

Description of a new species of *Parascythopus* DESBROCHERS DES LOGES from The Netherlands, with taxonomic notes on *Parascythopus* and *Polydrusus* GERMAR (Coleoptera: Curculionidae)

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Abstract

A new species of *Parascythopus* DESBROCHERS DES LOGES (Coleoptera: Curculionidae) is described from The Netherlands: *P. exsulans* sp.n. A key is presented treating all currently known species of *Parascythopus*. Lectotypes of *Phyllobius abeillei* GUILLEBEAU and *P. gemmifer* GUILLEBEAU are designated. *Phyllobius gemmifer* GUILLEBEAU is removed from synonymy with *Parascythopus mirandus* DESBROCHERS DES LOGES and transferred to *Polydrusus* (*Eustolus*).

Key words: Coleoptera, Curculionidae, Phyllobiini, *Parascythopus*, *Parascythropus*, taxonomy, key, new species, lectotype designations, *Phyllobius abeillei*, *Phyllobius gemmifer*, The Netherlands.

Introduction

PESARINI (1981) revised the West Palaearctic species belonging to the tribe Phyllobiini. Amongst others, he elevated three taxa that were formerly considered as subgenera within the genus *Phyllobius* GERMAR to generic status: *Oedecnemidius* K. & G. DANIEL, *Pseudomylocerus* DESBROCHERS DES LOGES and *Parascythopus* DESBROCHERS DES LOGES. PESARINI (1981) lists four species as belonging to the genus *Parascythopus*: *P. pinicola* (KIESENWETTER, 1864), *P. apollinis* (MILLER, 1862), *P. baudii* (STIERLIN, 1892) and *P. mirandus* (DESBROCHERS DES LOGES, 1875). The other species listed by WINKLER (1932) as belonging to the subgenus *Parascythopus* were transferred by PESARINI (1981) to other genera within the Phyllobiini, or to subgenera within *Phyllobius*. *Phyllobius* (*Parascythopus*) *gemmifer* (GUILLEBEAU, 1897) was placed in synonymy with *P. mirandus* and *P. abeillei* (GUILLEBEAU, 1897) was not treated by PESARINI (1981).

The genus was described as *Parascythopus* by DESBROCHERS DES LOGES, 1875, not as *Parascythropus* as reported in many catalogues (e.g. ABAZZI et al. 1994), nor as *Parascytropus* as in DEYROLLE (1875: 478). Here we will use the correct spelling of *Parascythopus*. This spelling is also used in the recent catalogue by ALONSO-ZARAZAGA & LYAL (1999).

In this paper we describe a new species of *Parascythopus* from The Netherlands, give a key treating all known species of *Parascythopus*, and present some nomenclatorial remarks on *P. abeillei* and *P. gemmifer*.

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Parascythopus exsulans sp.n.

TYPE LOCALITY: Harenermolen, municipality of Glimmen, province of Groningen, The Netherlands. The specimens were collected using a beating tray, from coniferous trees on a neglected tree nursery (for further details on habitat, see under discussion).

TYPE MATERIAL: **Holotype** ♂: "The Netherlands, Harenermolen (Groningen) \ 5.6.1998, lég. Th. Heijerman", and with red holotype label. **Female allotype:** same date and locality data as holotype, and with red allotype label. **Paratypes:** 115 specimens, same date and locality data as holotype, and with red paratype labels. Holotype and allotype are deposited in the collection of the Zoological Museum, Amsterdam, The Netherlands. Paratypes are deposited in the following institutions and private collections: coll. Th. Heijerman (Wageningen, The Netherlands), coll. L. Magnano (Verona, Italy), the Zoological Museum Amsterdam (Amsterdam, The Netherlands), The Natural History Museum (London, United Kingdom), Muséum national d'Histoire naturelle (Paris, France), coll. C. Pesarini (Milano, Italy), Deutsches Entomologisches Institut (Eberswalde, Germany), coll. L. Behne (Eberswalde, Germany); Muséum d'Histoire Naturelle (Lyon, France).

ADDITIONAL MATERIAL EXAMINED: Two specimens collected by K. Alders, 6.6.1996 and 86 specimens collected by Th. Heijerman, 22.5.1999, all with same locality data as type material and all in coll. Th. Heijerman.

