Migrant landbirds in Seychelles

John Phillips and the Seychelles Bird Records Committee
Yorkleigh Cottage, Pope's Hill, Newnham,
Gloucestershire GL14 1LD, UK

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Abstract: Records of migrant landbirds in Seychelles up to 1995 are categorised historically, seasonally and geographically within the country. Observer-related effects probably account for much of the apparent historical and insular variation. Most of the 300 records of 52 species relate to birds which migrate from the eastern Plaearctic to southern Africa, but species from a wide geographical range have been observed. Records of individual species are discussed with particular reference to their known migration routes. Further collection and analysis of records of Seychelles migrants is desirable.

Introduction

It has long been recognised that a wide range of migratory birds occur in Seychelles (Penny 1974; Feare & Watson 1984). Although the islands are remote from any continental land masses, birds from a broad geographical range, including African, Eurasian and Far Eastern species, have been observed. However until recently observations have been sparse and scattered through the literature and the status of many species, particularly landbirds, has been incompletely understood.

With this in mind, the Seychelles Bird Records Committee was established in 1992 to assess the validity of all reports of migrants, including those published prior to the Committee's formation, and of collating and analysing acceptable records. It was felt that a more detailed knowledge of the species occurring, their frequency, seasonality and abundance, would provide a valuable contribution not only to the natural history of Seychelles, but also, given the islands' apparent remoteness from the major migration routes, to migration studies in general.

The purpose of this paper is to summarise the historical, geographical and seasonal distributions of the landbird species so far recorded, and where possible to suggest reasons for their occurrence in Seychelles. The species discussed here are generally those not dependent on sea or fresh water for feeding or nesting. Aquatic, marshland and shore-dwelling species such as ducks, seabirds, herons, other long-legged marsh birds, crakes, rails and waders are excluded. The Committee deals with records of all species apart from Seychelles residents.

Methods of Analysis

Analysis of patterns of occurrence is based on numbers of records, rather than numbers of birds. A sighting of three birds together, for example, is counted as one record, not three. In general, a conservative approach has been adopted in deciding how many separate records have been included in a series of sightings. Numbers of records are as yet too few to allow the fine detail of seasonal patterns to be worked out, so occurrences of most species have been analysed by month. In the case of long-staying birds, only the date when first found is included.

Records refer to birds identified to species, with the exception of the cuckoos *Cuculus*)p. A majority of cuckoo records were accepted as "probably common cuckoo", with a caveat :garding other possible, but less likely, species. In order not to distort the overall picture by mitting these relatively frequent records, "probable common cuckoos" are included with :finite records. Similarly, the one probable Asian lesser cuckoo is included with definite :cords. For most species there has been a high rate of record acceptance. The main exception birds of prey, which are notoriously difficult to identify. To give an idea of the total numbers f birds of prey occurring, the numbers of rejected records of birds of prey for which any records ave been accepted are noted. However they are excluded from tables and figures.

All islands from the Amirantes southwards are classified as "southern", as distinct from ie northern or "granitic" group, which includes the non-granitic Bird and Denis islands. The)uthern group therefore covers a very large area, and there are almost sure to be differences :tween the migrants occurring at, for example, Aldabra and the Amirantes. However, records 'e at present too few to allow any more detailed analysis. Most southern records to date are om Aldabra. For convenience "spring", "autumn" etc. are used to indicate the seasons in the)rthern hemisphere. Scientific names are given in the individual species notes.

pecies and numbers occurring

Between its formation and the end of 1995, the Committee accepted 300 records of 52)ecies of migrant landbirds. The records are summarised in Table 1. There are 166 records of 6 species from the granitic group and 134 of 26 species from the southern islands.

