



America's Least Wanted Wood-Borers

Department of Entomology

EUROPEAN OAK BARK BEETLE, *SCOLYTUS INTRICATUS* (RATZEBURG)

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This alien bark beetle is native to Asia, Africa and Europe. It has been implicated in oak decline all over its native range. It is one of the species involved in European oak decline, caused by combination of climatic events, disease-causing organisms and insects. These beetles can act as vectors of *Ceratocystis fagareum*, the fungus causing oak wilt disease in North America. Because oak trees are very crucial for the wood industry, ornamental industry and many species of wildlife, their large scale mortality will result severe economic and environmental impacts.

Distribution: *Seolytus intricatus* is found in Turkey, Iran, and western Russia and bordering former Soviet Republics. In Africa it is found in Morocco and Tunisia. It is found in many countries in Europe including Scotland.

General Description: The beetles construct the egg galleries perpendicular to the grain of the wood which can be found under the bark. Both sides of the galleries can harbor egg niches. The larvae tend to excavate the galleries vertical to the grain of the wood which can extend from 10 to 15 cm. Eggs are about 1 mm in length, pearly white in color and oval in shape. The larvae are C-shaped, white in color except for the head capsule which is amber colored. Mature larvae are about 4 mm long. Pupae are white, resembling a mummy and share some adult features such as folded wings at the back of the abdomen. Adults are 2 – 3 mm long. The body color is black with reddish-brown elytra and light brown antennae.

Biology: The primary breeding hosts are species of oak, *Quercus*, such as *Q. petraea*, *Q. robur* and *Q. dalechamps*. Other tree species such as *Aesculus hippocastanum*, *Betula verrucosa*, *Carpinus betulinus*, *Castanea sativa*, *Corylus sp.*, *Fagus sylvatica*, *Ostrya carpinifolia*, *Populus spp.*, *Salix spp.*, *Sorbus spp.* and *Ulmus spp.* have been cited as occasional hosts. One to two generations are produced per year. The overwintering stage of the beetles is usually the last larval instar, or sometimes the pupal stage. Pupation usually takes place during late spring or early summer, lasting for 1 to 2 weeks. After emerging from their host plants, adults fly



Scolytus intricatus, adult
(Photo credit: Kyle Schnepf)

to the crowns of trees, mostly oaks, feed on the twigs, mainly at the meeting point of current-year and 1 year-old growth, followed by mating.

Source: Haack R. A. 2001. Exfor Database Pest Report, *Scolytus intricatus*. Available: <<http://spfnic.fs.fed.us/exfor/data/pestreports.cfm?pestidval=52&langdisplay=english>>. Accessed: Oct. 20, 2011.

Molecular Identification: A DNA barcode for this species has been developed and is freely accessible online at the National Center for Biotechnology Information <www.ncbi.nlm.nih.gov>, and the Barcode of Life Data Systems database <www.boldsystems.org>. If a specimen of this species is suspected, DNA analysis could help to confirm the identification even if the material is of a life stage that cannot be identified with morphological identification techniques.

***S. intricatus* NCBI accession numbers:** JQ015117 - JQ015122

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