

Fig. 1—*a.* Adult male of *Psophodes nigrogularis leucogaster*; *b.* *Ps.n.* (?) *nigrogularis*, male from Gnowangerup, W.A. (note: black margins to malar stripe); *c.*, *d.* *Ps.n. pondalowiensis* (note: light edgings to tips of flight feathers).

## THE WESTERN WHIPBIRD

### Preliminary notes on the discovery of a new subspecies on southern Yorke Peninsula, South Australia

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This is a preliminary account of the hitherto unsuspected occurrence of the Western Whipbird (*Psophodes nigrogularis*) in a small, coastal strip of little disturbed sandhill country in the vicinity of Pondalowie Bay, southern Yorke Peninsula, South Australia.

Without doubt, much remains to be discovered and written about this most fascinating of Australian birds, which many thought was extinct in this State.

The locality is new and there is evidence that, as might be expected, the birds differ from those members of the species that occur in parts of South-western Australia and one fairly small area in the Murray Mallee of South Australia and North-western Victoria; these differences are described and compared below.

Strangely enough, the birds appear to be fairly numerous around Pondalowie Bay and, although skulking in their movements, they betray their presence by various loud and not unmusical calls quite unlike those of any other passerine. For these, and other reasons, it seems incredible that the whipbirds were not noticed long ago by a number of ornithologists who have visited the district.

#### HOW THE BIRDS WERE DISCOVERED

The first person to see and make a tentative identification of the species was Mr. Frank R. H. Chapman. He arrived at his conclusions, after much painstaking observation and stalking, during the annual camp of the South Australian Ornithological Association on October 9, 1965. A few days later, he visited the South Australian Museum and

examined specimens of *Psophodes nigrogularis* taken in the Murray Mallee many years ago.

True to form, the writer was at first sceptical, but Mr. Chapman was insistent and it was decided to pay a visit to the area at the first opportunity. Mr. M. H. Waterman was invited to accompany the party, which included Mr. Chapman and the wife and son of the writer. Mr. Waterman brought along his band of junior helpers and the search for the birds commenced before dawn on the morning of October 30. In our search we were aided greatly by the loud and regular cries of the birds, which can be heard for a considerable distance.

Now it must be mentioned that our first suspicions of the presence of a strange species in the Pondalowie Bay area were aroused following a report by Mr. Brian Glover that on January 31, 1965, he heard most unusual calls coming from the coastal sand dunes. The matter was discussed by members of the Ornithological Association and it was resolved that at the annual camp of that body, which was to be held in the area later in the year, a look-out would be kept for the mystery birds.

Members attending the camp heard whipbirds calling soon after their arrival on October 8, but despite strenuous efforts they had to leave the area without getting more than glimpses of the birds during their entire four day visit. On this occasion, Mr. Chapman, who was more fortunate than his companions, as related above, spotted an individual in a bush at a distance of about 30 feet.

One of our keenest members, Mrs. M. Daley, stayed behind following the departure of the main body of members and she was successful in obtaining a tape recording of calls that resembled the regular whipbird song and were given by a bird concealed in the bushes about 10 to 15 feet away from her.

Mrs. Daley's recording was played to various members. Mr. F. E. Parsons, who has had experience with the Western Whipbird in the Murray Mallee was unable to make a positive identification. In a subsequent discussion with the writer, Mr. Parsons stated that it was nearly 30 years since he had heard the whipbird's call and he was of the opinion that the tape recording probably differed from the notes as he remembered them.

At first, members of the investigating party were inclined to liken the calls to one of those of the Rufous Songlark (*Cinchorhamphus mathewsi*) though it was not believed that they were of that species. The calls, which came from all directions over a wide area, were uttered at regular intervals from about dawn to 10 o'clock in the morning.

A number of sightings of the birds were obtained in the sand dunes and adjacent dry sclerophyll scrub heathland near the road to West Cape.

It was not long before an individual was caught in a mist net on the slopes of a dune and, following a quick examination of our catch, the mystery was solved: here, indeed, was a previously unknown community of the Western Whipbird!

Photographs and details of the bird were taken and it was agreed that it should be set free after Mr. Waterman had placed a CSIRO band on its leg.

At this time we had no idea of the number of birds in the area, but as time went on we decided that they were fairly numerous and later, in the same morning, another bird was caught and taken as a specimen for the South Australian Museum.

### SUBSEQUENT VISITS

The area was visited by Mr. Harold Crouch on October 20, and November 20-21, for the purpose of making tape recordings of the calls of the whipbirds. The writer, accompanied by Mr. David Condon, inspected a number of places around Pondalowie Bay, from October 12-15, Mr. Chapman returned to the district during the first week in November and visited Section 77 on November 3rd and 4th.

A party of a dozen members of the Association, including Messrs. Chapman, Crouch, D. Kraehenbuehl, D. McNamara and R.

Shearer, were present on November 20th and 21st at the site of the October camp, when birds were seen and heard. During a brief visit during the third week in December no birds were heard singing by Mr. Chapman. Mr. Glover visited the district during the last days of the year 1965 and the first week of January, 1966, when birds were heard calling on the tops of the sand dunes but none was observed.

The writer, accompanied by D. Condon, visited the area on January 20, when birds were seen along the West Cape road.

### THE LOCALITY

Pondalowie Bay is situated near the extreme south-western tip of Yorke Peninsula. The peninsula separates the gulfs of Spencer and St. Vincent of the South Australian coastline between Long. 136° 49' and 138° 7' E. It has an average elevation of about 400 feet, being an up-standing fault-block of Archaean rocks running parallel to similar horst structures that form Kangaroo Island and the Mt. Lofty Ranges; all are of about Pleistocene age.

As noted by its discoverer, Captain Matthew Flinders, Yorke Peninsula resembles "a very ill-shaped leg and foot." The whipbirds seem to be confined to the toe of the foot, in the vicinity of Lat. 35° 15' S., from beyond Royston Head at Brown's beach in the north, southwards through the Pondalowie Bay—West Cape district towards Reef Head.

