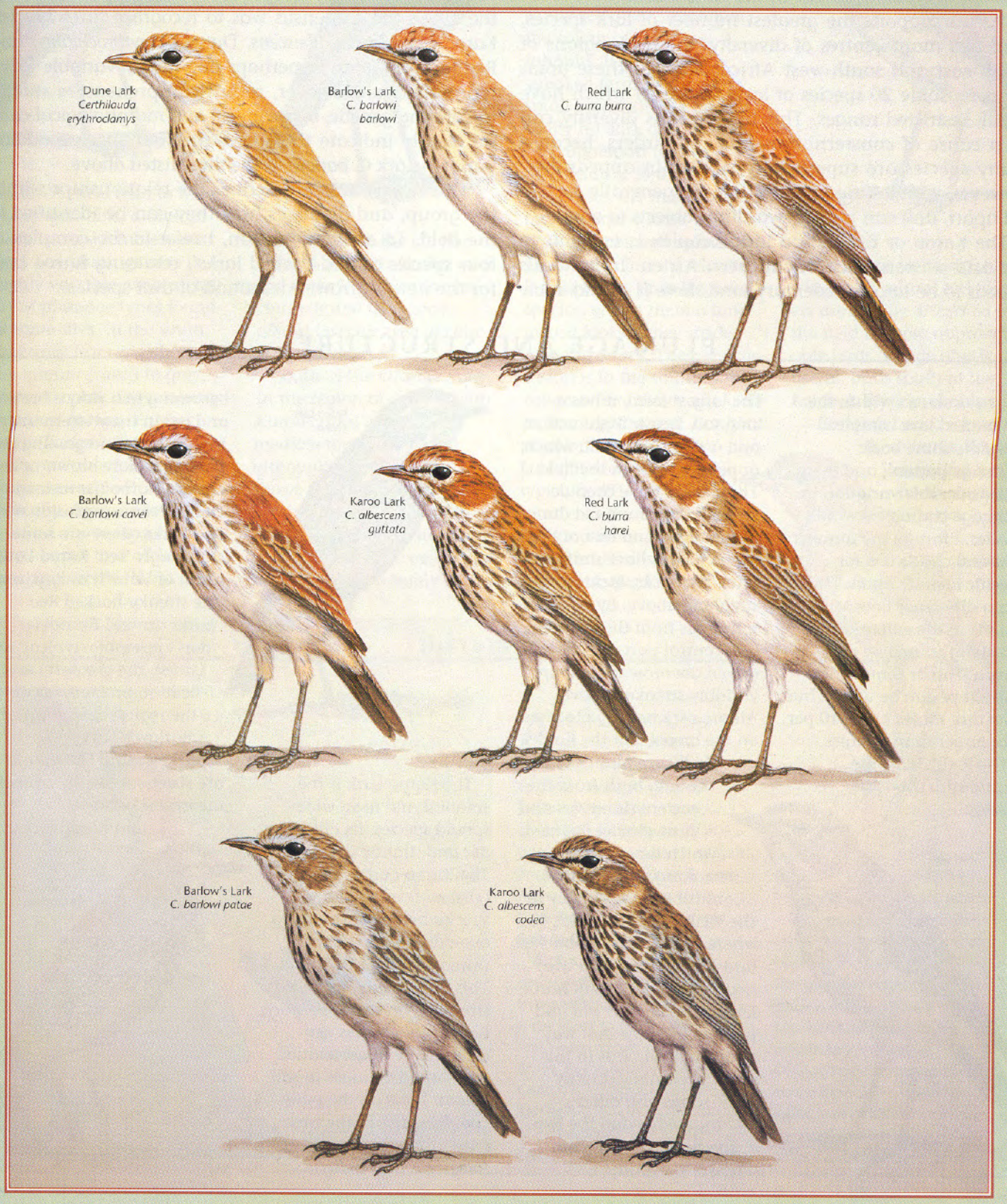
~ BARLOW'S LARK ~

A new endemic lark for southern Africa

The recognition of Barlow's Lark as a 'new' species within the Karoo/Red/Dune Lark complex adds another endemic to the southern African list, but also creates some identification problems for the uninitiated. Dr Peter Ryan, from the FitzPatrick Institute, introduces the new species and describes how you can identify it in the field.

ILLUSTRATIONS BY SIMON BARLOW



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Larks are an ancient group of birds, which apparently diverged early on from the main passerine radiation and have no close relatives living today. They are largely restricted to the Old World; only the widespread Holarctic species, the Horned or Shore Lark *Eremophila alpestris*, occurs in the New World.

