

BIRD DISTRIBUTION IN TONGARIRO NATIONAL PARK AND ENVIRONS — JANUARY 1982

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On 11-15 January 1982, on OSNZ field study course, based on accommodation at Erua, was attended by 47 people. The weather was fine and with only light winds throughout the five full days of field work. Effort was applied mainly to boosting the bird mapping scheme of the Tongariro National Park authority within the Park boundaries and on adjacent lakes, canals, and open country, and in forests geographically an integral part of the Park landscape. The water birds of southern Lake Taupo from Tokaanu Bay to Motuoapa were also studied.

The Spur-winged Plover (*Vanellus miles*), the Australian Coot (*Fulica atra australis*), the Spotless Crake (*Porzana tabuensis*) and the Shoveler (*Anas rhynchotis*) were new species to the district, according to the combined Park/Massey University list we began with. However, the Spotless Crake and the Shoveler are not new in fact. B. D. Heather recorded several Spotless Crakes at Rotoaira in May 1974, as shown on the map in Bull *et al.* (1978), and R. W. Jackson, A. Palliser and G. Pearson (pers. comm.) recorded four Shoveler on Rotoaira on 1 July 1978. In general, the species seen and their abundance were largely as expected. However, the various habitat types of the Park and its surroundings are so extensive that a very fit group would need to spend many weeks before the exact status of some species could be really known.

Particular attention was paid to the distribution and breeding status of the Dabchick (*Podiceps rufopectus*) and the Banded Dotterel (*Charadrius bicinctus*).

Course members noted with some concern that the part of the Erua State Forest east of Highway 4 and, above all, the Rangataua State Forest (now part of Karioi State Forest), which occupies most of Ruapehu's southern slopes, are not part of the Park. These forests, which may or may not remain in their present form, hold a more varied and abundant bird life than any part of the Park.

OPEN WATERS AND MARSH

All open waters in the district were visited, including Lakes Rotoaira and Rotopounamu; the 7-year-old hydro lakes Te Whaiua and Otamangakau and their associated canals; the Tongariro mountain lakes; the Tama lakes; the twin lakes of the Rotokuru Ecological Area in Karioi State Forest; the Rangataua lakes near Ohakune; Lake Otamataraha near Karioi; as well as the sewerage oxidation ponds at

Tokaanu and Ohakune, and Tokaanu Bay and Motuoapa on Lake Taupo. Access to the hydro lake Moawhango, near Waiouru, was refused by the Army.

In general, the open waters south of the mountains were of little interest, except that the Ohakune sewerage pond held a large flock of Paradise Shelduck (*Tadorna variegata*), seen elsewhere on the hydro access road to the Whakapapa River (21 birds), at Erua (4) and on a farm pond at Horopito (13). The hydro lakes had little cover on their margins, being suited mainly to Black Swan (*Cygnus atratus*) and the hybrid Grey x Mallard Ducks (*Anas platyrhynchos* X *superciliosa*) now so commonplace on New Zealand waters and facetiously but rather more accurately called "Grallards" by NZ ornithologists. A surprising number of Pied Stilts (*Himantopus h. leucocephalus*) were using these lakes, but apart from 2-3 juveniles, there was no sign that they may have bred there. Stilt numbers were 14 at Te Whaiiau and 120+ at Otamangakau; elsewhere were only 18+ at Rotoaira. Otamangakau held the only flock of Shoveler (45), elsewhere seen only at Rotopounamu (1) and Tokaanu (10). The stark straight margins of the hydro canals between Te Whaiiau and Rotoaira were not suitable for water birds, except for some Pied Stilts and Banded Dotterels at the exit from Otamangakau and two pairs of New Zealand Scaup (*Aythya novaeseelandiae*) near the entry into Rotoaira.

The stable levels and well-vegetated margins of Rotoaira, Rotopounamu, Rotokuru and Taupo make these lakes very suitable for water birds. The Spotless Crake was recorded at five well-spread localities on Rotoaira. The New Zealand Scaup was common on Rotoaira (410 + 4 ducklings), Tokaanu Bay (27 + 4 ducklings), and Motuoapa (40 + 5 ducklings), with only 12 elsewhere (6 on Rotopounamu and 6 on Otamangakau). On 1 July 1978, R. W. Jackson, A. Palliser and G. Pearson (pers. comm.) recorded 30 on Rotopounamu and 1000+ on Rotoaira. The Australasian Bittern (*Botaurus stellaris poiciloptilus*) is well known as a bird of Tokaanu Bay, Lake Taupo; for example, Jackson, Palliser & Pearson on 1/7/78 saw nine in full view on mudflats off the mouth of the tailrace canal. This time, it was recorded at Tokaanu and Rotoaira. A bird seen at Otamangakau, which had only a few inadequate reedbeds, may have come from nearby Rotoaira. Black Swans certainly move between these two lakes, most of the 130 birds counted being, on the day, at the south end of Otamangakau. But these were few compared with the 2000+ seen at Tokaanu. The same two lakes had roughly equal shares of the 300+ "Grallard" Ducks counted. The Welcome Swallow (*Hirundo tahitica neoxena*) was seen mostly at Rotoaira and Otamangakau, but some were breeding under the bridge at Te Whaiiau.

