

Species of scolytids common in survey traps



Scolytids Intercepted in North America

Most commonly intercepted species

<i>Pityogenes chalcographus</i>	<i>Hylastes ater</i>
<i>Orthotomicus erosus</i>	<i>Polygraphus poligraphus</i>
<i>Hylurgops palliatus</i>	<i>Pityogenes bistridentatus</i>
<i>Ips typographus</i>	<i>Orthotomicus laricis</i>
<i>Ips sexdentatus</i>	<i>Pityogenes bidentatus</i>
<i>Hylurgus ligniperda</i>	<i>Ips acuminatus</i>
<i>Tomicus piniperda</i>	<i>Phloeosinus rufus</i>

USDA - Animal & Plant Health Inspection Service

Cooperative Agricultural Pest Survey

Exotic Bark Beetle and Wood Borer Survey



- Targets ~ 50 high-risk or commonly intercepted wood borers.
- Utilize traps and visual surveys at ports and warehouses.

USDA - Forest Service
Early Detection & Rapid Response (EDRR)
Bark & Ambrosia Beetles
2007- Present

Focus on wooded areas near high-risk solid-wood packing material “endpoints”: landfills, wood recycling locations, warehouses, distribution centers, dunnage piles, factories.



Urban and wildland-urban interface forests such as parks, arboreta, and fragmented forests near new developments.

Coordination with APHIS' CAPS

USDA - Forest Service (EDRR)

Target Species

(NOTE: all bark beetles are identified)

<i>Orthotomicus erosus</i>	<i>Hylurgus ligniperda</i>
<i>Ips typographus</i>	<i>Hylurgops palliatus</i>
<i>Ips sexdentatus</i>	<i>Trypodendron domesticum</i>
<i>Tomicus piniperda</i>	<i>Tomicus minor</i>
Xyleborine spp	

USDA - Forest Service (EDRR)

Target Species & Lures

Species	Lure
➤ <i>Hylurgops palliatus</i>	Ethanol + α -pinene
➤ <i>Hylurgus ligniperda</i>	Ethanol + α -pinene
➤ <i>Tomicus</i> spp	Ethanol + α -pinene
➤ <i>Trypodendron domesticum</i>	Ethanol
➤ <i>Xyleborus</i> spp	Ethanol
➤ <i>Orthotomicus erosus</i>	Ipslure
➤ <i>Ips typographus</i>	Ipslure
➤ <i>Ips sexdentatus</i>	Ipslure

USDA - Forest Service EDRR

First Records of Species New to North America:

2001 – *Hylurgops palliatus* - Pennsylvania

2002 – *Euwallacea similis* - Texas

Xyleborus glabratus - Georgia

2003 – *Scolytus schevyrewi* - Colorado

2005 – *Xyleborus seriatus* – Massachusetts

2008 – *Xyleborinus octiesdentatus* – Alabama & Louisiana

2010 – *Xylosandrus amputatus* - Florida



EDRR first collections and subsequent spread

	First Detection		Distribution as of 2013
	State	Year	
<i>Hylurgops palliatus</i>	PA	2001	PA, OH, WV
<i>Wallacellus similis</i>	TX	2002	TX, LA
<i>Xyleborus glabratus</i>	GA	2002	GA, SC, NC, FL, AL, MS
<i>Scolytus schevyrewi</i>	CO/UT	2003	29 States from CA to NJ
<i>Xyleborus seriatus</i>	MA	2005	MA, NY, ME
<i>Xyleborinus octiesdentatus</i>	AL/LA	2008	AL & LA
<i>Xylosandrus amputatus</i>	FL	2010	FL, GA

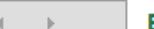
USDA - Forest Service (EDRR)

2007- Present

- ~ 500 traps/year
- Identified ~ 80,000 scolytids/year
 - ~ 250 species of scolytids
- Many new state records and better understanding of distribution of species
- New North American records (7)
- Extensive database of all species collected for each lure

