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| Genus | Vol. 16(4): 611-617 | Wrocław, 28 XII 2005 |
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Phyllobius fessus BOHEMAN, 1843, a new weevil species in Poland
and Lithuania
(Coleoptera: Curculionidae)

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ABSTRACT. *Phyllobius fessus* BOHEMAN, 1843 is recorded from Poland and Lithuania for the first time. *Phyllobius maculatus* TOURNIER, 1877, earlier listed among synonyms of *Ph. fessus*, is revealed to be a new synonym of *Ph. glaucus* (SCOPOLI). A key to Central European species of *Phyllobius* subgenus *Metaphyllobius* is given.

Key words: entomology, taxonomy, Coleoptera, Curculionidae, *Metaphyllobius*, *Phyllobius fessus*, *Phyllobius maculatus*, new synonym, key, distribution, new records, Poland, Lithuania.

Weevils of the genus *Phyllobius* are all polyphagous, often gregarious, easy to observe and collect on plant foliage. Hence, after the last addition of *Ph. seladonius* BRULLÉ by WANAT (1985), the list of Polish species of this genus long remained unchanged and seemed to be closed. The remaining species included in the key by SMRECZYŃSKI (1966), or listed from adjacent southern countries (STREJČEK 1993, PODLUSSÁNY 1996), represent evidently East Carpathian or Pontic elements, and they are rather unexpected in Poland. However, when the list of Northern European *Phyllobius* was studied, one species was found which could have possibly entered Poland from the east or north. The candidate was Euro-Siberian *Ph. fessus* BOHEMAN, in most of the recent papers incorrectly referred to as *Ph. maculatus* TOURNIER. It was apparently after WINKLER's Cat. (1932), where *Ph. fessus* was erroneously placed among synonyms of *Ph. calcaratus* F. (currently *Ph. glaucus* (SCOPOLI)), while *Ph. maculatus* TOURN. was listed there as a valid species. Under the latter name this weevil species is known from the vast area of

Russia (ARNOLDI et al. 1965) and Belarus (IOANNISIANI 1972, ALEXANDROVITCH et al. 1996). It was also recorded from the Russian Karelia (HANSEN et al. 1939), which was omitted from subsequent editions of the catalogue of Fennoscandian beetles (SILFVERBERG 1979, 1992). In his comprehensive review of the genus *Phyllobius* PESARINI (1981) resurrected *Ph. fessus* BOH. as a valid species, and placed *Ph. maculatus* TOURN. among its synonyms. A very wide range of *Ph. fessus* in the Asiatic part of Russia was revealed by EGOROV et al. (1996). More recently the species was recorded from the northern lake region of Belarus (SOLODOVNIKOV 1999), again as *maculatus* TOURN.

Considering the above records, the occurrence of *Ph. fessus* in Baltic countries and NE Poland should not be unexpected. It was confirmed in VI 2003, when one female of this weevil was collected by me on the northern slopes of the river Bug valley, several kilometers from the border with Belarus. A year later my study of weevil collections preserved in Cracow revealed 9 old specimens of *Ph. fessus* collected at the end of 19th c. in Lithuania by E. WRÓBLEWSKI. Since *Ph. fessus* was not included in the key to Polish weevils (SMRECZYŃSKI 1966), its diagnostic morphological characters are described and illustrated below, accompanied with a key to related species.



1. *Phyllobius fessus*, female from Mielnik, habitus

Identity of the species was confirmed after examination of the type specimen of *Ph. fessus* BOH. (labelled as lectotype by B. A. KOROTYAEV), loaned from the Swedish Museum of Natural History in Stockholm. At the same time, examination of one syntype (of the two mentioned in the original description) of *Ph. maculatus* TOURN., preserved at the National Museum of Natural History in Paris, revealed its identity with *Ph. glaucus* (SCOP.), not with *Ph. fessus* as earlier stated by PESARINI (1981), followed by EGOROV et al. (1996). Therefore, a new synonymy is established here: *Ph. glaucus* (SCOPOLI, 1763) = *Ph. maculatus* TOURNIER, 1877, **syn. nov.**

***Phyllobius fessus* BOHEMAN, 1843**

Phyllobius fessus BOHEMAN, 1843: 14 (type examined).

