

BLACK-BILLED GULL — c. 220 on 22/8/59; c. 50 on 26/9/59; 20+ on 24/10/59; 7+ on 6/12/59 and perhaps 50 at Parawai; 4 on 19/1/60. A few immature non-breeders may be expected now in summer. c. 250 on 16/4/60; 50+ at Kaiaua and c. 500 at old works on 12/6/60; c. 750 on 15/7/60.

CASPIAN TERN — 25 on 22/8/59; 36, census, on 6/12/59; 37+ only, Kaiaua - Kairito on 12/6/60.

WHITE-FRONTED TERN — As usual the colony on the big shellbank near the road-corner had its ups and downs. On 5/11/59, 3500+ terns were present, spread over c. 200 yds. and 10 eggs were found. On 13/11/59 only c. 500 birds were present; there were a few scattered eggs and many had been eaten by gulls. On 6/12/59, numbers had again increased to 1050 and another 1000 were resting on a shellbank. There were c. 1200 eggs, but big tides at the end of the month washed many of these out. On 5/1/60 there were hundreds of chicks; 1 flying from an early laying, and many new eggs. Terns could be seen fishing all over the firth. On 19/1/60 1000+ chicks and a few nests still with eggs. On 24/1/60 450+ fledglings and 91 dead, abandoned. On 1/2/60 only c. 315 adults. The fishing was hard and some were seen heading for the colony carrying fish from ten miles up the coast. 16/4/60, Kaiaua-Kairito, 100+; 12/6/60 c. 50. Some hundreds back and noisy on breeding ground on 29/8/60.

TERN (Sp.?) — Tiny *albifrons*-like terns are now expected as part of the summer scene between Kairito and Waitakaruru. 8 on 6/12/59, at least one appearing to have the markings of a youngster only a few months old. 5 on 19/1/60. Behaviour as described before (v. *Notornis VII*, 174-182).

WHITE-WINGED BLACK TERN — One, first found on the Miranda pools in Feb., 1959, was still visiting them in Sept. '60. A second in quite different plumage, was sitting among White-fronted Terns at Kaiaua on 16/4/60. It was not found again (v. *Notornis IX*, 63-64).

YELLOWHAMMER — This coast is a favourite winter haunt of the introduced European passerines. On 12/6/60, Yellowhammers were in such numbers, probably 1000+; that perhaps they deserve special mention.

— H.R.McK., R.B.S.

MANUKAU — (a) UPPER MANUKAU

Despite industrial pollution and continued reclamation around the fringes, especially near Westfield and Otahuhu, the creeks and tidal reaches above the Onehunga-Mangere bridge remain a fruitful feeding-ground for great numbers of gulls and waders.

S.I. PIED OYSTERCATCHER — 35 on 10/12/59 at Tararata Creek, which now seems to be a regular summering-ground for non-breeders; c. 112 on 19/12/59; 5 on rocks at Waikaraka on 10/7/60.

BAR-TAILED GODWIT — 2000+ throughout spring '59; 3000+ at Harania Ck. on 7/1/60; plentiful throughout autumn; very few during winter; 2000+ in air at full tide in gusty weather on 4/10/60; and many more flying across the isthmus to Hauraki Gulf beaches.

HUDSONIAN GODWIT — One clearly seen at Pikes Pt. on 8/11/59 and at Harania Ck. on 22/1/60. A black-tailed godwit was seen leaving Harania Ck. with Bar-tails on 26/3/60; but the colour-pattern of the undedwing was not noted, despite intense watching.

KNOT — c. 80 on 8/10/59; 150+ on 8/11/59; 1000+ on 13/12/59 and 7/1/60; plentiful during autumn, not noted during winter. A few on 4/10/60.

PIED STILT — Some hundreds of non-breeders throughout spring. c. 1000 on 13/12/60; 2000+ on 31/3/60 at Harania Ck.; 1200+ on 11/5/60 on grass of Waikaraka Park; c. 2200 for the whole area on 10/7/60, when the winter census was taken; but many had by then moved away to breeding grounds.

RED-BILLED GULL — On 20/4/60, 20,000 estimated in view of Favona causeway, Harania Ck.; and on 27/4/60, 30,000 from Onehunga-Mangere Bridge. All examined, of 1000+ at Harania Ck. on 13/10/60, had the dusky bills and legs of immature (yearling?) birds.

WHITE-WINGED BLACK TERN — Once again one was present in or near Harania Ck. during the summer, being reported several times between 22/10/59 and 22/1/60. Even on 10/12/59 it was still quite black underneath, like a bird in breeding dress.

— R.B.S.

