

Diving Canada geese: an unexpected behavioral observation on the Green River

by Julia Halverson

Waterfowl family Anatidae is comprised of nine subfamilies – Dendrocygnae, Thalassorninae, Stictonettinae, Plectropterinae, Tadorninae, Merginae, Oxyurinae, Anatinae, and Anserinae. Merginae (seaducks) and Oxyurinae (stiff-tailed ducks) are characterized by diving underwater to obtain their food, while Anatinae (dabbling ducks) and Anserinae (swans and geese) primarily feed at the water surface by “dabbling” their bills in the water or by upending (tipping their bodies so that their head is underwater and their tail remains above water; see photo) to reach deeper. Many of these dabblers have broad bills with lamellae on the edges that is designed to strain vegetation and small invertebrates from the water. These surface-feeding ducks seldom dive, even to escape danger. In contrast, the Merginae and Oxyurinae subfamilies exhibit morphological adaptations to facilitate the diving motion, including relatively large feet with short legs that are located toward the posterior of the body. These adaptations tend to hinder this group of waterfowl on land, but enhance their performance in the water.



A male mallard upends. Photo courtesy of Alan Kolnik (http://www.treknature.com/gallery/North_America/United_States/photo29479.htm).

The Canada goose, *Branta canadensis*, is a member of subfamily Anserinae. Swans and geese are known to graze on terrestrial vegetation found in fields or on aquatic vegetation that they obtain by dabbling or upending in shallow water. Because their legs are placed toward the center of their body, swans and geese walk easily on land but do not dive underwater, according to Sibley (2003).

On June 15, 2006, in Lower Browns Park on approximately Green River mile 255.6, I observed two Canada geese diving down into the water. In a slightly awkward motion, both geese upended as if to dabble at the bottom of the riverbed, then quickly dove underneath the surface, remaining submerged for at least ten seconds. They may have either been foraging or using the water as a sort of refuge; it was impossible to determine their purpose, as they did not have any apparent food in their bills when they reappeared. They continued to dive underneath the water as my party floated past. Between dives, they stretched their necks forward and flattened their bodies in a cormorant-like manner. No other observed Canada geese (120 total) on the Green River from Flaming Gorge Dam to Split Mountain Canyon behaved in this manner during our trip.

References

Sibley, D. A. 2003. The Sibley field guide to birds of western North America. New York, NY. Alfred A. Knopf.