

***Agrilus schwerdtfegeri* Schwerdtfeger, the first proven *Agrilus* developing in conifer,
with an analysis of authorship and synonymy**

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Abstract. The name *schwerdtfegeri* Schwerdtfeger, 1953 is revealed as available and valid name for *Agrilus schwerdtfegeri* Schwerdtfeger, 1953. The name *schwerdtfegeri* Obenberger, 1957 syn. nov. is a primary homonym and junior subjective synonym of the name *schwerdtfegeri* Schwerdtfeger, 1953. *Agrilus schwerdtfegeri* Schwerdtfeger, 1953 is the first proven species developing in *Pinus*. Known references to conifer as a host plant for *Agrilus* are briefly discussed.

INTRODUCTION

To date (May, 2013), based on the data from the database of author, there are exactly 3000 recent, valid species-group taxa of the genus *Agrilus* in the world. So far, none of them was known as developing in conifers. However in 1953, Schwerdtfeger published a widely overlooked contribution to biology of buprestids developing in *Pinus* in Guatemala. This paper provides first evidence of proven *Agrilus* development in conifer (*Pinus tenuifolia* Benth) but it has also serious impact on nomenclature.

The following abbreviations are used in the text: NMP (National Museum, Praha, Czech Republic); ZSMC (Zoologische Staatssammlung, München, Germany).

RESULTS

***Agrilus schwerdtfegeri* Schwerdtfeger, 1953
(Fig. 1)**

Agrilus schwerdtfegeri Schwerdtfeger, 1953: 166-167.
Agrilus schwerdtfegeri Obenberger, 1957: 120-122 **syn. nov.**

History. Obenberger (1957) described a new species of *Agrilus* from Guatemala and named it *schwerdtfegeri* after its collector Mr. Schwerdtfeger. *Agrilus schwerdtfegeri* Obenberger, 1957 was described based on a single specimen 4.6 mm long and 0.85 mm wide, which was cited as the “type”, preserved in the collection of Obenberger in NMP. Locality data of the “type” is “Guatemala. Ciudad. Pin. tenuif. 3.9.1951”.

Four years earlier, Schwerdtfeger (1953) published a contribution to biology of buprestids of Guatemala. On pages 166-167, he presented characters and biology of “*Agrilus*