The seaboard of the south-west tip of the peninsula consist of cliffs, up to 250 feet high, which are composed mainly of aeolianite or aeolianite changed to kunkar, with occasional outcrops of Archaean rocks (Crawford 1965). Aeolian bedding is visible on the pale brownish cliff faces. Marine action is very strong but the headlands are protected by the extremely durable ancient rocks at their bases.

Large sheets of kunkar are present on the cliff tops between the regular series of white to very pale orange mobile, calcareous sand dunes of Recent age. Most of the dunes are less than 100 feet high in this area; further north, near Daly Head, a section not yet examined by us in detail, they are larger.

Inland, kunkar overlies most of the older Pleistocene covering of aeolianite and other deposits; swales and deflated areas may be

occupied by salt and gypsum lakes or saline swamps. Patches of dense mallee scrub provide a haven for numerous mallee faunal types.

About 8 miles south-west of Ponalowie Bay is the flourishing gypsum industry of the Stenhouse Bay district, where also salt is obtained by solar evaporation methods. Gypsum is quarried from lakes which occur in a low-lying area about four miles wide and 6 miles long. Much of the district is below sea-level, being barred from the sea at either end by modern sand dunes.

Stenhouse Bay is the closest settlement to the whipbird area and Warooka, 45 miles away, the nearest town; there are a number of week-end shacks at Ponalowie Bay and other places in the vicinity. Although the area has remained relatively isolated since the gypsum industry began operations in the year 1889, encroaching agricultural pursuits, the building of new access roads, and the expansion of the important mineral industry constitute a serious threat to the surviving remnants of the primeval habitat and its denizens.

The main part, or leg, of Yorke Peninsula, which for long has been used for sheep runs and the production of wheat and barley, is now fairly well populated in contrast to the sparse settlement of most of the foot. Nevertheless, early introductions of sheep occurred over 100 years ago at Corney Point, White Hut, Cape Spencer and adjacent parts.

Whitworth (1866) records that it "was necessary to remove the flocks in winter, as, if not, they are subject to coast disease," which he refers to as a "dangerous malady" caused by "the malarious exhalations which arise from the mangrove swamps." Actually, the mineral deficiencies in the soil, which give rise to "coast disease," are still a retarding influence on the pastoral industry in these parts and the effects of the light grazing of sheep around Ponalowie Bay are not very apparent at present. On the other hand, owing to the increasing popularity of the district as a holiday resort, the landscape is everywhere marred by human débris and litter.

Because of its proximity to the ocean, the toe of the peninsula has a climate that is milder and more maritime than further north. There are strong sea breezes, the average maximum mid-summer temperature

is little more than 80°F., and the average annual rainfall is 19-20 inches. Precipitation is seasonal and greatest in July. However, despite fairly reliable winter rains and low run-off, there are no permanent streams, evaporation is high, and the lakes are saline and completely dry during the hot summer.

Wood (1930) described the vegetation of the western half of the foot of Yorke Peninsula as Mallee (*Eucalyptus diversifolia* association), a scrub-form peculiar to many of the semi-arid districts of southern Australia. So far as known, the whipbirds are not regular inhabitants of this type of sclerophyll scrub, being found only in the sand dune strip.

#### DISTRIBUTION AND HABITAT

The Western Whipbird is a sedentary species with a number of relict populations, mostly separated from each other by hundreds of miles, in the semi-arid belt of southern and south-western Australia (Fig. 2). The exact distribution is incompletely known and habitats have been found to vary somewhat according to locality as described below.

##### (A) Southern Yorke Peninsula, South Australia.

In this most recently discovered locality it is thought that the greatest density of the species is confined to the coastal sand dunes of the Ponalowie Bay district, Hundred of Warrenben.

The birds have been heard to the north of the Bay at a few places, such as the vicinity of Brown's Beach and east of Royston Head. Just south of Ponalowie Bay, the species has been observed or heard in a small area extending from West Cape to a little north of the ship-wrecks of the "Ethel" (1904) and "Ferret" (1920).

Quite possibly whipbirds may survive at a few isolated places to the north of Royston Head along the coast in the Hundred of Carribee and even further eastwards, near the waterfront, in the Hundred of Coonarie.

Inland, the birds are almost certainly absent from the Mallee scrublands where the environment is very different from that of the dunes.

The following botanical notes on the whipbirds' habitat were made by Mr. Darrell Krahenbuehl, during a visit to Section 26B, Hundred of Warrenben, on November 20th

