

### North-East Eyre Peninsula.

An ornithological trip to the above region was made by Dr. A. M. Morgan and Messrs. J. Neil McGilp, F. E. Parsons, and J. Sutton from 6th September to 2nd October, 1925. Three of those had previously motored around Eyre Peninsula, as recorded in the "S.A. Ornithologist," Vol. VII, Part 5, January 1924.

In the 1923 trip—6th August to 1st September—we seemed to be a little early for the general nesting, so it was thought that by starting later in the year we might get the nesting at its greatest point. However, as it turned out on this occasion, we were a little late—evidently the type of season has much to do with the matter. In the previous trip we motored 1,467 miles, worked at likely-looking bird spots on the way, stayed as guests at some of the station homesteads we reached, or at hotels in towns, and camped out on five nights only. On this trip we

motored 843 miles in the 27 days, camped out for 20 nights and put up on five nights at hotels in the towns we passed through—Iron Knob, Kimba, Port Augusta (twice), and Port Germein.

This time we had to carry water with us and where possible to pitch our camp near a tank or dam, consequently inquiry had to be made from time to time as to the sources of water on each route taken. We usually carried on the motor-car two tins full of water, empty petrol tins being used for that purpose. As will be seen on reference to the map most of the country we went through was about the 10-inches-rainfall line; water was therefore precious, and that portion for personal washing was restricted to the minimum quantity.

The motor-car used was a Hudson Six, fitted with balloon tyres, and in addition long narrow boxes, familiarly termed "coffins," were fitted on to the steps on each side and just clear of the doors. In those receptacles many of the smaller articles could be packed. Our tent, sleeping apparatus, personal belongings, with the cooking utensils and food supplies in bags, were tied on to the sides or placed inside the motor-car. One innovation was highly appreciated—30 yards of wiring was carried, and on being fixed to the "spot light" of the car and taken into the top front of the tent gave a splendid light for working and writing. The routine of camp life was:—Out of bed about 6 a.m.; breakfast before 7 a.m.; all out together working the scrub until 1 p.m., then dinner; after that some of us were out again until 6 p.m., then tea. All in bed by 10 p.m.

The weather for the first week was fine and warm, with strong north-west winds, then for the remainder of the trip there was rain, mostly light showers, with strong cold south-west winds.

The roads on the Peninsula are chiefly cleared tracks with no metal upon them at all. They were good, but when greasy from the light rains tended towards causing skidding of the wheels.

The following account is based upon observations made by the four members of the party:—

We left North Adelaide at 8 a.m. on the 6th September in fine weather, and arrived at Port Augusta at 5.57 p.m.—205 miles. The route taken was through Two Wells, Port Wakefield, Port Broughton, Port Pirie, and Port Germein—the coastal route. It passes through cultivated country, cleared of timber, and most of the trees (mallee) seen are on the sides of the tracks between the road fences. As we desired to reach Port Augusta before nightfall we made but two stoppages on the way, one

for lunch and the other between Bute and Port Broughton. At the latter stop, seven miles from Port Broughton, we were surprised to find the Purple-gaped Honey-eater (*Meliphaga cratitia*).

We stayed at an hotel in Port Augusta, and in the morning, after purchasing food supplies, were ferried at 10 a.m. over Spencer's Gulf to Port Augusta West, and from there we went on the track towards Cowell, through the Lincoln Gap, Roopena, and Middleback Stations, and stopped near the Wertigo Rockholes. The country we passed through was very dry right up to the Middleback boundary. On "Roopena" the rainfall for the year was then only four and a half inches. "Middleback," on the other hand, had received good falls of rain, and it was looking very much better than in 1923.

#### Wertigo Camp, 7th to 11th September.

This camp site was the one we used in 1923, six miles from the northern boundary of "Middleback," 51 miles from Port Augusta, and was three miles north of Randell's Tank (capacity about 70,000 gallons), to which we went twice during our stay for supplies of water. We found the Wertigo Rockholes (formation of gneiss) to be one mile away from our camp, but there was no water in any of them. The distance to Spencer's Gulf in a direct line was eight miles, and the land sloped gently from our camp to the sea. The vegetation was saltbush and bluebush, with occasional patches of myall, sandalwood, and bullock-bush. At night-time we could see the lights of Port Pirie and on the jetty at Whyalla, and in the day-time the smoke from the smelters at Port Pirie. We worked the scrub and plains country during our stay, and noted 44 species of birds with 783 individuals.

#### Wertigo to Iron Knob, 11th September.

We left our camp at 8.29 a.m., and stopped at four spots on our way to the "Roopena" Woolshed (10 miles), where shearing was in progress, and we stayed there for half an hour. I noticed that in a week's tallies the highest number of sheep shorn by any one man in any one day was 193, and I timed one man who shored three sheep in  $10\frac{1}{2}$  minutes. We also watched wool being pressed into a bale and clasped up. That particular bale weighed 304 lb. As soon as we left the woolshed the rain which had been threatening commenced to fall, at first lightly, then gradually getting heavier as we went along the road which runs beside the railway line from Whyalla to Iron Knob. Shortly

after 11.30 the rain came down very heavily, and continued so until we reached Iron Knob at 12.43 p.m. Just about a mile from the township, on the saltbush-and-bluebush plain, the motor-car had a very bad skid, but fortunately after going some yards the car stopped. The country from "Roopena" to Iron Knob is undulating, with trees of myall chiefly, patches of black oak, and belts of sandalwood and good saltbush and bluebush. About two miles from Iron Knob the country becomes flat, with pinwood and stunted trees and dwarfed saltbush and bluebush. Our intention had been to have dinner at Iron Knob, and then motor down the Kimba Road and choose a spot for camp, but on account of the greasy state of the track from the rain and in view of the bad side-slip, we decided to remain overnight at the hotel at Iron Knob. Shortly after 2 p.m. the rain ceased entirely, and no further falls occurred during the day. Two of us took the opportunity to climb up the "Iron Knob," but soon left when the blasting started in the iron-ore quarry. On account of the rain, work had ceased for the day on both the Iron Knob and Iron Monarch. This ironstone ridge runs north and south, and is 6,300 feet in length. The Iron Knob is at the north end and "rose" to a height of 270 feet, whilst the Iron Monarch is at the south end, and is 624 feet above the level of the plain, which is 530 feet above sea-level. To the southward low hills continue for another mile, but in other directions the country is practically level. The Iron Knob was worked first (the "Knob" has disappeared at this date), and the ore averaged 68.5 per cent. of iron. The whole output, until 1914, was used as a flux at the lead smelters of the Broken Hill Proprietary Company's works at Port Pirie. Subsequently ore from the Iron Monarch was sent to the Company's steelworks at Newcastle, N.S.W. The ore is at present being mined in three main quarries. From 1903 to 1921 the output of ore has been 2,913,708 tons. In 1912 the ore estimates were worked out at 133,200,079 tons, practically above the level of the plain. A narrow gauge (3-ft. 6-in.) railway line runs from Iron Knob to Whyalla, a distance of 34 miles, and the ore is conveyed in 15-ton-hopper trucks. We passed one train with about 50 fully-laden trucks. The Iron Knob is 41 miles west-south-west of Port Augusta.

#### Ornata Camp, 12th to 17th September.

After obtaining supplies from the store we left Iron Knob at 7.28 a.m., and took the direct track to Kimba, which runs in a south-westerly direction, and has been cleared in recent years

through the scrub by the Government. The surface of the earth has been scraped down for a few inches, and no metalling has been used, but the track is good. Alongside this track is a telephone line with flanged iron standards about 66 yards apart and 14 feet high. Each iron standard is numbered, and this was of immense advantage in locating ourselves when we were working the scrub. Our camp was opposite standard No. 824, so that when we reached the road in any of our excursions we knew at once how far off camp we were. The only watering-places along this track for 47 miles are three Tanks—Cooyadoo at 12 miles, Polygonum at 23 miles, and Carradoo 38 miles. At each of these places there is a shed with a galvanized-iron roof 12 feet high, 50 feet long, and 21 feet wide, and underneath are four tanks, of about 2,500-gallons capacity each, the water from the roof, which is slightly v-shaped, running into the tanks. There are no habitations in these 47 miles, as far as we could see. At the 47th mile—10 miles from Kimba—farms are met with, and this particular track with telephone line continues on to the south-west, and the cross road, the first one met with, runs due westerly into Kimba.

We went down this track for 29 miles and pitched our camp opposite telephone post No. 824. We were six miles south of the Polygonum Tanks, to which we had to go twice for water supplies and once to Carradoo Tanks, nine miles further on. There were such numbers of the Yellow-plumed Honey-eaters (*Meliphaga ornata*) about here that we named our camp Ornata; over 600 of that particular species were noted hereabouts. The country was mallee scrub with patches of teatree and a fair quantity of bluebush with a little saltbush in the open spaces. In some of the undulating country there were myall and sandalwood thickly strewn with saltbush and bluebush and other shrubs.

In the morning the earliest call was at 5.40 a.m., that of the Western Yellow Robin (*Eopsaltria griseogularis*), then the Yellow-plumed Honey-eaters in such numbers that it was difficult to pick out in the din the calls of other birds. On the first night a Fan-tailed Cuckoo (*Cacomantis flabelliformis*) began to call at 10.32 p.m., and continued to do so every few seconds. It seemed as if the bird only stopped to get breath. At 4 a.m. it was still going strong, but ceased shortly after 6 a.m. It was very windy during our stay at this camp, and we had slight rain as well.

## Strepera Camp, 17th to 22nd September.

We left Ornata Camp at 9 a.m. on 17th September and arrived at Kimba at 1 p.m. (28 miles). The country through which we passed was similar to that about Ornata Camp, but at 10 miles from Kimba we came on to civilization in the shape of a schoolhouse and farms under wheat crops which looked well. Near to Kimba the road was in a muddy state, consequent on the recent rains (115 points in one week), and was cut up with the traffic caused by the construction of the new line of railway to Buckleboo (22 miles). At Kimba we replenished our food supplies and obtained particulars and a rough sketch of our new route, along the Pinkawilline Road as far as Cortlince, thence to Cunyarie Dam. At five miles from Kimba a road branched off to our right, and there was a finger-post at the corner with Pinkawilline on it. The wind was blowing a gale from the south-west, and the nameplate was evidently hanging by one nail, as it turned crossways and forward in the wind—pointing straight ahead and then along the turn-off. Fortunately we had made inquiries as to the route, and knew we should go straight ahead. Just at the south of (and above) the Cunyarie Dam a low range of hills terminates in an open expanse with a large outcrop of red granite called the Emu Rocks. In the open spaces Parakeelya (*Calandrinia*) and various grasses grow as well as stunted bullock-bush. In the holes in the rocks there was good water, and we drew upon them for supplies in preference to the mud-coloured water in the Dam. We went back a mile and a half and pitched our camp on the edge of the rising ground—13 miles north-west of Kimba—in country clothed in mallee, not very dense, with many (natural) open spaces. These spaces had good grass and other herbage. There were also belts of myall with small tracts of black oak and sandalwood, but very little teatree. We named the camp "Strepera," after the Brown Currawong, or Bell Magpie (*Strepera intermedia*), which was met with here. During our stay at Strepera we motored five miles further north-west in an endeavour to reach the Wirrigenda Dam, but as the track began to get rough and we came to a forked road, without a signpost, we stopped and worked the surrounding scrub. Here we came across the Shy Ground-Wren (*Hylacola cautá*). The earliest calls at this camp were about 5.27 a.m. from the Yellow-plumed Honey-eater (*Meliphaga ornata*) and the White-backed Magpie (*Gymnorhina hypoleuca*). We met with the Southern Scrub Robin (*Drymodas brunneopygia*) here, and their calling in the morning showed that they were fairly numerous. Two Western

Shrike-Thrushes (*Colluricincla rufiventris*) seemed to roost in thickets beside our camp, and gave us some lovely songs early in the mornings. In one of our walks in the scrub we came on an outcrop of rock with water collected in the holes. I was surprised to see a Bronzewing (*Phaps chalcoptera*) alight and walk to one of the waterholes whilst we were washing near by. As a rule I find this species very timid of mankind.

We left Strepera Camp on 22nd September, and arrived at Kimba on the same afternoon. We put up at the hotel for the night, and on the following morning, after replenishing our supplies, we set out with the intention of going to "Wartaka" by way of "Uno" and "Siam," and incidentally searching for the Night Parrot (*Geopsittacus occidentalis*) in the porcupine grass (*Triodia*) in "Siam."

White Well Camp, 23rd to 25th September.

We went as far as White Well, 13 miles north of Kimba. The land to within two miles of the Well is cut up into farms for wheatgrowing, and many good-looking crops were seen. We had been told that there was good water in a dam here, but when we reached the dam we found horses and cattle about and in it with the ooze well up to their knees, and the water smelt badly. Just then a boy of 14 came out from the scrub, where he had been searching for horses. He told us that the nearest good water would be obtained at a farmhouse two miles back, so we went there and obtained three tins of water and camped near the dam. There is a well here, called locally White Well, but shown on the maps as Pilepudla Well. It is said to be very deep and the water so salty that one farmer lost 200 sheep through using the water. This spot was a fine grassy plain surrounded by heavy and thick mallee scrub. Moseley Knobs, a short low range with three peaks, was about two miles from our camp. We worked the country thoroughly during our stay.

Rufa Camp, 25th and 26th September.

We left White Well Camp at 10 a.m. and called at the "Wilcherry" Homestead (13 miles). Here the house paddock of about 1,000 acres was covered in Everlastings (*Helichrysum*)—the great majority white-coloured, but with some yellow-coloured as well. We inquired about the track to be taken for "Siam," filled up our water-tins, and after motoring over a mile we found the track branched off into three. As we were told to take the right-hand side track of two, we chose the one on that side which appeared to be used the most. Wilcherry is now part of the "Uno" Station, and we motored on until we reached

a dam, which we later found was known as Weednanna, 18 miles from our previous camp. We pitched our camp near this dam, but did not erect our tent, as the weather was warm. On our way there we passed over nice grassy flats, then through a dense mallee scrub, through which in one part a fire had passed. We worked this place thoroughly and met with a good number of the Rufous Tree-creepers (*Climacteris rufa*).

