

some birds of his country which is situated between 60 and 70 degrees of North latitude. Watching the activities of several birds according to a specially elaborated method, both at Helsingfors (60° 9 mins. of Northern latitude) and at Petsamo (69° 25 mins. of Northern latitude) in the arctic north, where the daylight lasts almost 24 hours over a period of more than a fortnight, he found interesting differences in their behaviour; in the latter place the birds were singing for nearly 24 hours, with only a short interval of rest of one to two hours in the afternoon. The tremendous amount of light during the Polar day thus reduced the normal rest per night to one or two hours. It was also stated by Rowan, Bissonnette and Palmgren that the factor of light, playing such an important part on the fertility, may also have some effect on the migration of birds.

6.

In his letter to me of September, 1941, Professor Bissonnette made the following remarks:—"Of course there (i.e. in New Zealand) is much work to be done regarding photoperiodicity in birds and mammals. Each species should have its type of reaction known so that a broad view of the causes behind the correlation of cycles with seasons can be known, and normal cycles of gonadal activity must be known first. So I feel there is much you can do in this matter even if experimental work is impossible at first." In another letter he said, "I was greatly interested in your letter of December 17th and the outline of observations for your collaborating with field observers. The plan is very inclusive and will furnish much-needed data on any species. Is any bird banding done over there to learn of possible migrations of native or introduced birds? Apparently we have two different strains of Starlings in America now, just as they do in England, a migratory or visiting population and a fairly stationary or local strain. They are said to differ in amount of body-fat during winter . . . and perhaps the two strains may be with you. . . ."

It is obvious that this country, owing to the long shape and similar climate of the two islands, is especially suitable for this investigation.

This investigation consists of field observations on three species, the White-eye (*Zosterops lateralis*), the Blackbird (*Turdus merula*) and the Thrush (*T. ericetorum*). It would be most desirable to have field observations simultaneously from Auckland or north of Auckland, Wellington, Christchurch and Otago or Southland districts on all these species. Observations on the same lines on any other native or introduced birds will also be welcomed.

Any members who would like to assist Mr. C. A. Fleming and the undersigned in this investigation, are asked to write to the latter. Address: Care Consulate General of Poland, Wellington, when they will be supplied with further information and the necessary simple forms for field observations.

K. A. WODZICKI.

DAILY NOTE TAKING, by J. M. Cunningham.

J. M. Cunningham, R. H. D. Stidolph and S. B. Yelverton are carrying out a system of classified note taking which has much to commend it. It provides, at the expenditure of 2 or 3 minutes daily, a complete check on any regular habits which are of any interest, and has already disclosed information of great interest. It is the presence of and song of birds in relation to the weather and season which is the object of the study, and from the form of the notes it is easy to say, for example, when the first and last seasonal songs of each bird were, etc. Many members no doubt note the occasion of the first song but it is rather difficult to do so in the case of the last, unless one notes each day a song is heard. That is our principle. The desire to get full results also helps to sharpen one's perception, and not let any small event pass and after a time listening and watching while outside, becomes an involuntary habit.

A fair sized sheet is used with $\frac{3}{4}$ in. squares printed on—35 horizontally, one for each day of the month and one for each of 4 weekly

summaries the full value of which has not yet been exploited, but when combined consecutively with the next year's should indicate visually any important differences. Vertically there are a varying number, depending on the number of birds under observation. Most birds require more than one line. In the case of J.M.C., the blackbird has 4: one for "sub," one for "part," one for "full" song, and one for additional (and variable) notes. If, for example, a full song is heard, a cross is made in the full song line under the date in question. In the 4th line, information such as fighting, moulting, etc., is entered by means of letters—"f.m.f." for "fight, male versus female," etc. The presence of blackbird is not entered in this locality as it is constant, but if it varied a line would be required for "presence," as the thrush and most others. Distinction is usually made between part and full song, "part" being generally a short or incomplete "full" song. This is noticeable in the case, e.g., of the chaffinch; in the case of the blackbird a sub song line is also necessary.

J.M.C. uses two coloured pencils: a blue one to denote "regular," a red one for "occasional" events, and the two in conjunction for "several." "Occasional" is taken to mean one or two odd songs or perhaps the bird was seen to be present once or twice a day, and several and regular explain themselves. In this form it is easy to read the results—to take a perfect but imaginary case. For the first week the "presence" line was blank. Next week there are several red crosses in this line. Third week sees blue crosses in this line and also there are red crosses in the "part song" line. These become more frequent, changing to blue, and moving into the "full song" line. The explanation is that the bird, which was at first absent, is coming round more frequently, becoming a resident, and that it gradually sings more as time goes on. Perhaps it may also be found that moulting is ending as the song commences. In any case, the sequence is clearly portrayed. If you want the date of the first real regular song, look for the first blue cross in the full song line and similarly with last song, first fight, etc.

N.B.—A second method, carried out by R.H.D.S. and S.B.Y., is to put letters instead of crosses in the squares and then one or two lines is enough for each bird, e.g., P for present, F.S. for full song, P.S. for part song, etc.

Once the information is all there it is possible to make a summary of it. Here in Masterton, a period is about to end and a summary has been made for the preceding three months, the results of which are given below. The next period will commence in July and is expected to include the first songs of the blackbird and others.

One or two lines are reserved for weather notes—in a rough form. R for rain; D, dull; S, sunny; C, changeable (includes rain and sun); H, hot; W, warm; T, temperate; C, cold, and this is sufficient to give a general picture, i.e., there may be a warm week which causes certain birds to sing out of season, or perhaps to fight.

The table is not intended to supersede other notes, but to have a space to note each event instead of writing in full and perhaps missing it. J.M.C.'s chart concerns only birds in his garden and the other notes are made on the way to work and school, thus covering a fair area. Anyone interested is invited to write to J.M.C. for any additional information and a sample completed chart will be sent on request. Suit—(Owing to lack of space in this Bulletin, it has been necessary to hold over the report mentioned above, and it will appear in the next issue.—Eds.)

able paper can be obtained here at a small cost.

SUMMARIZED CLASSIFIED REPORTS.

NORTH ISLAND KIWI (*Apteryx mantelli*).—Heard 18 miles north of Waipu, in the Takahewai hills; also in the Kukumui hills nearby, where residents frequently see them. (W.S.) Moumoukai, Clevedon: Last one