

FAREWELL SPIT IN WINTER — 21-26/5/62

By A. T. EDGAR

B. D. Bell, Senior Field Officer, Wildlife Division, Dept. of Internal Affairs, led a party which studied the birds of Farewell Spit in summer (January 22-29, 1961) and a full account appears in *Notornis* IX, 145-156. In January the population of arctic waders was probably at its maximum; the census was carried out by a team of nineteen, and it was noted at the time that the ideal number of active participants would have been twenty-two.

In order to study the seasonal change in bird population B.D.B. organised a winter party (May 21-26, 1962). Partly because school holidays had ended earlier than usual this year, the party was relatively small, and consisted of B. D. Bell (Wildlife), A. Blackburn (President, O.S.N.Z.), I. G. Andrew (Palmerston North), J. W. Bain (Gisborne), A. T. Edgar (Auckland), Mr. and Mrs. T. Hartley-Smith (Wildlife, Greymouth), and on the day of the census, Mr. and Mrs. F. G. Soper (Takaka).

The nature of the Spit has been well described in *Notornis* IX, and only the main features need be mentioned in this paper, for the purpose of explaining descriptive terms used in the text. The Spit is about 18 miles long, with a lighthouse at mile 16, and the Freeman homestead at the base, and its width above high tide level varies from half to three-quarters of a mile. The northern (outer) ocean beach is backed by moving sandhills; the southern (inner) beach is backed by consolidated dunes and fronted by a vast area of tideflats. Miles 1-6, the consolidated dunes, and an area near the lighthouse are in scrub, and near the base of the Spit there are a number of permanent pools. The rest of the Spit is broad sandflats, between which and the dunes lie the partly consolidated inner flats, subject to variable shallow flooding. Sheep, cattle and a few deer continue to find rough grazing in the scrub-covered areas, and a few hares were seen on the edges of the inner flats.

Once again we were indebted to Mr. S. W. Freeman for the use of his woolshed and for a plentiful supply of fresh water. The woolshed served as a kitchen, storeroom and sleeping quarters; Mrs. Hartley-Smith produced magnificent meals, and still found time to take part in some field work; T.H.S., tireless and skilful in handling the Land Rover and in making the billet wind-proof and comfortable, contributed also his full share of field observations.

I.G.A., B.D.B., A.T.E. and the T.H.S. family assembled on the evening of 21st May, A.B. and J.W.B. joined early on 22nd May, and miles 6-11 were reconnoitred on that day. 23rd May was census day; the small number of observers made a complete count impossible, but the Spit (excluding the inner and outer beaches) was covered as follows — miles 2-6, T.H.S.; miles 6-11, A.B., A.T.E.; miles 11-15, I.G.A., J.W.B.; miles 15-18, B.D.B., F.G.S. On 24th May miles 3-7 were checked for rarities; on 25th May a census by Land Rover of the outer beach was followed by a census of the inner beach (from the tip to mile 11) by B.D.B. and I.G.A., and a recheck of miles 6-11 by A.B., J.W.B. and A.T.E. All counts except that on the outer beach were timed to coincide with the period around high tides, and the long

beats which had to be covered involved fairly smart walking. T.H.S. acquired much merit on 25th May when he coaxed the Land Rover as far as mile 9 on the inner beach to pick up the walking parties.

Weather was good. 22nd May was fine with a moderate easterly wind; 23rd May (census day) was less pleasant with the wind freshened, blowing sand and overcast skies; 24th and 25th May were fine and mild, 25th May particularly so, copper butterflies flitting through the low scrub at mile 11. Rain fell on 25th night; the party broke camp early on 26th May. High tide was about 11.30 a.m. on 22nd May, 1.50 p.m. on 25th May.

NOTES ON SPECIES

For ease of reference I have listed below all species recently recorded from Farewell Spit. These include birds seen by the January, 1961, and May, 1962, expeditions, plus several additional species recorded in *Notornis* and others observed during a visit to the Spit in March, 1958 (unpublished notes by B.D.B.). Where necessary, comparative figures are given for January and May counts. Because of the larger number of observers, the January count of some species is probably more accurate than the May count, which however is considered to be a reasonable approximation. Methods of estimating total numbers, where employed, are explained in the text.

LITTLE BLUE PENGUIN (*Eudyptula minor*)

One found alive in January. In May, a dessicated corpse was found on the inner beach; numerous penguin tracks led from the outer beach across the sandflats to the consolidated dunes (miles 6-11), and at mile 11 A.B. found six penguin tracks converging on the carcass of a long-dead hind lying in the scrub.

