Nests vary in construction: some being open and with scanty lining, others domed and partly hooded in front, the materials used being fine rootlets and soft grasses. A recent observation (January 1961) was of a fully-domed nest in a shallow depression, the entrance facing north-west, opposite to the prevailing winds; this nest incorporated the tussock of wiry grass and contained three chicks.

Three speckled eggs comprise the usual clutch. The parents adopt secretive habits when feeding young and have been observed holding food in the bill for long periods, refraining from approaching the nest site while under human observation. The food observed would probably include cut worms (*Euxoa radians*), jassids (*Austroasca alfalfae*), and lucerne leaf rollers (*Tortrix divulsana*). Bushlarks frequent legume pastures when heavy infestations of these destructive insects occur (see Hooper, G. H. S.: "Lucerne pests and their control." Dept. of Agriculture and Stock, Queensland, Division of Plant Industry Advisory Leaflet No. 507).

Breeding season

My observations suggest that after the first good summer rains, usually in late November or December, the insect populations rapidly increase. The birds then commence breeding, reaching a peak in late January and continuing, to a lesser degree, through early April, when they go into seclusion.

The heavy monsoonal rains do not appear to have any adverse effects on breeding birds, *Mirafra* (in this district at least) having a decided preference for warm humid weather.

Predators

Adult Bushlarks appear not to have many serious enemies, but fledglings at the early-flying stage are occasionally attacked by birds of prey. The Black-shouldered Kite (*Elanus notatus*) has been observed to take young birds.

Stray Feathers

Eastern Rosella nesting in a sandbank.—Recently I was much surprised to find a pair of Eastern Rosellas (*Platycercus eximius*) nesting in a hole in a sandbank in the red gum forest along the river at Mooroopna, Victoria. From past experience of the spot I know that many Rainbow-birds (*Merops ornatus*) nest there later in the year, and it would appear that the Rosellas had widened a tunnel for their own use.

This is my first record of a rosella nesting in the ground. The opening was about five inches by three inches and very

crumbly; the floor of the tunnel had been worn smooth by the tail feathers dragging along as the birds went in and out. I could not see the young but could hear the loud "squawks."—G. BEDGGOOD, Bendigo, Vic., 15/11/61.

Birds feeding on dung.—It is a well-known fact that some kinds of birds eat the excreta of their nestlings when the latter are very young. A few species of birds are known to feed on the dung of mammals at times. Drs. Rudolf Berndt and Wilhelm Meise (*Naturgeschichte der Vögel*, I, 253, 1959) state that shearwaters feed on the dung of whales and dolphins, and that the Egyptian Vulture (*Neophron percnopterus*) feeds on human excrement, thereby performing a useful service as scavenger.

Australian Ravens (*Corvus coronoides*) occasionally feed on the excreta of very young lambs and calves. During the winter of 1961, at Sutherlands, S.A., Galahs (*Kakatoë roseicapilla*) were observed breaking up pats of cattle dung to obtain partially digested whole oat grains on which the cattle had been fed.—E. F. BOEHM, Sutherlands, S.A., 16/10/61.

Notes on Kangaroo Island (S.A.) birds.—I would like to add the following notes to those species mentioned in the 1959 Camp-out list (Wheeler, *Emu*, 60: 265-280).

During a period of two months, spent partly in the Western River—Cape Borda area of Kangaroo Island while surveying in H.M.A.S. *Warrego*, I noted the following species:

Yellow-winged Honeyeater (*Meliornis novae-hollandiae* was by far the commonest honeyeater in the mallee-heath country to the west of Parndana.

The Rainbow-bird (*Merops ornatus*) was seen in mallee country near Cape Borda, although it was reported in *The Emu* (*ibid.* p. 271) as not being on Kangaroo Island.

