Migrant Palearctic landbirds in Seychelles

John Phillips, Adrian Skerrett and John Bowler

Abstract This paper summarises the records of Palearctic landbird migrants in Seychelles up to the end of 2014. Despite their relatively tiny land area and remote location in the western Indian Ocean, the islands receive a wide range of migrant species from a vast source area. Some species occur every year, and their breeding and wintering distribution suggests that they regularly undertake sea crossings of thousands of kilometres through this sector of the Indian Ocean, at least in autumn. Some of the less frequent species are more likely to be wind-drifted. Visitors to Seychelles are invited to submit their bird records, to help to improve our understanding of migration in the region.

Geographical and climatic context

The 150+ Seychelles islands are scattered across a third of a million km² of the western Indian Ocean, between 4° and 10°S and 46° and 56°E (see fig. 1). There are four main clusters of islands: the northern group, the Amirantes, Farquhar and Aldabra. The total land area amounts to only 455 km², one-third of which is the high island of Mahé in the northern group, and another third is the atoll of Aldabra. Aldabra is only around 600 km from the nearest point of mainland

Africa, and the southernmost islands of the Aldabra and Farquhar groups are less than 300 km from Madagascar, but the Amirantes and especially the northern group are more remote. Mahé lies 1,250 km southeast of the nearest continental land on the coast of Somalia, 2,500 km south of Oman, and 2,800 km southwest of the nearest part of the Indian subcontinent.

The climate of the western Indian Ocean is dominated by seasonal changes in wind direction. North of the equator, northeast



125. The smaller nature reserve islands of Aride (shown here, in January 2008), Cousin and Cousine, in the northern group off Praslin, have hosted a fairly wide range of migrants over the years. Aride has benefited from regular staffing by birders and has produced a high proportion of records.

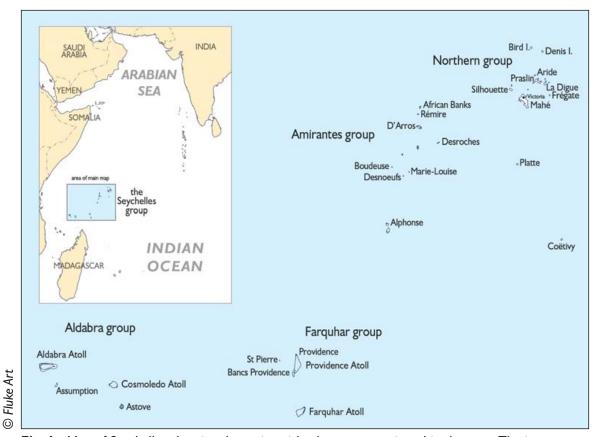


Fig. 1. Map of Seychelles showing the various island groups mentioned in the text. The inset shows the islands in their wider geographical context.

winds blow from October to April and southwest winds from May to September. South of the equator (including all the Seychelles islands) these winds are northwest and southeast respectively. The timing of the change in wind direction varies from year to year, and the transition periods, when the winds are variable in strength and direction, may last for weeks.

A brief history of migrant recording

Because of the islands' remoteness and distance from known migration routes, it was long assumed that migrant landbirds would not normally reach Seychelles, especially the northern group. A handful of landbirds were collected by nineteenth-century ornithologists, but Moreau (1938) listed only three records from the northern Seychelles: an Oriental Pratincole *Glareola maldivarum*, a Common Cuckoo *Cuculus canorus* and a Hobby *Falco subbuteo*. Moreau concluded that, given favourable winds, about six longwinged landbird species would probably regularly fly the 2,500 km across the north-

western Indian Ocean, but that 'only stragglers of a few Palearctic land species' would ever reach Seychelles. A few more records were added during subsequent decades, but it was not until the Royal Society expedition to Aldabra in 1967/68, prompted by the proposal to site an airbase there, that the trickle began to swell. The arrival of resident scientists in Seychelles from the early 1970s provided a further boost, as did the opening of the international airport in 1972, which stimulated the growth of tourism. The first Seychelles bird guide (Penny 1974) included 19 species of Palearctic landbirds as defined here, and Feare & Watson (1984) listed 43 species, remarking on the 'explosion' of records during the previous decade. There has been a further acceleration in recent years, particularly following the establishment in 1992 of the Seychelles Bird Records Committee (SBRC), which has encouraged observers to send in sightings and has reviewed historical records. By the end of 1999, 64 species of Palearctic landbirds had been recorded (Skerrett et al. 2001), and since then the total has risen to 78.