Africa supports the greatest number of lark species, with two main centres of diversity: the arid regions of north-east and south-west Africa. Each of these areas supports some 20 species of larks, many of which have small, restricted ranges. This high species diversity can be a cause of consternation to some birders, because many species are superficially similar in appearance. However, with a little practice they are generally easy to tell apart, and can prove rewarding subjects to observe.

The Karoo or red-backed lark complex is endemic to the arid western part of southern Africa. Individuals appear to be largely sedentary, and there is considerable variation in the appearance of birds from different parts of their ranges. As a result, the scientific history of the complex is littered with taxonomic reviews which have attempted to disentangle the complicated variation in colour and, to a lesser extent, size. Different researchers have recognized anything from one to six species. During the 1980s the consensus was to recognize three species: Karoo *Certhilauda albescens*, Dune *C. erythrochlamys* and Red larks *C. burra*, or perhaps one highly variable 'polytypic' species. However, recent comprehensive studies integrating genetic, behavioural and morphological criteria clearly indicate that there are four species, adding Barlow's Lark *C. barlowi* to the three listed above.

This article briefly describes the relationships within the group, and discusses how they can be identified in the field. To avoid confusion, I refer to the complex of four species as 'red-backed larks', retaining Karoo Lark for the new, narrower definition of that species.

PLUMAGE AND STRUCTURE

ALL FOUR SPECIES within the red-backed lark complex have the same basic plumage pattern, and there is considerable variation in plumage characters within species, limiting the number of useful characters for specific identification. The main difference between taxa is in the extent of streaking caused by dark brown feather centres. Size and shape can be useful, but note that males are 5–10 per cent larger than females.

The Red Lark is the most distinctive species. The largest form, it has a long tail, heavy flight action, and a short, deep bill, which appears stubby in the field. Three races have been described. Birds from red dunes in the north and east of the range (*burra*) have uniform brick-red backs, lacking dark streaking above. By comparison, birds from the southern and central part of the range (*harei*) are browner and are variably streaked above. All are very heavily blotched on the breast, but the flanks and belly are plain except among birds from the eastern dunes around Vanwyksvlei (*aridula*), which have some streaking on the flanks. Confusion is most likely in the vicinity of Brandvlei, where brown, streaky-backed birds can be confused with nearby populations of Karoo Larks. The heavier bill and plain belly is the best way to distinguish birds in this area. Their male display songs also differ markedly, and the two species' ranges are not known to overlap.

Red Lark *harei*

Karoo Lark *codea*

The Karoo Lark is the smallest and most widespread species. Its bill is slender and slightly decurved. The Karoo Lark is distinguished from all other species by breast streaking extending on to the belly, primarily along the flanks. This is coupled with heavy streaking on the upperparts. Back colour varies geographically in association with broad changes in soil colour. Birds on the pale coastal sands of the west coast are pale grey-brown (*albescens* and *codea*), becoming rich rufous brown and red in the western interior (*guttata*), and grading into dark chocolate brown in the eastern Karoo (*karruensis*). Despite some confusion with Red Larks (there are some stunningly 'red' Karoo Larks north of Vanrhynsdorp, and the streaky-backed Red Larks around Brandvlei don't resemble 'typical' Red Larks), the greatest identification problem occurs in the region of overlap with Barlow's Lark.

Barlow's and Dune larks are sister-species, intermediate in size between Red and Karoo larks. ▷

Karoo Lark *guttata*

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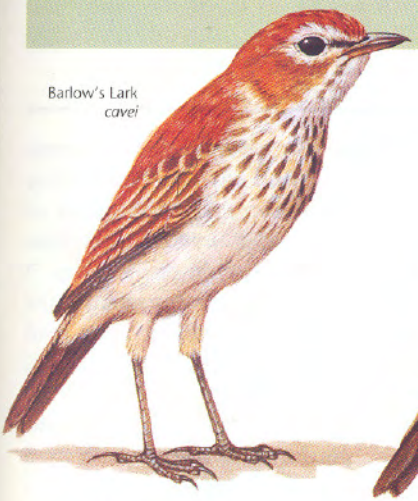