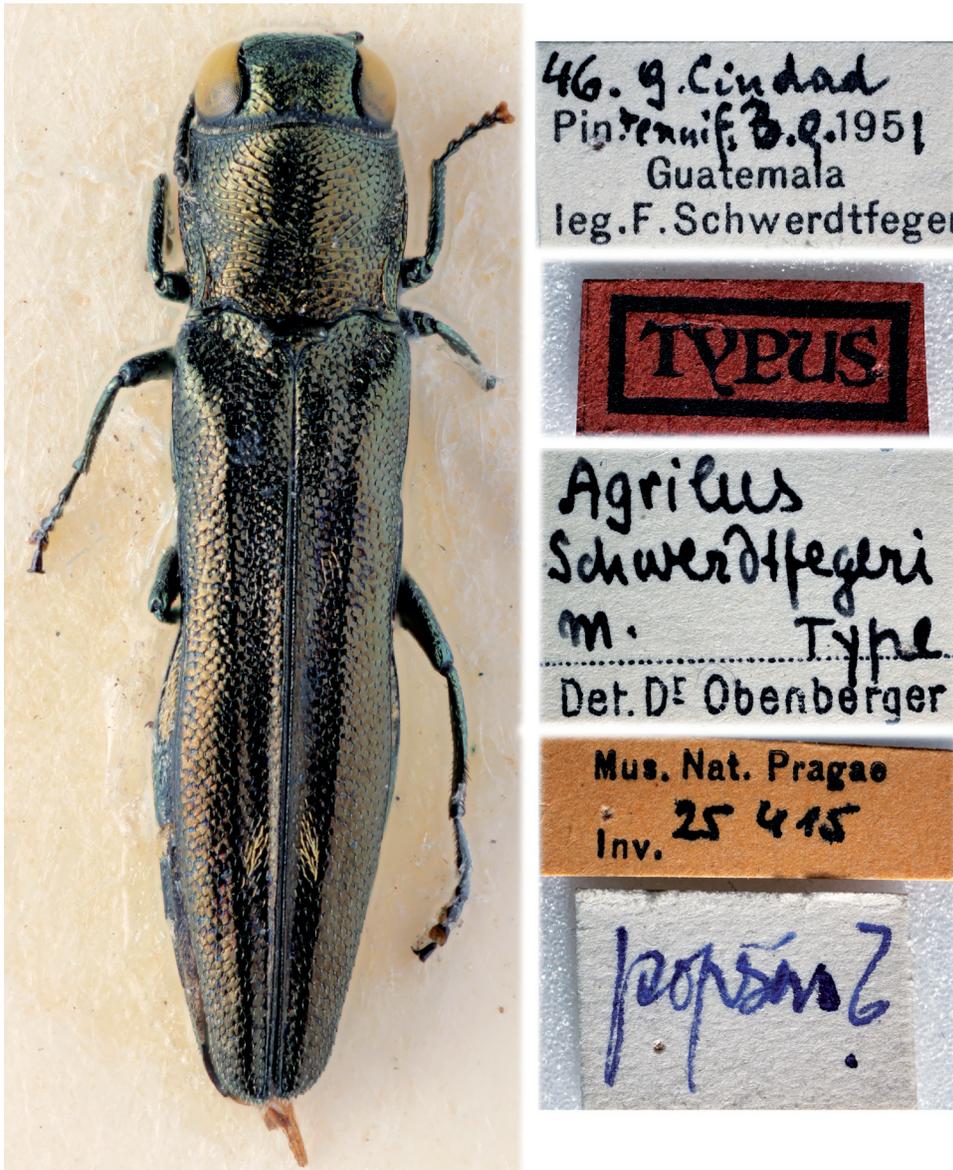


Fig. 1. Specimen preserved in NMP representing the holotype of *A. schwerdtfegeri* Obenberger, 1957 and the paratype of *A. schwerdtfegeri* Schwerdtfeger, 1953.

schwerdtfegeri n. spec.” with the note “Prof. Obenberger wird die neue Art beschrieben” [This species will be described by Prof. Obenberger]. The “type” is declared preserved in ZSMC and “cotypes” in the collection of Obenberger and author [Schwerdtfeger]. The specimens were collected in “Guatemala-Ciudad in etwa 1500 m Höhe an *Pinus tenuifolia* Benth”.

Bellamy (2008) cites *Agrilus schwerdtfegeri* Obenberger (1957) as a valid species but

Agrilus schwerdtfegeri Schwerdtfeger, 1953, as well as reference to Schwerdtfeger (1953), is omitted.

Analysis. The *schwerdtfegeri* Schwerdtfeger, 1953 and *schwerdtfegeri* Obenberger 1957 are names for two different nominal taxa which are considered conspecific.

The name *schwerdtfegeri* Schwerdtfeger, 1953 is available because it is accompanied by a description as defined by ICZN (Article 13.1.1). The holotype is the specimen preserved in ZSMC, paratypes are specimens in NMP and in the collection of Schwerdtfeger. The holotype was not examined.

The name *schwerdtfegeri* Obenberger 1957 is established from a single specimen, the holotype preserved in NMP. This holotype is simultaneously a paratype of *Agrilus schwerdtfegeri* Schwerdtfeger, 1953. The holotype in NMP is preserved in the drawer “*Agrilus* Neotrop 13” and bears the label data as shown on Fig. 1.

The names *schwerdtfegeri* Schwerdtfeger, 1953 and *schwerdtfegeri* Obenberger, 1957 are primary homonyms and subjective synonyms. Subjective synonymy is a consequence of different primary types. The name *schwerdtfegeri* Obenberger 1957 is a new junior subjective synonym of *schwerdtfegeri* Schwerdtfeger, 1953.

Biology. According to Schwerdtfeger (1953), *Agrilus schwerdtfegeri* Schwerdtfeger develops in 3 meter high *Pinus tenuifolia* Benth., in broken, dried branch 10-15 mm in Guatemala at an altitude of 1500 m. Freshly hatched imago was found in the pupal chamber which is also illustrated.

Discussion. I have found only a few plausible published records citing a conifer as a potential *Agrilus* host plant. Baudon (1968) cited two *Agrilus* species from Laos. First one, *A. perrieri* Baudon, 1965 (now *A. aereus* Saunders, 1866) was observed laying eggs to bark crevices of *Pinus* log. This species was also reared from an unidentified *Pinus*. Second species, *A. dahoi* Baudon, 1965 was collected by beating branches of dying *Pinus khasya* Royle. Quite recently, Halperin & Argaman (2000) cited *Pinus halepensis* with a question mark as the host of *A. roscidus* Kiesenwetter, 1857 from Israel. In the remark, they mentioned “bred from *P. halepensis*”. This record may also pertain to a species related to *A. graecus* Obenberger, 1916 which attacks *Viscum* parasitizing on *Pinus*. It becomes obvious that *Pinus* and, maybe, also other conifers can be larval hosts for some species of *Agrilus*. The question remains, whether conifers represent primary hosts or they are attacked only occasionally at particular circumstances.

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