#### Coralbignie Camp, 26th and 27th September.

We left Rufa Camp at 1.19 p.m., and after going seven miles the track ended at a dam in course of construction, and we learned that we were on the wrong road for "Siam," and if we wished to go there it meant motoring back 12 miles. We could only get to Coralbignie and Nonning by going ahead, so we decided to go on, and were shown the track to take. We reached the Coralbignie house in eight miles. The country passed through was at first mallee scrub with open grassy flats, then open country with myall, sandalwood, pinwood, and some saltbush and bluebush. We went on four miles further and pitched our camp. The tops of all the low hills near our camp were covered in porcupine grass in seed. We walked through some of it without flushing any bird at all. The sharp spines of the plant are very irritating. Near this place the Night Parrot was obtained by F. W. Andrews in 1880, but there are thousands of acres of the porcupine grass on the Gawler Ranges and its spurs round about Coralbignie and Nonning. The day was very windy, but warm, so we did not erect the tent. At 4 a.m., however, the wind changed, and with it came some rain, which lasted half an hour.

#### Windy Camp, Wartaka, 27th and 28th September.

We left Coralbignie Camp at 8 a.m., called in at Nonning Head Station to pay our respects to our hosts in 1923, Messrs. I., A., and D. McTaggart, and then motored on the road to Port Augusta for 14 miles and turned off north-easterly near the Siam Tank, where we filled up our tins with water. The type of country changed as we got north of the Gawler Ranges. We now went through large open flats carrying very good grass with saltbush and bluebush, some myall, and small patches of black oak. As the day progressed the wind became stronger and stronger, until after midday it was a gale. We reached West Wartaka Homestead (42 miles) at 2.7 p.m.; passed Wartaka Head Station (56 miles), and three miles further on pitched our camp in between four myall-trees, and to shield the tent placed

the motor-car broadside on to the south-west gale. This spot was promptly named Windy Camp, and after sunset the temperature was very cold, despite the heat from the fire. The breeze was mild in the following early morning, but gradually got stronger. We saw the Pied Honey-eater (*Certhionyx variegatus*) close to the camp. After breakfast we worked a watercourse, and left at 9.36 a.m. and motored on for 12 miles, and pitched our tent near the Myall Creek Reservoir at 12 noon.

Myall Creek Camp, 28th to 30th September.

The Myall Creek has no definite bed, but is a valley taking the drainage of the surrounding low-lands of the undulating country which carries saltbush and bluebush. This watercourse is from 200 to 500 yards wide, and is covered with rich vegetation and shrubs, and sparsely timbered with some myall, bullock-bush, and black oak trees. Here we met with Emus (*Dromaius novae-hollandiae*) and a Plain Turkey (*Eupodotis australis*) and some Kangaroos. We saw a number of Pied Honey-eaters (*Certhionyx variegatus*), and Masked Wood-Swallows (*Artamus personatus*) migrating westerly.

We left Myall Creek Camp at 8 a.m. on 30th September, and passed the Cariewerloo Woolshed (12 miles) at 10 a.m., at "smoko"-time for the shearers there, and went through Corroberra and arrived at Port Augusta West (29 miles) at 1 p.m. The tide was out, and we had to wait for the ferry, as there was a smaller car in front of us and it had to go into the water some distance before mounting the ferry. The ferryman called to us to come on, but we could see there was no room on the ferry he was using, so told him to come back for us. We watched the ferry going over, and as it could not reach the bank the motor-car had to jump off, did so, and stuck in the water. When that happened we concluded it would be safer to motor round the head of the Gulf. We motored therefore to Yorkey's Crossing, and thence into Port Augusta. This detour was very sandy, and was 18½ miles in length, and took us one and a half hours to cover.

1st October.

We left Port Augusta at 9.13 a.m. and worked one spot three miles out of Port Germein, and reached an hotel in the latter town at 4 p.m.

2nd October.

We had intended to work a few places on the way to Port Broughton and stay there overnight, but in the early morning of the 2nd there was heavy rain at Port Germein, and as we

proceeded on the road after 9 a.m. we found it very slippery, and as there was more rain we decided to go on to Adelaide, and arrived there at 6 p.m.

BIRD CALLS.—I was interested in the calls of the different species met with on Eyre Peninsula, and made the following notes thereon:—

Western Yellow Robin (No. 50).—At times in the early morning this species seemed to me to call "You did," repeated four or five times like a song. The usual call is two notes only, similar to the Southern Yellow Robin (*E. australis*).

Gilbert Whistler (No. 53).—Its usual calls are "Chook chook" (up to twelve repetitions), then "Orwhit, erwhit, erwhit, erwhit." Sometimes it gives the full song of the Rufous Whistler, which I find impossible to write in phonetics. Occasionally "Echung" is called, and it seemed to me that the Gilbert placed the emphasis on the "e," whereas the Rufous gives the call quickly, with the accent on "chung."

Western Shrike-Thrush (No. 54).—At Strepera Camp we occasionally heard during the day a short two-note whistle just like one given by a man, not loudly, to attract another's attention; in fact, members of our party were deceived by the bird's whistle. The call was at length followed up, and turned out to be given by this Thrush. The other parts of the song were uttered in such a low key that they could not be heard at a distance.

Southern Scrub-Robin (No. 60).—This species was first heard calling at Strepera Camp. Being familiar with the calls of these birds in the mallee scrub near Murray Bridge, and which are usually "P-e-e-e-e" (a whistle long drawn out) and "Chip-ip-pee," I was at first at a loss to place the early calls at Strepera, which were "Peeee" and "Bee-nec-it" (with the emphasis on "it"). Later in the morning were heard "Peeee" and "Chip-pee."

Redthroat (No. 71).—By giving the "kissing stunt"—an imitation of a young bird's call made with the lips against the back of one's hand—I managed at Wertigo to entice a Redthroat up into a shrub about 30 yards away. The bird, a male, sang beautifully, and gave its full song many times in answer to me. Part of its call could be made out as "There, there, conceited-conceited," repeated twice. The bird appeared to have a set song each time.

Singing Honey-eater (No. 92).—The earliest call at our Wertigo Camp was this Honey-eater just on 5 a.m., with its very appropriate cry, "Or, get up, get up, get up," "get up"

being repeated three times quickly, but occasionally I heard it repeated twice, and rarely four times. Their call given during the remainder of the day is altogether different from the above, and is difficult to render phonetically. This early call was not heard again until we reached Rufa Camp, where the birds called "Get up, get up." At Myall Creek some of this species roosted a few yards from our Camp, and their early calls were "Peter-bo," then "Word-deer-whit." "Get up" was not given. In the mallee scrub near Murray Bridge in one year the early calls were "Get up, get up, get up," but in the next year I heard it given very rarely.

Yellow-plumed Honey-eater (No. 94).—At Ornata the first early call was a slight bursting one like "Spill," then followed "Jerry, jo, jo." At Strepera the early calls were "Spill," then "Porfery-jerko," and also "Peter-jo." Occasionally during the morning and daytime a call of "Key-bed-oh," repeated two, three, or even six times in a sing-song fashion, was heard. In the late afternoon this song was also given, so to make sure of the songster I went out one afternoon at 5 p.m., and after following the calls for an hour I managed to catch a bird calling. It was one of this species, and the bird uttered it when flying from tree to tree. At White Well the early calls were "Spill" and then "Chid-a-top." At Rufa the calls were "Spill" and "Jerry-ko." At Coralbignie Camp the calls were "Spill" and "Bidjee, bidjee-ko." I may add that this species in the mallee scrub near Murray Bridge calls "Spill" and "Twever-jo." The calls "Jerry, jo-jo," "Porfery-jerko," "Peter-jo," "Chid-a-top," "Jerry-ko," "Bidjee, bidjee-ko," and "Twever-jo" are frequently given throughout the day when a bird makes one of those sudden aerial flights, sometimes termed "nuptial flights," and mounts up almost vertically to a fair height, singing one of these calls all the time, and then all of a sudden drops almost straight down into a tree. I quite agree with Mr. Brewster Jones's remarks on pages 149-150 of the "S.A. Ornithologist," Vol. VIII, Part 5, about the tendency to become convinced that the first word or syllable thought of is the only one to fit the call. As a case in point, I could hear no other rendering than the above "Porfery-jerko" at Strepera, but my companions said the bird called "Barney goggles." After noting the variety of the calls of this species at our different camps where the type of country and scrub were similar, and with the exception of Kimba, practically continuous, I consider a person should be very careful about dogmatizing about bird calls.

Thirty botanical specimens were taken. They were named by J. M. Black, Esq. One, *Eremophila glabra* var. *viridiflora*, obtained at Carradoo Tanks, was the second record in South Australia. It was first found at Fowler's Bay, on the West Coast, 270 miles west of the Carradoo Tanks. I have also to thank Professor Cleland for giving me the scientific names of many of the native trees mentioned later.

At Coralbignie Camp, whilst looking for nests of the Rufous Tree-creeper, Mr. McGilp found a Pigmy Opossum (*Dromicea concinna*) nine inches down in a dead stub of a mallee four and a half feet high.

With regard to the stomach contents of birds, those marked with an asterisk were kindly supplied by Arthur M. Lea, Esq., F.E.S., of the S.A. Museum.

A list of the native species observed, with particulars, is given herewith. The figures in brackets after the name represent the number of birds noted. During the trip 123 species of the native fauna, comprising 10,152 individuals, were noted, and 227 occupied nests, covering 52 of the species, were found. *Leipoa ocellata*, Mallee-Fowl.

None was seen, nor were any recent nests discovered. Seven old mounds were seen—one at Ornata Camp; one beside Telephone Post No. 691, and about 10 feet from the road between Ornata Camp and Carradoo Tanks; one between Kimba and Strepera Camp; three old mounds were seen at Strepera Camp and one five miles north-west of that Camp. One very old mound was seen at Rufa Camp.

#### 1. *Dromaius novaehollandiae*, Emu (7).

These birds were all seen at Myall Creek. When we arrived there on the afternoon of 28th September we noticed many footprints in the sand and many droppings. At 7.30 a.m., just after breakfast, on 29th September, two Emus were seen feeding off low shrubs about 150 yards from the camp and close to the reservoir. At 4.25 p.m. four Emus were seen running towards the rises north of the camp. One bird was seen one and a half miles from the camp on 30th September.

#### 2. *Coturnix pectoralis*, Stubble-Quail (62).

Thirty-five were noted at Wertigo, chiefly in the grass amongst the saltbush on the country sloping towards Spencer's Gulf; two were heard in wheat crops between Strepera and Kimba; seven in the grass amongst saltbush and bluebush on a plain in Siam; one in Wartaka; ten in the grass in the Myall Creek; seven between Port Germein and Adelaide.

3. *Turnix velox*, Little (Button) Quail (2).

One was seen at Wertigo and one in Siam.

4. *Geopelia placida*, Peaceful Dove (2).

One was flushed from the roadside seven miles east of Kimba, and the other was heard calling in Kimba.

5. *Phaps chalcoptera*, Common Bronzewing (41).

Three were noted at Wertigo, 11 at Ornata, six between Ornata and Kimba, seven at Strepera, five between Strepera and Kimba, five between Kimba and White Well, two at White Well, one at Rufa, and one between Port Augusta and Port Germein.

6. *Ocyphaps lophotes*, Crested Pigeon (33).

Two were noted at Wertigo, three in Nonning, eight in Wartaka, nine at Myall Creek, and 11 between Port Broughton and Port Augusta. Each morning at Myall Creek at about 6.30, whilst we were at breakfast, birds of this species flew past on their way to the Reservoir. The metallic ring caused by the flapping of their wings attracts attention at once. Their call, however, sounds like "Whoop."

Nest.—Myall Creek, in a mistletoe in a myall-tree (*Acacia pendula*), and 12 feet from the ground. It was built of thorn-bush twigs, followed by a layer of fine myall twigs, and lined with a few myall leaves. Diameter, approx. 8 cm.; depth, approx. 7 cm. Two eggs, fresh. A bird was flushed off the nest, and the eggs could be seen through the nest, which was bulkier than usual.

7. *Podiceps poliocephalus*, Hoary-headed Grebe (18).

Six were seen on Ucarro Dam in Nonning, seven on another dam in Nonning, and five on the Myall Creek Reservoir.

8. *Lobibyx novae-hollandiae*, Australian Spur-winged Plover (2).

These birds were seen about 70 yards from the edge of the water in Ucarro Dam in Nonning.

9. *Zonifer tricolor*, Banded (Black-breasted) Plover (28).

One was noted in Lincoln Gap Station, two at Wertigo, three near Carradoo Tanks; two near Kimba, two were about the Emu Rocks, and by their actions seemed to have had young or a nest near at hand, four at White Well, five at Rufa, one in Siam, two at Wartaka West, two in Wartaka, one at Myall Creek, and three between Adelaide and Port Augusta.

Nest.—Thirteen miles north-east of Kimba.—Near the edge of a clearing of about 10 acres in extent. A bird was noticed

running away, and the nest was found in a shallow depression in the ground amongst some horse-droppings. It was scantily lined with small pieces of dark grey lichen, a few short dried grass stems, and a few small pieces of horsedung. Diameter, 12.5 cm.; depth, 2.75 cm. Four eggs; all the narrow ends were pointed inwards in the nest; incubation 4.

10. *Charadrius ruficapillus*, Red-capped Dotterel (14).

Three were seen on Ucarro Dam, in Nonning, three were on the side of the road and near a dam at Wartaka Head Station, two on Myall Creek Reservoir, and six on the seashore at Port Germein.

A specimen, a female, was taken at Ucarro Dam. \* Stomach contents: a fairy shrimp (*Chirocephalus*) and legs and jaws of unidentified insects.

11. *Charadrius melanops*, Black-fronted Dotterel (17).

These birds were all seen near the water's edge on dams, five on Ucarro Dam in Nonning, three on another dam in Nonning, four at one in Wartaka West, one at a dam in Wartaka, and four at the Myall Creek Reservoir.

12. *Peltohyas australis*, Australian Dotterel (5).

These birds were in a small flock, and were met with close to the track in stony country and near the White Dam, Illeroo, between Myall Creek and Cariewerloo Woolshed. They flew away about 75 yards as the motor-car got near to them.

