

FEATURE ARTICLES

NOCTURNAL FORAGING BEHAVIOR OF WINTERING SURF SCOTERS AND WHITE-WINGED SCOTERS

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Manuscript received 21 December 2004; accepted 28 April 2005.

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Abstract. We studied the nocturnal foraging behavior of Surf Scoters (*Melanitta perspicillata*) and White-winged Scoters (*Melanitta fusca*) during winter in coastal British Columbia, Canada. Using radio telemetry, we collected nocturnal and diurnal data documenting the frequency of foraging dives and the location of scoters in relation to their intertidal foraging grounds. We found that dive foraging rarely occurred during nocturnal periods for either species. Only 2% of nocturnal observation blocks for both scoter species contained diving, compared with 98% of diurnal observation blocks. This corresponded to an average of only 0.1 min spent underwater per half-hour observation block during the night and over 7 min during the day. Both species of scoters were located farther offshore and in deeper waters during nocturnal hours, indicating that they were not using intertidal foraging areas at night. Our results suggest that Surf Scoters and White-winged Scoters face daylight-imposed limits on the amount of available foraging time. These potential day-length restrictions should be considered when reviewing human activities that potentially alter the amount of available foraging time or food supplies in winter habitats.

Key words: diving, *Melanitta perspicillata*, *Melanitta fusca*, nocturnal foraging, Surf Scoter, White-winged Scoter, winter.