Species also noted, but missed by the R.A.O.U. party, were: Crested Bellbird (*Oreoica gutturalis*)—noted once in mallee near Western River. Southern Emu-Wren (*Stipiturus malachurus*)—noted once in the same locale as the Crested Bellbird. Rufous Whistler (*Pachycephala rufiventris*)—heard on several occasions in bush west of Western River. Southern Skua (*Catharacta skua*)—a single bird was seen off Western River on May 8, 1961. Arctic Skua (*Stercorarius parasiticus*)—several birds were seen in the Cape Borda area during April and May. I also saw both species of skua off Adelaide during August 1958: does the Arctic Skua ever completely leave South Australian waters?

With regard to the Rock Parrot (*Neophema petrophila*), all three islands of the Althorpe Group have their own small flock. The smallest island—Seal Island—even though it is only 200 yards long and about 70 feet high, had 20 birds. On Seal Island on May 6, 1961, I saw a bird leave a rock cavity that appeared to be a perfect nesting hole.

A fisherman informed me that about 300 Cape Barren Geese (*Cereopsis novae-hollandiae*) breed on Neptune Island, south of Port Lincoln.—PHILIP BROOK, R.A.N., Sydney, 9/5/61.

The Wood-Sandpiper in Western Australia.—First collected in Western Australia near Derby in 1886,[1] the Wood Sandpiper (*Tringa glareola*) has since been reported from only 15 additional localities. These are listed hereunder in order from north to south.—Parry's Creek, near Wyndham[1]; Kimberley Research Station, 67 miles south of Wyndham[2]; Oobagooma, 48 miles north-west of Derby[1]; estuary of the Fitzroy River, near Derby[1]; Kyalina Pool, Hooley Creek, a tributary of the Fortescue River, about 100 miles south-east of Roeburne[1]; Maud's Landing, near North-West Cape[1]; Coorow[3]; Lake Mungal, south of Gingin[4]; Lake Gnangara, Wanneroo[5]; Guildford[1]; Cannington[1]; Jandakot Lake, Forrestdale[1]; Kelmscott[1]; Serpentine River, 40 miles south of Perth[1]; Coolup[1]; and Gundaring[6 7].

Additional observations on the occurrence of the species are as follows:

Mundabullangana, between Port Hedland and Roebourne. One at brackish pool near homestead on August 14, 1960 (G. M. Storr).

Harding River, near Roebourne. Occurred in one's, two's and three's along river during January 10-18, 1959. Several noted and specimen (W.A. Museum No. A8382) collected during November 1-5, 1959.

Hamelin Pool Station. Eleven at freshwater pool near homestead on January 31, 1959.

Naraling, freshwater swamps, six miles south-east. Flocks of 6, 16 and about 50 on February 3, 1959. Several noted and specimen (W.A. Museum No. A8408) collected on January 9, 1961.

Coorow, freshwater pool, eight miles south. An individual on February 4, 1959, and three birds on February 2, 1960.

Wealcutta Pool, near Ronsard (Frenchman) Bay, 12 miles south of Jurien Bay. Two birds on January 8, 1960.

Innaloo, five miles north-west of Perth. Several at freshwater swamp on March 14, 1959. The species was subsequently photographed during the same month by P. Slater.

Bibra Lake, seven miles south of Perth. One bird at a freshwater swamp near Bibra Lake on January 29, 1958.

Coolup. Six at a small swamp during February 1958.

The Wood-Sandpiper, a Palaearctic-breeding species, is apparently a regular summer visitor to Western Australia, but is relatively rare and occurs only in small numbers. It inhabits freshwater localities throughout the State.

—JULIAN FORD, Attadale, W.A., 8/7/61.

REFERENCES

1. Hindwood, K. A., and McGill, A. R., 1953. The Wood-Sandpiper in Australia. *Emu*, 53: 1-13.
2. Slater, P., 1959. Breeding periods of birds in the Kimberley Division, Western Australia. *W. Aust. Nat.* 7: 39.
3. Ford, J. R., and Teague, B. V., 1959. Observations between the Moore and Murchison Rivers, Western Australia. *Emu*, 59: 90.
4. Warham, J., 1954. Wood-Sandpipers at Lake Mungal. *W. Aust. Nat.* 4: 92.
5. Jenkins, C. F. H., 1961. Notes on some waders in South-western Australia. *W. Aust. Nat.* 7: 203.