The three, possibly four, Australian Coots on the lower Rotokuru Lake in Karioi State Forest are new to the region. Coots have not been reported from Lake Taupo, and so it is open to conjecture whether they have come from the Rotorua district or the Wanganui district.

Few Pukekos (*Porphyrio p. melanotus*) were seen south of Tokaanu, only two or three at each of Rotoaira, Otamangakau, and Otamaraha. The Spur-winged Plover was recorded at three places — 4 at Tokaanu sewerage ponds, 3 at Te Whaiau, and 5, possibly 8, at Otamangakau. It is presumably more widespread on farms in the district. None was in juvenile plumage.

Three colonies of the Black-backed Gull (*Larus dominicanus*) are known, one near the Tama lakes on Ruapehu, and two east of Ruapehu, low on the fan between Waikato and Whangaehu Rivers and high on the fan of the Makahikatoa Stream.

One Caspian Tern (*Hydroprogne caspia*) was seen on Rotoaira, a bird without a full black cap.

Remarkable at Tokaanu was the distribution of small shags. On 14 January, whereas the Little Shag (*Phalacrocorax melanoleucos brevirostris*) was found mostly on Tokaanu Bay (for example, 34 roosting on the jetty), the tailrace canal from the powerhouse was being used almost exclusively by Little Black Shags (*P. sulcirostris*), at least 120 birds, most of which were roosting on the boom near the mouth. Others were at the powerhouse itself, many were flying back and forth along the canal, and flocks of all sizes were feeding in their characteristic synchronised way. This canal, despite its severe straight lines, has acquired margins of raupo and several pairs of Dabchicks were using it as well as shags and swans.

Fernbirds (*Bowdleria punctata*) were abundant around Lake Otamangakau and in suitable habitat — raupo with some manuka — around Lake Rotoaira. One high-altitude individual was seen from the track to Taranaki Falls near the Chateau, at about 1200 m. Fernbirds were found in pockets in the impressive open Park heathland that can be seen from the road east of National Park township, but they were abundant in the flaxy swamps beside and over the road from Erua Camp itself. This survey did not record Fernbirds on the eastern flank of the National Park. Neither our nor Park records note the occurrence of Fernbirds south of the Mt Ruapehu summit and within the discreet boundary formed by State Highways 1 and 49.

Dabchicks: Apart from one bird seen repeatedly on Rotokuru, the Dabchick was confined, as expected, to Rotopounamu, Rotoaira, and the southern end of Lake Taupo, where raupo beds and other cover are plentiful. Both Rotoaira and Tokaanu Bay were surveyed by boat as well as on foot. On Rotopounamu, 11 birds and 2 chicks were counted, compared with 6 birds seen in July 1978 by A. Palliser (pers. comm.). On Rotoaira, 11 birds were seen, compared with 20 by A. Palliser in July 1978. On Tokaanu Bay, 74 adults were seen, but only one juvenile; single birds and pairs were well spaced out, and many birds were probably missed in the well-flooded raupo, where one bird with two small chicks was seen and others may have had chicks or eggs. On the tailrace canal were at least 6 birds, one pair

with two small chicks; two adults were almost at the powerhouse. All birds were in good "breeding" plumage; many, however, were in small flocks indulging in vigorous display but apparently not in breeding pairs. On this stretch of Lake Taupo, A. Palliser in July 1978 recorded 126 birds, and so winter flocking may show the true number of birds.

OPEN COUNTRY BIRDS

Open country in the form of tussockland, low scrub, scoria and pumice-sand occurs extensively around and east of the central volcanoes, to the north-west around Mangatepopo and further north around Lake Otamangakau. Pockets of open country also occur in the mainly forested western and southern areas of the park. Representative open areas were visited throughout the park region, although steep slopes above the limit of vegetation, 1850 m, were not covered.

