Letraset (or similar), no larger than 14 point (3.9 mm). Each illustration should be numbered (Fig. 1, etc) and be provided with a legend typed on a separate sheet of paper. Photographs will also be considered.

Continued inside back cover

Scopus 5 (5), March 1983

SCOPUS

GENERAL REVIEW

Observations in 1981 again came mainly from central and southern Kenya, but there was increased recording from the Kenya coast, and continued activity in the Dar es Salaam and Arusha areas and in the montane forests of eastern Tanzania.

No fewer than six species were added to the East African avifauna during the year. Two Red-necked Stints *Calidris ruficollis* in breeding plumage were located on the Kenya coast in May, and Matsudaira's Storm Petrels *Oceanodroma matsudairae* were identified off Mombasa during July and August. A new species of sunbird was discovered in the Mwanihana forest, East Uzungwa Mts, and Swynnerton's Forest Robin *Swynnertonia swynnertoni* (a new race) was also found at the same locality, over 1 000 km north of its previously known range. Finally, the range of both the Long-billed Crombec *Sylvietta rufescens* and the Red-capped Crombec *Sylvietta ruficapilla* was extended into southwest Tanzania from neighbouring Zambia. Other notable events included 'rediscovery' of both the Uluguru Bush Shrike *Malaconotus alius* and the White-winged Apalis *Apalis chariessa* in the Uluguru Mts (the latter was also found in the Uzungwas), the second recorded occurrence of the Pearl-breasted Swallow *Hirundo dimidiata* in Tanzania, an influx of White-eyed Pochards *Aythya nyroca* in Central Kenya, the second Kenyan and East African records of Pectoral Sandpiper *Calidris melanotos* and Turtle Dove *Streptopelia turtur*, and a series of offshore records of Wilson's Storm Petrel *Oceanites oceanicus*, a bird first definitely identified in East Africa only in 1980.

In Kenya, the year was one of climatic contrasts. Dry, dusty conditions in January and February were followed by an early onset to the 'long' rains. Most areas received heavy storms in mid March, and April was generally very wet. Lake levels rose somewhat, particularly at Naivasha where there was extensive flooding and growth of sedge. With the Lower Tana valley flooded, the Garsen heronry was active, and over 5000 pairs of nesting birds were found there during June. The 'short' rains were light and patchy, and delayed in most eastern areas until mid or late November. By the year's end, most lake edges and other wetlands were drying rapidly. Early in the year, the receding muddy shores of the rift valley lakes held good numbers of waders. A January survey from Baringo to Magadi produced an estimate of 24 000 migrant waders, somewhat higher than the count of January 1980. Extensive areas of marsh left by the drying April-May floods produced interesting assortments of water birds, and towards the end of the year sites such as Naivasha held many hundreds of Common Snipe *Gallinago gallinago* and Wood Sandpipers *Tringa glareola*. Many thousands of Palaearctic

duck were again recorded during January-February and again during December, the principal sites involved being Lakes Solai and Naivasha and the Kinangop.

Although the usual variety of migrant birds of prey was recorded, there were few reports of impressive movements. Most interesting was the occurrence of a large party of Red-footed Falcons *Falco vespertinus* near the Taitas in March. As in other recent years with high rainfall, few migrants remained around Nairobi or elsewhere in Kenya in mid and late April. Some interesting falls were recorded early in the month, however, with scores of Sprossers *Luscinia luscinia*, Whitethroats *Sylvia communis* and Red-backed Shrikes *Lanius collurio* around Mtito Andei after wet nights on 1st and 7th and 300 shrikes (mostly Red-backed) at the Sabaki mouth on 5th. Southward passerine migration was noted as usual, and over 5000 birds were ringed at Ngulia on 15 misty nights between 20 November and 7 December.

There was encouraging response to requests for contributions to the report. In particular, the number of records of Afrotropical birds received was considerably increased. We hope that this was the result of availability of *Birds of East Africa* and other guidelines on record reporting published from time to time by the Sub-Committee. Notes on the documentation of records of unusual interest are again given in the introduction to the general species section of this report. It should be noted that some substantiation and supporting details are required before the Sub-Committee can consider acceptance of a record in the S(A) or S(B) category, whether this is being submitted or mentioned for the first time as a report item or in a *Scopus* note or paper.

D.J.Pearson, Chairman, Ornithological Sub-Committee, E.A.N.H.S.

SPECIES REPORT

Observers are invited to contribute records for this report from Kenya, Tanzania and Uganda. These should be sent to the recorders listed inside the front cover. Guidelines for the type of records required are given in the *Scopus* Supplement of June 1982, copies of which are available free of charge from D.A. Turner, Box 48019, Nairobi. The Society's *Birds of East Africa* will also be found useful for determining the importance of records.

Each species is followed by one or more code letters which make clear the reason for the inclusion of records:

- S(A) or S(B) : SCARCE species for which all acceptable records are published (see *Scopus* Supplement of June 1982)
- R : Other species of special interest whose status in East Africa requires clarification, and for which all records are REQUESTED. Records in this category may sometimes be published in summary or reviewed after several years
- E : Records showing an EXTENSION of range, or from areas where the species is decidedly uncommon or scarce
- N : Records included for their NUMERICAL interest, either of particularly large numbers or accurate counts
- D : Records of migrants where the DATES are of interest
- M : Records of MISCELLANEOUS interest.

Also, all records will fall into one of the following categories:

i. Those supported by a specimen, available for study
ii. Those supported by a detailed description and possibly by parts of the bird, in cases where the whole bird could not be retained
iii. Those of a trapped bird, which is later released, supported by a detailed description and measurements and, if possible, photographs of the bird in the hand
iv. Sight records.

In the case of specimen records, the person submitting the record should state where the specimen has been deposited.

For sight records of very scarce birds certain criteria should be met: for species previously recorded less than five times in East Africa, or less than ten times in sub-Saharan Africa, an attempt should be made to (a) photograph the bird, if at all possible, and (b) obtain corroboration from at least one other *independent* observer. A substantiating description of the bird should be submitted and the reasons for discarding other similar species should be given.

The sub-committee will consider sufficiently substantiated sight records of very scarce birds from a single observer provided that his/her reliability can be vouched for by at least two independent authorities.

Where necessary, descriptions and photographs will be sent to independent referees for adjudication. It is the sub-committee's wish, and responsibility, to ensure that all sight records published in these reports will stand the most stringent scrutiny.

Scopus 5: 131-153, March 1983

AFROTROPICAL AND OCEANIC SPECIES

PODICIPEDIDAE: Grebes

Podiceps nigricollis Black-necked Grebe R: 1 Mbarali rice scheme, Usangu, S Tanzania, 10 Jul (NEB), 500+ Lake Ndutu, Serengeti NP (T) 10 Aug (NEB), 300+ Lake Bogoria 12 Aug (DEW), singles Thika OPs 16 Aug and 1 Nov (ADL, RDM, DJP), 1 Timboroa 22 Aug (RDM, JB), 6 Elmenteita 29 Nov (DKR), several Limuru 26 Dec (DKR).

Tachybaptus ruficollis Little Grebe N: 3000+ N shore Lake Naivasha 28 Feb-1 Mar (BSM). M: 1 dead on beach Dar es Salaam 25 Oct (DCM).

PROCELLARIIDAE: Petrels and shearwaters

Pachyptila sp. A single small sized oceanic, very light coloured but with faint dark markings on wings and back, off Shimoni 25 Aug (MH, PH) - almost certainly a prion species, the first record from East African waters.

Puffinus lherminieri Audubon's Shearwater S(B): 1 found dying on reef at Malindi 13 Jan (LD); corpse seen by PLB and assigned to the race *bailloni*.

HYDROBATIDAE: Storm Petrels

Oceanites oceanicus Wilson's Storm Petrel S(B): Singles reported Malindi and Mombasa waters Jun, Jul, Sep and Dec (CT, PBT, DAT). One or more groups of 4-5 birds off Kipini 19 May (Mr and Mrs A. Braguine *per* DAT). Full details in *Scopus* 6: 13-14.

Oceanodroma leucorhoa Leach's Storm Petrel S(A): 1 off Mtwapa Creek 4 Oct (CT, PBT) - included here as such birds probably not Palaearctic. See *Scopus* 6: 14-15.

Oceanodroma matsudairae Matsudaira's Storm Petrel S(A): Single birds off Mombasa 5 Jul and 22 Aug (PBT). See also *Scopus* 6: 15-16.
The first fully documented records from African coastal waters.

PELECANIDAE: Pelicans

Pelecanus onocrotalus White Pelican E: Recorded Ngomeni saltpans 7 and 21 June and 3 Oct (PBT) - uncommon at coast.

SULIDAE: Boobies

Sula dactylatra Masked Booby R: 1 off Mombasa 7 Nov (PBT).

PHALACROCORACIDAE: Cormorants

Phalacrocorax carbo Greater Cormorant N: Unusual coastal concentrations of 75-100 Ngomeni saltpans during Oct, decreasing thereafter (PBT).

FREGATIDAE: Frigatebirds

Fregata minor Greater Frigatebird S(A): Excluding the possibility of frigatebirds unknown in the Indian Ocean, we must accept an all dark bird seen at very close range at Watamu on 13 Aug (DEP) as being an adult male of this species.

Fregata sp. Single birds reported off Shimoni in Feb, Sep and Oct (MH, PM); all dark birds on 8 Sep and 9 Oct were probably adult male *Fregata minor*.

ARDEIDAE: Herons, Bitterns and Egrets

Ixobrychus minutus payesii Little Bittern R: 2 Homa Bay 16 Mar (ADL, DJP), records from Lake Baringo Jun and Jul (TS), 1 Tana delta 9 Aug (DAT), and 2 Tatanda, SW Tanzania, 17 Dec (DCM).

Ixobrychus sturmii Dwarf Bittern R: 3-4 Tana delta 9 Aug (DAT), 1 Lake Baringo 11 Aug (DEW), 1 Meru NP 18 Nov (DAT), singles Tatanda (T) Nov-Dec (NEB, DCM), and 2 Lake Bilisa, 13 Dec (MACC, DJP).

Ardea goliath Goliath Heron N: 20 together on meadows Lake Bilisa, 28 Feb (DJP).

Ardeola idae Madagascar Squacco Heron R: Recorded Kenya and Tanzania Apr-Nov as follows: 2 Sabaki 17 Apr, small numbers Bamburi 29 Apr-5 Nov, 3 Dar es Salaam 2 Jun, 3-4 Karen, Nairobi, Jul-early Aug, 3 Arusha NP (T) 17 Jul, 1 Lake Diluti, Arusha 8 Aug, 1 Lake Manyara (T) 12 Aug, 1 Mikumi NP (T) 23 Aug, 1 Tana delta 6 Aug, 15+ Thika OPs 16 Aug, 1 Nairobi NP 30 Aug, 1 Dar es Salaam 12 Nov (NEB, HAB, PLB, KMH, ADL, DJP, DKR, PBT, DAT).

Ardeola rufiventris Rufous-bellied Heron R: 100+ in swampy river Usengi flats (Mbeya T) 21 Apr (JSSB).

Egretta alba Great White Heron N: 70+ together on meadow Lake Bilisa, 28 Feb (DJP).

Egretta ardesiaca Black Heron R: Recorded inland as follows: 1 Naivasha 14 Feb, 1 Mwea rice scheme 21 Feb, 20 Lake Bilisa, 28 Feb, 2 Kajansi, Kampala 28 Feb-1 Mar (first for the area), 1 Amboseli NP 24 Mar, 11 Lake Magadi 5 Apr, 60+ Mbarali rice scheme, Usengi (Mbeya T) Apr, a few near Garsen 5 Aug, 4 near Lake Magadi 26 Sep, 1 Lake Baringo 9-18 Nov, 6 Lake Shakababo 12 Dec, small numbers Lake Jipe throughout year (NEB, MEJG, RDM, MJC, DJP, DKR, TS, DAT). At the coast: 20 Gazi 30 Mar and 9 31 Dec, a few Sabaki Apr, 1 Bamburi 1-5 Sep, 2 Mida 20 Oct (HAB, PLB, MACC, RDM, DJP, PBT, DAT). Local resident around Dar es Salaam in flocks 10-15 (NEB).

Egretta gularis African Reef Heron R: Single dark phase birds Bamburi 18 Apr and Ngomeni saltpans 8 Nov (PBT), 2 dark phase birds Kilifi 24 Jan (HAB, PLB).

Gorsachius leuconotus White-backed Night Heron R: An adult in flooded road by mangrove swamp at Kurasini, Dar es Salaam, 28 Mar (NEB).

CICONIIDAE: Storks

Anastomus lamelligerus Open-billed Stork N: Large flocks of 250+ Lake Jipe 22 Mar (DAT) and 850+ Mikumi NP (T) 17 Apr (NEB).

Ciconia abdimii Abdim's Stork N: Flocks included 1200 Aruba, Tsavo East NP 7 Jan (HAB, PLB), 8 000 - 10 000 Mikumi NP (T) 8 Feb (NEB), 90 Homa Bay 16 Mar and 800 circling north near Muhoro Bay (S Nyanza) 16 Mar (ADL, DJP), 18 Sabaki 24 Mar (HAB, PLB) was large number for coast. D: Late birds Nairobi NP 19 Apr and Magadi road 10 May (RDM). 2 Kakamega-Kisumu 18 Aug (DEW). First arrivals Mara GR late Nov (DAT).

Ciconia episcopus Woolly-necked Stork E: Away from Tsavo and the coast, 3 Mara GR 18 Mar (DAT) and 1 21 Aug (DEW). Commonly seen Nairobi NP during Aug (many observers), singles Arusha NP (T) Feb and Oct (JSSB).

THRESKIORNITHIDAE: Ibises and Spoonbills

Bostrychia olivacea Green Ibis R: Several heard and one seen Irangi Forest Station Mt Kenya 16 Aug (ADL, DJP). Heard near Mountain Lodge, Mt Kenya 26 Oct (DAT). Pair observed forest floor at 2 300m Mt Kilimanjaro (Marangu route) 29 Nov (JSSB).

ANATIDAE: Ducks and Geese

Dendrocygna bicolor Fulvous Whistling Duck N: Largest counts were 150 Dandora 14 Mar (DJP) and 80 Mwea rice scheme 21 Feb increasing to 300 25 Apr (RDM).

Dendrocygna viduata White-faced Whistling Duck N: Largest concentrations were 300+ Lake Shakababo 28 Feb (DJP), 200+ Thika OPs 1 Nov (RDM), 1 000+ Tana River bridge (Sagana road) 15 Nov (AEB, DJP), 300+ Sabaki Nov-Dec (HAB, PLB).

Netta erythrophthalma Southern Pochard N: Counts of 1 200 Naivasha 15 Feb and 1 700 28 Feb-1 Mar (BSM).

Nettapus auritus African Pygmy Goose R: 20+ Lake Shakababo 28 Feb and 10+ on 12 Dec (MACC, DJP). 5-6 Lake Jipe during Mar (DAT).

Sarkidiornis melanotos Knob-billed Duck N: Largest count 290 Kaptagat, Eldoret 31 Jan (ADL, DJP).

Thalassornis leuconotus White-backed Duck E: 6-7 Mabamba swamp, Kampala 11 Mar (MJC) - first for the area. N: 50+ Lake Jipe 22 Mar (DAT).

ACCIPITRIDAE: Birds of Prey

Gypohierax angolensis Palmnut Vulture E: 1 Ngare Sero Lodge, Arusha 20 Sep (SNS); other sightings close by at Usa River and Lake Diluti could refer to same bird (JSSB).

Neophron percnopterus Egyptian Vulture E: 1 Mikumi NP (T) 15 Sep (SNS, KMH, TAvdW, GWN).

Gypaetus barbatus Lammergeyer R: 1 15 km north of Arusha 4 Aug (SNS), 1 Hell's Gate gorge 11 Oct (DAT).

Circaetus fasciolatus Southern Banded Snake Eagle R: Away from the Usambaras and the coastal strip, 1 recorded near Baomo, Tana River, 8 Aug (PBT), 1 Mwanihana Forest, Uzungwa Mts, 27 Jul (SNS, FPJ), 1 E Uluguru foothills 18 Aug (FPJ).

