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Description of *Phloeosinus laricionis* sp. n. (Coleoptera: Curculionidae, Scolytinae), a new bark beetle species from southern Europe

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Abstract

We describe a new species of pine bark beetle, *Phloeosinus laricionis*, associated with a pine decline recently affecting young plantations of *Pinus nigra* ssp. *laricio* Poiret growing on the Etna volcano, Sicily (South Italy). The new species is morphologically close to the group species of *P. cedri* Brisout, *P. acatayi* Schedl, and *P. pfefferi* Knížek, having all odd interstriae on the declivity of elytra bearing small, individual, sparse, more or less sharply pointed tubercles in males, or with smaller sparse blunt, nipped tubercles in females. While the other species of the same group live on cedars, the new species is the only Palaearctic *Phloeosinus* known from pine.

Key words: Italy, Sicily, *Pinus nigra* ssp. *laricio*, bark beetle, pine, identification key, taxonomy

Introduction

Phloeosinus Chapuis (Coleoptera, Curculionidae, Scolytinae) is a medium-large bark beetle genus, including about 80 species spread among all continents (Schedl, 1950; Wood, 1986; Wood & Bright, 1992; Knížek, 2011). Europe, Mediterranean regions of northern Africa and western Asia account for eight species; five of them (*P. rudis* Blandford, *P. armatus* Reitter, *P. aubei* Perris, *P. thuyae* Perris and *P. henschi* Reitter) breed in Cupressaceae (*Cupressus* sp., *Chamaecyparis* sp., *Thuja* sp., *Juniperus* sp.) (Pfeffer, 1995), while the other three (*P. cedri* Brisout, *P. pfefferi* Knížek and *P. acatayi* Schedl) on cedars (*Cedrus* sp.) (Pfeffer, 1943; 1995; Schedl, 1950; Knížek, 1994).

Phloeosinus species are phloeophagous (breeding in phloem); most are monogamous, but bigamous species are found both in eastern North America and in Europe, Africa and Asia (Chararas, 1962; Berisford, 1975; Belhabib *et al.*, 2009). The life-cycle involves reproduction in the phloem of trunks and branches of recently dead, dying or weakened trees, followed by a maturation feeding carried out by callow adults in the shoots of healthy host trees (Eichhoff, 1881; Escherich, 1923; Stark, 1952; Chararas, 1962; Postner, 1974; Belhabib *et al.*, 2009). The maturation feeding, during which the adults tunnel in the host shoots, can produce considerable damage, killing the shoots and reducing the tree growth. In case of cypress-infesting species it may contribute also to the transmission of phytopathogenic fungi (Escherich, 1923; Postner, 1974).

Since spring 2010, a strong decline of young plantations of larch pines (*Pinus nigra* ssp. *laricio* Poiret), a blak pine growing at high elevations, was recorded in a number of localities on the northeastern and southwestern slopes of the Etna volcano. The pine decline, which affected hundreds of trees about 30 years old, was characterized by a quick and progressive desiccation of the middle and upper portions of the crowns. Sampling of symptomatic trees revealed colonies of a phloem bark beetle belonging to an unknown species of the genus *Phloeosinus*. The new species, morphologically close to the species living on cedar, was found simultaneously in many locations and collected for several years.