

Arthropods Consumed by an Immature Marbled Godwit

Robert M. Timm¹ and Robert M. Zink
Bell Museum of Natural History
University of Minnesota
Minneapolis, Minnesota 55455

Rapid digestive rates often hinder precise analysis of avian stomach contents, especially those containing insects. Thus, there is a paucity of information concerning the identity of prey items consumed by many birds. Marbled Godwits (*Limosa fedoa*) are locally common shorebirds in the western U.S. However, there are few data available concerning prey taken. Locusts and "other insects" were reported in the stomachs of six Marbled Godwits from Nebraska (Aughey 1878). Baird *et al.* (1884) reported that godwits in Saskatchewan preyed on leeches. Marbled Godwits along the California coast were found to have polychaetes, small snails, pelecypods, and shore fly larvae in their stomachs (Reeder 1951). Marbled Godwits also have been reported to feed on crustaceans, insects, and worms (Goss 1891), and on snails (Grinnell *et al.* 1918).

We examined the gizzard of an immature female Marbled Godwit that was of particular interest because it contained a large number of identifiable arthropods. The bird was found dead on Hwy. 113, ¼ mi. S, 1 mi. W of Waubun, Mahanomen Co., Minnesota on 11 July 1976. Voucher specimens of arthropods have been deposited in the entomology collection of the University of Minnesota, St. Paul, and the Marbled Godwit has been deposited in the collection of the University of Minnesota Forestry and Biological Station at Itasca State Park, Minnesota.

We found 191 arthropods, representing eight species of adult insects and one harvestman, in the gizzard of the godwit. Identifications and numbers of individuals found are listed in Table 1. Average length of the arthropods was roughly 7 mm (range 4-12 mm). Additionally, 79 stones (1-5 mm) were found in the gizzard.

The Marbled Godwit fed on a variety of insects; however, the large number of soldier flies (*Eulalia virgo*) is of interest. *Eulalia virgo* is a common, widespread species throughout North America; adults frequently are found on flowers. Since 90% of the prey items were soldier flies, either they were the most abundant prey item available or the godwit specifically selected them. These results do not provide a basis for general conclusions about Marbled Godwit feeding habits, but they do illustrate the type of data that can be obtained from careful analysis of avian digestive tracts.

¹Present address: Department of Entomology, Fisheries and Wildlife, University of Minnesota, St. Paul, MN 55108.

Table 1. Arthropods consumed by an immature Marbled Godwit (*Limosa fedoa*).

INSECTA	Number
Hemiptera: Nabidae <i>Nabis ferus</i> (Linnaeus, 1758)	2
Homoptera: Cicadellidae <i>Athysanus argentarius</i> (Fabricius, 1794)	6
Coleoptera: Curculionidae <i>Sitona cylindricollis</i> Fahraeus, 1840	7
Neuroptera: Chrysopidae <i>Chrysopa rufilabris</i> Burmeister, 1839	1
<i>Chrysopa</i> sp.	1
Lepidoptera: unidentified Microlepidoptera	1
Diptera: Stratiomyidae <i>Eulalia virgo</i> (Wiedemann, 1830)	171
Sarcophagidae: unidentified	1
ARACHNIDA	
Phalangida: Phalangiidae <i>Leiobunum</i> sp.	$\frac{1}{191}$
Total	191

LITERATURE CITED

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Notes

BLACK-HEADED GROSBEAK IN JAMESTOWN, NORTH DAKOTA.—On June 1, 1977 I saw a male Black-headed Grosbeak in Klaus Park, Jamestown, North Dakota. It was in a low tree, about 8 feet above ground. I saw it at about 5:00 PM in good light, at a distance of about 20 feet, with 8 x 30 binoculars. I used Peterson's *Field Guide to Western Birds* to confirm the identification.

The body of the bird was dull orange on breast and rump. Its head was black, wings were black spotted with white, and tail was black with white feathers on the underside. The bill was large, thick, and greyish in color.

I have seen this bird in Theodore Roosevelt National Memorial Park and in the Black Hills of South Dakota, but not around Jamestown. It is a common breeding bird in North Dakota from the Missouri River west.—*Ruth Lender, Jamestown, North Dakota 58401.*

SUMMER RECORD OF RED-BREASTED NUTHATCH IN NORTH DAKOTA.—On June 4 and 6, 1977 I saw or heard an individual Red-breasted Nuthatch in Jamestown, North Dakota. Both observations were in elm trees in the James River valley below the Jamestown Dam.

The bird attracted my attention on June 4 with its call, which was more rapid and higher pitched than that of the White-breasted Nuthatch. When sighted, the bird was noted to be small, with blue-gray back, and a reddish cast to the breast. A dark line through the eye was separated from the cap by a white line.

The bird was seen in the morning under good light conditions with 8 x 30 field glasses. I have seen the bird often in Minnesota and during migration in North Dakota.

Because June is well past the usual migration period, the possibility that the bird was breeding is suggested. Stewart (*Breeding Birds of North Dakota*, Tri-College Center for Environmental Studies, Fargo, 1975) reported summer records only from Cass, Ramsey and Slope Counties. He lists the species as a rare, local, and irregular breeder in the state.—*Ruth Lender, Jamestown, North Dakota 58401.*