Accipiter melanoleucus Great Sparrowhawk E: 1 Arusha 8 Oct (JSSB) - first record for the area.

Accipiter ovampensis Ovampo Sparrowhawk R: Singles Kenya coast at Shimba Hills 15 Mar (DKR), Sokoke 26 Jul (PBT) and Jadini forest 22 Aug (ADL, DJP). From Tanzania at Mikumi NP 23 Aug (NEB) and Tatanda 11 Dec (DCM).

Accipiter minullus Little Sparrowhawk R: Recorded from Tengeru, Arusha (Jan, Apr-May, Oct-Dec), Uzungwa Mts (T) (Jul), Saiwa Swamp, Kitale (Aug) and Tatanda (T) (Dec)(JSSB, FPJ, DCM, SNS, DEW).

Accipiter rufiventris Rufous Sparrowhawk E: 1 Shume (T) juniper forest at 1 900 m 5 May (SNS) - first record for Usambaras.

Aquila verreauxi Verreaux's Eagle R: Recorded in Tanzania at Lolkisale and the Gol Mts (JSSB).

Butastur rufipennis Grasshopper Buzzard R: 10 Aruba-Buchuma, Tsavo East NP 7 Jan, 6-7 Voi-Maungu-Kasigau 2L-25 Jan, 3 north of Garsen 28 Feb, 1 Saguta Marmar (S of Kisima) 6 Mar, 1 Shimba Hills 15 Mar (HAB, PLB, ADL, DJP, DKR, DAT). At the end of year 1 Mariakani 11 Nov, 2 Isiolo 14 Nov, 1 Mtito Andei and 1 Maktau 22 Nov, 2 Tsavo East NP 8 Dec (RDM, DJP, PBT, DAT).

Buteo tachardus Mountain Buzzard E: Recorded daily at 1 800 m Uzungwa Mts (T) 12-16 May (EOW).

Hieraaetus dubius Ayres' Hawk Eagle E: Singles Kenya coast at Bamburi 14 Feb (PBT) and Mida creek 8 Jul (JM). Recorded in Tanzania from E and W Usambaras (SNS); also from Arusha NP 5 May (SNS) and Uzungwa Mts foothills 8 May (SNS, FPJ).

Aviceda cuculoides Cuckoo Hawk R: 1 Uzungwa Mts foothills (T) 5 May, 1 Pemba River, Kwale, 13 Jun, singles Bamburi 30 Jun and 5 Oct, 1 Malindi 12 Jul, 2 Lunga Lunga 23 Aug, 2 ads and 2 imms Mikumi NP (T), several records Arusha area Aug-Oct, 1 near Amani (T) 1 Sep, 2 ads with juv Kipini 5 Aug, 1 Rukwa valley (T) 4 Dec (NEB, JSSB, HAB, PLB, MACC, FPJ, DCM, JM, SNS, PBT, DAT, RMcV).

Chelictinia riocourii Swallow-tailed Kite R: Seen regularly near Mt Suswa on Narok road throughout year (many observers).

Macheiramphus alcinus Bat Hawk R: Records from Mombasa (Jan), Diani (Jul-Aug), Taveta (Nov), Baringo (Jan), Homa Bay and Rongo in S Nyanza (Mar) and Dar es Salaam (throughout year)(NEB, HAB, PLB, MACC, ADL, DJP, TS, DAT).

FALCONIDAE: Falcons

Falco ardosiacus Grey Kestrel E: 1 Lake Baringo 22 Feb (TS).

Falco chicquera Red-necked Falcon E: Singles Baringo 2 Apr and 11 Oct (TS). 1 Lake Sundu, SW Tanzania, 16 Dec (NEB).

Falco cuvieri African Hobby R: Recorded at Nairobi NP (Apr), Malakisi, near Bungoma (Jun), Kisii (Jul) and Kakamega (Oct)(SB, ADL, JM, DJP, DAT). Resident throughout year Kisumu and Arusha area (JSSB, DAT).

PHASIANIDAE: Quails and Francolins

Coturnix chinensis Blue Quail R: Female flushed from tussocky grass near Ramisi, south of Mombasa, 11 Oct (PBT).

NUMIDIDAE: Guineafowls

Acryllium vulturinum Vulturine Guineafowl E: Flock near Jangalo, SE of Kondoa in Masailand (T)(JSSB) - considerable extension of range.

RALLIDAE: Rails and Crakes

Crex egregia African Crake R: 1 Bamburi 12 Feb, then present there in good numbers 5 May-26 Dec (PBT). 1 Ngomeni 21 Jun (PBT). 2 Mikumi NP 17 Apr(NEB).

Porphyrio alleni Allen's Gallinule R: 4-10 Bamburi on several dates Jan-Jun (HAB, PLB). At Lake Baringo from 29 May, numbers increasing to 200+ throughout Jun-Oct, then decreasing to a few during Nov-Dec (TS).

Porphyrio porphyrio Purple Gallinule E: 1-3 Bamburi 17 Jan-9 Nov (CT, PBT) - unusual at the coast.

Porzana marginalis Striped Crake R: Singles Bamburi 5 and 15 May, 3 Jun and 7 Jul (PBT).

Porzana pusilla Lesser Spotted Crake R: 1 Bamburi 3 Jun was the first record for coastal East Africa (PBT).

Sarothrura elegans Buff-spotted Pygmy Crake R: 1 calling at dusk Mbisi forest SW Tanzania, 1-3 Dec (DCM).

Sarothrura pulchra White-spotted Pygmy Crake R: Calling Kakamega forest 18-19 Jul (SB, JM, DAT).

Sarothrura rufa Red-chested Pygmy Crake R: Several records Tatanda and Rukwa areas SW Tanzania 4-14 Dec (NEB, DCM).

Fulica cristata Red-knobbed Coot N: 3 000 counted Lessos 31 Jan and 2 600 Sergoit (N of Eldoret) 1 Feb (DJP).

HELIORNITHIDAE: Finfoots

Podica senegalensis African Finfoot R: 1 adult with 2 half-grown young Nairobi NP 4 Aug (DEW). 1 Mara River below Lolgorien escarpment 20 Aug (DEW) - first record for western Kenya;

JACANIDAE: Jacanas

Microparra capensis Lesser Jacana R: The bird recorded Bamburi Dec 1980 remained to 12 Feb (HAB, PLB). 2 Lessos 31 Jan (DJP), 1 Amboseli NP 24 Mar (DAT), 5+ Lake Sundu, SW Tanzania, May (DCM), 30+ E and S shores Lake Ngwasi (Mufindi, T) 26 Aug (NEB), 1-2 Lake Jipe 8 Nov (DAT), and 1 Arusha NP (T) 26 Dec (JMC).

ROSTRATULIDAE: Painted Snipes

Rostratula benghalensis Painted Snipe R: Small numbers Bamburi 26 Jan-19 Mar and singles 27 Nov to end Dec (CT, PBT). 1-2 Ngomeni May-Jun (PBT). 1 Homa Bay 16 Mar, a pair Mara GR 17 Mar, 2 Athi River 25 Apr and singles Lake Baringo 17 Aug, 2 Oct and 15 Nov (ADL, DJP, TS, DAT). Singles Dar es Salaam 3 Mar and 13 Apr and 5 there 6 Dec (NEB, KMH). 2 Kasanga (S end Lake Tanganyika) 6 Jun and 1 Tatanda (T) 10 Dec (DCM). Singles caught at night Ngulia 28 Nov and 6 Dec (GCB, DJP).

CHARADRIIDAE: Plovers

Vanellus crassirostris Long-toed Plover E: Up to 10 Lake Baringo Jan-Apr and 1 on 13 Dec (TS). 20+ Mbarali rice scheme, Usangu (Mbeya, T) 10 Jul (NEB).

Vanellus spinosus Spur-winged Plover E: 1 Diani beach 21 Feb (MACC).

RECURVIROSTRIDAE: Stilts and avocets

Recurvirostra avosetta N: Concentration of 1 000+ Lake 01 Bolossat 2 Feb(DJP).

DROMADIDAE: Crab Plovers

Dromas ardeola Crab Plover N: Max. 420 Mida 18 Jan; other coastal counts included 170 Diani 6 Mar and 23 Malindi 5 Jul (HAB, PLB).

GLAREOLIDAE: Coursers and Pratincoles

Rhinoptilus chalcopterus Violet-tipped Courser R: 1 at close range in car headlights Kilifi-Gedi 1 Apr (RDM). 1 Rukwa Valley near Maji Moto, SW Tanzania, 4 Dec (DCM).

Glareola ocularis Madagascar Pratincole D: First records, 2 Dar es Salaam 11 Apr (NEB) and 180 Sabaki 17 Apr (PLB). Last record, 1 Bamburi 4 Oct (PBT). Generally smaller numbers than in previous years, with max. only 400 Ngomeni 17 May (PLB).

LARIDAE: Gulls and Terns

Larus hemprichii Sooty Gull N: Max. Sabaki 800 12 Jan (HAB, PLB). Max. Ras Iwetine 1 000+ 13 Dec (PBT).

Anous stolidus Common Noddy R: 1 off Mombasa 7 Nov (PBT).

Anous tenuirostris Lesser Noddy S(B): 2 off Mombasa 5 Dec (PBT).

Sterna albifrons Little Tern N: Counts at Sabaki included 1 200 on 12 Jan, 1 500 on 30 Jan and 600 on 15 Mar (HAB, PLB); 500-1000 seen Kilifi 20 Oct (MACC, DJP). E: 1 Lake Baringo 9 Jan-14 Apr (TS).

Sterna anaethetus Bridled Tern R: Up to 10+ off Mombasa 22 Aug, 6 Spe, 4 Oct, 7 Nov and 5 Dec (PBT). 1 resting Galu beach, S Kenya coast, 3 Sep (MACC).

Sterna fuscata Sooty Tern R: 2 off Mombasa 6 Sep (PBT, RMcV), 1 exhausted (later died) Diani beach 22 Oct (MACC), 1 corpse Ngomeni saltpans 9 Dec (PBT).

Sterna bengalensis Lesser Crested Tern N: Counts included 150 Ras Iwetine 5 Jan, and at Sabaki 500 on 12 Jan, 600 on 23 Jan, 400 on 16 Mar and 120 on 5 Jul (HAB, PLB).

Sterna bergii Crested Tern N: 40 counted Sabaki 12 Jan, 60 on 30 Jan, 120 on 14 Jan, 110 on 15 Mar, 220 on 24 Mar and 25 on 5 Jul - all dark-backed race *velox* (PLB). M: 1 of paler race *thalassina* Sabaki 23 Aug (DJP).

Sterna dougallii Roseate Tern N: 80 Sabaki (many in breeding dress) 5 Jul (HAB, PLB).

Sterna repressa White-cheeked Tern R: 5 Sabaki 23 Jan, 3 on 15 Mar, 1 on 5 Apr and 5 on 5 Jul (HAB, PLB, RDM). Up to 5 Galu beach, S Kenya coast, 30 Marto early May (MACC, DJP).
A few at Dar es Salaam 11 Apr and 8 Oct (NEB).

RYNCHOPIDAE: Skimmers

Rynchops flavirostris African Skimmer R: Several records of up to 50 Sabaki, Jan-Apr and Jul (HAB, PLB, RDM, JM).
Inland, 15 Lake Jipe 11 Jul (PBT), 1 Nairobi NP 6 Feb (BSM), 1 Magadi 25 Jan (DJP), 1 Lake Nakuru 27 Aug (JB, RDM) and 2 on 29 Oct (DAT). 1-3 Lake Baringo 10-19 Aug and 2 from 11-15 Oct (TS).
1 Lake Diluti, Arusha, 30 Nov (JSSB).

PTEROCLIDAE: Sandgrouse

Pterocles lichtensteinii Lichtenstein's Sandgrouse R: Small numbers throughout year at Lake Baringo (TS, DAT).

COLUMBIDAE: Pigeons and Doves

Aplopelia larvata Lemon Dove M: Recorded at 500 m in W Usambaras 14 May and 300 m in E Uluguru foothills 19 Jul - unusually low altitudes (SNS).

Columba delegorguei Bronze-naped Pigeon E: Found as low as 300 m in E Uluguru foothills in Jul (SNS, FPJ). Common Mwanihana forest, Uzungwa Mts, Jan and Sep (SNS, KMH, TAvdW).

Columba guinea Speckled Pigeon M: Appears to have increased considerably in Nairobi industrial area over the past decade. 70 birds observed on one building 13 Jan (BSM).

Streptopelia senegalensis Laughing Dove E: 2 on saltpans, Dar es Salaam 24 Jan (NEB) - extremely rare in the area.

Turtur afer Blue-spotted Wood Dove E: 1 Pugu Hills near Dar es Salaam 23 May (NEB) - formerly common in Dar area, but this is first record in recent years.

PSITTACIDAE: Parrots and Lovebirds

Agapornis pullaria Red-headed Lovebird R: A pair Malakisi near Bungoma 20 Jan (NBM).

Poicephalus robustus Brown-necked Parrot R: Several in flight over Tatanda(T) 16 Dec (DCM).

MUSOPHAGIDAE: Turacos

Corythaixoides personata Bare-faced Go-away Bird E: 2 in Dar es Salaam garden 23 Oct-7 Nov (NEB) - first record from coastal East Africa.

Tauraco leucolophus White-crested Turaco E: 1 Nakuru NP 1 Jan (BSM).

CUCULIDAE: Cuckoos and Coucals

Cercococcyx montanus Barred Long-tailed Cuckoo R: 1 netted Pugu Hills near Dar es Salaam 25 Jun (SNS); also seen there Dec (KMH) - first records for Dar area.

Clamator glandarius Great Spotted Cuckoo.
Clamator jacobinus Black and White Cuckoo.
Clamator levaillantii Levaillant's Cuckoo.
Records for the above three species to be summarized later in a special report.

Cuculus clamosus Black Cuckoo R: Recorded Sokoke 15 Apr (HAB, PLB), Baringo 10 and 16 Aug (TS, DEW), and daily at Naivasha in Aug (DAT, DEW). Numerous records E Kenya at Isiolo, Endau, Mtito Andei and Tsavo West NP during Nov-Dec (DJP, DAT).
Calling Rukwa Valley and Tatanda areas, SW Tanzania, Sep-Dec (DCM).

Cuculus gularis African Cuckoo R: Calling at Ndutu (Serengeti NP, T) 8 Jan (JSSB), 1 Magadi road 5 Apr (DKR), 1 Baringo 22 Apr (TS), 1 Mikumi NP (T) 20 Apr (NEB), 1 near Arusha 19 Sep (JSSB), juv. at Naivasha 19 Sep (RDM), calling at Tatanda (T) Sep-Dec (DCM).

Pachycoccyx audeberti Thick-billed Cuckoo R: 1 Tana river reserve 6 Aug (PBT).

Ceuthmochares aereus Yellowbill M: Many records coastal Kenya 1-23 Aug, then only singles Nyali 2-29 Oct (PBT). Numerous and vocal Dar es Salaam and Pugu forest Oct-Dec (KMH).

Centropus cupreicaudus Coppery-tailed Coucal M: Recorded Lake Sundu and 20 km W of Tatanda, SW Tanzania, Dec (DCM)- first records for many years.

Centropus grillii Black Coucal R: A few Mikumi NP (T) 5 Feb and 18 Apr (NEB). A few 20 km W of Tatanda (T) 29-30 Dec (DCM).

Centropus senegalensis Senegal Coucal E: A pair Akala (Siaya) 5 Jan (ADL).

STRIGIDAE: Owls

Asio capensis African Marsh Owl E: 1 Bamburi 8-10 May (CT, PBT) - first record from the coast.

Bubo poensis vossleri Nduk Eagle Owl R: 1 Ambangulul, W Usambaras (T), 24 Feb (SNS, KMH), and recorded Amani (T) Mar and Aug (SNS).

Otus leucotis White-faced Scops Owl R: A pair Baringo 21 Feb-7 Apr, and a single seen 24 Apr (TS). 1 near Jangalo, southeast of Kondoa (T) 3 May (JSSB), and 1 calling Tatanda (T) 13 and 21 Nov (DCM).