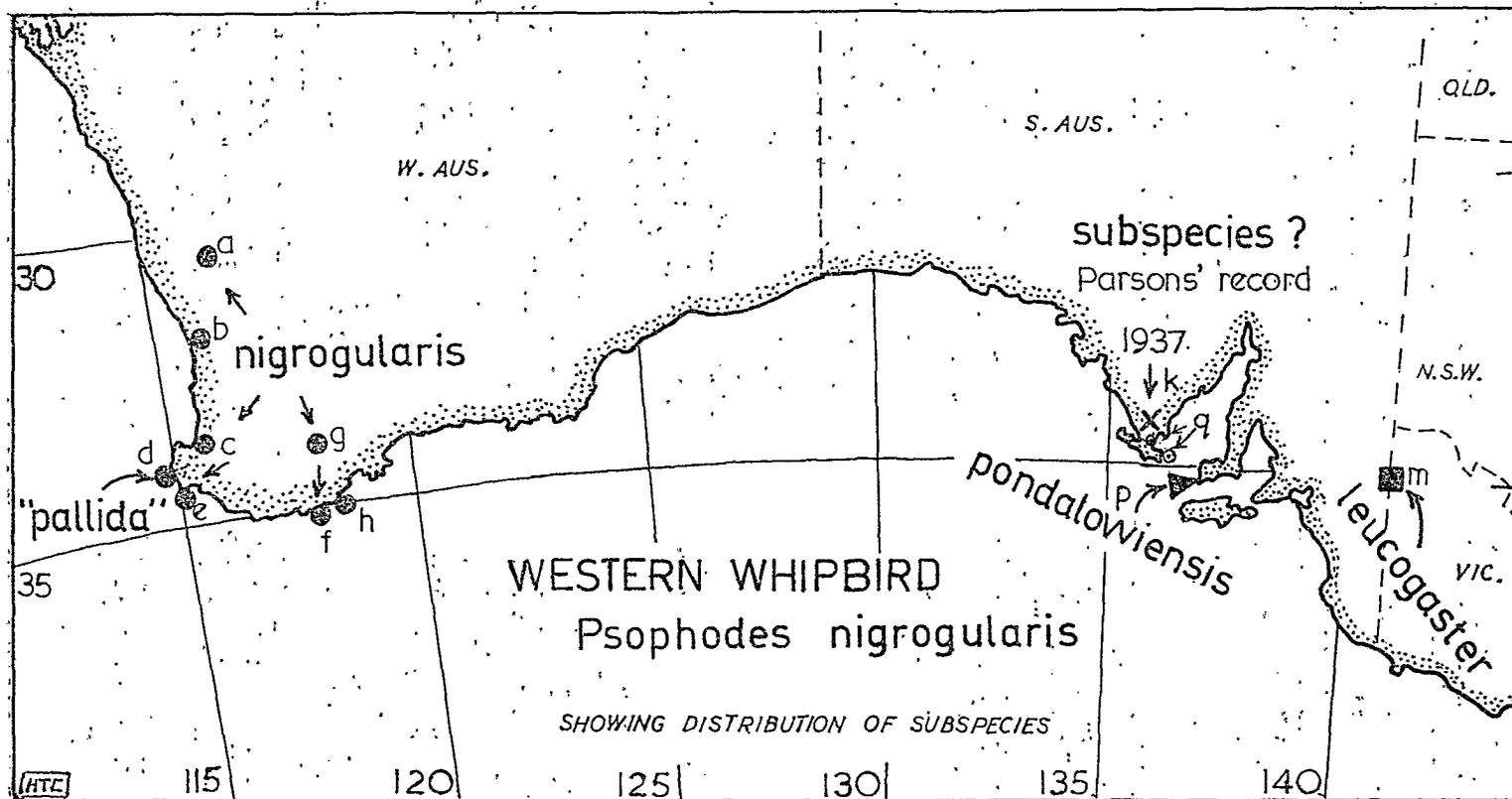


Fig. 2—Known occurrences (\* = extinct; ? = status uncertain). a. Wongan Hills (\*); b. near Perth (\*); c. near Busselton (\*); d. Cape Mentelle and Margaret River area (\*); e. Augusta and Cape Leeuwin (\*); f. King George's Sound (\*); g. Gnowangerup-Borden districts; h. Two People Bay; k. Hundred of Brooker, Eyre Peninsula (?); m. Many/Peebinga area of Victoria and South Australia (?); p. Pandalowie Bay district, southern Yorke Peninsula; q. Hundred of Flinders, near Port-Lincoln. (See p. 93).

and 21st, 1965; the scientific nomenclature is that of Eichler (1965).

"The narrow-leaved Soap (or White) Mallee, *Eucalyptus diversifolia* is usually to be found on the higher crests of the white calcareous sand dunes, other co-dominant species being Black Tea-tree, *Melaleuca lanceolata*, Sheoak, *Casuarina stricta*, Native Cherry, *Exocarpus syrticolus*, Sandhill Daisy, *Olearia axillaris*, *Leucopogon parviflorus* and *Acacia calamifolia*. On the lower slopes, Native Pine, *Callitris canescens*, Fan Flower, *Scaevola crassifolia*, *Beyeria leschenaultii*, *Templetonia retusa*, *Lasiopetalum discolor*, *Logania crassifolia*, and *Acrotriche patula* are commonly represented.

"Taller shrubs and trees, as for example the Native Cherry, are often festooned with creepers of Dodder, *Cassytha* spp., Sea Spinach, *Tetragonia amplexicoma* and Old Man's Beard, *Clematis microphylla*. A mistletoe, *Amyema melaleucæ*, is parasitic on the Black Tea-tree.

"Nearer the coast, where the strong winds are more prevalent, and in places where considerable sand drift occurs, the mallee, *E. diversifolia*, is often replaced in the high dune slope communities by Coastal Wattle, *Acacia sophoræ*.

"Clumps of the Sandhill Daisy, Porcupine Grass, *Spinifex hirsutus*, Sedge, *Scirpus nodosus* and *Calocephalus brownii* favour areas of sand drift and it is only in the swales of the dunes that most of the plants occurring in the dunes farthest from the coast are to be found again.

"There are a number of densely vegetated sand dune swales among the high coastal sandhills. Whipbirds were observed at close quarters in one of these swales.

"On the high dune slopes of the periphery of a swale only a few drift-arresting plant species are to be found owing to the severity of sand-blast action by the wind; species noted were Coastal Wattle, Sandhill Daisy, Porcupine Grass and Sedge.

"On the steeper slopes, a small section of drifting sand, largely devoid of herbage, precedes another group of sand-binding plants dominated by the species just mentioned together with Fan Flower, Sea Rocket, *Cakile maritima* and *Calocephalus brownii*.

"The whipbirds were observed running through the *Acacia* and *Olearia* bushes directly adjacent to the sand drift section.

Numerous tracks of the birds were also noted in the sandy, open patches.

"At the base of a swale many of the larger trees and shrubs that are found on the protected side of the inland dunes are again present. In addition, creepers of Sea Spinach, *Tetragonia implexicoma*, Old Man's Beard and *Threlkeldia diffusa* climb through the bushes and shrubs. Perennials such as Flax Lily, *Dianella revoluta*, Groundsel, *Senecio lautus*, Pigface, *Carpobrotus rossii* and Everlasting, *Helichrysum leucopsidium* complete a short list of the under-storey plant species."

As might be expected, the whipbirds also frequent the dry sclerophyll heathlands in the depressions adjacent to the sandhills. These places are rich in other native species of birds, which seem more numerous than many of the true mallee forms found further inland.

The soil covering is a sandy loam and there are outcrops of limestone, or kunkar, extending to about a foot below the surface. "The areas are densely vegetated, with tangled clumps of Black Tea-tree parasitised by large masses of Dodder, Native Cherry, *Leucopogon parviflorus* (Family Epacridaceae), *Acacia calamifolia* and *Lasiopetalum discolor*. Scattered groups of Sheoak, some 20 yards apart, are sporadically distributed through this association.