MANUKAU — (b) PUKETUTU - IHUMATAO

This has been another year of change in that corner of Manukau which is now controlled by the Auckland Metropolitan Drainage Board. Throughout the summer the shallows and dry flats surrounding the four large man-made pools (v. *Notornis VIII*, 221 for map) proved attractive — despite periodic spraying of the edges — to a great variety of waders and wild fowl, both for feeding and resting undisturbed when the rising tide outside the embankments drove them off the flats. Generally speaking, Teal Pool, which was most heavily sprayed, was avoided by ducks and waders, though the winter rains evidently 'purged' it and in July, Pied Stilts, Banded Dotterels and Wrybills were again feeding in such shallows as remained. Ascot and Spoonbill pools seemed to recover quickly from light spraying. L. Oruarangi appears to have been little affected, and the smaller waders were happy there when Spoonbill pool was temporarily 'poisoned.' In February and March, when the water was low, the population of ducks was estimated to be nearly 1000; but most of these left rather abruptly; and curiously few have since been present. However, Black Swans from the huge flock which feeds on the eel-grass (*zostera*) off Ihumatao have moved in. At one time, after spraying, they were the only waterfowl which could be found on Teal Pool, where they fed eagerly on weed pulled up from the bottom of the seepage area as the water deepened.

The most significant change has come from the raising of the water-level and the permanent submerging of old shellbanks, which have long been used by waders, terns and gulls as high-tide roosts. For instance on Spoonbill Pool, Chinky Spit is beneath the waves; and since May there has been nowhere where waders could gather or stilts could forage comfortably. The deeper water will have helped the trapped fish, which continue to attract numerous shags of four species. Elsewhere all remaining shallows were at a premium and seepage areas

in the corner of Ascot Pool (Bull Bay) and along the edge of Oruarangi were eagerly sought by waders and the few dabbling ducks that stayed. It is understood that these shallows, too, are doomed soon to disappear.

The winter's rains were capped by nine inches in September and after the flow of partly purified sewage began on Sept. 24th, it was possible to form some idea of the ultimate shape and size of the four oxidation pools. It will be interesting to see how the displaced birds adjust themselves to the changed conditions. Local ornithologists will be watching the first months of 1961 with some anxiety. There are fortunately still plenty of feeding grounds and roosting places for waders on the Auckland isthmus, but it will be something of a tragedy if the waders are forced to desert an area which has proved so attractive in the past.

It is perhaps worth mentioning that electric power-lines along the original causeway claimed numerous victims during the year; among which were three Wrybills, a Turnstone, a Knot, a S.I. Oystercatcher and several Stilts, Godwits and Black-backed Gulls.

LITTLE BLACK SHAG — Increasing numbers on Spoonbill Pool challenged the dominance here of Little Shags e.g. 11 on 10/7/60 and 24 on 8/9/60.

BLUE HERON — Up to 3 seen. They like the rocks on the seaward side of the massive new embankments.

WHITE-FACED HERON — Elusive during the breeding season, after which either the local breeders become more obvious or else there is an influx. 5 on 14/1/60; 8 on 28/1/60 on Spoonbill Poll; 33 on 10/7/60 at Ihumatao.

BLACK SWAN — Increasing numbers visited the pools as the water-level rose. 60+ on Teal Pool on 17/3/60, remaining when other waterfowl vanished. 100+ over the winter scattered over the four pools.

GREY-TEAL — 2 on Spoonbill Pool on 7/3/60. 2 on 20/3/60 on L. Oruarangi.

SHOVELER — 3 drakes on 26/10/60. Fairly numerous in January and February among Gray, Mallard and Mallard-Gray hybrids, especially on Ascot and Spoonbill Pools. None noted during the winter.

S.I. PIED OYSTERCATCHER — 120+ on 30/10/59 and throughout early summer. Influx noted as usual in January. 200+ on 14/1/60; 700+ on 28/1/60; 1000+ on 28/3/60; c. 1500 on 11/5/60 and at big tides throughout winter; 440+ on 15/8/60, 300+ on 26/8/60; c. 160 on 9/9/60.

VARIABLE OYSTERCATCHER — A single very big, *reischeki*-type oystercatcher was seen on numerous occasions between 23/10/59 and 28/8/60. Wholly black oystercatchers were noted as follows:— 1 on 25/1/60; 4 on 11/4/60, 25/6/60 and 10/7/60; 2 on 28/8/60 and 9/9/60.

PACIFIC GOLDEN PLOVER — 16 on 23/12/59; 18 on 23/3/60.