Barlow's Lark *cavei*

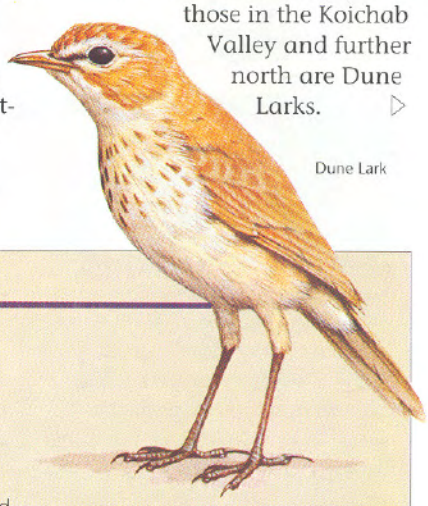
Barlow's Lark *patae*

Barlow's Lark *barlowi*

Barlow's Larks tend to have the longest bills, although there is considerable variation. The plumage also is highly variable, with a variety of plumage types found at some sites. In the south, they vary from red above in the interior (*cavei*) to grey, brown or pink above along the coast (*patae*). Further north (*barlowi*) they are sandy-red above and can closely resemble Dune Larks. Typically, they are less streaked above than are Karoo Larks, and all lack streaking on the flanks and belly, which is the crucial feature. *BEWARE: feather wear can make streaks on the crucial belly and flank area almost invisible even at close viewing ranges.*

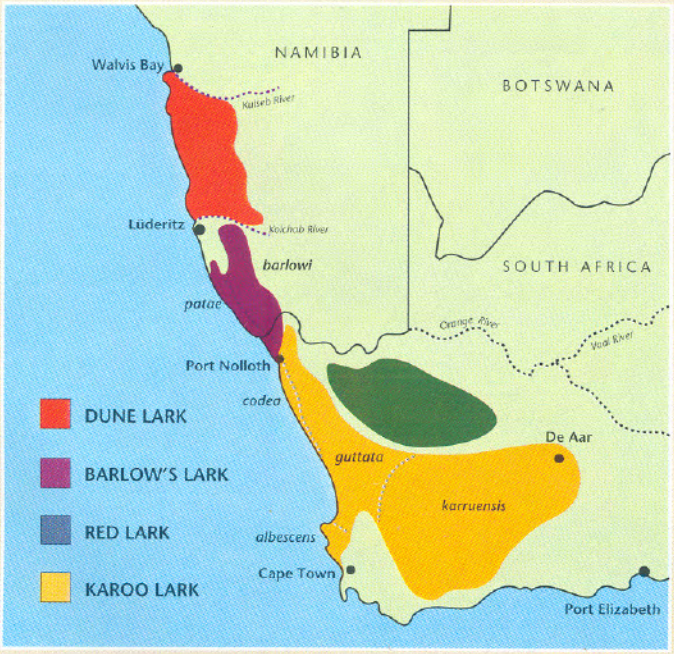
South of the Orange River, in the region of contact with Karoo Larks, some intermediate forms are found, although genetic evidence shows that the two species haven't shared a common female ancestor for hundreds of thousands of years! In this area, voice is probably the best character to separate the two species.

The Dune Lark is plain sandy red above, matching the colour of the dunes it inhabits. It is the least streaked form, having few, small breast streaks and virtually no dark centres to the upperpart feathers. Relative to the other species, the malar and moustachial streaks are pale and not well defined. Dune Larks have a relatively longer tarsus than the other species, giving them a long-legged look as they stride over the dunes. The only confusion is in the south of the range, where they come close to overlapping with northern populations of Barlow's Larks. Barlow's Larks typically differ in having a better-defined facial pattern and more streaking above and below. Dark brown streaks down the centre of the tertials (folded wing) and central tail feathers are readily discerned in the field in these approachable birds. Range also is useful; birds south of the Koichab River probably are Barlow's Larks, whereas those in the Koichab Valley and further north are Dune Larks. ▷



Dune Lark

DISTRIBUTION



As a group, red-backed larks are found from Walvis Bay in Namibia, south to Cape Town, and east to De Aar. Records from grassland areas further east in South Africa (for example, from the Free State) are equivocal; all putative specimens from these areas have turned out to be misidentified Sabota Larks!

Each species has a discrete range, with little or no overlap between taxa. The Karoo Lark is restricted to the southern and western parts of South Africa. In the central Northern Cape it is replaced by the larger Red Lark *C. burra*. To the north of Port Nolloth, and on the coastal plain of southern Namibia, the Karoo Lark is replaced by Barlow's Lark *C. barlowi*, which is in turn replaced by the Dune Lark *C. eythrochlamys* north of Lüderitz and the Koichab River. The greatest identification challenge is in the area of overlap between Karoo and Barlow's larks from Port Nolloth to the Orange River. However, there also are problems with some individuals of Barlow's Lark in the north of their range which closely resemble Dune Larks.