As Table 1. reveals, the most commonly recorded species are large and/or brightly)loured (e.g. cuckoos, rollers), conspicuous perchers (e.g. spotted flycatcher), open-country :eders (e.g. tree pipit, wheatear), aerial feeders (swifts, hirundines). This suggests that records 'e biased towards more easily detected, conspicuous species. There are only seven records of 'arblers, for example. This may not be surprising given the abundance of "cover" for more :cretive species.

istorical distribution of records

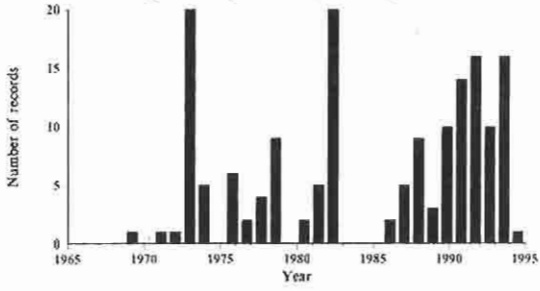
Figure 1. shows the number of accepted records per year for northern and southern lands respectively, since 1964 (there are only 13 accepted southern records and two northern re-1964). Both graphs show wide variation in the numbers of records per year. Southern :cords (mostly Aldabra) have declined, with a suggestion of a resurgence since 1990, while ose from the granitics have been more erratic, though with a distinct and welcome tendency to ıcrease since 1985. These patterns depend almost entirely on the presence or absence of)servers, to the extent that the presence of particular expeditions or individuals at various times ın often be detected.

Table 1. Total number of records of each species

Record	Species
1	Booted eagle, Lesser kestrel, Sooty falcon, Red-footed falcon, Peregrine falcon, Turtledove, Great spotted cuckoo, Brown fish-owl, Nightjar, Little swift, Short-toed lark, Whinchat, Isabelline wheatear, Sedge warbler, Icterine warbler, White-throat, Blackcap, Willow warbler, Lesser grey shrike, Woodchat shrike, Common rosefinch, Ortolan bunting (22 species)
2	Marsh harrier, Pied cuckoo, White-throated needletail, Rock thrush, Wood warbler, Red-backed shrike, Rose-coloured starling (7 species)
3	Eleonora's falcon, Asian lesser Cuckoo*, House martin (3 species)
4	Black kite, Hobby, Blue-cheeked bee-eater, Grey wagtail, Redstart, Golden oriole (6 spp)
5	Mascarene martin
7	White wagtail
8	Sand martin
9	Red-throated pipit
10	Pacific swift
11	Swift, Yellow wagtail
12	Spotted flycatcher
15	Roller
20	Cuckoo (including 14 probable)
27	Broad-billed roller
29	Wheatear
33	Swallow
34	Tree pipit

* includes one accepted as probably this species

Northern



Southern

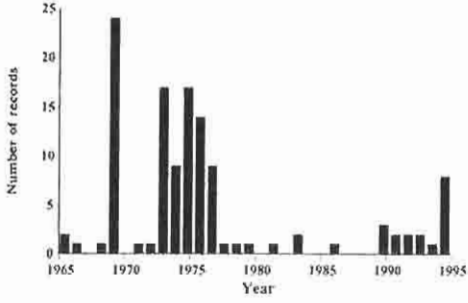


Fig. 1. Number of records per year (NB. 1995 incomplete).

Geographical distribution of records

There are differences between the granitic and southern islands in the relative abundance of species recorded (Fig. 2.). 26 species seen in the granitic group have not been recorded in the south, while only 6 have been recorded in the south but not the granitics. Southern records have been even more biased towards a few large and/or conspicuous species than northern ones: the commonest 4 in the south (broad-billed roller, wheatear, swallow and tree pipit) make up 58% of all records, while in the granitics the commonest 4 (cuckoo, tree pipit, swallow and roller) account for only 39%. Some differences are no doubt due to observer-related effects, but some may be real. For instance broad-billed rollers and wheatears are clearly commoner in the south (see species accounts).

Seasonality of records

There are differences between the granitic and southern islands in numbers of records in each month (Fig. 3.). Autumn peaks in both groups may be expected from experience, and are reflected in the seasonal occurrence of individual species, but the large March peak (southern group only) is more surprising. From the comments on historical distribution, this could be due partly to the presence of more observers in spring; in spring 1968 Aldabra was particularly well-watched. Although it is unwise to draw firm conclusions from the limited data, there is a suggestion that March may be generally more productive in the south: the 33 March records here are spread over 6 Marches, compared with only 27 records from 12 Novembers. In the granitics there are only 6 records from 3 Marches.