DESCRIPTION: Holotype ♂: Length 5.5 mm, greatest width of elytra 1.75 mm. For general habitus, see Fig.1. Black, legs and antennae brown. Apical plate of rostrum black. Scape curved, club-shaped, funicle hardly longer than scape; funicle segments 1 - 4 conical, 5 - 7 globular to slightly elongate, and more than 1.5 times as long as wide; club spindle-shaped, slightly shorter than last four segments of funicle (Fig. 2). Eyes convex, interocular space 1.6 times as wide as rostrum dorsally between antennal insertions (Fig. 21). Prothorax transverse, 1.25 times as wide as long, disc with narrow, smooth and shining median band, which is not elevated. Elytra parallel-sided, 2.3 times as long as wide, rounded at apex and with humeri protruding (Fig. 11). Strial punctures dense and sharply-defined, intervals 1.5 times as striae. Vestiture of lanceolate green scales, not dense, leaving the tegument distinctly visible. Intervals with series of erect brown setae, each as long as interval width. Venter with sparse hair-shaped scales, these slightly more dense on sides of ventrites than on disc. Second visible ventrite with transverse apical carina, which is as long as 2/3 of the width of the ventrite, ventrite 3 with similar but less distinct carina (Fig. 3). Femora of all legs with strong ventral tooth (see Fig. 1). Tarsi moderately robust, claw segment slender. For male genitalia, see Figs. 6 - 10.

Allotype ♀: Length 6.5 mm, greatest width of elytra 2 mm. Female differs from male holotype by the humeri which are more protruding, by the shape of the elytra, which are subparallel and slightly wider towards apex (Figs. 11 - 12), and by the lack of the apical carinae on the ventrites (Fig. 5). For female genitalia, see Figs. 13 - 14.

Paratypes: Differences from the characters of the types are not evident. The median band on the pronotum may be shortened at the base or toward the apex, but is always clearly visible.