BANDED DOTTEREL — 4+ on Chinky Spit on 30/10/59, and 23/12/59, apparently not breeding, though the ground was suitable:

c. 20 on 23/12/59 in Bull Bay, attracted by a seepage; c. 150 on 14/1/60 (90% adult); 200+ on 6/4/60; 300+ on 25/6/60; c. 330 on 10/7/60, many again feeding among the shrinking shallows of Teal Pool, which has not been to the liking of waders since it was heavily sprayed.

RED-BREASTED DOTTEREL — 1 in Bull Bay on 14/1/60, a very rare bird at Puketutu.

WRYBILL — 6 still present beside Spoonbill Pool on 30/10/59. 250+ back on 14/1/60; 490+ on 17/3/60; 500+ on 6/4/60; c. 650 on 12/4/60; c. 700 on 25/6/60; c. 600 on 10/7/60; c. 400 on 4/8/60; 14 on 28/8/60; 3 on 8/9/60.

WHIMBREL — 2 on 18/10/59.

BAR-TAILED GODWIT — 3000+ on 30/9/59, many showing fading red. A summer census of the whole of Manukau had tallied the godwits at c. 14,500 on 8/11/59. At full tides throughout the summer the edges of Ascot and Spoonbill Pools and L. Oruarangi were visited by large flocks — viz — 6000+ on Spoonbill Pool on 23/12/59; c. 10,000 in three flocks beside the three pools on 14/1/60. On the evening of 23/3/60 there was an immense mixed flock of waders (20,000?) in the air over the pools and of these 10,000+ were godwits. It was interesting to note that one flock which kept apart consisted entirely of gray birds. On Jan. 25, one male was already red and others were reddening.

These resting grounds are now submerged, perhaps permanently. 3000+ wintering juveniles were counted on Ascot Pool on 25/6/60. On 10/7/60 godwits wintering in the whole of Manukau were tallied at 3550+.

HUDSONIAN GODWIT — Three sightings of single birds, perhaps all of the same bird, always near the edge of flocks of Bar-tailed Godwits viz:— 23/12/59; 14/1/60; 25/6/60; the last another instance of over-wintering.

ASIATIC BLACK-TAILED GODWIT — Excellent views of two on 14/1/60 beside Spoonbill Pool, with a Hudsonian Godwit not many yards away. The two *melanuiroides* flew together; *haemastica* did not join them. Single black-tailed godwits imperfectly seen on 23/3/60 and 10/4/60 appeared to be *melanuiroides*; one reddening on 6/4/60 definitely was.

TURNSTONE — 11 on 30/10/59; 40+ on 28/1/60 in their traditional haunt among the ostriferous rocks of Bull Bay; 42 on 27/2/60; c. 40 on 23/3/60 with Wrybills; 2 on 6/4/60; 3 on 12/4/60.

KNOT — None with a flock of c. 2500 godwits on 26/10/59 at Spoonbill Pool; a few on 23/12/59; c. 1000 on 14/1/60; c. 8000 on 23/3/60 beside L. Oruarangi, the majority showing red; 500+ on 25/6/60 feeding hard in a soft seepage area in Bull Bay; some being very red; most showing some red. On 10/7/60 a winter census gave a total of 3600+ Knots over the whole of Manukau.

SHARP-TAILED SANDPIPER — 5 on 23/10/59; 7 on 30/10/59; 9 on 31/10/59, all beside Spoonbill Pool, but spraying evidently spoilt the shallows which they favoured. Only odd birds during the summer; but in autumn 4 on 25/2/60; then 9 on 17/3/60, among Wrybills beside L. Oruarangi, getting into fine breeding plumage; 8 on 23/3/60, mostly with flecked underparts and legs much yellower.

CURLEW SANDPIPER — One on Chinky Spit on 26/10/59, was still in bright breeding plumage, quite the reddest Curlew Sandpiper seen at this date in N.Z. 3 on 14/1/60 in Bull Bay; 2 beside L. Oruarangi near Wrybills and 2 in a shallow runnel off Spoonbill Pool, very pale specimens with pure white underparts, on 2/3/60; 4 on 5/3/60. 1 in Bull Bay, bathing and preening in rain pools on 25/6/60. There are few proved instances of over-wintering in N.Z.

RED-NECKED STINT — One on Chinky Spit with other small waders on 26 and 29/10/59; 1 on L. Oruarangi 25/2/60; 2 on 27/2/60 and 9/3/60; 1 on 27/3/60; 1 on 11/6/60.

