

13.9mm. (11-17) and dry weight 1.04g. (0.24-1.91). In one pellet red Goldfinch head feathers were identified but in all others the feathers were broken down to unidentifiable grey fragments. Five also contained fine insect fragments or seed, probably derived from the crop of the prey. One pellet contained fragments of at least 14 green manuka beetles (*Pyronota festiva*). These may have been derived from the crop of prey or may have been taken by the Falcon.

All the species of birds preyed on are common in the area and mostly frequent open farmland. Skylarks were taken more often than would be expected from their density in the area and they may be particularly vulnerable to a fast-flying bird of prey. Fantails (*Rhipidura fuliginosa*), Grey Warblers (*Gerygone igata*) and Silvereyes (*Zosterops lateralis*) are the common small birds of manuka scrub and bush remnants but were not taken. One of the young Falcons was mobbed by a group consisting of two Fantails, two Silvereyes, two Grey Warblers and a male Chaffinch (*Fringilla coelebs*). It sat for a minute or two before flying off with the birds following.

Young birds are generally more vulnerable to predation than adults and many of the prey taken by these Falcons were young or moulting birds. The latter may have been more vulnerable than non-moulting birds, but many birds may be in their post-breeding moult at this time of year. Of the Sparrows killed, one was half-eaten but the other two were almost intact; they may be relatively unpalatable. One uneaten juvenile Skylark was also found.

I would like to thank Mr. R. G. Ordish, Dominion Museum, for kindly identifying the insect fragments, and Dr. P. C. Bull, J. E. C. Flux, J. A. Gibb, K. Wodzicki and Mr. C. J. R. Robertson for helpful comments.

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#### NOTE ON THE FEEDING OF A YOUNG NEW ZEALAND FALCON

At the junction of the Snowflake Creek and the Kowhai, 15 miles west of Kaikoura township, on 20/2/65, I heard a strange plaintive call coming from some kanuka scrub, a half-dozen calls being repeated loudly every three minutes. After climbing around the hillside underneath the 20 feet tall kanuka for ten minutes without seeing the bird, it at last flew from the kanuka, and perched on a dead cabbage tree trunk only 10 feet from me. The bird was a fully grown Bush Hawk (*F. novaeseelandiae*) in immature plumage, not having the underparts streaked with dark brown. The young falcon was quite fearless of me, calling regularly during the 20 minutes the bird was nearby, in a long drawn-out plaintive cry, which was repeated about six times; one call after the other, and quite unlike the screaming chatter of the adult falcon. Suddenly the young falcon flew swiftly to the centre of the Kowhai riverbed climbing about 300 feet, where I noticed what I

thought was the parent. When the young bird was just under the parent, high above the valley, I noticed the latter drop something small, which was immediately caught by the talons of the young bird, in mid-air. The young falcon then dived down to settle on a log about a hundred feet up a small washout. I was able to reach this site only when the falcon had almost finished devouring the remaining part of what appeared to be a Pipit, holding the victim in one talon and ripping with the mandibles. Exactly four weeks later, within two hundred yards of the above incident I noted an adult falcon sitting motionless on a rock within three feet of the river.

— G. HARROW



### CARING FOR WHITE FLIPPERED PENGUINS

The release of over 5000 gallons of fuel oil into Lyttelton harbour on 17th July, 1965, resulted in the loss of a great number of sea birds. Giant Petrels (*Macronectes giganteus*), Red-billed gulls (*Larus novaehollandiae*), Black-backed gulls (*Larus dominicanus*) all were affected but the worst hit were the diving birds, Spotted Shags (*Stictocarbo punctatus*) and the White-flipped penguins (*Eudyptula abbosignata*).

The oil drifted north from Lyttelton and dead and sick birds were reported from Port Cooper up to Amberley Beach, 30 miles from the release point.

Functioning as an Honorary Ranger, I patrolled the beaches near Christchurch and retrieved a number of penguins and also received others from the public.

With very little time to try out the Fuller's Earth method on the mineral oil, I adapted detergent as the best in the circumstances and treated 8 birds in the following fashion and did not lose one.

Stood the bird in 2 inches of tepid water to which I added a tablespoon of detergent and sponged the bird, gently rubbing down the full length only, then after the oil started to lift rinsed with fresh tepid water, avoiding, at all times, the eyes.

Rub the bird with a dry towel and keep in a warm place (70 degrees) for at least two days, then keep in a shed or similar place for at least two weeks, but a longer period is desirable to allow the full insulating qualities to return to the feathers.

#### Feeding:

The penguins must be fed on fish and although they will survive a long period without food I recommend that you should attempt to feed the bird on the second day with a little forced feeding, if necessary.

The fish must be cut into lengths about  $\frac{1}{4}$  inch wide.

The following is a record of 4 birds that were in my care.

#### No. 1 —

Found at Taylor's Mistake 26/7/65, started to feed immediately after cleaning. Meals 3 times a day consisted of 3 ozs. of fish, two dipped in salt water and one mixed with half a teaspoon of cod liver oil.

Weight when found — 1 lb. 14 ozs.; on 5/8/65 — 2 lbs. 1 oz., and on release 11/8/65 — 2 lbs. 5 ozs.

#### No. 2 —

Found Lyttelton 27/7/65 — 1 lb. 10 ozs.; 30/7/65 — 1 lb. 14 ozs., and on release 11/8/65 — 2 lbs. 2 ozs.

This bird was force fed for the entire period.