Anoplophora glabripennis

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Family / Order / Class / Phylum</th>
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</thead>
<tbody>
<tr>
<td>Anoplophora glabripennis (Motschulsky, 1853)</td>
<td>Cerambycidae / Coleoptera / Insecta / Arthropoda</td>
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**COMMON NAMES (English only)**
- Asian Longhorned beetle
- Asian long-horn beetle

**SYNONYMS**
- Anoplophora nobilis Ganglbauer 1890
- Cerosterna glabripennis Motschulsky 1853
- Cerosterna laevigator Thomson 1857
- Melanauster nobilis Ganglbauer 1890
- Melanauster lateonotatus Pic 1925
- Melanauster angustatus Pic 1925
- Melanauster nankineus Pic 1925
- Melanauster glabripennis var. laglaisei Pic 1953

**SHORT DESCRIPTION**
Large, stout beetle, 20-35 mm long with a jet-black body with white spots on the elytra; the antennae are longer than the body, black with blue rings at segment base. It is a xylophagous species, feeding on a wide range of deciduous trees, mostly species with soft wood such as Acer or Populus where the larvae live inside the wood, in tree bole or large branches, adults eat bark on small branches.

**BIOLOGY/ECOLOGY**

- **Dispersal mechanisms**
  Adults flight up to 1.5km from the emergence place. Possible man-mediated long-distance dispersal (e.g. infested wood movement, adults hitchhiking on vehicles).
- **Reproduction**
  Classic sexual reproduction. Eggs are laid throughout female life from spring to late summer; fecundity is variable from tens to more than a 100 eggs per female. Full development is achieved in 1 or 2 years depending on climate and egg laying date.
- **Known predators/herbivores**
  Insect parasitoids (hymenoptera, diptera) and predators (Coleoptera), woodpeckers.
- **Resistant stages (seeds, spores etc.)**
  Larvae and pupae overwinter inside wood tunnels.

**HABITAT**

- **Native (EUNIS code)**
  G1: Broadleaved deciduous woodland, G5: Lines of trees, small anthropogenic woodlands.
- **Habitat occupied in invaded range (EUNIS code)**
  G5: Lines of trees, small anthropogenic woodlands.
- **Habitat requirements**
  Subtropical to temperate climate; can probably survive in a large part of Europe up to Southern Sweden.
**DISTRIBUTION**

**Native Range**
East Asia (China, Taiwan, Korea, Japan)

**Known Introduced Range**
USA, Canada, Austria, France, Germany.

**Trend**
Increasing frequency of interceptions and introductions in Europe during the last ten years: where the species has been introduced, all in urban areas, they are in the process of eradication.

**MAP (European distribution)**

![Map of European distribution](image)

**Legend**
- Known in country
- Known in CGRS square
- Known in sea

**INTRODUCTION PATHWAY**
Introduced repeatedly with infested woody materials, especially wood packaging, pallets and waste materials.

**IMPACT**

**Ecosystem Impact**
Little known; may disturb European broadleaved ecosystems by selective tree killing or direct/indirect competition with native xylophagous insects, including protected ones.

**Health and Social Impact**
Primary introduction always in urban areas; important social impact by killing trees in streets, private and public gardens.

**Economic Impact**
Weaken or kills healthy trees. It is one of the most destructive cerambycid forest pests in its native range, inducing heavy damage in broadleaved stands, including poplar plantations. Larval tunnels also depreciate harvested wood.

**MANAGEMENT**

**Prevention**
Difficult to trap; survey generally based on visual detection of damage.

**Mechanical**
Destruction of infested trees by chipping or burning; trees could also be protected with fine wire mesh to prevent oviposition.
**Chemical**
Limited because the insects live deep within the tree; possible use of systemic insecticides.

**Biological**
Natural enemies (parasitoid insects, entomopathogenic nematodes, fungi or bacteria) under investigation but not yet being used; tree resistance as well.

**REFERENCES**


**OTHER REFERENCES**

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