

Western Australian Bird Notes

No. 1.

PERTH, W.A.

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NEXT MEETING

The next meeting of the Western Australian Branch of the Royal Australasian Ornithologists' Union will be held at the Museum, Perth, on Saturday, July 1, 1944, at 2.15 p.m. Major Whittell will preside.

AGENDA: 1. The study of Silver-eyes by Trapping and Banding, by Messrs. V. N. Serventy and L. J. McHugh. (Preliminary reading: *The Emu*, vol. 42, April, 1943, p. 194).

2. Albatrosses: Discussion on problems of identification, led by Mr. L. Glauert and Dr. D. L. Serventy.

REPORTS OF PROCEEDINGS

INAUGURAL MEETING, MAY 22, 1943

The following persons attended the meeting at the Museum on May 22, 1943, convened by the President (Major H. M. Whittell): Major Whittell, Misses O. Seymour and N. Fletcher (Victoria); Dr. D. L. Serventy and Messrs. G. Doepel C. Eakins, E. Edmondson, L. Glauert, C. F. H. Jenkins and V. N. Serventy (State Secretary).

Major Whittell briefly described the aims and organisation of the R.A.O.U. and indicated the reasons for the calling of the meeting, the first of its kind in the State. He hoped that in future regular meetings would be held, and so develop a strong group of ornithologists in Western Australia. He then called on members present and visitors to outline their activities in bird work and offered suggestions for local activities. Miss Fletcher described the Bird Observers Club in Victoria. Mr. Edmondson traced the development of the W.A. Gould League, and Mr. Eakins described how Correspondence Classes were furthering bird study.

Dr. Serventy, at the instance of the chairman, outlined a plan for the future conduct of the meetings. He wished to avoid the profitless type of meeting so often found in natural history organisations. The meetings should have the serious aim of making us better ornithologists as well as providing an evening of entertainment. Bird people in Australia do not read enough about their subject, therefore they lack the theoretical background which is needed to get the best out of their observing. A great deal of effort is collectively expended in field-work, involving time, money, etc., and we should capitalise all this to the fullest extent. It was proposed to organise the future meetings of the R.A.O.U. in Perth so as to include discussions, under direction, or tutorials, in the various subjects needed for a fuller understanding of birds in the field or of specimens in the study. We shall find our hobby much more interesting the more we know about it. It was hoped to include a theoretical and practical topic at each meeting.

The proposal was discussed with approval and Dr. Serventy and Messrs. Glauert and V. Serventy were appointed a committee to handle the organisation of future meetings.

SECOND MEETING, JULY 24, 1943

At the second meeting of the branch, held at the Museum, on July 24, 1943, at 2.30 p.m. Dr. D. L. Serventy presided and led discussions on territory and the genus *Acanthiza*.

TERRITORY IN BIRDLIFE

The following is a summary of Dr. Serventy's remarks: That birds have parcels of ground or territories which they jealously guard for themselves while nesting, may seem quite an obvious fact. Actually, however, the idea of territory as a factor in the life cycle of birds is quite a new one, at least as far as the average birdlover is concerned, and it means much more than merely keeping enemies away from the nest. The idea of territory may be very effectively introduced by an incident which happened in one of the local Museum classes. A boy mentioned that Robins fight other birds at nesting time. Which other birds he was asked, Hawks, Magpies? Instead of giving the conventional answer, the keen young observer replied, other Robins. That was the essence of territory. A plot of ground, centred around the site of the nest, is defended by the male, sometimes the female also, against other males of the same species.

The best introduction to the study of territory for the average birdlover is given in James Fisher's "Watching Birds" obtainable in the Pelican series. It should be in the hands

of everybody at all interested in the field study of birds. A typical life cycle for an average territory bird was as follows:

First the individual was a member of a co-operative food-seeking flock, in which the birds did not sing. In the Spring the flocks began to break up and the males would leave and begin to pay visits to suitable small areas of their summer habitat. Finally the males left the flock altogether and stayed permanently in their territories, singing vigorously from various points of vantage in it. Thus the area became parcelled among the males. When any one intruded into the sphere of influence of another, aggressive reactions followed. There was a good deal of chasing about, but frequently no real combats. The intruding birds seemed conscious of the fact they were trespassers and put up no resistance until they got back past their frontier line; then the roles were reversed.