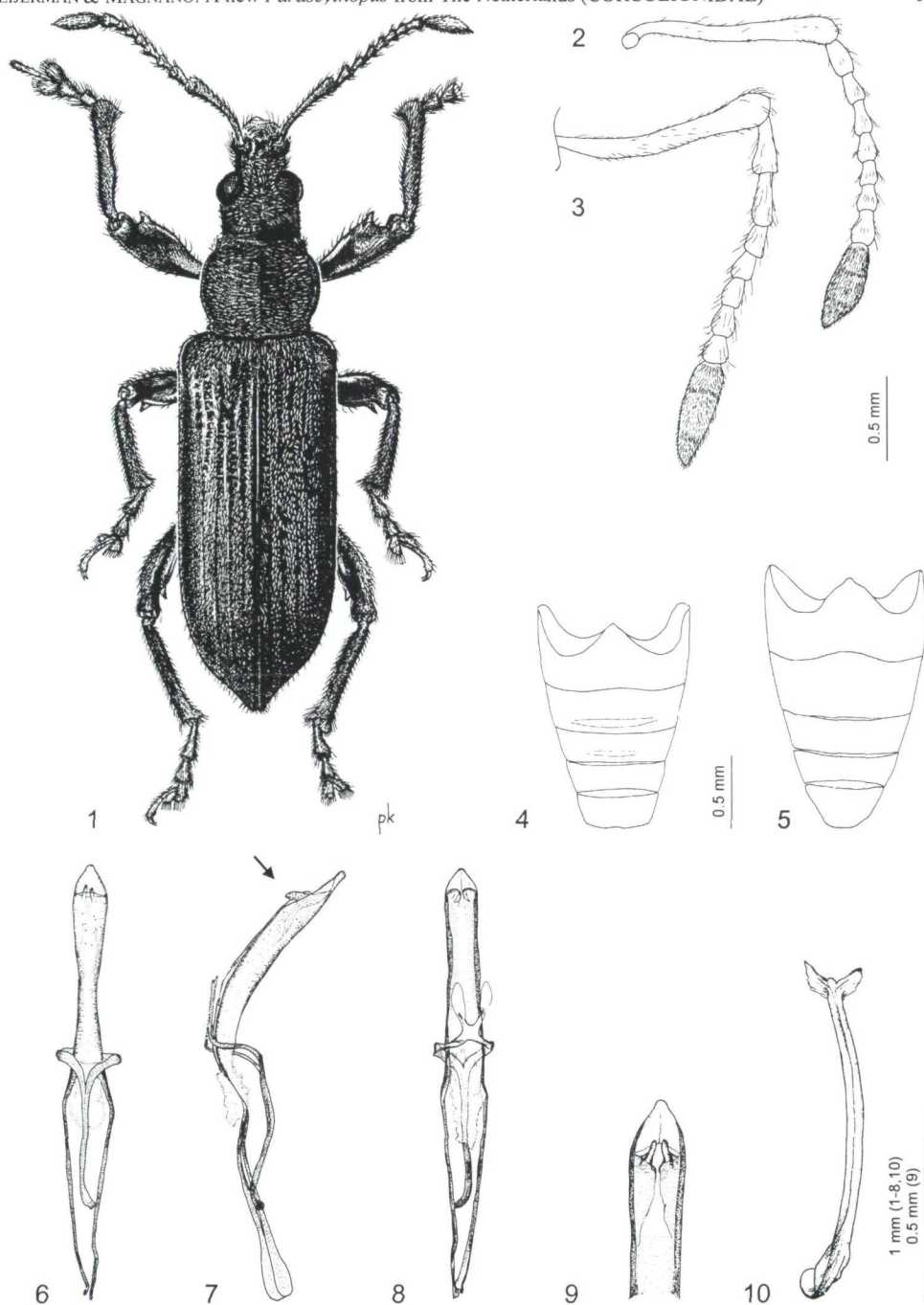
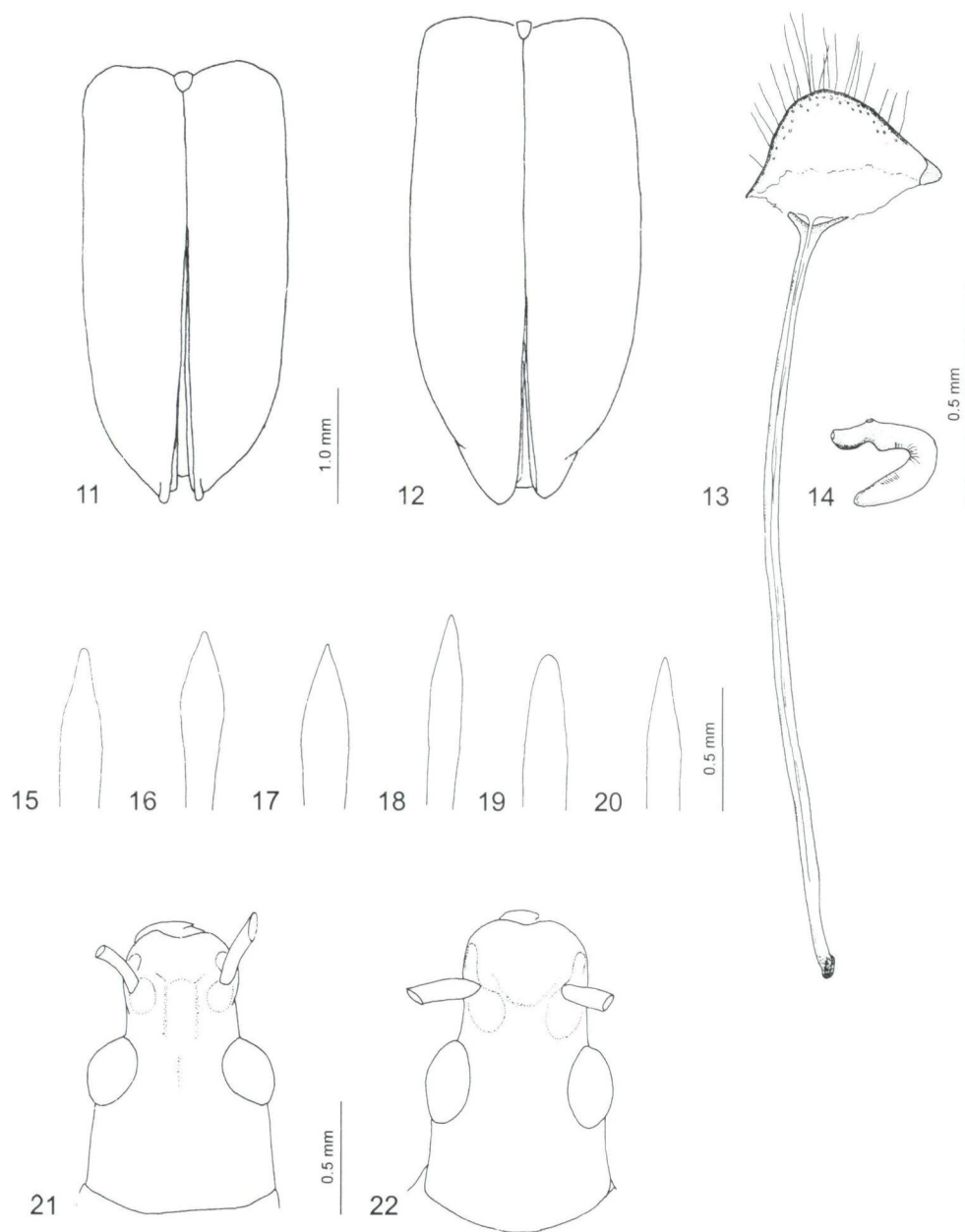