"At intervals there are small sandy rises occupied by huge, spreading depauperate trees of *E. diversifolia*.

"Undershubs are many and varied. For the purpose of this survey, the following may be mentioned—*Pomaderris paniculosa*, South Australian Christmas Bush, *Bursaria spinosa*, *Calythrix tetragona*, *Templetonia retusa* and two native currant species, *Acrotriche patula* and *A. cordata*.

"In places, a dwarf native pine, *Callitris canescens* forms an almost pure community, but the Coastal Daisy, *Olearia*, is almost completely absent.

"Dense tussocks of Cutting-grass, *Gahnia deusta*, occur throughout the lower under-storey of this mallee association, with some very fine clumps of Porcupine, *Triodia irritans*, on the more sandy loams."

At this stage in our observations it would appear that the whipbirds prefer places in the sandhills where the Sandhill Daisy,

*Olearia axillaris* and Coastal Wattle, *Acacia sophorae* are the dominant species.

Stomach contents have shown that whipbirds are insectivorous and Mr. Krahenbuehl thinks they may feed on large grubs, similar to cockchafer larvae, which he noticed under and around the Coastal Wattles. He suggests that the grubs may be attacking the roots of these acacias, since members of the genus commonly fall prey to such parasitism.

(B) Eyre Peninsula, South Australia.

The presence of the Western Whipbird on Eyre Peninsula was reported by Mr. F. E. Parsons in July, 1937, soon after he had heard calls in the Hundred of Brooker. The nearest settlement was Cockaleeche and the habitat was Mallee. There are no museum specimens of this population.

(C) Murray Mallee of Victoria and South Australia.

The presence of the Western Whipbird in the Murray Mallee was not established until September, 1932, when a bird was shot by the late J. A. Ross in the parish of Many, north-western Victoria (Howe and Ross, 1933). This event took place thirteen years after the birds were first met with, in September, 1919; the first eggs, wrongly thought to be those of a Wedgebill, were taken in September, 1920.

Howe and Ross described the habitat as "low, dense scrub (mallee, porcupine grass, teatree, broombush, etc.) . . . suitable for the bird. . . ." Much of this country, which is in the County Weeah, is undulating with fairly high sandhills and kunkar deposits on the lower knolls; the harsh-leaved tussock grass, *Triodea irritans* ("porcupine" or "spinifex") is abundant in the swales and the chief shrub is broombush, *Melaleuca uncinata*.

Similar mallee-broombush country extends into South Australia north of Pinnaroo, where, however, owing to intense agricultural activity, only remnants of the original sclerophyllous mallee association survive in two Flora Reserves, comprising 5,000 and 56,000 acres respectively, in the Hundreds of Peebinga and Billiatt. According to Specht (1961) mallee broombush is a vegetation type dominated by low eucalypt trees, such as *E. incrassata* and *E. leptophylla* with the pine, *Callitris verrucosa* and broombush as co-dominants.

Whether the whipbirds still survive in these parts is uncertain but it would seem that none has been seen or heard for many years. Specimens of a female and male, now both housed in the South Australian Museum, were obtained near Peebinga, in the years 1936 and 1938, respectively. The last set of eggs may have been taken in the year 1940.

(D) South-western Australia.

The Western Whipbird was first discovered in Western Australia, more than 100 years ago, by John Gilbert at the Wongan Hills, nearly 100 miles north-east of Perth.

Gilbert (quoted by Serventy & Whittell 1962) met with whipbirds in a variety of habitats. In the neighbourhood of the Vasse and Augusta it was "only found in the rankest vegetation growing around swamps or small running streams; near Perth . . . on the dry sandhills immediately adjacent to the beach . . ."; and in the interior (? Wongan Hills) "it was confined to the dense dry thickets"; whilst at King George's Sound it was in groves of tea-trees in the sandhills.

Milligan (1902) found the species in the South-west at Margaret River, north of Cape Leeuwin, where, he says, "it is locally known as the 'Rain-Bird' by reason of the fact that immediately preceding rain it seeks the summits of the coast hills." Syd. Jackson encountered birds at Irwin's Inlet in the year 1912.

More recently, Lindgren (1958) has reported birds at a place 75 miles east of Borden, the last-named town being over 50 miles north of Albany and far from the coast.

McGill (1965) met with whipbirds at a place east of Gnowangerup, in the early morning of October 26, 1965. The birds were noted in sandplain country in a small area of thick vegetation "dominated by a rather extensive patch of *Banksia* sp."

### THE CALLS

Without doubt, the most distinctive feature of the Western Whipbird is its loud call, which can be heard at a distance of  $\frac{1}{2}$  mile. Unlike its relative, *Psophodes olivaceus*, Eastern Whipbird, whose loud, explosive call-note gives the group its name, the Western Whipbird never makes the whip-like crack. Nevertheless, some of its other notes heard at Pondalowie Bay are similar to those of *P.*

*olivaceus* and, as Mr. Harold Crouch has pointed out, like that species, the western bird has a true antiphonal song.

Mr. Crouch has studied the latter with the aid of a tape-recorder and the following are extracts from his notes.

"There is a regular song phrase, which is repeated continuously for periods of up to three minutes. Each phrase is of about five seconds duration and consists of a series of notes with a pitch between those of a reed warbler (*Acrocephalus*) and a garden cricket (*Gryllulus* sp.).

"The notes have been likened to the squeaky wheels of a dray being hauled up hill—this could be referred to as the 'cart-wheel call'."

It may be mentioned here that Master Don. Crouch has described the song as "Happy Birthday to you," which seems very appropriate. For the repetitive song of the birds at Two People Bay, Mr. H. O. Webster (1966) suggests "It's for teacher," with the female chorussing "Pick it up."

Depending on the weather, the song, with minor variations, is sung throughout the day for no apparent reason. Our experience has suggested that the birds are noisiest in the morning, up till about 10 a.m. and again in the late afternoon. However, the writer on more than one occasion heard the calls about 1 p.m. and just before noon. As with many dry country forms, the whipbirds seem to be more active on overcast days and perhaps after rain.

