The proximity of the last meal ashore to the departure of the chick has always been an interesting topic. Unfortunately, I have never been able to witness that last meal. From a reliable source I have the information that "Jacky" was fed two days before he flew, while another of the five chicks in 1941-42 was seen to be fed at least at 11 a.m. on the day before it left and possibly the day it left, for I was not quite sure within a few hours of the exact departure time of the chick. When the breeding area was visited at 8 a.m. on the day after feeding, the chick was found to have flown, thus departing within the 21 hours after receiving food.

As expected, the 1942-43 season produced only one egg, which duly hatched. Unfortunately, when three months old the chick fell a

victim to a ferret which had been taken into the enclosure.

I wish to thank the Council of the Royal Australasian Ornithologists' Union for the use of the accompanying photograph, which has appeared in *The Emu*. At the same time, I should like to draw the attention of members to the work of the Union and to its excellent journal, and to urge all who are seriously interested in birds to become a member of it. Information can be obtained from our secretary.

THE INVASION OF NEW ZEALAND BY SPINE-TAILED SWIFTS IN THE SUMMER OF 1942-43.

By L. W. McCaskill.

The Spine-tailed Swift, *Hirundapus caudacutus*, Latham, is found in summer in the east coast districts of Australia and in Tasmania. It breeds in June in Japan, Mongolia, Siberia and the Himalayas. Previous records in New Zealand are:

1. Manaia, in Taranaki, March, 1888.—" New Zealand Birds." Oliver.

2. A bird shot at Tokomaru in November, 1930. Mr. R. H. D. Stidolph reports that he has seen the skin.

3. A male bird in the Auckland Museum. Collected by Mr. N. A.

Clifton, jun., at Mokau on November 22, 1935.

Following on reports of these swifts having been seen in Westland in December, 1942, an appeal for information was inserted in "N.Z. Bird Notes," vol. I, no. 1. The notes sent in by members and others are summarised below:

1. November 29, 1942.—One adult male was found dead in a tree at Hokitika. (The specimen is now mounted in the Canterbury Museum.)

2. November 30.—Mr. Turbott, of Auckland Museum, was sent a live bird picked up on this date by Mr. R. D. Meredith at a point 27 miles south of Te Awamutu. It was flying at high speed eastwards when it collided with an overhead wire and was picked up stunned. It was placed in an aviary in the Auckland Zoo, but was dead next morning. It was a male in first winter plumage.

3. December 1.—Mr. Turbott received another bird which was found dead by Mr. Adams at Milford. Its gizzard was half filled with insect remains and chitinous fragments, and its plumage, condition

- and testes were almost exactly the same as the previous specimen. Length of testes 3.5 mm.
- 4. December 2.—Harry Holcroft, of Boddytown, near Greymouth, recorded: "For the last two days the sky has been filled from 7 a.m. with hundreds of peculiar birds. They . . . appear to be dark brown in colour with a lighter patch across the small of the back. They have a small square tail, inclined to fan slightly, a round, somewhat thick body, wings long compared with the body and curved like those of swallows. Their flight was strong and swift. They would swoop from the clouds with rapid beating of the wings, then skim over the paddocks in a glide and up into the clouds again."
- 5. December 5.—Mr. E. L. Kehoe, of Greymouth, recorded: "Just before dusk a flock of 60 to 70 birds, or even more, appeared high overhead and gave a performance of aerobatics, swooping, diving, banking, plain sailing and circling, all the while in compact formation."
- 6. Early December.—One dead bird was shown to the teacher at Waitara, Taranaki.
- 7. In December, Mr. D. H. Hine, of Inglewood, Taranaki, found a dead bird and sent tail feathers to the Canterbury Museum.
- 8. December 10.—Mr. R. H. Traill, during a very hard westerly blow, saw about a dozen birds at the north end of Horse Shoe Bay, Stewart Island. "They would hover for a second or two and then sweep in a curve for about 150 yards and then hover again."
- 9. December 14.—A dead bird was picked up at Ma Waro, near Cave, South Canterbury.
- 10. December 16.—At Ferguson's, South Westland, Gordon Ferguson saw a flock of 10 birds flying high. One settled on a white pine tree.
- 11. December 16.—Mr. T. V. Grimley saw one bird at Spreydon, Christchurch, at 7 p.m., "hovering at a height of 200 ft. and diving after insects."
- 12. December 16.—Mr. E. F. Stead saw two birds at Riccarton, Christchurch.
- 13. December 17.—Reported seen at Waimate, South Canterbury.
- 14. December 18.—One bird seen at Doyleston, near Lake Ellesmere, "in weak condition, unable to fly."
- 15. December 22.—Mr. J. Weir saw four to six birds flying on the western shore of Lake Taupo, not far from Tokaanu. He heard a report of similar birds having been seen there in 1941.
- 16. January 17, 1943.—Mrs. F. W. Luxford saw one bird on her lawn at Whitiora, Hamilton. It was exhausted but uninjured and later flew away.
- 17. January 19.—Miss Lorna McCallum, at St. Martins, Christchurch, saw 15 to 25 birds "hanging close packed on overhanging boughs of trees. They would detach themselves to fly up and dive after insects. When they turned to dive their tails appeared to fork.

Their appearance agreed generally with the mounted specimen in the Canterbury Museum."

18. January 22.—One seen at Ferguson's, South Westland.

19. February 24.—Mr. W. Knight saw a flock of 15 birds at Paraparaumu. Some birds were seen at intervals up to March 13. "Over the bowling green they flew with long sweeps as if searching for food. They alighted on the green, but did not appear to gather food there. On March 6, pairs were noted mating. One rested on the ground, evidently the female, the male alighting on the female and fluttering with outstretched wings much as a sparrow does. At no time did the birds make any sound."

20. February 28.—Mrs. W. J. Rutherford, Stanmore Bay, Whangaparoa Peninsula, Auckland, saw two birds flying about, and later watched them closely as they fed on insects and spiders on a

window.

21. No date.—Mr. C. M. Comber saw two birds just west of Mt.

Egmont, on the ranges.

No doubt stragglers of this species have reached New Zealand in greater numbers than the single specimen taken before 1930 would suggest, but clearly the large numbers seen in the summer of 1942-43 were exceptional. Sometimes the appearance of some unusual bird is associated with a storm, as in the case of tropical sea birds which have been carried far up the North African continent by cyclones. The Director of the Meteorological Services, Wellington, very kindly supplied a summary of the situation at the end of November over the Tasman, and states that nothing of exceptional significance occurred. Furthermore the situation over Northern Australia, Queensland and New Guinea was unaffected by even minor disturbances, so we are unable to suggest any reason for the unusual behaviour of the birds. It has been suggested that perhaps the birds were diverted from their course while passing through the Pacific war zone, but this seems unlikely, as according to most accounts, birds are very little affected by gunfire.

To summarise the above reports very briefly. The swifts appeared at the end of November, 1942, in considerable numbers in Westland, and at the same time near Auckland in small numbers. They were seen during the summer in western districts from Stewart Island to North Auckland, and also extended into Canterbury. The latest records are in March, and in the North Island, suggesting the return migration, and mating was noticed on March 6.

CORRECTION.

Members are requested to make two corrections in their copy of N.Z. Bird Notes, No. 2. By an unfortunate oversight the pages were numbered 1 to 8 instead of 9 to 16. It is intended to number the pages consecutively throughout the whole volume, and if possible to issue an index at the end. In the table of contents, "Winter Feeding of Birds," by E. W. Hursthouse appears, but owing to considerations of space had to be withdrawn. It appears in the present number.