Fig. 1: Habitus of *Parascythopus exsulans* (male, paratype).

Figs. 2 - 3: Antennae of *Parascythopus exsulans* (male, paratype) (2) and *P. pinicola* (3).

Figs. 4 - 5: Venter *Parascythopus exsulans* of male (4), showing the transverse carinae on ventrites 2 and 3, and female (5) (paratypes).

Figs. 6 - 10: Aedeagus of *Parascythopus exsulans* (male, paratype): 6 - 8) median lobe with tegmen in ventral (6), lateral (7) and dorsal (8) view; 9) apex of median lobe in dorsal view (arrow in Fig. 7 indicates direction of view); 10) spiculum gastrale.



Figs. 11 – 12: Outline of elytra of male (11) and female (12) of *Parascythopus exsulans* (paratypes).

Figs. 13 – 14: Genitalia of female of *Parascythopus exsulans* (paratype): 13) spiculum ventrale; 14) spermatheca.

Figs. 15 – 20: Outline of median lobe of: 15) *Parascythopus mirandus*; 16) *P. exsulans*; 17) *P. pinicola*; 18) *P. abeillei*; 19) *P. apollinis*; 20) *P. baudii*. (Figs. 15, 17, 19 – 20: redrawn from PESARINI 1981).

Figs. 21 – 22: Outline of head of: 21) *Parascythopus exsulans*; 22) *P. pinicola*.

DIFFERENTIAL DIAGNOSIS: The species can be distinguished from all others in the genus by the general shape of the median lobe of the aedeagus (Figs. 15 – 20). *Parascythopus exsulans* is very similar in appearance and probably closely related to *P. pinicola*. These two species can be distinguished from all other species by the shape of the rostrum: the sides of the rostrum are almost parallel (Figs. 21 - 22), while in all other species the rostrum is narrowed from base to apex and conical. Compared with *P. pinicola*, in *P. exsulans* the eyes are more strongly convex and clearly protruding from sides of head (Figs. 21 - 22), also in *P. exsulans* the first two segments of the funicle are shorter (Figs. 2 - 3), the legs are darker, the tooth on the fore legs is stronger and more acuminate, and the scales on the elytra are evenly distributed and present on all intervals.

DISTRIBUTION: So far only known from the type locality.

ETYMOLOGY: The new species is named *exsulans*, meaning "homeless", derived from the Latin *exsul*, meaning 'exile', in reference to the fact that the species must have been imported in The Netherlands and is not known from its original area.

Key to the species of *Parascythopus*

In the revision of the Phyllobiini of the Western Palaearctic region, PESARINI (1981) did not include *Parascythopus abeillei* and consequently this species does not appear in his key (PESARINI 1981:201). The following key is partly based on the key of PESARINI (1981) and adds *P. abeillei* and *P. exsulans*, thus treating all species of *Parascythopus* presently known.