13. *Erolia ruficollis*, Red-necked (Little) Stint (3).

These birds were seen on the Myall Creek Reservoir with a Sharp-tailed Stint. They were very eagerly picking up food at the water's edge. The reservoir is about 85 yards square, and its capacity is given as 3,000,000 gallons. The bird life on this reservoir varied a good deal whilst we were camped near. At 4 p.m. on 28th September there were four Black-fronted Dotterels about the water's edge; three of them were young birds. At 5.50 a.m. on 29th there were two Hoary-headed Grebes and three Black-fronted Dotterels. At 2.32 p.m. one Sharp-tailed Stint and three Little Stints only were there. Black-fronted Dotterels were calling that night at 8.21 p.m., 8.44 p.m., and 8.55 p.m. At 6 a.m. on 30th September five Hoary-headed Grebes, one Sharp-tailed Stint, two Little Stints, two Black-fronted Dotterels, and two Red-capped Dotterels were there, but at 8.8 a.m. the only birds were five Hoary-headed Grebes and three Black-fronted Dotterels. A flock of sheep were at the reservoir at the later time, and probably they had frightened away the other birds seen at 6 a.m.

14. *Erolia acuminata*, Sharp-tailed Stint (1).

It was on the Myall Creek Reservoir, in company with the previous species.

15. *Burhinus magnirostris*, Southern Stone-Curlew (3).

At 8.40 p.m. and again at 9 p.m. two Stone-Curlews were heard calling at White Well. Another bird was heard at 3.51 a.m. at Rufa Camp. There was open plain country near each of those camps.

16. *Eupodotis australis*, Australian Bustard (Plain Turkey) (1).

This bird was seen about Myall Creek for two days. On one occasion it came out from the scrub in the creek, walked leisurely for some yards, and then flew over the low rise in the saltbush-and-bluebush country.

17. *Anas superciliosa*, Black Duck (4).

One was seen on a dam in Roopena and three on Ucarro Dam in Nonning.

18. *Querquedula gibberifrons*, Grey Teal (7).

These birds were seen on Ucarro Dam in Nonning.

19. *Astur fasciatus*, Australian Goshawk (7).

One was seen at Carradoo Tanks, three at Strepera Camp, two at White Well, and one in Nonning.

Nest.—At White Well, in a mallee 30 feet from the ground. It was composed of coarse sticks, apparently built by the birds themselves, with a very thick lining of green mallee and sandalwood leaves, nest 13 inches in diameter, and with a flat top. Two eggs, fresh. Bird seen leaving the nest.

20. *Accipiter cirrocephalus*, Collared Sparrowhawk (2).

One was seen near a dam in Roopena, where we lunched on our way to Wertigo Camp, and the other at Ornata Camp.

A specimen, a female, was taken at Ornata. \*Stomach contents—In the crop, body parts and leg of a small bird (probably *M. ornata*); in the stomach, bits of a nestling bird, and a nematode worm three inches in length (evidently a stomach parasite).

21. *Uroaetus audax*, Wedge-tailed Eagle (14).

Two were seen at Wertigo, two at Strepera, one on the way to Kimba from Strepera, two in Nonning, one near Wartaka Head Station (this bird, with two Crows, was feeding off a dead sheep near the road), six at Myall Creek (two of those were sitting on top of a cassia-bush, in flower, about seven feet high, in a saltbush-and-bluebush plain).

No nests of the current season were seen. Three old ones were found—one at Wertigo, one 10 miles south-west of Iron Knob, and one at Strepera. The one at Wertigo was built of large sticks in a fork in a sandalwood-tree (*Myoporum* sp.), 25 feet from the ground. On the ground beneath the nest there was a mass of sticks, some of large size, evidently dropped by the birds when building. This mass was six feet long, four feet wide, and two feet deep. Bleached bones of rabbits were also lying about underneath.

22. *Hieraetus morphnoides*, Australian Little Eagle (2).

One in Wertigo was flushed from a nest 40 feet from the ground in a sandalwood-tree. This nest was situated 150 feet away from the nest found in 1923. The other bird was on a nest near Rufa Camp. That nest was 30 feet from the ground in a mallee and built on a rather thin branch. The mass of sticks comprising the nest was two and a half feet wide and two feet deep, and the lining was mallee leaves. One egg, incubation 9. The bird would not move on our shouting loudly, but did so when the tree was struck with a tomahawk.

23. *Haliaeetus sphenurus*, Whistling Eagle (8).

Two were seen between Port Augusta and Wertigo, one in Wilcherry, three between Myall Creek and Port Augusta, and two near Redhill. Not once did we hear this species calling.

Nests.—In Lincoln Gap Station a nest was 15 feet from the ground in a mallee, and ready for eggs. On the western side of that nest a Yellow-tailed Thornbill's (*Acanthiza chrysorrhoa*) nest was attached, but no eggs were in it. In Wilcherry, a nest consisting of a flat platform of sticks two feet wide and one and a half feet deep was in a fork of a mallee, 25 feet from the ground. It was lined with green mallee leaves. Two eggs, fresh. One of the eggs was in the outer sticks of the nest and quite cold. The bird was flushed from the nest.

24. *Falco berigora*, Brown Hawk (25).

Five were seen between Port Augusta and Wertigo (three of the dark form and two of the light form), one at Wertigo. This bird flew over our camp at 6.47 a.m., calling out and carrying a lizard about nine inches long in its claws. The lizard's tail could be seen hanging down. Two on the way to Ornata, two (dark form) at Ornata, five (dark form) at Strepera, one (dark form) at White Well, one (dark form) at Rufa, two (dark form) in Wartaka, three (dark form) at Myall Creek, one near Port Augusta, and two (one dark, one light form) between Port Augusta and Port Germein.

Nests.—At Ornata—Twenty-five feet from the ground, in a mallee, ready for eggs. At Strepera—Twenty-two feet from the ground, in a mallee, made of rough sticks and lined with dry mallee leaves. It looked like an old nest repaired, and was roughly 42 cm. in diameter. Three eggs, incubation .8. Bird flushed off nest. At Myall Creek—Twenty-five feet from the ground, in a black oak (*Casuarina lepidophloia*). Three young in the nest. The young were all covered in grey down. Iris, light horn; legs and feet, white, with a light bluish-grey tinge; bill, white; inside mouth flesh colour. A parent, a very dark form, flew near on the young being made to call, and the bird hovered at times.

25. *Falco cenchroides*, Nankeen Kestrel (41).

Four were seen at Wertigo, one at Ornata, two in Nonning, two in Siam, one in Wartaka West, two at Myall Creek, one near Port Augusta, and 28 between Adelaide and Port Augusta. It is noteworthy that the numbers of this species increase in the settled areas, where it is invaluable in the destruction of mice.

26. *Ninox boobook*, Boobook Owl (4).

One was seen near Polygonum Tanks, one was calling at 8.41 p.m. on 18th September at Strepera, one was calling at 8.30 p.m. and again at 8.40 p.m. on 24th September at White Well, and one was seen near White Well.

Nest.—At White Well, in a hollow, the entrance 15 inches in diameter, 25 feet from the ground in a live mallee. The nest was two feet down in the hollow, and the eggs rested on the rotted wood. On 23rd September, when the nest was found by the bird flushing, when the tree was tapped there was one egg in it, but on 25th there were two eggs, fresh.

A specimen, a female, was taken near the Polygonum Tanks. Stomach contents: remains of beetles.

27. *Glössopsitta porphyrocephala*, Purple-crowned Lorikeet (666).

Twenty-three were noted between Iron Knob and Ornata, 205 at Ornata, 177 at Strepera, nine on the way to Kimba, one at Kimba, four in Wilcherry, 35 at White Well, 158 at Rufa, 12 on the way to Coralbignie, 40 at Coralbignie, and two between Adelaide and Port Augusta.

Nests.—All were in hollows in live mallee-trees. Ornata—Six and a half feet from the ground and about 20 feet from our camp. The young in the hollow were calling like a wheezing "Tttee" as soon as darkness came on, and no matter at what time one went to the tree at night the wheezing

call was still being given, and was heard up to 6 a.m. After and during daylight not a sound came from the young birds in the nest. The two parents were seen to leave the hollow at 6.12 a.m. Ornata—Eight feet from the ground. Young were heard to call on the tree being tapped. A parent bird was seen to go in, but would not come out again, although the tree was knocked several times near to the entrance of the hollow. Ornata—Nine feet from the ground, three eggs, one broken. Ornata—Five feet from the ground, three eggs (incubation .3) and an old shell of an egg of a Parrot, probably a Budgerygah (*Melopsittacus undulatus*). The nest was 28 inches from the mouth of the hollow, and the bird's head was seen at the mouth. Strepera—Twelve feet from the ground. Four eggs. Two were chipping, so the whole lot were replaced in the hollow and the cuts-away were refixed with pieces of bark. Strepera—Ten feet from the ground. Three young. Strepera—Six feet from the ground. Three eggs. Nest eight inches down. Rufa—Eight feet from the ground. One egg. Nest five feet down. Rufa—Sixteen feet from the ground. Three eggs. Nest three and a half feet down. Incubation .2. Eggs were laid on wood dust. Rufa—Two birds were seen to come out of a hollow in a live mallee 14 feet from the ground, but it was not examined.

28. *Kakatoe leadbeateri*, Pink Cockatoo, Major Mitchell (35).

Sixteen were seen at Strepera Camp, chiefly on the open grassy spaces about the Emu Rockholes. Five were seen at White Well, nine in Wilcherry, two at Rufa, and three near Coralbignie Camp.

29. *Kakatoe roseicapilla*, Galah, Rose-breasted Cockatoo (87).

Seventeen were seen between Port Augusta and Wertigo, 12 at Strepera on the open grassy spaces about the Emu Rockholes, nine in Wilcherry, two at Rufa, four near Coralbignie Camp, 16 in Nonning, six in Siam, 21 between Port Broughton and Port Augusta.

30. *Barnardius zonarius*, Port Lincoln Parrot (126).

Two near Carradoo Tanks, 11 at Ornata, 12 on the sides of the roads near Kimba, five in Kimba (these birds were feeding on grain beside the trucks at the wheatsheds at the railway station), five near Cortlinye, 47 at Strepera, 19 at White Well, 12 in Wilcherry, five at Rufa, eight near Coralbignie.

Nests.—All were in hollows in live mallee-trees. Strepera—Twenty feet from the ground. The nest was three feet down the hollow. Five eggs, two of which were chipping, so the whole

lot were replaced and the hole which had been cut was closed up with a piece of bark. Strepera—Twenty-five feet from the ground. Young ones were seen in the nest. White Well—Fifteen feet from the ground. The nest was two feet down in the hollow, and in it were at least three young. Rufa—Twelve feet from the ground. Bird flushed from the hollow and young ones were heard to call on tapping the tree.

A specimen, a female, was taken at Ornata, and another, a male, at White Well.

31. *Psephotus haematogaster*, Blue-Bonnet (10).

Two were seen near Iron Knob, five at Ornata, three between Port Germein and Port Augusta.

32. *Psephotus varius*, Mulga-Parrot (50).

Two were seen between Port Augusta and Wertigo, two at Wertigo, one near Polygonum Tanks, nine at Strepera, seven near Kimba, two at Kimba in the company of the Port Lincoln Parrots and feeding on grain beside the trucks at the wheatsheds at the railway station, four at White Well, one in Wilcherry, 15 near Coralbignie, five in Nonning, two between Port Germein and Port Augusta.

Nest.—At Coralbignie—In a hollow in a live mallee, eight feet from the ground, and two feet down the hollow. Two young were seen in the nest.

A specimen, a male, non-breeding, was taken at Ornata.

33. *Neophema chrysostoma*, Blue-winged Parrot (1).

This bird was seen at Myall Creek. It flushed from the ground near a bullock-bush (*Heterodendron oleaefolium*), and flew about 50 yards and alighted on a dead tree. Its tail showed a largish yellow tip. On being secured it was found to be a male, non-breeding, in a heavy moult, the two central tail feathers being wanting, and thus accounting for the yellow on the tail.

34. *Melopsittacus undulatus*, Budgerygah, Shell-Parrot (134).

Six were met with six miles north of Kimba, on the way to White Well, five at White Well, four near Rufa, 34 in Wilcherry, six at Coralbignie, 47 in Nonning, five near Wartaka West, 21 at Myall Creek, and six between Port Germein and Port Augusta.

Nest.—In Nonning—At three miles from our Coralbignie Camp we came upon Budgerygahs making a great noise, examining and flying out of hollows in mallee-trees. One nest was 12 feet from the ground and two and a half feet down the

hollow, and was being got ready for laying. The bird flushed out of the hollow on the tree being tapped.

35. *Podargus strigoides*, Tawny Frogmouth (3).

Two at Strepera. They were flushed from a bush about two feet high. One was seen six miles north of Kimba in mallee scrub. It was secured and was a female. Stomach contents: remains of beetles.

36. *Ægotheles cristata*, Owllet-Nightjar (4).

One was seen at Ornata, and flew out from a dead spout nine feet from the ground in a live mallee-tree when the spout was tapped. Three were seen at Strepera. One bird was in a dead spout of a broken limb of an overhanging mallee, and about four feet from the ground. The bird was eight inches down in the spout, and flushed out on the spout being tapped. There was no nest. The bird flew away and into a tree some distance away. Another bird was flushed from a hollow in a mallee. We were watching a Rufous Tree-creeper (*Climacteris rufa*). It flew to a hollow in a live mallee eight feet from the ground and sat on the rim of the entrance. It appeared to make several attempts to enter the hollow, but finally flew away. When the tree was climbed an Owllet-Nightjar was down the hollow. It made no attempt to fly out, as the outside was being chopped; in fact, when the hollow was cut through the bird stuck on the nest even when handled and one of its wings showed through the opening; finally the bird flew off and went into a dead spout in a tree about 100 yards away, and although that spout was struck about six times the bird neither flew out nor looked out of the spout. The nest in the first tree was 18 inches down from the entrance, and was composed of dry leaves. Two eggs, one infertile and one incubation. An old egg of last year's clutch was amongst the leaves at a depth of half an inch.

37. *Halcyon pyrrhopygius*, Red-backed Kingfisher (3).