6. Serventy, V. N., 1958. Bird notes from the Dumbleyung Camp-out, 1956. *Emu*, 58: 10.
7. Ford, J. R., 1957. The Wood-Sandpiper in South-west Australia. *Emu*, 57: 291.

Northern extension of the ranges of the Spotless and Spotted Crakes.—Hitherto the northern limit of the Spotless Crake (*Porzana tabuensis*) on the mainland of Western Australia was thought to be Yanchep (D. L. Serventy and H. M. Whittell, *Birds of Western Australia*, 1951), although it has been pointed out that suitable habitat for the species occurs further north (J. R. Ford, *The Emu*, 60: 284-5). On January 12, 1961, several Spotless Crakes, in association with Spotted Crakes (*Porzana fluminea*), were seen feeding in shallow water around the margins of Utcha Swamp, near the northern end of Hutt Lagoon, and a specimen was collected. Utcha Swamp is surrounded by river gums (*Eucalyptus camaldulensis*) and is covered with rushes (*Juncus pallidus*) and paper-barks (*Melaleuca rhaphiophylla*).

The specimen (W.A. Museum no. A8409), a male, is of similar dimensions to specimens from the more humid parts of the South-west, having the following measurements: wing 82 mm; culmen 21 mm. However, the throat and ventral parts are paler, and the back is blackish-brown rather than bronze-brown. Serventy and Whittell (*loc. cit.*) list the Spotless Crake as being larger than the Spotted but this is not supported by my field observations nor by an examination of material in the W.A. Museum.

The Spotless Crake, like many species of the family Rallidae, exhibits a strong wandering tendency, having successfully colonized many islands. This particular characteristic was brought to my attention on September 5, 1961, when two birds were found inhabiting low scrub, consisting of *Nitraria schoberi*, on North Fisherman Island. In Western Australia it has also been recorded on Eclipse Island and the Abrolhos Islands.

On August 31, 1961, while in the company of E. H. and L. Sedgwick, a specimen (W.A. Museum no. A8747) of the Spotted Crake was collected at Hutt Lagoon, near Port Gregory, thus confirming previous sight observations of the species in the district (J. R. Ford and B. V. Teague, *The Emu*, 59: 89), and a nest containing four fairly fresh eggs was found in a clump of *Juncus*. The species inhabits the dense growth of *Juncus pallidus* fringing the lagoon.

The discovery of the Spotless Crake on the mainland adjacent to the Abrolhos Islands raises an interesting aspect of fauna distribution in the South-west. It was inferred by W. B. Alexander (*Journ. Linn. Soc., London*, 1922, 34:362-7), and followed by Serventy and Whittell (*loc cit.*), that when the Abrolhos Islands were a part of the mainland, the fauna of the South-west must have been much more extensive than at present, a deterioration of the climate hav-

ing caused a contraction in the distribution areas, on the mainland, of the Painted Quail (*Turnix varia*), Brush Bronzewing (*Phaps elegans*), Spotless Crake, and the Tammar Wallaby (*Macropus eugenii*) which occur on the Abrolhos Islands and were thought not to occur on the mainland for many miles further south. The known northern limits of the first two bird-species have been considerably extended (J. R. Ford, *loc. cit.*), and it is now established that the Spotless Crake ranges further north than previously supposed. The Tammar has disappeared from many of its mainland haunts during the present century, and consequently it is possibly too late to ascertain whether this species actually inhabited the Geraldton district at the time of white settlement. At any rate, the present evidence invalidates Alexander's hypothesis.—JULIAN FORD, Attadale, W.A., 8/11/61.