Glaucidium capense Barred Owlet R: Recorded only from Sokoke.

CAPRIMULGIDAE: Nightjars

Caprimulgus clarus Slender-tailed Nightjar
Caprimulgus donaldsoni Donaldson-Smith's Nightjar
Caprimulgus fossii Gabon Nightjar
Caprimulgus tristigma Freckled Nightjar
Records for the above four REQUESTED species to be summarized later in a special report.

Caprimulgus fraenatus Dusky Nightjar R: 1 dead on road near Narok 16 Mar (DJP, ADL). 3 caught Ngulia 28 Nov-1 Dec (GCB, DJP).

Caprimulgus inornatus Plain Nightjar R: 8 caught Ngulia 20 Nov-5 Dec (GCB, DJP).

APODIDAE: Swifts and Spinetails

Apus berliozi Forbes-Watson's Swift S(B): A few over Sokoke forest 5 Dec (DAT).

Apus horus Horus Swift R: Large flocks over Mara GR 17-18 Mar (DAT). A few Magadi road 29 Mar and 20 Dec (DKR), and a few Karura forest, Nairobi, 13 May (FN).

Schoutedenapus myoptilus Scarce Swift R: 2 at base Mt Kasigau (Voi) 21 and 23 Jan (DAT), 15-20 Mountain Lodge, Mt Kenya foothills, 2 Mar and 26 Oct (DAT), and 25 Malakisi, Mt Elgon foothills, 17 Jun (ADL, DJP).
Common over Shagayu and Shume forests, W Usambaras (T), early May (SNS,EOW).

Neafrapus boehmi Böhm's Spinetail E: Fairly common over forest in E Uluguru foothills (T) 18-19 Jul (FPJ, SNS). A few Mikumi NP (T) Jul and Aug (NEB, GWN, SNS).

Telecanthura ussheri Mottle-throated Spinetail E: 1 Mountain Lodge, Mt Kenya foothills 26 Oct (DAT). Small numbers over forest E Uluguru foothills (T) Jul (FPJ, SNS).

COLIIDAE: Mousebirds
Colius leucocephalus White-headed Mousebird E: A few Maktau (Taveta) 7 Nov (DAT).

MEROPIDAE: Bee-eaters
Merops hirundineus R: Small flocks in SW Tanzania at Tatanda 24 Nov and Rukwa Valley 6 Dec (DCM).

CORACIIDAE: Rollers
Coracias abyssinica Abyssinian Roller R: 1 Kisumu airport 3 Jan (ADL).

Eurystomus glaucurus Broad-billed Roller E: 1 Nairobi early May (FN). 4 over Mau forest near Kericho 21 Jul (DAT).

CAPITONIDAE: Barbets and Tinkerbirds
Lybius minor Black-backed Barbet R: In southern Tanzania present throughout year at Tatanda and 1 near Tunduma Dec (NEB).

Pogoniulus simplex Green Tinkerbird E: Common E Uluguru foothills (T) Jul (SNS, FPJ).

Trachyphonus usambiro Usambiro Barbet E: 1 Muhoro Bay (S Nyanza) 17 Mar (ADL, DJP).

INDICATORIDAE: Honeyguides
Indicator variegatus Scaly-throated Honeyguide E: 1 netted Pugu Hills (T) 23 May (NEB, EOW) was first record for Dar es Salaam area.

Prodotiscus insignis Cassin's Honeybird E: 1 Kericho 22 Jul (SB, JM, DAT).

PICIDAE: Woodpeckers and Wrynecks
Jynx ruficollis Red-throated Wryneck R: Several Bomet-Sotik area 16 Mar (ADL, DJP), 1 Nakuru 25 Jul (MEJG), 1 Mt Elgon Lodge 13 Aug (DEW), 2 Mara GR 20 Aug (DEW), several records Nairobi area Aug (MEJG, JM), 1 near Eldoret 23 Aug (JB, RDM).

Picoides obsoletus Brown-backed Woodpecker R: 1 Maralal 5 Mar (ADL, DJP). 1 Ololua forest area Nairobi 27 Aug and 26 Oct (DKR).

EURYLAIMIDAE: Broadbills
Smithornis capensis African Broadbill R: 1 netted W Usambaras (T) at 1 000 m 15 Apr (SNS). Common up to 1 500 m Mwanihana forest W Uzungwa Mts (T) Jul and mid Sep (SNS, KMH, TAvdW). Calling Pugu Hills forest near Dar es Salaam 26 Sep, 17-18 Oct, 13 Nov and 6 Dec (KMH). Calling Kakamega forest 31 Oct (DAT).

ALAUDIDAE: Larks
Eremopterix leucotis Chestnut-backed Sparrow Lark N: 100+ Aruba, Tsavo East NP, 24 Jan (DAT).

Mirafra africanoides Fawn-coloured Lark E: 1 Mara GR 18 Mar (DAT).

HIRUNDINIDAE: Swallows and martins
Hirundo atrocaerulea Blue Swallow R: Several around Mufindi (T) early Feb (NEB).

Hirundo daurica Red-rumped Swallow N: 1000+ resting on open ground, Ngorongoro crater (T) 9 Aug (NEB).

Hirundo dimidiata Pearl-breasted Swallow S(A): 2 Lake Sundu, SW Tanzania in Sep (DCM). Although it frequently occurs in Zambia up to the Tanzanian border, this is only the second report of this species within East Africa.

Hirundo semirufa Rufous-chested Swallow E: 1 Tsavo East NP 14 Jul (PBT), the first record east of the rift valley.

Psalidoprocne albiceps White-headed Rough-wing E: 1 with Black Rough-wings *P. pristoptera* in Arusha NP (T) 17 Jul (NEB).

Riparia paludicola African Sand Martin E: 1 Bamburi 9 Oct (CT, PLB), the first record from the coast.

CORVIDAE: Crows

Corvus albicollis White-necked Raven N: 40+ around Mombo (T) 26 Jul (NEB).

Corvus capensis Cape Rook E: 2 Dandora, near Nairobi, 29 Nov (BSM).

Corvus rhapidurus Fan-tailed Raven E: 4 Mwingi Market 15 Mar (RDM), 2 Meru NP 25 Oct (DAT).

Corvus splendens Indian House Crow E: 13 flying north at a point 15 km N of Kilifi on 15 Mar (HAB, PLB).

REMIZIDAE: Penduline Tits

Remiz caroli African Penduline Tit E: Few Saiwa swamp 30 Oct (DAT).

Remiz musculus Mouse-coloured Penduline Tit E: 4 seen 20 km E of Embu 25 Apr (RDM, JB). 3 Laiboro, 50 km N of Arusha, 31 Dec (JSSB).

SALPORNITHIDAE: Spotted Creeper

Salpornis spilonota Spotted Creeper R: Common all year in miombo mixed bird parties at Tatanda, SW Tanzania (DCM).

TIMALIIDAE: Babblers

Trichastoma rufipennis Pale-breasted Illadopsis E: Recorded three localities W Usambaras (T) Apr-May (SNS), and common Kimboza, E Ulugurus (T) in Jul (SNS, FPJ).
2 netted Pugu Hills (T) Jun were first records of race *puguensis* for many years (SNS); also recorded there Sep-Dec (KMH, NEB).

Turdoides aylmeri Scaly Chatterer E: Resident in *Salvadora* thickets on W side Lake Natron (T) (JSSB).

Turdoides hindei Hinde's Pied Babbler R: Party of 7 Masinga Dam (Embu) 24 Jan (BSM).

Turdoides plebejus Brown Babbler R: Party of 6 Akala (Siaya) 5 Jan (ADL), and 1 Kitale 23 Aug (RDM, JB).

CAMPEPHAGIDAE: Cuckoo Shrikes

Campephega quiscalina Purple-throated Cuckoo Shrike E: Pair Mt Elgon, N of Malakisi, 13 Jun (ADL, DJP).
In Tanzania a pair Kimboza, E Uluguru foothills, 18 Jul, and also recorded Mwanihana forest, Uzungwa Mts, during Aug (FPJ). The first records of the race *muenzneri* for many years.

Coracina pectoralis White-breasted Cuckoo Shrike R: Present all year in miombo mixed bird parties at Tatanda, SW Tanzania (DCM).

PYCNONOTIDAE: Bulbuls

Andropadus gracilis Little Grey Greenbul R: No records away from Kakamega.

Phyllastrephus fischeri Fischer's Greenbul E: Fairly common E Uluguru foothills in Jul (SNS, FPJ) and also recorded Mwanihana forest, Uzungwa Mts (T) in Aug (FPJ).

Phyllastrephus flavostriatus Yellow-streaked Greenbul E: Common Mwanihana forest, Uzungwa Mts (T) Jan and Sep (SNS, TAvdW).

Phyllastrephus strepitans Northern Brownbul E: Resident in *Salvadora* thickets on W side Lake Natron (T) (JSSB).

TURDIDAE: Thrushes, Robins etc.

Alethe fuelleborni White-chested Alethe M: Common as low as 300 m in Kimboza forest, E Uluguru foothills (T) in Jul (SNS, FPJ).

Cercomela familiaris Red-tailed Chat E: Recorded Lolgorien escarpment, northern Mara GR, Jul-Aug (DAT).

Cercotrichas hartlaubi Brown-backed Scrub Robin R: Records from Sotik (Mar) and Endebess (Aug) (ADL, DJP, DEW).

Cossypha heuglini White-browed Robin Chat M: 4 singing in remnant forest at 2300 m at summit of Oldonyo Lolkisale (T) (JSSB).

Cossypha natalensis Red-capped Robin Chat D,E: Kenya coastal records from 25 Apr-10 Nov. Common and singing Kitovu forest, Taveta, 21-22 Mar (PBT). 1 near Endebess 13 Aug (DEW). 1 caught at night at Ngulia 6 Dec was first record from the Lodge (GCB, DJP).
In Tanzania, recorded W Usambaras Apr-May (SNS) and Lake Natron Oct and Dec (JSSB).

Cossypha niveicapilla Snowy-headed Robin Chat E: Common in all forest patches around Kericho in Jul (DAT, JM, SB).

Dryocichloides anomalus Olive-flanked Ground Robin M: Common and tame on higher regions of Lupanga Mt, N Ulugurus (T) in Jul (SNS, FPJ).

Dryocichloides bocagei Bocage's Ground Robin S(A): Recorded Tatanda (T) in Dec, the first East African record of the race *chapini*. See also *Scopus* 6 36-37.

Dryocichloides lowei Iringa Ground Robin R: Fairly common Mufindi (T) in May (SNS, EOW).

Modulatrix orostruthus Dappled Mountain Robin S(B): A new race *sanjei* described from a bird collected at 1250 m in Mwanihana forest, Uzungwa Mts (T) on 4 Aug (FPJ). See also *Bulletin of the British Ornithologists' Club* 102: 95-99.

Modulatrix strictigula Spot-throat M: Abundant throughout the Uluguru forests (T) down to 1250 m in Jul (SNS, FPJ).

Monticola rufocinerea Little Rock Thrush R: Recorded from two sites Naivasha (Jan and Oct-Dec), and from Colcheccio Lodge N of Baringo (Aug) (RDM, DAT, DEW).

Myrmecocichla nigra Sooty Chat E: Pair on escarpment, Kericho-Kisumu road, Nov (DAT).

Neocossyphus rufus Red-tailed Ant Thrush E: Recorded Pugu Hills (T) Jun, Oct and Dec (SNS, KMH), the first records there for some years.

Oenanthe pileata Capped Wheatear E: 1 at Korr, Kaisut desert, 24 May (ADL).

Pogonocichla stellata White-starred Forest Robin M: In Tanzania, recorded down to 500 m in W Usambaras in May, down to 300 m in E Uluguru foothills in Jul and down to 3-400 m in E Usambaras in Sep (SNS).

Sheppardia gunningi East Coast Akalat R: Away from Sokoke, recorded in Pugu hills (T), where frequently netted (NEB, KMH, EOW).

Sheppardia sharpei Sharpe's Akalat M: Recorded down to 600 m Amani-Sigi forest, E Usambaras (T) in Aug (SNS).

Swynnertonia swynnertoni Swynnerton's Forest Robin S(A): A new race *rodgersi* described from specimens collected in Mwanihana forest, Uzungwa Mts (T) Aug-Sep (FPJ, SNS, KMH, TAvdW). The first records of this species for East Africa. See also *Bulletin of the British Ornithologists' Club* 102:

Turdus fischeri Spotted Ground Thrush R: First recorded Sokoke 3 May (CT, PBT).

Turdus gurneyi Orange Ground Thrush M: 1 at 2300 m at Kaweteri (Mbeya, T) Jun (NEB). As low as 450 m Amani-Sigi forest, E Usambaras (T) Aug (SNS).

SYLVIIDAE: Warblers

Apalis chariessa White-winged Apalis S(B): In Tanzania, a few Mwanihana forest, Uzungwa Mts, Jan and Sep (SNS, KMH); also a few Uluguru Mts, above Morningside in Oct (DCM) and on E slopes Lupanga Mt in Jul (SNS, FPJ).

Apalis melanocephala Black-headed Apalis E: Pair at 1020 m Mt Kasigau, 19 Aug (DAT).

Apalis moreaui Long-billed Apalis E: A few pairs Monga, 8 km NW of Amani (T) Apr (SNS).

Cisticola carruthersi Carruthers' Cisticola E: Common Homa Bay and Kendu Bay Mar and Jul (ADL, DJP, DAT).

Cisticola lais Wailing Cisticola E: Two pairs Gol Mts, W of Lake Natron (T) Oct (JSSB).

Eremomela scotops Green-capped Eremomela E: Small party Sokoke forest 17 Apr (PBT), and party of 5 some 20 km E of Embu 25 Apr (RDM, JB).

Hyliota australis Southern Hyliota R: Records of the race *usambarae* at 350 m, Kihinhui-Sigi forest, E Usambara foothills (T) on 26 Mar, and at 1000 m Dindira, W Usambaras (T) on 9 May (SNS). Recorded as usual Kakamega.

Hyliota flavigaster Yellow-bellied Hyliota R: A pair in woodland, Kisumu-Kericho 18 Aug, and 1 NW corner Mara GR 20 Aug (DEW).

Macrosphenus kretschmeri Kretschmer's Longbill E: Fairly common Mwanihana forest, Uzungwa Mts (T), Jan and Sep (SNS, KMH, TAvdW).

Phylloscopus ruficapilla Yellow-throated Woodland Warbler M: Recorded as low as 500 m in W Usambara foothills (T) during May (SNS).

Phylloscopus umbovirens Brown Woodland Warbler M: The endemic race *fuggelescouchmani* fairly common at S end Uluguru range (T) around the Lukwangule plateau at 2250-2400 m during Jul (SNS, FPJ).

Spiloptila rufifrons Red-fronted Warbler E: A few near Jangalo, SE of Kondoa (T) 3 May (JSSB).

Sylvietta brachyura Northern Crombec E: A few to the SW of Lake Natron, W of Ketumneini and N of Mondule (T) Aug (JSSB).

Sylvietta rufescens Long-billed Crombec S(A): Recorded near Tatanda, SW Tanzania, 11 Dec (DCM, RS).
The first record from East Africa. See *Scopus* 6:36-37.

Sylvietta ruficapilla Red-capped Crombec S(A): Recorded near Tatanda, SW Tanzania, 14 Dec (DCM, RS).
The first record from East Africa. See also *Scopus* 6:36-37.

MUSCICAPIDAE: Flycatchers

Melaenornis pammelaina Southern Black Flycatcher E: Tanzanian range extended to W Usambara with records two localities at 1000 m during Apr and May (SNS).

Muscicapa caerulescens Ashy Flycatcher E: Pair Pugu hills 25 Jun was first record for the area (SNS, NEB).

Muscicapa lendu Chapin's Flycatcher S(B): 1 Kakamega forest late Jun(DAZ).

Myioparus plumbeus Lead-coloured Flycatcher E: Recorded throughout the year Baringo (TS).