One was seen on a telephone wire beside the railway line from Whyalla to Iron Knob and 16 miles from the latter town. The second was seen and heard calling "Chow" several times at the top of a dead mallee in the grassy flat near our camp at White Well. The third was heard calling near our camp at Rufa.

38. *Cuculus pallidus*, Pallid Cuckoo (13).

Two were noted at Wertigo, one near Carradoo Tanks, one near Cortlinye, six at Strepera, one at White Well, one at Rufa,

and one between Port Germein and Port Augusta on 6th September.

39. *Cacomantis flabelliformis*, Fan-tailed Cuckoo (9).

One was noted on the way to Ornata, six at Ornata (one is referred to in the narrative). One was near White Well, and one at Rufa.

40. *Owenavis osculans*, Black-eared Cuckoo (2).

One was seen and heard at Wertigo, and the other was heard at Windy Camp, Wartaka. On each occasion the wind was very strong, and the only part of the call picked up was "Fee-er." I did not hear the concluding sharp squeaks, if they were uttered. Sometimes the Cuckoo does not give them. (See also No. 71.)

41. *Chalcites basalis*, Narrow-billed Bronze Cuckoo (25).

Nine were noted at Wertigo, one at Iron Knob, one near Cooyerdoo Tanks, one at Ornata, four at Strepera, one near Cortlince, one near Kimba, one at Kimba, two near Wilcherry, one at Windy Camp, and two at Myall Creek, and one between Adelaide and Port Augusta. (See also No. 77.)

A specimen, a young bird, was taken at Wertigo. Stomach contents: several caterpillars and one small grasshopper.

42. *Hirundo neoxena*, Welcome Swallow (111).

Three were seen between Port Augusta and Wertigo, ten at Wertigo, eight at Randell's Tank, two in Roopena, two at Iron Knob, two at Kimba, two at White Well, one at Rufa, one at Ucarro Dam, Nonning, four in Nonning, one at Myall Creek, two near the Cariewerloo Woolshed, and 73 between Adelaide and Port Augusta.

Nest.—A bird was seen on a nest built inside the underground tank—Randell's Tank—and near to the man-hole through which water could be obtained.

43. *Cheramœca leucosternum*, White-headed Swallow (28).

Six were seen in Lincoln Gap Station, seven at Wertigo, two in Nonning, one in Siam, five in Wartaka, four at Carrawillia Creek, two near Port Augusta West, and one at the Rocky River between Port Germein and Adelaide.

Nests.—In Lincoln Gap in a bank of a creek a burrow which was just begun was found. In 1923 we found the burrows of this species in the bank of the same creek. At Carrawillia Creek, near Cariewerloo Woolshed a burrow was found in the bank of a small branch creek running into the main.

channel. The bank was four feet high and the entrance to the burrow was nine inches from the surface. The burrow was two feet in depth. The nest was built externally of grass and internally with wattle-leaves. It was too loosely constructed to remain entire for measurement. Five eggs, incubation .5.

44. *Hylochelidon ariel*, Fairy Martin (5).

Two were seen near Coralbignie, two at Ucarro Dam, Nonning, and one between Port Germein and Adelaide.

45. *Rhipidura leucophrys*, Willie-Wagtail (160).

This species was not met with on two of our journeys—Ornata—to Kimbā—to Strepera, and Myall Creek to Port Augusta. Fifty birds were noted on Eyre Peninsula and 110 between Adelaide and Port Augusta. This species is more frequently found in the settled parts.

46. *Seisura inquieta*, Restless Flycatcher (15).

One was seen at Polygonum Tanks, four at Ornata, one near Kimba, three at Strepera, five at White Well, and one in Nonning.

47. *Microœca fascinans (assimilis)*, Jacky Winter (84).

Two were seen at Cooyerdoo Tanks, 25 at Ornata, six at Carradoo Tanks, 25 at Strepera, one at Kimba, two near Kimba, four at White Well, three in Wilcherry, two at Rufa, three at Coralbignie, and 11 between Adelaide and Port Augusta.

Nests.—Carradoo Tanks—In a horizontal fork of a dead burnt mallee, five feet from the ground and built of cobwebs, grass, and tiny pieces of bark. One egg in the nest on 16th September, two eggs on 17th, fresh. Diameter of nest, 5 x 5 cm.; depth, 3 cm.; diameter over all, 6 cm. Carradoo Tanks—Nest on a horizontal fork of a dead burnt mallee, four feet from the ground. Two eggs, incubation .6. Bird was seen near nest. Strepera—Nest in a horizontal fork of a dead wattle-bush, three and a half feet from the ground. Two eggs, fresh. Strepera—Nest in a horizontal fork of a dead limb of a mallee, six feet from the ground. Two eggs, fresh. North of Kimba (six miles)—Nest in a dead mallee, four feet from the ground; foundation of nest just laid across a fork. A bird was seen building the nest. (N.B.—The edges of the completed nests were not decorated with small pieces of bark as is done by *Microœca fascinans*.)

Two specimens were taken at Ornata, a male and a male breeding. \* Stomach contents of latter: crammed with fragments of sugar-ants (*Campanotus*).

48. *Petroica goodenovii*, Red-capped Robin (93).

Eight were noted between Port Augusta and Wertigo, 24 at Wertigo, eight in Roopena, one at Iron Knob, four near Cooyerdoo Tanks, one near Polygonum Tanks, one at Ornata, one near Cortlinye, 16 at Strepera, two near Kimba, seven at White Well, one at Rufa, three in Wilcherry, two at Coralbignie, seven at Windy Camp, Wartaka, one at Myall Creek, and six between Port Augusta and Bute.

Nests.—Wertigo—Nest being built in a myall and three feet from the ground. Roopena—In a myall, 10 feet from the ground, lined with rabbits' fur. Two eggs. The female was flushed from the nest. Ten miles south-west of Iron Knob—In a thick upright fork of a black oak and nine feet from the ground. Two eggs. White Well—In a black oak, four and a half feet from the ground. Two eggs. Port Germein—In a mallee, fifteen feet from the ground and lined with feathers. Three eggs.

49. *Melanodryas cucullata*, Hooded Robin (32).

Five were seen between Port Augusta and Wertigo, nine at Wertigo, one in Roopena, two at Iron Knob, one in Nomning, three at Windy Camp, Wartaka, two in Wartaka, nine at Myall Creek.

Nests.—Myall Creek—In a cherry-bush (*Exocarpus* sp.) five feet from the ground and in a horizontal fork, built of fine dried grasses and lined with fine rootlets and sheep's wool. Around the edges of the nest were plastered some oblong pieces of bark bound on with cobwebs. In the lining was a small feather of an Emu. Both birds flew from the tree, and the female did the "wounded bird" trick. Two eggs, incubation .1. Myall Creek—Nest on a horizontal branch of a cut-down dead myall and three feet from the ground. One egg. The male came and fed the female on a branch to which the female flew from the nest.

50. *Eopsaltria griseogularis*, Western Yellow Robin (104).

First met with at Ornata, where 54 were seen, 18 at Strepera, five near Cortlinye, three near Kimba, 12 at White Well, and 12 at Rufa.

Nests.—Ornata—In a fork formed by several branches of a mallee, three feet from the ground, built of strips of bark worked horizontally around the nest and outwardly decorated with thin pieces of dead wood perpendicularly suspended with cobwebs in the spaces between the branches forming the fork—the weather side of the pieces of wood was placed outwardly, lined

with dry mallee leaves. Diameter inside,  $2\frac{1}{4}$  in.; diameter over all at rim,  $2\frac{1}{2}$  in.; depth, outside 2 in., inside  $1\frac{1}{4}$  in. Two eggs, one infertile and the other incubation .6. The bird was seen at the nest. After removal of the nest the bird came back and shuffled about with its body in the place where the nest had been. Ornata—In a small fork in a low tree. Two eggs, incubation .1. Ornata—In a mallee, three feet from the ground, ready for eggs. Ornata—In a quandong (*Fusanus acuminatus*), four feet from the ground. Two eggs, one light-green colour, the other olive-green; incubation .9. Ornata—In a mallee, four feet from the ground. Two eggs, fresh. Perpendicular decorations, wood. Ornata—In a mallee, 18 inches from the ground; nest being built. Decorations, coarse bark. Ornata—In a teatree (*Melaleuca*), three feet from the ground. Two eggs, fresh. Decorations, bark and sticks. Ornata—In a bluebush (*Kochia*), two feet from the ground. One young one. Decorations, bark. Ornata—In a mallee sapling, three and a half feet from the ground. Two eggs, fresh. Decorations, strips of wood and bark and two pieces of bone. Length of decorations on longest side of nest, six inches. Ornata—In a mallee two and a half feet from the ground. Two eggs, fresh. Ornata—In a dead cassia three feet from the ground. Two young about five days old. Decorations, bark and wood. Ornata—In a mallee seven feet from the ground. Two young. Ornata—In a bluebush two feet from the ground. Two eggs, fresh. Decorations, bark and wood, chiefly the latter, and some of the pieces were seven inches in length. Near Carradoo Tanks—In a mallee, six feet from the ground. In course of construction. Ornata—In a mallee three feet from the ground. Two young. Decorations, wood. Strepera—In a mallee, four and a half feet from the ground. Two young, half-fledged. Decorations, bark and wood. Strepera—In a mallee, eight feet from the ground. Two very young birds. Both parents were seen feeding the young. Strepera—In a mallee, three feet from the ground. Two eggs. Decorations, bark and wood. Bird flushed off the nest. White Well—In a mallee, four feet from the ground. Two young. Decorations, all fine strips of wood. One parent did the "wounded bird" trick. White Well—In an acacia, three feet from the ground. Three eggs, bluish-coloured; addled. Decorations, all of wood. Rufa—Nest being built in a mallee and six feet from the ground. Rufa—In a mallee, nine feet from the ground. Two young. Decorations, all of wood.

A specimen, a female, was taken at Ornata. Stomach contents: one centipede and some remains of beetles. A male

was taken at Strepera. \*Stomach contents: bits of clerid beetle (*Aulicus episcopalis*), bits of ants (*Ectatomma* and *Campanotus*), and many minute fragments of insects.

51. *Pachycephala pectoralis*, Golden Whistler (13).

Seven were seen at Strepera, four near Cortliney, and two near Kimba (6 miles north) on the way to White Well. One of the settlers near Strepera Camp mentioned to Mr. McGilp that a new bird had arrived in the district during the previous six months. The description tallied with that of a Golden Whistler.

A specimen, a male, breeding, was taken at Strepera Camp. Stomach contents: a caterpillar and the remains of small beetles.

52. *Pachycephala rufiventris*, Rufous Whistler (5).

One was noted near the Cooyerdoo Tanks and four between Adelaide and Port Augusta.

53. *Pachycephala inornata*, Gilbert Whistler (164).

This species is the common Whistler on Eyre Peninsula. Its calls, "Orwhit, erwhit," are heard continually. They were met with at each camp except that at Myall Creek, and on each journey except between Myall Creek and Port Augusta. At Ornata we noted 29 individuals and at Strepera 77.

Nests.—Wertigo—Nest built on top of an old nest of the White-browed Babbler (*Pomatostomus superciliosus*), in a bullock-bush, 7 feet from the ground, lined with rabbits' fur and flower down. Some green pinbush (*Acacia*) spines were twisted into the material of the nest (short sticks). Ready for eggs. Ornata—Built on top of an old nest of a White-browed Babbler in a cherry-bush, and four feet from the ground. Bird was seen at the nest. Carradoo Tanks—Being built on top of an old nest of a White-browed Babbler in a *geijera linearifolia*, and six feet from the ground. Not quite completed. Strepera—Built on top of an old nest of a White-browed Babbler in a cherry-bush, and five feet from the ground. Two eggs, incubation .1. A male bird came to the tree whilst we were standing there. Strepera—Built on top of an old nest of a White-browed Babbler in a cherry-bush, and nine feet from the ground. Ready for eggs. Strepera—Constructed by the Whistler, in a fork in the centre of a *geijera*-bush three and a half feet from the ground, externally composed of thorn-like twigs, inner wall purely of shreds of bark, lined with ground-up bark and rootlets. Diameter over all, 5 in.; depth, 4 in.; diameter of inner cavity, 2¾ in.; depth of same, 2½ in. Bird flew from nest, but as there was a doubt about the identity of the bird and

the nest we waited for a bird to return, which turned out to be a male Gilbert Whistler with a very rusty-red throat. Two eggs, incubation .2. Strepera—Their own construction, in a geijera-bush, and three feet from the ground. Ready for eggs. Both birds flew from the bush. Strepera—Their own construction, in a teatree and ten feet from the ground. Two eggs. The male bird was seen first, then the female flushed from the nest. Strepera—Built on top of an old nest of a White-browed Babbler in a geijera-bush and three feet from the ground. Two eggs, incubation .8. The female bird was on the nest. White Well—Their own construction, in a cherry-bush and five feet from the ground. Two eggs. Bird flushed from the nest. White Well—Built on top of an old nest of a White-browed Babbler in a cherry-bush and four and a half feet from the ground. Three eggs, fresh. The female bird flushed from the nest.

A specimen, a female, was taken at Ornata. A male was taken at Ornata. Stomach contents: one caterpillar, beetles, and ants. A female was taken at Strepera. Stomach contents: small fruit seeds. A female was taken at White Well. \* Stomach contents: one large caterpillar and two small ones, egg of large insect, numerous seeds of *Exocarpus aphylla* with pulp of berries.

54. *Colluricincla rufiventris*, Western Shrike-Thrush (201).

This species was met with at every camp but Myall Creek and on all journeys except that from Wertigo to Iron Knob and Myall Creek to Port Augusta. Forty-five were noted at Ornata, 64 at Strepera, and 20 at White Well.