Various accounts by former writers claim that the whipbirds' calls are ventriloquial. Our experience does not support this and it is of interest to note that Webster in his latest contribution (1966) states that the birds regulate their calls with great skill but are not truly ventriloquial.

In an endeavour to test our belief, Mr. Crouch set up a large parabolic microphone and discovered that, as anticipated, the sound came directly from a singing bird. He says "whilst checking this it became apparent that two birds were participating, one bird having by far the major song; but the start of each phrase was triggered by a soft 'Brrrrr' coming from another bush 3 feet away. It is only when very close that the other call can be heard." Mr. Crouch considers that "the call is sometimes hard to locate because the individual notes are shrill

and tend to bounce off nearby objects, so that it is difficult to believe that a bird can be so near and yet remain unseen."

Among other calls obtained, Mr. Crouch has a tape recording of a loud cry, quite different from the regular song, which "starts with two harsh notes and finishes with an upward trill repeated at small intervals." Mr. Crouch refers to this as the "trill call," which is the same as the "decoy call" mentioned by the writer further on in this account.

Replaying the calls obtained with the tape-recorder had varying effects on the birds. For instance, there appeared to be no response to the regular song, which Mr. Crouch thinks may be a flocking call. In mated Magpie Larks (*Grallina cyanoleuca*) he has found that they respond very quickly to their antiphonal cries when replayed, perhaps because they have very definite territorial boundaries. Possibly the whipbirds have less defined territories.

The only notes to which the birds have responded to date are the "trill calls" first recorded by Mr. Crouch. On October 20 a pair of birds circled around at a distance of about 25 feet from the loud speaker but remained silent. On November 20 there was no response until the trills were replayed close to where a bird had been heard calling, when the birds came quietly to within a few feet of the speaker. On the completion of a series of "trill calls" the birds immediately started to sing antiphonally, using the regular "cartwheel" song. "This," says Mr. Crouch, "may explain their lack of interest on hearing the recording of another pair of birds calling—a single bird using the "trill call" could be, perhaps, the other corner of the "eternal triangle!"

Similar experiences to those described by Mr. Crouch were obtained by David Condon and the writer on November 13. With the aid of the tape-recorder it was a simple matter to start the birds singing "Happy Birthday to You" almost at any time in response to the "trill call," or "decoy call," as we dubbed it. When the birds became silent a little stimulation with the decoy notes started them off again and, more than once, other birds, which seemed to be several hundred yards, away, began singing "Happy Birthday . . ." for a short time.

The agitation of the birds encircling the loud speaker was very obvious and their calls

indicated an excitement which increased as each sequence of "decoy" notes was replayed. Towards the end of our encounter, which we terminated after more than an hour, the voices of the birds became hoarse, as if they had sore throats, and the "carthwheel" or "Happy Birthday . . ." calls became an irregular mixture of sound that included some "decoy" cries and a plaintive note rather like that of the Crested Bellbird (*Oreoica gutturalis*), a species which is an inhabitant of the adjacent Mallee scrub. Other birds, such as Yellow-winged and Singing Honeyeaters, White-browed Babblers, Silvereyes and Thornbills were attracted by the "decoy calls" reproduced by the tape recorder and some of them joined in the general cacophony as we were about to depart from the spot.

Several individuals were seen in dense bushes at distances of from eight to ten feet from the loudspeaker and as close as 3 feet to the observers.

On January 20, 1966, at 3 p.m., on a hot, sunny day the Whipbirds, quite unexpectedly, responded to playing of the decoy calls with a few soft, or hesitant, "Happy Birthday . . ." cries which followed some quiet warbling notes. During this last visit, the species most interested in the tape-recordings of the whipbirds' call were the Purple-backed Wren (*Malurus lamberti* subsp.) and Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*).

Mr. Brian Glover has supplied the following: "On the early morning of January 31, 1965, and at times later in the day, a loud, penetrating bird call was heard coming from the coastal sandhill vegetation at Pondalowie Bay. All attempts to locate the birds failed. In my descriptions of the calls I described them as "Don't want to see you yet" and "See you later quick," the penultimate note being lower and the last note higher than the rest."

Mr. Glover says: "The call was unlike that of any bird with which I was familiar but I thought that it might have been uttered by a Rufous Bristle-Bird (*Dasyornis broadbenti*), which I had not heard for several years.

"However, during February 27-28, 1965, many bristle-birds were heard at Nelson, south-western Victoria and their calls were different from those I had heard at Pondalowie Bay earlier in the same year, although

there was a slight resemblance and it seemed possible that on Yorke Peninsula there was an isolated population of bristle-birds with a distinctive call."

The calls of the Mallee form have been discussed in detail by Howe and Ross (1933) and McGilp and Parsons (1939); and so far as can be judged, there appears to be some resemblance to the notes of the birds at Pondalowie Bay. The last-named authors state that "when the male bird was heard calling, we were able to approach within twenty or thirty feet of the calling bird, but it always kept plenty of cover between it and us, and when we attempted to get closer, the bird became silent and slipped away, to be heard calling about half an hour later at a distance of perhaps one quarter of a mile." They also remark "when the female is sitting on eggs she takes no notice of her mate while he gives his full-throated calls, but immediately he gives a sharp two-note call (evidently the signal that her mate has food for her) she leaves the nest and goes to the male bird. We are inclined to think that only the male bird gives the peculiar loud notes, that are so distinctive and difficult to describe, the female only uttering a soft chuckle."

Howe and Ross refer to the song of the Mallee Whipbird as "strange, rattling, and staccato, and inclined to be harsh, and could not possibly be likened to that of any other bird that we know. It consists of twelve distinct utterances of four groups of three notes each, produced fairly quickly with a slight perceptible pause after the third, sixth and ninth. . ." They then give the notes in musical notation and continue " . . . they are uttered as if the bird had some difficulty in voicing them. They may be uttered frequently, perhaps eight or ten times, or more, and again the birds may be silent for many hours. They are ventriloquial to an extraordinary degree. . . ."

Mr. Parsons' record from Eyre Peninsula was based on calls similar to those he had heard in the Murray Mallee.