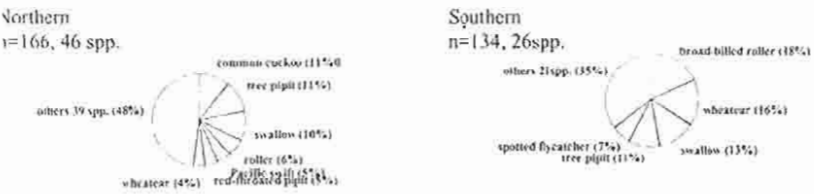


Fig. 2. Species compostion of records

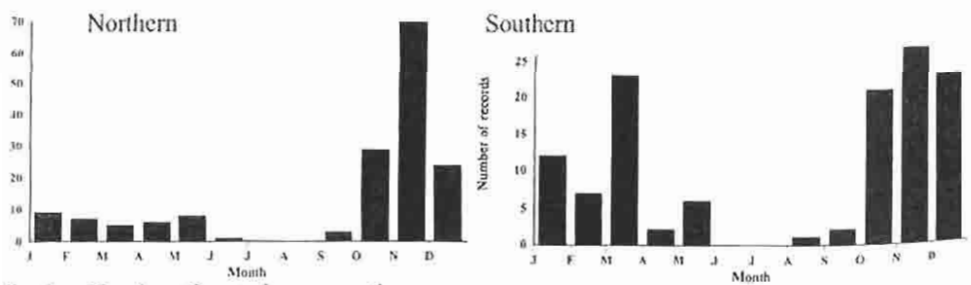


Fig. 3. Number of records per month

Notes on individual species

In this section migrants are divided into groups by their breeding and wintering ranges. Figures below the species name indicate approximate eastern breeding limit (degrees east) of Africa-migrating populations, the southern limit of the wintering range in Africa (degrees of latitude or to the "Cape") and whether any winter also in Asia. Figures on the line below give the number of records for each month in the northern (granitic) (N) and the southern (S) groups. Range and migration data are from Cramp (1977-93), unless stated otherwise.

GROUP 1. - Most Seychelles migrants are Palaearctic-breeding species with African-migrating populations breeding well to the east and with a wintering range in East Africa extending well to the south of the equator. (Some have even more eastern-breeding populations wintering in Asia.) It seems likely that on autumn migration some of these birds may cut across the NW Indian Ocean (Arabian Sea) and be drifted south-east to Seychelles by the NW monsoon. This would explain why migrants are most commonly recorded in Seychelles in October-November.

Marsh harrier - *Circus aeruginosus* (Linnaeus, 1758)
105E; 15+S, + Asia
N: 2 (Jan., Feb.). Also one probable and two unsubstantiated reports. Large raptors, which normally avoid long sea crossings, are rather unexpected, although harriers are known to be less concentrated at short crossings than are eagles or buzzards.

Booted eagle - *Hieraetus pennatus* (Gmelin, 1788)
80E; 30+S, + Asia
N: 1 (Nov.). No other records received. Records of eagles, which normally avoid all but the shortest sea crossings, are very unexpected in Seychelles. Also, most booted eagles migrate via the Bosphorus or around the Black Sea, and Egypt, rather than through SW Asia and Arabia.

Lesser kestrel - *Falco naumanni* Fleischer, 1818
120E; Cape
N: 1 (Apr.). No other records received. In common with red-footed and Amur (eastern red-footed) falcons, more records might have been expected. Falcons will migrate over large expanses of ocean, and this species makes the c2400km crossing of the Mediterranean and Sahara deserts at high altitudes in one flight. It is possible that they regularly cross the Arabian Sea but normally overfly Seychelles.

Hobby - *Falco subbuteo*
c70E?; c25S, + Asia
N: 4 (Jan, Nov., 2 Dec.). Three rejected. Hobbies breed to 160E; the migratory divide at c70E is only suggested (Moreau 1972). They migrate on a broad front and do not concentrate at short sea crossings. There are relatively few observations in the Mediterranean and Iraq, and long, unbroken flights may be the norm.

Eleonora's falcon - *Falco eleonorae* Gené, 1839

c33E; Madagascar + some E. Africa

N: 2 (Feb, Dec.) S: 1 (Nov.; c8 birds, Aldabra 1972). Five rejected. Breeds no further east than Cyprus. All populations migrate via the E. Mediterranean and Red Sea. It is not known where the sea crossing to Madagascar takes place, but they might be expected to occur more commonly in the south.

