

Blackbirds, Brown Creepers and Yellowheads decreased. Blackbirds were seen only in *Hoheria glabrata* and *Senecio bennettii* patches. Hedge Sparrows and Song Thrushes were not recorded along the Jeanie Burn, but the time spent was too short to prove their absence. One Rock Wren not in Table III was recorded at the north end saddle of Lake Monk. Redpolls and Silvereyes were common both at the timber line and in the openings of the valley floor. Fantails were scarce throughout regardless of the forest edge conditions.

To compare relative abundance with that obtained by the previous expedition, Turbott's method of counting in "observation periods" (Turbott & Bull, 1954) was used along one of the lines previously covered (line "a" in Riney *et al.*, 1959). These counts were made in almost identical conditions to those in 1957: (1) 10.45 to 12.0 a.m. on 17 January, high gusty winds, showers becoming heavy rain; (2) 3.15 to 4.30 p.m. on 19 January, gusty winds, persistent rain and (3) 3.15 to 4.30 p.m. on 20 January, windy, moderate rain. The results are summarized in Table IV, together with the sum of three counts made by Turbott in 1957. Observational errors due to weather conditions and the times of day at which the counts were made may be lessened by summing the three counts. This comparison with the autumn counts in 1957 reveals some interesting facts. The abundance of some indigenous forest species such as the Rifleman, Yellow-breasted Tit and Grey Warbler remained more or less the same. The Fantail, Brown Creeper and Bellbird were absent, though they were recorded in small numbers not far away from this line in both expeditions. These facts seem to indicate stability of these species in this area. On the other hand, the total absence of the Yellowhead in 1957 from the Lake Monk area suggests either a possible seasonal movement in autumn or a change in distribution since 1957. In the present survey this species showed a scattered distribution of breeding populations and outside this area was found only around Area 6 in the Jeanie Burn. The Blackbird and Chaffinch showed a slight increase in this area, but the high juvenile counts of these species in the present survey may indicate a seasonal increase which might be checked in a relatively short period of time. Juvenile Silvereyes were not encountered in these counts. A flock of 40 was recorded in this area on 17 January. The order of abundance obtained in these counts generally agrees with that in the total breeding density measured in the same area. This may indicate that the relative abundance obtained by Turbott represented the true relative abundance in the area, not dependent on the conspicuousness of the species. However, the common species which showed agreement in relative abundance were all equally conspicuous in this area.

The detailed accounts of breeding and feeding habits recorded in Fiordland are given in Appendix II.

2. *Stewart Island*

Stewart Island, which lies 20 miles off the southern coast of the South Island, is about 45 miles long and 25 miles wide, marked by the intricate coastline. Paterson Inlet, with the wide Freshwater River basin, divides the upland of the island into two parts. The highest peak of the island, Mt Anglem, 3,214ft, stands in the northern section. The South-west Arm of the Inlet receives the Rakeahua River, which isolates Mt Rakeahua (2,217ft) from the southern upland. Dominance of *Podocarpus* is the characteristic of the Stewart Island forest from which *Nothofagus* is absent.

Population counts were made between 13 and 24 November 1959 in four small areas of the lowland forest: one at the Scenic Reserve of the township of Oban (Area 7) one on Ulva Island in Paterson Inlet (Area 8), one at the foot of the