

## Nesting success of the Mallard (*Anas platyrhynchos*) in wetlands in Kashmir, India

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Mallards, *Anas platyrhynchos* are widely distributed throughout the northern hemisphere and have also been introduced to the Antipodes, where they pose a threat to native duck diversity through hybridization and introgression. Studies of their breeding ecology in their natural range provide useful information relevant to their conservation there and their control in introduction sites. Nesting success of Mallards was studied at Anchar Lake and Shallabugh wetlands, Kashmir over two breeding seasons. One hundred and one nests were found, of which 37% totally failed. Seventy-one percent of nests were in tall, dense macrophytic vegetation, 23% in willow bushes and 6% in cavities in willows. Overall nesting success calculated by the Mayfield method was 54%; it was similar in tall, dense, macrophytic vegetation (53%) and willow bushes (47%), but the apparently higher observed success rate in willow cavities (78%) was hard to evaluate because of the small sample size for that site type. Predation (49%) and nest desertion (43%) were the most common causes of clutch losses. Clutch failure was greater during the first half of the breeding season, mainly because all observed nest predation occurred at that time; nest desertion occurred equally commonly in the first and second halves of the nesting season. An effective management strategy for increasing Mallard breeding success in Kashmir would appear to be conserving nesting cover, particularly tall, dense, macrophytic vegetation; equally, controlling introduced Mallard populations elsewhere, particularly in wetlands, might incorporate reducing the amount of dense nesting cover available, providing it does not negatively affect the breeding of other native, cohabiting bird species.

**Keywords:** Mallard; nest site; nesting success; macrophytic vegetation; willows; clutch mortality agents