A strange duet.—Every day, about 6 a.m., a strange musical competition takes place between two Blackbirds (*Turdus merula*) that sing in the vicinity of our house. Each musical phrase of the first bird is immediately repeated by the other, the first bird pausing shortly while his tune is being reproduced, and then following with the next one, which is then repeated by the other singer in the same manner.

Sometimes the other bird errs in the tune and gets the phrase wrong; this occurs with about every sixth phrase. The competition lasts about a minute or so early every morning. Has anybody else heard a similar performance?

Blackbirds are known to "steal" a tune or two from a neighbouring bird and to incorporate them in their repertoire, but such repetition of the whole song is something I have not heard before, or read about.—K. C. HALAFOFF, Upper Ferntree Gully, Vic., 3/10/61.

Seabird remains on Stradbroke Island, Qld.—On several occasions the writer has searched some six to seven miles of beach in the vicinity of Point Lookout, the north-eastern point of Stradbroke Island (lat. 27° 26′ S.; long. 153° 32′ E.). The principal area covered was five miles of the northern end of the main beach, which runs without interruption for some 22 miles south to the southern tip of the island at Jumpinpin.

Visits to the island were at irregular intervals, and were not made specifically during or after periods of stormy weather; quite a few trips provided no evidence at all of seabird mortality. Listed hereunder are the more interesting finds; specimens marked with an asterisk (*) were sent to the Queensland Museum.

31/7/59: *One Grey-mantled Albatross (*Phoebetria palpebrata*)— head and feet collected.

27/9/59: *One Grey-headed Albatross (*Diomedea chrysostoma*)—head and feet collected.

*One Grey-mantled Albatross—head and feet collected.

31/10/59: 64 Short-tailed Shearwaters (*Puffinus tenuirostris*)—all dead some two to three weeks and found on a two-and-a-half mile section of the north end of the main beach.

6/8/60: *One Yellow-nosed Albatross (*Diomedea chlororhyncha*)— head and feet collected.

14/8/61: 14 Fairy Prions (*Pachyptila turtur*), one Broad billed Prion (*P. vittata*), and one Diving-Petrel (*Pelecanoides urinatrix*). All these were in very poor condition, particularly the Fairy Prions, and the museum has probably salvaged the remains only of *vittata* and the Diving-Petrel. However, Mr. J. S. Robertson (*Emu*, vol. 62, this part) was able to present to the Queensland Museum one very good specimen of *turtur* from this "wreck."

The remains of many other species of seabirds are found on the beaches of this area, e.g. Crested Tern (*Sterna bergii*), Gannet (*Sula serrator*), Wedge-tailed Shearwater (*Puffinus pacificus*), Sooty Tern (*Sterna fuscata*), but the above list covers the unexpected ones.

It should be noted that all birds found had been dead some one to four weeks, and it was found that the best way to bring back such material for identification and museum record was to wrap it in newspaper first, then enclose it in polythene bags.

The writer wishes to thank Mr. George Mack, Director of the Queensland Museum, for confirming identifications, and for the use of the museum library and other assistance, and Mr. J. S. Robertson of East Brisbane for providing the stimulus to present these records for publication.—
M. P. HINES, Indooroopilly, Qld., 21/1/62.

The Portland White-chinned Petrel.—As related in *The Emu* (60: 103), a specimen of the White-chinned Petrel (*Procellaria aequinoctialis*) was picked up on Discovery Bay by Cliff Beauglehole on March 15, 1959. Cliff and the writer had difficulty in identifying the bird—the white chin was very indistinct—and we concluded it was a Black Petrel (*P. parkinsoni*), of which Alexander writes: "smaller than White-chinned Petrel but not easily distinguished in life." Our identification was corrected by Messrs. Allan McEvey and Arnold McGill, and the bird was sent to Dr. R. A. Falla for confirmation. Their combined conclusion was: White-chinned Petrel.

The question then arose: was Beauglehole's bird the first Australian record, apart from sight records about which doubt might be expressed? As Alexander had listed a specimen in the Gould Collection in Philadelphia with the locality "Cap. B. Esp." (thought to be Cape Esperance Bay), we

believed the Portland bird would be the second authentic specimen, and here the matter rested.