Species recorded

Numbers of accepted records of Palearcticbreeding landbirds from the main Seychelles island groups are given in table 1. The few records from the isolated Farquhar group (single Pacific Swift Apus pacificus, House Martin Delichon urbicum, Rock Thrush Monticola saxatilis and White Wagtail Motacilla alba) have been included in the totals for nearby Aldabra for convenience. Each record represents one sighting, regardless of how many birds were involved. Some of the wide range of migrant species have appeared regularly: Common Cuckoo, European Roller Coracias garrulus, Amur Falcon F. amurensis, Barn Swallow Hirundo rustica and Tree Pipit Anthus trivialis have been recorded annually in recent years, and Lesser Cuckoo Cuculus poliocephalus, Common Swift Apus apus, Hobby, Eleonora's Falcon F. eleonorae, Golden Oriole Oriolus oriolus, Sand Martin Riparia riparia, Spotted Flycatcher Muscicapa striata, Common Redstart Phoenicurus phoenicurus, Northern Wheatear Oenanthe oenanthe, Yellow M. flava and White Wagtails and Red-throated Pipit Anthus cervinus are probably also annual visitors.

Usually only small numbers of birds are seen, but there are reports of up to 50 Amur Falcons and 50 Barn Swallows, and several

flocks of Blue-cheeked Bee-eaters *Merops persicus* including one of 2,000. Groups of up to six Tree and Red-throated Pipits are sometimes seen, and there have been occasional multiple sightings of 26 other species.

Origins and destinations

The breeding ranges of the most frequently recorded migrants in Seychelles (Common Cuckoo, Bluecheeked Bee-eater, European Roller,

Hobby, Golden Oriole, Barn Swallow, Spotted Flycatcher, Northern Wheatear, Tree and Red-throated Pipits) extend far to the east across the Palearctic, to the Pacific coast in some cases (Feare & Watson 1984). Less frequently recorded species are more confined to the western and central Palearctic in the breeding season. In addition, all migrants on the Seychelles list that breed widely across the Palearctic and whose winter ranges extend well to the south in Africa are reported regularly (e.g. Common Cuckoo, Hobby, Barn Swallow, Northern Wheatear, Tree Pipit), while most with similar breeding distributions but wintering in more northern or central parts of Africa have been recorded infrequently (e.g. Rock Thrush, Isabelline O. isabellina and Pied Wheatears O. pleschanka, Grey Wagtail Motacilla cinerea). Of species with a west or west-central Palearctic breeding range, even those that migrate to central or southern Africa (e.g. Whinchat Saxicola rubetra, most of the warblers), are rarer in Seychelles than the pan-Palearctic breeders wintering in the same zone.

Of species breeding only in the Eastern Palearctic, Amur Falcon and Lesser Cuckoo, which winter in southern Africa, regularly visit Seychelles, while Oriental Pratincole, Pacific Swift and White-throated Needletail



Adrian Skerrett

126. Bird Island (seen here in November 2005) is the most northerly island in the group; small enough to cover in a day and with open habitats making birds easier to find, it has produced more records of migrants than anywhere else in Seychelles.

Table 1. Numbers of migrant landbirds recorded per island group based on records accepted by SBRC to the end of 2014. 'Landbirds' includes Stone-curlew *Burhinus oedicnemus*, pratincoles and crakes, on the basis of the habitats they use in Seychelles.

