

EAB BIOLOGICAL CONTROL



The goal of Emerald Ash Borer (EAB) biological control is to reduce EAB populations through the use of natural enemies. Biological control is the only management option for EAB that can be applied at the forest landscape level.

- Three parasitoid wasp species are released in Minnesota. Two species attack the larval stage of EAB under the ash bark. The other species kills EAB eggs that are in bark crevices. These wasps are small like gnats and do not harm humans.



Figure 1. Adult *Oobius agrili*, egg parasitoid of EAB. (~1mm)



Figure 2. Adult *Spathius galinae*, larval parasitoid of EAB. (~4mm)



Figure 3. Adult *Tetrastichus planipennis*, larval parasitoid of EAB. (2-4mm)

- They were selected by the US Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) and Forest Service and tested extensively to ensure that they will not negatively impact other species or the environment. APHIS rears these biological control agents at a specialized facility in Brighton, MI and provides them to states with EAB infestations.

COORDINATION

After a viable biological control site is identified, coordination by the Minnesota Department of Agriculture with local natural resource managers, property owners and the USDA EAB Parasitoid Rearing Facility are necessary. At each site one has to obtain permission, guarantee access and ensure other management objectives won't interfere with implementation.

EXPECTATIONS

Although it is premature to talk about the wasps' effect on EAB populations, recently published studies report that stingless wasp populations in Michigan are increasing and spreading to adjacent areas. Minnesota has confirmed establishment of two of the parasitoid wasps at sites in the Twin Cities and southeast Minnesota.

Funding for this project was provided by the Minnesota Environment and Natural Resources Trust Fund as appropriated by the Legislative-Citizen Commission on Minnesota Resources (LCCMR).

For more information on EAB biological control in Minnesota please visit our website www.mda.state.mn.us/plants/pestmanagement/eab/eabbiocontrol.aspx

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