PIED STILT — Encouraged by the attractive conditions — spraying excepted — which prevailed during the spring, at least 12 pairs nested in the Puketutu bays of Spoonbill Pool. On 30/9/59 five nests with eggs were seen and on 3/10/59 6 nests with c. 4 and 3 with c. 3 were checked. 2 nests still held eggs on Oct. 30. Apparently about 20 youngsters reached the flying stage. Breeding success must have been affected by the spraying of what was called a 'poisonous emulsion' early in November. Much later a few pairs nested successfully on the other side of Puketutu in the shallows of L. Oruarangi (v. p. 106). The rise of the water-level effectively prevented the use of these two areas for breeding in the spring of 1960.

Some hundreds of non-breeders remained on the pools, and Stilts that had bred elsewhere were moving back before midsummer. On 23/12/59, c. 600 were feeding around the edges of Spoonbill Pool alone. The influx continued and on the evening of 6/4/60, c. 4000 were estimated to have gathered in the many acres of shallows which were formed as the water-level of Spoonbill Pool was being raised. By the end of May, the water on this pool had so risen that there were no shallows left suitable for waders. On 25/6/60, c. 1000 were feeding along such shallows as remained on the other three pools; but when a census was taken over Manukau on 10/7/60, only 890 could be found near Puketutu, including Ihumatao. The total for the whole of Manukau on the day of the census was given as c. 4400. It should, however, be borne in mind that by mid-July many stilts have already left for their breeding-grounds elsewhere.

An almost black stilt, but with whitish face and smudgy belly, was noted on Spoonbill Pool on 18/2/60 and 2/3/60. On 23/3/60 an unusually-marked stilt, with a black band one inch wide tipping its tail, was noisily aggressive on L. Oruarangi, where it may have been one of the late nesters.

CASPIAN TERN — As usual, a few non-breeders remained during the spring. — e.g., 8 on 25/11/59. The summer influx followed a normal pattern. 40+ on 10/12/59; 120+ on 14/1/60; 150+ on 25/1/60. Numerous throughout winter. 70+ on 15/8/60; 48+ on 9/9/60, including several in full breeding dress. Former roosts are now submerged.

WHITE-WINGED BLACK TERN — An adult in breeding dress seen repeatedly over Spoonbill Pool, between 27/2/60 and 27/4/60; possibly, but not necessarily, the bird from Harania Ck. (v. supra).

PIPIT — One on earthworks at L. Oruarangi during March.

YELLOWHAMMER — Some hundreds were attracted by the grass seed which was sown over the miles of new embankments and

were present all winter. c. 50 were noted still on 18/10/60 in a loose flock, from which males would temporarily break away to sing, rather imperfectly.

— R.B.S.

MANUKAU — (c) KARAKA - PUHINUI

BULLER'S SHEARWATER — 1 just dead on 8/11/59 at Puhinui.

GANNET — 21 counted off South Manukau coast on 10/7/60. Up to 30 sometimes past Weymouth in Pahurehure Inlet.

WHITE-FACED HERON — Occurs on all shores and visits most ponds, but elusive during the breeding season. One on 9/6/60 had 4½ in. plumes on the back of the head. 18 the greatest number counted.

GREAT WHITE HERON — One at Weymouth from 31/7/60 to mid-Sept.

LITTLE EGRET — one at Weymouth or Karaka between 23/4/60 and 19/7/60, first noticed by J. G. Moffat, and subsequently by several observers. Bill partly yellow; one or two long slender plumes from back of crown to mantle noted on 25/4/60.

ROYAL SPOONBILL — 2 throughout winter up and down Pahurehure Inlet, joined by a third in September. 3 on 2/10/60 between Whangamaire and Shark Island.

SHOVELER — 2 at Karaka shellbank on 1/11/59.

S.I. PIED OYSTERCATCHER — 350+ on 1/11/59 were evidently immature non-breeders; 220+ on 8/11/59; c. 350 on 3/1/60. Only 315 on winter census out of a Manukau total of 1720+ on 10/7/60; but 1000+ on 31/7/60 at Puhinui alone.

VARIABLE OYSTERCATCHER — 1 *reischeki* on 3/1/60 and 2/10/60; 2 black on 1/11/59; 1 on 3/1/60.

ASIATIC GOLDEN PLOVER — 1 on 19/9/59; 29 on 3/11/59; 30+ on 8/11/59; 62+ on 3/1/60; c. 40 on 21/1/60; 22 on 17/2/60, 2 showing a little black on the underparts; 32 on 20/3/60, 9 almost in full breeding dress.

BANDED DOTTEREL — 1 pr. on 9/10/59; 4 on 1/11/59; c. 50 on 3/1/60; c. 150 on 21/1/60; 200+ on 17/2/60; 250+ on 18/3/60; 321 on 10/7/60, census.

