

TWO NEW SPECIES OF THE GENUS *Medetera* (DIPTERA, DOLICHOPODIDAE) FROM ESTONIA AND SWEDEN

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Abstract. Two new species, *Medetera piceae* sp. nov. and *Medetera robusta* sp. nov., are described and figured. The types were reared from the bark and logs of Norway spruce (*Picea abies* (L.) Karst.) inhabited by bark beetles, collected from spruce trunks, and trapped near spruce logs inhabited by bark beetles both in Estonia and Sweden.

Key words: *Medetera*, taxonomy, new species.

INTRODUCTION

The genus *Medetera* Fischer von Waldheim, 1819 is widely distributed in the Palearctic region. Data on 156 species are published in the *Catalogue of Palearctic Diptera* (Negrobov, 1991). In Sweden 29 *Medetera* species are recorded (Negrobov, 1991; Weslien, 1992). The number of species found in Estonia is 34. Data on 16 species are presented by Sintenis (1892), Stackelberg (1962), and Negrobov (1979, 1991). The author of this paper has collected 26 *Medetera* species in Estonia; data on 21 of these species were published earlier (Õunap, 1992). Two new species described below were both collected in Estonia and in Sweden.

TAXONOMY

Medetera piceae sp. nov.

Male. Frons faintly greenish metallic brilliant, densely dusted greyish. Epistoma dark blue, brilliant, under antennae and above transverse suture dusted

grey. Clypeus dark blue, brilliant, on sides narrowly dusted greyish. Face above transverse suture 1.1 times as wide as the length of the third joint of antennae. Epistoma 1.75 times higher than clypeus. The first and the second joint of antennae yellowish, the third joint black, with a small cut at the base of arista. The third joint 1.2 times longer than its width at the base. Arista preapical, 3.2 times longer than the third joint of antennae. Postocular bristles yellowish. Thorax greenish metallic brilliant, dusted greyish. 3–4 strong brown propleural bristles. 5 pairs of dorsocentral bristles behind suture, posterior dorsocentral bristles noticeably longer than anterior ones. Acrostichal bristles well developed, hind bristles noticeably longer than the distance between acrostichal rows. 20–21 bristles before suture between shoulder and dorsocentral row. The foremost of the bristles quite small, hind bristles somewhat longer than the distance between acrostichal rows at suture. Scutellum with 4 bristles. Wings transparent with brown veins. The portion of costal vein between R_{2+3} and R_{4+5} 4 times as long as the portion between R_{4+5} and M_{1+2} . R_{4+5} and M_{1+2} apically converged, apical part of M_{1+2} curved. Apical part of M_{3+4} 1.7 times longer than outer crossvein. Halteres yellow. Squamulae yellow, with yellow ciliae. Legs dark. Fore femora without long hairs. Middle femora with short hairs (av). Middle tibia with 1 stark anterodorsal and 1 stark posterodorsal bristle at the base. The second hindtarsal joint 2 times longer than the first hindtarsal joint. Abdomen greenish black, metallic brilliant with dark hairs. Hypopygium and hypandrium as in Fig. 1. Gonopods of the same length as epandrium. Gonopods apically split into ventral and dorsal lobes. Ventral lobes of gonopods wide, strongly curved in the ventral direction at the third apical part. Dorsal lobes of gonopods narrower, with pointed apex, curved considerably less than ventral lobes. Cerci with few bristles. Apical half of hypandrium wide oval. Hypandrium 2.3 times as long as its largest width. Length 2.9 mm.

Female similar to male but with larger face and shorter third joint of antennae.

Material: holotype 1 ♂ and paratypes 3 ♂♂, Estonia, Tartu County, Aardla, emerged from the bark of spruce inhabited by *Ips typographus*, 08.02.1995 (leg.