HABITAT AND BEHAVIOUR

ALL FOUR SPECIES inhabit arid and semi-arid scrublands. They dig for food with their bills in sandy soils, but all species except Dune Larks also occur in rocky areas provided there is some loose soil. Red Larks occur on well-vegetated red sand dunes and on scrub-lined, sandy washes and plains further south in Bushmanland. Karoo Larks prefer dense, succulent Karoo scrub and strandveld, and avoid areas lacking bushes. Dune Larks are restricted to the dune sea between the Kuiseb (Walvis Bay) and Koichab (Lüderitz) rivers, where they occur in association with *!Nara* melons and dune grass vegetation.

Barlow's Larks occur primarily in association with *Euphorbia* scrub, but also are found in vegetated dunes and sparse, arid succulent Karoo vegetation.

All behave in a rather similar manner. They forage on the ground, often around the bases of vegetation, and retreat into the shade of bushes during the heat of the day. When disturbed they typically walk away from the observer, using vegetation for cover, but they often perch on low bushes to utter alarm calls and get a better view of the intruder. Males sing during display flights, climbing 20–100 metres into the air, calling continuously while slowly circling or beating into the wind. Each display flight lasts several minutes. They also sing from perches and the ground, and will make use of fences and occasionally telephone wires as singing posts. ▷

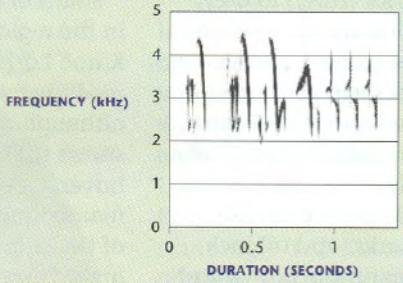
Red Lark *burra*

VOCALIZATIONS

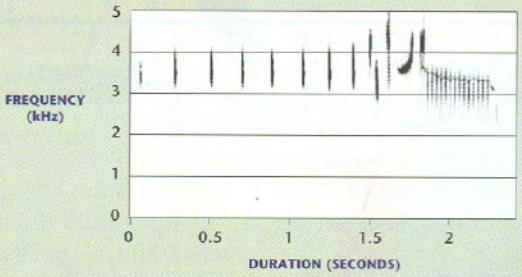
Males utter a far-carrying display song which is superficially similar among all four species. A song phrase, lasting 1–2 seconds, is repeated monotonously every 2–5 seconds. Each song phrase comprises a series of typically simple lead-in notes, followed by one or more whistles, and a terminal trill (see sonograms). Red Larks have the lowest-pitched song, with a slow, complex trill. Dune and Barlow's larks have the longest songs, with a long series of lead-in notes, and a long, uniform trill. Karoo Larks have short, high-pitched songs, typically with only one or two lead-in notes. Around Port Nolloth, Karoo Larks can be distinguished by having only one lead-in note, whereas Barlow's Larks have 2–5 notes.

At any site, males typically have two or more song phrases in their repertoires, with neighbouring males switching synchronously between variants. Barlow's Larks exhibit the greatest range of song types over their entire range, with birds in the south being closer to Karoo Larks and those in the north closer to Dune Larks. North of the Orange River, male Barlow's Larks have a unique 'rattle' song as well as the more typical song. In addition to male display songs, the repertoire of all four species comprises alarm rattles and strident contact calls.

