

RED-WINGED BLACKBIRDS

Nesting Near Great Slave Lake, N.W.T.

by GARY L. KRAPU*

A general lack of information on the breeding biology of the Red-winged Blackbird in the Northwest Territories has prompted me to publish observations made while engaged in waterfowl research north of Great Slave Lake during the summer of 1968. Observations were made primarily in the subarctic taiga within a few miles of the Yellowknife Highway between Yellowknife and Rae, N.W.T. Low, rounded outcrops of Precambrian rock, muskeg bogs, and ponds of various sizes are the dominant features of the landscape in this area. Emergent aquatic cover is typically scarce. However, stands of cattail (*Typha latifolia*), sedge (*Carex* spp.) and horsetail (*Equisetum palustre*) occur in some ponds. Sedge mats and Ericaceous shrubs in varying stages of succession border the shoreline of many wetlands. A more detailed description of the vegetation of this general area is available elsewhere.^{5 6}

Breeding Chronology

Recent records indicate that Red-winged males arrive in the Yellowknife-Rae area in early May. Carbyn recorded the species on May 12, 1966,¹ and Trauger (personal communication) sighted the first spring arrivals on May 1, 1967, and May 4, 1968. In 1968, laying was underway by June 11 when two nests containing three and five eggs and several partially constructed nests were found. H. W. Murdy (unpublished notes) noted finding a nest with 4 eggs on June 11, 1962, and a nest with 3 eggs on June 8, 1965. Nests under observation in 1968 hatched by early July. An active nest still containing eggs was found on July 14 but

was later abandoned. Juveniles were sighted on several areas in July, and both males and females were observed feeding young. Departure of territorial males from ponds occurred gradually from mid-July into August; the last males were sighted on August 7. Small flocks of 1 to 10 migrating Redwings were observed flying southward from July 15 to August 22.

Nesting Densities

The Redwing is a common breeder in ponds along certain segments of the Yellowknife Highway between Yellowknife and Rae. In one 5-square-mile tract (1/2 mile wide by 10 miles long) from Mile 20 to Mile 30 of the Highway, territorial males were sighted on 24 of 96 ponds. Population densities ranged from 1-9 males on 20 ponds, 10-24 males on three ponds and 25+ males on one pond. Redwing density on this area appeared to exceed that along other segments of the highway between Yellowknife and Rae.

Nesting Ecology

Nests usually are in scattered stands of emergent vegetation over open water but occasionally occur in standing vegetation along the edge of the sedge mat (Fig. 1). Birds nesting in the sedge mat usually are in close proximity to others nesting over water. Territories are predominantly in cattail and sedge. However, a few males were observed defending territories within willow (*Salix* sp.) thickets standing in water, and William L. McDonald (personal communication) noted finding nests in this area in willows growing over water.

In addition to nesting in ponds, the species frequently is found in association with river systems in this

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Red-winged Blackbird nesting area near the Yellowknife Highway, N.W.T. Although this photo was taken on July 14, 1968, new cattail growth was scarcely evident. Redwings were nesting both in the old cattail growth along the edge of the sedge mat in the foreground and in the more extensive cattail and sedge away from shore.

region. Redwings were present in willow and cattail of marshes along the Stagg River, and Robert G. Bromley (personal communication) found birds nesting in cattail at the Stagg delta located on the North Arm of Great Slave Lake. I observed Redwings nesting in cattails near Rae at the point where the Dorey River empties into Marian Lake. McDonald (personal communication) observed the species nesting up the Marian River, along the Mackenzie River from Great Slave Lake to Fort Norman, and at the mouth of the Taltson River. Stewart noted that these birds were fairly common in cattail sloughs along the Little Buffalo and Sass rivers south of Great Slave Lake.⁴ Redwings are scarce north and northeast of Yellowknife in the forest-tundra ecotone. The general lack of emergent aquatic vegetation in that area presumably is an important factor preventing the species from expanding its range northeastward.

The Redwing typically has adapted to a wide variety of habitats. However,

at the northern margin of its range in the Northwest Territories, it was not observed nesting away from water and was restricted to ponds with stands of emergent vegetation. Redwings near Great Slave Lake nest in habitat that appears very similar to that occupied by the Yellow-headed Blackbird at more southern latitudes where the species are sympatric. Miller notes that the Yellow-headed Blackbird nests only over standing water in emergent vegetation including willow.²

Human Influences

The impact of man on the distribution of the Redwing on the region in comparison to most other parts of its range probably has been small. However, some local changes in distribution apparently have occurred. Twelve wetland basins that were drained in the late 1950's during construction of the Yellowknife Highway had partially refilled by 1968. Stands of cattail had developed in eight of these ponds, all of which had

territorial males. Aerial photos taken shortly after highway construction indicated that these ponds were nearly devoid of cattail at that time. The Redwing was breeding in this region prior to habitat alteration by man because Preble saw adults and collected an immature male at Fort Rae, a few miles from the present town of Rae, in late July 1901.³

While the species is attracted to cattail stands of natural wetlands in this region, no Redwings were seen associated with cattail stands in small man-made ponds. Of 203 borrow-pit ponds along the Yellowknife Highway that were visited in 1968 and 1969, 46 had cattail stands but no males were occupying territories on these ponds. Nesting cover in cattail stands of borrow-pit ponds appeared adequate, suggesting some other factor(s) were responsible for the absence of Redwings there. Availability of food may have been involved. This hypothesis is based on the assumption that feeding is restricted primarily to aquatic sites. Field observations supported this belief. Borrow-pit ponds had fewer foraging sites and probably fewer potential foods since the water at these sites was largely devoid of submergent plants and bottoms were bare. Foraging activity in natural ponds was concentrated along the water line in

emergent stands of cattail and sedge and on the upper surface of floating water lily (*Nuphar variegatum*) leaves following their emergence in July.

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- ²MILLER, R. S. 1968. *Conditions of competition between Redwings and Yellow-headed Blackbirds*. *J. Anim. Ecol.*, 37:43-61.
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- ⁴STEWART, R. E. 1966. *Notes on birds and other animals in the Slave River-Little Buffalo River area, N.W.T.* *Blue Jay*, 24:22-32.
- ⁵THIERET, J. W. 1964. *Botanical survey along the Yellowknife Highway, North-west Territories, Canada*. II. Vegetation. *Sida*, 1:187-239.
- ⁶TRAUGER, D. L. 1971. *Population ecology of Lesser Scaup (*Aythya affinis*) in subarctic taiga*. Ph.D. Thesis. Iowa State University, Ames. 118 pp.



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