Nests.—Nineteen miles south-west of Iron Knob—Four feet from the ground, in the mouth of a hollow stump in a mallee. Ready for eggs. Ornata—Seven feet from the ground and four inches down from the mouth of a broken spout of a mallee. Two eggs, incubation .6. The bird was seen about the nest. Ornata—Four feet from the ground and four inches down from the mouth of a dead spout of a mallee. Ready for eggs. Strepera—Nine feet from the ground and six inches down from the mouth of a hollow in a dead mallee. Three eggs, incubation .1. Bird flushed from tree. Strepera—In a dry hollow in a live mallee. Two young and one addled egg. The bird came and fed the young whilst chopping was being done at another hollow in the tree. Nonning—Four and a half feet from the ground in a hollow in a mallee which had been chopped out some years previously and four inches down from the bottom of the cut opening. Three eggs, fresh. Bird flushed from the nest.

A specimen, a female, non-breeding, was taken at Ornata. Stomach contents: caterpillars and beetles.

55. *Grallina cyanoleuca*, Magpie-Lark (5).

One bird was met with on Eyre Peninsula, close to a dam on a settler's farm three miles from White Well. Four were seen between Adelaide and Port Augusta.

56. *Oreoica gutturalis*, Crested Bell-Bird (66).

This species was noted at all our camps and journeys as well, excepting Ornata to Kimba to Strepera, Strepera to Kimba, and Myall Creek to Port Augusta.

Nest—One was found at Strepera Camp. It was seven feet from the ground in a cherry-bush and built on an old nest of a White-browed Babbler, and composed entirely of bark. The base of the nest was resting in the cavity of the older nest. One young bird in the nest. There were no caterpillars about this nest. The female bird came to the next tree.

A specimen, a male juv., was taken at Carradoo Tanks. Stomach contents: chiefly grass seeds, but there were also some insect remains.

57. *Coracina novae-hollandiae*, Black-faced Cuckoo-Shrike (46).

One was seen between Port Augusta and Wertigo, three at Wertigo, two in Roopena, one at Cooyerdoo Tanks, 12 at Ornata, three near Kimba, ten at Strepera, four between Strepera and Kimba, three at White Well, three at Rufa, three near Coralbignie, and one between Adelaide and Port Augusta. No nests of this species were found, although at Ornata and Strepera the birds were thought to be nesting.

58. *Lalage tricolor*, White-winged Triller (Caterpillar-eater) (12).

Three (two males) were seen at Wertigo, and a female and two immature males were seen in Roopena, three, all males, at Myall Creek; and three, all males, near Port Germein.

A specimen, a female, was taken at Wertigo. Stomach contents: seeds of a small yellow fruit, one caterpillar, and remains of insects. A male was taken at Myall Creek, in mistake for a Pied Honey-eater. \* Stomach contents: crammed with pulp and flat seeds of *Enchylaena tomentosa* and the ovoid fruits of *Exocarpus aphylla*.

59. *Cinclosoma castanotum*, Chestnut-backed Quail-Thrush (37).

Two were seen in open country with low patchy scrub immediately opposite the Polygonum Tanks, 14 at Ornata, 17 at Strepera, three at White Well, and one in mallee scrub three miles north of Wilcherry homestead.

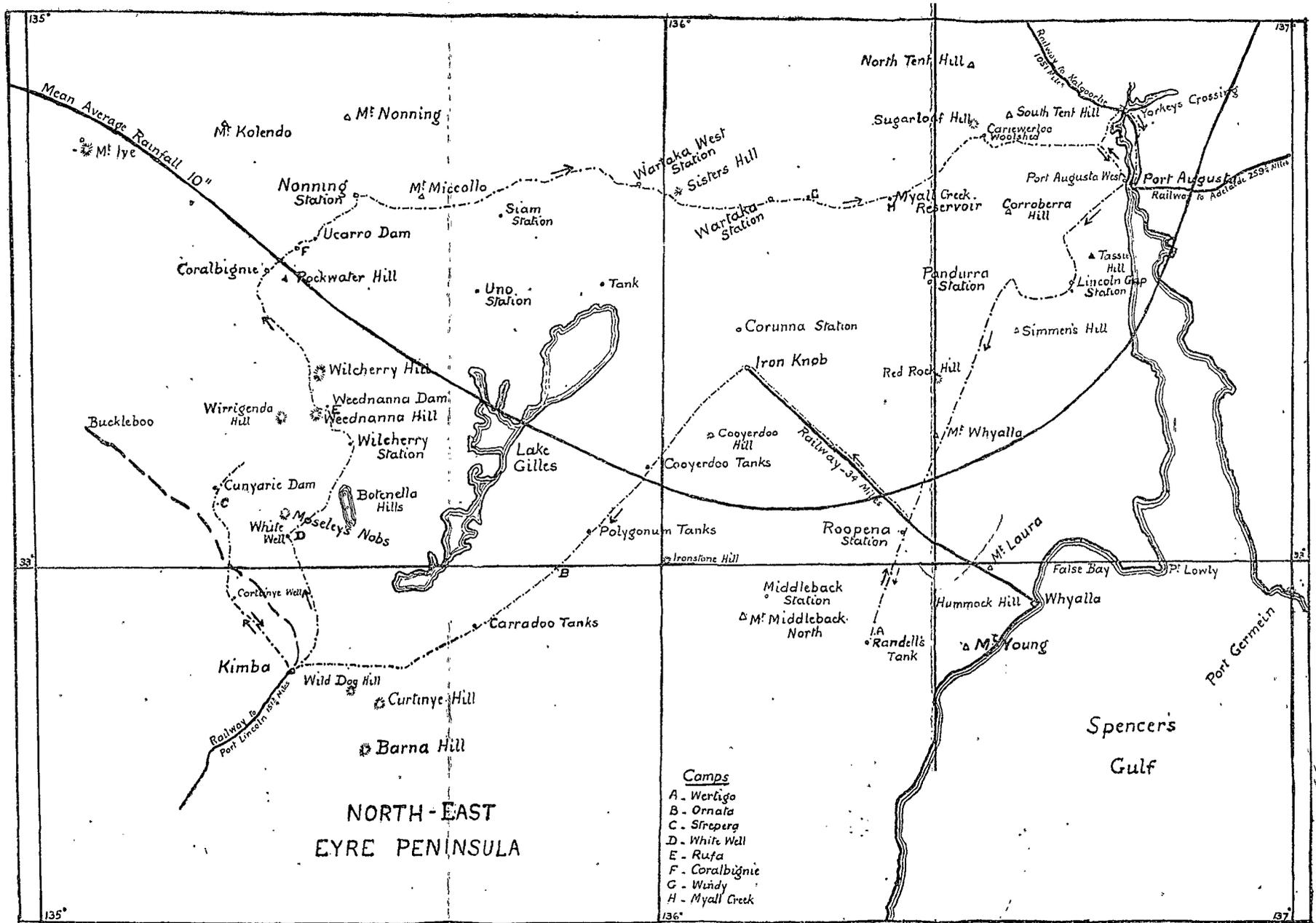
Nests—Ornata—In a depression in the ground apparently made by the bird on the eastern side of a straggling and skimpy bush (*Chenopodium nitriaricum*) about one foot in height. Nest partly covered by the bush and composed entirely of bark and cup-shaped. Diameter, 9 cm.; depth, 5 cm. Two eggs, fresh. Male bird flushed from the nest. Strepera—Nest at the foot of a small overhanging mallee and made of bark. Two fully-fledged young. As we approached, the female bird was noticed, and we all watched her walking away leisurely and then feeding at about 20 yards' distance. Mr. McGilp found the nest a few feet from where we were standing. A young one was taken out of the nest for examination and squeaked; in an instant the mother flew back with breast distended, tail spread and erect, the feathers of the back ruffled up, wings spread out and the points hanging down and touching the ground, and her head erect—a miniature turkey-gobbler. She uttered a scolding call and came within five feet of us. It was a wonderful sight. The young were evidently about to leave the nest, as when the one examined was returned to the nest it immediately made off with the mother after it. The second young one then cleared off in another direction, so the latter was headed off and turned in the direction of the other two. The young bird had a mottled throat and breast and white abdomen, but otherwise was like the parent bird.

Specimens taken:—At Polygonum Tanks—Male: iris, reddish brown; legs and feet, light grey; bill, tip black, base greyish; inside mouth, black; length,  $9\frac{1}{2}$  in.; spread,  $12\frac{1}{2}$  in. Female: soft parts similar to male; length,  $8\frac{1}{2}$  in.; spread,  $11\frac{1}{2}$  in. \* Stomach contents: a small moth; much grit; five kinds of seeds, one of which was *Chenopodium album*. At Strepera—A male. Stomach contents: seeds and remains of insects; sand.

60. *Drymodes brunneopygia*, Southern Scrub-Robin (77).

Sixty-five were noted at Strepera. The birds were numerous, and many were heard calling, especially in the mornings, some during the day-time, and a good number in the afternoon and evening up to dark. Three were noted in scrub beside the road half-way between Strepera and Kimba. One was heard calling at 7 a.m. in a patch of scrub on the east side of the railway line at the Kimba Railway Station. Eight were noted at White Well.

Nests.—Strepera—Nest facing the east at the foot of a dead cassia-bush, built outwardly of bark loosely put together, lined with dry grass, outside of the bark were dried twigs.



Scale—12½ miles to an inch.

Diameter of cavity, 7 x 8 cm.; depth, 6½ cm. One young one. Strepera—Nest on the ground in a fallen dead limb of a wattle-bush and in amongst the dead branchlets at the broken-off end. The fallen limb was under the tree itself. One young one. Bird flushed off nest, but reappeared calling in response to our "kissing stunt," but it did not come nearer than 30 feet. Strepera—Nest in the debris of a fallen pine (*Callitris*); it was an old nest cleaned out, the cup-shaped depression being excavated in the centre of the older nest. Diameter, 8.5 cm.; depth, 5.1 cm. Not completed. Strepera—Nest on the ground in a small open space between the twigs of a fallen bush, built of sticks. The top sticks were placed like a V, the outside was formed entirely of small sticks, in a cup-shaped depression, lined internally with fine pieces of bark, and the bottom lined with fine dried grasses and herbage. Internal diameter, 7 cm. circular; depth, 3.9 cm. One egg. Bird was seen near the nest. Strepera—Nest built at the butt of a dead bluebush, the two limbs of which were prone on the earth; above it was a living bluebush, about two and a half feet high, and that again was underneath a small mallee. The outer ring of the nest was composed of rough dried sticks loosely laid together. The first lining was strips of bark, with an inner lining of fine dried grasses and herbage. Nest in a cup-shaped cavity. Diameter of cavity, 7 cm.; depth, 7.60 cm. from top of row of sticks. One egg, fresh. Strepera—Nest one foot off the ground in a bluebush in a fork formed by four branches. Ten feet away under a bluebush and built on the ground was an older nest. The nesting site was in an open clump of mallee.

Three specimens were taken at Strepera. One, a female; length, 7¼ in.; spread, 9¼ in.; weight, 30.5 grammes. \* Stomach contents: two caterpillars, heads of soldiers of white ants. Crammed with bits of ants, mostly *Pheidole*, but also *Ectatomma metallicum*. Some sand grit. A male juv.; length, 8.5 cm.; spread, 16.75 cm.; weight, 21.5 grammes. Stomach contents: ants. A male; length, 20.5 cm.; spread, 28.75 cm.; weight, 36 grammes. Stomach contents—Insect remains, largely ants.

#### 61. *Pomatostomus superciliosus*, White-browed Babbler (263).

This species was met with at every camp and on every journey. Two hundred and forty-six were noted on Eyre Peninsula (44 at Ornata and 65 at Strepera).

Nests.—As usual, innumerable nests of this species were seen, most of them of previous years' construction. Ornata—In

a cherry-bush and five and a half feet from the ground. Two young. Strepera—In a creeper (*Comesperma volubile*) in a mallee and ten feet from the ground. Three eggs. Bird flushed from the nest. Strepera—In a cherry-bush and four feet from the ground. Three eggs. At Windy Camp, Wartaka, a nest of this species was found in a mulga (*Acacia aneura*), and six feet from the ground, built almost entirely of sheep's wool, with a few small sticks and a little horsedung as a foundation. The wool had evidently been gathered from a dead sheep a short distance away from the nest.

62. *Epthianura albifrons*, White-fronted Chat (Tang) (420).

This species was met with everywhere but at Ornata, Ornata to Kimba to Strepera, White Well, and Rufa. 123 were seen at Wertigo, and 47 at Strepera. In all 301 were noted on Eyre Peninsula and 119 between Adelaide and Port Augusta.

Nest.—Wertigo—In a saltbush (*Atriplex*) within three inches of the ground. Three young, newly hatched.

A specimen, a female, non-breeding, was picked up dead at 6.15 a.m. on the road at Wertigo beneath the telegraph wires, which it had evidently flown against, as its left leg was broken.

63. *Epthianura tricolor*, Crimson Chat (Tang) (52).

Five were seen in Roopena on our way to Wertigo, 11 at Wertigo, one on Wartaka at the boundary-fence between it and Myall Creek Station, 25 at Myall Creek, three near Cariewerloo Woolshed, and seven near the head of Spencer's Gulf.

A specimen was taken at Wertigo, a male, non-breeding. Stomach contents: a large white caterpillar and remains of insects. On Myall Creek Station a male was taken.

64. *Epthianura aurifrons*, Orange Chat (Tang) (18).

Two were seen in the Lincoln Gap Pass, six at Myall Creek, seven between Cariewerloo Woolshed and Port Augusta West, and three near the head of Spencer's Gulf.

65. *Smicromis brevirostris*, Brown Weebill (236).

First met with at Cooyerdoo Tanks, where two were seen, 44 at Ornata, 59 between Kimba and Strepera, 51 at Strepera, 27 between Kimba and White Well, two at White Well, 14 at Rufa, four at Coralbignie, and 33 between Adelaide and Port Augusta. Nest.—Port Germein—In a mallee and 15 feet from the ground, built outwardly of grasses bound together with cobwebs and spiders' cocoons and lined with feathers; the opening was near the top of the nest. Three eggs.

A specimen, a female, was taken at Strepera.

66. *Aphelocephala leucopsis*, Eastern Whiteface (193).

Fifteen were seen between Port Augusta and Wertigo, 32 at Wertigo, 10 in Roopena, three at Iron Knob, 45 at Strepera, one near Kimba, five at White Well, eight at Rufa, two in Wilcherry, eight at Coralbignie, two in Nonning, three in Siam, 37 in Wartaka, and 22 between Adelaide and Port Augusta.

