

Appendix M

EWB/BB Survey Methods by Species

Negative data may be reported in NAPIS for these insects when surveyed for by the PPQ-Approved Survey Method. If “visual” is listed as the only approved survey method, then lures are not available for this species. Negative data should NOT be reported for these species from any trap/ lure combination. Lures followed by an asterisk are available commercially and should be ordered through PPQ's Survey Supply Procurement Program.

EWB/BB Survey Target Species	PPQ-Approved Survey Method
<i>Agrilus biguttatus</i> (Oak splendour beetle)	Visual
<i>Agrilus coxalis auroguttatus</i> (Goldspotted oak borer)	Purple prism trap (without a lure), hung in oak trees
<i>Agrilus planipennis</i> (Emerald ash borer)	A blended lure consisting of 80% Manuka oil and 20% Phoebe oil in a prism trap. USDA-APHIS-PPQ-EAB 2009 Emerald Ash Borer Survey Guidelines
<i>Agrilus sulcicollis</i> (Jewel beetle)	Visual
<i>Anoplophora chinensis</i> (Synonym: <i>Anoplophora malasiaca</i>) (Citrus longhorned beetle)	Visual
<i>Anoplophora glabripennis</i> (Synonym: <i>Anoplophora nobilis</i>) (Asian longhorned beetle)	Visual
<i>Chlorophorus annularis</i> (Bamboo borer)	Visual

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<i>Chlorophorus strobilicola</i> (Slender-banded pine cone longhorn beetle)	Visual
<i>Dendroctonus micans</i> (Great spruce bark beetle)	Visual
<i>Hesperophanes campestris</i> (Chinese longhorned beetle)	Visual
<i>Hylurgus ligniperda</i> (Red-haired pine bark beetle)	Ultra-high release ethanol and ultra-high release alpha-pinene in multi-funnel trap
<i>Hylurgops palliatus</i> (Lesser spruce shoot beetle)	Ultra-high release ethanol and ultra-high release alpha-pinene in multi-funnel trap
<i>Ips sexdentatus</i> (Six-toothed bark beetle)	EBB/ <i>Ips</i> lure in multi-funnel trap
<i>Ips typographus</i> (European spruce bark beetle)	EBB/ <i>Ips</i> lure in multi-funnel trap
<i>Monochamus alternatus</i> (Japanese pine sawyer)	Ultra-high release alpha-pinene in multi-funnel trap
<i>Monochamus saltuarius</i> (Sakhalin pine sawyer)	Visual
<i>Monochamus sutor</i> (Small white-marmorated longhorned beetle)	Visual
<i>Orthotomicus erosus</i> (Mediterranean pine engraver)	EBB/ <i>Ips</i> lure in multi-funnel trap

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<i>Pityogenes chalcographus</i> (Six-toothed spruce bark beetle)	Chalcogran* or Chalcoprax* in a multi-funnel trap
<i>Pityophthorus juglandis</i> (Walnut twig beetle: vector of thousand cankers disease)	Collect and dissect walnut branches and visual.
<i>Platypus quercivorus</i> (Oak ambrosia beetle)	Visual
<i>Scolytus intricatus</i> (European oak bark beetle)	Visual
<i>Sirex noctilio</i> (Sirex woodwasp)	70% alpha-pinene, 30% beta-pinene in multi-funnel trap
<i>Tetropium castaneum</i> (Black spruce beetle)	Spruce blend*, geranyl acetol (fuscol/ fuscomol)*, and ultra-high release ethanol in a cross-vane/ panel trap (intercept panel trap)
<i>Tetropium fuscum</i> (Brown spruce longhorned beetle)	Spruce blend*, geranyl acetol (fuscol/ fuscomol)*, and ultra-high release ethanol in a cross-vane/ panel trap (intercept panel trap)
<i>Tomicus destruens</i> (Pine shoot beetle)	Ultra-high release ethanol and ultra-high release alpha-pinene in multi-funnel trap
<i>Tomicus minor</i> (Lesser pine shoot beetle)	Visual

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<i>Tomicus piniperda</i> (Pine shoot beetle)	Ultra-high release alpha-pinene in multi-funnel trap
<i>Trypodendron domesticum</i> (European hardwood ambrosia beetle)	Ultra-high release ethanol and lineatin* in multi-funnel trap
<i>Xyleborus glabratus</i> (Redbay ambrosia beetle: vector of laurel wilt disease)	Manuka oil in multi-funnel traps. It is not known if attraction is decreased if other lures are placed in the same trap as manuka oil. Current recommendation: place manuka oil in a separate trap.
Other <i>Xyleborus</i> spp.	Visual. See Appendix N-1 for data entry requirements.
<i>Xylotrechus</i> spp.	Visual. See Appendix N-1 for data entry requirements.

*Lure is available commercially. Please order lure through PPQ's Survey Supply Procurement Program.