

## *Orthotomicus erosus*

**System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Coleoptera	Scolytidae

**Common name** European bark beetle (English), Mediterranean pine engraver beetle (English)

**Synonym**

**Similar species** *Ips latidens*, *Ips pini*, *Orthotomicus caelatus*

**Summary** *Orthotomicus erosus* is an engraver beetle of the family Scolytidae. It is being introduced around the world, often due to the wood packaging material used in the shipment of textiles and other products. *Orthotomicus erosus* is a carrier for pathogenic fungi and is known to carry *Sphaeropsis sapinea*, which causes extensive mortality of many *Pinus* spp.



[view this species on IUCN Red List](#)

### Species Description

Cavey *et al.* (2004) reports that the length of *Orthotomicus erosus* is generally between 2.7 and 3.5mm. It is reddish brown in colour. The anterior portion of the pronotum (the region of an insects body immediately behind the head) on this species is asperate (rough with points or projections). The elytral declivity (downward slope of the modified forewings of beetles serving as protective coverings for the hindwings) is also moderately concave with lateral spines or teeth on it. Please see [Cavey et al. 1994](#) for aid in identification.

### Habitat Description

Campbell (2004) states that, "*O. erosus* primarily attack pine species (*Pinus*) but can also occur on Douglas-fir (*Pseudotsuga menziesii*), spruce (*Picea*), fir (*Abies*), and cedar species (*Cedrus*). The beetle infests recently fallen trees, slash, and stressed living trees."

### Reproduction

Campbell (2004) states that, "While beetles inhabit non *Pinus* species, beetle reproduction is limited to infestations in pine species."

### General Impacts

Campbell (2004) states that, "As with other bark beetles, one of the major dangers from *O. erosus* is the transmission of pathogenic fungi, including blue stain fungi such as *Ophiostoma minus*." Wylie (2000) states that, "The fungus *Sphaeropsis sapinea* has caused extensive mortality of *Pinus* spp. following hail damage in South Africa, and Zwolinski *et al.* (1990) have estimated that losses of US\$ 3.2 million per year have been incurred. Damage due to *Sphaeropsis* dieback is often exacerbated through infestation of trees by the weevil *Pissodes nemorensis* and *Orthotomicus erosus*."

## Management Info

**Integrated management:** Henin and Paiva (2004) state that, "Management of bark beetle populations, such as *O. erosus* can only be achieved by adopting an integrated approach. Among preventive measures, this approach must combine "prophylactic" silviculture practices with an enhancement of their natural enemies, some of which have been shown to exert a significant impact upon bark beetle populations."

**Chemical:** In field experiments, Klimetzek and Vite (1986) were able to lure *O. erosus* into traps baited with a combination of the beetle produced compounds 2-methyl-3-buten-2-ol and ipsdienol. The authors state that, "When offered along with 2-methyl-3-buten-2-ol, an up to 1000-fold increase in concentration of racemic ipsdienol led to a continual increase in catch of *O. erosus* and *Ips sexdentatus*, accompanied by a steady increase of .female..female.-%. It is assumed that 2-methyl-3-buten-2-ol influences landing behaviour of *O. erosus*, while ipsdienol acts as a long distance signal".

**Mechanical:** In South Africa, Wylie (2000) reports that, "Sanitation felling and removal of Rhizina-infected older trees is necessary to prevent build-up of *O. erosus*."

**Biological:** Tribe and Kfir (2001) have been studying *Dendrosoter caenopachoides*, which was introduced into South Africa for the biological control of *O. erosus*.

## Pathway

*Orthotomicus erosus* has most commonly entered the United States from other countries through various crated exports such as, crating tiles, marble, and granite (Haack, 2001).

**Principal source:** Campbell (2004) states that, "While beetles inhabit non *Pinus* species, beetle reproduction is limited to infestations in pine species."

**Compiler:** National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

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## ALIEN RANGE

[1] CHILE

[4] SOUTH AFRICA

[1] FIJI

[7] UNITED STATES

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