



The REDHEAD

Red-headed Woodpecker Recovery



Spring 2011

A Special Committee of the Audubon Chapter of Minneapolis

Vol. 5 No. 2

Note From the Editor

This issue's topic is "Will the spread of the emerald ash borer help the RHWO recovery?"

This should be an interesting topic and one where we may be able to have an influence in how the dead and dying ash trees may be managed. An EAB management policy for ash trees has been published in this issue. If anyone has comments to the policy as written, please do not hesitate to contact us with an appropriate correction or change. Please send us your thoughts on how the ash trees should be managed, especially the dying ones, since they represent the most difficult case.

In the past, red-headed woodpeckers have recovered during the die off mature trees. The chestnut and elm die offs are two good examples of this. Future stags from dead ash trees may be another example, if they can be saved.

The Editor still needs articles for the newsletter. Please send them to rhwracm@comcast.net! Also more suggestions for issue topics is needed. Note next issue's topic is "Can we get RHWO to use nestboxes?"

Jerry Bahls, Editor

A Note from the Chair

As you are reading this, surveys will have begun for our fifth year of research. Despite our rather horrendous Winter, a number of birds did over-winter at the Cedar Creek Ecosystem Science Reserve and we already have reports that some birds are busy claiming their nesting territories. We are particularly excited this year as we will initiate our first color-leg banding of birds (RHWO) under the leadership of Ari Waldstein, and her new field assistant. We hope to have our first substantial data on nest fidelity (are the same birds using the same cavities in successive years?)

Through a generous grant from the MOU (Minnesota Ornithologists Union) we will expand our previous work identifying golf courses that presently support clusters of RHWO. Our focus continues on what seems to be a RHWO 'hotspot' a 50-mile diameter area centered on Brainerd, MN. And YES! we still need your help locating active clusters of RHWO throughout the state. Remember we want to focus on groups that include at least three nesting pairs so we can work with landowners to preserve that cluster habitat.

Finally, there has been a little turnover on our Cedar Creek survey teams, so if you have a burning desire to help us with this ongoing work, please contact me at chetmeyers@visi.com

Thanks for your continued support and remember to "Save those snags"

Chet Meyers, Chair

Finding EAB Infestations

The following is a quote from a pamphlet entitled "Using Girdled Trap Trees Effectively for Emerald Ash Borer Detection, Delimitation and Survey" By Dr. Deborah G. McCullough and Dr. Nathan W. Siegert, Michigan State University "...it can be incredibly challenging to find new EAB infestations or to identify trees with low densities of EAB. Newly infested trees often appear healthy and have no external symptoms of EAB infestation. A few D-shaped exit holes may be present, and on small trees (< 4-8 inches DBH) they may be on the trunk and fairly easy to find. On larger trees, however, galleries are usually in the upper canopy for the first couple of years. Often this means that you must climb up into the canopy to see those exit holes."



Light area is woodpecker activity on ash tree.

Source: http://4.bp.blogspot.com/_TEI42DqeiSQ/TULJA5nr5OI/AAAAAAAAABAI/08x28yRs68A/s1600/EAB+Delaware+Wildlife+Area_018.JPG

Membership Dues

The Red-headed Woodpecker Recovery (RhWR) receives almost all of its revenue from its membership dues. The RhWR dues for new members are \$10/yr. New members will receive a packet, which will include the new RhWR button and sew-on patch as well as the latest "The REDHEAD". Our membership year is July 1 - June 30 (all memberships will expire on June 30 of the year the membership was established). Renewals will remain at \$5/year and will expire on June 30 of the period of renewal. Look for future announcements regarding lifetime memberships and renewal dues.

New memberships and renewals can be made by sending your name, address and e-mail address or fill in the membership application form on the last page of this newsletter to the address below. Please make check payable to Audubon Chapter of Minneapolis RhWR.

Audubon Chapter of Minneapolis
RhWR
PO Box 3801
Minneapolis, MN 55403-0801

Thank you for your continued support.