On July 20, 1960, Arnold McGill wrote to me: "I had a note from Gordon Binns to-day giving information received from Bert Deignan (Secretary of the American Ornithologists' Union) that the abbreviation used with the type locality of that specimen of *P. aequinoctialis* in the American Museum . . . 'Cap. B. Esp.', is not 'Cape Esperance Bay', but 'Cap de Bonne Esperance', which in French means 'Cape of Good Hope.'

"Now this means that, as far as anything published known to me is concerned, the specimen Cliff collected at Portland is the only Australian skin of that bird. It was a very important find."

So the White-chinned Petrel joins two other unique Australian records: the Adélie Penguin (*Emu*, 55: 100) and the Fulmar-Prion (*Emu*, 57: 57), found in recent years on Portland beaches.—NOEL F. LEARMONTH, Portland, Vic., 13/2/62.

Fairy Prion in Queensland.—From time to time Mr. Frank Drake of Point Lookout has kindly supplied me with evidence of unusual seabird "washups" on the northern end of Stradbroke Island. On July 17, 1961, while "jeeping" at low tide along the ocean beach of the islands, he saw, over a length of five miles, ten beach-washed prions. Some were already dead and the remainder nearly so. One of them was brought to me in Brisbane.

By comparing this bird's description and measurements with those in reference books I identified it as a Fairy Prion (*Pachyptila turtur*). The specimen was then delivered to the Queensland Museum for formal identification and possible conversion into a skin.

This species is listed as the only Prion that breeds in Australia; it is known to nest on Lawrence Rocks (off Portland, Vic.), on Lady Julia Percy Island, Vic., and on several Bass Strait islands in October-November. The bird's range is stated generally as between 35° and 60° south-latitude. This party therefore came to grief about 500 miles north of their usual limit. Probably more records of Prions from Queensland would be forthcoming if attention was paid there to beach watching to determine the numbers and species of seabird "wrecks".

This bird was white below from chin to under-tail coverts, including the under-wings, lores, and eyebrows. The upper surface was blue-grey generally, with forehead and crown mottled darker. From above, with the wings spread, the leading edge of the primaries and wings appeared very dark from the tips to about the carpal joint; from here this prominent dark band swept back across the wings and the tips of the long scapulars to cross the body just above the rump. The tail was grey at the base but very broadly tipped black; this broad tip is a diagnostic

feature. The tarsus was flattened laterally, and blue to blue-grey in colour.

Bill 22 mm; nasal tubes 6 mm; width at base 10 mm; interspace between tubes and dertrum short; comb lamellae on upper mandible visible only when the bill was opened. Tarsus 31 mm; toes webbed — outer toe 36 mm; middle toe 37 mm; inner toe 29 mm; hind toe 2 mm. Wing 185 mm; wing span 565 mm; width of spread wing at carpal joint 80 mm. Tail 90 mm; black terminal band 35 mm. Length overall 280 mm.

Beachcombing in this area later in the same month, a fellow member (Mr. M. P. Hines) found several interesting sea bird "wrecks". Amongst these were the heads, together with other remnants, of 14 Fairy Prions. The major part of a Broad-billed Prion (*Pachyptila vittata*), including its head and diagnostic, broad bill was also collected. This material was delivered to the Queensland Museum for record purposes. I understand that Mr. Hines will publish details of his other finds. Meanwhile he has kindly agreed to the inclusion here of reference to the Prions to round off this record.—J. S. ROBERTSON, Brisbane, Qld., 30/11/1961.

Bar-shouldered Dove and Frigate-birds in mid-coastal New South Wales.—An interesting extension of range of the Bar-shouldered Dove (*Geopelia humeralis*) has occurred in the same area (Norah Head) as that mentioned for the Beach Stone-Curlew (*Orthorhamphus magnirostris*) by Brendan Wilson (*Emu*, 61: 64). This northern New South Wales species was first observed in March 1960. I saw two or three birds on several occasions during that year, and again in January and April 1961. They can usually be found resting in the tea-tree thickets, or feeding on the sandy tracks through the bush (mostly *Banksia* and *Angophora*) south of Norah Head.