- 1 Pronotum with a smooth and shiny median longitudinal area.....2
- Pronotum densely and uniformly punctured, without such a shiny longitudinal area.....5
- 2 Apical plate of rostrum different in colour from rest of head and rostrum, reddish.3
- Apical plate of rostrum dark-brown to black.....4
- 3 Smooth and shiny median longitudinal area of pronotum somewhat elevated, almost as broad as apical part of antennal scape, regular, clearly defined and not obscured by the setae of the pronotum. Frons between eyes with a short distinct furrow. Interocular space 1.8 times as wide as dorsum of rostrum between antennal insertions. Clothing of elytra consisting of dark-brown semi-erect setae as well as recumbent lanceolate metallic green scales on the central intervals, and coppery linear and narrow scales on interval 1, 2/3 of the basal part of interval 2, the middle part of interval 3 and also on the three outer intervals. Length 5.1 - 7.3 mm. Turkey (Southern Anatolia), Syria..... *P. mirandus*
- Median area of pronotum rather flat, irregular, not clearly delimited and narrow, only about 0.5 times as wide as apical part of scape of antenna, little obscured by surrounding setae. Interocular space 1.25 times as wide as dorsum of rostrum between antennal insertions. Sutured interval and apical third of interval 4 with hair-shaped yellow scales. Length 6 - 8 mm. Turkey (Mt. Amanus) (nota bene: at the time *P. abeillei* was described, the area of Mt. Amanus belonged to Syria)..... *P. abeillei*
- 4 Interocular space 2.2 times as wide as dorsum of rostrum between antennal insertions. Eyes weakly convex (Fig. 22). Dorsum of rostrum without keels (Fig. 22). Segments 1 and 2 of funiculus 1.5 times the length of segment 3 (Fig. 3). Clothing of elytra consisting of brown semi-erect setae as well as recumbent lanceolate metallic green scales. First interval of elytra almost bare of scales and even intervals more densely clothed with scales than uneven intervals, giving the impression of more or less evident longitudinal stripes. Length 5.3 - 6.8 mm. Bulgaria, Greece *P. pinicola*
- Interocular space 1.6 times as wide as dorsum of rostrum between antennal insertions. Eyes more strongly protuberant, distinctly convex (Fig. 21). Dorsum of rostrum with two parallel keels (Fig. 21). Segments 1 - 3 of funiculus subequal in length (Fig. 2). Clothing of elytra

with rather pale semi-erect setae as well as recumbent lanceolate metallic green setae on all intervals. Length 5 - 7 mm. The Netherlands *P. exsulans* sp.n.

- 5 Elytra covered with scales and hairs on all intervals, not forming a pattern of stripes on the elytra. Pubescence almost completely recumbent on basal half of elytra. Apical half of elytra covered with pale and very fine setae, which are for the most part shorter than interval width. Scales of elytra not lanceolate, but broader, truncate. Pronotum with close and coarse punctures. Apical plate of rostrum with a depression, concave. Frons with depression between eyes. Interocular space 1.75 times as wide as dorsum of rostrum between antennal insertions. Length 4.1 - 5.8 mm. Southern Italy (Calabria)..... *P. baudii*
- Elytra covered with pubescence on all intervals. Intervals 4, 6 and apical parts of intervals 2 and 10 covered with lanceolate metallic green scales, thus forming a clear and regular pattern of stripes on the elytra. Pubescence distinctly raised on total surface of elytra. Setae coarser and as long as interval width, dark brown in colour. Pronotum with close but finer punctures. Apical plate of rostrum without a depression, more or less elevated, convex. Interocular space two times as wide as dorsum of rostrum between antennal insertions. Length 4.5 - 6.2 mm. Greece (Euboea, Corfu, Kephallinia)..... *P. apollinis*

Discussion

ORIGIN: All previously known species of *Parascythopus* show a West Palaearctic distribution: *P. pinicola* is known from the southern Balkans; *P. baudii* from Calabria, Italy; *P. apollinis* from Greece; *P. abeillei* from Turkey and *P. mirandus* from Syria and Turkey (PESARINI 1981). It is therefore surprising to discover a new species of this genus in The Netherlands, so far from the area of all other species of *Parascythopus*. The only plausible explanation for this unexpected occurrence is that the species must have been imported. There are a number of weevil species that have expanded their range as a result of transport of plant material by man, and now occur throughout Europe mainly under synanthropic conditions (e.g. *Otiorhynchus dieckmanni* MAGNANO, *O. crataegi* GERMAR, *O. aurifer* BOHEMAN). A similar case of a species described from specimens not known from its assumed native area is presented by *Syagrius intrudens* WATERHOUSE. The species must be of Australian origin, but was described in 1903 from specimens first collected in a greenhouse in Dublin, Ireland (WATERHOUSE 1903). Since then, the species has been reported from a number of localities throughout Ireland and England, where it was collected outdoors (see e.g. HEIJERMAN 1999).