Efficiency of Woodpeckers To Remove EAB Larva

The question of how many EAB larva can woodpeckers remove from a tree that is highly infested. This was answered by middle school students in Delaware, OH. They reported¹ that "Woodpeckers consumed up to 90% of EAB larvae in the trees with an average of approximately 50% of the larvae consumed in highly infested trees." This can have a great impact upon EAB density and spread of this destructive insect.

1. Kathleen S. Knight, Joanne Rebbeck, David L. Cappaert, Robert R. Kula, Leah S. Bauer, Deborah A. Bogard, and Kamal J. K. Gandhi; "CITIZEN SCIENCE PROJECT LEADS TO EMERALD ASH BORER PARASITOID DISCOVERY"; Emerald Ash Borer Research and Technology Development Meet ing—2009

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Woodpeckers' Effect on EAB Infestation

Boring insects are a large part of a woodpecker's diet. The emerald ash borer (EAB) is a boring insect. Therefore it is logical that woodpeckers should be effective predators for EAB's. In areas where there has been EAB infestation for several years, a study shows that is indeed the case¹. Lindell¹ in areas that had high infestation of EAB showed that hairy woodpeckers spent more time engaged in foraging behaviors when on ash trees (252.8 [or -] 159.7 s) compared to non-ash trees (43 [or -] 21.7 s, Wilcoxon two-sample test, C = 27, P = 0.025). These results showing that the time spent by woodpeckers foraging on ash was approximately five times greater than on non-ash indicates that woodpeckers are taking advantage of the food resource offered by EAB and may be helping to slow the spread of EAB by eating large numbers of the larvae. As a point of reference, trees with more than 60 exit holes/m² are considered to be heavily infested (Anulewicz, 2006²; McCullough and Siegert³). In the trees sampled, 16 (about 10%) had more than 40 woodpecker attacks/m² but most of these trees had less than 60 exit holes/m². This indicates that woodpecker predation was keeping the EAB density in these trees at low to moderate levels.

Based on this work¹, they suggest that property owners and land managers strive to maintain environments that are attractive to woodpeckers, particularly hairy woodpeckers. For example, hairy woodpeckers typically use large living trees with internal fungal damage for nesting (Jackson et al.⁴, 2002) so maintenance of these types of trees in an area will provide appropriate nest sites. In areas where it would not pose safety issues, it would also be useful to avoid removing snags (standing dead trees) and dead branches on live trees because these types of sites are used by woodpeckers for foraging (Jackson⁵, 1970; Williams⁶, 1975; Conner et al.⁷, 1994).

1. Catherine A. Lindell, Deborah G. McCullough, David Cappaert, Natalya M. Apostolou, Melinda B. Roth; American Midland Naturalist, The; April, 2008; http://findarticles.com/p/articles/mi_6924/is_2_159/ai_n28519596/pg_3/?tag=mantle_skin;content

2. ANULEWICZ, A. C. 2006. Host range and preference of the emerald ash borer *Agrilus planipennis* Fairmaire (Coleoptera: buprestidae) in North America. M.Sc. thesis, Michigan State University, East Lansing. 119 p.

3. MCCULLOUGH, D. G. -- AND N. W. SIEGERT. In press. Estimating potential emerald ash borer (*Agrilus planipennis* Fairmaire) populations using ash inventory data. J. Econ. Entomol.

4. J. A. Jackson H. R. OUELLET AND B. J. S. JACKSON. 2002. Hairy woodpecker (*Picoides villosus*). In: A. Poole and F. Gill (eds.). The Birds of North America. Cornell Laboratory of Ornithology: No. 702, Ithaca, NY.

5. JACKSON, J. A. 1970. A quantitative study of the foraging ecology of Downy Woodpeckers. Ecology, 51:318-323.

6. WILLIAMS, J. B. 1975. Habitat utilization by four species of woodpeckers in a central Illinois woodland. Am. Midl. Nat., 93:354-367.