Sooty falcon - *Falco concolor*

c60E; Madagascar + a few E. Africa

N: 1 (Nov.). One rejected. African migration further inland than Eleonora's falcon, but some pass thorough the Red Sea and Gulf of Aden and are regular on passage in E. Kenya. Commoner than Eleonora's falcon in Madagascar. Recorded at sea in the Indian Ocean off Somalia. Might be expected to reach the Aldabra group.

Peregrine falcon - *Falco peregrinus* Tunstall, 1771

c130E; 30S + Asia

N: 1 (Nov.). One rejected. Also breeds (different races) in E. Africa, Comoros and Madagascar. There is little information about routes or behaviour on migration.

Pied cuckoo - *Clamator jacobinus* Boddaert, 1783

(see below)

N: 2 (Mar., Dec.). Breeds widely in sub-Saharan Africa, probably in S Arabia, SE Iran-Burma. Baluchistan-India race may migrate to S Africa; Arabian records are not of this race, so "passage to Africa may be directly across Arabian Sea/Indian Ocean" (Cramp 1985). Seychelles records strongly support the suggestion of an Arabian Sea crossing; might be expected to be commoner in Seychelles than records suggest.

Cuckoo - *Cuculus canorus* Linnaeus, 1758

c90?E; c30S, + SE Asia

N: 19 (Jan., Apr. 2, May, Sep., Oct. 2, Nov. 7, Dec. 4, "late in year") S: 1 (Nov.) (Including probables). Apparent scarcity in south must be due to observer effects.

Asian lesser Cuckoo - *Cuculus p. poliocephalus* Latham, 1790

c100E; 30S, + India

N: 3 (Jan., probable Nov., Dec.). Given the distribution and the absence of records from Arabia, Iraq or N Africa, it is surprising perhaps that there are not more Seychelles records. Madagascan subspecies *rochii* migrates to Africa, replacing *poliocephalus* after April, and could occur in Seychelles, especially in the south.

Nightjar - *Caprimulgus europaeus* Linnaeus, 1758

10+; Cape, + few specimens in Pakistan

N: 1 (Dec.). Nightjars are common on passage in autumn (though not in spring) in south Iran, Pakistan and NW. India, and there are various autumn ship records off Arabia, indicating the possibility of direct overwater crossing to East Africa. They might be expected to occur more

frequently in Seychelles, but retiring, nocturnal habits and cryptic plumage would make them difficult to find.

Swift - *Apus apus* (Linnaeus, 1758)
120E; 30S, + rarely India, Arabia
N: 6 (Sep. 2, Oct. 2, Nov. 2) S: 5 (Mar., May, Sep., Oct., Dec.). Migration protracted at both seasons, with arrivals in South Africa by September and northward passage still going on into early June; hence our May and September records.

Blue-cheeked bee-eater - *Merops supercilliosus* Linnaeus, 1766 *persicus*
80E; 25S
N: 2 (May, Nov.) S: 2 (Mar., May). There are a scattering of ship records from the Arabian Sea, indicating that some eastern birds make a direct crossing in autumn towards E. Africa. There are also extensive intra-African movements of *M. s. supercilliosus*, which has not yet been identified in Seychelles.

Roller - *Coracias garrulus* Linnaeus, 1758
85E; 25S; irregular S. Africa
N: 10 (Jan., Oct. 2, Nov. 5, Dec. 2) S: 5 (Mar. 3, Nov., Dec.). Apparent seasonal differences between north and south could be due to observer effects. There are ship records in the Arabian Sea and north Indian Ocean, of eastern race *C. g. semenowi*.

Sand martin - *Riparia riparia* (Linnaeus, 1758)
130E?; c25?S, + Asia
N: 6 (Mar., May, Jun., Oct., Nov. 2) S: 2 (Jan., Dec.). Seychelles birds are likely to be from eastern Palaearctic populations, which cross Arabia on migration, migrate furthest south in Africa, and breed late, with large numbers remaining on wintering grounds until late May - hence our May and June records.

Swallow - *Hirundo rustica* Linnaeus, 1758
100E; Cape, + Asia
N: 16 (Jan., Feb., Mar., Apr., May 2, Oct., Nov. 6, Dec. 3) S: 17 (Mar. 6, Apr. 2, May, Sep., Nov. 5, Dec. 2). There has been an almost complete switch of records from the south to the north since 1980, almost certainly due to observer effects. Three of the March southern records are from 1968 (see section on Observer Effects); otherwise there is a distinct peak in November. Records in May and September may refer to birds breeding well to the north-east (see sand martin).