HABITAT AND ECOLOGY: All *Parascythopus* species are known to feed on coniferous trees, in contrast to *Phyllobius* species, which feed on deciduous trees. All specimens of *Parascythopus exsulans* were collected from ornamental trees in a tree nursery (Fig. 23). The species was found on several cultivars of *Chamaecyparis lawsoniana* (A. MURRAY) PARL. and *Thuja plicata* D. DON ex. LAMBERT, viz. *C. l. 'Columnaris'*, *C. l. 'Ellwoodii'* and *T. p. 'Dura'*. All specimens were collected in spring (May, June); in September 1999 the locality was visited again, but no specimens were observed. This indicates that there is only one generation per year.

NOMENCLATORIAL REMARKS: The examination of material belonging to *Parascythopus* and of the type series of *Phyllobius gemmifer* and *Phyllobius abeillei* allow us to designate lectotypes of these two species.

Parascythopus abeillei (GUILLEBEAU)

The type of this species clearly belongs to the genus *Parascythopus* and not to *Phyllobius*. The type series is conserved in the Muséum d'Histoire Naturelle, Lyon, France (MHNL). The specimens were remounted and bear the following labels: male lectotype [aedeagus extracted] "Mt Amanus, Syria [hand-written] / Akbes [hand-written] / Abeillei, Guill. [hand-written] / coll.

Guill. [printed] / TYPE [red, printed]. Des. Heijerman & Magnano, 1999." Female paralectotype: "Akbes [hand-written] / Abeillei [hand-written] / TYPE [red, printed]. Des. Heijerman & Magnano, 1999."

***Polydrusus gemmifer* (GUILLEBEAU)**

Phyllobius gemmifer GUILLEBEAU, 1897, is not a *Phyllobius* but a *Polydrusus* GERMAR of the subgenus *Eustolus* THOMSON (comb.n.) and it is not a synonym of *Parascythopus mirandus* DESBROCHERS DES LOGES as affirmed by PESARINI (1981) but a valid species. *Parascythopus* can be easily distinguished from *Polydrusus* (*Eustolus*), for example by the body scales, which are acuminate in *Parascythopus* and rounded in *Polydrusus*. It remains unclear what caused the confusion between these two species; possibly the specimens of *Phyllobius gemmifer* seen by Pesarini were not true paratypes. To clear this matter, a lectotype of this species is herewith designated. Lectotype (sex not determined): "Akbes [hand-written] / gemmifer, Guillebeau [hand-written] / coll. Guill. [printed] / TYPE [red, printed]. Des. Heijerman & Magnano, 1999" Paralectotype (sex not determined): "Akbes [hand-written] / TYPE [red, printed]. Des. Heijerman & Magnano, 1999". The two specimens are conserved in the Muséum d'Histoire Naturelle, Lyon, France (MHNL).



Fig. 23: Type locality of *Parascythopus exsulans*: tree nursery at Harenmolen, Groningen, The Netherlands.

References

- ABAZZI, P., COLONNELLI, E., MASUTTI, L. & OSELLA, G. 1994: Coleoptera Polyphaga (Curculionoidea). – In: A. Minelli, S. Ruffo & S. la Costa (eds.), Checklist delle specie della fauna italiana, 61. – Calderini, Bologna, 68 pp.
- ALONSO-ZARAZAGA, M.A. & LYAL, C.H.C. 1999: A world catalogue of families and genera of Curculionoidea (excepting Scolytidae and Platypodidae). – Entomopraxis, Barcelona, 315 pp.
- DESBROCHERS DES LOGES, M.J. 1875: Diagnoses de Curculionides inédits. – Opuscles entomologiques (Coleoptères), 1^o Cahier, 1874-1875: 1-36.
- DEYROLLE, E. 1875: Espèces nouvelles pour la faune européenne et circa-européenne. – Petites nouvelles entomologiques 1: 478.
- HEIJERMAN, Th. 1999: The Fern Weevil, *Syagrius intrudens* Waterhouse (Curculionidae) on Guernsey. – Coleopterist 8: 38-39.
- PESARINI, C. 1981: Le specie paleartiche occidentali della tribù Phyllobiini (Coleoptera Curculionidae). – Bolletino di Zoologia Agraria e di Bachicoltura, Ser. II 15: 49-230.
- WATERHOUSE, C. O. 1903: Description of a new Coleopterous insect belonging to the Curculionidae. – Annals and Magazine of Natural History 11: 229-231.
- WINKLER, A., 1932: Catalogus Coleopterorum Regionis Palearcticae. – Albert Winkler, Wien, 1698 pp.
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