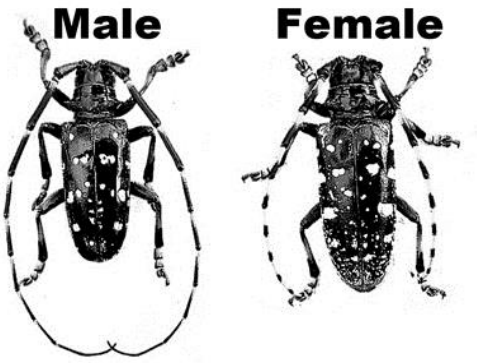
Pest Profile



A.) Adult Asian Longhorned Beetles

B.) Oviposition site

C.) Instar larvae stages

D.) Larva frass and wood shavings

E.) Pupa in chamber

F.) Adult tunneling and damage

Photo credits:

A.) www.bethelalb.com
B.) P. Douglass, massnrc.org
C.) S. Katovich, USDA, Bugwood.org
D.) K. Law, USDA, Bugwood.org
E.) Pennsylvania DCNRF, Bugwood.org
F.) M. Bohne, Bugwood.org
G.) MNRF, www.ontario.ca
H.) P. Douglass, massnrc.org

G.) Infested tree with exit holes

H.) Infested maple wood

Common Name: Asian Longhorned Beetle

Synonyms: Starry Sky Beetle, Starry Night Beetle, Basicosta White-spotted Longicorn beetle and Smooth Shoulder-star Longicorn

Scientific Name: *Anoplophora glabripennis* Motchulsky

Order and Family: Coleoptera: Cerambycidae

Size and Appearance:

	Length (mm)	**Appearance**
Egg	5 – 7 mm	• The egg looks like a large white grain of rice, both ends are slightly concave. • Females can lay 35 – 40 eggs in a life time, eggs hatch in 10 to 15 days.
Larva/Nymph	Body length 5 mm., head capsule width 5 mm.	• The larvae are light yellow to whitish in color, elongate and segmented.
Adult	25 – 40 mm	• The adults are glossy jet black with bright white splotches on the elytra (forewings). The antennae are long with black and white alternating bands. • The antennae of the male are longer by five segments than those of the female. • The body length of the female is longer than the male. • The legs are a bluish iridescence in color. There are smooth surfaces on the basal portion of the elytra. • One generation per year.
Pupa (if applicable)	Length 24 – 39 mm, width 11 mm	• The pupae are light yellow to creamy - white in color or sometimes present in an off-white coloration. • The 8th abdominal segment has a protruding structure. • Pupation occurs in the spring of the second year. • Pupal stage lasts 13 to 24 days.

Type of feeder (Chewing, sucking, etc.): Both the adult and larvae have strong chewing mouthparts that enables them to drill and tunnel into live hardwood trees.

Host plants: Prefers Maples (*Acer* spp.) Red, Silver and Sugar. Other host trees include Ash (*Fraxinus*), Birch (*Betula*), Elm (*Ulmus*), Golden raintree (*Koelreuteria*), London Plane tree / Sycamore (*Platanus*), Horse chestnut / Buckeye (*Aesculus*), Katsura (*Cercidiphyllum*), Mimosa (Albizia), Mountain Ash (*Sorbus*), Poplar (*Populus*) and Willow (*Salix*).

Description of Damage (larvae and adults): This Asian Longhorned beetle is an invasive species with very destructive environmental and economic impact. It usually begins attacking the crown of the host tree along the main branches, making it difficult to detect the first year or two of the infestation. Adult females cause the initial damage to the bark of trees when they chew round to oval pits in the bark for ovipositioning sites. The female will lay just one egg per site or niche in the cambium layer of the hardwood tree. These egg laying sites will ooze sap on Maple trees as the larvae feed inside the tree during the summer. The larvae will continue to eat and grow and tunnel deeper into the tree, pushing sawdust and frass out of the site hole. The sawdust shavings and frass will also accumulate on the ground around the tree trunk. As the larvae progress into older stages, they will tunnel into the heartwood of the tree. Once the larva pupates, the new adults will tunnel their way out of the tree, leaving a circular exit hole about ½ inch in diameter. All of this tunneling weakens the structural integrity of the tree as well as opening the tree up for infection. The extensive tunneling damage inside and throughout the tree will kill the tree. Adults have been known to debark twigs where the bark is thin to gain access to the cambium.

References:

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(USDA APHIS) US Department of Agriculture, Animal and Plant Health Inspection Service. (2008). New pest response guidelines Asian long-horned beetle, Anoplophora glabripennis.