House martin - *Delichon urbica* (Linnaeus, 1758)
90E?; Cape, + Asia
S: 3 (Mar., Oct. 2). More records might have been expected, particularly from the north. However they are very inconspicuous on passage and in winter in Africa.

Yellow wagtail - *Motacilla flava* Linnaeus, 1758
:60+E; Cape, + Asia
N: 6 (Apr., Oct. 2, Nov. 2, Dec.) S: 5 (Feb., Mar. 2, May, Dec.). Very patchy records: all 20th :entury are post-1967; none from S since 1968 (Aldabra); complete absence of records 1973-87 nclusive. More data are needed to check apparent seasonal differences between N and S. The May record (Alphonse) was perhaps a bird from a NE population, which might be expected to nigrate later than W birds.

Rock thrush - *Monticola saxatilis* (Linnaeus, 1766)
:20E; 10S
N: 1 (Oct.) S: 1 (Oct.). Might be expected to occur more frequently.

Sedge warbler - *Acrocephalus schoenobaenus* (Linnaeus, 1758)
)0+E; 25+S
N: 1 (Nov.). Fairly frequent in autumn in Middle East east to Oman; might be expected to occur nore frequently. Skulking behaviour makes detection difficult.

cterine warbler - *Hippolais icterina* (Viellot, 1817)
)0E; 30S
N: 1 (Nov.). Birds from the extreme E of breeding range apparently migrate via N Caspian and he Ural valley, and the migration route in Africa is mostly W of Kenya, thus bypassing the ndian Ocean coast. There are a few Arabian records, which may relate to a small Iranian opulation, the Seychelles bird possibly also originated here.

Whitethroat - *Sylvia communis* Latham, 1787
00+E; c25S
S: 1 (Oct.). Limited extension to Indian Ocean coast in winter. Isolated records to 33S in Cape 'rovince. Migrants from east of the range pass through NW peninsular India in autumn, uggesting the possibility of some passage across the Arabian Sea.

Willow warbler - *Phylloscopus trochilus* (Linnaeus, 1758)
70E; Cape
I: 1 (Nov.). In autumn they tend to pass well to the north and west of the countries bordering the .rabian Sea; in general they are commoner here in spring.

potted flycatcher - *Muscicapa striata* (Pallas, 1764)
15E; Cape
I: 3 (Mar., Nov. 2) S: 9 (Mar. 7, Nov., Dec.). A real spring peak in S (where it is commoner verall, in line with its S centre of distribution in winter) seems possible.

Golden oriole - *Oriolus oriolus* (Linnaeus, 1758)
00E; Cape, + Asia
: 2 (Oct., Nov.) S: 2 (Mar., Nov.). Might be expected to be more frequently seen.

Red-backed shrike - *Lanius collurio* Linnaeus, 1758
90E; Cape
S: 2 (Mar.). Much commoner in spring than in autumn in much of E Africa (100:1 in Somalia) so likely to occur more often in spring than in autumn in Seychelles.

Also in this category, though apparently not wintering in the Indian Ocean coastal zone in East Africa, are:

Western red-footed falcon - *Falco vespertinus* Linnaeus, 1766
120E; 30S; mostly SW Africa
N: 1 (Nov.). It is surprising that there have not been more records, and even more surprising that there have been no records at all of eastern red-footed (Amur) falcon *F. amurensis*, which has been widely assumed regularly to cross the Arabian Sea. Possibly they pass to the north (or south ?) of Seychelles.

Tree pipit - *Anthus trivialis* (Linnaeus, 1758)
70E?; 25S, + Indian subcontinent
N: 19 (Oct. 7, Nov. 10, Dec. 2) S: 15 (Jan., Mar. 2, Oct. 3, Nov. 6, Dec. 3). Not recorded until 1972. Seychelles birds may be easternmost-breeding African migrants en route to/from Africa, but in view of the African wintering range, Seychelles does not appear to be such an obvious transit point for tree pipits as it does for some scarcer species (including some which have not been recorded). Possibly Seychelles migrants originate from around the migratory divide between Indian- and African- migrating populations (approximately north of Seychelles) and migrate more or less due south over the Indian Ocean; winter records, though few, may support this.