Two other unusual visitors were seen in the Budgewoi Beach area in January 1959: a male and female Lesser Frigate-bird (*Fregata ariel*) were watched for many minutes as they soared above the beach; they eventually drifted off to the north, following the waves.—D. S. STRINGFELLOW, Baulkham Hills, N.S.W., 6/6/61.

Predation by the Grey Shrike-Thrush.—Two attacks on small birds by the Grey-Shrike-Thrush (*Colluricincla harmonica*), were seen while riding through steep hills overlooking the Naas River, 22 miles south of Canberra.

The first instance occurred at 15.45 hrs on June 8, 1960, when a Shrike-Thrush was seen to attack a group of Superb Blue Wrens (*Malurus cyaneus*). It took place in a large sweetbriar bush (*Rosa* sp.), and my attention was drawn by the loud alarm calls and the fluttering commotion as all the wrens scattered; the Shrike-Thrush emerged from the bush holding a male wren in its bill.

Another incident was seen at 16.00 hrs on May 29, 1961. This time the Shrike-Thrush, which had been perched in a fallen dead tree, quickly seized a male Scarlet Robin (*Petroica multicolor*) from a foraging flock of this species, as they moved past. I intervened hoping to examine the robin, but was unable to make the Shrike-Thrush drop its prey. At my approach it flew farther away and continued to bang the corpse on a log or rock. Finally it began to tear pieces off the robin by prolonged shaking and banging.

A third instance was brought to my attention by Mr. Ian Rowley (pers. comm.), who was able to photograph an attack on a stuffed male Superb Blue Wren being used for behaviour studies at "Gungahlin", Canberra, A.C.T. This occurred during the afternoon of June 22, 1958. The Shrike-Thrush seized the dummy after thrusting upwards at it with its bill, but was unable to fly off with the "wren" as it was securely wired to a substantial branch.

It is of interest to note that all three attacks occurred during early winter (in the A.C.T.) and in each case the brightly coloured male of the species was taken. It seems from this that the Grey Shrike-Thrush may have a more varied diet than has been suspected previously. If it can catch adult wrens and robins it would have little trouble catching many other species of similar size and habits.—R. A. TILT, C.S.I.R.O., Wildlife Survey Section, Canberra, 22/9/61.

Review

Bird Doctor, by Katherine Tottenham, 1961, 160 pp., 13 black-and-white ill., Thomas Nelson & Sons, Edinburgh, A25/-.

Most ornithologists have, at one time or another, been confronted with an oiled or injured bird. The poor victim is handed in with the sublime assurance that it can be saved because "you like birds." Unfortunately, caring for sick or injured birds is not easy, but anyone who acquires *Bird Doctor* by Katherine Tottenham will have a much better chance of success.

Mrs. Tottenham describes the treatments she has used for some 40 species of English birds. Her methods would apply equally well for similar Australian species. She says quite frankly that treatment in most cases had to be by trial and error, dictated by commonsense and what she could read of their food and feeding habits.

In a book dealing with birds as individuals there is always the risk of becoming emotional and sentimental in writing about them—"twee" as the author describes it. While the birds treated by Mrs. Tottenham certainly emerge as creatures with their own individualities, the whole subject is dealt with briskly, practically, and with no false sentiment. It includes a short history of oil pollution and warns of the risk to wildlife from the increasing use of chemical pesticides.

The publisher's notes say that Mrs. Tottenham as an amateur has become well-known on radio and television for her "bird doctoring", but it does not give any indication of any specialized medical or similar training she may have had, although parts of the book suggest it. It would have been helpful to know more of her background for the work.

Bird Doctor is interesting, very readable, and gives information not readily available elsewhere.—I.M.W.

The date of publication was May 31, 1962.