PETRELS and SHEARWATERS

Off the outer beach a Nelly (*Macronectes giganteus*) was seen on 23rd May, a Mollymawk (*Diomedea sp.*) on 24th May, and large dark petrels (species unidentified) on 25th May. Fluttering Shearwaters (*Puffinus gavia*) were noted in fairly large flocks offshore near the tip of the Spit on 23rd and 25th May. Time did not permit any beach patrols.

Additional species recorded in January were Wandering Albatross (*D. exulans*); Broad-billed Prion (*P. vittata*), corpse; Fairy Prion (*P. turtur*); Buller's Shearwater (*P. bulleri*); Sooty Shearwater (*P. griseus*); and Diving Petrel (*P. urinatrix*).

GANNET (*Sula bassana*)

January, regular sightings, up to 12 in one day. 22nd May, 6 off inner beach; 23rd May, 5 off inner beach, 6 adults and one juvenile off outer beach; 24th May, 4 off outer beach; 25th May, 4 off the tip of the Spit at 10 a.m.; at 12.30 p.m. 25 (including one juvenile) fishing close inshore just inside the tip of the Spit; and by 3.45 p.m., about two hours after full tide, 150 were fishing offshore from mile 10 (inner beach) and more birds still coming in to join them from the open sea (B.D.B., I.G.A.).

BLACK SHAG (*P. carbo*)

Present in January; May, about 25-30 birds seen, scattered along the length of the inner beach. No Pied Shags were seen in January or May.

LITTLE SHAG (*P. melanoleucos*)

January, not common along the Spit; up to 90 roosting in tall kanuka around Freeman's pond, including a few of the white-bellied phase. The population had increased in May. By day most of them frequented the tide-line of the inner beach from mile 10 to the tip, on which stretch 183 were counted on 25th May (B.D.B., I.G.A.). From some time before sunset till almost dark singles and small parties flew in towards the roost, circled and drifted around over the pond and kanuka grove; almost all the birds dropped to the pond for a freshwater bath before finally going to roost. 25th May count at the roost was c. 250 birds, about 40% of which were white-bellied phase (A.B., I.G.A.). No large shags were seen at the roost.

SPOTTED SHAG (*P. punctatus*)

Not recorded in January. May, a dessicated corpse (inner beach).

WHITE HERON (*Egretta alba*)

Not seen on the Spit, but a single bird at Westhaven Inlet about 10 miles to the south, 25th May (T.H.S.).

LITTLE EGRET (*E. garzetta*)

Recorded by B.D.B. from Puponga, at the base of the Spit, March, 1958.

WHITE-FACED HERON (*Ardea novaehollandiae*)

Recorded as common in January. In May single birds and small parties were seen flying over the scrub and around permanent pools, miles 3-6, usually returning to the tideflats at low tide; the great majority remained on the tideflats throughout the day. 22nd May count gave 60 birds scattered along the tideflats from miles 1-6, a flock of 65 about mile 7, and 60 about mile 10. A count from the tip to mile 11, 25th May, gave 251 birds. The population of the Spit appeared to be of the order of 435 White-faced Herons, and a further 87 were counted at Westhaven Inlet on 25th May (T.H.S.).

BITTERN (*Botaurus poiciloptilus*)

January, three on permanent lagoon at mile 3; not observed in May, but could easily have been missed.

ROYAL SPOONBILL (*Platalea leucorodia regia*)

Not observed in January. From Westhaven Inlet three were recorded on 26/11/55 (B. D. Heather) and seven on 28/12/57 (M. Breen); from the Spit, one in mid-March, 1958 (B.D.B.). Eight birds were seen daily from 22nd-25th May on the outer edge of a large pool at mile 7 which was also a favoured resting place of a large number of Black-backed Gulls.

BLACK SWAN (*Cygnus atratus*)

Large numbers were recorded in January and in May. Odd birds were seen on the permanent lakes, one on Freeman's Pond, and one day four birds flew over the Spit and landed on the outer beach, but with these few exceptions the swans kept to the tideflats, along the whole length of the Spit. Over 600 were counted from the Land Rover on 22nd May on the stretch miles 1-6.