Whinchat - *Saxicola rubetra* (Linnaeus, 1758)
90E; 20S
N: 1 (Nov.). Apparently scarce E of Nairobi and on passage in Arabia, Jordan and Iraq, so birds from E of the Caspian probably mostly overfly the Arabian Sea region.

Lesser grey shrike - *Lanius minor* Gmelin, 1788
90E; mostly SW Africa
S: 1 (Mar.). More numerous in spring than autumn in Kenya and Tanzania; in Somalia only spring passage has been recorded; more likely therefore to be recorded in Seychelles in spring (see red-backed shrike).

GROUP 2. - Mostly extending less than 10 degrees south of equator in East Africa

Red-throated pipit - *Anthus cervinus* (Pallas, 1811)
?E; 7S in Tanzania, + Asia

N: 8 (Jan., Feb., Mar., Oct., Nov. 3, Dec.) S: 1 (Nov.). Not recorded until 1975 (see also tree pipit). Breeds W to W. Alaska, E birds migrating to SE Asia; position of migratory divide not known. Heavy passage in the Middle East, but it is scarce from Iran to India. Scarce S of equator in winter, and less common close to Indian Ocean coasts. Crossing the Arabian Sea seems less likely than for some other species. The single southern records is from the Amirantes.

Grey wagtail - *Motacilla cinerea* Tunstall, 1771
c55?E; 10S, + Asia
N: 3 (Nov.) S: 1 (Oct.). Does not winter up to the Indian Ocean coast. Also winters Arabia and India (and further eastern birds in SE Asia and beyond). As with tree pipit, it is possible that Seychelles birds may have migrated approximately due south from near the position of the divide between Africa- and Asian- heading populations.

Wheatear - *Oenanthe oenanthe* (Linnaeus, 1758)
170W; 10S
N: 7 (Jan., Feb. 2, Oct. 2, Dec.) S: 22 (Jan. 10, Feb. 6, Mar. 4, Dec. 2). E. Siberia (170W) birds migrate to E Africa. In Seychelles evidently commoner in S. The winter peak is not due simply to observer bias and is shown by both S and N records. Whether they are winter residents or undertake within-winter movements is not clear. Aldabra is close in latitude to the normal S limit of the wintering range.

Blackcap - *Sylvia atricapilla* (Linnaeus, 1766)
30E; 10S
N: 1 (Dec.). Barely reaches as far east as the Indian Ocean in Africa. Apparently uncommon on passage in Arabian, but very common in North Yemen, so some eastern breeding birds may take a fairly southward bearing.

GROUP 3. - The remaining Palaearctic-African migrants are on the face of it less obvious candidates for vagrancy to Seychelles

Turtledove - *Streptopelia turtur* (Linnaeus, 1758)
00+E; 10N
S: 1 (Dec.). Apparently does not winter much S of 10N, and only vagrant to E Africa. Might be expected that *arenicola* from the E population (breeds to 100E) would be more likely to occur, but the Aldabran specimen was thought to be of the N/W race *turtur* (Frith 1974). However Cramp (1985) states that some C Asian *arenicola* are indistinguishable from *turtur*. In any case there would seem to be no need for even E birds to approach the Arabian Sea to reach their wintering area.

Great spotted cuckoo - *Clamator glandarius* Linnaeus, 1758
55E; 10N?

N: 1 (Oct.). Breeds only as far east as the Iran/Iraq border; also breeds widely in Africa. Although it has been suggested that northern, possibly Palaearctic, birds might migrate as far south as Kenya and Tanzania (Britton 1980) there is as yet no good evidence for them further south than 10N. However the October date of the Seychelles record (a juvenile) seems to indicate northern origins.

Little swift - *Apus affinis* (Gray, 1832)
see below
N: 1 (Dec.). Scarcely migratory over most of its range. NW African population apparently winters within the breeding range and/or Sahel area. Some movements within the Afrotropics and the Indian subcontinent. Probably partly migratory in the Near East and N Middle East (i.e. Turkey-Iran area); wintering areas unknown. Similarly, a summer visitor to Tadjikistan, Uzbekistan and Turkmeniya, but "not known whether these winter in Africa, Arabia or India" (Cramp 1985).Our record (of one or two birds) is probably from these more migratory populations.