RED-BREASTED DOTTEREL — 1 on 3/1/60; 2 on 17/2/60; 9 on 10/7/60, census.

WRYBILL — 90+ on 9/10/59; 10 on 1/11/59; 3 on 8/11/59, census; 300+ on 3/1/60; 550+ on 21/1/60; 700+ on 17/2/60; c. 830 on 21/2/60; c. 800 on 18/3/60; 950+ on 20/3/60; 1060, census, on 10/7/60; c. 80 on 2/10/60.

LONG-BILLED CURLEW — 1 repeatedly seen between 1/11/59 and 20/3/60.

ASIATIC WHIMBREL — 1 in January and up to 20/3/60.

BAR-TAILED GODWIT — 600+ all pale, on 19/9/59; 2700+ on 9/10/59, many showing traces of red; c. 16,000 on 1/11/59, checked with especial care; c. 7000 on 3/11/59 and 8/11/59, when summer census of Manukau was taken; 3000+ January to March. It appears that during the summer big numbers were lured away to Puketutu. 1856, winter census on 10/7/60.

BLACK-TAILED GODWIT — One seen at Karaka on 19/9/59; but race not determined.

GREENSHANK — During big tides at the end of January, one, which must have been feeding in Pahurehure Inlet, came into paddocks with Pied Stilts near Whangamaire (D.A.U.).

TURNSTONE — c.190 on 8/11/59; up to c. 250 during summer; c. 50 on 20/3/60. Only c. 20 during winter; census 10/7/60.

KNOT — 298 on winter census 21/6/59; only 40-50 Oct.-Nov. and 29 on 8/11/59. c. 800 on 3/1/60; c. 1500 on 17/2/60, a remarkably big mid-winter tally of c. 3590 on 10/7/60.

RED-NECKED STINT — 1 on 9/10/59 was probably the one that over-wintered. Gradually a small flock built up over the summer; 5 on 1/11/59; 8 on 3/1/60; 10 on 21/2/60; 11 on 20/3/60, 2 being richly reddened and some virtually unchanged, almost certainly first year birds. Only 1 on 10/7/60.

PIED STILT — A few pairs breed on a pool beside Oakland's Road, Karaka, e.g., c. 12 adults and at least 4 chicks on 19/9/59; c. 12 adults, 1 on nest on 31/7/60 and c. 8 prs. of adults, 1 juv. almost flying and others half-grown seen on 2/10/60.

Scarce along the Karaka coast in spring till after midsummer, viz. 5 on 1/11/59. 200+ on 17/2/60 at Urquhart's Pt. Winter census, c. 1370 on 10/7/60. 100+ on 31/7/60, Puhinui beach only.

CASPIAN TERN — c. 40 on 1/11/59. Only 12 on census 8/11/59; 18 on 3/1/60; 50+ on 20/3/60; 188, winter census, 10/7/60.

WHITE-FRONTED TERN — Greatest numbers as usual at end of breeding season, when these terns move in presumably from the west coast colonies. 20 on 21/1/60; c. 100 on 17/2/60 at Karaka shellbank or on the old jetty; 2 on 2/10/60 up Pahurehure Inlet.

TERN (Sp.?) — Once again some very small terns were present throughout the summer. It is strongly to be presumed that they are migrant *albifrons* and not *neréis*. 1 on 9/10/59; 2 on 3/1/60; 2 on 17/2/60 at Urquhart's Pt.; dark bill, tan legs, one with dark primaries and a dark shoulder patch, one without; both had white over the top towards the back of the crown; no dark from eye to bill; a third small tern looking 'old and thin' was also seen on the shellbank. 2 again on 21/2/60; 2/3/60 and 19/3/60, when one had bill partly changing colour; white 'jag' or point back to over centre of eye (as opposed to rounded white of *neréis*).

FERNBIRD — At least 6 seen or heard in the saltmarsh scrub in Kidd's Bay on 3/1/60. There seems to be a thriving colony here now; and they are not difficult to find.

— H.R.McK., R.B.S.

MANAWATU — (a) RANGITIKEI ESTUARY

PRION — 2 incomplete corpses on nearby coast on 6/12/59.

BULLER'S SHEARWATER — 1 corpse on nearby coast on 6/12/59.

SOOTY SHEARWATER — 8 corpses along two miles of coast to north on 6/12/59.

GANNET — Sometimes seen fishing around rivermouth and out to sea; 2 on 22/11/59; 6 on 20/5/60.

BLACK SHAG — Several usually present, number variable, up to 46 as on 20/3/60.