7. CONNER, R. D., S. D. JONES AND G. D. JONES. 1994. Snag condition and woodpecker foraging ecology in a bottomland hardwood forest. Wilson Bull., 106:242-257.

Did you know? Tree size does not seem to strongly affect EAB host selection.

Emerald Ash Borer (EAB) Management Policy

The purpose of this Policy Statement is to encourage the land owner or manager to retain any future dead ash trees for birds and other wildlife. Emerald Ash Borer (EAB) beetles seem to demonstrate a preference for some ash species over others. Green ash (*F. pennsylvanica*) and black ash (*F. nigra*) appear to be highly preferred by EAB. White ash (*F. americana*) is less preferred and blue ash (*F. quadrangulata*) is least preferred¹.

The EAB has invaded the Minneapolis-St. Paul Metro area. It is confined to the St. Anthony Park neighborhood in St. Paul, the University of Minnesota campus in Falcon Heights, the Prospect Park East River Road neighborhood and now in the West River Road across the Mississippi River from the East River Road area. There is also an infestation in the very southeastern tip of Minnesota in Houston County. All property owners and managers should monitor their ash trees for EAB, if they are located within a mile of the infected sites.

The EAB damages a tree by burrowing in the living part of the tree just beneath the bark of ash trees. This effectively girdles the tree in a couple of years, depending upon the extent of the infestation. EAB often start in the smaller branches and work to the main trunk. This causes a dying of the tree at its extremities and is displayed as a dieback often at the top third of the tree.

The Audubon Chapter of Minneapolis (ACM) and the Red-headed Woodpecker Recovery (RhWR) supports the Minnesota Department of Agriculture (MNDOA) in its efforts to contain the EAB. It is extremely important to **NOT** remove any parts of an infested ash tree during the EAB active period of May 1st through August 31st. If the infested tree is located in an area that poses a hazard to people or property, it should be removed and disposed of using the MNDOA recommended removal process during the Dormant Period - September 1st through April 30th. If the infested tree is an immediate hazard, the removal process involves 100% containment of the outer one inch of the bark/wood of the whole tree!

If the property owner or manager would like to save the tree, there are insecticides available for use. However the treatment will need to be applied annually (at a minimum every two years) until the threat of infestation has passed. It is recommended that the treatment only be used if the trees are within 15 miles of an infestation. There are also no guarantees that it will be effective!²

If an infestation is found in a tree, all ash trees in the area should also be inspected for infestation. Since there are very few realistic remedies for an infested tree, the ACM/RhWR recommends the property owner or manager girdle all the infested trees as soon as it is determined that they are infested and treat them with an appropriate insecticide. Simulations have found this type of strategy to be effective.³ **WARNING:** Please note that stressed trees that have been girdled, or are otherwise injured or diseased, are consistently more attractive to EAB than healthy trees!¹ The girdling cuts should be at least four inches wide and greater than one inch deep, (Try to get all the way into the sapwood. This can cause the tree to die faster.) and immediately burn the girdled bark and wood (remember 100% containment) or chip it to less than one inch. This will kill the tree but will effectively remove the food source for the larva in future seasons. Hopefully this will cut the infestation chain and save nearby trees. In order to save the snag, the property owner or manager must then remove the branches and bark during the Dormant Period. This material should be disposed of in the approved MNDOA manner. Since dead ash trees deteriorate fairly rapidly, it needs to be monitored so that it does not become a hazard! All nearby healthy ash trees should be inspected at least once a year for the next 5 years.