Mr. Eric Lindgren, when near Borden, Western Australia, in August, 1957, heard a duet song made up of "six to eight whistling notes, the first call being 3 or 4 notes, immediately answered by a call of similar duration and quality but consisting of different notes."

Serventy and Whittell refer to a "chitter-chitter" call "like that of the Southern Scrub Robin when disturbed at its nest."

McGill (1965) mentions "scolding" sounds and "persistently-repeated metallic notes" made by birds lurking in the undergrowth.

Gilbert (in Gould) referred to its "peculiar harsh and grating song . . . quite impossible to describe." He compared the notes, which were only uttered as a duet, to those of a crane.

### FIELD OBSERVATIONS

The Western Whipbird is notoriously difficult to observe in its natural habitat. It spends much of its time on or near the ground where it lurks in dense undergrowth. On rare occasions a bird may be seen in flight or perched momentarily in a low tree at a height of perhaps five to seven feet. The flight is strong, but not sustained. Its reactions to a tape-recorder have been described above.

Mr. Chapman tells how, during the early morning of November 21, 1965, the activities of a group of three birds, including one juvenile, were observed for more than an hour on the slopes of a partially vegetated dune near West Cape. The birds, which were first met with at about 6.15 a.m., were watched, with the aid of 7 x 50 binoculars, from a distance of about 50 feet.

"The juvenile appeared identical to the adults, except that the black throat and white malar stripes were absent; a faint, light line was noted around the throat and the breast showed indistinct, faint mottling. The pale ring that encircled the eye made the latter look large and black.

"Two of the three birds, including the young, were feeding mainly around the edges of the low vegetation, which afforded partial concealment. However, a considerable time was spent on the open sandy patches of the dune. Most items of food were obtained from the ground, although on two occasions the birds foraged amongst the lower foliage of the Fan Flower (*Scaevola*) and Sandhill Daisy (*Olearia*).

"The actions of the birds while feeding appeared unhurried, although on obtaining food they frequently darted to the cover of a bush. These quick movements appeared to be a combination of hopping and running: at all other times the birds hopped.

"During feeding, the tail was closed and mostly held in the horizontal position; at other times the tail was carried at an angle or erect on some occasions. Birds were noted to adopt the last position when scurrying down a dune.

"The young bird fed exactly like the adults, only once receiving food from a parent, when the old bird called softly a few times—'cher cher chit-ter cher.' The two birds moved towards each other and the juvenile was passed some food while it squatted in a hunched position and vibrated the wings in a begging fashion. It then independently collected an item of food from the sand and repeated the begging performance. The adult did not respond to this but flew to cover about 30 feet away, where it was followed, at a distance of perhaps 6 feet, by the juvenile.

"Further observations on feeding actions, some of which are quite comical, were abandoned at 7.30 a.m."

Mr. Chapman noted that the whipbirds often flew from one thicket to another within a few feet of the ground; the distances being short. The greatest measured distance was about 100 feet. Frequently the birds would fly directly into a bush and seconds later emerge from the other side.

Whenever they have been observed in flight the tail has appeared fanned, with the black bar and white tips of the rectrices clearly visible.

The Western Whipbird, like its eastern relative, has a short crest, which it raises frequently. The juvenile bird referred to above by Mr. Chapman partially raised and lowered its crest on several occasions, although there seemed to be no cause for alarm by the bird. Later in the same morning, a juvenile, presumed to be the same individual just mentioned, raised its crest while making scolding calls in response to whipbird calls emitted from a tape-recorder operated by Mr. Crouch. At this time the bird was only eight feet away and two other individuals were calling in the background.

Mr. R. Shearer also observed the birds near West Cape on November 21. He believes there is a tendency to keep the tail erect when the birds are moving quickly over the ground. On the other hand, he noticed that when alarmed, the birds kept the tail flat to the ground with the head

held low and the crest erect. His notes on foraging activities are similar to those of Mr. Chapman, except that he noticed that the birds seemed to avoid the large clumps of spinifex (*Spinifex hirsutus*). The only calls he heard were harsh grating cries similar to those of a babbler (*Pomatostomus*).

On January 20, 1966, the writer observed a small party of three or four birds scurrying between low bushes on a sandhill with their tails held erect in a manner very similar to that of a ground-wren (*Hylacola*); their movements were a mixture of hopping and running.

### THE BIRDS

The Western Whipbird is about the size of a Singing Honeyeater, *Meliphaga virescens*, i.e., roughly nine to ten inches (24 cm) long. Its general coloration above is greyish olive, with a strong greenish tinge in bright sunlight. Mr. Chapman states that the birds appear brownish in dull light.

The underparts are greyish, except for the throat, which is dull black edged on either side, with a white malar stripe, that commences near the beak. The tail is long, graduated and composed of twelve rectrices; it is often fanned, when the black bars and white tips are visible from below. There is a short crest on the head. The greyish bill is about 3/5ths the length of the head, strong, laterally compressed and slightly down-curved. The culmen is keeled; nostril with an operculum, rounded, and contained in a small semi-circular groove. The lower mandible is narrow and shallow with a partly-feathered groove near the base and the inter-ramal space is also feathered. Rictal bristles are few and obscure. There is a ring of whitish feathers, which is not always visible in museum skins, surrounding the reddish eye.

In actions the whipbird resembles a honeyeater at times, being a swift and expert flier. However, its wings are rounded, with the outermost primary the shortest, the next two shorter than the last seven which are about equal and of the same length as the secondaries. The body plumage is long, dense and rather coarse, especially on the flanks and sides of breast.

The whipbird spends much time upon the ground when it has been compared to a babbler, *Pomatostomus* sp. The greyish legs

are long and stout, with the tarsus lamini-plantar, i.e., with six strong scutes in front and plain behind.

The sexes are approximately alike.

### INDIVIDUAL AND GEOGRAPHICAL VARIATION

Without doubt, the Western Whipbird is a variable species, both individually and geographically.

The individual members of all forms show differences in the amount of minute white spotting on the black throat and the general tendency for a white chin in this species is more apparent in some specimens than others. The spots on the throat are asymmetrically arranged and seem to have little to do with either age or sex. Immature individuals lack the black throat patch but are otherwise similar to adults.

