

ESCAPE BEHAVIOR OF BLUE-WINGED TEAL FROM ATTACK BY A NORTHERN HARRIER

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On 8 October 1996 at the Yazoo National Wildlife Refuge, Washington Co., Mississippi, we observed a female Northern Harrier (*Circus cyaneus*) attack a male Blue-winged Teal (*Anas discors*). The observation occurred at a 3.5 ha impoundment that was 0.7 m deep and contained floating and submergent vegetation. There were 47 Blue-winged Teal and 5 Northern Shovelers (*Anas clypeata*) actively foraging within the impoundment. A Northern Harrier had passed over about seven times during a 3-hour period, eliciting short group flights to other sections of the impoundment.

After a 15-minute period absent of harrier activity, a single male Blue-winged Teal began foraging alone approximately 50 m from all other ducks. Within several minutes a Northern Harrier attacked the duck, submerging feet and legs into the water. The raptor was unsuccessful and did not appear to make physical contact with the duck. The Blue-winged Teal escaped not by diving headfirst but rather its breast went under first followed by head and tail. The duck returned to the surface within 12 seconds, approximately 6 m from its diving location, suggesting movement underwater.

Disturbance of waterfowl by Northern Harriers and other raptors has been described (Tamisier 1976, Johnson and Rohwer 1996). Smaller dabbling duck species, such as Blue-winged Teal, are often more sensitive and react differently to raptor predation than larger species (Gaston and Nasci 1994, Johnson and Rohwer 1996). Tamisier (1976) estimated that 18% of all Green-winged Teal flush on each passage of a Northern Harrier, suggesting a major influence on daily behavioral activities, energy expenditure (Johnson and Rohwer 1996), and diurnal habitat selection (Euliss and Harris 1987). The Northern Harrier in this observation attacked when an individual duck was separated from the flock, supporting a defense strategy described by Tamisier (1976) in which ducks form dense flocks during elevated raptor predation pressure.

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