

Canadian Food Inspection Agency



CFIA - Invasive Alien Species Pest Interception Report - 2008

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Our vision:

To excel as a science-based regulator, trusted and respected by Canadians and the international community.

Our mission:

Dedicated to safeguarding food, animals and plants, which enhances the health and well-being of Canada's people, environment and economy.



Invasive Alien Species (IAS) Espèces Exotiques Envahissantes (EEE)

- Invasive Alien Species (IAS) are plants, animals and micro-organisms that spread beyond their natural range into new locations. They have the potential to cause extensive economic hardship and environmental damage.
- Les espèces exotiques envahissantes (EEE) sont des végétaux, des animaux et des microorganismes qui se propagent au-delà de leur aire naturelle. Elles peuvent causer d'importantes pertes économiques et de grave dommages environnementaux.

Interceptions

- Forest pests enter Canada as pests in nursery stock or in wood packaging, dunnage, and handicrafts.
 - Bostrichids, Buprestids, Cerambycids, Curculionids (Scolytines), Siricids
- Others can be hitch-hikers on ships, cars and containers
 - Lymantriid egg masses

Interceptions 2007-2008

- Species can be either repeat offenders
 - Common innocuous species
 - Dangerous pest species
- Or they can be novel invaders
 - Clearly dangerous pests (ie they are invasive elsewhere)
 - Of uncertain status

Interceptions 2007-2008

Species that are repeatedly intercepted

- Bostrichidae: > 14 spp. (*Dinoderus*, *Heterobostrychus*, *Sinoxylon*)
- Buprestidae: > 4 spp. (*Ovalisia*)
- Cerambycidae: > 15 spp. (*Callidiellum*, *Chlorophorus*, *Monochamus*, *Trichoferus*)
- Curculionidae (Scolytinae): > 15 spp. (*Orthotomicus*, *Phloeosinus*, *Xyleborinus*)
- Lymantriidae: > 1 sp. (*Lymantria*)
- Siricidae: > 2 spp. (*Sirex*)

Novel interceptions 2007-2008

Species that were intercepted for the first time:

Bostrichidae: *Xylodectes ornatus* (Lesne) Buprestidae: *Belionota prasina* (Thunberg)



Previous interceptions

A charismatic species from the early 1990's . . .



IAS in Canada



Canadian Food Inspection Agency - Plant Products Directorate - Plant Health Division - Asian Lo - Windows Internet Explorer

http://www.inspection.gc.ca/english/plaveg/bestrava/anojla/leialonge.shtml

Canadian Food Inspection Agency Agence canadienne d'inspection des aliments

Canada

Canadian Food Inspection Agency www.inspection.gc.ca

Plant > Plant Pests > Asian Longhorned Beetle

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Proactive Disclosure

Asian Longhorned Beetle - *Anoplophora glabripennis*

The Canadian Food Inspection Agency has established a regulated area in parts of Toronto and Vaughan to prevent the spread of the Asian Longhorned Beetle. The Asian Longhorned Beetle Infested Place Order prohibits the movement of any tree materials out of or through the regulated area unless authorized by a Movement Certificate issued by the CFIA. The CFIA is implementing an aggressive campaign to control and eradicate this unwanted pest with the full cooperation of the City of Vaughan, the City of Toronto and other federal, provincial and municipal partners.

If you believe that you may have found this beetle, please contact a [local CFIA office](#) or call 1-800-442-2342. There are several native Canadian insects ([White spotted Sawyer beetle](#), [Monochamus scutellatus](#), [Western Conifer Seed Bug](#), [Leptoglossus occidentalis](#), [Banded Alder Beetle](#), [Rosalia funebris](#)) which look similar to the Asian Longhorned Beetle.

- [Latest Information](#)
- [Don't Move Firewood](#)

Acts and regulations we enforce include:

- [Plant Protection Act](#)

IAS in Canada



Anoplophora glabripennis Motschulsky
ALHB

- native to eastern Asia (China, Korea)
- attacks healthy trees
- hosts include *Acer*, *Aesculus*, *Salix*, *Ulmus*, *Betula*, *Platanus*, *Populus* . . .

IAS in Canada



Anoplophora glabripennis Motschulsky

- 1st intercepted in Canada in 1992 (dunnage)
- numerous interceptions since 1992
- 1st captures in Canada in 2003 (Toronto)

Asian Longhorned Beetle / Longicorne Asiatique
Thistletown, Toronto, Ontario



IAS in Canada



- delimitation surveys & control activities ongoing since 2003
- prognosis good for a successful eradication (CFIA, CFS & partners)

IAS in Canada



Canadian Food Inspection Agency - Emerald Ash Borer - *Agrilus planipennis* - Windows Internet Explorer

http://www.inspection.gc.ca/english/plants/bcrstava/agpla/agrabe.shtml

Canadian Food Inspection Agency - Emerald Ash Bore...

