ham's interesting discussion of a method of showing diagrammatically seasonal variation in bird song. In the session on Hearing and Voice, a demonstration was given by Dr W. H. Thorpe of bird song as recorded by the sound spectrograph.

The volume of Proceedings of the Congress, containing the text of all contributions to the above sessions, is awaited with keen interest.

On my return through Paris, I was pleased to visit the reading room of the Société Ornithologique de France in the Natural History Museum, at the invitation of M. Chr. Jouanin and M. R. D. Etchécopar. The journal of the French Society is received in exhange for *Notornis,* and much interest was expressed in the progress being made in our work in New Zealand.

A NEW BIRD FOR NEW ZEALAND

GULL-BILLED TERNS (*Gelochelidon nilotica*) NEAR INVERCARGILL

By H. R. McKENZIE

The first record of this species for this country was made at the Invercargill aerodrome on 26/5/55. A party consisting of Mrs Olga Sansom, Mrs McKenzie, Mr Brian A. Ellis and the writer was studying a group of godwit, South Island pied oystercatcher, and Red-billed and Black-billed Gulls, resting and feeding on the short-turfed airfield, when a strange tern flew in. It was soon joined by another of its kind. The two cruised about in low undulating flight above the other birds. They settled occasionally for short periods, enabling the party to get splendid views at twenty-five yards with telescope and binoculars. All birds are zealously protected here by the airfield staff and are consequently very tame. Those mentioned above were almost under the eaves of the buildings and were just through a fence from our vantage point in a car.

Adopting the recognised method of dealing with a bird new to the watchers, one of the party took down notes while the others worked together, describing each prominent feature from the bill to the end of the tail. Bill totally black; cap black and defined, the black including the eye and coming down on to the bill and nape, but not low on hind-neck as in the white-fronted tern; one of the two had tiny white flecks in the black of its crown; upper wings pale pearl grey; ends of wings or primaries darker; tail, rump and back all white; under surface white, the dark of the primaries showing through; fork in tail shallow, about one inch deep, in flight spreading nearly square at times; feet totally black; size, larger and more solidly bodied than White-fronted tern (*S. striata*), considerably smaller than Caspian Tern (*H. caspia*). The wings appeared long in proportion, but this may have been due to their being more or less parallel-sided in comparison with other species. The unusually long legs of this tern were not noted at the time, but this feature was remembered later. The writer was surprised that the bill was in proportion and did not look unduly heavy.

Dipping down among the other birds, the two terns fed from the short-grassed field, sometimes jostling gulls when they appeared to have found food. One was seen to pick up a worm and to swallow it as it lifted again. In feeding they touched the ground only with the tip of the bill. The habit in this species of commonly feeding over pasture, marsh and still water helps to separate it from the sea-feeding terns, the manner of inland feeding being somewhat similar to that of the White-winged Black Tern (*C. leucopterus*), which occurs rarely in New Zealand. The next day the two terns were seen again and Mr Ellis has lately reported them as present on 22/7/55. It is earnestly hoped that they are a pair and will breed in one of the many marshy areas nearby.

This species is widely distributed in the temperate zones, to some extent in the tropics, but not in the colder regions. It breeds according to the conventional seasons north or south of the equator. Several subspecies are described. The Australian one is named *Gelochelidon nilotica macrotarsa* and

it occurs throughout the country except for the south-west, though apparently only sparsely in Western Australia and Tasmania. It may be expected that the two Invercargill birds would belong to this race. Some useful information on the status of the Gull-billed Tern in New South Wales is given by Keast (*Emu*, 43, p. 180) and McGill (*Emu*, 45, pp. 84 - 85).

TAKAHE RESEARCH 1954 - 1955 SEASON: A SUMMARY

By J. G. KENNEDY, Wildlife Division*

The study period on this occasion was a continuous one lasting from 30 November 1954 to 23 January 1955 – that is, approximately eight weeks. There were two parties, each composed of two observers – Party No. 1 (J. G. Kennedy, Field Officer, and G. R. Williams, Biologist) was in the area from 30 November to 5 January; Party No. 2 (M. M. Small, Field Officer, and K. H. Miers, Biologist) arrived on 3 January and left on 23. Accompanying this party for one week was Mr I. C. McKellar, Geological Survey, D.S.I.R., who, in the course of doing his own work, very kindly assisted in the banding operations.

The aims before both study groups, outlined earlier by one of us (G.R.W.), in brief, were these: that, over an extended period of about three months, the degree of nesting and rearing success should be carefully ascertained – especially insofar as these might be affected by possible predators and competitors which were not to be disturbed during this time; and that banding and general observations should be continued, to the fullest extent possible without unduly disturbing breeding birds and nestlings. These aims were fairly fully realised and the object of this report is to give a brief account of results which are to be published in detail after the outcome of the 1955 - 56 breeding season has been studied.

DURATION OF THE BREEDING SEASON

It was clear that incubation was already well advanced in most nests by the beginning of December. Of the eight nests found that contained – or had contained – eggs, five had chicks hatched from them before mid-December. One nest contained a pipping egg on 21 December and another contained a fresh egg on 4 January. (This last was probably a result of renesting.) Judging from the age of some of the chicks, laying apparently began about the end of October and, from the nest described above, had occurred at least as late as the beginning of January.

LOSSES CAUSED BY DESERTION, ET CETERA

Two nests, each containing one egg, were found deserted, and in two more nests, from each of which one chick had hatched, the remaining egg was deserted. In three of these four cases the remaining egg was later found destroyed – probably by the takahe themselves. Another nest which had apparently never contained an egg was incubated for about a month.

CHICK SURVIVAL

At one time or another eight (less probably, nine) different chicks were accounted for (two coming from nests that were not found). Of these chicks, four (or probably five) were in Takahe Valley and four in the Point Burn. By late January only six of these could be traced with any degree of certainty. We know that seven of these chicks were surviving for minimum periods varying between two and six weeks. As far as this season's nests or chicks are concerned we found no direct evidence that possible predators or competitors had affected either unfavourably in any way. (Stoats, deer, opossums, harriers and wekas were all seen in the study area.)

BANDING OPERATIONS

(1) *General*: Twenty-four birds were caught and banded, nineteen for the first time. A total of 29 takahe have now been marked with a combination

*Killed by an avalanche in the Dobson Valley 4/8/55.