

**Nesting of the Pied Shag (*Phalacrocorax varius*)
at Makara Beach, Wellington**

The Pied Shag (*Phalacrocorax varius*) inhabits mainly coastal marine waters about New Zealand (Stonehouse 1967), but is occasionally seen in coastal wetlands (Marchant & Higgins 1990). Although it has been recorded about much of the North and South Island coasts (Bull *et al.* 1985), its main centres of distribution are in the vicinity of its breeding colonies along the east coast of the North Island from Northland to Bay of Plenty, and in the South Island along the Nelson-Marlborough-Canterbury coasts as far south as Christchurch, Fiordland coasts and about Stewart Island.

Pied Shags are irregular visitors to the Wellington west and south coasts, and in Wellington Harbour (Robertson 1992). The greatest number we have seen at one time in the harbour was three roosting at Somes Island on 31 August 1995. During 1994, we regularly saw Pied Shags near Makara Beach (41° 13'S, 174° 43'E) on the Wellington west coast. Invariably there was at least one shag during each visit, with the highest count being eight on 1 April 1994. Since adults in breeding plumage were present in autumn 1994, we made occasional visits to check for nesting, but numbers gradually declined in winter. No visits were made to check on the shags at Makara in 1995.

On 26 March 1996, five Pied Shags were present at Makara, including two adults, at what seemed to be a partially built nest in a macrocarpa (*Cypressus macrocarpa*) tree beside Makara Stream and about 200 m from the stream mouth. At the next visit, on 30 April, an adult was sitting on the nest. When the tree was climbed on 13 May three eggs were evident, but as the adult remained crouching over the nest, the entire clutch may not have been seen. On 9 June, the head and neck of a chick was seen as it begged from the brooding parent, and two weeks later two three-week old chicks were clearly visible as the parent stood guard at the edge of the nest. By 24 July, the brood had fledged since one dark fledgling was seen being fed on the stream bank opposite the nest tree; the second was not seen. By this date, the fledgling was estimated to be 52 days old, which is the mean age at which Millener (1972) found that nestlings left the nest (range 47-60 days). In addition, there were four adults and two immature plumaged birds (Marchant & Higgins 1990) on the stream bank, and two adults at the nest. The latter, present at the refurbished nest throughout the observation, were involved in courtship activities. On 18 August, a total of 14 Pied Shags were seen at Makara. Although two birds were at the nest initially, just before dusk both left and joined others roosting in another macrocarpa tree about 100 m up stream. However, on 26 September 1996 when the nest tree was climbed two nests were found, both with an adult incubating three eggs.

These observations are the first of Pied Shags nesting in the Wellington region. The closest colonies are in Queen Charlotte Sound and at Lake Elterwater, Marlborough, from where the immigrants to Makara presumably originated. Although Pied Shags have been found nesting in all months at Auckland (Millener 1972), the Marlborough Sounds (Soper 1972) and on Stewart Island (Lalas 1979), usually colonies have the greatest number of occupied nests in spring, with sometimes a secondary peak in

autumn (Lalas 1979, Millener 1972). We intend to continue monitoring the Pied Shags at Makara to determine their nesting season(s) and whether the number of pairs nesting gradually increases.

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Blackbird (*Turdus merula*) predation on the endemic copper skink (*Cyclodina aenea*)

On 21 September 1996 an adult female Blackbird (*Turdus merula*) was observed preying upon two copper skinks (*Cyclodina aenea*) in a terraced coastal garden at Seatoun Heights, east of Wellington. Under mild, sunny conditions, the Blackbird was observed from a window above the garden through 10x40 Zeiss binoculars at a distance of 12-16 m. The skinks were located by the searching of the Blackbird in litter and wood fragments on a flat terrace from which rotting logs had been removed two hours previously. Two adult copper skinks had been observed as the logs were being removed, but they both escaped into long grass 2-3 m above the site.