young could be observed. They were then almost as large as the parent female. Distinct grey flecks appeared on each side of the two young, and a small chestnut patch was appearing on each of their backs.

## Stray Feathers

Birds of Hutt Valley, Wellington, N.Z.—The distribution of Hutt Valley birds is featured in a report, published in 1959, of the seventh meeting of the N.Z. Ecological Society. which is reviewed in The Emu, vol. 59, p. 302. Some additional observations are furnished here for Upper Hutt and environs for the period 1956-60. The White-faced Heron (Notophoux novæ-hollandiæ) appears occasionally. The Whitehead (Mohoua ochrocephala) frequents relic beech (Nothofagus) forest in the gorge of the Wakatikei River just above its confluence with the Hutt River, judging from observations in August and December 1959. It was seen by R. H. D. Stidolph about the same spot in 1924. I also found it in small numbers across Wakatikei River on Goat Hill in December 1959. Also in some relic beech forest at Silverstream in 1959 near where E. F. Stead knew it in 1909 (Transactions Royal Society N.Z., vol. 66, 1937). This shy species survives here within hearing of incessant noise from road and rail traffic. The Rifleman Wren (Acanthisitta chloris) similarly contrives to survive in the same spot, judging from contemporary observation. Though the Pied Tit (Petroica macrocephala) was rare in 1958-60 in beech in Wakatikei Gorge, it was recorded frequently at Goat Hill. The Silver-eye (Zosterops lateralis) appeared more numerous about Goat Hill in 1958-59 than in any other place known to me in the south-west of the North Island, judging from twenty years' observations. Local movement of Pied Fantail (Rhipidura fuliginosa) and New Zealand Pipit (Anthus novæ-seelandiæ) has been noted at the confluence of the Hutt and Wakatikei Rivers in late autumn and early winter, H. L. SECKER, Upper Hutt, N.Z., 20/3/60.

The Relationship between the Avifauna of the Abrolhos Islands and the South-West.—W. B. Alexander (Journ. Linn. Soc., London, 1922, 34: 362-7) states that the striking feature of the Abrolhos land fauna is its southern character, indicating that when the islands were connected to the mainland, the fauna of the Geraldton district must have approximated, much more than it does now, to that of the extreme South-west. Alexander lists several vertebrates, the birds being the Painted Quail (Turnix varia), Brush Bronze-wing (Phaps elegans) and the Spotless Crake (Porzana tabuensis), which are found on the Abrolhos Islands and were thought not to occur on the mainland for many miles further south.

The known range of the Painted Quail was extended northwards from Moora to the mouth of the Murchison River in September 1948, during the R.A.O.U. campout (E. H. Sedgwick, The Emu, 48: 219). On January 22, 1959, P. Slater and I saw a dead specimen on the road, a few miles south of Northampton, and on February 3, an individual with about 30 Stubble Quail (Coturnix pectoralis) at Naraling. D. L. Serventy and H. M. Whittell (Birds of Western Australia, 1951, 50) do not include the Painted Quail in their discussion on the affinities of the fauna of the Abrolhos Islands and South-west.

Recently the known range of the Brush Bronze-wing was extended to the mouth of the Hill River (G. M. Storr and J. R. Ford, W.A. Naturalist, 7: 51) where the species inhabits the dense coastal thickets of Acacia rostellifera and Melaleuca cardiophylla. That the species ranges further north was indicated on January 5, 1960, when W. H. Butler, K. Immelmann and I saw an individual near Freshwater Point, some 25 miles south of Dongara. Immelmann also saw four Brush Bronze-wings at Stockyard Gully, about 25 miles north of the mouth of the Hill River, on January 7. It is probable that, prior to the widespread clearing of the dense wattle thickets during the last 100 years or so, between Geraldton and Dongara, this species had a more northern distribution.

J. R. Ford and B. V. Teague (The Emu, 59: 89) recorded the Spotted Crake (Porzana fluminea) at Hutt Lagoon, 45 miles north of Geraldton, in October 1957. This record extended the known range northwards from Moora. Hutt Lagoon is worthy of further investigation because the habitat in the area also appears suitable for the Spotless Crake.

The discovery of the White-breasted Robin (Eopsaltria georgiana) in the Geraldton district (J. R. Ford and B. V. Teague, The Emu, 59: 37), whereas it was previously thought to be confined to the extreme south-west, indicates that the mainland adjacent to the Abrolhos Islands is still a stronghold of some Bassian species, and that, except in a few instances, the avifauna of this area is possibly not much different from that when the islands became isolated from the mainland.

Zoo-geographers, when studying island faunas, should take into account that birds being capable of flight, may cross barriers insurmountable to flightless animals. Also, although only a detailed study of palaeo-climates and palaeo-floras would provide the answers to some of the problems on Australian fauna distribution (J. Gentilli, *The Emu*, 49: 85-129), it is possible that the main boundary between the Eyrean and Bassian faunas of the south-west has oscillated northwards and southwards during the period since the Abrolhos Islands were separated from the continent.—JULIAN FORD, Attadale, W.A., 14/5/60.