Species		Number of records per island group				
		Northern	Amirantes Aldabra &		Total	
				Farquhar		
Common Quail	Coturnix coturnix	3	0	0	3	
Honey-buzzard	Pernis apivorus	6	1	0	7	
Black Kite	Milvis migrans	1	2	1	4	
Marsh Harrier	Circus aeruginosus	3	0	0	3	
Pallid Harrier	Circus macrourus	0	1	0	1	
Booted Eagle	Aquila pennata	1	0	0	1	
Osprey	Pandion haliaetus	2	0	0	2	
Spotted Crake	Porzana porzana	1	1	0	2	
Little Crake	Zapornia parva	1	0	0	1	
Corncrake	Crex crex	4	0	0	4	
Stone-curlew	Burhinus oedicnemus	2	1	0	3	
Collared Pratincole	Glareola pratincola	11	3	1	15	
Oriental Pratincole	Glareola maldivarum	13	5	0	18	
Black-winged Pratincole	Glareola nordmanni	7	5	2	14	
Turtle Dove		5	2	2	9	
Jacobin Cuckoo	Streptopelia turtur Clamator jacobinus	5 11	1	0	9 12	
Great Spotted Cuckoo	-	1	0	1	2	
Common Cuckoo	Clamator glandarius Cuculus canorus	42	5	1	48	
Lesser Cuckoo	Cuculus poliocephalus	16	2	2	20	
Eurasian Scops Owl	Otus scops	7	0	0	7	
European Nightjar	Caprimulgus europaeus	5	0	0	5	
White-throated Needletail	Hirundapus caudacutus	4	1	1	6	
Alpine Swift	Apus melba	2	0	0	2	
Common Swift	Apus apus	12	10	10	32	
Pacific Swift	Apus pacificus	12	1	1	14	
Little Swift	Apus affinis	5	0	1	6	
Hoopoe	Upupa epops	0	0	2	2	
Blue-cheeked Bee-eater	Merops persicus	52	17	3	72	
European Bee-eater	Merops apiaster	0	0	3	3	
European Roller	Coracias glandarius	32	8	8	48	
Lesser Kestrel	Falco naumanni	5	3	0	8	
Common Kestrel	Falco tinnunculus	0	1	0	1	
Red-footed Falcon	Falco vespertinus	4	1	0	5	
Amur Falcon	Falco amurensis	44	24	0	68	
Hobby	Falco subbuteo	23	7	1	31	
Eleonora's Falcon	Falco eleonorae	14	7	19	40	
Sooty Falcon	Falco concolor	4	0	2	6	
Saker Falcon	Falco cherrug	1	0	0	1	
Peregrine Falcon	Falco peregrinus	1	0	0	1	
Golden Oriole	Oriolus oriolus	12	3	12	27	
Red-backed Shrike	Lanius collurio	2	0	6	8	
Lesser Grey Shrike	Lanius minor	1	0	2	3	
Woodchat Shrike	Lanius senator	1	0	0	1	
Short-toed Lark	Calandrella brachydactyla	6	0	1	7	
Bimaculated Lark	Melanocorypha bimaculat		0	0	1	
Plain Martin	Riparia paludicola	1	0	0	1	
Sand Martin	Riparia riparia	18	9	6	33	
Barn Swallow	Hirundo rustica	69	29	55	153	
House Martin	Delichon urbicum	5	3	7	15	
Wood Warbler	Phylloscopus sibilatrix	3	0	3	6	