GREY DUCK (*Anas superciliosa*) and **MALLARD** (*A. platyrhynchos*)

In January Greys, hybrids and Mallards were noted in fair numbers. Numerous ducks were seen in May but no complete count was possible. On census day a number of parties of 20-25 birds were

flying about the pools and inner flats but many remained on the tideflats; some of the parties were true Mallard. A concentration of 78 Greys was noted on 25th May, and on 22nd May 5-600 ducks, mostly Greys and hybrids, some true Mallard, rested on the edge of mile 7 pool.

SHOVELLER (*A. rhynchotis*)

Not recorded in January; on 24th May a party of 26 was observed on the edge of the tideflats close to the inner beach.

HARRIER (*Circus approximans*)

Recorded in January; in May 13 birds were counted on census day and as usual on such occasions were distinctly unpopular. Few experiences are more frustrating than to be half way through a complicated count of mixed waders, none too easy in any case under conditions of fresh winds and blowing sand, and then to have the flock flush and scatter as the shadow of a Harrier passes over it, so that the count has to start all over again.

WESTERN WEKA (*Gallirallus australis*)

Wekas were common all along the Spit in May, as in January. Around the woolshed calling sometimes started at dusk, usually not till about 8 p.m., and continued through the night. On two occasions calling was heard by day, between three birds in a manuka thicket and between two birds in a flax clump on a swamp edge; in both cases the calling was probably evoked by the approach of intruders. At a bay just south of Puponga on 25th May T.H.S. sighted a family party, parents and three one-third grown chicks, which must have been a late brood.

PUKEKO (*Porphyrio melanotus*)

January, odd pairs and a family party; May, one bird sighted.

SOUTH ISLAND PIED OYSTER-CATCHER (*Haematopus ostralegus*)

January, 2048; May, c. 4000. Census day count was only 2774 but it is certain that a number of birds remained on the outer beach and probably some on the tideflats. On 25th May the outer beach count was 2504. A further 452 remained near the tip of the Spit and did not come in to the sandflats. Miles 6-11 count on the same day was 1532, but some of these came in from the outer beach. We know that on 23rd May c. 1050 birds which fed on the inner beach came in to miles 6-11 sandflats at high tide. Our population estimate is therefore based on $2504 + 452 + 1050 = 4006$.

BLACK OYSTER-CATCHER (*H. unicolor*)

January, 42; May, 22. Most of the January birds were from the rocky coast at the base of the Spit, which we did not have time to inspect; our count was from outer beach and sandflats. In January one smudgy *reischeki* was recorded; not seen in May.

GREY PLOVER (*Charadrius squatarola*)

January, one bird.

PACIFIC GOLDEN PLOVER (*G. dominicus*)

January, 30 birds.

BANDED DOTTEREL (*C. bicinctus*)

January, 1088; May figure at 1255 may well be an underestimate as many birds probably stayed on the inner beach. Only two birds were noted on the outer beach but dotterels were running all over the

inner flats, particularly in areas sheltered from the wind by the consolidated dunes. A few birds of the year, a few with pale bands, but the great majority had good bands.

MONGOLIAN DOTTEREL (*C. mongolus*)

January, one bird.

NEW ZEALAND DOTTEREL (*C. obscurus*)

January, 5; May, 5.

WRYBILL (*Anarhynchus frontalis*)

January, 29; May, 7, on the inner flats; two parties of three and a solitary bird, all unafraid and allowed close approach.

CURLEW (*Numenius madagascariensis*)

January, 18; May, 7, first seen on the outer beach on 23rd May, and again on 24th and 25th May at the big pool on mile 7 sandflats.

LITTLE WHIMBREL (*N. minutus*)

January, one bird.

ASIATIC WHIMBREL (*N. phaeopus variegatus*)

January, 21. On 25th May a whimbrel (?ssp) was seen on the inner beach (mile 13) by B.D.B., who also recorded a single bird in March, 1958.

BAR-TAILED GODWIT (*Limosa lapponica*)

January, 17720; May, c. 2000, of which 1.5% were "red" birds.

BLACK-TAILED GODWIT (*L. limosa* ssp)

January, one bird.