Batis soror East Coast Batis M: Recorded up to at least 800 m in Uzungwa Mts (T) during Jan and Sep (SNS).

Bias musicus Black and White Flycatcher R: In Uzungwas (T), seen at 700 m in Mwanihana forest (Jul) and at 300 m at Sanje (Sep)(SNS, KMH, TAvdW). Several E Uluguru foothills (T) in Jul (SNS, FPJ).

Platysteira peltata Black-throated Wattle-eye E: Small parties on several occasions Nyali, Mombasa (CT, PBT).
Recorded at 500 m in Mwanihana forest, Uzungwa Mts (T) Jul (SNS).

Erranornis albicauda White-tailed Blue Flycatcher R: 1 near Mufindi (T) 7 Feb (NEB).

Erythrocercus livingstonei Livingstone's Flycatcher E: Recorded Mwanihana forest, Uzungwa Mts (T) Jul (FPJ), a considerable extension of known range.

Trochocercus albonotatus White-tailed Crested Flycatcher M: As low as 500 m in W Usambaras (T) in May (SNS).

MOTACILLIDAE: Wagtails, pipits and longclaws

Anthus sokokensis Sokoke Pipit R: Three sightings Sokoke forest mid Apr (HAB, PLB). 2 Pugu hills 21 May and 1 seen 22 May (EOW), the first records from Tanzania for over 40 years.

Macronyx aurantiigula Pangani Longclaw E: 1 Cottar's Camp, Mara GR, 3 Nov (DAT), the first record for W Kenya.

MALACONOTIDAE: Bush Shrikes

Malaconotus alius Uluguru Bush Shrike S(B): An immature seen at 1650 m on W slopes Mt Lupanga, N Ulugurus (T), 2 Jul, and an adult seen and heard nearby on 5 Jul. Others heard both E and W slopes Lupanga down to 1500 m, and at 2000 m at Lukwangule plateau, S Ulugurus. Apparently widely distributed in the Ulugurus, but at low density, and extremely elusive (SNS, FPJ). First records of this species for almost 20 years.

Malaconotus blanchoti Grey-headed Bush Shrike E: 1 in Nairobi suburban garden 21 May (FN).

Malaconotus multicolor Many-coloured Bush Shrike M: The race *nigrifrons* recorded down to 500 m in W Usambaras (T), and down to 300 m in E Ulugurus (T) and in E Usambaras during May (SNS).

PRIONOPIDAE: Helmet Shrikes

Prionops scopifrons Chestnut-fronted Helmet Shrike M: Party of 10 Pugu hills (T) 22 May (EOW) and others Oct-Dec (KMH). Small numbers E Uluguru foothills (T) Jul (SNS, FPJ).

STURNIDAE: Starlings and oxpeckers

Cinnyricinclus femoralis Abbott's Starling R: 3 Castle Forest Station, Mt Kenya 24 Apr (RDM, JB).
In Tanzania, several parties Mt Meru Oct-Dec (JSSB), and 1 at 2100 m below Mandara hut, Mt Kilimanjaro, 11 Aug (SNS).

Cinnyricinclus sharpei Sharpe's Starling R: Recorded S slopes Mt Kenya Apr (RDM, JB) and Nyahururu falls Oct (DAT). Party of 12+ Olulua forest Nairobi, 27 Dec (DKR).

Cosmopsarus unicolor Ashy Starling E: 4 salt pans near Dar es Salaam 24 Oct (NEB), first record for the area.

Creatophora cinerea Wattled Starling E: 2 Dar es Salaam 10 Oct (NEB).

Lamprotornis purpureus Purple Glossy Starling R: Several Akala (Siaya) 3 Jan (ADL). Recorded Tabora 6 Jan (RKW), *the first record for Tanzania.*

Poeoptera kenricki Kenrick's Starling M: Large flock Kimboza forest, at only 300 m in E Uluguru foothills (T), 18 Jul (SNS). Also as low as 450 m Sigi valley, E Usambaras (T), Aug (SNS).
E: 7 Mufindi (T) 25 Aug (NEB), a new locality between the Njombe and Uluguru populations. Also several at 1500 m Mwanihana forest, Uzungwa Mts (T) (SNS).

Speculipastor bicolor Magpie Starling R: Large flocks along coast from Mombasa to the Tana river and inland to Voi during Aug-Oct (DAT, PBT); also 5 Sabaki 5 Apr (RDM).

Spreo fischeri Fischer's Starling E: 1 Lembeni 55 km SSE of Moshi 22 Dec (JSSB).

Spreo shelleyi Shelley's Starling R: 35-40 (adults and juveniles) Rukanga near Mt Kasigau, 17 Aug (DAT).

NECTARINIIDAE: Sunbirds

Anthreptes neglectus Uluguru Violet-backed Sunbird E: Recorded W Usambaras (T) Apr-May and Uzungwas (T) Aug-Sep, both new localities.
M: As low as 300 m E Uluguru foothills (T) in Jul (SNS, FPJ).

Anthreptes rectirostris Green Sunbird E: Male seen Kericho 18 Aug (DEW).

Anthreptes rubritorques Banded Green Sunbird M: As low as 750 m at Magrotto, E Usambaras (T), Apr (SNS).

Nectarinia habessinica Shining Sunbird R: Recorded Kapedo Feb, Jul, Oct and Dec, and probably resident there (TS).

Nectarinia hunteri Hunter's Sunbird E: Male near Akala (Siaya) 5 Jan (ADL), a surprising extension of range.

Nectarinia reichenowi Golden-winged Sunbird E: 1 Baringo 15-16 Apr (TS).

Nectarinia sp.nov. Rufous-winged Sunbird: New species to be described from Mwanihana forest, Uzungwa Mts (T), where it is reasonable common (FPJ,SNS).

Nectarinia tacazze Tacazze Sunbird E: 1 10 km NW of Nairobi 28 Jan (FN).

ZOSTEROPIDAE: White-eyes

Zosterops poliogastra Montane White-eye E: Small flock of the Taita Hills race *silvana* at 1300 m Mt Kasigau 19 Aug (DAT).

PLOCEIDAE: Weavers etc;

Anomalospiza imberbis Parasitic Weaver R: A few records Siaya and South Nyanza Jan and Mar (ADL). Many sightings Nairobi NP Mar-May, and last record Nairobi area 1 Ruiru 24 Jun.

Euplectes afer Yellow-crowned Bishop N: 250+ Mwea rice scheme Apr (RDM). Common Lake Baringo Jun-Oct (TS).

Euplectes diadematus Fire-fronted Bishop E: Male in breeding plumage Naivasha 26 Apr (DJP).

Euplectes orix Southern Red Bishop E: Male in breeding plumage Naivasha 26 Apr (DJP).

Ploceus aurantius Orange Weaver R: Male by lakeshore Kisumu 2 Nov (DAT).

Ploceus bicolor Dark-backed Weaver E: Common Mwanihana forest, Uzungwa Mts (T), Jan and Sep (SNS, KMH, TAvdW).

Ploceus golandi Clarke's Weaver R: Small numbers recorded Sokoke forest Aug (PBT) and early Nov (DAT).

Ploceus jacksoni Golden-backed Weaver E: 3-4 males in breeding plumage Dar es Salaam 31 Jan (NEB).

Ploceus oliveiceps Olive-headed Golden Weaver R: Tanzania records of the race *nicolli* (Usambara Weaver): pair Mazumbai, W Usambaras, 12 Apr (SNS); 1 at 1350 m Lupanga Mt, N Ulugurus, 14 Jul (SNS, FPJ); 3 Mwanihana forest Uzungwa Mts, 17 Sep (SNS, TAvdW).

Ploceus superciliosus Compact Weaver R: 1 near Homa Bay 18 Mar (ADL, DJP), and several Mumias Jun-Jul (ADL, JM, DJP, DAT).

Quelea cardinalis Cardinal Quelea E: 3 males of race *rhodesiae* Tsavo East NP 23 Apr (PLB).

Quelea erythrops Red-headed Quelea N: Flocks totalling 1000+ near Ramisi, S Kenya coast, 26 Oxt (PBT).

Bubalornis niger Red-billed Buffalo Weaver E: 1 Dar es Salaam 2 Aug (NEB); first record for the area.

Pseudonigrita arnaudi Grey-headed Social Weaver E: 2 Dar es Salaam 12 Apr (NEB); first record for the area.

Passer castanopterus Somali Sparrow R: Nesting pair at Korr, Kaisut desert, N Kenya 23 May (ADL). A few pairs at Kapedo, where believed resident (TS).

Vidua fischeri Straw-tailed Wydah E: 2 males in breeding plumage Dar es Salaam 12 Apr (NEB); first records for the area.

Vidua obtusa Broad-tailed Paradise Wydah R: Male in breeding plumage Tunduru S Tanzania 3 Jun (NEB).

ESTRILDIDAE: Waxbills etc.

Clytospiza montieri Brown Twinspot E: 3 near Akala (Siaya) 5 Jan (ADL).

Estrilda perreini Lavender Waxbill M: 4 near Sanje, Uzungwa Mts (T) Sep(KMH).

Nigrita bicolor Chestnut-breasted Negro Finch E: 2 Kakamega 25 Aug (RDM).

Pyrenestes minor Lesser Seed-cracker S(B): 1 Kimboza forest, E Uluguru foothills (T) 19 Jul (SNS).

Lonchura fringilloides Magpie Mannikin R: Few at 750 m E Usambaras (T) in Apr (SNS), the first records of this species in recent years.

Lonchura malabarica Silverbill E: Adult carrying nest material Dar es Salaam 11 Feb (NEB), the first record for the area.

FRINGILLIDAE: Buntings, canaries etc.

Serinus burtoni Thick-billed Seed-eater E: 1 Mufindi 14 May (EOW) was of the distinctive race *melanochrous*.

Serinus reichardi Stripe-breasted Seed-eater R: Present all year in miombo woodland around Tatanda, SW Tanzania (DCM).

PALAEARCTIC SPECIES

Ixobrychus m. minutus Little Bittern R: Singles Bamburi 17-18 Jan (PBT), and Dar es Salaam 3 Mar and 11 Dec (NEB). Up to 3 Baringo end Oct (TS).

Ciconia ciconia White Stork N: c1500 Aruba Dam 7 Jan (PBT). c2500 moving NNW Homa Bay 17 Mar (ADL, DJP).

Ciconia nigra Black Stork R: Singles Nairobi area Jan-Feb and Oct-Nov. 1 Meru NP 25 Oct (DAT), 3 Thika 15 Nov (RDM), 1 Mara GR 28 Nov (DAT). Singles Arusha NP 14 Nov (JSSB) and Lake Manyara 30 Dec (JMC).

Platalea leucorodia Eurasian Spoonbill S: A single bird Lake Nakuru Jan and May (VH), and from 14 Oct-11 Nov (DKR, RS, DAT *et al.*).
Satisfactory details, including colour photographs, submitted.
There are only four previous Kenya records, all involving single birds.

Anas acuta Pintail N: c8000 Simini's Dam, Kinangop, 27 Jan (DJP).
D: Presumed oversummering birds as follows: 1 Limuru 10 May (DJP), 3 Arusha NP 3 Aug and 1 there 30 Aug (JSSB, CCHE).
E: Other records from Tanzania and Uganda as follows: 8 Dar es Salaam 9 Jan and 5 on 11 Feb (JMC, NEB); 11 Lake Sundu 16 Dec (NEB); nr Kampala 3 Kibimba 8 Nov and 3 Mabamba swamp 15 Nov (MJC).

Anas crecca Teal S: Present Thika OPs Jan-Mar and Nov-Dec with max. counts 55 on 3 Jan, 60 on 24 Jan and 45 on 3 Feb (BSM, RDM, DJP *et al.*). Up to 8 Dandora OPs Jan-Mar and Nov-Dec (BSM, DJP *et al.*). 1-2 Naivasha Jan-early Mar and 15 on 16 Dec; 10 Lake Nakuru 18 Jan (BS, DJP). 20+ Lake Solai Jan and again late Nov-Dec (JS). 28 Sergoit, nr Eldoret 31 Jan (DJP, ADL). 1 Aruba 24 Jan (DAT).

Anas penelope Wigeon S: Singles Dandora OPs 2-4 Jan, Thika OPs 3 Jan and Naivasha 28 Feb (BSM, DKR). 6 Lake Solai 19 Jan, 5+ Lessos 31 Jan, 2 Nyahururu Falls 2 Feb and c20 Kaptagat 1 Feb (DJP, ADL). 3 Amboseli 24-25 Mar (DAT).

Anas querquedula Garganey E: Recorded from south of 10°S as follows: 6 Lake Sundu 16 Dec and 6 Lake Ngwasi, Mufindi (T) 20 Dec (DCM, NEB).

Anas clypeata Shoveler N: Large concentration of 5000+ Lake Solai 19 Dec (DJP).

Aythya ferina Northern Pochard S: 2 males Ferguson's Gulf, Lake Turkana 10 Feb (FA). Satisfactory description received.
The fifth Kenya record and the first since 1977.

Aythya fuligula Tufted Duck S: 2 males Lanet-01 Joro Orok, 2 Feb (ADL,DJP).

Aythya nyroca White-eyed Pochard S: 4 Dandora OPs 1 Jan (DJP); 2 there 2 Jan, 1 3-4 Jan and 1 9 Jan (BSM, ADL, DJP, DAT, DEGB, HAB, PLB). 1 Thika OPs 3 Jan and 1 4 Feb (BSM, ADL, DJP). 2 Naivasha 1 Mar (BSM).
The first records in East Africa since 1974 - see also *Scopus* 5:77-79.

Aquila heliaca Imperial Eagle S: A juvenile Lukenya 30 Dec (DJP).
Now recorded for six years running in Kenya.

Aquila pomarina Lesser Spotted Eagle R: Singles Dandora 1 Jan, Nakuru 1 Jan, Lanet 9 Jan, Gilgil 9 Jan, Njabini 27 Jan, Ol Bolossat 2 Feb, Naivasha 27 Jan and 15 Feb, Elmenteita 14 Feb and 23 Mar and Langata 7 Mar (BSM, DJP, ADL, DKR). 3+ flying NW Homa Bay 17 Mar (ADL, DJP). 5 at roost nr Mufindi, Tanzania, 7 Feb (NEB).

Singles Mwadui 8 Nov, Tatunda 13 Dec, and Naivasha 1 Nov and 26 Dec; also 3 Isiolo 14 Nov and up to 3 Ngulia 19-29 Nov (DKR, DCM, RS, DJP, AEB).

Fewer records of southward passage birds than in other recent years.

Buteo buteo Steppe Buzzard N: c20 moving NNW Homa Bay 17 Mar (ADL, DJP) - see also *Scopus 5:* 83-84.

Hieraaetus pennatus Booted Eagle R: *All records received are given.* 17 Kenya records of 1-2 birds up to 17 Mar and from 23 Oct, from central highlands, the southeast and the coast (6 records 20 Jan-1 Mar, Mombasa-Lake Shakababo) (many observers). Also 1 Homa Bay and another Kisii 17 Mar (ADL, DJP).

There were more records in 1981 than all records documented by Backhurst et al. 1973.

Pernis apivorus Honey Buzzard R: Singles Eldama Ravine 9 Jan, Gede 23 Jan, Homa Bay (moving NNW) 17 Mar, Tigoni 28 Mar, Mida 28 Mar, 29 Mar and 14 Apr, Diani 9 Apr and Tsavo E NP 23 Apr (BSM, HAB, PLB, ADL, DJP, MACC). Also Nairobi 26 Oct, Voi 22 Nov and Dar es Salaam (moving S) 20 Nov (DJP, RDM, NEB).

Pandion haliaetus Osprey D: 1 Lake Jipe 12 July (PBT).

Falco amurensis Eastern Red-footed Falcon S: Singles nr Mufindi (T) 5 & 7 Feb (NEB). 2 Mtito Andei 11 Nov (DAT); 1 Meru NP 18 Nov (DAT); 1 Bamburi 1 Dec (PBT) and 1 Konza (adult male) 28 Dec (DJP).