In five specimens from King George's Sound, only one adult male (023419) has some black markings, suggesting a band, at the junction of the greyish breast and whitish abdomen: the abdomen is greyish, like the breast, in the other four.

The size and shape of the black barrings and white tips of the rectrices appear to vary somewhat independently of age and sex; but here there may be some geographical variation. It would seem also that western birds and those from the Murray Mallee have black bills and darker feet than individuals examined by the writer at Pondalowie Bay; and there may be some geographic differences in eye coloration, namely either red or brown.

The scattered populations in the South-west could have belonged to more than one form, but for the present it seems preferable to distinguish three subspecies only, as follow:

(1) *Psophodes n. nigrogularis* Gould 1844. Bds. Austr., part 15—Western Australia (= Wongan Hills apud Mathews 1931).

*Psophodes nigrogularis pallida* Mathews 1916. Austr. Av. Rec., 3, p. 60.—Cape Mentelle, Western Australia.

*Diagnosis*:—white malar stripe enclosed with black; flight feathers uniform raw umber above. Iris "brown" or "red."

*Distribution*:—South-western Australia: \*near Perth, \*Wongan Hills, \*Margaret River, \*near Augusta, \*Irwin's Inlet, \*King George's Sound, near Gnowengerup, Two People Bay (\*= ? extinct).

(2) *Psophodes nigrogularis leucogaster* Howe & Ross 1933. *Emu*, 32, page 147, plate 22—Manya, Victoria.

*Diagnosis*:—white malar stripe not enclosed with black; flight feathers uniform hair brown (i.e., with less orange than (1)) above. Iris "brown."

*Distribution*:—\*Murray Mallee of North-western Victoria and Eastern South Australia: Manya/Peebinga districts (\*=? extinct).

(3) *Psophodes nigrogularis pondalowiensis* subsp. nov.

*Diagnosis*:—white malar stripe not enclosed with black; flight feathers hair brown above; the outer edge of all except the two outermost primaries pale drab grey, with this colour extending around the tips of the innermost four feathers and plainly visible when the wings are closed. Iris "reddish."

*Type locality*:—Pondalowie Bay, Yorke Peninsula, South Australia.

*Distribution*:—So far as known restricted to the coastal sand dunes of the south-western tip of Yorke Peninsula, South Australia.

#### DETAILED DESCRIPTION OF *Psophodes nigrogularis pondalowiensis*:

*Type*: Adult male. S.A. Museum No. B 27133.

*Date collected*: October 30, 1965.

*Locality*: coastal sand dunes, near Pondalowie Bay, Yorke Peninsula, South Australia.

*Plumage*: Top of head and nape greyish olive; back greyish olive tinged with citrine drab; rump citrine drab; upper tail citrine drab merging into deep olive. A ring of pale (whitish) feathers around the eye; ear coverts greyish olive tinged with isabelline colour. Throat black, a few feathers with minute white tips, especially at the chin; a white malar stripe (21 mm long); breast light olive grey becoming light greyish olive on the sides, with a small, indistinct central whitish patch extending to the abdomen and under tail coverts; flanks and thighs Saccardo's umber; under tail coverts tawny-olive with some whitish. Tail feathers (12 in number) greyish olive below, the two outermost rectrices on each side with a broad, black subterminal bar (22 mm wide) and white tip (9 mm); the next feather with the black bar separated from the white tip by an area of greyish olive (4 mm), followed by the next tail feather in which the white

tip is greatly reduced (4 mm) with the black bar separated from it (7 mm) and represented by a spot 9 mm in diameter and mainly on the inner web; next to middle rectrices with a minute black spot but without white; innermost or central pair without black or white tips.

Wing coverts greyish olive with a tinge of Saccardo's umber; flight feathers hair brown above, lighter beneath; forward or outer edge of all except the two outermost primaries drab grey, which extends around the tips of the innermost four, each of these feathers also having a tinge of citrine drab on the outer web; secondaries buffy brown above.

Bill (maxilla) "gunmetal grey" (?= slate grey); tomium "pale horn"; (lower mandible) "gunmetal at base, paler at tip."

Inside mouth: "grey." Irides "reddish brown" to "reddish."

Legs and feet: purplish grey (approximately) in life.

Photograph of head of bird when alive — see cover picture.

*Note*: in all the above descriptions, the colour names, except those in inverted commas, are taken from Ridgway (1912) and the details are given in the same sequence as contained in McGilp & Parsons (1939) for easy comparison.

*Measurements*: total length 229 mm (9 inches); culmen 20 mm; wing 82 mm; tail 119 mm; tarsus 24 mm; middle toe and claw 24 mm.

*Stomach contents*: unidentified fragments of insects.

#### REMARKS

Mathews described a bird from Cape Mentelle, near Margaret River, Western Australia as "paler," named it "*pallida*," and later published a coloured plate in volume 9 of his "Birds of Australia." The specimen, judging from this illustration, certainly does not differ much from those from adjacent localities and it is preferable to follow Keast (1958) and Deignan (1964), both of whom have regarded *pallida* as a synonym of *nigrogularis*.

However, whether more than one form can be listed from Western Australia is less certain. Two skins (from Gnowangerup) of breeding birds in the Serventy/Whittell collection are much longer in the tail than others from King George's Sound and have whitish

bellies. Although not shown by conventional measurements, it is probable that in life the birds were larger than other specimens examined; there is no indication of a white chin. Gould, in his description of the type, which it is not unreasonable to assume belonged to a more northerly population, stated "bill dark horn colour; irides dark brown; feet dark horn colour . . . tail  $4\frac{1}{2}$  inches," whereas for the birds (males) taken in the Gnowangerup district the late Major H. M. Whittell recorded "beak black, sides of lower mandible horn colour, except at lower base and tip; legs and feet slaty black with a silvery sheen; iris red; inside mouth pink"; the tail measures  $5\frac{1}{16}$  inches. In the two Gnowangerup birds the tail feathers are just as decidedly black-banded and white-tipped as in eastern birds (cf. Keast (1958) and McGilp & Parsons, who state otherwise).

