

Exploration for Emerald Ash Borer in China

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Objective:

In addition to surveying natural enemies of the emerald ash borer (EAB), *Agrilus planipennis* Fairmaire, in Michigan, the natural enemy complex of EAB in China is being studied as well. A braconid parasitoid, *Spathius* sp. (Hymenoptera: Braconidae), was recently reported from EAB in ornamental trees in Liaoning Province (Xu 2003) and ash plantation in Tianjin City (Gao R. personal observations).

In June 2002, EAB, native to several Asian countries, was identified as the cause of ash (*Fraxinus* spp.) mortality in >2,500 square miles of southeastern Michigan and southwestern Ontario; more recent infestations were found in Ohio, Maryland, and Virginia in 2003. Federal and state agencies adopted a strategy of EAB eradication in North America. Should eradication fail, EAB management will require augmentation of existing natural enemies or introduction of EAB natural enemies from Asia. The only literature known for EAB is from China, where EAB is a sporadic pest of ash.

Methods:

Twenty-nine field sites in Heilongjiang, Jilin, Liaoning, Hebei, Tianjin, and Shandong Provinces (city) in northeastern China were explored from 21 October to 9 November 2003. The habitats were variable, ranging from natural forests, nurseries, plantations, city parks, streets, and yards; ash species included *Fraxinus mandshurica*, *F. chinensis* subsp. *chinensis*, and *F. chinensis* subsp. *rhyrachophylla*. At each site, 30-60 trees were surveyed for EAB and potential natural enemies.

Results:

EAB was present in all provinces except Shandong and in 9 of the 29 sites; 5 sites showed signs of past infestation such as old exit holes, callused galleries, bark splits, and epicormic branches. EAB seems to prefer ash trees in open areas and at the edges of the forests. Gregarious ectoparasitoid larvae and pupae, probably *Spathius* sp., were found attacking EAB at 4 of these sites; at one site, 50% of EAB larvae were parasitized.

(Xu G-T. . 2003. *Agrilus marcopoli* Obenberger, pp 321-322, In G-T., Xu (ed.), Atlas of Ornamental Pests and Diseases. China Agriculture Press, Beijing, China)