DIPPERS CAPTURING FISH DURING WINTER IN THE YUKON TERRITORY

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While involved in avian and fisheries investigations in the Yukon Territory for Foothills Pipe Lines (Yukon) Ltd. and Foothills Pipe Lines (South Yukon) Ltd., we had opportunities to observe and discuss Dipper (*Cinclus mexicanus*) feeding behaviour. On 30 March 1978 Young encountered two Environment Canada employees who were studying flow characteristics of Engineer Creek, 65°21'N, 138°19'W. The employees indicated that in mid-December 1977 they observed a Dipper emerge from the creek with a "small" (less than 7 cm) fish in its bill. When they approached the bird, it flew off, dropping the fish, which was identified as an Arctic Grayling (*Thymallus arcticus*).

On 7 March 1980, while electrofishing in Mirror Creek (62°28 'N, 140°54 'W), Kratt observed a Dipper emerge from the water with a small (approximately 5 cm) fish in its bill. Shortly after perching on a log, the bird dropped the wriggling fish into the creek but quickly dove into the water to retrieve it. Again emerging from the water, the Dipper flew to shore and swallowed the fish, head first. Fishery sampling revealed the presence of Arctic Grayling, Lake Chub (*Couesius plumbeus*) and Slimy Sculpin (*Cottus cognatus*). Although a positive identification could not be made, we assume that the fish consumed by the Dipper was either a small Arctic Grayling or a Lake Chub as the fish definitely did not resemble a Slimy Sculpin.

Dippers are generally considered to feed opportunistically, primarily on invertebrates (Mitchell 1968, Thut 1970, Sullivan 1973, Price 1975, Ealey 1977). Nonetheless, several authors have observed them eating fish in more southern latitudes (Michael 1922, Cordier 1927, Bent 1948, Sullivan 1973, Jost 1975, Ealey 1977, D.M. Ealey, pers. comm.)

Our observations of Dippers eating fish are of interest as they represent probably the first published evidence of this behaviour under winter conditions in northern Canada. We suspect that Dippers are likely more successful at capturing fish when the fish are relatively slow-moving (i.e., at low water temperatures) (Beamish 1978), or relatively immobile (e.g. at the time of hatching or emergence). We suggest that fish could be important in allowing Dippers to survive winter in northern latitudes. The significance of this food source is worth further investigation.

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LITERATURE CITED

Beamish, F.W.H. 1978. Swimming capacity. Pp. 101-187 in W.S. Hoar & D.J. Randall eds. Fish Physiology, Vol. VII. Academic Press, New York.

Bent, A.C. 1948. Life histories of North American nuthatches, wrens, thrashers and their allies. U.S. Natl. Mus. Bull. 195.

Cordier, A.H. 1927. Some observations of the Water Ouzel. Auk 44:169-178.

Ealey, D.M. 1977. Aspects of the ecology and behaviour of a breeding population of Dippers (*Cinclus mexicanus*) in southern Alberta. M.Sc. thesis, Univ. Alberta, Edmonton. 198 pp.

Jost, O. 1975. Fish otoliths in the pellets of the Dipper. Nature and Museum 105:283-286.

Michael, C.W. 1922. Water Ouzel eating a fish. Condor 24:98-99.

Western Birds 12:141-142, 1981

- Mitchell, P.A. 1968. The food of the Dipper (*Cinclus mexicanus* Swainson) on two western Montana streams. M.A. thesis, Univ. Montana, Missoula. 92 pp.
- Price, F.E. 1975. A study of population dynamics in the Dipper (*Cinclus mexicanus*). Ph.D. thesis, Univ. Colorado, Boulder. 182 pp.
- Sullivan, J.O. 1973. Ecology and behavior of the Dipper, adaptations of a passerine to an aquatic environment. Unpubl. Ph.D. thesis, Univ. Montana, Missoula. 212 pp.
- Thut, R.N. 1970. Feeding habits of the Dipper in southwestern Washington. Condor 72:234-235.

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The California Department of Fish and Game is undertaking studies of the Goshawk (Accipiter gentilis) and the Willow Flycatcher (Empidonax traillii) in California to document distribution, abundance, habitat requirements, and reproductive success. Please send any reports of recent sightings (within the past decade) of breeding Goshawks and Willow Flycatchers to Ronald W. Schlorff. California Department of Fish and Game. 1416 Ninth Street, Sacramento, CA 95814. Please include your name, address and phone number, along with the following: location of sighting (if possible, include township, range, section, ¹/₄ section, and ideally, a copy of a topographic map), date of observation, behavioral notes, and any other relevant information such as threats to habitat or evidence of flycatcher nest parasitism by Brown-headed Cowbirds (Molothrus ater). Goshawk nest locations will be kept confidential and will be made available only to those persons involved in legitimate research and management of the species. This information will assist State and Federal agencies in developing habitat protection and species management plans for these species of special concern.