Short-toed lark - *Calandrella brachydactyla*
115?E; mostly 14+N, + Asia
N: 1 (Nov.). Winters in Africa mostly north of the Sahara, also central Arabia, SW Asia, northern India, etc.

White wagtail - *Motacilla alba* Linnaeus, 1758
c80?E; mostly equator, + Asia
N: 5 (Jan., Nov. 2, Dec.) S: 2 (Mar., Nov.). Few cross the equator, but straggles to Malawi. Some of the population from the Urals-Yenisei area (*M. a. dukhunensis*) winter in East Africa, as well as from N. India to Arabia.

Redstart - *Phoenicurus phoenicurus* (Linnaeus, 1758)
100E; N of equator, + some Arabia
N: 4 (Oct., Nov. 3). Winters mostly down the Nile valley and in scrub/savannah belt on either side (i.e. not to the Indian Ocean coast), at c9.5-15.5N. However, occurs sparsely in Kenya, extends to c2N in E. Zaire and Uganda. *P.p. samamicus* from Caucasus and northern Middle East winters in Arabia as well as Sudan and Ethiopia.

Isabelline wheatear - *Oenanthe isabellina* (Temminck, 1829)
120?E; c. equator, + Asia
N: 1 (Nov.). Although there are few records south of 4S in Tanzania it is regular on passage in coastal lowland Kenya (outside the main wintering range). Common to very common on passage in the Middle East, and has been recorded from ships in the Red Sea and on Socotra (c300km NE of Somalia).

Wood warbler - *Phylloscopus sibilatrix* (Bechst., 1795)
90E; 6S, mainly W of 35E

N: 1 (Nov.) S: 1 (Dec.). Although the vast majority evidently winter well to the west, there have ecently been wintering records in southern Somalia, and there are a few records from Kenya. Scarce but widespread on passage in Arabia, and has been recorded from northern Iran; these birds may be linked to these east African wintering areas and would seem likely to be the source of the Seychelles records.

Woodchat shrike - *Lanius senator* Linnaeus, 1758
50E; N of equator, + few SW Arabia
N: 1 (Apr.). Scattered records to 1S, not wintering to Indian Ocean coast. Unlike other shrikes ecorded in Seychelles, spring and autumn routes are similar. Fairly common in Arabian spring Feb.-Apr.) but probably normally overflies in autumn.

Ortolan bunting - *Emberiza hortulana* (Kaup, 1829)
00E; N of 5N, + few S Arabia
N: 1 (Nov.). South of c10N, apparently winters only in the Ethiopian Highlands. There is one ecord from Kenya almost on the equator in mid-October. Vagrant to India and Pakistan in spring.

GROUP 4. - Palaearctic breeders not thought to migrate to Africa at all:

Brown fish-owl - *Ketupa zeylonensis* (Gmelin, 1788)
N: 1 (Nov.). A remarkable record of a species which breeds in the Indian subcontinent, ndochina and South China, with a tiny population in the Middle East, and for which there is no vidence of any migration at all. Arrival in Seychelles aboard a ship must be a strong possibility.

White-throated needletail - *Hirundapus caudacutus* (Latham, 1801)
N: 2 (Oct., Nov.). Breeds from central Siberia east to Japan, wintering in Australia. Not ecorded in India, so more western populations must migrate SE/E in autumn, north of the main nountain ranges. Seychelles birds were well away from normal migration routes, but it is a well-nown wanderer, with records in Europe and Fiji.

Pacific swift - *Apus pacificus* (Latham, 1801)
N: 8 (Jan., May 2, Oct. 2, Nov. 3) S: 2 (May). Migratory nominate race breeds from Siberia to N China and Japan, wintering in Indonesia, Melanesia and Australia. There are a few records from N India. This is another great wanderer, with records from W Europe. The only species ecorded at all frequently in Seychelles which is not thought to winter in Africa - in fact more equent than some apparently more likely species. The Seychelles records suggest the ossibility of a regular passage to and from unknown wintering area, perhaps in Madagascar or Africa (Cramp 1985). They arrive back in Mongolia and Siberia mostly in May.

