FOOD HOARDING BY COLUMBIAN BLACK-TAILED DEER

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Food hoarding by wildlife is defined as "the handling of food to conserve it for future use" (Vander Wall 1990). Deferred consumption may be of survival value as it allows an animal flexibility in time and location of feeding. Deferment periods vary among species and range from minutes to years.

Although many mammal species have been observed to hoard food. I am unaware of published observations of hoarding by deer. Deer do commonly transport food without delaying consumption. Captive White-tailed Deer (Odocoileus virginianus) and captive Mule Deer (Odocoileus hemionus) have been observed to transport food items while chewing upon them and to carry objects such as flagging tape (Judy Hoy, pers. comm.). On many occasions I have witnessed a wild deer lift a fallen tree branch on which it was feeding and carry the branch during a retreat from disturbance, such as an approaching vehicle, dog, or human. However, in these cases there was no deferred consumption. The animal continued chewing while retreating and dropped the branch after travelling a few metres or less when leaves in the mouth became severed from the branch.

On two occasions, however, I have observed deer behaviour on Salt Spring Island, British Columbia, that may qualify as hoarding. On 8 January 2005 at 1030 hr, I encountered a female Columbian Blacktailed Deer (*Odocoileus hemionus columbianus*) standing in 15.2 cm of snow on a roadway and feeding on foliose lichens attached to a downed branch of a bigleaf maple (*Acer macrophyllum*). Upon detecting my presence, the deer grasped the tree branch in its mouth and retreated 24 m across an opening, stopping in a stand of western redcedar (*Thuja plicata*). The deer then resumed feeding on the lichens attached to the branch.

On 10 August 2006 at 1300 hr, I observed a female Columbian Blacktailed Deer accompanied by two fawns. She was feeding on leaves of *Arbutus*

menziesii attached to a branch lying on the ground. As I approached, the doe lifted the branch from the ground and carried it 10 m into a draw.

Salt Spring Island is subject to windstorms and occasional high-density snow loads on trees resulting in windsnap and snow breakage. The consequence of these disturbances is forage pulses of branch litter, most accessible on roads and other openings. Deer density is high due to minimal predation and hunting, and litterfall is an attractive food source. Hoarding behaviour is suited to such conditions, where an animal can appropriate a resource but avoid lingering in a high-risk habitat. It is possible that under conditions of food scarcity, hoarding may confer a nutritional advantage.

Literature Cited

Vander Wall, S.B. 1990. Food hoarding in animals. The University of Chicago Press, Chicago, IL. 445 pp.

About the Author

Peter Ommundsen studied wildlife biology at the University of British Columbia and was employed by the wildlife and environmental science programs at Selkirk College for 32 years.