Nests.—Wertigo—In a hollow in a sandalwood-tree and three feet from the ground. One egg seen. Bird flushed from nest. Wertigo—Being built in the top of a bluebush (*Kochia pyramidata*) and four feet from the ground. Wertigo—In a mistletoe in a sandalwood tree and 10 feet from the ground. Four eggs. Wertigo—In a cleft between two branches of a sandalwood-tree and four feet from the ground. The opening of the cleft was very narrow. At least four eggs were seen.

A specimen, a male juv., was taken at Strepera and a female at White Well.

67. *Acanthiza hamiltoni*, Red-tailed Thornbill (86).

Six were noted between Port Augusta and Wertigo, three at Wertigo, five in Roopena, 12 between Iron Knob and Ornata, 21 at Ornata, 22 at Strepera, five near Cortlinye, one near Kimba, four at White Well, four at Rufa, one in Wilcherry, and two near Port Broughton.

Nests.—Ornata—In a bush and two feet from the ground. Two eggs, heavily incubated. Strepera—A neat little nest in course of construction in a myrtle and two feet from the ground. It was being built with a quantity of spiders' cocoons (white), grass, and flower stalks. An unusual quantity of white cocoons were on the outside of the nest. Both birds flushed from the tree. Near Port Broughton—In a teatree and eight feet from the ground. Built of bark, spiders' cocoons and cobwebs, lined with rabbits' fur and a few feathers. Rabbits' fur was also worked into the nest structure. Three eggs, fresh.

A specimen, a male, was taken 10 miles south-west of Iron Knob. Stomach contents: remains of small beetles. A male was taken six miles north of Kimba. A male, breeding, at White Well. Stomach contents: a small caterpillar and remains of beetles. A male, breeding, at Coralbignie.

68. *Acanthiza uropygialis*, Chestnut-tailed Thornbill (6).

One was seen in Roopena, one near Cooyerdoo Tanks, and four at Windy Camp, Wartaka.

A specimen, a male, was taken near Cooyerdoo Tanks.

69. *Acanthiza iredalei*, Slender Thornbill (67).

Ten were seen in Roopena, 34 at Wertigo, one near Iron Knob, 18 at Myall Creek, and four near Port Augusta West. Their usual call is a weak imitation of that of the Eastern Whiteface (*Aphelocephala leucopsis*).

Specimens.—A male and a female were taken in Roopena.

70. *Acanthiza chrysorrhoa*, Yellow-tailed Thornbill (81).

Two were seen in Lincoln Gap Station, 27 at Wertigo, two near Iron Knob, 17 at Strepera, five near Cortlinye, two at White Well, one at Coralbignie, two in Siam, and 23 between Adelaide and Port Augusta.

Nests.—Lincoln Gap Station—Nest built in underneath on the western side of a nest of a Whistling Eagle (*Haliastur sphenurus*) and 15 feet from the ground in a mallee. No eggs in it. Lincoln Gap Station—Nest built in underneath on the western side of a largish stick nest of a Magpie. The two Thornbills were up at their nest. Wertigo—In a mistletoe in a sandalwood-tree and four and a half feet from the ground. Three eggs. Bird flushed from the nest. Wertigo—In a mistletoe in a sandalwood-tree and seven feet from the ground. When a finger was inserted in the opening two fully-fledged young ones flew out. Wertigo—In a sandalwood-tree 15 feet from the ground. Young were in the nest. Strepera—In a mistletoe in a mallee, seven feet from the ground. Two eggs. Port Germein—In a mistletoe in a mallee, seven feet from the ground. Three young ones. This was in the same position as the nest found in 1923. Near Port Broughton—Nest found in a thick clump of leaves in a mallee and a parent bird was seen to feed young ones in it.

71. *Pyrrholaemus brunneus*, Redthroat (30).

Four were seen in Roopena on our way to Wertigo, 15 at Wertigo, four in Roopena on our way to Iron Knob, three at Windy Camp, Wartaka, and four in Myall Creek Station.

Nest.—Wertigo—In a saltbush and two and a half inches from the ground, built entirely of fine grasses. The saltbush had been beaten down and spread out, the highest part being a foot from the ground. The nest was three and a half inches in depth and four inches in width with a little platform of two and a half inches leading up to the opening, but facing the root and towards the interior of the saltbush. The nest was lined with feathers (a Stubble Quail's and a Parrot's were identified). Inside the nest was a young Cuckoo with coal-black skin and absolutely bare, eyes closed, with white gape and yellow inside

throat. It squeaked thrice. Its feet were clearly zygodactylate. Three eggs of the Redthroat were out of the nest, two were on the ground, and the third was caught between the platform of the nest and the sticks alongside the platform. The two eggs on the ground were in good order, but the third one had a dent inwards. A piece of a shell of a Black-eared Cuckoo's egg was picked up a few yards away. Three eggs, incubation .99.

A specimen, a male, was taken at Wertigo. \* Stomach contents: five caterpillars and bits of others, a small moth, bits of lerp scale insects, egg of an insect, many minute fragments of insects, two seeds of *Chenopodiaceae*, some vegetable matter, small grit. A female at Wertigo and a female at Windy Camp, Wartaka.

72. *Hylacola cauta*, Shy Ground-Wren (9).

Three were seen at five miles north-west of Strepera Camp, one at six miles north of Kimba on our way to White Well, and five at Rufa Camp.

A specimen, a male, breeding, was taken at Strepera. \* Stomach contents: three caterpillars, bits of several small weevils, five soldiers of small ants (*Pheidole*), many minute fragments of insects. Also a female, breeding, and a juv. A male, breeding, was taken six miles north of Kimba. Stomach contents: remains of ants, a caterpillar, and a small beetle. The five birds—two parents and three young—at Rufa were watched for some time in the low saltbush-and-bluebush scrub. At first the parents appeared to be looking after one young bird each. After a time a third young one appeared. When the young ones ran to the old birds they then stood still at the foot of the low bushes. The parent would then run or fly to another bush and would call to the young, who in a few minutes would run to the new position. The male bird gave his full song two or three times.

73. *Calamanthus campestris*, Rufous Field-Wren (48).

Seven were seen at Wertigo, one in Siam, three in Wartaka, five near Windy Camp, Wartaka, 14 at Myall Creek, eight just past Myall Creek (one and a half miles), nine about nine miles from Port Augusta West, and one within half a mile (north) of Port Augusta. A Rufous Field-Wren was heard on two mornings at Myall Creek about 5.28, singing beautifully, but the bird heard near Port Augusta was singing shortly after 2 p.m. and much louder than the other birds of this species heard during the trip.

A specimen, a male, breeding, was taken at Wertigo. Stomach contents: remains of insects. Also, a female, breeding, at Wertigo. \* Stomach contents: six small caterpillars, bits of several small plant bugs, six thin orange-coloured seeds of *Erodium cygnorum* and bits of others, some brown vegetable matter.

74. *Cinclorhamphus cruralis*, Brown Songlark (69).

Fourteen were seen at Wertigo, out on the plains in the grass in the low saltbush and bluebush, two between Ornata and Kimba about the crops, four in and about the crops between Strepera and Kimba, two between Kimba and White Well, two at Myall Creek, 45 either on the fence posts or wires or above the crops or grass lands between Adelaide and Port Augusta.

75. *Amytornis textilis*, Western Grass-Wren (13).

Six were seen at Wertigo, four in Roopena on our way to Iron Knob, two at four miles from Myall Creek, and one at Myall Creek. This species was easily the wariest we met with. It was usually found in country covered with a bluebush (*Kochia pyramidata*), which grows to a height of four to five feet, and covers any flat-lying land. The Amytornes did not at any time fly above these shrubs. They run along the ground so fast, and get under cover so much, that they soon get out of observation. Mr. Parsons thinks they disappear down a rabbit's burrow if one is near to them. The call we heard was a very short and light one-note whistle.

No specimens could be secured, the nearest being three tail feathers from one bird.

76. *Malurus callainus*, Turquoise Wren (39).

Four were seen at Wertigo, one near Polygonum Tanks, two at Ornata, 26 at Strepera, and six at Rufa. Usually the males of this species are very wary, but after three attempts in one afternoon to locate the birds in the low stunted bullock-bush about the Emu Rocks I was successful in finding four Turquoise Wrens, two of them males, and followed them for half an hour, and towards the end of that time the birds allowed me to get very close to them and I had some good views. Their call is not unlike that of the Superb Blue Wren (*Malurus cyaneus*).

Nest.—Wertigo—In a saltbush, which was in seed. It was built near to the ground (the opening was 10 inches from the ground) and composed outwardly of light-coloured grasses, a very thick base and a very loose dome. The opening was 2 x 1½ in.; length over all, 5 in.; depth, 3½ in. Nest lined with

rabbits' fur and a few feathers (one of the latter was that of a Narrow-billed Bronze Cuckoo, another that of a Crow). Three eggs, fresh.

A specimen, a male, was taken at Wertigo. \* Stomach contents: three minute caterpillars, three small flies and bits of house fly, bits of several plant bugs, of chalcid wasp, of two small insects, and of spiders, many minute fragments of insects. Also, a female at Wertigo. \* Stomach contents: ten caterpillars and bits of others, bits of young grasshopper and of cricket, several small jassid bugs, bits of chinch bug and of lerp scale insect, small fly, two chalcid wasps, one braconid wasp, head of small weevil, many minute fragments mostly of small plant bugs. At Ornata—A male. At Strepera—A male. Stomach contents: tiny black seeds and remains of insects. Also three males at Strepera, and a male at Rufa. In the male birds in every case there was a swelling in the neighbourhood of the vent. Those were submitted to Professor Cleland, who reported that the swellings were the turgid *vesiculae seminales*. These are somewhat convoluted tubules with a lining of columnar epithelium. They were packed full of vast numbers of spermatozoa. In the Pigeon the *vesicula seminalis* consists only of the slightly enlarged posterior end of the spermiduct. Mr. Parsons has only found such swellings in Maluri and Amytornes.

77. *Malurus cyanotus*, White-winged Wren (152).

Eight were seen in Lincoln Gap Station, 25 at Wertigo, four on the way to Iron Knob, 13 in Siam, 16 at Windy Camp, Wartaka, 49 at and near Myall Creek, three just beyond the Cariewerloo Woolshed, 14 on the way to Port Augusta West, and 20 between Adelaide and Port Augusta.

Nests.—Wertigo—In a bluebush and 10 inches from the ground, built of dried grasses, cobwebs, and cocoons. Three young. The female was near the nest, which was about 50 yards away from a nest of the Purple-backed Wren (*Malurus assimilis*). Wertigo—Built in between four to five branches of a saltbush, outwardly composed of fine dried grasses, several spiders' cocoons (white), and a few green cocoons near the top of the nest. The first lining inside was composed of tops of grass, umbrella-shape, the second lining was a beautiful felting of the downy seeds of a bluebush, extending to the top of the nest inside. Domed nest; height over all, 12.75 cm.; diameter of opening, 5 cm.; width across the opening, 2.75 cm. The distance from the bottom of the opening to the ground was 15.75 cm. The saltbush was half-dead and was growing in a watercourse with a fair amount of green herbage and flowering plants. Two eggs of

*M. cyanotus* and one of the Narrow-billed Bronze Cuckoo (*Chalcites basalis*). The female was flushed from the nest. Wertigo—In a saltbush and almost resting on the ground. Three young. Roopena—Being built in a bluebush and six inches above the ground. The female was seen to fly into the bush with nesting material in her bill. Near Myall Creek—Being built in a thornbush and nine inches from the ground.

A specimen, a female, was taken at Wertigo. \* Stomach contents: two large and two small caterpillars, small plant bugs, bits of small weevil, and of small leaf-eating beetle (*Chrysomelidae*), many minute fragments mostly of small plant bugs.

78. *Malurus assimilis*, Purple-backed Wren (166).

Eight were seen in Roopena, 28 at Wertigo, four near Polygonum Tanks, 48 at Ornata, 19 at Strepera, six between Strepera and Kimba, three north of Kimba (six miles), five at Windy Camp, Wartaka, four at Myall Creek, 37 between Port Augusta and Port Germein, and four between Adelaide and Port Augusta.

Nests.—Wertigo—In a saltbush and resting on the ground. Four young. Found on 8/8/1925. The next day we visited the nest for identification purposes. We examined a young one and it squeaked, to which noise we added the "kissing stunt." A male and two females appeared. Both the females had food in their beaks, one bird had a white moth and the other bird had a reddish-coloured insect. Ornata—Nest in a bluebush and resting on the ground and nearly completed. Near Kimba (six miles north)—Nest built five inches from the ground in a small *Triodia* (porcupine grass), between two thin branches of a mallee shoot and surrounded by two dead branches of mallee lying on the ground, outwardly composed chiefly of dried thin strips of mallee bark and some blades of old dried grass, lined internally with fine dried grasses and a few feathers. Total height, 12 cm.; diameter of entrance, 4 cm.; approximate width of nest, 7 cm. The nest bore evidence of having been used for a previous brood this year. Three eggs, incubation .1. The female flushed off the nest.

A specimen, a male, was taken at Wertigo. \* Stomach contents: two small caterpillars, several small chinch bugs, bits of minute beetle and of spiders, many minute fragments of insects. Two seeds—one, *Enchylaena tomentosa* and the other probably *Triantlema decandra*. Also at Wertigo—A male. \* Stomach contents: one large and two small caterpillars, head of small

bee, bits of minute clavicorn beetle and of many small plant bugs. At Wertigo—A male, breeding. Stomach contents: remains of beetles.

Forty *Maluri*, other than the above, were noted during the trip, but could not be identified.

79. *Artamus personatus*, Masked Wood-Swallow (171).

This species was first met with on 10/9/1925 at Wertigo, where two were seen at a great height and heard calling. Four were next seen at the Polygonum Tanks flying westerly at a good height on 12/9/1925. Two were heard passing over our camp at Strepera about 2 p.m. on 21/9/1925. Ten were seen at Rufa Camp about 1 p.m. on 25/9/1925. They were flying very high and going at first in a north-westerly direction. In a few minutes they came past still at a great height and flying in a south-easterly direction. Their calls attracted our attention. Twenty-four were noted next day at Rufa. The species was next met with in numbers on the afternoon of 28/9/1925 at Myall Creek, and on the next day we noted 129 as we went down the watercourse at 7.37 a.m. The birds flew past us and settled on the trees, and a good number were thereabouts when we returned for lunch at 1.18 p.m.