Table I. contd.		Number of records per island group			
		Northern	Amirantes	Aldabra & Farquhar	Total
Common Chiffchaff	Phylloscopus collybita	0	1	0	1
Willow Warbler	Phylloscopus trochilus	3	1	2	6
Blackcap	Sylvia atricapilla	4	0	2	6
Garden Warbler	Sylvia borin	0	1	1	2
Common Whitethroat	Sylvia communis	1	0	1	2
Icterine Warbler	Hippolais icterina	4	1	0	5
Sedge Warbler	Acrocephalus schoenobaent	us 1	0	0	1
Marsh Warbler	Acrocephalus palustris	0	0	1	1
Rose-coloured Starling	Pastor roseus	4	0	0	4
Spotted Flycatcher	Muscicapa striata	10	2	27	39
Pied/Semi-collared/ Collared Flycatcher	Ficedula sp.	2	0	0	2
Common Redstart	Phoenicurus phoenicurus	15	2	0	17
Rock Thrush	Monticola saxatilis	3	0	1	4
Whinchat	Saxicola rubetra	3	1	0	4
Siberian Stonechat	Saxicola maurus variegata, armenica	/ 1	0	0	1
Northern Wheatear	Oenanthe oenanthe	15	12	36	63
Isabelline Wheatear	Oenanthe isabellina	6	1	1	8
Desert Wheatear	Oenanthe deserti	3	0	0	3
Pied Wheatear	Oenanthe pleschanka	4	0	1	5
Yellow Wagtail	Motacilla flava	24	6	13	43
Citrine Wagtail	Motacilla citreola	1	0	0	1
Grey Wagtail	Motacilla cinerea	7	2	0	9
White Wagtail	Motacilla alba	24	7	5	36
Richard's Pipit	Anthus richardi	0	0	1	1
Tree Pipit	Anthus trivialis	99	15	34	148
Red-throated Pipit	Anthus cervinus	18	8	2	28
Common Rosefinch	Erythrina erythrina	1	0	0	1
Ortolan Bunting	Emberiza hortulana	4	1	1	6
Total records		733	214	282	1,229
Total species		70	42	42	78

Hirundapus caudacutus, wintering mainly in Southeast Asia and Australasia, are rarer. Rose-coloured Starling Pastor roseus, Citrine Wagtail M. citreola, Richard's Pipit A. richardi and Common Rosefinch Erythrina erythrina breed farther west but winter mostly between the Indian subcontinent and Southeast Asia, with birds from the west of the breeding range migrating southeast in autumn; Richard's Pipit winters regularly west to Pakistan, with frequent records even farther west. There is one record of Rose-coloured Starling in East Africa (Lindsell & Fisher 2009), but none of the other six species in this group have so far been recorded there.

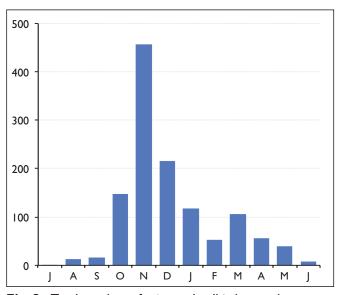


Fig. 2. Total number of migrant landbird records (of 78 species) against month of discovery in Seychelles.

Timing of migration

The pattern of occurrence of migrants through the year, based on the month when the birds were first found, is shown in fig. 2.

The passage periods are difficult to define in Seychelles, with a trickle of records through the northern winter months, but there are clearly far more records in the (northern) autumn (August–January, 79%) than in spring (February-June, 21%). Most individual species conform to this pattern, with between 56% (Barn Swallow) and 100% (Hobby) of records in August-January. There are, however, a few noticeable exceptions. Northern Wheatear shows a January peak (38% of records), and there have been more in February-March than in October-December. There have also been more Spotted Flycatcher and House Martin records in spring than in autumn. Yellow Wagtail, recorded every month from October to May, shows slight peaks in November and March.

None of the more frequent species have median autumn discovery dates earlier than 10th November. The median date for Amur Falcon is 1st December and for Common Cuckoo as late as 6th December. On the other hand, Common Swift records are evenly spread through September to January, and Sand Martin shows an earlier (October–November) peak. In spring the small peak in March is shared by most species. A noticeable exception is Barn Swallow, which shows a March–April peak with several records in

127. Lesser Grey Shrike *Lanius minor*, Aldabra, April 2012. There have been only three records of Lesser Grey Shrike in Seychelles, of which two were on Aldabra in spring, suggesting an unusual migration pattern.

May and indeed has been recorded in every month except July.

Distribution of records in Seychelles

As well as accommodating 99% of the country's human population, the northern Seychelles have historically been more accessible to visitors compared to the other groups. Aldabra has benefited from permanent research staff for several decades, and more recently the establishment of hotels and conservation centres in the Amirantes has resulted in a welcome increase in records from these formerly rarely visited islands. However, the distribution of records across the island groups is sure to reflect past and present differences in levels of coverage and reporting.

