

BREEDING BIOLOGY OF THE DUSKY MOORHEN IN A SUBURBAN PARK

SEAN PYWELL¹ and ALAN LILL^{1, 2, 3}

¹Wildlife Ecology Group, School of Biological Sciences, P.O. Box 18, Monash University, Victoria 3800

²School of Psychology, Psychiatry and Psychological Medicine, P.O. Box 17, Monash University, Victoria 3800

³Corresponding author

Received 23 May 2002

The breeding biology of a Dusky Moorhen *Gallinula tenebrosa* population in Jells Park, Melbourne was studied from 1991 to 1996. Data were supplemented by records from the Birds Australia Nest Record Scheme for the period 1963–1995. The breeding season at Jells Park lasted from August to March. Mean individual clutch size was 6 eggs at Jells Park and 7 eggs in Nest Record Scheme. For breeding groups at Jells Park with only one laying female, clutch size was negatively correlated with laying date. The eggs comprising a clutch were usually laid daily, egg mass was about 7 per cent of adult mass and the mean incubation period was 23 days. Egg mass and incubation period conformed to allometric predictions based on adult mass, but clutch mass exceeded prediction simply because of the significant incidence of communal clutches. Clutch success was 61 per cent at Jells Park and 72 per cent in the Nest Record Scheme. Predation was the main nesting mortality agent. Survival of chicks from fledging to independence was 40–50 per cent at Jells Park. Females in the park contributed eggs to a similar extent to single-female or communal clutches, but Nest Record Scheme females contributed about one more egg to communal than single-female clutches. All communal group members participated in nest building and feeding chicks. Both members of pairs incubated substantially, but relative involvement in incubation in communal groups for which we had quantitative records ranged from 9 to 44 per cent among males and 15 to 67 per cent among females. Results are compared with data for other Australian Dusky Moorhen populations and for the cosmopolitan Common Moorhen *G. chloropus*. Their contribution to the debate about divergence in life history strategies of Australian and Northern Hemisphere birds is evaluated.