Five small passerines — Pipit (*Anthus novaeseelandiae*), Skylark (*Alauda arvensis*), Redpoll (*Carduelis flammea*), Chaffinch (*Fringilla coelebs*) and Blackbird (*Turdus merula*) were commonly reported from open country throughout. Pipits were more widespread than Skylarks. Based on the National Park's bird-mapping-scheme squares (2000-metre grid), Pipits were noted in 41 squares and Skylarks in 30 squares. In places well away from tall vegetation, such as mountain slopes above the bushline and eastern scoria flats, only Pipit, Skylark and Redpoll were present. Thus large tracts of land had few birds. In desolate areas, where the predominant vegetation was tussock grasses and alpine herbs, a search of small patches of low scrub could produce a Chaffinch, or more rarely a Hedge Sparrow (*Prunella modularis*). Interestingly there was a sprinkling of Hedge Sparrow reports from open areas up to 1380 m in central, western and southern parts of the Park, usually adjacent to tall vegetation. This easily overlooked species is probably more common in the region than our scattered sightings suggest. Although the Blackbird was rated as relatively common, the Song Thrush (*Turdus philomelos*) was rarely seen.

Certain species were found only around the boundary of the park in the vicinity of farm paddocks, on land opened up by hydro and forestry development, on roadsides and at settlements. White-backed Magpie (*Gymnorhina hypoleuca*), Starling (*Sturnus vulgaris*) and Yellowhammer (*Emberiza citrinella*) were commonly reported from these man-modified sites, and the few sightings of Myna (*Acridotheres tristis*), House Sparrow (*Passer domesticus*) and Greenfinch (*Chloris chloris*) were similarly distributed.

Of the larger and non-passerine species, Harrier (*Circus approximans*) and Black-backed Gull (*Larus dominicanus*) were frequently seen flying over open country throughout. The White-faced Heron (*Ardea novaehollandiae*) was seen beside Lakes Rotoaira and Otamangakau and also in open country near the Whakapapa River hydro intake. Much interest centred on the New Zealand Falcon (*Falco novaese-*

landiae), but it was seen only from the Mangatepopo track and Tama Lakes track, both locations being near Mt Ngauruhoe.

Despite the large areas of scrub and rough grassland available as habitat, Californian Quail (*Lophortyx californicus*) were relatively uncommon. The few and widely scattered Californian Quail reports came from near dense cover well away from the very open central areas of the park. The only sighting of Pheasant (*Phasianus colchicus*) was at the foot of Ketetahi Track in the Okahukura Bush area.

Banded Dotterel: Likely habitats east of Ruapehu and in the high open country of the Park were sampled for this species because much has been suspected but little known of its status in the Park and in the Rangipo Desert east of the Park. Park records show that a few birds have been seen in summer on the summit of Tongariro and on Scoria Flat and near Tukino Village on the slopes of Ruapehu. Oliver (1955) mentioned a summer sighting high on Tongariro. Sibson (1958) recorded reports of about 20 on the Chateau golf links in November 1957 and of a pair near the summit of Tongariro in January 1957. C. Ogle (*in litt.* to JGI) saw 7 birds near Blue Lake in December 1962 and a further 6 there in March 1973. He also recorded 8 birds just east of the Te Mari Crater in January 1963. Banded Dotterels were therefore known to be summer visitors to the Park.

In this study none was seen, however, in a search of the summit craters and slopes of Tongariro, and none was seen near the Tama Lakes.

On the eastern slopes 7 birds, all adults, were found at 1330 metres in the bed of the Mangatoetoenui Stream, which had the only flowing water seen at this altitude. These birds seemed to be in a loose flock, not attached to territories. The ridges and slopes sampled above this stream had no dotterels. When the Waikato River was followed from the barren terrain of its headwater gullies and ridges to its junction with the Tukino Road and the Desert Road, dotterels were seen in parties of 2,1,2,2,2,1,2, and 2, mostly on the broad pumice/scoria fan between 1100 and 830 m, from which arise the Waikato River and the northernmost tributary of the Whangaehu River. No dotterels were on the open pumice flats of the dry "stream" next north of the Waikato (Tangatu Stream). About 20 were on open flats beside the junction of Tukino and Desert Roads; all were in pairs, and one small chick was seen. The Whangaehu River was sampled from the Wahianoa Aqueduct north for some 7 km; 26 adult dotterels were seen, all in pairs, and 4 chicks. During a vehicle traverse of the very broad fan marked as headwaters of the Makahikatoa Stream, 5 dotterels were seen, even though water was not available on the fan, which looks inhospitable.

