

Red-headed Woodpecker Habitat Preference in the Rainy River Area of Ontario

David H. Elder and John Van den Broeck

Introduction

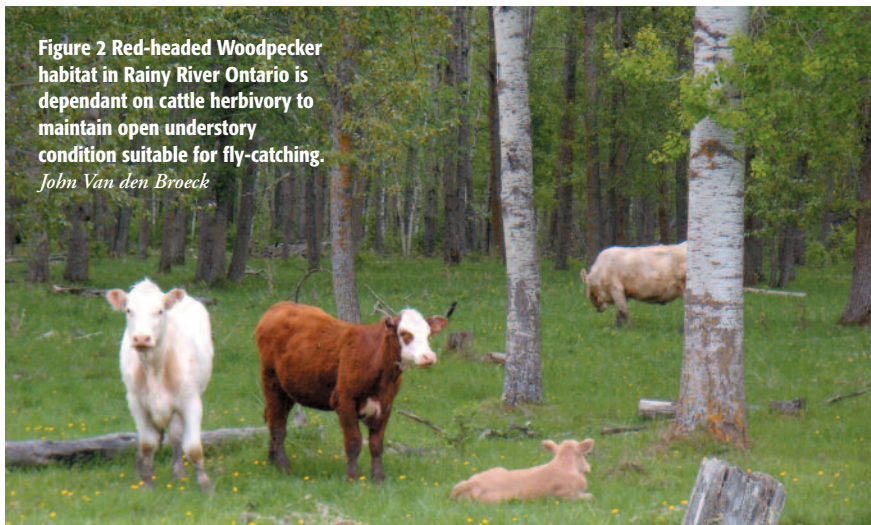
The Red-headed Woodpecker (*Melanerpes erythrocephalus*) is a summer resident in the Rainy River area of northwestern Ontario (Figure 1). It occupies a breeding range west of the town of Fort Frances to the Lake of the Woods, south of the conifer-clad Precambrian Shield. The occupied area is coincident with the land area that has been cleared, or partly cleared, for agriculture. Elsewhere in Ontario, it is found as a breeding bird in the area north of Lakes Erie and Ontario, south of Georgian Bay (Cadman *et al.* 2007). In the United States it is found throughout the country east of the Great Plains (Sibley 2000). In Canada, Red-headed Woodpeckers are classified Federally as a Threatened species (Schedule 1) while at a provincial scale in Ontario they are classified as Special Concern (Endangered Species Act, 2007). Both status designations, and corresponding legislative context, reflect the downward trend in abundance and vulnerability to threats.

This fly-catching woodpecker favours open to very open woodlands, woodland edges and riparian woods. In northwestern Ontario much of this habitat has been created or modified by the activities of man. In the Rainy River area, land clearing for agricultural development followed the initial logging that began in the late 1800s along the Rainy River west of the settlement of Fort Frances (Nute 1950). Capable agricultural lands were slowly cleared and cultivated, advancing north until the thinly-soiled, rocky Precambrian Shield was reached. Clearing and agricultural encroachment was somewhat haphazard and today the area is a mosaic of farmland and scattered aspen-dominated woodlands, interspersed with large, extensive peat lands. At present, clearing, while ongoing, is largely limited to small patches of woodland or the reclamation of previously cleared and then abandoned farmlands. The Ontario Ministry of Natural Resources (OMNR) land use plan for the area indicates an area of



Figure 1. Red-headed Woodpecker at the nest in the Harris Hill area north of Rainy River in June 2001.
Mark Peck

Figure 2 Red-headed Woodpecker habitat in Rainy River Ontario is dependant on cattle herbivory to maintain open understory condition suitable for fly-catching.
John Van den Broeck



36,100 hectares (OMNR pers. comm.) of cleared agricultural land.

