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**First record of *Anoplophora glabripennis* (Motschulsky)  
(Coleoptera Cerambycidae Lamiinae Lamiini) in Italy<sup>(\*)</sup>**

**Abstract** - *Anoplophora glabripennis* (Motschulsky), also known as Asian Long-horned Beetle (ALB), has been recorded for the first time in Italy. It's native to China and Korea, where it is considered as a serious pest of deciduous tree species particularly poplars, maples, and willows.

**Riassunto** - Prima segnalazione di *Anoplophora glabripennis* (Motschulsky) (Coleoptera, Cerambycidae Lamiinae Lamiini) in Italia.

*Anoplophora glabripennis* (Motschulsky) è stata rinvenuta in provincia di Milano, a Corbetta. Specie da quarantena secondo la Direttiva CE 2000/29, il Cerambicide di origine asiatica è ampiamente polifago. In Cina e Korea è considerato una seria minaccia per le latifoglie negli ecosistemi urbani e forestali, in particolare su pioppi, aceri e salici. E' stato accidentalmente introdotto negli Stati Uniti nel 1996 e successivamente è stato rinvenuto in Canada, Austria, Francia e Germania. Il materiale da imballaggio in legno di origine asiatica sembra essere il principale vettore dei suoi spostamenti.

**Key words:** *Anoplophora glabripennis*, surveying program, wood packing material, quarantine pest, Italy.

## INTRODUCTION

The Asian Longhorned Beetle (ALB) *Anoplophora glabripennis* (Motschulsky) is an invasive quarantine pest for Europe according to the Directive 2000/29/CE (Annex 1, Part A, Sec.1) (Figg. 1-2).

The species is native to China, where it has a broad distribution and it is considered as a major forest pest, in particular on *Populus* (Li & Wu, 1993, in Lingafelter & Hoebeke, 2003; Luo & Lee, 1999). It also occurs throughout Korea. In the United States was detected for the first time in New York in 1996 (Haak *et al.*, 1996), in Chicago in 1998 (Poland *et al.*, 1998) and in Jersey City (NJ) in 2002. By 2002, at least 6000 and 1550 plants were found infested, cut and removed respectively in New York and Chicago (Lingafelter & Hoebeke, 2002). In Canada *A. glabripennis* was recorded in 2003 in Toronto (CFIA; 2003).

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In Europe *A. glabripennis* was first intercepted at Braunau, in Austria in 2001 (Tomiczek *et al.*, 2002) and later in France in 2003 (Cocquempot *et al.*, 2003) and in Germany in 2004 (Benker *et al.*, 2004).

In all these cases ALB seems to have been accidentally introduced through wood packing materials from China.

## FINDINGS

The first detection of *Anoplophora glabripennis* in Italy occurred during a specific surveying program aimed to identify new infested trees by the congenerous *Anoplophora chinensis* (Forster), the Citrus Longhorned Beetle (CLB), introduced in Italy in 2000, in the same area, South West Milano (Colombo & Limonta, 2001).

In a private garden of a private company, located in Corbetta (Milano), the first adult of the beetle was captured on the 10<sup>th</sup> of June 2007 by one employee of the company.

On June 16<sup>th</sup> the Ecology Office of the local Municipality was notified. On July 19<sup>th</sup> a researcher of the "Fondazione Minoprio", charged by Regione Lombardia of carrying out the monitoring program, inspected the garden and realized that the beetle was not belonging to the species *chinensis*. On July 24<sup>th</sup> the Entomology Institute of University of Milano, classified the beetle as belonging to *Anoplophora glabripennis* species.

One sycamore maple (*Acer pseudoplatanus* L.) and three birches (*Betula pendula* Roth) were found severely infested and characteristic symptoms caused by ALB were visible (Fig. 3). External signs like several oviposition pits, mandible marks, a significant quantity of frass at the base of the trees and between the fork, hollow bark and exposed feeding galleries along the stem, lots of exit holes and adult feeding on petioles and twigs as well, were present. Wasps and flies attracted by the sap oozing from the oviposition pits were observed too. All these symptoms were located above 1,5 meters of height up to the top crowns of the plants, in contrast with those caused by *A. chinensis*, present mainly at the base of the trunk and on superficial roots. At least decine of adults were captured during the present season.

