

Emerald Ash Borer Larval Screening Guide

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Agrilus planipennis Fairmaire

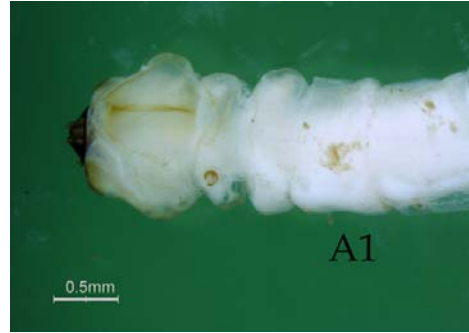


A1-A7 Trapezoidal

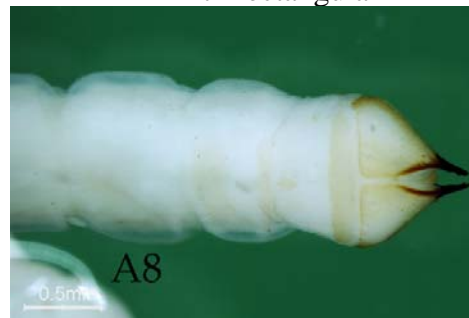


A8 Bell-shaped

Agrilus anxius Gory



A1-A7 Rectangular



A8 Rectangular

The shape of the abdominal segments as well as host is useful for discriminating EAB (*Agrilus planipennis* Fairmaire) larvae from other native *Agrilus* species such as the bronze birch borer (*Agrilus anxius* Gory). I chose *A. anxius* to serve as a reference for comparison with EAB as its larval morphology is more typical for the genus.

The first abdominal segment shape varies considerably but can be distinctly rectangular to trapezoidal in *A. planipennis* while more rectangular and cylindrical in *A. anxius*. In EAB, A2 through A7 are somewhat trapezoidal with protruding flattened lobes. In *A. anxius*, the abdominal segments do not have protruding flattened lobes and are rectangular in profile. A8 is obviously

bell-shaped in EAB and rectangular in the bronze birch borer.

These apparent differences in segment shapes are obvious in all instars of EAB examined so far. However, segment shape differences between species can be more subtle in prepupae and in poorly preserved larvae. In EAB prepupae, abdominal segment eight is still bell-shaped and rectangular in *A. anxius*.

In Michigan, EAB is the most common *Agrilus* species associated with *Fraxinus*. North American populations of EAB are known only to oviposit in *Fraxinus*.