Falco concolor Sooty Falcon S: Adults Bamburi 19 Mar (PBT, CT), Tsavo W NP 11 Nov (DAT) and Thika 15 Nov (JHB, RDM). A juvenile Ngulia 19 Nov (DJP).

Falco eleonorae Eleonora's Falcon S: 1 Lolkisale, SW of Arusha, 15 Jan (JSSB) and 1 Karen 29 Nov (DKR).

Falco naumanni Lesser Kestrel N: Concentrations of c170 Sarya Plains 2 Jan (TMC); and c500 Chyulu Hills 20-24 Feb (BSM).

Falco peregrinus Peregrine R: presumed Palaearctic birds as follows: Singles Dar es Salaam 9 Jan, Mida 18 Jan, Mombasa 11 Feb and Sabaki 30 Jan and 5 Apr (JMC, PLB, HAB, RDM, KC). A large pale bird seen at close range Nakuru 18 Jan appeared to be *Falco p.calidus* (DJP).

Falco vespertinus Red-footed Falcon S: A party of 25+ nr Maktau 20 Mar (PBT) - see also *Scopus* 5: 125.

The seventh record for East Africa, but the first involving more than three birds.

Crex crex Corncrake R: 1 Bamburi 6 May (PBT). 1 Nairobi NP 7 Nov (RDM). 1 Tatanda 29 Nov and 1 20 km W Tatanda 29 Dec (DCM).

Porzana porzana Spotted Crake R: 1 Athi River 19 April and 2 there 25 Apr (DJP); 1 Bamburi 6 May (PBT).

1 20 km W Tatanda 30 Dec (DCM).

The Bamburi record is the first from the Kenya coast.

Haematopus ostralegus Oystercatcher R: Records of a single bird from three localities Mombasa 17 Jan-25 Mar (CT, PBT, HAB, PLB) probably refer to one individual.

1 Galu Beach 22 Feb and 30 Sep (MACC); 1 Mida 18 Jan (HAB, PLB).

3 Dar es Salaam 31 Jan and 2 there 21 Nov (NEB).

Charadrius alexandrinus Kentish Plover S: 1 Lake Elmenteita 14 Feb (DEGB, DJP).

Charadrius dubius Little Ringed Plover R: Wintering records from over 20 sites, max; 30+ Lake Nakuru, late Dec (DJP).

Charadrius leschenaultii Great Sandplover E: INLAND: 1 Dandora OPs 13-14 Oct (DAT, DJP).

Charadrius mongolus Mongolian Sandplover E: INLAND: 2 Lake Naivasha 11 Oct (DAT) and 1 Lake Baringo 1-8 Jan (DJP, TS).

Pluvialis dominicus Lesser Golden Plover S: 1 Dar es Salaam 8 Jan (JMC), 1 Malindi 23 Jan (HAB, PLB), 3 Lake Bilissa 28 Feb (PLB, MACC, DJP). 3 Aruba 11 Nov (DAT). 1 Ngare Nanyuki (T) 18 Nov (JSSB).

Pluvialis squatarola Grey Plover E: INLAND: 2 Lake Baringo 5 Jan-8 Mar (ADL, TS) and 1 15 Mar (TS). 1 Ferguson's Gulf 1-4 Oct (FA).

Numenius arquata Curlew E: INLAND: 2 Nakuru 18 Jan (DJP). Singles Nairobi NP 18 Jan (RDM), Ferguson's Gulf 10 Feb (FA), Lake Elmenteita 14 Feb (DEGB, DJP) and Mwea rice scheme 21 Feb (RDM).

Numenius phaeopus Whimbrel E: INLAND: 1 Lake Natron (T) 24 Aug (JSSB).

Limosa lapponica Bar-tailed Godwit R: Several records up to 3 birds Mombasa and S coast Kenya late Aug-Oct; also 2 Galu Beach 19 Feb (MACC) and 1 Gazi 31 Mar (MACC). Recorded Mida to 30 May and from 23 Aug (max. 8+ 20 Oct and 11 18 Apr. MACC, MEJG. DJP, PBT).

3 Dar es Salaam 12 Dec (NEB).

Limosa limosa Black-tailed Godwit R: Several records of 1-2 birds S Kenyan rift lakes to 20 Feb and from 15 Nov.

4 Lake Bilissa 28 Feb and 15 there 12 Dec (DJP, MACC). 3 Ngomeni salt pans 30 May and 1 there 7 June (HAB, PLB, CT, PBT).

4 Kibimba, nr Kampala 8 Nov (MJC).

The Kampala record is only the second for Uganda.

Tringa erythropus Spotted Redshank R: Wintering records from 21 localities, max. 11 Magadi 25 Jan. (DEGB, DJP).

Tringa totanus Redshank R: Recorded Mida to 28 Mar and from 20 Nov, max. 7 Birds; 1 there 16 July. (PLB).

1 Lake Jipe 11 Mar (DKR).

Xenus cinereus Terek Sandpiper N: Counts at Mida tidal roost, 200+ 28 Feb and 250-300 19 Oct (DJP).

90+ there 30 May (PBT) were presumably non-breeding first summer birds.

Gallinago media Great Snipe R: 1 Bamburi 4-5 Sep and up to 7 there 24 Nov-18 Dec (PBT). 5 Lake Bilissa 13 Dec (MACC, DJP).

Calidris alba Sanderling E: INLAND: Mabamba, nr Kampala 11 Mar (AS, MJC).

Calidris melanotos Pectoral Sandpiper S: 1 Bamburi 28 Sep (PBT).
The second record for Kenya and E Africa - see also *Scopus 6:* 21-22.

Calidris ruficollis Red-necked Stint S: 2 Ngomeni salt pans 16-17 May (PBT, CT, HAB, PLB).
The first record for Kenya and E Africa - see also *Scopus 5:* 126-128.

Calidris temminckii Temminck's Stint R: Wintering records from 17 inland Kenyan localities, max 13 Naivasha 2 Jan (DJP).

Limicola falcinellus Broad-billed Sandpiper S: Recorded Sabaki to 24 Mar and from Nov, max. 25 (PLB, DAT). Also 2 Ngomeni salt pans 20 Oct and 1 Bamburi 19 Dec (PBT).

Phalaropus lobatus Red-necked Phalarope S: c20 Diani 2 km offshore 22 Feb (MACC) and c70 same locality 7 Mar (MACC, HAB, PLB).

4 Lake Nakuru 18 Jan (DJP), 1 there Oct (BSM, DAT *et al.*) and 4 on 15 Nov (DKR). 2 Ferguson's Gulf 1-4 Oct (FA).

1 Momella Lakes, Arusha NP 11 Apr (JSSB).

Burhinus oedicnemus Stone Curlew R: Party of 5 sisal plantation nr Solai 19 Jan (DJP); 1 freshly dead on road Mogotio 27 Oct (DAT).

Pratincola nordmanni Black-winged Pratincole S: 6 together Lake Baringo 2 Apr (TS). Satisfactory details received.
The fourth Kenyan record and the second in spring.

Stercorarius pomarinus Pomarine Skua S: A pale sub-adult Diani 6 Mar (HAB, PLB, MACC) and a pale sub-adult Sabaki 18 Jan-14 Feb (HAB, PLB).
The fifth and sixth records for Kenya, although these perhaps refer to the same bird.

Larus argentatus Herring Gull R: Sabaki river mouth to 5 Apr with very high numbers beginning of year,e.g.c240 12 Jan and c280 30 Jan (PLB). High numbers again end of year (DJP). Recorded Malindi to 3 Apr (max. 60 1 Mar) and 1 there 5 July; also 2 Mombasa (HAB, PLB) 5 Jan. 1 Dar es Salaam 28 Nov (NEB).

Larus genei Slender-billed Gull S: 1 Mombasa 10 Oct (PBT, CT). 4 Ferguson's Gulf 25 Nov (TS).
The Mombasa record is the first away from Lake Turkana.

Larus ichthyaethus Great Black-headed Gull S: 2 immatures Sabaki River mouth 12 Jan and 23 Jan (HAB, PLB).

Larus ridibundus Black-headed Gull E: 1 Gaba nr Kampala 15 Mar (MJC).
There are still few Uganda records.

Chlidonias leucopterus White-winged Black Tern E: 50 Sabaki river mouth 5 Apr (RDM, KC) is a notable record for the coast. N: 5000+ Kisumu OPs 23 Mar (BSM).

Sterna hirundo Common Tern R: Reported as common by several observers on the coast from Lamu to Dar es Salaam, with a few records of oversummering. 3000+ recorded Kilifi 20 Oct (MACC, DJP).

Sterna caspia Caspian Tern N: 60 counted Sabaki river mouth 23 Jan (HAB, PLB).

Sterna sandvicensis Sandwich Tern S: 1 Mombasa 12 Dec (DEGB, PBT). Singles Dar es Salaam 25 Jan and 23 Dec (NEB).

Streptopelia turtur Turtle Dove S: 1 Samburu Lodge 3 Jan (VH, UH, RS) - see *Scopus 5:* 128.
The second record for Kenya and East Africa.

Cuculus poliocephalus Lesser Cuckoo R: 1 Sokoke 15 Apr (HAB, PLB) was the only record received.

Caprimulgus europaeus Eurasian Nightjar R: 1 Dar es Salaam 2 Apr (NEB); a party in from the sea Diani 1 Apr and one dead there same day (MACC); 1 Ngulia 5 Apr (DJP) and 1 Sabaki dunes 5 Apr (RDM). Recorded as usual at Ngulia in Nov.

Cercotrichas galactotes Rufous Bush Chat E: AWAY FROM E KENYA: Up to 6 Baringo 23-28 Nov, 2 there early Dec and 1 31 Dec (TS).

Irania gutturalis Irania E: 1 Keekorok, Mara GR 19 Mar (DAT).

Luscinia luscinia Sprosser E: 1 Rukwa Valley (T) 6 Dec (DCM, RS).

Oenanthe oenanthe Northern Wheatear D: 1 Kaisut desert 23 May (ADL).

Phoenicurus phoenicurus Redstart R: 1 Naivasha 18 Jan (RDM, PR); 5+ Maralal in open cedar woodland 6-7 Mar (ADL, DJP); 1 Baringo 15 Mar (TS); 1 Ngulia 24 Nov (DJP).

Saxicola rubetra Whinchat E: Several records to Mar and from Oct in Nakuru/ Menengai/Solai area (JPD, DJP). Singles Baringo 8 Feb and 2 Apr (TS) and 1 Bamburi 4 Oct (PBT).
In Tanzania singles Mufindi 6 Feb and Tatanda 15 Dec (NEB).
The Bamburi record is the first for coastal E Africa.

Acrocephalus griseldis Basra Reed Warbler R: AWAY FROM NGULIA: At least 2 Bamburi 25 Jan (PBT). Recorded from 5 localities Tana flood plain north to Buomo Feb, Mar and Dec (HAB, PLB, MACC, DJP).

Acrocephalus palustris Marsh Warbler E: 2-3 Kindaruma 21 Mar presumed wintering (DJP). 2 Ngulia 5 Apr and several Mtito Andei 7 Apr (DJP). Common Isiolo 14 Nov and one same day nr Archer's Post (AEB, DJP). Recorded as usual central and SE Kenya Nov-Dec.

Acrocephalus schoenobaenus Sedge Warbler E: Small numbers recorded wintering Bamburi (PBT).

Hippolais languida Upcher's Warbler R: AWAY FROM TSAVO: Common Garsen 28 Feb (DJP). Common Sultan Hamud-Amboseli 12 Mar and nr Namanga 13 Mar (ADL, DJP). Common Mtito Andei first week Apr (DJP).

Hippolais olivetorum Olive-tree Warbler S: 2 Baringo 24 Feb and 16 Mar (TS). 3 Mtito Andei 7 Apr (DJP); 1 Isiolo 14 Nov and at least 2 W of Ololokwe 15 Nov (AEB, DJP). Recorded at Ngulia as usual Nov-mid Dec.
Baringo is a new wintering site.

Locustella fluviatilis River Warbler R: 1 ringed Ngulia 6 Apr (DJP); recorded there as usual Nov-Dec.

Phylloscopus collybita Chiffchaff R: 1 singing Nyakiambi (Lanet Ol Joro Orok) 2 Feb (ADL, DJP). 2 Irangi forest, Mt Kenya 21 Feb (RDM).

Ficedula albicollis Collared Flycatcher R: A female Tatanda (T) in miombo woodland 12 Dec (DCM, RS).
A known wintering area, but few recent records.

Motacilla alba White Wagtail E: 1 Bamburi 14 Dec and 1-2 19-26 Dec (PBT). N: Up to 30 Kariobangi SF Jan-Feb (last record 14 Mar) is most recorded at that site (DEGB, DJP).

Lanius collurio Red-backed Shrike N: 250+ Sabaki river mouth area 5 Apr (RDM, KC). E: Presumed wintering birds W Kenya recorded Ukwala 6 Jan and Lake Kanyaboli 7 Jan (ADL).

Lanius isabellinus Red-tailed Shrike E: 1 Dar es Salaam 27 Dec (NEB).

Lanius minor Lesser Grey Shrike D: An autumn bird (1st year) Meru NP 26 Oct (DAT). N: c50 Sabaki river mouth 5 Apr (RDM, KC).

ADDITIONS AND CORRECTIONS FOR PREVIOUS YEARS

PALAEARCTIC SPECIES 1978:

Limosa limosa Black-tailed Godwit R: 4 Nakuru 25 May (PBT).

Larus genei Slender-billed Gull S(A): 1 Nakuru 28 Feb (GB-S). This was the third East African record and the first away from Lake Turkana.

1979: The following records were erroneously included in the 1978 report, but related to January 1979:

Falco amurensis Eastern Red-footed Falcon R: 1 Tunduma (T) 9 Jan (PBT).

Tringa erythropus Spotted Redshank R: 2 Ngorongoro crater (T) 5 Jan (PBT).

Locustella fluviatilis River Warbler R: 1 in sub-song Lukosi River (T) 8 Jan (PBT).

1980:

Platelea leucorodia Eurasian Spoonbill S(B): 1 Nakuru 19 Nov (VH).

Falco amurensis Eastern Red-footed Falcon R: 25 Langata, Nairobi 18 Nov (ST).

'FIRST' AND 'LAST' DATES FOR SOME PALAEARCTIC MIGRANT LANDBIRDS

(central/eastern Kenya and northern Tanzania)

Species	Last Date	First Date
Cuculus canorus		22 Oct Baringo
C.poliocephalus	15 Apr Sokoke	
Caprimulgus europaeus	5 Apr Ngulia,Sabaki.	23 Oct Baringo
Merops apiaster		14 Sep Arusha
Delichon urbica		8 Sep W Kilimanjaro(T)
Riparia riparia	10 May Nakuru	
Oriolus oriolus	12 Apr Nairobi	26 Sep Bamburi
Irania gutturalis	19 Mar Mara GR	
Luscinia luscinia	7 Apr Mtito Andei	30 Oct Ngulia
Monticola saxatilis	31 Mar Voi	14 Nov Isiolo

'First' and 'last' dates of Palaearctic migrant landbirds, cont.