Phyllobius maculatus auct., nec TOURNIER, 1877: 5.

MATERIAL EXAMINED

Poland (NE): Podlasie: Mielnik near Siemiatycze, Głogi Nature-Landscape Area (UTM: FD30), 16 VI 2003, 1 ex., bottom of the Bug valley, 30 VI 2005, 12 exs, leg. M. WANAT; roadside between Mielnik and Osłowo, Moericke's trap under blackthorn and lime-tree, 21 VII 2003, 2 exs, leg. J. SAWONIEWICZ (coll. M. WANAT).

Lithuania, no date nor precise locality [according to RAZOWSKI (1984) collected 1870-1885], 7 exs, coll. E. WRÓBLEWSKI (Museum of Natural History PAS, Cracow), further 2 exs from this series in coll. S. SMRECZYŃSKI (currently at Jagiellonian University), incorrectly identified as *Ph. faeculentus* GYLL.

DIAGNOSTIC DESCRIPTION

Body length (excluding rostrum) 7.0-8.0 mm. Coloration of integument and vestiture invariable: body black, legs and antennae red-testaceous, recumbent scales all piliform, greyish-coppery, raised elytral setae black (Fig. 1).

Rostrum parallel-sided; dorsum flat, with shallow longitudinal subapical impression; piliform scales in middle directed inwards and almost recumbent, outside semi-erect. Eyes moderately, regularly convex. Entire rostrum and head with very dense, partly confluent puncturation.

Antennae moderately long; funicular segment 2 in both sexes $1.2 \times$ longer than 1, and ca. $3.5 \times$ longer than wide.

Pronotum distinctly transverse, regularly rounded at sides (Fig. 1), with extremely dense, adjoining punctures; scales moderately dense, evenly distributed on dorsum and sides, directed towards mid-line. Scutellum slightly denser covered with scales.

Elytra densely and almost evenly clothed in scales, not variegated; raised setae usually based on minute bare fields, hence in non-abraded specimens elytral intervals have numerous, indistinct black dots; raised setae numerous, well visible in both dorsal and side views also on elytral base, in 2-3 confused rows along each



2-4. *Phyllobius fessus*, 2 - male profile (type specimen), 3 - male head (type specimen), 4 - female head

interval, as long or slightly longer than half interval's breadth; striae narrow and shallow, punctured, largely obscured by elytral scales.

Male. Rostrum $1.2 \times$ longer than wide. Antennae longer and thicker; segment 2 of funicle as long as eye height; club ca. $3.8 \times$ longer than wide. Legs with longer and more protruding pilosity; femora more inflated, with larger and broader teeth, particularly on profemur. (Figs 2, 3). Elytra parallel-sided. Ventrite 1 with large median depression.

Female. Rostrum shorter, as long as wide. Antennae shorter and thinner; segment 2 of funicle at most 0.80-0.85 as long as eye height; club ca. $3.0 \times$ longer than wide. Legs more slender, with much smaller and narrower teeth (Fig. 4). Elytra widening apicad, widest distinctly behind mid-length (Fig. 1). Ventrite 1 convex.

BIONOMICS

Polyphagous species, like other members of *Phyllobius*. Earlier authors (e.g. ARNOLDI et al. 1965) suggested that adults feed primarily on willows, but IOANNISIANI (1972) found this species on various trees, including willow, poplar, pear, lime-tree, alder, birch, hornbeam, rowan, and even pine. The first specimen from Mielnik was beaten from *Prunus spinosa* L. growing on a gentle slope, in one of several natural hedges crossing open grassland area. Most of the specimens collected in 2005 were found on a hag berry bush (*Padus avium* MILL.) growing under old willow tree in a very wet place, but two of them were beaten from willow branches (*Salix fragilis* L.) about 50 meters from that place. It seems that in Mielnik *Ph. fessus* prefers humid arborous habitats typical for the bottom of river valley, and its first finding on xerothermophilous slopes in 2003 was accidental.

DISTRIBUTION

Poland (E), Lithuania, Belarus, Russia (N European part, W Siberia, Yakutskaya A. R., Chitinskaya obl., Buryatskaya A.R), Caucasus.

