to me without knowing his father had described it to me and the accounts agreed. The cuckoos must have been gathered together in such numbers preparatory to their migration.

Killing birds with a stick from a concealed perch alongside a decoy bird was an old Maori method of killing kakas, so the story is in keeping with their methods.—I am, etc., Robert A. Wilson. Bulls, 16/4/50.

## REVIEWS.

Trapping Methods for Bird Ringers, by P. A. D. Hollom, British Trust for Ornithology Field Guide Number one, 1950. Price, 2s. 6d.

This excellent publication of 40 pages contains details of all types of traps likely to be used by those ringing birds. Measurements and clearly set out diagrams of the various types of traps—automatic, non-automatic and nets—should enable any of them to be made without trouble. Disadvantages, if any, and the precautions to observe with certain types are mentioned and an indication is given of the most suitable kinds of bait. In a preface, Dr. A. Landsborough Thomson, chairman of the Bird-Ringing Committee of the British Trust for Ornithology, emphasises that trapping "must not involve injury of any kind to the birds" and that in the preparation of the pamphlet "care has been taken to exclude methods likely to be harmful." These standards will be endorsed heartily by bird workers in New Zealand and those in this country who wish to take up ringing cannot afford to be without a copy of this pamphlet. Copies of the guide may be obtained from the British Trust for Ornithology, 91 Bambury Road, Oxford, England.—R.H.D.S.

The Royal Albatross, by J. H. Sorensen. Cape Expedition, Scientific Results of the New Zealand Subantarctic Expedition, 1941-45. Cape Expedition Series, Bulletin No. 2 (39 pp. 1 map, 8 tables and graphs; published by the Dept. of Scientific and Industrial Research, Wellington. Price, 4s., post free).

This publication is the first official ornithological result of the wartime occupation of the Subantarctic islands by coast-watching parties which included several naturalists among their numbers. Its author, already well-known for his popular articles in "The New Zealand Listener," spent parts of four years at Campbell Island between 1942 and 1946, and selected for special study the southern royal albatross (Diomedea epomophora epomophora). His results supplement the pioneer work of Richdale on the northern royal albatross (D. e. sanfordi).

The annual breeding royal albatross population of Campbell Island (area 42 sq. m.) is put conservatively at 5,000 pairs, locally concentrated to a density of 10 pairs per acre and 2,000 chicks are estimated to leave the island each year. Grazing sheep cause little trouble; the greatest mortality (approximately 50%) is due to attacks of skuas during the first week after hatching.

An interesting phenomenon which could hardly occur in small breeding colonies is the gathering of "gams" or groups or immature and unemployed adult birds for social intercourse, which follows courtship behaviour patterns, throughout the breeding season. "Gam" is defined by Webster as "social intercourse between persons ashore," and the usage dates back to the times of the whalers, for whom a "gam" was also a visit between ships at sea.

A section is devoted to "walking and flight" and another to "sexual dimorphism." As in the northern race, males are larger, but sexual plumage differences (slight in **sanfordi**) are pronounced. Immature birds and young females resemble adult **sanfordi** but they can usually be sexed by the number of brown feathers on the crown. There is no direct statement on the colour of the tips of rectrices in young.

An account of the life history begins with a section on courtship and nest-building.. Laying reaches a peak in the first week of December (as compared with mid-November at Otago Heads) and incubation

occupies 79 days. Chicks are fed irregularly on fish and squid until they may attain a maximum weight of 32.5lb. (adults weigh about 20lb.). Sorensen confirms the absence of a fasting period before the young fly. Adult body-moult is suspected during a few weeks before and after the egg hatches.

Growth of the chick during the 35 to 38 weeks spent in the nest is described week by week and the history of a restricted colony, in which every bird was ringed and each nest pegged, is followed from 1943 to 1946. These few pages are the result of many long hours of careful observation and recording in weather that was usually bad. None of the 390 young ringed on the island was recovered in later seasons.

The patience and conscientious industry of this investigation into the biology of our most noble seabird in its bleak environment must earn the admiration of all fellow students of oceanic bird life. The bulletin is easy to read, but there are a few awkward passages (e.g. the opening sentence under "Unusual Behaviour") which suggest uncritical editing. Photographs are excellent, reproduction adequate; reproduction of graphs in half-tone seems unnecessary. The bibliographic reference (from cover, as quoted above in full) could well have been simpler and less redundant. Lack of a title page (with publication date and reference) between cover and contents raises problems for librarians planning to bind the series. Such faults can be remedied in the future bulletins necessary to record four years of sub-antarctic nature studies.—C.A.F.

## SCIENTIFIC NAMES.

The scientific names of birds in this issue, where not given in the text, are:—

Bell-bird (Anthornis melanura).

Blackbird (Turdus merula).

Creeper, Brown (Finschia novaeseelandiae).

Cuckoo, Shining (Chalcites lucidus).

Dotterel, Banded (Charadrius bicinctus).

Dotterel, N.Z. (Pluviorhynchus obscurus).

Duck, Grey (Anas poicilorhyncha).

Fantail (Rhipidura fuliginosa).

Goldfinch (Carduelis carduelis).

Harrier (Circus approximans).

marrier (Officus approximatis).

Huia (Heteralocha acutirostris).

Kaka (Nestor meridionalis).

Magpie (Gymnorhina sp.).

Pheasant (Phasianus colchicus).

Pigeon, Wood (Hemiphaga novaeseelandiae).

Rifleman (Acanthisitta chloris)

Robin (Miro australis).

Silver-eye (Zosterops lateralis).

Skua, Southern (Catharacta skua lonnbergi).

Sparrow (Passer domesticus).

Starling (Sturnus vulgaris).

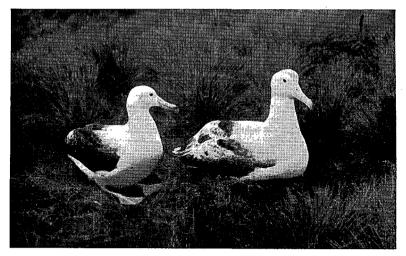
Thrush, North Island (Turnagra tanagra).

Thrush, Song (Turdus ericetorum).

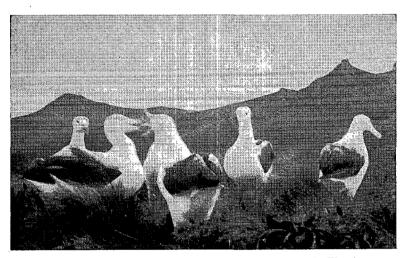
Tomtit, South Island (Petroica m. macrocephala).

Tui (Prosthemadera novaeseelandiae).

Warbler, Grey (Pseudogerygone igata).



SOUTHERN ROYAL ALBATROSS.—A nesting pair at Campbell Island showing sexual dimorphism (male on right).



Photos. 1943 by C. A. Fleming.
A "GAM" OF IMMATURE SOUTHERN ROYAL ALBATROSSES,
Campbell Island.