BREEDING OF THE WHITE-FACED HERON IN COASTAL MANAWATU

During the 1979-80 and 1980-81 breeding seasons I visited nests of White-faced Heron *(Ardea novaehollandiae novaehollandiae)* in coastal Manawatu between the Manawatu and Rangitikei Rivers (Lo 1982). The nests were either solitary or loosely aggregated in stands of trees, commonly *Pinus radiata,* and were usually built above 10 m and away from the trunks.

Eggs were laid from about late July to about mid-October, but mostly during September, although elsewhere laying may extend from June to December (Falla *et al.* 1979). The clutch size in five nests was 3, 3, 4, 4 and 5 eggs (the usual range, according to Falla *et al.* 1979). The measurements of 21 eggs from nine nests averaged 45.5 ± 0.50 mm long by 33.4 ± 0.31 mm wide, and the size range was 41.2-48.8 mm by 31.2-37.5 mm. These Manawatu eggs are both shorter and narrower on average than those from Western Australia 48 x 35 mm, n = 17 (Serventy & Whittell 1967); south-eastern Australia 48-51 x 34.3-35.1 mm, n = ? (Hancock & Elliott 1978); Tasmania 48.5 x 34 mm, 47 x 33.5 mm, n = 2? (Oliver 1955); and the Chatham Islands 47.9 x 36.1 mm, n = 4 (Wright 1979). The small samples, however, suggest that little significance can be attached to the size variation among these localities.

Incubation lasts approximately 25 days, and the young fledge at about 6 weeks (Falla *et al.* 1979). Of 13 nests for which the breeding outcome was known, eight were abandoned, although some pairs probably renested. Two nests raised one chick, two fledged two chicks, and one nest raised three young. I found dead chicks at all stages of development beneath nests, including one with a deformed bill (Lo 1981). Over the nestling period chicks receive progressively fewer feeds per day (Moon 1967), and I did not see young being fed once they had fledged and had begun foraging for themselves, although what appeared to be family groups did feed together. Immature birds had paler plumage and lacked long dorsal plume feathers, but contrary to Oliver (1955) and Stonehouse (1968), they also lacked the distinctive white face of adults. Louisson (1972) observed the same differences between juveniles and adults.

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