It was now the female's turn to leave the flock. She was attracted by the singing male and eventually she attached herself to one particular partner. When a male thus acquired a mate he usually ceased to sing. Those males possessing gaudy colours and special ornaments also stopped displaying them when the female became a resident. Generally the only occasions when the male would sing henceforth were when other males approached, and song and display were then a signal to aggressive intentions. The purpose of song was essentially to advertise the possession of territory, and the reaction of birds hearing it depended on their sex. A male bird hearing the song is made aware that a male is in possession and is challenging his approach; a female, on the other hand, is made aware that here is an unmated male with a territory and she is attracted to the spot. This theory now superseded the old idea that bright colours and display played a part in sexual selection and that females chose as their mates, the best singers and most gaudy males.

In the northern hemisphere, where the subject had been most studied, birds usually held territories only in the spring and summer nesting period, after which the territories were dissolved and the birds joined up again into nomadic or migratory flocks. However, there were many birds which were sedentary and did not form flocks. Study of some of these species revealed that they defended territories for the whole of the year. A consequence of this was that the males would sing all the year round. In the case of the American Mocking-bird males and females has separate territories in the winter, when both sang. In the spring when the female joined the male but did not share in the defence of the nesting territory she did not sing.

Very little work had been done in Australia, Mr. C. A. Fleming's work on the Silver-eye in New Zealand being practically a pioneer effort on an Australian bird. His work showed that the territory cycle in the Silver-eye compared fairly closely to a typical northern hemisphere bird maintaining only spring and early summer territories. Generally Australian ornithologists have not accepted the territory theory too enthusiastically for the interpretation of their bird observations. In particular they are averse to accepting the fact that song is purely utilitarian and serves merely to advertise the possession of territory. Here in Australia birds sing for a greater part of the year than in Europe and visiting ornithologists are impressed by the number of birds to be heard singing in our autumn and winter months. To my mind this suggests one of two things: Some of our honey-eaters, for example, have very prolonged breeding seasons. The Tawny-crowned and New Holland Honeyeaters may have individuals nesting almost at any month of the year; therefore, these particular birds would be singing. Secondly, territories may be defended permanently, all the year round. Therefore song as "a distance threat" to rival males would continue all the year. We have, as a matter of fact, few birds that are migratory; those that are strictly sedentary might well hold permanent territories.

The field ahead of us is a big one. We should organize our observations with the territory theory at the back of our minds as a working hypothesis, without clinging to every feature of overseas interpretation as indisputable dogma. Note the facts according to whether or not they are consistent

with any particular theory or territory. Attempt to determine whether territory is held only in the nesting season or at other times. Note whether birds are singing during any field excursion you make. Build song charts for particular species. This is now being done by New Zealand bird-watchers and the information should give us important clues as to whether such species are permanent territory holders or not.

Some individuals may hold permanent territories and others of the same species in other districts may not, as in the American Mocking-bird, the food capacity of an area determining whether a bird can afford to remain sedentary or not. Close attention should be paid to display or posturing. Try and distinguish whether the actions serve the purpose of threat behaviour to other males or are directed towards the female, or both. Do these things occur before or after mating, etc. Accurately record everything which seems to be pertinent and make it clear in your notes what is observation and what is conjecture or interpretation.

IDENTIFICATION OF THORNBILLS (*Acanthiza*)

In a discussion of problems of field identification of these birds, Dr. Serventy summarised the field appearance of the local species as follows:

Yellow-tailed Thornbill (*Acanthiza chrysorrhoa*)—The only local species with a bright yellow rump; spotted forehead and a white eyebrow.

Brown Thornbill (*A. pusilla*). In most books this is referred to as the Broad-tailed Thornbill (*A. apicalis*), but the latter like Whitlock's Thornbill (*A. whitlocki*) and others are only geographical races of the widespread Brown Thornbill. It is the only Thornbill which has streaked underparts; the rump is an inconspicuous brown and the tail is often carried cocked in the manner of a Blue Wren.

Western Thornbill (*A. inornata*). A plain little bird having unstreaked yellow-buff underparts and the back of a brownish olive.

The above three are the only ones to be found in the South-West; inland and further north are three additional species:

Chestnut-tailed Thornbill (*A. uropygialis*). This has a chestnut rump much brighter than the Brown Thornbill but the bird differs from that species in having no streaks on the breast. Also it does not cock its tail.

Thick billed Thornbill (*A. robustirostris*). This also has a chestnut rump but differs from all other Thornbills in having characteristic blue-grey upper parts. The crown is streaked. The species has not been recorded south of the Yalgoo district.

Slender-billed or Sapphire Thornbill (*A. morgani* or *iradalei*). A plain-coloured bird with a buff rump, looking like a very bleached form of the Yellow-tailed Thornbill; otherwise no conspicuous markings visible in the field; underparts unstreaked. It is largely confined to the sapphire margins of inland salt lakes but has not been seen south of the Eastern Goldfields.

