

black-fronted tern. (Rep. and Bull, O.S.N.Z., p. 85 and Notornis 3, p. 11.) Fortunately the bird was so strikingly marked that I took careful note of its plumage, and when it alighted on a post made a hasty thumbnail sketch. In the light of recent experiences I am quite certain that it could only have been a white-winged black tern. While we were watching the tern, a fine specimen of the blue moon butterfly (*Hypolimnas bolina*) was sunning itself on the scrub manuka. Is it too fanciful to suppose that both tern and butterfly had been borne on the same wind from the direction of northern Australia?

Two other possible occurrences of *C. leucopterus* have come to light. In September 1953 I visited the Far North and in the course of conversations with Messrs. A. H. Watt and Kaka Wiki, learnt that in August 1949 and again in August 1953 at Te Kao single small greyish terns had visited wet paddocks which were much frequented by red-billed gulls. From the description of their behaviour I concluded that, while certainty was impossible, these terns were in all likelihood specimens of *C. leucopterus*, which has truly been described as a "great wanderer."

If the white-winged black tern is not breeding in New Zealand—and there is no substantial evidence that it is—its reaching New Zealand at all is a feat of travelling comparable with the occasional wandering to eastern America by specimens of presumably European origin. A perusal of the relevant literature shows that little is known about the normal southern limits in winter of the Asiatic population. Malayan ornithologists agree that the species is a regular migrant and winter visitor to the Straits of Malacca, Gibson-Hill adding that the numbers vary considerably from year to year. In the Philippines, Delacour and Mayr tersely describe it as a winter visitor. Mayr does not include it either in his list of New Guinea Birds, 1941, or in his Birds of the South-West Pacific, 1945. According to Serventy and Whittell, it "sometimes reaches the coast of northern Australia." Alexander chronicled the great invasion of Western Australia in 1917, but nearly thirty years elapsed before the species was recorded again. Hindwood (in lit) knows of no occurrence near Sydney.

Of the many Auckland ornithologists who watched the local white-winged black terns in 1953, I am especially grateful to Miss N. Macdonald, Mr. H. R. McKenzie and Mr. and Mrs. J. Prickett, who put at my disposal their notes and photographs, and, in discussion, gave me the benefit of their observations on these stimulating birds.

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### THREE OBSERVATIONS OF FANTAILS.

By J. M. Cunningham, Masterton.

(1) INCUBATION.—On September 5, 1953, I noticed a pair of fantails (*Rhipidura flabellifera*) had just, within a few hours, commenced building a nest on a tree fern frond, overhanging a stream flowing through my garden. It was thus favourably placed for observation and activities were watched in some detail. The nest, five feet above the water, was sheltered by another dead frond, and differed in no way from numerous published descriptions. On examining the not inconsiderable literature, however, I was amazed to find an almost complete absence of data concerning the incubation period. With such a common and readily observable species, it is certain that the period must have been determined on many occasions, but the only published references are W. R. B. Oliver (N.Z. Birds, 1930, p. 470) who states: "Mr. Wilkinson informs me that the period of incubation is 13 days and the young spend a further fortnight in the nest," and A. S. and the late Amy Wilkinson (Kapiti Bird Sanctuary, 1952, p. 64): "Incubation lasts about 13 days and for two weeks the young stay in the nest." ("About 13 days" does not, of course, imply doubt but rather that the period is variable.)

The following is the relevant information from my nest record card number 245 (on which entries were usually made three times daily):—

- September 5—4 p.m.: Nest just commenced.  
7—p.m.: Shell almost complete.  
8—8 a.m.: No lining yet.  
9—8 a.m.: Lining and nest complete.  
11—Empty.  
12—10 a.m.: One egg.  
13—9 a.m.: Sitting.  
11 a.m.: Two eggs; not sitting.  
5.30 p.m.: Two eggs; not sitting.  
14—8 15 a.m.: Three eggs; not sitting.  
5.30 p.m.: Three eggs; not sitting.  
15—8.15 a.m.: Sitting.  
12 a.m.: Four eggs, sitting, but flushed bird which returned.  
29—5 p.m.: Four eggs, " " " "  
30—8 a.m.: One egg and three chicks. " " " "
- October 1— 5 p.m.: One egg and three chicks.  
2—8 a.m.: Three chicks, unhatched egg disappeared during night.  
13— p.m.: Three chicks.  
14—1 p.m.: Out of nest.  
17—5 p.m.: Three flying well.

It may be seen that the nest was completed on September 9, in about  $3\frac{1}{2}$  days. Eggs were laid daily, apparently early in the morning, the first on September 12, and incubation commenced with the laying of the fourth egg on September 15. Up till then no bird had been found on the nest except when (apparently) laying. Three eggs were found hatched on September 30 at 8 a.m., giving an incubation period of 15 days. The extreme limits could have been as little as 14 days 5 hours or as much as 15 days  $14\frac{1}{2}$  hours, but if it is assumed that eggs were in fact laid before 8 a.m. and that hatching took place about the same time the period was almost exactly 15 days. The last egg, which did not hatch, disappeared on October 2 and the three chicks left the nest on the morning of October 14, after a nestling period of 14 days. They were seen to be flying well on October 17, when observations ceased.

The above is given in some detail to impress on members the desirability of completing nest record cards—though it is rarely that such complete details can be given—and the necessity of not making unjustifiable assumptions. (For instance, it is not shown conclusively that laying and hatching take place early in the morning.)

(2) NESTING TENACITY.—It is well known that fantails are devoted to their nest, and birds can frequently be stroked when sitting. On September 23, 1940, during a high gale, I observed two birds (one of which had only one leg), sit together, one on top of the other. This may have been due to their anxiety to protect the eggs in the gale which was heavily lashing the branch on which the nest was built, or possibly it was due to excitement caused by the near hatching of the eggs (one or two days later). The former, however, is the more likely, as on October 27, 1952, I observed a similar occurrence only nine days after commencement of incubation.

(3) DISTURBANCE WHILE NESTING.—Although I have not known a fantail's nest to be deserted through being watched, undue disturbance may well cause this. While a pair was feeding very young chicks in the nest, one bird repeatedly flew close to me so I caught it in a small net, for examination. It was ringed and on its release it immediately left the nest site and took up residence some two chains away. The feeding of the chicks was continued by the other bird on its own. They were all successfully reared.