Species	Last Date	First Date
Oenanthe isabellina		12 Oct Mikumi NP(T)
O. oenanthe		15 Sep Bissel
O. pleschanka	1 Apr Nairobi	21 Oct Machakos
Saxicola rubetra	2 Apr Baringo	4 Oct Bamburi
Acrocephalus arundinaceus	26 Apr Naivasha	7 Dec Ngulia
A. griseldis		21 Nov Ngulia
A. palustris	7 Apr Mtito Andei	4 Nov Kariobangi.
A. schoenobaenus	16 May Bamburi	28 Oct Athi River.
A. scirpaceus	14 Apr Kariobangi	
Hippolais languida	7 Apr Mtito Andei	23 Nov Ngulia.
H. pallida	26 Apr Naivasha	17 Oct Dandora
Locustella fluviatilis	6 Apr Ngulia	20 Nov Ngulia
Phylloscopus trochilus	1 May Tsavo West NP	10 Oct Arusha
Sylvia atricapilla	24 Mar Kariobangi	7 Nov Kariobangi.
S. borin	19 Apr Kariobangi	4 Nov Kariobangi.
S. communis	14 Apr Bissel	31 Oct Ngulia
S. nisoria	3 Apr Kariobangi	8 Nov Endau
Muscicapa striata	6 Apr Ngulia	14 Oct Arusha
Anthus cervinus	3 Apr Kariobangi	10 Nov Kariobangi.
A. trivialis	5 Apr Ngulia	22 Oct Kariobangi.
Motacilla alba	14 Mar Kariobangi	10 Nov Kariobangi.
M. cinerea		11 Oct Kakamega
M. flava	29 Apr Kariobangi	12 Sep Kariobangi.
Lanius collurio	14 Apr Bissel	26 Oct Meru NP
L. isabellinus	7 Apr Mtito Andei	8 Nov Mwingi Mkt.
L. minor	1 May Konza	

English names of birds listed above but not mentioned in the Species Report: *Cuculus canorus* Eurasian Cuckoo, *Merops apiaster* Eurasian Bee-eater, *Delichon urbica* House Martin, *Riparia riparia* Sand Martin, *Oriolus oriolus* Golden Oriole, *Monticola saxatilis* Rock Thrush, *Oenanthe isabellina* Isabelline Wheatear, *O. pleschanka* Pied Wheatear, *Acrocephalus arundinaceus* Great Reed Warbler, *A. scirpaceus* Reed Warbler, *Hippolais pallida* Olivaceous Warbler, *Phylloscopus trochilus* Willow Warbler, *Silvia atricapilla* Blackcap, *S. borin* Garden Warbler, *S. communis* Whitethroat, *S. nisoria* Barred Warbler, *Muscipapa striata* Spotted Flycatcher, *Anthus cervinus* Red-throated Pipit, *A. trivialis* Tree Pipit, *Motacilla cinerea* Grey Wagtail, *M. flava* Yellow Wagtail.

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E.A.N.H.S. NEST RECORD SCHEME: 1981

P.B. Taylor

The Nest Record Scheme continued to flourish in 1981, with about 50 contributors submitting cards. Most records have again been from Kenya, and there have unfortunately been no cards from Uganda. However, Tanzania has been well-represented, with contributions both from regular observers and also from a new participant, David Moyer, whose numerous and detailed records from the southern part of the country are an extremely valuable addition. From Kenya, a welcome contribution is that of Mrs M. Candy, who has supplied details of her observations of breeding turacos for the period 1976 - 1981. Observations have been submitted for a number of rarely-recorded species as well as for some with no previous East African breeding records: all these are commented upon in the species list.

The organizer has received a good number of requests for information held in the card collection, both for individual research projects and papers and in connection with *The Birds of Africa*. As a result of these requests, it has become clear that there is a need for a more detailed summary of breeding data than has been provided in previous years. The format of the 1981 report is therefore changed, and instead of giving only months of actual or computed egg-laying, an attempt has been made to summarize the most important details for each species. The available data on clutch sizes, numbers and ages of young, hatching/fledging dates etc. have been included, together with any further details of particular interest. All records received have been included, except indefinite records (e.g. building, adult on nest, adult carrying food) involving species which are commonly reported. Observers' names have been included only for records of especial interest and/or rarity.

The inclusion of extra data has necessitated the free use of abbreviations, and a full list of these is appended. In giving the stage of development of young birds it is sometimes necessary to rely on a very brief description such as 'fledgling' or 'juvenile'; in this report the former is taken to refer to a fully-fledged young bird which has left the nest and is capable of flight but which is still dependent on its parents for food, and the latter is assumed to refer to a fully-grown and free-flying young bird which is capable of fending for itself but which may still accompany its parents and be fed by them.

Abbreviations used are as follows:

C = clutch	D = District
d = day(s)	GR = Game Reserve
FG = fully-grown	L = Lake
J = juvenile	NP = National Park
N = nestling	R = river
Y = young	V = valley

All localities are in Kenya, unless followed by (T), which signifies Tanzania. Co-ordinates are given where no locality name is applicable. Dates are given as day/month for 1981 records; pre-1981 records have the year added. Where only the month is known, this is given as the month name.

Records are listed by locality. Individual records are separated by commas, and localities by semi-colons. Where several records are for the same date, or where clutches/young of the same size or age are given for several dates, the details are linked by ampersands (&). More than one record with the same details for the same day is given as a multiple e.g. 3xC2 = three nests each with 2 eggs. Where a nest contains both eggs and young, details are given as follows: N2+C1 = a nest with 2 nestlings and 1 egg. Approximate numbers are prefixed by 'c'.

Scopus 5: 154-164, March 1983

The following observers contributed records for 1981: H.Adan, R.G.Allan, G.C.Backhurst, N.E.Baker, J.S.S.Beesley, L.Bennun, S.M.Boulton, D.Brass, P.L & H.A.Britton, R.S.Brown, F.N.Bruce-Miller, W.F.Bruce-Miller, M.Candy, M.E.Cattermole, G.R.Cunningham-van Someren, P.Davey, J.D.Ligon, J.Fanshawe, N.Gichuki, C.Gilbert, M.E.J.Gore, I.W.Hardy, V., L.& J.Hartley, B.Harvard, M.Heath, K.M.Howell, G.Lewis, Y.Malcolm-Coe, R.Mennell, R.D.Moore, D.Moyer, C.Muringo, F.Ng'weno, D.E.Pomeroy, B.V.Purcell, I.Redmond, S.Sassoon, D.Schmidl, L.Schwab, D.Sheppard, T.Sheppard, T.Stevenson, P.B. & C.A.Taylor, M.M.Thacher, D.Trump, R.F.Tyers, P.A.Wootton.

Struthio camelus Ostrich: Samburu GR incubating 1/8 & 15/9; Nairobi NP c15 small Y 22/11.

Tachybaptus ruficollis Little Grebe: Mombasa Y3 less than 1 week old 14/5, 2xY3 very small 10/8; Nairobi Y3 small 21/6, Y2 small 6/10; Arusha (T) Y4 small 14/11.

Pelecanus onocrotalus White Pelican: L Natron (T) c 10 000 birds on 2 islands, eggs present 23/8.

Phalacrocorax carbo Greater Cormorant: L Naivasha 74 nests, many with well-grown Y 18/9.

Ardea goliath Goliath Heron: L Naivasha N3 & 2xN2 & N1+C2 & C4 22/6, 6 nests with Y of various sizes (max. 2 per nest) 9/7.

Ardea melanocephala Black-headed Heron: L Solai 41 occupied nests most with Y, also incubating 13/8; Usa R near Arusha (T) 70-80 nests each with Y2-3 ¾-grown 21/11.

Leptoptilos crumeniferus Marabou: Hunter's Lodge (Kiboko) Y2 downy with first feathers 12/9.

Bostrychia hagedash Hadada: Nairobi C3 9/8.

Dendrocygna viduata White-faced Whistling Duck: Nairobi NP Y10 c10 d old 23/6; Mombasa Y9 & Y10 very small 1/7, Y11 small 10/7.

Alopochen aegyptiacus Egyptian Goose: Nairobi NP Y 1 week old 31/1; Nanyuki Y8 downy 9/5; L Naivasha Y9 c1 week old 7/6; Tsavo East NP Y3 ¼-grown 25/6, Y4 small 8/12.

Anas capensis Cape Wigeon: Arusha NP (T) Y5 3-4 d old & Y8 4-5 d old 30/8.

Anas erythrorhynchos Red-billed Teal: Nairobi NP Y6 small 1/6.

Aquila rapax Tawny Eagle: Nakuru NP N1-2 small 25/7.

Aquila wahlbergi Wahlberg's Eagle: 8.31'S, 31.30'E (T) C1 27/9 & 17/10, N1 2 weeks old 19/11, N1 3 weeks old 29/11 & 11/12.

Buteo augur Augur Buzzard: Nairobi-Naivasha Rd Y2 small 19/7.

Hieraaetus dubius Ayres' Hawk Eagle: Eagle Hill (Embu D) N1 partly-feathered 1/10.

Melierax metabates Dark Chanting Goshawk: L Baringo feeding Y in nest 28/3.

Polemaetus bellicosus Martial Eagle: Masai Mara GR N1 downy with first feathers 19/7.

Milvus migrans Black Kite: Kiambu N2 first flew 20/3; 8.31'S, 31.30'E (T) C2 21/9 & 19/11.

Aviceda cuculoides Cuckoo Hawk: Nairobi incubating 22/3 then N1 dead below nest 22/4 and remaining N fledged by 24/5 (T.Sheppard). *Only one previously-documented breeding record for EA. This species is probably resident in the Nairobi area.*

Falco biarmicus Lanner Falcon: L Baringo N1 2/12/80.

Falco rupicoloides White-eyed Kestrel: Suswa C3 17/7.

Falco tinnunculus Kestrel: L Baringo N3 fully-grown 13/6; near Ketumbeine Mt (T) adults feeding Y in nest 24/8; Arusha NP (T) adults feeding Y 18/11.

Coturnix delegorguei Harlequin Quail: Tsavo East NP Y4 one-third grown 1/6.

Francolinus afer Red-necked Spurfowl: Rukwa V (T) Y7 c1 week old 5/12.

Francolinus coqui Coqui Francolin: Nakuru NP Y6 small 27/8.

Francolinus leucoscepus Yellow-necked Spurfowl: Samburu GR Y8 downy 15/9.

Francolinus sephaena Crested Francolin: Ngulia Y4 one-third grown 13/6; Smaburu GR many Y (most just-flying) with parents 1/8.

Guttera pucherani Kenya Crested Guineafowl: Diani Forest Y4 ¾-grown 10/1.

Numida meleagris Helmeted Guineafowl: Masai Mara GR Y2 12/4, many flying Y 19/7; Magadi Road Y3 non-flying 26/6; Amboseli NP J14 12/9; Ngulia 2xY5 ¼-grown 13/6.

Turnix sylvatica Button Quail: Tsavo East NP 2xY3 2-3 d old 1/6.

Balearica pavonina Crowned Crane: Amboseli NP J2 large 20/4, 2xY2 ½-grown 12/9; Masai Mara GR J1 flying 19/7; Nairobi NP Y2 2/8, Y2 two-thirds grown 12/9; Samburu GR J1 flying 15/9; Lewa Downs Y2 almost FG 17/9.

Gallinula chloropus Common Moorhen: Nairobi Y5 recently-hatched 29/1, Y3 small downy 26/8.

Limnocorax flavirostra Black Crake: L Baringo Y5 4-5 d old 3/6.

Porphyrio porphyrio Purple Gallinule: Nairobi J2 FG and independent 2/9.

Rallus caerulescens African Water Rail: L Naivasha Y5 small 13/8 (R.D.Moore). *Only one previous EA breeding record, also from Naivasha, in 1979.*

Fulica cristata Red-knobbed Coot: Nairobi Y1 ½-grown 2/9.

Actophilornis africanus Jacana: Amboseli NP Y4 downy 13/5; Mombasa Y2 downy 31/5, Y2 one-third grown 23/6, Y1 small 30/9.

Charadrius pecuarius Kittlitz's Sandplover: L Baringo Y1 2-3 d old 13/12/80; L Jipe Y1 ¼-grown 12/7, C1 3/11; Amboseli NP Y2 newly-hatched 14/5 & 15/5, Y2 3-4 d old 15/5, Y2 c10 d old 15/5; Nairobi NP C2 & C3 27/12; Arusha NP (T) Y1 2-3 d old 18/11.

Vanellus armatus Blacksmith Plover: Amboseli NP C3 & C4 13/5, Y3 almost-fledged 15/5, C2 15/5, C3 21/11; Nakuru NP Y2 small 25/7.

Vanellus coronatus Crowned Plover: Amboseli NP J2 8/12/80, Y2 almost-fledged 15/5; Laikipia C3 14/1; Lewa Downs Y1 newly-hatched 17/9; Nairobi NP Y3 small 22/11; Mikumi NP (T) C2 31/10.

Vanellus melanopterus Black-winged Plover: Ngare Nanyuki, Mt Meru (T) C3 18/11.

Vanellus senegallus Wattled Plover: 8.31'S, 31.30'E (T) C3 16/9 & 15/11, C2 18/9 & 24/9.

Vanellus spinosus Spur-winged Plover: Sabaki R mouth C2 & C3 5/4; Ngomeni Y3 ¼-grown 30/5; Amboseli NP Y3 recently-hatched 21/11.

Vanellus tectus Black-headed Plover: Tsavo West NP Y3 recently-hatched 17/10.

Himantopus himantopus Black-winged Stilt: Ngomeni Y1 dependent 17/5, C3 7/6, Y3 ½-grown & Y1 two-thirds grown 7/6.

Rhinoptilus cinctus Heuglin's Courser: L Baringo C2 22/9.

Sterna dougallii Roseate Tern: Kisite Island, breeding activity noted in July, possibly also in August.

Pterocles exustus Chestnut-bellied Sandgrouse: Magadi 2xC3 27/9, C2 29/11.

Aplopelia larvata Lemon Dove: Tengeru, Arusha (T) J1 about 5-7 d out of nest 29/9.

Streptopelia capicola Ring-necked Dove: 8.31'S, 31.30'E (T) C2 7/1/80 & 9/5 & 20/5, 2xC2 29/5, C2 12/6 & 22/8 & 5/9, N2 one-third grown 5/9, 2xC2 12/9, N2 ½-grown 13/9, C2 14/9 & 15/9 & 16/9 & 17/9, N2 almost-fledged 16/9, 3xC2 18/9, N2 3 d old 19/9, N2 almost-fledged 21/9, N2 ½-grown 7/11.

Streptopelia semitorquata Red-eyed Dove: Nairobi C3 10/1, incubating C2 late Feb, incubating 27/4, N1 partly-fledged 13/5, J2 almost FG 10/7, Y2 small 22/9; 8.31'S, 31.30'E (T) C2 15/5 & 12/9 & 15/9 & 21/9.

Streptopelia senegalensis Laughing Dove: Samburu GR N2 downy with first feathers 3/8, C2 15/9; Nairobi C1 25/11.

Turtur chalcospilos Emerald-spotted Wood Dove: 8.31'S, 31.30'E (T) C2 15/5, N2 fully-fledged 20/9.

Treron australis Green Pigeon: Kiambu 1 broken egg 10/11/80; Nairobi C2 hatched 27/6/78; 8.31'S, 31.30'E (T) C1 16/6/80.

Corythaeola cristata Great Blue Turaco: Kaimosi incubating from 8/11/76 but nest failed, incubating from 22/11/76 but nest failed, F1 5/4/77, N2 downy 30/9/77, incubating from 31/1/79 but nest failed, N3 25/12/79, F2 30/11/79, incubating 17/12/79 but nest failed, incubating from 21/12/79 but nest failed, N1 large 31/1/80, N1 hatched 20-21/9/80, N2 9/11/80, incubating from 13/11/80 but nest failed, F2 6/4.

Musophaga rossae Ross's Turaco: Kaimosi incubating for 18 days but nest failed 14/10/76, incubating from 27/11/76 but nest failed, N2 downy 11/1/77, N2 hatched 1-2/12/77, N2 hatched 27/2/79, incubating from 29/10/79 but nest failed, C2 13/10/80 & 5/11/80, N2 hatched 13/4.

Tauraco hartlaubi Hartlaub's Turaco: Nairobi building (2 nests) April, F1 24/6 and same pair incubating again 9/8.

Chrysococcyx caprius Didric Cuckoo: Nairobi F1 fed by *Ploceus baglafecht* 16/2, C1+C2 *Ploceus cucullatus* April; L Baringo J1 fed by *Anaplectes rubriceps* 10/6.

Chrysococcyx cupreus Emerald Cuckoo: Nairobi F1 fed by *Pycnonotus barbatus* 17/3.

Chrysococcyx klaas Klaas's Cuckoo: Nairobi J1 fed by *Nectarina venusta* 11/8, N1 in *Nectarina venusta* nest (no date), N1 in *Nectarina mediocris* nest 1/12 (P.Wootton).

The Nectarina mediocris *record is the first for this host in EA.*

Clamator glandarius Great Spotted Cuckoo: Naivasha N2 well-feathered in *Spreo superbus* nest 18/6, F1 just-flying 5/7.

