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ASPECTS OF THE BIOLOGY OF THE SPUR-WINGED PLOVER

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(*Vanellus miles novaehollandiae* STEPHENS 1819)

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A thesis presented in partial  
fulfilment of the requirements for the degree  
of Master of Science in Zoology  
at Massey University

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PLATE 1: ADULT SPUR-WINGED PLOVER

## ABSTRACT

Spur-winged plovers in the coastal region of the Manawatu were studied from July 1979 until January 1981. Taxonomy and nomenclature are reviewed. Dispersal throughout New Zealand and the study area are mapped. The population of the species within New Zealand appears to be derived from a northern Australian population. Behaviour, both in the flocks and territories, was studied and compared with other vanelline plovers and with the Australian population of spur-winged plovers. A previously undescribed display flight was observed similar to the song flight of the lapwing (*Vanellus vanellus*); differences were ascribed to differences in the morphology and ecology of the two species. The population density in the study area is low and no contact fighting was observed. Breeding success was 34.5%, and the average number of chicks fledged by each successful pair was 1.6 in 1979, and 1.7 in 1980. The breeding season extended from June to January. Mean clutch size was 3.6, mode 4. Rapid evolution of egg size may have occurred; egg size was significantly smaller than in Southland ( $P < 0.001$ ). Territoriality, nesting, and flock behaviour were correlated with environmental factors, chiefly the level of the water table. Territories were significantly larger ( $P < 0.01$ ) than in Australia (4.3 Ha. vs 2.4 Ha.). Thirty eight chicks were captured and banded. In 1980 chick growth was recorded. Flock size, movement and behaviour were observed. Changes in behaviour from month to month and seasonally are discussed.

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\* Taken by Mr. Dennison