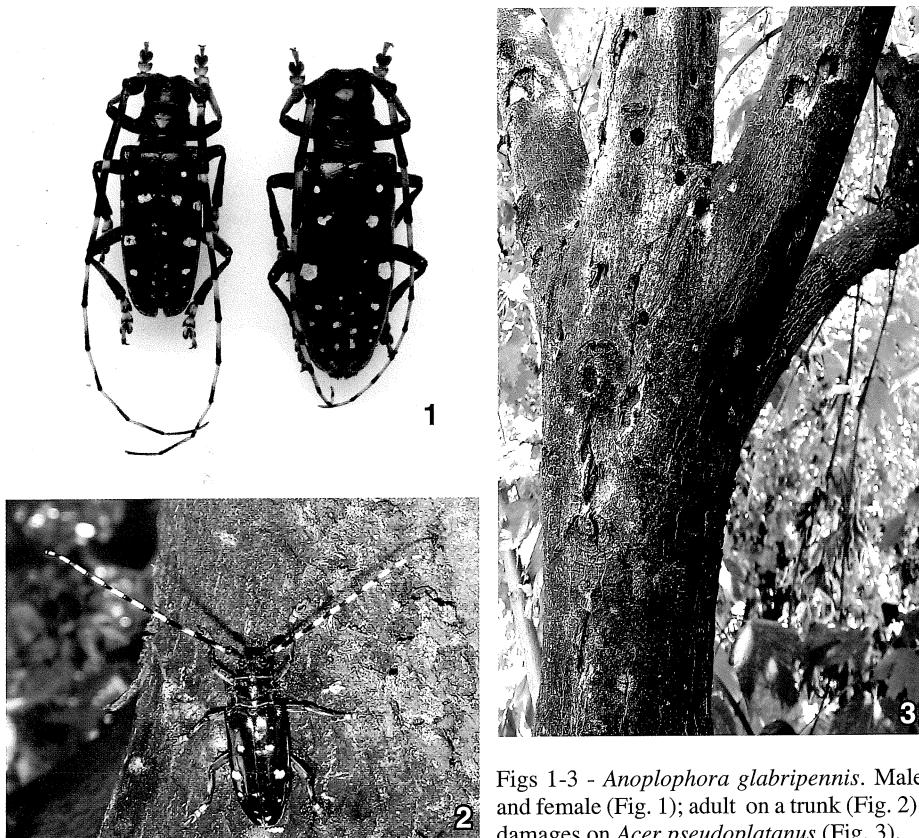
## BIOLOGICAL NOTES

*A. glabripennis* is an extremely polyphagous asian beetle, xylophagous also on healthy trees. In its native Country it attacks primarily different species of *Acer*, *Populus*, *Ulmus* and *Salix*. Other hosts are *Alnus*, *Malus*, *Melia*, *Morus*, *Platanus*, *Prunus*, *Pyrus*, *Robinia*, *Rosa* and *Sophora*. In the United States, the pest has been found also on *Aesculus*, *Fraxinus*, *Hibiscus* and *Betula* (Haak *et al.*, 1996).

In the native area, the wood borer is univoltine but it can complete the development cycle in two years (Hua *et al.*, 1992).

The overwintering stages can be represented by eggs (rarely), larvae and pupae. Depending on the climate conditions, adults emerge from middle May to early October (Li & Wu, 1993 in Lingafelter & Hoebeke, 2002). Females lay eggs beneath the bark after making oval-shaped pits with their mandibles and first instar larvae feed on the outer surface of the sapwood, creating feeding galleries. Then, larvae bore a tunnel toward the heartwood.

Each tunnel ends under the bark's surface where each larvae, once fully developed, create a pupal chamber. After about twenty days adults emerge throughout a round hole and feed on the tender bark of host branches, twigs and on leaves and petioles (Lingafelter & Hoebeke, 2002; Ric *et al.*, 2007).



Figs 1-3 - *Anoplophora glabripennis*. Male and female (Fig. 1); adult on a trunk (Fig. 2); damages on *Acer pseudoplatanus* (Fig. 3).

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