There are accordingly considerably more records, of nearly twice as many species, in the northern group than in the Amirantes and Aldabra (table 1). Yet numbers of some species in the southern islands have been similar to or even greater than those in the northern group: for example Common Swift, Golden Oriole, House Martin, Spotted Flycatcher and Northern Wheatear. Some of these apparently anomalous species in terms of distribution across the island groups also show atypical seasonal patterns (see above).

A few species that occur regularly in the northern islands have yet to be recorded in Aldabra – most notably Amur Falcon but

> also, among species recorded 15 or more times, Oriental Pratincole and Common Redstart. The southern limits of the African wintering ranges of some species are near the latitude of the northern Seychelles, so they might be expected to be less frequent farther south, especially at Aldabra, for example Wood Warbler Phylloscopus sibilatrix, Common Redstart, Grey and White Wagtails, Red-throated Pipit. Even the northern Seychelles are far to the south of the latitude of the normal East African wintering ranges of, for example, Short-toed Calandrella brachydactyla and Bimaculated

Larks Melanocorypha bimaculata, Siberian Stonechat Saxicola maurus, Desert Wheatear O. deserti and Ortolan Bunting Emberiza hortulana. The winter ranges of the species that have been recorded more often at Aldabra extend well to the south.

The island with most migrant records is Bird Island, the most northerly Seychelles island, where 51 of the 78 species have been recorded. Bird Island is a 1-km² sand cay, 105 km NNE of Mahé. Migrants arriving in the northern Seychelles from a northerly quarter would probably make first landfall at Bird Island, or nearby Denis Island, which is another cay 95 km northeast of Mahé. The high

migrant totals on Bird Island reflect better coverage by observers, but it is also less densely vegetated than many other northern islands, with areas of open grassland and scattered trees, which in turn makes migrants easier to find. In contrast, only 24 species of Palearctic landbirds have been recorded on the much larger but densely wooded moun-



128. European Roller *Coracias garrulus*, Alphonse, February 2014 (with Coconut Palm *Cocos nucifera* foliage in the background). Rollers are annual migrants to Seychelles and sometimes stay for long periods. This one was photographed by the airstrip – typical habitat for Palearctic migrants in Seychelles.

tainous island of Mahé. The more savannahlike habitats on Bird Island might be preferred by Palearctic migrants, making them more likely to land or remain there (Feare 1979). The fact that only 17 migrant species have been recorded on Denis Island is partly due to lack of coverage, but it is also more densely vegetated than Bird Island.



129. With a 'footprint' surface area of over 150 km², heavily wooded and with largely inaccessible mountains rising to 900 m, Mahé (here in October 2013) presents a formidable challenge to those in search of Palearctic migrants and records from this island have been correspondingly few.

Adrian Skerrett

sam Balderson

Circumstances of arrival and departure of migrants

In autumn, migrants tend not to appear in any numbers until the northwest winds have become established. An early change to northwest winds can produce substantial numbers of migrants; for example, in 2009 the wind began to change in late October and a visit to Bird Island on 9th-21st November produced 24 migrant species including Amur Falcon (six), Pacific and Alpine Swifts, Bluecheeked Bee-eater (at least 20), Short-toed Lark, Tree Pipit (eight), Red-throated Pipit (three), Pied and Desert Wheatears, Rock Thrush, Icterine Warbler Hippolais icterina, an unidentified Ficedula flycatcher and Ortolan Bunting (J. Phillips unpubl. data). However, migrants have also arrived on southwest or even southeast winds. More birds sometimes arrive if the northwest winds are accompanied by rain: on Aride Island, eight out of 20 (40%) autumn migrants in 1998-2000 arrived on days with >2 mm rain and a further six (30%) were found after heavy rain the day before (J. Bowler unpubl. data).

Spring information is scanty, but Betts (2000) documented an arrival of Palearctic migrants including Blue-cheeked Bee-eater, European Roller, Golden Oriole, Red-backed Shrike *Lanius collurio*, Barn Swallow (50+), Spotted Flycatcher and Yellow Wagtail on

Aldabra in late March following a night of strong northwest winds and rain. Other reports of migrants at Aldabra in spring indicated arrivals in similar conditions.

