

Summary of Forest-Dwelling Bat Field Surveys in Aitkin County and Carlton County, Minnesota in 2014 and 2015

Prepared by Dovetail Partners, Aitkin County and Carlton County

Research data collected and prepared by WEST, Inc.

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Background

During the summers of 2014 and 2015, field surveys were conducted in Aitkin County to gather information about forest-dwelling bats. Similar work was done in Carlton County in 2015. Both counties manage forest lands located in Northern Minnesota. The field data collection included acoustical surveys as well as mist-netting to sample bat species. The field survey work was done by WEST, Inc. This summary report provides information about the results and findings from the mist-netting survey work. This summary report does not provide details about the methodologies as that information is provided by WEST, Inc. directly to the land managers and is not reproduced here.

Results

The county land managers conducted 2-night bat surveys at 7 different sites (different forest types) the past 2 summers, in Aitkin & Carlton County. In 2014, there was one survey site in Aitkin County located in a mature northern hardwood forest in mid-August. In 2015, Aitkin County had four mist-netting sites: 1) mature lowland (floodplain) hardwood in mid-June; 2) mature oak forest in late-June; 3) mixed hardwood/pine in mid-July; and 4) aspen in early-August. In 2015, Carlton County has two survey sites: 1) young pine in late-June; and 2) young pine in early-August.



Photo 1. Northern long-eared bat captured in Aitkin County (Photo courtesy of WEST, Inc.)

The figures on the following page summarize the data collected from the seven sites over the course of two seasons. The researchers captured 150 bats with 39 being northern long-eared bats (NLEB) (26%). As shown in Figure 1, northern long-eared bats were found in all of the forest types and netted at all sites. There were no signs of white-nose syndrome on any of the captured bats. Six of the seven sites had recent logging activity in the general area (the non-logging site had the lowest bat capture). As shown in Figure 2, pregnant bats were found only in June and lactating bats were found in June and July.

In March 2016, the presence of white-nose syndrome was confirmed in Minnesota. Field survey data collection is currently being planned for summer 2016 in Aitkin and Carlton Counties. The data collected in 2014 and 2015 provides information about bat population conditions prior to the confirmation of white-nose syndrome in the state. The data collected in 2016 will provide information about bat population conditions after this confirmation.

Figure 1. Forest Bats per Forest Type, 2014 - 2015

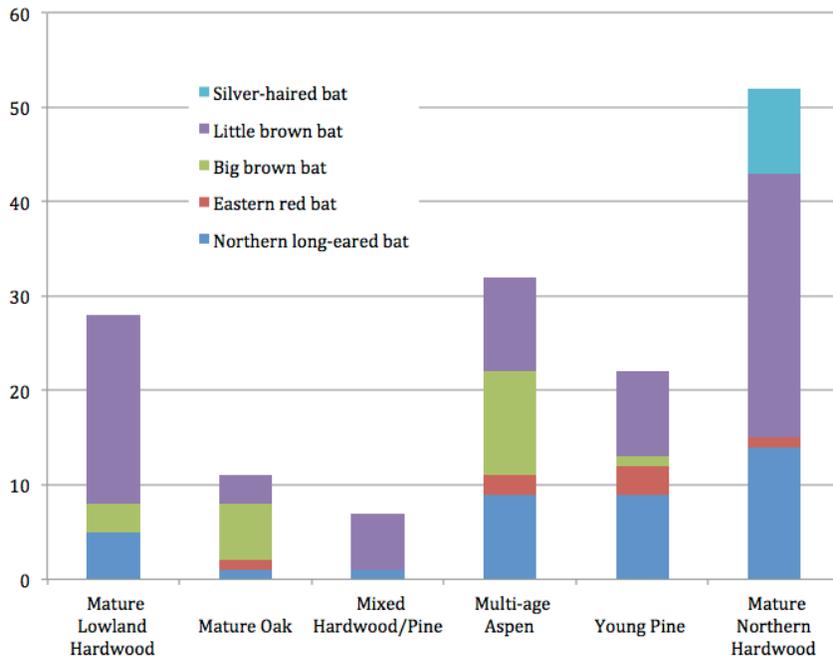
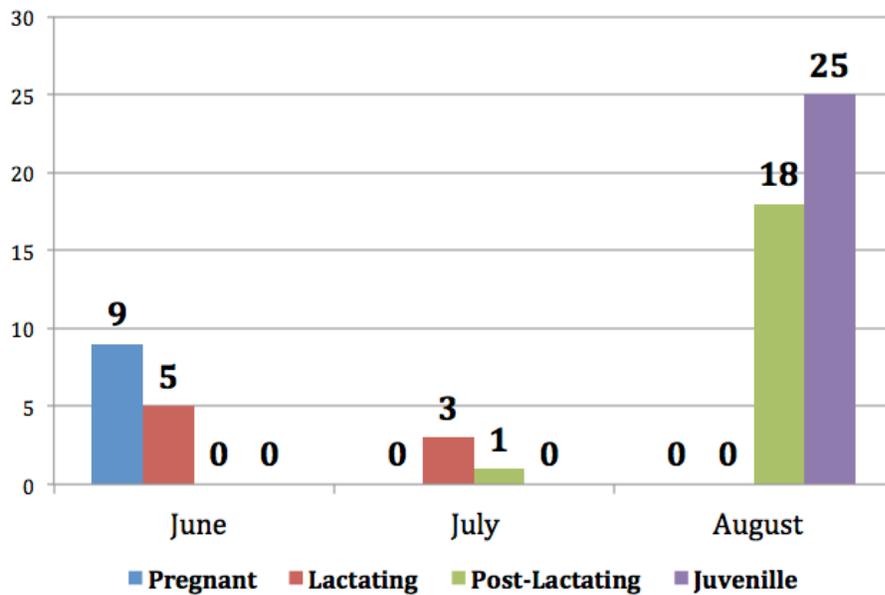


Figure 2. Reproductive Female and Juvenile Bats Captured by Month, 2014-2015



For more information, contact:

Dovetail Partners

612-333-4030

info@dovetailinc.org

http://www.dovetailinc.org/programs/land_use/bat_friendly_forest_management

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