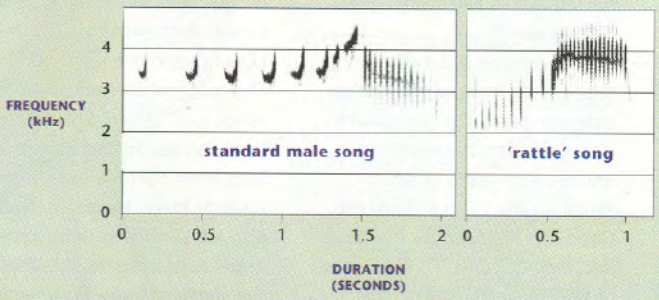
RED LARK



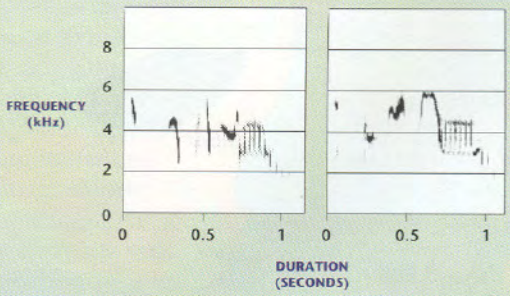
DUNE LARK



BARLOW'S LARK



KAROO LARK



SEPARATION FROM OTHER SPECIES

THE CLOSEST RELATIVES to the red-backed larks appear to be Long-billed *C. curvirostris* and Short-clawed larks *C. chuana*, which together with the red-backed larks form the endemic genus *Certhilauda*. The Short-clawed Lark inhabits open *Acacia* savannas and its range does not overlap with that of any of the red-backed larks, but the range of Long-billed Lark overlaps with those of Karoo, Barlow's and Red larks. The distinctive coastal forms of Long-billed Lark are readily distinguished from Karoo and Barlow's larks by their much larger size and proportionally longer bills, tails and wings. Males of the inland, red-backed forms of Long-billed Larks also are noticeably larger and longer-billed, but the smaller females overlap in size with, especially, the Red Lark. However, all have appreciably longer, more slender bills, and are less streaked and more buffy below than Red or Karoo Larks. As a general rule, Long-billed Larks in the interior are associated with rocky areas, whereas red-backed larks almost invariably occur on sandy soils.

Perhaps the greatest opportunity for confusion with other larks occurs on the red sands of Bushmanland, where Red Larks overlap with Fawn-coloured Larks *Mirafra africanoides*. The latter species replaces Red Lark on sands north of the Orange River. The Fawn-coloured Lark is smaller and paler above than Red Lark, with much lighter streaking on the breast and a weaker bill. It also differs in song, giving a jumbled series of melodious notes which contrasts markedly with the rather short, repetitive song of the red-backed larks.

Another potentially confusing species is the Sabota Lark *M. sabota*, which overlaps with both Red and Karoo larks in the more grassy areas of the Karoo. The western form of Sabota Lark is rather different to the birds found further east, which may account for people mistaking this species for Karoo Lark. In fact, it is smaller and paler than Karoo Lark, and has a larger supercilium (especially behind the eye), a shorter tail, and a much heavier, straighter bill that recalls Thick-billed Lark *Galerida magnirostris*. Again, the song of Sabota Lark is very different from that of the red-backed larks, also comprising a long, variable series of notes. ▷

Below *The Long-billed Lark is the largest southern African lark.*
Below, top right *The Fawn-coloured Lark is the common lark on Kalahari sands, but co-occurs with Red Larks in the central Karoo.*
Below, bottom right *The western form of Sabota Lark, with its large, heavy bill, is regarded by many authorities as a separate species, Bradfield's Lark* Mirafra naevia.

PETER STEYN

BRENDAN RYAN/ABPL

JJ BROOKS/PHOTO ACCESS

NICO MYBURGH

A Red Lark at a much-photographed nest discovered by Nico Myburgh south of Brandvlei. One member of the pair was browner and more heavily streaked than the other, prompting rumours of hybridization with Karoo Lark.

WHERE TO SEE THEM?

All four species are relatively easy to find, especially if they are calling – listen and scan likely perch sites or look for birds in the air. With a little patience they will allow approach to within a few metres. During the heat of the day they can be elusive, however, as they scuttle away behind the cover of vegetation.

Karoo Larks are widespread and fairly abundant, and can be found reliably in most patches of suitable vegetation. Good areas in the vicinity of Cape Town are in strandveld along the West Coast Road (for example, at the Silwerstroomstrand turnoff, West Coast National Park, and along the south bank of the Berg River at Velddrif), and in succulent Karoo vegetation on the flats beyond Karoopoort (where many birders see Karoo Eremomela *Eremomela gregalis* for the first time).

Red Larks are rather patchily distributed and they have disappeared from some areas, apparently as a result of over-grazing. However, they can be looked for on sandy soils throughout their range. The plain-backed birds restricted to red dunes are the most attractive form, and are most abundant in the vicinity of Aggenys (try the dunes south of the Loop 10 road). The browner, streaky-backed form is more widespread, often occurring on clay as well as sandy soils, and is common around Brandvlei.

Barlow's Larks are common along the road north of Port Nolloth to Alexander Bay, but most of the road falls within a diamond-mining area, and stopping along the road is prohibited beyond a few kilometres north of Port Nolloth. (Be aware that Karoo Larks also occur along the road, both near Port Nolloth and at the Holgat River crossing.) It is more satisfactory to see the bird in Namibia, but most of the population occurs in the Sperrgebiet, another restricted-access diamond-mining area. They can be seen from public roads in *Euphorbia* scrub along the main road east of Lüderitz near Hohlenberg, as well as on the better-vegetated plains from the Rekvlakte to south of Rosh Pinah.

Dune Larks appear to be restricted to the fringes of the main Namib dune sea. Access is the greatest problem here because there are few roads that penetrate the dune sea. A popular site is the Kuiseb River delta, which can be accessed from either Rooibank or the road south of Walvis Bay. Other accessible sites include the dunes at the entrance to Sossusvlei and farther south along the D707 to Aus. Concentrate your effort on areas where there is at least some vegetation! □