Because the EAB is not likely to be extirpated from the area and effective controls are probably many years away, each property owner or manager should evaluate the possibility of removing living ash trees, since they are likely to become infested sometime in the future. The ACM/RhWR recommends a long range active management plan for their ash trees. One part of this plan could include girdling (see above for warning and proper technique) some of these trees to provide snags for birds and other wildlife. ACM/RhWR also recommends removing as many of the tree's branches and limbs to remove any potential hazard to people or property. Inspect the tree for "D" shaped hole and for woodpecker damage, which is recognized by patches of lighter colored bark and feeding holes. If any are found, remove the bark to look for EAB galleries (feeding tunnels) and then remove the bark and dispose of in the approved MNDOA manner during the Dormant Period. If there are no signs of infestation, remove many of the tree's branches and limbs (the bark needn't be removed from non-infested trees) to minimize any potential hazard to people or property.

In many disasters, there often are opportunities also. The potential disaster of losing many of our ash trees may become an opportunity to provide needed habitat, if the snags can be retained, for woodpeckers and birds as well as other wildlife. For more information on the Emerald Ash Borer visit the MNDOA website at www.mda.state.mn.us/eab.

1. "Using Girdled Trap Trees Effectively for Emerald Ash Borer Detection, Delimitation and Survey", By Dr. Deborah G. McCullough and Dr. Nathan W. Siebert, Dept. of Entomology and Dept. of Forestry, Michigan State University, <http://www.emeraldashborer.info/files/handoutforpdf.pdf>

2. Therese M. Poland, "Twenty Million Ash Trees Later: Current Status of Emerald Ash Borer in Michigan", NEWSLETTER of the MICHIGAN ENTOMOLOGICAL SOCIETY V52(1&2), April 2007; MES Homepage on the WWW: <http://insects.umz.lsa.umich.edu/mes/>

3. Rodrigo J. Mercader, Nathan W. Siebert, Andrew M. Liebhold, and Deborah G. McCullough, "COMPARING POTENTIAL MANAGEMENT OPTIONS TO SLOW THE SPREAD OF EAB POPULATIONS IN LOCALIZED SITES", Emerald Ash Borer Research and Technology Development Meeting—2009

RHWO's in EAB Infestation Areas

Red-headed woodpecker's (RHWO) nest primarily in dead trees and establish territories during the breeding period and retain these territories during the winter months¹ in much of the emerald ash borer (EAB) infested areas. Woodpeckers attack EAB primarily in the pupae/pre-pupae stage² when they are under the bark and not during the emerging adult stage in May-June. Infested trees within their territories should provide food for them during the winter months aiding in their reproduction and survival. Christmas Bird Count (CBC) data in Oak Openings in Ohio shows² that the count of RHWO's had an overall increase in the period 2004 - 2009, after it was considered infested in 2003.

RHWO's are generalist feeders and glean and exhibit fly-catcher character and may feed on emerging EAB adults.

1. Willson, M. F. "Foraging behavior of some winter birds of deciduous woods." Condor 72.2 (1970): 169-174.
2. Maria G. Herman, Thesis entitled "The Population and Behavioral Response of Woodpeckers to the Emerald Ash Borer Invasion", 2010.

Summer Issue Feature Topic

The Summer issue's topic will be "Can we get RHWO to use nestboxes?" Send your observations and references to Jerry Bahls (rhwracm@comcast.net) by July 15th. Please send observations only - no opinions! Also send any future topics to be featured in the newsletter.

Next RhWR Meetings

The RhWR usually meets on the 3rd Wednesday each month at 7:00 pm at the Lund's Store 1 block west of 50th & France in Edina. The next meetings will be on **June 22nd**. All are welcome and encouraged to attend. Please encourage your friends to attend also. Check our website (www.RedheadRecovery.org) for current information.

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Red-headed Woodpecker Recovery Program Membership Application

I'd like to join! Please add me as a member of the Red-headed Woodpecker Recovery (RhWR) at the rate of \$10/year! Please send my membership information to the address below.

I'd like to renew! Renew my RhWR membership for \$5/year.

Yes, I'd like to join Audubon Chapter of Minneapolis also! Please add me as a member of the Red-headed Woodpecker Recovery (\$10) and the Audubon Chapter of Minneapolis (\$12) at the rate of \$22/year. Please send my membership information and *Kingfisher* to the address below.

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