By extrapolation from the 70+ birds seen, a rough estimate would give a likely maximum of 200 breeding birds in the district. Elsewhere, 3 dotterels were seen at Lake Te Whaiiau and 10 at Lake Otamangakau, but these birds did not seem to be breeding, and three

of them were in that uncertain plumage with double shoulder-tabs and no breastbands which bedevils anyone trying to define Banded Dotterel plumages according to age.

FOREST BIRDS

All forest types in and surrounding the Tongariro National Park were visited to some extent during the survey. Large, intact, podocarp/ beech or mixed beech forests held the greatest diversity of species. Smaller islands of mountain beech in the east of the Park and of mixed beech in the west of the Park held populations of more common species only.

The Chaffinch was the most consistently widespread forest bird. Other introduced species which penetrated native forests regularly were Blackbird, Redpoll and Hedge Sparrow.

Grey Warbler (*Gerygone igata*), Fantail (*Rhipidura fuliginosa*), Pied Tit (*Petroica macrocephala toitoi*), Silvereye (*Zosterops lateralis*) and Rifleman (*Acanthisitta chloris granti*) were abundant in many different forest types, although each species was more or less abundant in certain areas in a fashion defying generalisation, considering our short survey period and the varied approach by different members of the survey.

Whitehead (*Mohoua albicilla*) were scattered throughout both native and exotic forests in the vicinity of the Park but were most regularly seen in the large southern forest block east of Ohakune that includes Karioi State Forest.

However, of most interest were the disjunct distributions of Kaka (*Nestor notabilis*), parakeet (*Cyanorhamphus* sp.) and North Island Robin (*Petroica australis longipes*).

Only two populations of Kaka are extant in the Park region, both in large indigenous forest blocks. One is in podocarp/hardwood and podocarp/beechn forest on Mt Pihanga and Mt Kakaramea and the second is mainly in the podocarp/red and silver beech forest type of Rangataua State Forest (now part of Karioi State Forest). These two populations are separated by the length of the Park. One Kaka was seen in mountain beech forest from the Blythe Track near the Ohakune Mountain Road. Park records for this species extend west to the Makotuku Stream. Garrick (1980) did not see or hear Kaka during his survey on a transect just west of this stream.

Yellow-crowned Parakeets (*C. auriceps*) were positively identified in the indigenous remnants of Karioi State Forest and on the southern slopes of Mt Pihanga. Most (13 of 16 map squares) parakeet records could not be identified to species. As with Kaka, nearly all records were from the slopes of Mt Pihanga and Mt Kakaramea and from western Karioi State Forest. Parakeets were also heard in Erua State Forest east of the Ohakune/National Park road just north of the Makatote railway viaduct.

Distribution patterns for both these species were strikingly echoed by records in the Tongariro National Park mapping scheme. Karioi and Erua State Forests adjacent to the Park have a vital role to play in the conservation of these two species in the region. This is an interesting illustration that the Park is not a self-contained ecosystem and that the Park boundaries do not necessarily delimit an area of relevance to the movements of its wildlife.

Robins were mapped from the eastern edge of beech forest in Karioi State Forest; from Erua State Forest east of the Ohakune/National Park road; from a tiny (about 2 ha) forest remnant south-west of Lake Otamangakau; from Mt Pihanga and from two locations just inside Park northern boundaries. Seemingly small populations in scattered localities is a typical pattern for this species in other parts of the North Island. Park records show that the Robin is also present in the Chateau area and near Ohakune.

ACKNOWLEDGEMENTS

We wish to thank staff of Tongariro National Park for their encouragement, especially Senior Ranger Bill Cooper, who gave the survey much help. We thank also the other 44 members of the OSNZ field study week, whose work is described here.

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SHORT NOTE

A NEW BREEDING SPECIES FOR CENTRAL OTAGO: BLACK-FRONTED DOTTEREL

On 19 July 1980, my wife and I saw the first Black-fronted Dotterel (*Charadrius melanops*) for the Central Otago region at the confluence of the Clutha and Manuherikia Rivers, Alexandra. It was still there on 27 July.

On 11 November 1980, during one of our usual surveys of stretches of the Manuherikia River in the Galloway district (a few kilometres upstream from Alexandra), we found one bird feeding on the water's edge near breeding Pied Stilts (*Himantopus h. leucocephalus*), South Island Pied Oystercatchers (*Haematopus ostralegus finschi*) and Black-billed Gulls (*Larus bulleri*). We thought then that it was probably the same bird as that of July but later realised it probably was not.