80. *Artamus superciliosus*, White-browed Wood-Swallow (1).

Noted at Myall Creek in company with the Masked Wood-Swallows.

81. *Artamus melanops*, Black-faced Wood-Swallow (104).

Forty-two were seen between Port Augusta West and Wertigo, 15 at Wertigo, five in Roopena, four between Iron Knob and Ornata, three in Siam, one in Wartaka, eight at Myall Creek, six near Cariewerloo Woolshed, 15 round the head of Spencer's Gulf, and five between Port Augusta and Warnertown.

Nests.—All at Myall Creek—In a bullock-bush and seven feet from the ground, outwardly constructed of fine sticks and coarse grass, lined at the bottom with fine rootlets. Diameter, 6 cm.; depth, 3.3 cm. Three eggs, incubation 4. Nest in a cherry-bush and five feet from the ground. Three eggs, incubation 2. A bird flew into the bush. Nest in a cherry-bush and four and a half feet from the ground. Three young. Nest in a bullock-bush and five and a half feet from the ground. Three eggs, fresh.

A specimen, a male, breeding, was picked up dead at Myall Creek.

82. *Artamus cyanopterus*, Dusky Wood-Swallow (234).

Five were seen between Port Augusta and Wertigo, 16 at Wertigo, six between Wertigo and Iron Knob, 25 between Iron Knob and Ornata, 26 at Ornata, eight near Kimba, 60 at Strepera, nine between Strepera and Kimba, 12 between Kimba and White Well, 18 at White Well, nine between White Well and Rufa, three at Rufa, eight between Rufa and Coralbignie, two at Coralbignie, and 27 between Adelaide and Port Augusta.

Nests.—Wertigo—A nest near our camp, building just started, in a mistletoe in a sandalwood-tree and 10 feet from the ground. Rufa—In the top of a dead spout of a mallee, and 11 feet from the ground, base of nest dry sticks, lined with greenish herbage and a few green herb flowers. Ready for eggs.

A specimen, a male, breeding, was taken at White Well. Stomach contents: remains of insects, chiefly ants.

83. *Neositta pileata*, Black-capped Sittella (29).

Two were seen at Wertigo, 17 at Ornata, five at Strepera, and five at White Well.

84. *Climacteris rufa*, Rufous Tree-creeper (165).

Thirty-two were seen at Ornata, two near Carradoo Tanks, 75 at Strepera, four near Cortlinye, one in Wilcherry, 12 at White Well, 11 between White Well and Rufa, 28 at Rufa.

Nests.—Ornata—In a hollow in a dead limb of a live mallee and twelve feet from the ground. Two young. Carradoo Tanks—In a hollow in a mallee, and eight feet from the ground and 15 in. down the hollow. Two young. A bird was seen to leave the hole. Ornata—In a hollow in a live mallee, and twelve feet from the ground, and three feet down the hollow. One young one was seen. Strepera—In a hollow in a live mallee, and nine feet from the ground, and two and a half feet down the hollow. Two young just hatched. Strepera—In a hollow in a live mallee, and ten feet from the ground. Nest being built. Strepera—In a hollow in a live mallee, and twelve feet from the ground. Two young just hatched, but dead and covered with small black ants. Wilcherry—In a hollow in a live mallee, and six feet from the ground. Nest two feet from the entrance with a foundation of bark and rabbit-dung, next roughly constructed of pieces of bark, then some strips of bark mixed with rabbits' fur, and lined with rabbits' fur and a few feathers, amongst the latter some of the Port Lincoln Parrot, Chestnut-backed Quail-Thrush (*Cinclosoma*), and the Yellow-plumed Honey-eater. Two eggs, incubation .5. Rufa—In a hollow in a live mallee, and twelve feet from the ground. Nest

18 inches down the hollow. Two young. Rufa—In a hollow in a live mallee, and ten feet from the ground. Nest one foot from the entrance. Base of nest finely shredded bark built up for a considerable distance, then powdered sheep's dung, lining composed chiefly of sheep's wool and a few feathers. Two eggs, incubation .3. The bird was seen to enter the hollow whilst we watched, and it flew away as soon as one of us approached the tree. Rufa—In a hollow in a dead and very shaky mallee, and nine feet from the ground. A bird came with food, entered the hollow and left it whilst we were not 15 feet away. Two young. Rufa—In a hollow in a live mallee, and nine feet from the ground. Nest one foot from entrance. Two newly-hatched young. A bird was seen to enter the hollow. Rufa—In a hollow in a dead spout of a live mallee, and ten feet from the ground. Nest 18 inches from the entrance. Two young. A bird was seen carrying food, which was of a white colour.

A specimen, a female, was taken at Ornata. \*Stomach contents: numerous small worker white ants, soldiers and workers of small ants (*Pheidole*), bits of sugar (*Campanotus*) and ponerine ants, two small land shells (*Pupoides adelaidae*). At White Well—A male. Stomach contents: ants. A Rufa—A male juv. Stomach contents: a piece of mollusc shell and ants. At Rufa—A male, breeding. Stomach contents: two small seeds and many small black ants.

### 85. *Dicaeum hirundinaceum*, Mistletoe-Bird (35).

Eight were seen in Roopena, five at Wertigo, three between Ornata and Kimba (one of these, a male, was feeding on mistletoe seeds in some low bushes about four feet high, ten miles from Kimba), six at Strepera, one at White Well, three at Rufa, two in Wilcherry, two at Coralbignie, three at Windy Camp, Wartaka, one at Myall Creek, and one near the head of Spencer's Gulf.

### 86. *Pardalotus xanthopygus*, Yellow-tailed Pardalote (12).

Three were seen at Carradoo Tanks, one at Strepera, and eight between Adelaide and Port Augusta.

A specimen, a male, was taken at Carradoo Tanks. \*Stomach contents: crammed with fragments of lerp scales.

### 87. *Pardalotus ornatus*, Red-tipped Pardalote (134).

One was seen at Cooyerdoo Tanks, 28 at Ornata, 16 near Kimba, 50 at Strepera, nine near Cortlinye, seven at White Well, two in Wilcherry, 12 at Rufa, two at Coralbignie, three in Nonning, and four between Adelaide and Port Augusta.

Nests.—White Well—In a hollow in a mallee, and seven feet

from the ground. Ready for eggs. Nonning—A bird of this species was seen digging out a hole in a live mallee, and four feet from the ground. Nonning—A burrow of a White-headed Swallow was dug out, and it was found that a Red-tipped Pardalote had just started to build a nest in the burrow.

88. *Zosterops halmaturinus*, Grey-backed Silver-eye (34).

Thirteen were seen at Ornata, 13 at Strepera, and eight near Kimba.

A specimen, a female, was taken at Ornata. \* Stomach contents: a small caterpillar and 33 lecanid scale insects.

89. *Melithreptus atricapilla*, Brown-headed Honey-eater (71).

Twenty-eight were seen at Ornata, twenty-four at Strepera, eight near Cortlinye, nine near Kimba, and two between Port Germein and Adelaide.

Nests.—Near Strepera (five miles north)—In a low mallee, and eight feet from the ground. Ready for eggs. At the same place a nest being built in the top of a mallee, five feet from the ground. A bird was seen about the tree.

A specimen, a female, non-breeding, was taken at Ornata. Stomach empty.

90. *Gliciphila albifrons*, White-fronted Honey-eater (84).

Thirteen were seen at Wertigo, five at Cooyerdoo Tanks, 52 at Ornata, one at Strepera, nine at Rufa, and four at Coralbignie.

Nests.—Wertigo—In a bluebush and 18 inches from the ground, but in the centre of the bush and near the top. Two young. Ornata—Nest supported in the narrow twigs of a bluebush, and two feet from the ground, constructed outwardly of old dried grass stems and fine saltbush or bluebush twigs, first lining of fine dried grass, the inside was warmly lined with bluebush seed. The rim of the nest was not finished off regularly, but with stems of grasses standing up almost vertically in places. Diameter of cavity, 5 x 4.5 cm.; depth, 4 cm. Two eggs, fresh. Ornata—In a four-pronged fork in a cherry-bush and two feet from the ground, lined with spiders' egg-cases, flower down, and a number of small pieces of cotton thread. A few long pieces of grass were hanging down on the outside of the nest. The rim was irregular with some grass stems sticking up. Two eggs, one of which was heavily incubated and the other was infertile. Carradoo Tanks—A nest almost completed in the young shoots of a mallee springing up after a fire and two feet from the ground. Carradoo Tanks—In a bush (*Alyxia buxifolia*) and three feet from the ground. Two eggs,

unusually small; fresh. The bird called loudly (in answer to her mate's call) just before flushing from the nest. Rufa—In a cherry-bush, in the central fork of the bush, and two and a half feet from the ground. Two young.

A specimen, a male, breeding, was taken at Ornata. Stomach contents: small black seeds.

91. *Certhionyx variegatus*, Pied Honey-eater (25).

One was seen near West Wartaka Homestead, two were next observed passing Windy Camp, Wartaka, at 7 a.m. and 22 were met with at Myall Creek. At Myall Creek these birds were nesting. The male birds were chasing the females and making long aerial nuptial flights up to a fair height. The only calls heard were made by the males and were "Pee-pee-pee-pee."

Nest.—Myall Creek—In the twigs of a bullock-bush, and five feet from the ground, built outwardly of dried saltbush twigs, lined internally with fine dried grasses and some flower down. Diameter, 6.25 cm.; depth, 3 cm. Two eggs, fresh.

A specimen, a male, breeding, was taken at West Wartaka. Iris, brown; legs and feet, grey; bill, blue; inside mouth, light flesh colour; eyelid, a fleshy fringed appendage to the lower eyelid irregularly lobated, colour, light grey blue. The angle of the mouth is nearly the same colour as the appendage. Length, 17 cm.; spread, 26.5 cm.; weight, 30.5 grammes. \* Stomach contents: crammed with pulp and with seeds of *Chenopodiaceae*. At Myall Creek—A female, breeding. Iris, dark brown; legs and feet, slaty blue; bill, bluish horn; inside mouth, bill bluish horn, throat flesh; gape, light blue; lower eyelid appendage greyish blue, and very small, about  $\frac{1}{2}$  mm. broad and 4 mm. long. Stomach contents: seeds of the bluebush (*Kochia pyramidata*). A male, breeding. Stomach contents: stones and fruit pulp of the wild cherry and *Lycium australe* (a prickly bush). A male, and a male, breeding. Stomach contents: two kinds of fruit seeds—one of them *Kochia pyramidata*. At one spot in Myall Creek at one time we noted the following black and white coloured birds, a male Pied Honey-eater, a male White-winged Triller (Caterpillar-eater), a male Hooded Robin, and a Willie-Wagtail.

92. *Meliphaga virescens*, Singing Honey-eater (349).

This species was met with at all camps, but not on the following journeys:—Ornata to Kimba to Strepera, Strepera to Kimba, Kimba to White Well, and White Well to Rufa. Thirty-nine were seen between Port Augusta and Wertigo, 76 at Wertigo, 13 between Wertigo and Iron Knob, five between Iron Knob and

Ornata, one at Ornata, 39 at Strepera, two at White Well, two at Rufa, two in Wilcherry, one at Coralbignie, nine in Nonning, one in Siam, 17 at Windy Camp, Wartaka, 43 at Myall Creek, 14 between Myall Creek and Port Augusta, and 85 between Adelaide and Port Augusta.

Nests.—Wertigo—Near our camp, in a bullock-bush and five feet from the ground, built of green grass and wool with leaves of the bullock-bush worked into the side of the nest with cobweb. Two eggs, fresh. The bird was seen at the nest. Wertigo—A nest being built in a mistletoe in a myall and ten feet from the ground. Wertigo—In a bullock-bush and five feet from the ground. Two young. Wertigo—In a flowering *Eremophila* and four feet from the ground. Ready for eggs. Wertigo—In the top of a saltbush, which was shielded by a mistletoe on a leaning bough of a bitter quandong tree (*Fusanus persicarius*) which latter tree was but six and a half feet in height. The nest was two feet from the ground and was lined with reddish cowhair and a few chestnut horsehairs, on the outside twigs and green grass bound together with cobwebs. Three eggs, fresh. Wertigo—In a mistletoe in a sandalwood-tree and 15 feet from the ground. The bird flushed off the nest, which was not climbed to. Myall Creek—In a *Lycium australe* (a prickly bush), built of green grasses and cobwebs, well lined with sheep's wool and horsehair, with pieces of sheep's wool and spiders' cocoons (white) added to the outside of the nest. Nest was hanging on three suspensions. Two eggs, fresh. Bird flushed from the nest. Myall Creek—In a green shrub and five feet from the ground. Two young. Both birds were seen feeding the young. Myall Creek—In a cherry-bush and four and a half feet from the ground. Three eggs, heavily incubated. Bird flushed from nest. Myall Creek—Twenty yards from our camp, in a *Lycium australe*, and four and a half feet from the ground. Bird flushed from the nest. Three eggs, slightly incubated. These eggs were taken and the two eggs from the first nest found here were substituted. The bird took to the nest and continued sitting.

A specimen, a male, was taken at Strepera. Stomach contents: a small seed, a caterpillar, and remains of beetles.

93. *Meliphaga leucotis*, White-eared Honey-eater (23).

Four were seen at Ornata, five near Cortlinye, two in Kimba, nine between Kimba and White Well, two at Rufa, and one at Coralbignie.

Nest.—Ornata—In a bluebush, and 18 inches from the ground under a overhanging bough of a mallee, which was right over the nest, composed outwardly of small pieces of bluebush,

and inwardly of grasses and very fine strips of bark and snugly lined with rabbits' fur and feathers. One young one (showing the yellow on the feathers on the abdomen, and green on its back) and one infertile egg, very lightly marked. Bird flushed from the nest.

A specimen, a female, was taken at Ornata.

94. *Meliphaga ornata*, Yellow-plumed Honey-eater (1,773).

