



## First record of *Xyleborus atratus* Eichhoff from Europe, with an illustrated key to the European Xyleborini (Coleoptera: Curculionidae: Scolytinae)

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### Abstract

*Xyleborus atratus* Eichhoff, an ambrosia beetle of Asian origin, is reported for the first time from Europe, based on a series of females collected in northern Italy in April 2007 and 2008 in funnel traps baited with ethanol. A diagnosis of the species and a revised key to the genera and species of Xyleborini occurring in Europe is presented. An explanation is suggested for the large number of recent introductions of exotic ambrosia beetles into Europe.

**Key words:** exotic pest, invasive species, ambrosia beetles, Asia

### Introduction

During a bark beetle monitoring program carried out in northern Italy in early April 2007 using pheromone traps, a specimen of the ambrosia beetle *Xyleborus atratus* Eichhoff, 1875 (Coleoptera: Curculionidae: Scolytinae), a species not previously known from Europe, was trapped. Numerous additional specimens were later trapped in spring 2007 and 2008 by a specific monitoring program using Lindgren funnel traps baited with ethanol. The species was found in the village of Legnaro (45°21' N, 11° 57' E) in north-eastern Italy, in a public garden separated from crop fields by rows of poplar and willow trees. Despite an extensive subsequent search, specimens were only collected in traps and no dying or recently dead trees were found in the garden and neighbouring fields. Colleagues working on *X. atratus* have also never seen it attacking living trees (Rabaglia, personal communication), suggesting that the species may be strictly secondary.

### *Xyleborus atratus* Eichhoff, 1875

**General features.** *Xyleborus atratus* is superficially very similar to the Holarctic *Anisandrus dispar* (Fabricius) but may be readily distinguished from *Anisandrus* by the absence of a pronotal or mesonotal mycangium, as indicated by a median tuft of hairs at the base of the pronotum. In *Xyleborus* the mycangium usually consists of mandibular pouches, suggesting a more distant relationship (Hulcr *et al.* 2007). In addition to the absence of the pronotal tuft of hairs (Fig. 1a), *X. atratus* can be distinguished from *A. dispar* by the absence of serrations on the anterior margin of the pronotum (Figs. 1b, 1c), the more impressed, weakly bisulcate elytral declivity (Fig. 1d), longer interstitial setae on the declivity (Fig. 1a) and the slightly smaller size.

**Diagnosis.** Female. Length 3.0 mm, 2.6x longer than wide; black in maturity. Frons reticulate (Fig. 1b), with large dense punctures, particularly on sides. Pronotum 1.1 mm long, 1.1x longer than wide (Fig. 1a); anterior margin rounded and unarmed (Fig. 1c); summit near middle (Fig. 1a), sides arcuate; disc faintly retic-