

for this bird. The name White-winged Black Tern is given to this bird by British ornithologists to distinguish it from the Black Tern (*Hydrochelidon nigra*). It is true that the Latin name *leucoptera* bestowed on the bird by Temminck means "white-winged," but the white on the wing is a comparatively small amount on the coverts. I would suggest that it should be known in Australian books as the Black Tern, this being the only Black Tern in Australian literature, and hence not needing the prefix "White-winged" to distinguish it. It would be less misleading than dropping the word "Black" out of the name, as is commonly done.

A much happier name, as anyone who has seen the birds alive will agree, would be White-tailed Tern. The white tail, in contrast even with the speckled plumage of the majority of the birds seen in Western Australia, was very conspicuous, and in the adult this contrast is even more striking.

The Nestlings of Australian Finches : What do we Know about Them ?

BY GREGORY M. MATHEWS, F.R.S.E., R.A.O.U.

A RECENT paper in an American scientific journal would not, perhaps, be noted by every Australian ornithologist, and, as it touches upon a subject which is of great interest to such, I here make some notes.

The paper is entitled "The Classification of the Weaver-Birds," and the author is James P. Chapin; it was published in the *Bulletin of the American Museum of Natural History*, vol. xxxvii., pp. 243-280, 8th May, 1917. It begins:—"The one external character which enables us to distinguish the Ploceidæ, or Weavers, from the Fringillidæ at a glance is the condition of the tenth or outermost primary." We have no members of the Fringillidæ in Australia, but we have a series of Finches which are classed in the Ploceidæ. The British custom, so far accepted by Australian ornithologists, is to call the outermost primary the first, whereas Americans count from the inside and term it the tenth. Much of Chapin's paper deals with the size and value in classification of this outermost primary, which is a very small one. Chapin's conclusions were drawn up from field study of the African members of the family Ploceidæ in the Congo, where he collected birds for some years. During this period he noted the coloration of the mouths of nestlings, and observed that peculiarities in that connection could be reconciled with other data, and thereby a more definite and conclusive classification be achieved. As regards the Australian forms, he had recourse to literature, and from this deducted certain items, which I now consider, and it is certain that such facts, when confirmed, will add to the value of

our classification. We may ignore the condition of the outermost primary in this place, as it does not concern us.

Two sub-families have long been recognized in the family Ploceidæ—Ploceinæ and Estrildinæ—all the Australian Finches being referred to the latter. Again, Chapin separates some aberrant members in the former sub-family, but that is of more interest to the general systematist or African specialist than to ourselves. He states, however :—"The skeletons . . . show no differences by which the Ploceinæ can be distinguished from the Estrildinæ. Moreover, they even agree closely with those of Fringillidæ, such as *Passer*, *Pinicola*, and *Parvaria*." No skeletons of Australian forms seem to have been examined, so that it would be of interest to consider these, especially as it is concluded afterwards that these are the most specialized forms.

Chapin's chief item is in regard to the mouth markings of the nestlings. Campbell, in the "Nests and Eggs Austr. Birds," vol. i., p. 498 (1901), under the species *Poephila mirabilis*, wrote :—"There is a singular fact in connection with the young birds that has not yet been recorded by other observers—that is, a protuberance upon the gape which (when the youngster is in a dark part of the aviary) reflects the light and shines with an opal-like brilliancy." Simultaneously, however, this has been noted by A. G. Butler in the *Avicultural Magazine*, vol. v., p. 25, December, 1898 (Campbell's MS. was written before this date, though not published until 1901), where he published a note "On the Ornamentation of the Mouth in the Young Gouldian Finch," observing :—"The inside of the mouth is either ivory-white or flesh-pink, the palate conspicuously marked (like a domino) with five more or less round black spots in pentagonal form—one in front, two wide apart in the centre, and two near together at the back. . . . The tongue is crossed just in front of its centre by a broad belt, or by two large pear-shaped black spots, with apex directed forward. . . . At the back of the gape are three prominent rounded tubercles in the form of a triangle. Two were emerald green and one blue, and all had a pearly or opalescent lustre."

Chapin states his results thus :—"The two sub-families Estrildinæ and Ploceinæ will be retained. For convenience we may distinguish them in English as Weaver-Finches and Weaver-Birds (or true Weavers). . . . So far as known, all the nestlings of the Ploceinæ lack dark spots in the mouth, have the gape simply swollen, and yellow or whitish, as is usual in the young of Passerine birds. The eggs of Ploceinæ are usually coloured or spotted, though in a few cases pure white. . . . The Estrildinæ are to be distinguished by the fact that their nestlings exhibit dark pigmented spots or lines in the mouth, often with small coloured wattles or lobes at the gape. These latter are lacking in *Spermestes*, *Amauresthes*, and *Munia*, which have lines on the palate instead of spots. Those three genera, with others, no doubt, still to be ascertained, are thus rather distinct from the rest of the group.