Migrants making landfall after a long ocean crossing might be expected to need to rest and feed before moving on. There are records of long stays for some birds, for example at least 60 days for Amur Falcon, 43 days for European Roller and 35 days for Common Cuckoo, although some of these may have wintered in Seychelles. For most of the more regularly recorded species, however, over 50% of individuals were reported as present for only one day, rising to 70% for Barn Swallow. Some of these apparently short stays were no doubt due to a lack of detailed documentation, but some individuals clearly do move on quickly. On Bird Island, healthy individuals of conspicuous species such as Spotted Flycatcher, Common Redstart and Rock Thrush disappeared during daylight hours shortly after being found and, in the absence of any obvious predators, they had presumably moved on.

Conclusions

Contrary to the assumptions of earlier ornithologists, a wide range of Palearctic migrants appear regularly in the remote Seychelles islands. The fact that the more frequently recorded species tend to have



Adrian Skerrett

130. Silhouette is about one-tenth of the size of Mahé but equally mountainous and inaccessible. This photograph, in May 2006, shows the extensive dense mountain forest, and also the narrow fringe of more open habitats behind the shore, which is where migrants on the larger islands tend to be found.

breeding ranges extending well to the east in the Palearctic, and wintering ranges well to the south in Africa, suggests that some birds

may migrate directly across the Indian Ocean, between the Indian subcontinent and Africa. In terms of survival and/or energetics, it may be better for some of these long-distance migrants to make a long ocean crossing rather than follow a route through inhospitable areas of central and southern Asia and the Middle East, where there may be few opportunities for feeding, especially in autumn (Moreau 1972; Newton 2008). Amur Falcons evidently delay their departure from India until

favourable northerly winds set in (Moreau 1972), and this could be true for some other migrants that appear in Seychelles late in the autumn.

A long sea crossing in this region has long been assumed to be normal for some land-birds, particularly Amur Falcon (Moreau 1972; Newton 2008). What is surprising, however, is the wide variety of birds involved: not just the few long-winged species suggested by Moreau (1938), but a wide range of taxa, from raptors and crakes to warblers and chats. The distances involved are also longer than envisaged by earlier ornithologists: birds reaching Seychelles have flown thousands of kilometres over open ocean, whether by accident or design.

Some species, especially those for which Seychelles lies farther south than their normal wintering latitudes, may have been 'drifted' to the islands by northwest winds while attempting to take shorter routes across the Arabian Sea. The same applies to the southeastward migrating species (Rosecoloured Starling, Citrine Wagtail and Common Rosefinch), which may also use a sea crossing to reach India and be drifted out over the ocean by northerly winds. Why Oriental Pratincole and Pacific Swift should be relatively frequent in Seychelles, so far from

their normal range, is open to speculation, although both species are known to wander widely as vagrants.



131. Corn Crake *Crex crex*, North Island, October 2014. Photographed as it picked its way between coconut husks, this was the fourth accepted sighting in Seychelles. It seems very likely that others will have been overlooked.

The relatively low annual numbers of migrant records partly reflect low levels of coverage and reporting, and it is impossible to estimate the true volume of migration through this region. Given the relatively minute size of the islands, it might be assumed that most migrating birds would fail to see them, and that being unable to find land after flying so far without food or rest they would suffer high rates of mortality. However, many birds that make landfall are evidently in good condition and some apparently stay only a few hours before moving on. The fact that rain may 'force down' migrants suggests that in good weather some birds might continue flying without alighting, even though they have already travelled thousands of kilometres. Similarly, the suggestion that more suitable open habitats on Bird Island attract more migrants implies that some birds might not choose to settle immediately when they sight land.

