

NEBRASKA FOREST SERVICE



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Decline in Ash Trees: Borers and Bark Beetles

An Identification Guide

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Many borers and bark beetles contribute to the decline of ash trees in Nebraska. This publication describes the common characteristics of these insects.

- Emerald ash borer
- Lilac borer
- Chrysobothris borers (flatheaded appletree borer)
- Carpenterworm
- Roundheaded borers (longhorned beetles)
- Ash bark beetles



General symptoms of declining ash trees with borers or bark beetles: sparse foliage, dying branches, broken branches or trunks, and woodpecker activity such as bark stripping.

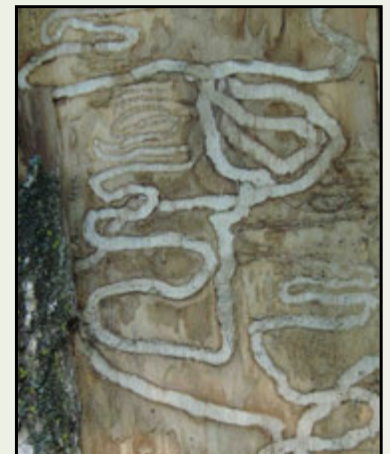
Emerald Ash Borer



Adult: Metallic green beetle, 1/2 inch long.¹



Larva: Flattened with bell-shaped segments. Resembles a small tapeworm. Up to 1 1/4 inches long.²



Tunnels: S-shaped tunnels are found in the inner bark and on the surface of the wood. Heavily infested trees have meandering tunnels. Larvae pupate just under the bark (at most 1/2 inch into wood).

Exit holes: Small, D-shaped, 1/8 inch across. Some holes may be oval in shape.



Lilac Borer



Adult: Clearwing moth that mimics a wasp.³



Exit holes: Round, 1/4 inch diameter.



Larva: Cylindrical, whitish with amber-colored head. Up to 1 1/4 inches long.⁴



Tunnels: 1/4 inch wide and extend deep into the wood.

Chrysobothris Borers (flatheaded appletree borer and others)



Adult: Dark metallic beetle, 1/2 inch long.⁵



Tunnels: Irregular winding tunnels are found in the inner bark and on the surface of the wood. Larvae tunnel deep into the wood to pupate.

Larva: Flattened, cream-colored. Appears to have a round, flat head. Up to 1 inch long.⁶



Exit holes: Oval, 3/16 inch long and half as wide.



Carpenterworm



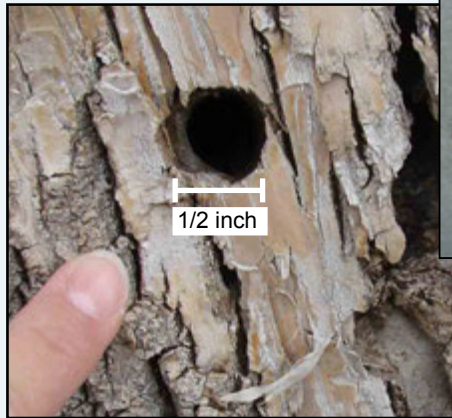
Adult: Large black and grey moth.⁷



Larva: Pink to greenish white. Large and robust, up to 3 inches long.^{8,9}



Tunnels: Large, 1/2 inch wide. Extend deep into the wood.¹⁰



Exit holes: Large round, 1/2 inch diameter. Large irregular holes are also present, which may contain frass and large papery insect skins.

Roundheaded Borers (Longhorned Beetles)



Redheaded ash borer
Adult: Reddish brown with yellow stripes. 1/4 - 3/4 inch long.



Banded ash borer
Adult: Nearly black with yellow stripes. 3/8 - 3/4 inch long.¹¹



Ash and privet borer
Adult: Brown with amber spots. 3/8 - 3/4 inch long.¹²



Exit holes: Typically round and variable in size (1/8 inch or more).



Tunnels: Irregular tunnels are found both under the bark and deep into the wood. Often found in firewood.



Larva: Cylindrical and cream-colored, with a rounded head. Generally up to 1 inch long.¹³

Ash Bark Beetles



Adult: *Tiny dark mottled beetle.*¹⁴



Exit holes: *Tiny, round, 1/16 inch.*

Tunnels: *Narrow horizontal tunnels and narrower vertical tunnels are found in the inner bark and on the surface of the wood. Tunnels do not go deep into the wood.*

For control of borers in ash, see:

FH06-2009: "Insect Pests of Broadleaf Trees."

FH13-2012: "Emerald Ash Borer Treatment Options."

For other problems in ash trees, see:

FH21-2014: "Decline in Ash Trees: Diseases and Environmental Stresses."

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