

# **WATERBIRDS AT MINDEN DAM, SOUTH-EAST QUEENSLAND, 1979 TO 1987, AND FACTORS INFLUENCING THEIR ABUNDANCE**

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Waterbirds were monitored at approximately three-week intervals from June 1979 through May 1987 at Minden Dam, south-east Queensland. Thirty-four species were observed, 3 to 19 species in each count. Mean counts were highest for Dusky Moorhen, followed by Eurasian Coot, Little Black Cormorant, Pacific Black Duck, Cattle Egret and Australasian Grebe. These species, except the Cattle Egret and Eurasian Coot, were present in 75 per cent of counts, as were also Purple Swamphen and Little Pied Cormorant.

Total numbers of birds and numbers of seven species (Plumed Whistling-Duck, Pacific Black Duck, Grey Teal, Hardhead, Masked Lapwing, Black-fronted Plover and Black-winged Stilt) increased significantly as the water level in the dam fell. Numbers of ten species were inversely correlated with rainfall in the preceding 100 days. In contrast, numbers of Little Black Cormorant and Little Pied Cormorant decreased as water level fell and as rainfall in the preceding 100 days was lower. Numbers of Australasian Grebe, White-faced Heron, Intermediate Egret, Pacific Black Duck and Dusky Moorhen were highest in winter, while those of Little Black Cormorant, Little Pied Cormorant, Cattle Egret, Plumed Whistling-Duck and Black-winged Stilt were highest in summer.

Minden is rich in waterbird species because of its permanence and the diverse range of habitats. The predominantly inverse correlations with depth suggest that it was a local refuge as nearby habitats diminished during dry periods. The diversity and functioning of the dam is threatened by introduced water weeds and rural residential development so careful management is required to maintain its attractiveness to waterbirds.