GREY-TAILED (SIBERIAN) TATTLER (*Heteroscelus incanus brevipes*)

B.D.B. recorded a tattler (ssp. unid.) from the tideflats in March 1958; no record in January. On 24th May a single bird was seen at mile 6, and probably the same bird on 25th May at mile 7½, on the sandflats. When first sighted it was perched on a small log; when flushed it flew over us repeating a clear double note which I wrote down at the time as "tchee-weep." It landed by some Banded Dotterel. On 25th May it was with some Banded Dotterel on the bare sand, and again called when flushed, first a single "tweeth" repeated three times with intervals between notes which may have been an alarm call, and then the double notes as heard the day before. In the double call the second note was higher pitched than the first; the pitch of the single note was to my ear the same as that of the second note in the double call. I.G.A., in his comments on the first draft of this paper, writes that the double note reminded him of the call of a Golden Plover, but fuller in tone and carrying power, and I agree. He also states that it was quite distinct from the double monotonic note uttered by the Waikanāe bird, and suggests that what we heard at Farewell Spit may have been the adult call, and the Waikanāe call that of a bird not yet fully mature. Flight was fairly swift; the bird was not shy, and its general appearance was slim and graceful; pale grey above, with light eyebrow and dark loreal line, underparts white with some light greyish barring on the flanks, legs pale yellow, bill comparatively long, slender and black.

TURNSTONE (*Arenaria interpres*)

January, 808; May, c. 20, in twos and threes from mile 6-18. On census day 15 birds were counted in miles 11-18, none observed in

miles 6-11; however on 22nd May 8 birds and on 25th May 5 birds were seen on miles 6-11 beat. One bird was in full and one in partial breeding plumage; the others in winter dress.

KNOT (*Calidris canutus*)

January, 27370; May c. 730. 450+ were recorded on census day, of which at least 21 had varying degrees of red in the plumage, but on 22nd May and again on 25th May a flock of c. 280 included over 80 red or reddening birds, and it would seem that this flock did not on 23rd May come into the census area. Red birds were estimated at about 15% of the total observed, most of them only partially reddened but a few in magnificent plumage.

SHARP-TAILED SANDPIPER (*C. acuminata*)

January, two birds.

CURLEW SANDPIPER (*C. ferruginea*)

January, two birds.

RED-NECKED STINT (*C. ruficollis*)

January, 9; May, 6, in two parties each of three birds which sometimes linked up, on the inner flats at mile 6; they were as tame as the Wrybills, and fed undisturbed within a few yards of observers. All were in winter plumage; some variation was noticed between individuals in the degree of mottling on the upper parts.

SANDERLING (*C. alba*)

On 25th May during a final check on miles 6-11, while A.B. and J.W.B. were engaged on a Knot count at mile 7½, A.T.E. noticed a small grey wader some distance away on the dry sandflat near the base of the dunes, with a number of Banded Dotterel. At first thought to be a Wrybill, the grey bird soon attracted special attention because of its extreme activity, and an attempt was made to get close enough to examine it in detail, but the bird was not only very active but also very shy; during a period of perhaps 15 minutes it ran 400 yards, and twice took to flight when approached to within 80-100 yards. A.B. and J.W.B. were called back for a check and for a short period watched the bird, still very active and running about the sandflats until it took off, when it was joined in the air by a second bird apparently of the same species but which had not previously been noticed. Field notes made at the time include mention of very pale grey upper parts, suggestion of a black shoulder patch, pure white underparts and a large amount of white on face and forehead, black bill and legs; A.B. had both birds in the field of his binoculars when they took off for the last time and took particular note of the pattern of white wing-bars, which tallied closely with that of a specimen subsequently examined in Canterbury Museum. The bird held its head forward when running, not hunched like a Wrybill. Though close range inspection was not possible the field notes as detailed above, plus its shyness and extreme activity compared with the tame and much less active Wrybills seen elsewhere on the Spit, seem to indicate that the suggested identification is correct.

PIED STILT (*Himantopus leucocephalus*)

B.D.B. reported several small parties on the tideflats in March, 1958; January, 18; May, 21 birds at mile 7 pool. Farewell Spit is obviously a locality not much favoured by this species.

BLACK STILT (*H. novaezeelandiae*)

January, one bird.

POMARINE SKUA (*Stercorarius pomarinus*)

January, one bird.

ARCTIC SKUA (*S. parasiticus*)

January, 5; 23rd and 25th May, one intermediate phase bird seen off the far end of the Spit by B.D.B., who has a March, 1958, record of a bird harassing Red-billed Gulls at Puponga (base of the Spit).

BLACK-BACKED GULL (*Larus dominicanus*)

January, c. 200; May, probably c. 500 (399 counted on census day, not including outer beach and tideflats).

RED-BILLED GULL (*L. scopulinus*)

January, 199; May, 454.

