Emerald Ash Borer
What is an Invasive Species?

1. non-native to the ecosystem under consideration and

2. whose introduction causes or is likely to cause economic or environmental harm or harm to human health.
The Story of the EAB
Native range of Emerald Ash Borer in Asia.

EAB Native Range
Presence of emerald ash borer has also been reported in adjacent Mongolia and Russia.
HOW DO THEY GET HERE?
Ash Trees
White fringetree
Ash mortality due to EAB. Photo taken in August.
Credit: Bill McNee, Wisconsin Dept of Natural Resources, Bugwood.org

$10.7+ billion dollars spent so far on treatment, removal, and replacement.
Toledo, Ohio

2006 (Before EAB) 2009 (After EAB)

Credit: Dan Herms, Ohio State University
99.7% Mortality of Ash Trees in North America
5% of trees in Vermont are ash
- Burlington: 1,000 ash trees ROW.
  Remove and Replace: **$500,000**
- Johnson: 440 ash trees along back roads
  Removal: **$132,000**
286 species of arthropods (insects and spiders) depend on North American ash trees for food and shelter. At least 44 species of arthropods feed exclusively on ash.
1-Year Life Cycle

Early spring
Pupation

May/June
Adult Emergence
Ovary maturation

Summer/Fall
Larval growth

June/July
Oviposition

Winter
Pre-pupae
Canopy Thinning
Epicormic, or water sprouts
Woodpecker Flecking
Bark splitting
Insects in Vermont that may be confused with Emerald Ash Borer

Adapted from Jeff Hahn, University of Minnesota Extension and Val Cervenka Minnesota Dept. of Natural Resources
Invasive species

Pose A Serious Threat To Vermont Communities.

Become part of the solution: Learn, Get Involved, Make a Difference.