Clamator jacobinus Black and White Cuckoo: L Baringo J1 fed by *Turdoides rubiginosus* 8/6; Olorgesailie J1 fed by *Pycnonotus barbatus* 6/6.

Cuculus clamosus Black Cuckoo: L Naivasha F1 fed by *Laniarius ferrugineus* 6/6 (G.C.Backhurst).
The first good dated record for EA.

Cuculus gularis African Cuckoo: L Naivasha J1 large 19/9 (R.D.Moore).
No breeding records for EA.

Cuculus solitarius Red-chested Cuckoo: Nairobi F1 fed by *Cossypha caffra* 14/5.

Bubo africanus Spotted Eagle Owl: L Baringo N3 almost FG 8/8.

Otus scops Scops Owl: 8.31'S, 31.30'E (T) C4 25/8 (D.Moyer).
The first EA breeding record.

Caprimulgus pectoralis Fiery-necked Nightjar: 8.31'S, 31.30'E (T) C2 25/8, N2 3 d old 12/9, C2 16/9.

Caprimulgus tristigma Freckled Nightjar: 8.31'S, 31.30'E (T) C2 18/9.

Macrodipteryx vexillarius Pennant-winged Nightjar: 8.31'S, 31.30'E (T) C1 12/9, C2 15/9 & 16/9 & 21/9 & 3/10 & 4/10, 2xC2 17/9 & 19/9 & 21/10, 4xC2 18/9 (all D.Moyer).
These are the first recent EA breeding records.

Apus niansae Nyanza Swift: Mt Elgon building 19/8.

Colius striatus Speckled Mousebird: Nairobi F3 left nest 9/7, F4 21/7, C3 10/9; 8.31'S, 31.30'E (T) N3 1 week old 25/10.

Apaloderma narina Narina's Trogon: Rukwa V (T) Y1 probably 1-2 weeks out of nest 5/12.

Halcyon leucocephala Chestnut-bellied Kingfisher: 8.31'S, 31.30'E (T) N4 almost-fledged 30/10/80.

Ispidina picta Pygmy Kingfisher: L Baringo Y newly-fledged 9/6.

Merops oreobates Cinnamon-chested Bee-eater: Aberdares feeding Y Jan; Nairobi feeding Y 14/1 & 25/6, 3 birds excavating single nest burrow 11/4.

Merops pusillus Little Bee-eater: 8.31'S, 31.30'E (T) C4 18/9.

Coracias caudata Lilac-breasted Roller: 8.31'S, 31.30'E (T) C3 16/9;

Upupa epops Hoopoe: L Baringo N2 almost ready to leave nest 11/8; Nairobi F1 6/10; 8.31'S, 31.30'E (T) C6 7/9/80, C3 5/9.

Phoeniculus bollei White-headed Wood Hoopoe: Mt Kenya F2 7/6.

Bycanistes bucinator Trumpeter Hornbill: Kitovu Forest male passing food into nesting hole 1/11 (T.Stevenson).
No detailed EA breeding records.

Tockus erythrorhynchus Red-billed Hornbill: L Baringo F1 3/8.

Tockus hemprichii Hemprich's Hornbill: L Baringo Js fed by parents 6-28/7 (T.Stevenson).
No detailed EA breeding records.

Tockus nasutus Grey Hornbill: L Naivasha occupied hole 20/8.

Bucorvus cafer Ground Hornbill: 8.31'S, 31.30'E (T) N1 ¾-grown 5/12, N1 3 weeks old 30/12.

Buccanodon leucotis White-eared Barbet: Tengeru, Arusha (T) feeding Y 11/10.

Lybius diadematus Red-fronted Barbet: L Baringo adult feeding newly-fledged J 18/1.

Lybius leucocephalus White-headed Barbet: Kiambu N1 left nest 16/3 but second N flew only on 10/4, N3 fledged 21/7 and N2 from same nest flying by 29/10; Nairobi F1 23/8.

Pogoniulus bilineatus Yellow-rumped Tinkerbird: Nairobi J1 6/8.

Trachyphonus erythrocephalus Red and Yellow Barbet: Mt Meru (T) adults feeding Y 18/11.

Trachyphonus vaillantii Levaillant's Barbet: 8.31'S, 31.30'E (T) N2 almost-fledged 19/12 (D.Moyer).
Only one previous EA breeding record.

Indicator indicator Black-throated Honeyguide: Naivasha F1 fed by *Lamprotornis chalybaeus* 3/7.

Prodotiscus zambesiae Eastern Honeybird: Nairobi J1 fed by *Zosterops poliogastra* 30/12 (L.Bennun).

Dendropicos fuscescens Cardinal Woodpecker: Ngong Hills Js fed by adults 5/7.

Calandrella cinerea Red-capped Lark: Nairobi J3 4/2.

Mirafra africana Rufous-naped Lark: Emali C3 24/12.

Hirundo abyssinica Striped Swallow: Kiambu F2 left nest 12/5, feeding Ns 2/7.

Hirundo fuligula African Rock Martin: Molo incubating 11/7; 8.31'S, 31.30'E (T) N2+C1 16/9.

Hirundo senegalensis Mosque Swallow: 8.31'S, 31.30'E (T) C2 28/2.

Hirundo smithii Wire-tailed Swallow: Bungoma incubating 16/2; Kwale N3 very young 21/2; Nairobi F5 (presumably 2 broods) 6/5.

Psalidoprocne pristoptera Black Rough-wing: Mt Elgon 10-12 pairs nesting in cave - eggshells seen 1/8.

Dicrurus adsimilis Drongo: Mida Creek N2 & N1 almost-fledged 7/6; 8.31'S,31.30'E (T) C3 13/9 & 17/9.

Oriolus larvatus African Golden Oriole: L Naivasha incubating 18/4.

Oriolus percivali Montane Oriole: Kieni building 1/2.

Corvus albus Pied Crow: Dar es Salaam (T) F1 20/11.

Corvus splendens Indian House Crow: Mombasa N1 ½-grown 13/11.

Parus albiventris White-bellied Tit: Nairobi F1 14/1, feeding Ns 20/9.

Turdoides melanops Black-lored Babbler: L Naivasha F4 13/8.

Turdoides squamulatus Scaly Babbler: Watamu F1 free-flying 2/4 (R.D.Moore).

Campephaga flava Black Cuckoo Shrike: Nairobi F1 11/2 & 1/7.

Andropadus gracilirostris Slender-billed Greenbul: Nairobi F1 fed by adult 29/11 (F.Ng'weno).
No detailed EA breeding records.

Andropadus latirostris Yellow-whiskered Greenbul: Mbisi Forest (T) J1 3/12.

Andropadus milanjensis Stripe-cheeked Greenbul: Arusha NP (T) building 15/11.

Pycnonotus barbatus Common Bulbul: Nairobi F2 13/2 & 27/2, 2xF1 6/3, F1 19/3 & 29/3 & March, F2 26/4; Kiambu F1 left nest 9/4, F1 12/6 & 29/10; Mombasa F1 25/8 & 5/10; Mt Kenya F1 16/9; 8.31'S,31.30'E (T) C2 18/9.

Cercomela scotocerca Brown-tailed Rock Chat: L Baringo J3 14/5, F2 1/6, adult taking food to nest in cliff-face crevice 10/8 (all T.Stevenson).
Very few EA breeding records.

Cercomela sordida Alpine Chat: Mt Kenya N3 4/10.

Cercotrichas leucophrys White-browed Scrub Robin: L Baringo N2 16/6, C2 17/7; L Natron (T) N3 3-4 d old 16/1, F1 10/12.

Cercotrichas quadrivirgata Eastern Bearded Scrub Robin: Watamu F3 5/4.

Cossypha caffra Robin Chat: Nairobi F1 25/6, Ns 16/10; Kiambu C2 15/4, N1 small 21/5, F1 left nest 2/11, J1 Nov.

Cossypha heuglini White-browed Robin Chat: 8.31'S, 31.30'E (T) C3 5/9.

Cossypha semirufa Rüppell's Robin Chat: Nairobi F1 30/5; Kiambu F1 left nest 29/4; Tengeru, Arusha (T) C2 7/4.

Turdus abyssinicus Northern Olive Thrush: Nairobi F1 26/4 & 4/6; Kiambu F2 18/3, F1 16/4, F2 21/7.

Turdus litsipsirupa Ground-scraper Thrush: 8.31'S, 31.30'E (T) F2 16/9.

Acrocephalus gracilirostris Lesser Swamp Warbler: L Naivasha incubating 18/4.

Apalis cinerea Grey Apalis: Nairobi C1 82/6, incubating 14/10; Limuru F2 March.

Apalis flavida Yellow-breasted Apalis: Nairobi F1 2/8.

Cisticola brachyptera Siffling Cisticola: 8.31'S, 31.30'E (T) C3 6/1.

Cisticola chubbi Chubb's Cisticola: Mbisi Forest (T) C3 12/1.

Cisticola cinereola Ashy Cisticola: Tsavo West NP F2 just-flying 12/7 (P.B. & C.A.Taylor).
Only two previous EA breeding records.

Cisticola galactotes Winding Cisticola: Nairobi C3 10/12/80, F2 22/5; Mombasa C4 14/4 & 12/6 & 26/7, C2 5/6, C1 1/7.

Cisticola hunteri Hunter's Cisticola: Kiambu F1 8/4 & 10/6.

Cisticola lais Wailing Cisticola: 8.31'S, 31.30'E (T) F2 c4d out of nest 9/12 (D.Moyer)

Cisticola nana Tiny Cisticola: Same (T) 3 families of adults and recently-fledged Y 22/12.

Cisticola robusta Stout Cisticola: Nairobi F5 29/1 (2 broods?).

Eminia lepida Grey-capped Warbler: Kiambu F1 left nest 20/11.

Eremomela icteropygialis Yellow-bellied Eremomela: L Magadi C2 8/1.

Prinia subflava Tawny-flanked Prinia: Mombasa C3 3/12; 8.31'S, 31.30'E (T) C2 3/9.

Sylvietta whytii Red-faced Crombec: Nairobi C2 29/20/80 & 9/9; Moshi (T) Ns 19/9.

Bradornis microrhynchus Grey Flycatcher: L Baringo N3 22/4; 8.31'S,31.30'E (T) F2 14/12 (D.Moyer).
The Tanzania record represents a range extension for this species.

Bradornis pallidus Pale Flycatcher: Ngong Hills F3 11/1; Nairobi NP F4 14/4; Ngomeni N2 almost-flying 17/5.

Melaenornis chocolatina White-eyed Slaty Flycatcher: Nairobi J1 4/12/80, F1 4/3 & 29/3 & 25/11, F4 19/3; Kiambu F2 19/4 & 20/4, F1 5/5 & 17/10 & 21/10; Mbisi Forest (T) J2 2-3 weeks out of nest 2/12.

Muscicapa adusta Dusky Flycatcher: Nairobi F1 28/2 & 29/11; Mtanga (T) Ns ½-grown 31/11.

Batis mixta Forest Batis: Sokoke Forest oviduct egg 3/5.

Batis molitor Chin-spot Batis: Nairobi Fs 11/2, F1 11/5; Naivasha incubating 10/7; Kiambu F1 13/11; Seronera (T) Ns 7/2.

Platysteira peltata Black-throated Wattle-eye: Morningside, Ulugurus (T) incubating or brooding small Y 30/10.

Terpsiphone viridis Paradise Flycatcher: Nairobi F2 3/2, Fs 15/2, F3 left nest 14/5, N2 28/5 (1 left nest 4/6), incubating 24/9.

Anthus leucophrys Plain-backed Pipit: 8.31'S, 31.30'E (T) C3 8/12 (D.Moyer).
Few breeding records; none from this part of Tanzania.

Anthus melindae Malindi Pipit: Ngomeni N3 c3 d old 17/5.

Macronyx ameliae Rosy-breasted Longclaw: Nairobi NP J3 with adult 7/6.

Macronyx fuelleborni Fülleborn's Longclaw: 8.31'S, 31.30'E (T) C3 23/12/80 & 8/11 & 16/12 (D.Moyer).
Only three previous EA breeding records.

Motacilla aguimp African Pied Wagtail: L Nakuru F1 9/3; L Naivasha building 11/7; Nairobi F2 17/7; L Magadi Ns 29/11; 8.31'S,31.30'E (T) C2 25/9.

Tmetothylacus tenellus Golden Pipit: Nr Moshi (T) Fs 28/11; Same (T) F2 22/12 (J.S.S.Beesley).
Few EA breeding records.

Dryoscopus cubla Black-backed Puffback: Nairobi building 17/11, F1 16/12.

Nilaus afer Brubru: L Baringo F1 16/7.

Tchagra australis Brown-headed Tchagra: Arusha (T) N2 almost ready to leave nest 14/12.

Lanius cabanisi Long-tailed Fiscal: Mombasa F1 just out of nest 8/11.

Lanius collaris Fiscal: Nairobi F2 left nest 22/3 & 9/4, F1 22/6, Fs Aug; Kiambu C3 1P/12, incubating from 17/5, F1 7/6 & 11/11; 8.31'S,31.30'E (T) C3 5/1 & 8/1, N2 ½-grown 28/4, C2 12/9, C3 13/9, N2 ½-grown 15/9, N3 almost-fledged 3/10, N3 2 d old 8/11, C3 15/11, N3 almost-fledged 17/11, C3 20/11 & 23/11, N2 2 d old 24/11, N2 2 weeks old 14/12.

Prionops plumata Helmet Shrike: 8.31'S,31.30'E (T) N3 just-fledged 17/9.

Cosmopsarus regius Golden-breasted Starling: Tsavo area occupied nest hole 3/5.

Lamprotornis chalybaeus Blue-eared Glossy Starling: Kiambu J2 7/5.

Onychognathus tenuirostris Slender-billed Chestnut-winged Starling: Mt Elgon N2 with first feathers L8/8, F2 left nest 11/9.

Speculipastor bicolor Magpie Starling: Ol Donyo Sabachi C5 22/5; Huri Hills adults entering 3 nest-holes with food 11/6, colony with at least 5 active nests (adults feeding Ns) 11/6 (R.G.Allan).

The first EA breeding records.

Spreo hildebrandti Hildebrandt's Starling: Nairobi adults feeding Ns 6/5.

Spreo superbus Superb Starling: Nairobi F1 6/5; Kiambu F2 left nest 15/3 & 21/11; L Naivasha F1 19/9; Samburu GR F1 17/9.

Anthreptes collaris Collared Sunbird: Nairobi incubating 22/9 and Y hatched by 6/10.

Nectarina bifasciata Little Purple-banded Sunbird: Mombasa N1 20/9.

Nectarina cuprea Copper Sunbird: 8.31'S,31.30'E (T) C2 laid 5/3-6/3, Y2 ½-grown 17/5.

Nectarina kilimensis Bronze Sunbird: Kaimosi N3 hatched 3/6/79; Nairobi N1 fledged 14/4; Kiambu N1 hatched 7/5 & 9/5, incubating from 19/6, incubating until c6/7, N1 hatched 21/9 & 21/10.

Nectarina mediocris Eastern Double-collared Sunbird: Nairobi N2 11/10.

Nectarina olivacea Olive Sunbird: Diani N2 large 29/5.

Nectarina pulchella Beautiful Sunbird: L Baringo many pairs building late March (start of rains).

Nectarina senegalensis Scarlet-chested Sunbird: Nairobi C2 9/11/80; 8.31'S,31.30'E (T) F1 left nest 16/10.

Nectarina venusta Variable Sunbird: Nairobi N3 14/7, Ns hatched 16/10, N2 14/11.

Zosterops abyssinica Abyssinian White-eye: Nairobi F1 25/5.

Zosterops poliogastra Montane White-eye: Nairobi F1 1/3 & 4/3.

Amblyospiza albifrons Grosbeak Weaver: Nairobi C2 8/6, F1 24/6; Usa R (T) 2xN3 almost naked 29/1, N3 half-feathered 29/1, N2 almost-fledged 29/1.

Anaplectes rubriceps Red-headed Weaver: Magadi building 10/5.