EDRR Trap Catch by species and lure, 2007-2015

Year	Native/Exotic	Species	Lure	Count
2010	E	<i>Xylosandrus crassiusculus</i>	Pinene & Ethanol	15,423
2013	E	<i>Xyleborinus saxesenii</i>	Ethanol	12,835
2013	E	<i>Xylosandrus crassiusculus</i>	Ethanol	12,510
2013	E	<i>Xylosandrus crassiusculus</i>	Pinene & Ethanol	11,969
2008	E	<i>Xyleborinus saxesenii</i>	Ethanol	11,915
2007	E	<i>Xyleborinus saxesenii</i>	Ethanol	11,529
2008	N/E	<i>Hypothenemus</i>	Ethanol	11,375
2015	E	<i>Xyleborinus saxesenii</i>	Ethanol	10,914
2010	E	<i>Xylosandrus crassiusculus</i>	Ethanol	10,818
2014	E	<i>Xylosandrus crassiusculus</i>	Pinene & Ethanol	10,582
2012	E	<i>Xyleborinus saxesenii</i>	Ethanol	10,486
2010	E	<i>Xyleborinus saxesenii</i>	Ethanol	10,463
2014	E	<i>Xylosandrus crassiusculus</i>	Ethanol	9,459
2014	E	<i>Xylosandrus crassiusculus</i>	Ips-lure	9,374
2015	E	<i>Xylosandrus crassiusculus</i>	Ethanol	8,429
2009	E	<i>Xyleborinus saxesenii</i>	Ethanol	8,081
2007	E	<i>Scolytus schevyrewi</i>	Pinene & Ethanol	7,922
2013	E	<i>Xyleborinus saxesenii</i>	Pinene & Ethanol	7,085
2015	E	<i>Xylosandrus crassiusculus</i>	Pinene & Ethanol	6,721
2011	E	<i>Xyleborinus saxesenii</i>	Ethanol	6,626
2013	E	<i>Xylosandrus crassiusculus</i>	Ips-lure	6,363
2015	E	<i>Xyleborinus saxesenii</i>	Pinene & Ethanol	6,236
2015	E	<i>Xylosandrus germanus</i>	Pinene & Ethanol	6,236
2010	E	<i>Xylosandrus germanus</i>	Pinene & Ethanol	6,097
2008	E	<i>Xyleborinus saxesenii</i>	Pinene & Ethanol	5,912
2010	N	<i>Orthotomicus caelatus</i>	Ips-lure	5,837
2011	N	<i>Ips avulsus</i>	Ips-lure	5,824
2007	E	<i>Scolytus schevyrewi</i>	Ips-lure	5,421
2012	E	<i>Xylosandrus germanus</i>	Pinene & Ethanol	5,418
2008	E	<i>Xylosandrus crassiusculus</i>	Ethanol	5,397
2012	N	<i>Ips calligraphus</i>	Ips-lure	5,353
2014	E	<i>Xylosandrus germanus</i>	Pinene & Ethanol	5,218
2007	N	<i>Ips calligraphus</i>	Ips-lure	5,046
2010	E	<i>Xylosandrus germanus</i>	Ethanol	4,632
2014	E	<i>Xyleborinus saxesenii</i>	Ethanol	4,592
2012	E	<i>Xyleborinus saxesenii</i>	Pinene & Ethanol	4,453
2010	E	<i>Xyleborinus saxesenii</i>	Pinene & Ethanol	4,347
2012	E	<i>Xylosandrus crassiusculus</i>	Ethanol	4,344
2013	E	<i>Xyleborinus saxesenii</i>	Ips-lure	4,288
2009	E	<i>Xylosandrus crassiusculus</i>	Ethanol	4,140
2009	E	<i>Xylosandrus crassiusculus</i>	Pinene & Ethanol	4,011
2011	E	<i>Xyleborinus saxesenii</i>	Pinene & Ethanol	4,009
2012	E	<i>Xylosandrus crassiusculus</i>	Pinene & Ethanol	3,997
2014	N/E	<i>Hypothenemus</i>	Ethanol	3,985
2007	E	<i>Xyleborinus saxesenii</i>	Pinene & Ethanol	3,977
2008	E	<i>Xylosandrus crassiusculus</i>	Pinene & Ethanol	3,778



Scolytids new to the US since 2000

- *Hylurgops palliatus*
- *Orthotomicus erosus*
- *Xyleborus glabratus*
- *Xyleborus seriatus*
- *Euwallacea similis*
- *Anisandrus maiche*
- *Euwallacea fornicatus*
- *Scolytus schevyrewi*
- *Xyleborinus octiesdentatus*
- *Xyleborinus andrewesi*
- *Dactylotrypes longicollis*
- *Xylosandrus amputatus*
- *Arapthus schwarzi*
- *Ambrosiodmus minor*
- *Ambrosiophilus perrigrinus*
- *Cyclorhipidion sp.*