This species was the most numerous we met with. Two were noted at Wertigo, 91 between Kimba and Ornata, 667 at Ornata, 40 between Ornata and Strepera, 422 at Strepera, 66 between Strepera and Kimba, 61 between Kimba and White Well, 159 at White Well, 122 between White Well and Rufa, 129 between Rufa and Coralbignie, and 14 in Nonning.

Nests.—Eighteen at Ornata—In a sandalwood and six and a half feet from the ground; one egg. In a bluebush and three feet from the ground; one egg and one young bird. In a cherry-bush and six feet from the ground; one egg (broken). In a mallee and 13 feet from the ground; three eggs, two of which were fresh and the third with incubation .1. Being built in a bluebush and three feet from the ground; both birds were seen carrying nesting material. In a mallee and four feet from the ground; ready for eggs. In a bluebush and two and half feet from the ground; two eggs, fresh; bird flushed from the nest. In a mallee and six feet from the ground; nest just begun. In a bluebush and four feet from the ground; two eggs; bird sitting on nest. In a young quandong-tree and four feet from the ground; two young newly hatched, and their colour agreed with that of the eggs of their species; bird on the nest. In a teatree and five feet from the ground; one egg and one young bird. In a mallee and six feet from the ground; ready for eggs. In the top of a quandong-tree and seven feet from the ground; two young. In a mallee and three and a half feet from the ground; two young. In a quandong-tree and four feet from the ground; two young. In a drooping limb of a mallee and five feet from the ground; two young. In a mallee and three feet from the ground; two young. Carradoo Tanks—In a very bushy mallee and seven feet from the ground; the tree was on the side of the road directly opposite the Tanks; two young. Seven nests at Strepera—In a teatree and nine feet from the ground; being built; there were two old nests of this species in the next tree in the clump. In a mallee and seven feet from the ground; the nest was made of green and dry grasses worked together with spiders' cocoons and

cobwebs and green lichens, much decorated externally with spiders' cocoons (white), built on the drooping branchlets with four-points suspensions; diameter, internally  $1\frac{3}{4}$  in., externally  $2\frac{1}{2}$  in., depth,  $1\frac{1}{4}$  in.; the bird sat close; two eggs. In a mallee and four and a half feet from the ground; ready for eggs. In a mallee and eight and a half feet from the ground; being built. In a mallee and five feet from the ground; ready for eggs. In a mallee and nine feet from the ground; ready for eggs. In a bluebush and three feet from the ground; a big young one, dead, and covered with small black ants. Four nests at White Well.—In a mallee and six feet from the ground; two eggs, incubation .4. In a quandong-tree and eight feet from the ground; two eggs, fresh; bird flushed from tree. In a dead spout five feet long in a live mallee and 15 feet from the ground (this spout had split and the nest was built in the opening and about three inches from the top of the opening and was attached to the broken sides of the split); ready for eggs. In a mallee and eight feet from the ground; one egg, (broken). Rufa—In a bluebush and two and a half feet from the ground; two young. Rufa—In a mallee and five feet from the ground; one egg, fresh; bird flushed from nest.

A specimen, a female, breeding, was taken at Ornata. \* Stomach contents: a small caterpillar, bits of lerp scales, minute weevil (*Storeus*). At Ornata, a female, non-breeding. Stomach contents: remains of insects. At Ornata, a female, breeding. \* Stomach contents: two small caterpillars, bits of small plant bug and of two weevils (*Polyphrates*), many minute fragments of insects. At White Well, a female.

95. *Meliphaga plumula*, Yellow-fronted Honey-eater (2).

These two birds were in a patch of burnt mallee, in which the young shoots were thick, six miles north of Kimba, on our way to White Well.

96. *Myzantha flavigula*, Yellow-throated Miner (48).

Thirteen were seen in Roopena, five at Wertigo, two near Polygonum Tanks, one at White Well, five at Myall Creek, one on the east side of the head of Spencer's Gulf and 21 between Port Augusta and Mallala.

A specimen, a male, breeding, was taken at Wertigo. Stomach contents: seeds (black) of a small fruit.

97. *Anthochaera carunculata*, Red Wattle-Bird (128).

Two were seen near Polygonum Tanks, 36 at Ornata, three near Carradoo Tanks, 33 at Strepera, nine between Strepera and Kimba, one at Kimba, three at White Well, 11 in Wilcherry, 2\* at Rufa, and nine between Port Augusta and Adelaide.

Nests.—Ornata—In the top boughs of a mallee and 15 feet from the ground. Two eggs. Wilcherry—In a mallee and 12 feet from the ground. Bird flushed from the nest, which was not examined.

A specimen, a juv., was taken at Ornata. Stomach contents: remains of insects, presumably beetles.

98. *Acanthagenys rufogularis*, Spiny-cheeked Honey-eater (286).

Twenty-six were seen between Port Augusta West and Wertigo, 31 at Wertigo, 20 between Wertigo and Iron Knob, 12 between Iron Knob and Ornata, 36 at Ornata, 44 at Strepera, two between Strepera and Kimba, five between Kimba and White Well, nine at White Well, 15 in Wilcherry, 16 at Rufa, eight at Coralbignie, seven in Nonning, nine at Windy Camp, Wartaka, 12 at Myall Creek, three round the head of Spencer's Gulf, and 31 between Port Augusta and Adelaide.

Nests.—Coralbignie Camp—In a mistletoe in a myall and seven feet from the ground. Two young. Myall Creek—In a myall and 14 feet from the ground, built of green grass and cobwebs and lined with sheep's wool. Two eggs, nearly fresh.

A specimen, a male, breeding, was taken at Myall Creek. Length, 24 cm.; spread, 33 cm.; weight, 45.5 grammes. Stomach contents: two seeds of bullock-bush and many small fruit seeds.

99. *Anthus australis*, Australian Pipit (Ground-Lark) (299).

This species was met with at every camp except Ornata and on every journey except between White Well and Rufa. Seventy-nine were seen between Adelaide and Port Augusta.

Nests.—Wertigo—A cup-shaped nest in a depression in the ground. Three eggs, incubation .9. Strepera—In a depression in the ground between three tufts of grass, of which one had been browsed down. The nest had a distorted shape, as one side had been pushed inwards by a horse's hoof. It was built of dried grasses scantily lined with cowhairs and some short horsehairs. Depth, 4 cm. Three eggs, incubation .2. Bird flushed off nest.

A specimen, a female, breeding, was taken at Wertigo. Stomach contents: remains of insects, a small caterpillar and grit.

100. *Taeniopygia castanotis*, Zebra (Chestnut-eared) Finch (28).

Eleven were seen at Myall Creek and 17 between Adelaide and Port Augusta.

101. *Corvus ceciliae*, Australian Crow (347).

This species was met with everywhere we went. Two hundred and nine on Eyre Peninsula and 138 between Adelaide and Port Augusta.

Nests.—Lincoln Gap Station—A bird was flushed from a nest in a sandalwood-tree beside the track. Roopena—A bird was flushed from a nest in a tree beside the track. Roopena—A bird was flushed from a nest in a sandalwood-tree beside the track. Wertigo—Nest in a black oak and 25 feet from the ground. As we were approaching the tree a head appeared above the rim and then disappeared when we were 50 yards away. No amount of noise made by us could cause the head to appear again, but on throwing a piece of wood into the branches two heads of young birds appeared with beaks wide open. Strepera—In a mallee and 40 feet from the ground. A bird was sitting on the nest and reluctantly left after much shouting, clapping of hands, and stick-throwing by us. Near Port Germein—In a sandalwood-tree and 40 feet from the ground and beside the road. A bird was sitting on the nest.

102. *Corcorax melanorhamphus*, White-winged Chough (34).

Seven were seen at Ornata, 10 near near Kimba, four at Strepera, five at White Well, and eight at Rufa.

Nests.—White Well—In a mallee and 35 feet from the ground, built of red mud and lined with a good felting of reddish cowhair. Ready for eggs. Rufa—In a slender mallee and 35 feet from the ground. Nest of usual construction. Three young. Eight birds were seen near the nest.

A specimen, a male, breeding, was taken at White Well. Iris, very bright vermilion; legs and feet black; bill, black; inside mouth, white; length, 46.5 cm.; spread, 64.5 cm. Stomach contents: remains of beetles.

103. *Strepera intermedia*, Brown Currawong (Bell-Magpie) (37).

Seven were seen at Ornata, four near Kimba (10 miles east), two at Kimba, one near Cortlinye, seven at Strepera Camp, seven between Strepera and Kimba; two at White Well, four at Rufa, two in Wilcherry, and one at Coralbignie.

Nests.—Ornata—In a mallee, 25 feet from the ground, composed outwardly of sticks and lined entirely with dried grasses. Diameter of cavity, 17 x 14 cm.; depth, 6.4 cm. Two eggs, incubation .1. Bird flushed from the nest. At Strepera Camp—In a mallee and 30 feet from the ground. Three eggs, incubation .5. Kimba (eight miles north-west)—In a mallee and 30 feet from the ground. Two eggs, incubation .7.

A specimen, a female, was taken at nine miles north-east of Kimba. \* Stomach contents: numerous small caterpillars, ground weevil (*Dialeptopus*), cockchafer beetle (*Haplonycha*), two grains of wheat and skins of many others, fragments of a small bird's egg, small shell (*Pupoides adelaidae*). At Strepera

Camp—A female. Stomach contents: fur and some bones of a small mammal.

104. *Cracticus torquatus*, Grey Butcher-Bird (13).

Two were seen in Roopena, three at Wertigo, one near Cooyerdoo Tanks, two at Ornata, two between Strepera and Kimba, one near Wilcherry, and two at Rufa.

Nest.—Wertigo—In a myall and 15 feet from the ground. In it were two newly-hatched young and one egg.

105. *Gymnorhina tibicen*, Black-backed Magpie (13).

One was seen near Iron Knob, three at Coralbignie, one close to Port Augusta West (50 yards from it was a White-backed Magpie and they were the only Magpies seen in a journey of 49 miles). Between Port Augusta and Port Germein (47 miles) we saw the following Black-backed Magpies:—One at 17 miles, one at 19½ miles, one at 20 miles, one at 23½ miles, one at 27½ miles, and two at 34 miles. In the same distance we noted 17 White-backed Magpies. The last Black-backed was seen 11 miles south of Port Germein.

106. *Gymnorhina hypoleuca*, White-backed Magpie (485).

Fifty of these were seen on Eyre Peninsula and the other 435 between Adelaide and Port Augusta. Nine were seen between Port Augusta and Wertigo, three at Wertigo, one between Wertigo and Iron Knob, two between Iron Knob and Ornata, five between Ornata and Strepera, five at Strepera, three between Strepera and Kimba, three between Kimba and White Well, five at White Well, five between White Well and Rufa, three between Rufa and Coralbignie, three between Coralbignie and Windy Camp, Wartaka, two at Myall Creek, and one near Port Augusta West.

Nests.—Lincoln Gap Station—In a mallee and 25 feet from the ground. Not examined. In the same clump of mallee as the first nest and 35 feet from the ground, and on its western side underneath a nest of a Yellow-tailed Thornbill (*A. chrysorrhoa*) was attached and the two Thornbills were up at their nest. Near Kimba—In a mallee very close to the road and 20 feet from the ground. The bird flushed from the nest. Near Two Wells—A bird was sitting on a nest built on the top cross arm of a telegraph post. Near Buckland Park—In the top of a broken boxthorn clump five feet from the ground. Two young with pin feathers showing. The clump was between a side track and the main road and the traffic on the side track just cleared the boxthorn. At Wandearah—In an acacia and 20 feet from the ground and just clear of the road.

The bird was seen on the nest. Near Mambray Creek (north of Port Germein)—A bird was seen on a nest built between two of the cross arms on a telegraph post.

Between Adelaide and Port Augusta the following species were also observed:—

107. *Phalacrocorax varius*, Pied Cormorant (7).  
Four were seen at Port Augusta, two at Port Germein, and one at Port Pirie.
108. *Microcarbo melanoleucus*, Little Pied Cormorant (1).  
This was seen at Port Pirie.
109. *Hydroprogne caspia*, Caspian Tern (1).  
This was seen at Port Augusta.
110. *Sterna bergii*, Crested Tern (1).  
This was seen at Port Augusta.
111. *Larus novae-hollandiae*, Silver Gull (336).  
One hundred and fifty-two were seen about Spencer's Gulf at Port Augusta, 182 at Port Germein, and two on a lagoon near Wild Horse Plains.
112. *Gabianus pacificus*, Pacific Gull (3).  
Two were seen at Port Augusta, and another, an immature bird, with a broken wing on the shore at Port Augusta West.
113. *Haematopus ostralegus*, Pied Oyster-catcher (1).  
This was seen on the beach at Port Germein.
114. *Notophox novae-hollandiae*, White-faced Heron (10).  
One was seen near the Abattoirs, eight near Bolivar, and one at Kulpara.
115. *Leptolophus hollandicus*, Cockatiel, Cockatoo-Parrot (3).  
At six miles north of Port Germein these three birds flew over in a north-easterly direction.
116. *Barnardius barnardi*, Ring-neck (Mallee) Parrot (4).  
One was seen near Port Broughton, one near Mambray Creek, and two at Port Germein.  
A specimen, a male, was taken at Port Germein.
117. *Psephotus haematonotus*, Red-backed Parrot (6).  
One was seen at Windsor, four at Wild Horse Plains, and one near Two Wells.
118. *Hylochelidon nigricans*, Australian Tree-Martin (1).  
This was noted near Port Germein.

119. *Rhipidura flabellifera*, Grey Fantail (3).

One was seen near Port Broughton, and two at Port Germein.

120. *Colluricincla harmonica*, Grey Shrike-Thrush (3).

Two were seen near Port Broughton, and one at Port Germein.

121. *Meliphaga cratitia*, Purple-gaped Honey-eater (2).

These were seen seven miles south of Port Broughton.

122. *Meliphaga penicillata*, White-plumed Honey-eater (12).

Two were seen at Port Augusta and the remainder between Port Augusta and Adelaide.

123. *Mirafra javanica*, Horsefield Bush-Lark (18).

These were noted either above or in the crops of wheat, or sitting on the top wire of the wire fences alongside the road, between Adelaide and Port Augusta.

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