Anomalospiza imberbis Parasitic Weaver: near Sigor, West Pokot N1 almost fledged in nest of *Cisticola* sp; (probably *Cisticola chiniana*) 4/8 (R.S. Brown).

Euplectes albonotatus White-winged Widowbird: Nairobi C2 15/5.

Euplectes ardens Red-naped Widowbird: 8.31'S,31.30'E (T) C4 21/4.

Euplectes macrourus Yellow-mantled Widowbird: 8.31'S,31.30'E (T) C2 25/4.

Euplectes nigroventris Zanzibar Red Bishop: Gazi C1 5/4.

Ploceus baglafecht Baglafecht Weaver: Nairobi F1 just-flying 19/3, F1 25/5 & 28/5, F2 just-flying 14/6, J2 2/8, F1 30/8, N2 large 22/9, Ns 3/10, F1 25/11 & 7/12, Kiambu F1 just-flying 2/3 & 4/3.

Ploceus bojeri Golden Palm Weaver: Mombasa N1 1 week old 22/1.

Ploceus cucullatus Black-headed Weaver: Nairobi building from 3/2 (30+ nests 19/2) and Fs seen from 16/3, C2 mid-April, F1 16/5; Tsavo East NP N1 c10 d old 23/5.

Ploceus intermedius Masked Weaver: Magadi Rd c50 & c15 active nests 8/4, 6 active nesting colonies 30-40 nests each 8/4, 28+ active colonies 27/4.

Ploceus ocularis Spectacled Weaver: Nairobi F1 2/8.

Ploceus rubiginosus Chestnut Weaver: Magadi Rd c100 active nests 27/4.

Ploceus spekei Speke's Weaver: Magadi Rd building c50 nests 8/4; Kiambu J1 12/5.

Ploceus subaureus Golden Weaver: Hunter's Lodge (Kiboko) c10 active nests 6/4; Bagamoyo (T) c100 active nests 31/10; Ruvu (T) 10 nests 30/11; Dar es Salaam (T) building 9 nests 20/12; Mkalamo (T) 40 completed nests 26/12.

Ploceus velatus Vitelline Masked Weaver: Mwea 3 active nests 26/4.

Ploceus xanthops Holub's Golden Weaver: Nairobi F1 12/7, F2 Nov; Kiambu J1 20/5; 8.31'S,31.30'E (T) C2 13/9, C1 21/9, N2 very young 21/9, N2 2 weeks old 11/12;

Quelea cardinalis Cardinal Quelea: Nairobi C2 8/6; Magadi Rd 2xC2 & C3 17/5, 20 nests mostly C2 with a few C1 and C3 and a few just-hatched Ns 17/5.

Quelea erythrops Red-headed Quelea: Kilosa (T) 9 colonies in tall swamp grass in 1 metre water 22/4 (J.S.S.Beesley).
The first reported breeding in EA.

Quelea quelea Red-billed Quelea: Magadi Rd 2xC1 & 19xC2 & 29xC3 & 4xC4 26/6.

Plocepasser donaldsoni Donaldson-Smith's Sparrow Weaver: Lorian Swamp building 8/8.

Plocepasser mahali White-browed Sparrow Weaver: Samburu building 13/8; Muhoroni c10 pairs nesting 26/8.

Plocepasser superciliosus Chestnut-crowned Sparrow Weaver: Kongolai building 23/8.

Pseudonigrita arnaudi Grey-headed Social Weaver: Nairobi NP c10 active nests 18/10.

Passer eminibey Chestnut Sparrow: Magadi Rd 3 pairs in old nests of *Ploceus intermedius* 17/5.

Passer griseus Grey-headed Sparrow: Nairobi F1 13/3 & 14/6; Kiambu J2 22/2 & 3/7, J1 5/12; 8.31'S,31.30'E (T) N3 2 d old 20/7/80.

Passer motitensis Rufous Sparrow: Nairobi F2 28/6; Kiambu F2 14/3, J2 22/4.

Estrilda astrild Waxbill: Nairobi C3 12/7/80; Kiambu C1 21/5; Mombasa C4 14/11.

Lagonosticta rubricata African Firefinch: 8.31'S,31.30'E (T) N4 almost naked 27/5.

Lagonosticta senegala Red-billed Firefinch: Nairobi C5 25/11/80, N1 19/6, F2 23/8; L Baringo nest in house on shelf between books and jars - access through open window May; Dar es Salaam (T) N1 22/10.

Ortygospiza atricollis Quailfinch: 8.31'S,31.30'E (T) C5 4/5.

Uraeginthus bengalus Red-cheeked Cordon bleu: Mombasa C5 29/4 & 20/6, C4 27/9 & 2/10 & 15/11, C5 in old nest of *Ploceus bojeri* 28/9, C2 in recently-built flimsy nest of *Ploceus bojeri* 27/11; 8.31'S,31.30'E (T) C4 28/5.

Lonchura cucullata Bronze Mannikin: Nairobi F5 4/1, F4-5 4/2, F6 14/7; Dar es Salaam (T) N1 (out of nest) 29/10.

Lonchura malabarica Silverbill: Magadi Rd cN3 in old nest of *Ploceus intermedius* 26/6.

Emberiza flaviventris Golden-breasted Bunting: Nairobi N2 14/6.

Emberiza tahapisi Cinnamon-breasted Rock Bunting: 8.31'S,31.30'E (T) C3 13/6.

Serinus atrogularis Yellow-rumped Seedeater: Nairobi F1 5/8.

Serinus citrinelloides African Citril: Kiambu J1 19/4.

Serinus dorsostriatus White-bellied Canary: near Arusha (T) building 11/1.

Serinus mozambicus Yellow-fronted Canary: 8.31'S,31.30'E (T) C1+N1 3/3, N3 1 d old 17/9.

Serinus striolatus Streaky Seedeater: Nairobi F1 12/3 & 19/6 & 6/9 & 26/12; Limuru F1 25/2; Kiambu N2 19/1.

Serinus sulphuratus Brimstone Canary: 8.31'S,31.30'E (T) C3 29/4, N2 ½-grown 13/9.

ORNITHOLOGICAL PROJECTS IN EAST AFRICA, 1981

The following list includes all projects known to the committee, which (a) involved active field-work during 1981, and (b) were expected to culminate in publication in recognised journals. For professional workers, only their major projects are listed.

Andersson, M. University of Göteborg, Sweden. Breeding biology and mate selection in Long-tailed Widowbirds; Kinangop plateau, Kenya.

Backhurst, G.C. Nairobi (a) East African ringing scheme (b) (with Pearson, D.J) Migration studies at Ngulia, Tsavo West NP, Kenya.

+Candy, M. Kaimosi, Kakamega, Kenya. Breeding biology of Turacos.

Carswell, M. Kampala, Uganda. Avifauna of the Kampala area.

Cunningham-van Someren, G.R. National Museums of Kenya. (a) Taxonomic studies of montane birds from Kenya and Sudan (b) Conservation status of birds in Kenya for Red Data book (c) (with Angwin, D) 10 km^2 bird distribution studies.

Dittami, J.P. Max-Planck-Institut, Lake Nakuru NP, Kenya. Behavioural and physiological studies of stonechats, starlings and other passerines.

Elliott, C.C.H. FAO/UNDP Quelea bird control project, Arusha, Tanzania. Biology and management of quelea populations.

Emlen, S.T. see P. Wrege.

+Gichuki, N. Ministry of Agriculture, Kenya and University of Nairobi. Grain-eating birds on small-scale farms in Machakos District.

Hass, V. Max-Planck-Institut, Lake Nakuru NP, Kenya. Social behaviour of Anteater Chats.

+Kasoma, P. Makerere University, Uganda. General biology of Black-headed Weavers, Kampala.

Leisler, B; Max-Planck-Institut, Lake Nakuru NP, Kenya. Ecology of wintering Wheatears.

+Ligon, J.D. & S.H. University of New Mexico, USA. Social behaviour of Green Wood Hoopoes, Naivasha, Kenya.

Meadows, B.S. Nairobi. East African wildfowl counts.

°Muringo, C. National Museums of Kenya and University of Nairobi. General biology of Speke's Weavers, Nairobi.

Oelke, H. Göttingen, W. Germany. Birds of native and exotic forests, western Kenya.

Pearson, D.J. University of Nairobi. Status, seasonality and distribution of Palaearctic migrants in southern and eastern Kenya.

Pomeroy, D.E. Kenyatta University College, Nairobi. (a) Distribution and abundance of birds in semi-arid areas, mainly in southern and eastern Kenya. (b) (with Lewis, A.D.) Bird atlas of Kenya.

Reyer, H.E. Max-Planck-Institut, Lake Nakuru NP, Kenya. Behaviour of Pied Kingfishers, Nakuru and Homa Bay, Lake Victoria.

+Skorupa, J.P. University of California, Davis, USA. Avifauna of Kibale forest Uganda, especially eagles.

Short, L.L. & Horne, J.F.M. American Museum of Natural History. Taxonomy and general biology of Woodpeckers and Barbets, particularly vocalisations, in Kenya.

Sonnenschein, Edith. Max-Planck-Institut, Lake Nakuru NP, Kenya. Ecology of wintering Wheatears.

Stevenson, T. Baringo, Kenya. Birds of the Lake Baringo area.

Stuart, S. University of Cambridge, England. Montane avifauna of Tanzania.

+Sumba, S.J.A. Uganda Institute of Ecology, Rwenzori NP. Biology of Fish Eagles.

Taylor, P.B. Nairobi. East African Nest Record Scheme.

Wrege, P. Cornell University, USA. Social behaviour of White-fronted Bee-eaters, Lake Nakuru NP, Kenya: in association with S.T. Emlen.

Zack, S. University of New Mexico, USA. Behaviour and ecology of Fiscal and Long-tailed Fiscal Shrikes, Naivasha, Kenya.

° Project begun in 1981.

+ Field-work completed in 1981.

RINGING AND MIGRATION AT NGULIA, TSAVO, NOVEMBER - DECEMBER, 1981

G.C. Backhurst & D.J. Pearson

Previous reports on the end of year migration at Ngulia have appeared in quarterly issues of *Scopus*. The transfer of the present account to the East African Bird Report issue seems appropriate at this stage in the study.

The Lodge was manned for only 18 nights during late 1981, and catching attempted on 15 of these. 5454 Palaearctic birds were ringed, however, all during the 'small-moon' period 20 November to 7 December, when misty conditions occurred on most nights. The Whitethroat[1] was the dominant species up to 28 November, but was supplanted thereafter by the Marsh Warbler. Sprossers were caught in good numbers throughout the period, 1153 being ringed in all. Work in earlier years has shown that late November/early December is the peak of the River Warbler passage. Concentrated catching at this time in 1981 produced a total of 320 for this species, the second highest ever. Numbers of most other Ngulia specialities were low: the Eurasian Nightjar, Rufous Bush Chat, Basra Reed Warbler, Olive-tree Warbler and Barred Warbler were all caught in well below average numbers. Only the Willow Warbler and Upcher's Warbler were above average. The only unusual Palaearctic caught was a Redstart on 24 November, the second for Ngulia.

There were two retraps from previous seasons. A Marsh Warbler first ringed at night on 24 November 1979 was caught, again at night, on 21 November 1981; this was presumably an example of a bird attracted down whilst migrating across Ngulia at about the same date in two different years. A Whitethroat originally caught in the bush on 5 April 1981 was recaught there on 5 December. A first year Sprosser ringed at night on 25 November was controlled by a ringer while breeding in extreme southeast Finland on 10 June 1982; the two previous recoveries of this species were both in the Middle East on northward passage.

Two species were added to the list of Afrotropical birds caught at the Lodge at night. Painted Snipe *Rostratula benghalensis* were netted on 28 November and 6 December, and an immature Red-capped Robin Chat *Cossypha natalensis* was also caught on 6 December.

Palaearctic birds ringed are given in Table 1.

ACKNOWLEDGEMENTS

We thank the management of Ngulia Safari Lodge for affording us every assistance, and the warden of Tsavo National Park (West) for permission to ring birds in the Park. For help during ringing we are most grateful to D.E.G. Backhurst, J.Dirks, A.M.Forbes-Watson, F.& D.Lagerberg, T.C.H.& D.Mathews, D.K.& V.Richards, T.Stevenson and D.A.Turner. GCB wishes to thank the Frank M.Chapman Memorial Fund for financial assistance.

[1]Scientific names of Palaearctic species are given in Table 1

Scopus 5: 166-167, March 1983

TABLE 1

Numbers of Palaearctic night migrants ringed at Ngulia Safari Lodge between October and February in the years 1969-1982

Species	1981/2 Total	%*	Total 1969-1982
Eurasian Nightjar *Caprimulgus europaeus*	10	44	213
Eurasian Roller *Coracias garrulus*	9	352	34
Eurasian Swallow *Hirundo rustica*	10	80	122
Sand Martin *Riparia riparia*	1	-	6
Rufous Bush Chat *Cercotrichas galactotes*	41	56	708
Irania *Irania gutturalis*	102	88	1158
Sprosser *Luscinia luscinia*	1153	105	11 161
Nightingale *L.megarhynchos*	34	78	427
Rock Thrush *Monticola saxatilis*	5	54	90
Isabelline Wheatear *Oenanthe isabellina*	2	30	63
Northern Wheatear *O.oenanthe*	3	40	70
Pied Wheatear *O.pleschanka*	1	28	33
Redstart *Pheonicurus phoenicurus*	1	-	2
Great Reed Warbler *Acrocephalus arundinaceus*	1	36	26
Basra Reed Warbler *A.griseldis*	32	68	459
Marsh Warbler *A.palustris*	1752	93	18 809
Sedge Warbler *A.schoenobaenus*	3	55	62
Reed Warbler *A.scirpaceus*	4	65	60
Upcher's Warbler *Hippolais languida*	39	172	246
Olive-tree Warbler *H.olivetorum*	11	40	262
Olivaceous Warbler *H.pallida*	15	47	306
River Warbler *Locustella fluviatilis*	320	157	2179
Willow Warbler *Phylloscopus trochilus*	190	195	1072
Blackcap *Sylvia atricapilla*	1	20	46
Garden Warbler *S.borin*	6	14	389
Whitethroat *S.communis*	1579	93	16 990
Barred Warbler *S.nisoria*	27	58	448
Spotted Flycatcher *Muscipapa striata*	31	51	581
Tree Pipit *Anthus trivialis*	1	53	18
Red-backed Shrike *Lanius collurio*	42	56	727
Red-tailed Shrike *L.isabellinus*	28	46	581
Species	31		44
Total	5454	95	57 390

*The autumn 1981 total expressed as a percentage of the 1972/81 mean for each species. Totals of species ringed in previous seasons but not in autumn 1981 are as follows: Little Bittern *Ixobrychus minutus* 3, Eleonora's Falcon *Falco eleonorae* 1, Corncrake *Crex crex* 6, Spotted Crake *Porzana porzana* 1, Eurasian Cuckoo *Cuculus canorus* 2, Lesser Cuckoo *C. poliocephalus* 1, Scops Owl *Otus scops* 1, Golden Oriole *Oriolus oriolus* 11, Whinchat *Saxicola rubetra* 2, Icterine Warbler *Hippolais icterina* 1, Savi's Warbler *Locustella luscinioides* 1, Wood Warbler *Phylloscopus sibilatrix* 1, Yellow Wagtail *Motacilla flava* 3, hybrid Red-backed/Red-tailed Shrike 7.

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The Living Bird
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** = Latest known address.

INDEX OF AUTHORS

INDEX OF SCIENTIFIC NAMES

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Index prepared by D.K.Richards.

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Any references cited should be listed at the end of the contribution following the form used in this issue. *Names of periodicals MUST be given in full and, in the case of books, the town of publication and the publisher should be given.* A number of works, which are cited frequently, should not be listed under 'References'; the name(s) of the author(s) and date(s) of publication should be given in the text in the normal way.

All contributions should be sent to Dr D.J. Pearson, Department of Biochemistry, University of Nairobi, Box 30197, Nairobi, Kenya.

WORKS WHICH SHOULD NOT BE LISTED UNDER 'REFERENCES'

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