Ph. fessus has been placed by PESARINI (1981) in the subgenus *Metaphyllobius*, together with four species, two of which are widespread in Central Europe, and the remaining two are endemic to Caucasus. After recent synonymisation of the long recognised subgenus *Hoplophyllobius* with *Metaphyllobius* (ALONSO-ZARAZAGA & LYAL 1999), the latter comprises 4 species living in Poland (WANAT & MOKRZYCKI 2005), which are keyed below. They all differ from the remaining Polish members of *Phyllobius* in having a combination of the following characters: large body size (usually well over 6 mm in length); rostrum slightly to distinctly longer in males, with convex dorsum and parallel, shallowly impressed scrobes; narrow head, with the frons only slightly broader than rostrum between antennal pits; recumbent scales on elytra all piliform and pointed apically; long and slender antennae; dentate femora.

KEY TO SPECIES OF *PHYLLOBIUS* SUBGENUS *METAPHYLLOBIUS* OCCURRING IN
CENTRAL AND EASTERN EUROPE

1. Elytra with long and dense erect pilosity, setae as long as maximum interval's breadth. Inner margin of male hind tibia deeply emarginate subapically, with a short comb of yellow setae at upper margin of emargination. Antennae with funicular segments 1 and 2 equally long, each 0.80-0.85 as long as the club. In Poland locally in the Carpathians (Pieniny Mts, Słonne Mts) and in the Ojców National Park (BURAKOWSKI et al. 1993). Dendrophilous, most often on *Corylus avellana* L.
..... ***Ph. (M.) pilicornis* DESBROCHERS**
- Elytra with much shorter to almost reduced protruding pilosity, setae at most half as long as maximum interval's breadth. Male hind tibiae unmodified. Antennae with funicular segment 2 at least 1.2× longer than 1, the latter at most 0.6 as long as the club 2.
2. Protruding dark pilosity obsolescent, visible only in side view on declining apical part of elytra. Common throughout Poland; usually on herbs, most often on *Urtica dioica* L..
..... ***Ph. (M.) pomaceus* GYLLENHAL**
- Protruding dark pilosity distinct throughout elytra, in side view well seen also in basal part of elytra. 3.
3. Protruding dark pilosity on elytra sparse, in one, more or less regular row per each interval; in basal part of the interval setae more than their own length apart. Rostrum slightly widening apicad. Eye strongly, asymmetrically convex, its posterior declivity almost vertical. Antennae long; funicle with 2nd segment in male 4.5-5.0 ×, in female 4.0-4.5 × longer than wide, in male 1.2 ×, in female 1.1 × longer than eye height. Large species, body length up to 10.0 mm. Body vestiture and coloration extremely variable, usually with green scales. Common throughout Poland; on various trees and bushes, most often on *Alnus* spp.
..... ***Ph. (M.) glaucus* (SCOPOLI)**
- Protruding dark pilosity on elytra much denser, in 2-3 confused rows per each interval, in basal part of the interval setae less than their own length apart. Rostrum parallel-sided. Eye moderately, evenly convex, both its anterior and posterior declivity at evidently sharp angle to head surface. Antennae shorter; 2nd funicular segment in both sexes ca. 3.5 × longer than wide, in male about 1.00, in female 0.80-0.85 as long as eye height. Smaller species, body length up to 8.0 mm. Coloration of elytra uniformly greyish-coppery, with numerous, minute, black seta-bearing dots along each interval.
..... ***Ph. (M.) fessus* BOHEMAN**

ACKNOWLEDGEMENTS

I cordially thank Drs Bert VIKLUND (Swedish Museum of Natural History, Stockholm) for the loan of the type specimen of *Ph. fessus*, Adam ŚLIPIŃSKI

(CSIRO Division of Entomology, Canberra) and Wioletta TOMASZEWSKA (Museum and Institute of Zoology PAS, Warsaw) for their kind help in transfer of the loaned specimen, Daniel KUBISZ (Museum of Natural History PAS, Cracow) and Stanisław KNUTELSKI (Jagiellonian University, Cracow) for the loan of specimens from WRÓBLEWSKI's and SMRECZYŃSKI's colls., and Janusz SAWONIEWICZ (University of Białystok), for his company and help during my field collecting in Mielnik.

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