In all forms some individuals show a whitish abdomen, so that the name *leucogaster* for the Murray Mallee subspecies is not truly descriptive, especially since the specimen of the breeding female now housed in the South Australian Museum is almost entirely lacking in white beneath.

The birds at Pondalowie Bay are readily distinguishable by the pale edgings to the feathers of the wing (Fig. 1). This feature is visible in photographs taken by members of the staff of the South Australian Fauna Conservation Department, Mr. M. Waterman and Mr. David Condon (8 mm movie film).

There is some difference in the colour of the flanks in the three forms, those of *pondalowiensis* being the most tawny. In the nominate form the flanks are light brownish olive and in *leucogaster* they are isabella colour.

#### VERNACULAR NAMES

Black-throated Psophodes—Gould's Handbook (1865).

Black-throated Coachwhip Bird — R.A.O.U. Checklist (first edition).

\*Western Whipbird—R.A.O.U. Checklist (second edition).

Mallee Whipbird—Howe and Ross (1933).

Mallee Black-throated Whipbird—McGilp and Parsons (1939).

Rain-Bird—Milligan (1901).

*Tar-ding*—Western Australian natives at King George's Sound (Milligan 1901).

\*Preferred name.

#### HIGHER CLASSIFICATION

Order Passeriformes, Suborder Oscines.

Family Falcunculidae—R.A.O.U. Checklist (1926); Serventy & Whittell (1962).

Family Muscicapidae, subfamily Orthonychinae—Deignan (1964).

Family Muscicapidae, subfamily Cinclosomatinae—Delacour (1964).

Family Muscicapidae, subfamily Timaliinae—Mayr & Greenway (1956).

Family Muscicapidae, subfamily (?) Muscicapinae, tribe Pachycephalini or subfamily Timaliinae, tribe Cinclosomatini—Mayr & Amadon (1951).

Family Cinclosomatidae—Mathews (1931).

Family Psophodidae—Mathews (1946).

Family Timaliidae—Beecher (1953).

#### SUMMARY OF STATUS OF WESTERN WHIPBIRD

The Western Whipbird is included in the current list of Rare Species compiled by the International Council for Bird Preservation (ICBP) at the headquarters of the International Union for the Conservation of Nature, Vaud, Switzerland. It is listed by J. C. Greenway, Jr., in his book "Extinct and Vanishing Birds of the World" (1958) under the heading "Some rare birds probably not in immediate danger" among which, the author explains, are "some small populations that do not appear to be in immediate danger of extinction but because they are so few in numbers may be endangered should they be disturbed in the future."

Whilst no exact estimate of numbers of the species can be given, the fact that their occurrence is limited to areas that are described in terms of hundreds of acres rather than square miles is enough to place it on the "endangered" list in these present days of furious economic expansion. Grazing and related agricultural pursuits constitute the most obvious threat to the Whipbird's existence for, as shown in Western Australia, it quickly disappears from localities where the environment has been interfered with by Man. It cannot adapt itself to a man-made setting; it requires dense undergrowth and is probably exclusively insectivorous; it is a slow breeder, laying only two eggs; it nests near the ground and is, therefore, vulnerable to attacks of introduced pre-

dators, such as dogs, cats and even rats; and finally, its survival in small, isolated pockets of relatively "poor" country must be attributed solely to the remoteness of the areas in conjunction with human preoccupation in other, more easily exploited environments.

In Western Australia, Dr. Serventy tells me that the species is now found only in the Gnowangerup district of the South-west interior and along the coast at Two People Bay, east of Albany.

The birds are probably extinct in the Murray Mallee of Victoria and South Australia; and the same may apply to the mysterious population reported by Mr. F. E. Parsons on Eyre Peninsula in the year 1937.

At present, it is impossible to estimate the size of the colony or colonies on Southern Yorke Peninsula. Perhaps, at most, there may be a few hundred individuals in the area. On the other hand, it is equally likely that distribution is by no means uniform throughout the sand dunes and that the actual number of birds may be quite low.

The chances of survival for the Western Whipbird on Yorke Peninsula are dubious. Under recent legislation by the State Government, it has been declared a "rare species," of which there are now 22 birds and 20 mammals. All these animals are totally protected at all times and severe penalties may be imposed on any person molesting them in any way; also no permits to "take" or kill these animals will be issued. However, no reference to the preservation of habitats of rare species is made in the Act and this could constitute a threat to the continued existence of many forms, including the Western Whipbird. Furthermore, increased leisure and the popularity of outdoor recreation has caused a growing number of people to visit the neighbourhood of Pondalowie Bay.

The mere presence of hordes of uncontrolled campers, holiday-makers and other "outdoor enthusiasts," including shooters, might be sufficient cause to bring about the sudden disappearance of this shy and elusive species from the locality in the very near future.

## ACKNOWLEDGMENTS

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TABLE 1

## MEASUREMENTS

Locality	Sex	culmen	wing	tail	tarsus	Collection
Pondalowie Bay, S.A. type of <i>pondalowiensis</i>	M	20	82	119	24	SAM
Manya, Victoria type of <i>leucogaster</i>	F	21	85	119	26	NMV
Pondalowie Bay	?	20	80	115 (worn)	23	— Soft parts as for type
Murray Mallee	M br.	20	85	123	26	SAM
Murray Mallee	F br.	20	83	123	26	SAM
Perth, W.A.	M	20	82	116	25	NMV
Cape Mentelle, W.A.	M	—	80	117	27	WAM
Gnowangerup, W.A.	M br.	20	84	129	26	S/W coll.
Gnowangerup, W.A.	M br.	20	84	128 (worn)	27	S/W coll.
King George's Sound, W.A.	M	20	81	117	25	AM
King George's Sound, W.A.	F	20	80	110	25	AM
King George's Sound, W.A.	F	20	78	116	26	AM
King George's Sound, W.A.	F	20	81	—	26	AM
King George's Sound, W.A.	M	20	78	110+	26	AM
King George's Sound, W.A.	F imm.	—	80	120	26	AM
W.A.	M	20	85	120	26	AM

Key: SAM=South Australian Museum; NMV=National Museum, Melbourne; AM=Australian Museum;  
S/W coll.=Serventy-Whittell coll.