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Canadian Food Inspection Agency Agence canadienne d'inspection des aliments

Canadian Food Inspection Agency
www.inspection.gc.ca

Plants > Plant Pests > Emerald Ash Borer

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Proactive Disclosure

Emerald Ash Borer - *Agrilus planipennis*

The emerald ash borer (EAB) is a highly destructive insect that attacks and kills ash trees. Native to eastern Asia, EAB was first discovered in Windsor, Ontario and Detroit, Michigan in 2002.

The EAB has killed millions of ash trees in Southwestern Ontario, Michigan and surrounding states, and poses a major economic and environmental threat to urban and forested areas in both countries. The EAB attacks and kills all species of ash, except Mountain ash which is not a true ash.

Once EAB infests an ash tree, the larvae feed just under the bark, creating S-shaped galleries, which disrupt transport of water and nutrients within the tree. This damage can kill a healthy tree in as quickly as two years. Adult beetles typically begin to emerge in May and move on to infest the same tree or a nearby ash tree. With this type of natural spread, EAB would spread only a few kilometres each year. But with artificial spread, where people move infested ash materials and firewood to new areas, EAB can quickly spread to other areas of Canada.

EAB is strictly regulated as a plant pest under the [Plant Protection Act](#). Federal [Ministerial Orders](#) prohibit the movement of [specific materials](#) including any ash material and firewood of all species from: [Essex County](#), [The Municipality of Chatham-Kent](#), [Lambton County](#), [Elgin County](#), [Middlesex County](#), [Norfolk County](#) and the [City of Toronto](#). Anyone violating

Agrilus planipennis



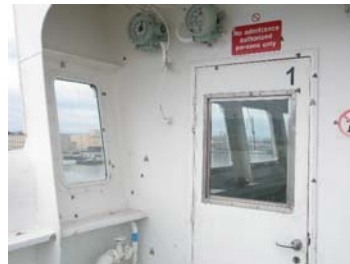
EAB first detected in 2002 . . . but never intercepted in Canada*

* Buprestids rarely intercepted and submitted for identification

Asian Gypsy Moth

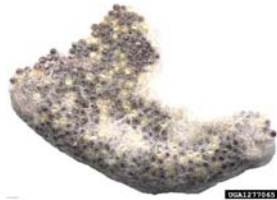


AGM egg masses on ships as in past years . . .



Rosy Gypsy moth

Egg masses of *Lymantria mathura* on ships



DGA1277045



DGA1277093

Legacy of past introductions

Monochamus alternatus

1st intercepted 1993 (B.C.)

is it present in Canada?



Sinoxylon anale

1st intercepted prior to the 1980's

1st detected in 2007 (B.C.)



Image: <http://www.padil.gov.au>

Legacy of past introductions

Sinoxylon anale

- major pest of lumber & dried wood in India
- long history of interceptions in dunnage
- PRA decided it could not survive in Canada

But,

- survival in protected areas (warehouses)
- climate warming?

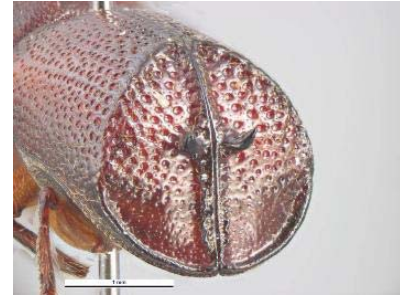


Image: <http://www.padil.gov.au>

Cerambycidae



Trichoferus campestris (Faldermann)

- placed in *Hesperophanes* by some authors
- native to Eastern Asia (China, Korea, Russia)
- a Quarantine pest for EPPO
- attacks healthy or slightly stressed trees
- hosts include *Malus*, *Morus*, *Salix*, *Betula* . . .
- can develop in very dry wood

Cerambycidae



Trichoferus campestris (Faldermann)

- 1st intercepted in Canada in 1997 (dunnage)
- numerous interceptions since 1997
- 1st recognized in Canada in 2008 (Montreal)
 - 2 specimens collected by an amateur entomologist (2002 & 2006), submitted to AAFC for ID
 - nondescript appearance precludes quick recognition by non-specialists

Legacy of the past

Time lag between introduction & infestation

<u>Pest</u>	<u>1st intercepted</u>	<u>1st infestation</u>
ALHB	1992	2003
EAB	?	2002
<i>S. anale</i>	<1980's	2007
<i>Trichoferus</i>	1997	2002
<i>M. alternatus</i>	1993	?



Canada