BLACK-BILLED GULL (*L. bulleri*)

January, 101; May, 61 were counted, mingling with parties of Red-billed Gulls.

BLACK-FRONTED TERN (*Chlidonias albostratus*)

January, 5; May, 23, scattered in small parties from mile 6 sandflats to the tip of the Spit. Two young birds still with some brown in the plumage, black bills and legs; the others adults, one with some white on the forehead.

CASPIAN TERN (*Hydroprogne caspia*)

January, 86; March 1958, B.D.B. saw birds fishing offshore and a party of 26 including some immature birds; May, 39 on beach and tideflats.

CRESTED TERN (*Sterna bergii*)

Recorded from the Spit on 17/1/60 by B.D.B. (*Notornis* VIII, 261).

WHITE-FRONTED TERN (*Sterna striata*)

January, 1085; March 1958 (B.D.B.), small scattered flocks of up to 25 birds along the beach; May, 42 seen towards the far end of the Spit.

WHITE-CAPPED NODDY (*Anous tenuirostris*)

January, one bird.

LONG-TAILED CUCKOO (*Eudynamis taitensis*)

Two records; P. E. White on 2/11/46 (N.Z.B.N. II, 170) and H. R. McKenzie on 21/1/61 (*Notornis* IX, 251).

KINGFISHER (*Halcyon sancta*)

January, not recorded. May, 28 birds counted along the length of the inner beach.

PASSERINES

The May list of introduced passerines was the same as in January. Skylarks common in grassy patches and on salicornia flats, sometimes in parties of up to 6 birds, occasional song heard; Song Thrush, Blackbird, Dunnock; Greenfinch, Goldfinch and Redpoll in small flocks; Chaffinch, Yellowhammer, Sparrows near the lighthouse; Starlings less numerous than in January but present in parties along the length of the scrub-clad areas.

No Fantails noted; Grey Warbler not much in evidence, and silent. A Yellow-breasted Tit was recorded near the homestead in

January, but not noted in May. Silvereyes in small flocks; Pipits fairly numerous on dunes and sandflats, many of them noticeably dark-plumaged, compared with Bay of Plenty or Auckland birds.

Two additional species previously recorded are:—

AUSTRALIAN TREE MARTIN (*Hylochelidon nigricans*)

Two birds seen on 14/1/60 by A. Wright (*Notornis* VIII, 261).

WELCOME SWALLOW (*Hirundo neoxena*)

One bird seen by B. D. Heather on 25/11/55 (*Notornis* VI, 247).

CONCLUSION

Farewell Spit Reserve is under the control of the Commissioner of Crown Lands, Nelson, to whom the Society is grateful for permission to carry out January and May surveys. A list of 79 species and sub-species from so small an area is in itself remarkable, and it is more than probable that considerable additions may be made to this list by future expeditions. The Spit, remote, undisturbed, and in a most auspicious geographical situation could prove to be not only a feeding ground for great congregations of waders but also a favourable landfall for stragglers and occasional visitors of many other species. The suggestion made in *Notornis* IX that the area of the lighthouse could be a very valuable site for a bird observatory is one which should be kept in mind.



TAXONOMIC STATUS OF THE NEW ZEALAND REDPOLL, *CARDUELIS FLAMMEA*: A REASSESSMENT

By DAVID STENHOUSE

Zoology Department, University of Queensland, St. Lucia
Brisbane, Australia

INTRODUCTION

Redpolls were first liberated in New Zealand in 1862, and after further introductions, became established in most parts of the country (Thomson, 1922). The species is now one of the more abundant components of the avifauna. The taxonomic status of the introduced populations was determined by Westerskov (1953), on the basis of 36 skins from the New Zealand region, at the sub-specific rank: *Carduelis flammea cabaret* P. L. S. Muller, the Lesser Redpoll. In the course of ecological work on this and other Fringillid spp. in Canterbury in 1958-9, evidence was obtained at variance with this conclusion; a preliminary report on this has already appeared (Stenhouse, 1960). A full investigation of individual variation in the N.Z. Redpoll populations had been initiated just prior to the author's departure from New Zealand. This would probably have led to a better understanding of the taxonomic problems; but it is felt that publication and discussion of results to date is desirable, if for no other reason than to focus attention on a most interesting situation.

METHODS

Data were recorded from 234 birds trapped in the Lincoln area, Canterbury, and 34 taken at Alexandra, Otago. With a few exceptions,