Just when the Red-headed Woodpecker arrived in this area is an open question that is difficult to answer with certainty. The current reliance on a human influenced landscape for habitat is in contrast with a historic forest composition that contained a higher prevalence of American Elm (*Ulmus americana*), a strong associate of the Red-headed Woodpecker. It is quite possible the Red-headed Woodpecker has always been a resident of the small, scattered patches of oak savannah that are still found along the banks of the Rainy River and the south-east shore of the Lake of the Woods, although their numbers and distribution would have been limited to the fringe of the river and the lake shoreline. Once land clearing by the settlers began, more suitable habitat was created and the Red-headed Woodpecker followed it inland from the river and the lake. A faunal study of the area conduct-

ed in 1929 by L.L. Snyder of the Royal Ontario Museum found the Red-headed Woodpecker in reasonable numbers. He notes: "We saw the Red-headed Woodpecker at all camps (four) but it was more regularly and commonly observed in districts where cultivated land was interspersed with woodland" (Snyder 1938). It is also possible the species moved into the area from northern Minnesota only after land clearing activities created suitable habitat.

Habitat Choice

In the Rainy River area, the Red-headed Woodpecker is extremely specific in its choice of breeding habitat. It uses exclusively relatively small stands of mature to over-mature deciduous woodlands consisting of Trembling Aspen (*Populus tremuloides*), Balsam Poplar (*Populus balsamifer*) and/or Black Ash (*Fraxinus nigra*) that are largely devoid of any understorey trees and shrubs as a result of heavy



Figure 3. Typical Red-headed Woodpecker habitat in the Rainy River Ontario area, illustrating open understorey and downed woody debris *John Van den Broeck*

grazing by cattle (Figure 2). These forested stands thus appear to be open to very open with a moderate to high composition of dead or dying trees. The understorey vegetation consists primarily of grasses in these stands to the exclusion of most other vegetation. In addition, fallen trees and limbs are conspicuously scattered on the ground throughout the stands (Figure 3). Such forested stands are often isolated or partly so, surrounded by farm fields, roads, fence lines and utility pole lines. Red-headed Woodpeckers often forage by fly-catching along these fence and pole lines, well away from their breeding sites.

Deciduous forested stands that are not mature, have a dense understorey of young trees and shrubs and have not been heavily grazed by cattle are not utilized by Red-headed Woodpeckers. The woodpeckers also avoid cutovers, mixed-species woodlands with a developed understorey and stands of conifers. During spring and fall migration periods, Red-headed Wood-

peckers are sometimes seen away from their preferred habitat but usually as a passage bird flying overhead or an individual that has dropped into a cut-over area for rest.

The strict habitat preference of the Rainy River Red-headed Woodpeckers was confirmed by the results of an extensive habitat assessment and inventory carried out in the agricultural area west of Fort Frances during June and July, 2007 by the OMNR. A total of 155 randomly selected sites, of various forest compositions and understorey conditions was assessed for the presence of Red-headed Woodpeckers. At each site a tape recording of a calling Red-headed Woodpecker was played and any response noted. In this manner, a total of 36 individual woodpeckers occupying 20 apparent breeding sites was found. Approximately 70 sites appeared "suitable" given an open understorey, dead and dying trees and downed woody debris. Other sites such as mature aspen stands with a heavy understorey,

mixed wood stands, aspen and mixed wood cutovers and stands of conifer that were tested did not appear to be utilized (Van den Broeck 2008).

Discussion

The Red-headed Woodpecker appears to be declining in Ontario (Cadman *et al.* 2007). In the Rainy River area, based on 35 years of observation by Elder, their numbers appear to be limited but stable. However, the long-term viability of the species is closely tied to the continued availability of habitat that meets the stringent requirements of breeding pairs. In this case, continued cattle grazing of deciduous woodlands are a required landscape feature to support their occurrence in the Rainy River area. Some stands formerly used by a pair of woodpeckers for successive years (10 plus) were abandoned when the stand deterioration resulted in tree spacing that apparently was unacceptable for the birds. Other breeding stands have been harvested by land owners and thus rendered unusable.

Fortunately, the 2007 assessment work indicated there are still suitable-appearing stands as yet unutilized. In addition, cattle production in the area has remained rather consistent for the past 40 years (Van den Broeck 2008) and 35 years of observation by Elder indicate a relative stable availability of suitable breeding habitat in the area for the species. However, the creation of new habitat by cattle grazing under mature aspen stands may take a number of years, depending on the age of the stand and the intensity of the grazing,

while the loss of a breeding stand through harvesting can happen in a few days. Fortunately, habitat creation/loss is apparently balanced and it would appear that Red-headed Woodpeckers will remain a notable feature of this unique area of Ontario.

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