Most species are less frequent in spring, suggesting they take a different migration route. Amur Falcons follow an overland route up the east side of Africa into Asia in spring (Newton 2008), presumably because the winds are less favourable for a sea crossing at that season. Other species may also be less likely to attempt ocean crossings then. Birds

J. Havemann

arriving in Seychelles in spring are perhaps more likely to have been wind-drifted, as suggested by the March 1999 'fall' on Aldabra. A sea crossing might become more feasible once southeast winds have developed in April–May. More observations are needed to confirm whether or not some species are genuinely commoner on Aldabra in spring, as the records suggest.

Many Palearctic migrants continue to move long distances within Africa during the northern winter, and some migrants seen in Seychelles at this time, notably Northern Wheatear, could have arrived via East Africa. The apparently commoner status of this and other such 'winter' birds on Aldabra, which is much closer to Africa, support this idea.

There is still much to be learnt about migration through Seychelles, and the Indian Ocean in general. More records, especially in spring and from a wider range of islands, ideally accompanied by meteorological observations, would help to give a better idea of the species' real status in Seychelles and the circumstances of their arrival and departure. Birders visiting Seychelles are invited to send details of their sightings to the SBRC, which can be contacted via www.seychellesbirdrecordscommittee.com or sbrcsecretary@gmail.com

Acknowledgments

We thank our fellow members of the current Seychelles Bird Records Committee for their essential input into record assessment: Michael Betts, Ian Bullock, David Fisher and Rob Lucking. It is a particular pleasure to acknowledge James Ferguson-Lees, by whose efforts the SBRC was originally established in 1992, and past members of the committee. Chris Feare, also a founder member, has contributed significantly to this paper through discussions over the years and helpful comments on earlier drafts. For further discussions and assistance we thank Viv Phillips, current committee members, and our friends and contacts in Seychelles, particularly Georges and Margaret Norah, members of the Savy family and Robbie Bresson. Thanks are due to all observers who have submitted records, in particular the volunteers and staff of Seychelles Islands Foundation and Island Conservation Society. SBRC is grateful to Robert Prŷs-Jones and staff at the Natural History Museum, Tring, for invaluable help over the years.

References

Betts, M. 2000. Fall of Palearctic migrants at Aldabra Atoll. Bull. African Bird Club 7: 47.

Feare, C. J. 1979. Ecology of Bird Island, Seychelles. *Atoll Research Bulletin* 226: 1–29.

 — & Watson, J. 1984. Occurrence of migrant birds in the Seychelles. In: Stoddart, D. R. (ed.), Biogeography and Ecology of the Seychelles Islands, pp. 469–486.
W. Junk, The Hague.

Lindsell, J., & Fisher, D. 2009. East African Rarities Committee report and change of remit. *Scopus* 29: 23–26.

Moreau, R. E. 1938. Bird-Migration over the Northwestern part of the Indian Ocean, the Red Sea, and the Mediterranean. *Proc. Zool. Soc. London* (A) 108 Part 1: 1–26.

1972. The Palearctic-African Bird Migration Systems.
Academic Press, London.

Newton, I. 2008. The Migration Ecology of Birds. Academic Press, London.

Penny, M. 1974. The Birds of Seychelles and the Outlying Islands. Collins, London.

Skerrett, A., Bullock, I., & Disley, T. 2001. *Birds of Seychelles*. Christopher Helm, London.

John Phillips, Adrian Skerrett and John Bowler, Yorkleigh Cottage, Pope's Hill, Newnham, Gloucestershire GL14 1LD; e-mail jandyphillips@talktalk.net



John Phillips has worked in wildlife conservation and related spheres for most of his life, including a stint as Scientific Administrator on Cousin Island, in Seychelles, 1981–83. He has been a member of the Seychelles Bird Records Committee since it was established in 1992. Adrian Skerrett has been resident in Seychelles since 1980. He is Chairman of the Seychelles NGO Island Conservation Society and Secretary to Seychelles Bird Records Committee. He has authored or contributed to several books with a focus on the birds of Seychelles. John Bowler was warden on Aride Island from 1998 to 2001 and authored the WildGuides book Wildlife of Seychelles. He currently works for RSPB Scotland and is a keen birder who sits on both the Scottish Birds Rarities Committee and the Seychelles Bird Records Committee.