

seems precarious. Increase is hardly to be expected, but even present numbers could scarcely be maintained if 1949-50 was a typical breeding season, unless there is a reserve of immature and non-breeding birds scattered through the surrounding country while nesters occupy the two valleys. It is now certain that the actual occupants of territory in the Tunnel Burn and Point Burn in the summer of 1949-50 did not exceed 20 birds, of which only half (five pairs) are known for certain to have nested, with results which would be disastrously inadequate if they were normal.

Naturally, predator pressure is to be feared, but so far direct evidence of it is lacking, and the traces of stoat feeding activity examined have consisted of remains of small passerine birds and mice. It is possible that weather is an even more serious and capricious factor, and that excessive rain or abnormal snowfall during the critical early days of incubation may determine the success or otherwise of a breeding season.

Some attempts have been made to estimate the total surviving population of *Notornis*, but, being based on an assumption that the Tunnel Burn and Point Burn might be the only nesting areas, they were premature. Late in the 1948-49 season it was thought that about half of the 40 empty nests found might have been used, suggesting that the number of birds scattered over the area might be 100 (with about 40 of them nesting). Longer observation in the next season showed fewer than 20 adult birds present and five pairs making amongst them about 20 nests, so that the estimate of total population was revised to 40-50 birds.\* Since then a wider reconnaissance by officers of the Wildlife Branch in contiguous and adjacent valleys and tops (briefly outlined on page 118 of this issue) gives encouragement to hope that a less restricted basis on which to estimate population can now be adopted.

\* The assumption is that the observer has a fair chance of seeing most of the birds that are "on territory," but actually will see very few of those non-breeders that are not.

---

**SPARROWS TEARING PAPER.**—On January 27, 1951, while sitting on a rocky ledge at Howick observing reef herons, my attention was diverted to two sparrows which I noticed were trying to carry a piece of brown-paper about a foot square up to the top of the cliff. First one bird and then the other (a cock and a hen) tried to lift the paper in its beak and then each had a turn at tearing quite large bits of the paper and flying off with them. Another example of paper-tearing by sparrows was found in a nest which was blown down from a tall palm tree in our garden. This contained a piece of the paper table-cloth which we use when we have meals in the garden. The piece was about 2½ in. long and must have been torn off when the cloth was spread on the garden table some time when we were not looking.—Noelle Macdonald, Howick.

**RED-BILLED GULLS TAKING CRICKETS (?) IN FLIGHT.**—At sunset on February 15, 1951, red-billed gulls were seen circling at heights from 20 to 200 feet over farm lands on the Awanui-Kaitaia Plain. Their actions in the air were reminiscent of those of some fly-catching birds seen in other countries, and careful observation with field-glasses revealed that they were taking large insects in flight. Crickets are present in the locality in vast numbers and were seen in flight nearer ground level at the same time. Until March 9, whenever calm conditions prevailed, gulls were seen behaving in the same manner at the same time of day. The evening performance began shortly before sunset, when birds commenced to fly about quickly overhead, their straight lines of flight criss-crossing the sky in all directions. Suddenly a bird would hesitate and circle, to be joined immediately by others. The circling was performed at just over stalling speed and was marked at intervals by sudden swerves and darts. At times the whole sky, as far as one could see with binoculars, was filled with gulls similarly engaged.—A. H. Watt, Awanui.