

sign of the magpie (*Gymnorhina* sp.) in the district nor did I meet anyone who had; I was told it was not present.

I left Collingwood the next day; the stoppage of the service car on Takaka Hill owing to radiator trouble, enabled me to add the tomtit (*Petroica m. macrocephala*) to the list of birds seen.

It is of interest to recall that when the late Mr. H. Guthrie-Smith visited Farewell Spit and the Collingwood district in 1924 (vide "Sorrows and Joys of a New Zealand Naturalist," pp. 48-53) he identified the small gulls then breeding on Bird Island, Collingwood, as the black-billed species (*Larus bulleri*). The small gulls I saw in this district were definitely red-billed and I never saw a black-billed gull (*bulleri*). At Shelly Banks he recorded several hundred Caspian terns breeding, but no other terns, and a few black-backed gulls. On Bird Island he saw several hundred godwits, 500 to 600 pied oystercatchers, some black oystercatchers, and he recorded as breeding on this island less than 100 pairs of Caspian tern, 12,000 to 15,000 white-fronted terns, 3,000 to 4,000 black-billed gulls, and half a dozen pairs of black-backed gulls. I was not able to visit Bird Island but through binoculars the only birds I could see flying over and settling on the island were Caspian terns in small numbers.

In the second week of November, 1919, when Mr. L. L. Redick, a visitor from America, spent two days at Cape Farewell lighthouse, according to his observations published by the late Mr. James Drummond in his "Nature Notes" column in the "Auckland Weekly News" (December 27, 1919) the Caspian tern, white-fronted tern, black-backed gull and red-billed gull were breeding on Shelly Banks, though he expressed the opinion that they were in much smaller numbers than formerly. Earlier reference in the same column by Mr. H. P. Washbourne, of Sumner, described the great change that had come over the Spit compared with what it was originally, when "there were," he wrote, "long parallel ridges of stunted bush, about 20 feet high. Between the ridges were long shallow lagoons, about knee-deep, with grass, flax and other plants filling up the hollow. . . The scene has changed indeed. The Spit now was a mass of bare driving sand. In some places the old wooded ranges showed a ghastly row of bare, dead branches, the pretty hollows were filled up with drifting sand, and only occasionally was a bird seen, making the countless numbers of former years seem incredible."

In spite of the changed conditions, as indicated above, much of interest remains, though the tremendous difference in the numbers of birds originally found in the district, compared with those of 1924 (Mr. Guthrie Smith) and those of my visit in 1946 is not very reassuring. I am referring more particularly to the gulls and terns. Perhaps some practical action can be taken to restore the vegetation on the Spit.

REVIEWS.

Darwin's Finches, by David Lack. Camb. Univ. Press, 1947.

Darwin's finches are important birds. It was his observations on these birds of the Galapagos, and on the giant tortoises and other animals there which began the train of Darwin's thought that led to "The Origin of Species." Since Darwin's day these birds have been studied by a number of other workers. This book embodies the results of the work of David Lack on the living birds in 1938-39, and his study of skins and other material in American and British museums. I would not be surprised if it comes to be regarded as a landmark in ornithological research. Darwin's finches are a group of birds closely related and much alike in colouring, nesting and courting habits, etc., and differing mainly in beak-form, size, and the food they eat. They inhabit the Galapagos Islands and Cocos Island, and are of great interest to the student of evolution. Lack reduces the 6 genera of Swarth to 4, retaining the rejected genera as sub-genera, and similarly reduces several species to sub-specific status. The whole book is so closely packed with thought-provoking material that it is hard to single out points for comment.

After a historical, climatic and geographical sketch in the first chapter, Lack deals with the problem of classification, ecology, plumage, sexual selection, beak differences, food, size differences between island forms and between species, hybridization and attempts to construct an evolutionary tree. That completes Part 1, Description. Part 2, Interpretation, deals with the origin of the Galapagos fauna, the origin of sub-species and of species, the persistence of species, and adaptive radiation. His criticism and development of Huxley's view on ecological isolation are particularly important. There is considerable illustration of his points by reference to many other species of birds. The book is amply provided with text-figures and tables, and is illustrated from photographs, drawings, and reproductions of Gould's admirable paintings of the finches. There is an extensive bibliography, full indexing, and, above all, the book is readable.—Ron Scarlett.

New Zealand Birds and How to Identify Them; P. Moncreiff. Whitcombe & Tombs, Ltd.; 8/6.

Mrs. Moncreiff is to be congratulated on publishing a third (revised) edition of this popular book. Its general style and arrangement follows that of previous editions, and it has been enlarged by the inclusion of an increased number, 18 in all, of coloured plates by the late E. J. Dart, some 35 species being illustrated in colour. The large number of photographs, mainly of museum specimens, include few from life, but their value as aids to identification is obvious. Although primarily designed for identification of wild birds, many of the descriptions appear to be taken from skins, and are not very helpful in the field. Under grey-backed storm petrel, for instance, it is stated, "Head dark greyish black. Upper parts grey. Tail tipped black," and it may be doubted if such a description would be of much use to the amateur observer. It is a pity, seeing that so many children will read this book, that the 50-year fable of the grey warbler being the foster parent of the long-tailed cuckoo has again been repeated, and there are other inaccuracies, such as the white-faced storm petrel not being as plentiful as the black-bellied species. A perusal of other recent literature will reveal much that might have been included in this edition, but these criticisms apart, the book will continue to spread knowledge and sympathetic interest about New Zealand bird life. The colour plates are beautifully printed, and the whole volume is an attractive production. It will fill a much needed want as a gift book to bird lovers and ornithologists will want it on their shelves.—J.M.C.

The Life of the Robin, by David Lack. 2nd edition. Witherby, London, England.

The first edition of this book appeared in 1943. This edition is considerably enlarged, with new photographs and other illustrations, and incorporates the results of the research on the robin which has taken place since the first edition was written. It covers every aspect of the bird's life, and is a model of scientific writing, in good prose which holds the reader's interest while imparting the essential facts. To those who know Lack's work it will need no recommendation.—Ron Scarlett.

Notes on the Ecology of the Robin, by David Lack. Ibis. Vol. 90, No. 2, April, 1948; p.p. 252-279.

This important paper supplements the book reviewed above, and brings the account of robin research up-to-date. A good bibliography is included.—Ron Scarlett.

Kiwis in Captivity, as told to Robert Gibbings, by F. D. Robson, Hawke's Bay Art Gallery and Museum, Napier; Whitcombe & Tombs, Ltd., 1948. Price, 1/-.

Experiences with the kiwi in captivity are given in this publication, which is illustrated. According to Mr. Robson's observations, the male kiwi alone incubates the egg and the incubation period is from 75 to 80 days. It is an eminently readable account well worth perusing.—R.H.D.S.

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