THIRD MEETING, MAY 27, 1944.

This meeting, deferred on several occasions, was held at the Museum on May 27, at 7.30 p.m. Major Whitell presiding. The subjects discussed were Display in Bird-life and problems of identification of beach-drifted petrels.

BIRD DISPLAY

The following is a summary of a talk by Mr. V. N. Serventy, B.Sc. The topic was considered under three headings:

(a) Types of display.

(b) Value of display.

(c) Evolution of display.

(a) is becoming more and more widely known, although little is known of Australian birds. (b) and (c) are still matters for discussion.

The Equipment Birds Use in Display

(a) Voice, and noises produced by drumming the beak, and air whistling through feathers.

(b) Plumage, legs, bill, inside of mouth, and any special adornments.

(c) Special posture of body usually associated with (b).

(d) Actual physical contact of some sort.

(e) Use of some external object such as food presentation, nesting material, or bower.

Physiological and Mental Abilities.

Sight, touch, taste, hearing are well developed, but smell not at all in most birds except the petrels. Mental ability is probably on the same plane as a reptile. It can perform elaborate but purely instinctive acts. Educability is low.

Types of Display

(a) Courtship feeding—its food value is unimportant—and it is possibly connected with the presentation of nesting material. It is a possible reappearance of infantile behaviour as an adult sexual ceremony.

(b) Ceremonial gaping—bright colours associated with the mouth may be both stimulators and indicators for food placement.

(c) Posturing—a common type of display.

(d) Song.

(e) Greeting Ceremonies.

(f) Dancing.

(g) Flight.

Display type is determined to a large extent by mode of living.

Significance

The main drives in animals are food, sex and self preservation in that order:—

Display

(a) Replaces actual fighting.

(b) Serves as an advertisement to the female;

(c) but primarily display seems necessary to complete the sexual cycle—to achieve coordination throughout the breeding season.

Mechanics of Display

The "releaser concept" has been formulated by Dr. Konrad Lorenz. Postures, movements, etc., are "releasers" which switch on specific reactions, in an associate bird (this may be a child, parent, brother or sister, sex or social associate). There is an inevitable response to a releaser. The "releasers" are like a combination lock which requires a definite series of manipulations to open it—a series which it is almost impossible to find by chance. The Releasers must be unmistakable. One modification is that by damming up a reaction. Steps in the chain of releasers may be skipped, i.e., reactions have a threshold of intensity (an analogy is the series of steps which can under certain conditions be taken in one bound:—possibly this may be completely useless from a biological point of view as experiments so far have only perceived the fact that sexual union does occur, not that it was a successful fertilisation or that it was of value in keeping the pair united).

There are therefore two chains: (a) chain of releasers; (b) corresponding chain of thresholds.

(Criticism. Releasers are not single acts but rather a pattern of stimuli, individual variations of the pattern do not affect the successful result).

Recommended for further study, "Bird Display," by E. A. Armstrong, Cambridge University Press, 1942. In the *Emu* vol. XLIII, p. 88, 91-92 types of display in two local birds are described.

IDENTIFICATION OF PETRELS

Major Whitell, Dr. Serventy and Mr. Glauert discussed a series of Museum skins of local petrels and pointed out various features aiding identification. Wherever possible beach-drifted sea birds should be preserved and despatched to the Museum or some local ornithologist able to turn them into skins. When found on the beach, bedraggled and smothered in sand, they may appear unrecognisable and hopeless. However when carried along in the wind, and after they have had an opportunity of drying out, their appearance is quite transformed and many make good specimens. All such material should be carefully identified even if eventually it is necessary to discard it.

NEW AND NOTES

Retain this and later copies of the "Bird Notes" and keep them in a binder or file for reference. Only a limited number of copies are issued and if at any time you find no further use for them please return to the State Secretary (Mr. V. N. Serventy, 34 Onslow Road, Subiaco). They will be made available to new members.

Members are invited to suggest topics for discussion at the meetings, both for the theoretical subject and the group of birds for the practical discussion.

Our member, Mr. Ken Buller has recently returned from a lengthy journey along the Canning Stock Route where he was able to make an important collection of specimens. Another member, Mr. I. Carnaby, recently demobilised from the A.I.F. has during his army service visited areas of great ornithological interest in the northern part of the State. Mr. C. F. H. Jenkins is absent on a long country trip.

Recent letters from P/O Stan White and F/O E. A. Sedwick both with the R.A.A.F. "somewhere in Australia" indicate that they are actively engaged in ornithological pursuits in the areas where they are stationed.