The Weaver Finches can scarcely be said to merit their name, for they build nests which are not pensile, nor really woven, their most typical form being flask-shaped. The entrance opens at the side. . . . A striking thing about their nesting habits—in many species, at least—is that the parents neglect to clean the nest of excrement, with the result that it becomes extremely foul before the young are ready to leave it. This is rarely the case with the Ploceinæ. . . . So far as I can ascertain, the Estrildinæ in every case lay pure white eggs. . . . From the preceding remarks, it should be clear that in order to decide on the relationships of the various genera of Ploceidæ, the examination of nests and young is indispensable. . . . It is greatly to be hoped that ornithologists will investigate the nesting. . . . The skeleton, and particularly the sternum, of the last-named genera are worthy of attention. Important features of many . . . genera are still in doubt. . . . The exact affinities of *Tæniopygia* and the other Australian genera may not be very clear, but they are all surely Estrildine."

A diagram is given to illustrate the apparent development of the forms, and *Poephila*, with which Chapin would associate the other Australian forms, though he has indicated that *Munia* is aberrant, is placed almost at the limit. On this account alone it would be of great value to have on record the coloration of the mouths of Australian birds. There is almost a score of species on the Australian list, and the majority of these are referred to different genera, a dozen being accepted by conservative workers. Very different coloration is seen throughout the series, and in some cases the same colour-pattern has been retained, though structural differences have been evolved. Nothing is known about the mouth coloration, save in the case of *Poephila* and *Munia* (not the Australian species of the latter genus).

Chapin, from other characters, ranges the species into groups, and thus *Aidemosyne* and *Munia* appear in the lowest, then *Tæniopygia*, then *Bathilda*, *Ægintha*, *Stizoptera*, *Zonæginthus*, *Neochmia*, *Stagonopleura*, *Erythura*, and *Poephila*, while he appears to have overlooked *Emblema*. This is apparently Chapin's idea of their development, and it is certainly different from the grouping, following Sharpe, given in my "List," which reads:—*Stagonopleura*, *Zonæginthus*, *Tæniopygia*, *Emblema*, *Stizoptera*, *Lonchura* and *Heteromunia* (= *Munia*, Chapin), *Aidemosyne*, *Ægintha*, *Bathilda*, *Poephila*, and *Alisteranus* and *Neopoeiphila* (= *Poephila*, Chapin), and *Neochmia*, *Erythura* having been added since the "List" was published. Many of the Australian species are available to field ornithologists, so I am writing this note asking anyone who meets with nestlings to observe and record the coloration or any other details of the mouths, so that Chapin's notes may be confirmed, or otherwise, from different material and locality.

A couple of interrogations may be noted. Have the Australian species referred to *Munia* the same aberrant mouth-coloration as

the Java Sparrow, the real *Munia*? Has *Aidemosyne* a spotted mouth, or is it like *Munia*? Then *Tæniopygia*, from external characters alone, is regarded as possibly peculiar, and thus merits consideration. My own conclusion, from Chapin's account, is that all the Australian birds will be found to resemble more or less *Poephila*, though it is possible that unexpected results will be seen, especially as it is suggested that these Weaver-Finches have arrived in Australia at different periods. It is certain that they are immigrants from the north, and, moreover, comparatively recent. Thus, they are practically absent from south-west Australia and Tasmania, only one species occurring in each of these localities, and these are representative species, belonging to the same genus, *Zonæginthus*. This at once suggests that this was the earliest immigrant into Australia, and that later arrivals have exterminated it in the northern districts. *Stagonopleura* and *Tæniopygia* occur in Victoria and South Australia, and these may have come with *Zonæginthus*, but in less numbers, and, not being such wanderers, have failed to penetrate into Tasmania or get round to Western Australia. It is possible that some of the northern species came at the same time, but did not push south, but it is certain that the northern forms are extending their range, as the case of *Erythura* emphasizes this. However, the Australian species are all well differentiated, so that every item that can be of use is necessary. Consequently, I hope this note will bring forth descriptions of nestlings' mouths, and if this be undertaken it is feasible to anticipate other items being recognized that may be of even more value.

A New Raptor (*Gypoictinia melanosterna*) for Tasmania.

BY COL. W. V. LEGGE, C.M.B.O.U., TASMANIA.

ON or about the 23rd November, 1916, while in my poultry yard in the early morning, my attention was arrested by an unfamiliar cry of a bird of prey, accompanied by the well-known notes of the Brown Hawk and the Harrier. The birds were high in the air, directly above me. Soaring in wide and perfectly uniform circles was a large, Eagle-like bird, with long, narrow wings and even tail, seemingly quite indifferent to the swoops of the two Brown Hawks and the Harrier. The wings and tail showed at once that he was not a Wedge-tailed Eagle, and a momentary glance revealed to me the two conspicuous white under-wing patches identifying the stranger as the splendid Black-breasted Buzzard (*Gypoictinia melanosterna*), beautifully depicted in Gould's fine plate. As Campbell remarks in his "Nests and Eggs," these white patches, very noticeable from beneath, when the bird is soaring above the spectator, are an easy clue to its identity. It was a fascinating sight to gaze at its majestic circlings, with perfectly immovable wing, all the while indifferent to the attacks



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