Rose-coloured starling - *Sturnus roseus* (Linnaeus, 1766)
N: 2 (Oct., Dec.). Breeds from Balkans/Black Sea east to c90E; winters in India, with small numbers in Oman. well-known as an irruptive wanderer across Europe.

Common rosefinch - *Carpodacus erythrinus*
N: 1 (Oct.). Breeds patchily from N Europe and N Turkey to W China and the Lena Basin (160E). The breeding range has recently expanded rapidly westwards. Winters in S and SE Asia from Pakistan eastwards, with a few in E Israel, Oman and Sinai. It has been suggested that some apparently off-course autumn migrants may be seeking new winter quarters in S Europe.

GROUP 5. - The remaining records are from non-Palaearctic breeding populations

Black kite - *Milvus migrans* (Boddaert, 1783)
S: 4 (Aug., Oct., Nov., Dec.) Two rejected records. All four records were of the African race *M. m. parasitus* which is migratory within Africa.

Broad-billed roller - *Eurystomus glaucurus* (Müller, 1776)
N: 3 (Feb., Nov. 2) S: 24 (Mar., Oct. 9, Nov. 6, Dec. 8). All subspecifically identified birds have been of the Madagascar-breeding race *E. g. glaucurus*, which breeds Oct.-Mar., "wintering" in Africa Feb.-Nov., mostly in the E. Zaire savannahs (Fry *et al.* 1988). Seychelles records presumably relate mostly to birds on returning to Madagascar. Certainly commoner in southern islands, as expected for this range.

Mascarene martin - *Phedina borbonica* (Gmelin, 1788)
N: 1 (May) S: 4 (Oct. 2, Nov. 2). The May record on Bird is interesting, but perhaps less unexpected for this non-Palaearctic migrant.

Conclusion

There are no really commonly-seen migrant landbirds in Seychelles; not even the most frequently recorded species have yet accumulated 50 records each. This is no doubt partly due to the sparse and erratic nature of observations and documentation up to the very recent past (Fig. 1.), but must also be due to the islands' remoteness from the nearest land masses and main migration routes. The granitic group in particular are over 1000km from the nearest continental land mass.

However, some birds are now known regularly to undertake very long-distance, non-stop flights over oceans, and a few species probably pass through Seychelles every year, albeit in very small numbers. For example since 1968 broad-billed rollers (likely to be very under-recorded from Aldabra) have been recorded in about 30% of years, tree pipits in 50%, wheatear 60% and swallow 70%. It is possible that Seychelles lies on the normal migration pathway of some populations of these and perhaps other species.

On the other hand, there are some birds known or suspected regularly to cross the Arabian Sea/Indian Ocean (eg. Amur (eastern red-footed) falcon, red-footed falcon, Asian lesser

cuckoo and pied cuckoo). It seems surprising that these species have not been recorded more frequently. They could genuinely be as scarce in Seychelles as they appear to be, but might perhaps also have been overlooked.

Several other species which have not yet been recorded might be expected, on the basis of their breeding and wintering distributions, to occur. Among the most likely candidates are: bee-eater *Merops apiaster*, rufous bush chat *Cercotrichas galatotes*, thrush nightingale *Luscinia luscinia*, nightingale *L. megarhynchos*, white-throated robin *Irania gutturalis*, pied warbler *Acrocephalus scirpaceus*, great reed warbler *A. arundinaceus*, olivaceous warbler *Hippolais pallida*, Upcher's warbler *H. languida*, garden warbler *Sylvia borin* and Isabelline shrike *Lanius isabellinus*.

At present we have very little idea about what factors bring landbirds to Seychelles. It is often assumed that the NW monsoon may "drift" migrants across the Arabian Sea, but there are no quantified weather data to support this hypothesis.

It has become clear from the work of the Records Committee that in Seychelles, on the cross-roads between Africa, India, Madagascar and South-west Asia, virtually any migrant can occur. Birdwatchers in Seychelles should be aware that it is worth looking for migrant landbirds, especially less conspicuous species. It will remain impossible to draw firm conclusions about the real status of these migrants in Seychelles and their movements to and through the islands until more data are amassed. With this in mind, the Records Committee will be continuing to assess and document records of all migrant landbirds for the foreseeable future.

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