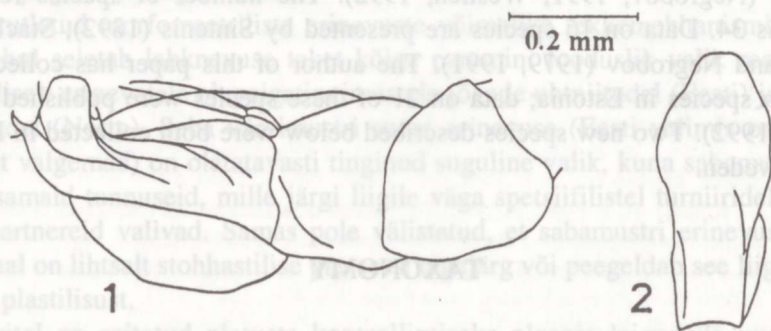


Fig. 1. *Medetera piceae* sp. nov. 1, hypopygium, lateral view; 2, hypandrium, ventral view.

H. Õunap); paratypes: 2 ♂♂ 4 ♀♀, Estonia, Tartu County, Vara, emerged from the bark of spruce inhabited by *I. typographus* and *Polygraphus* sp., 17.03.1976 (leg. H. Õunap); 1 ♂ 2 ♀♀, Estonia, Tartu County, Siniküla, emerged from the bark of spruce inhabited by *I. typographus*, 08.04.1980 (leg. H. Õunap); 2 ♀♀, Estonia, Valga County, at Lake Tüandre, emerged from a spruce log inhabited by *I. typographus* and *Pityogenes chalcographus*, 24.01.1985 (leg. H. Õunap); 1 ♀, Estonia, Muhu Island, Hellamaa, emerged from the bark of spruce inhabited by *I. typographus*, 14.05.1985 (leg. H. Õunap); 10 ♂♂ 9 ♀♀, Sweden, Uppland, Lillvreta, emerged from a spruce log inhabited by *I. typographus*, 04.05.1987 (1 ♂), 08.05.1987 (3 ♂♂ 7 ♀♀), 11.05.1987 (5 ♂♂ 1 ♀), 15.05.1987 (1 ♂ 1 ♀) (leg. J. Weslien); 1 ♂, Estonia, Valga County, at Lake Tüandre, emerged from the bark of spruce inhabited by *I. typographus*, 01.03.1989 (leg. H. Õunap); 1 ♀, Sweden, Uppland, Funbo, Frötuna, in a barrier trap, 10.06.1993 (leg. J. Weslien).

Holotype and 6 paratypes (4 from Estonia and 2 from Sweden) are deposited in the collection of the Zoological Museum of the University of Tartu; the other paratypes, in the collection of the author.

Medetera robusta sp. nov.

Male. Frons greenish black with faint metallic brilliance, dusted brownish grey. Epistoma greenish black, shagreenish, somewhat metallic brilliant. Clypeus greenish blue, brilliant. Face without dust, 2 times wider than the basal height of the third antennal joint. Epistoma 1.3 times higher than clypeus. The first and the second joint of antennae yellowish, the third joint black. The third joint of antennae as long as its height at the base, without a cut at the base of arista. Arista apical, brown, somewhat longer than the distance from the base of antennae to the front edge of clypeus. Postocular bristles brown. Thorax black, mostly dusted greyish, anterior part of mesonotum dusted brownish. 4 strong black propleural bristles. 5 pairs of dorsocentral bristles behind suture, posterior dorsocentral bristles noticeably longer than anterior ones. Acrostichal bristles well developed, hind bristles noticeably longer than the distance between acrostichal rows. 30 bristles before suture between shoulder and dorsocentral row. The foremost of these bristles quite small, hind bristles longer than the distance between acrostichal rows at suture. Scutellum with 4 bristles. Wings transparent, with brown veins. The portion of costal vein between R_{2+3} and R_{4+5} 4 times longer than the portion between R_{4+5} and M_{1+2} . R_{4+5} and M_{1+2} apically converged, apical part of M_{1+2} considerably curved. Apical part of M_{3+4} only somewhat longer than outer crossvein. Halteres yellowish. Squamulae yellowish, with brown edges, and with light brown ciliae on the edges. Legs black. Bristles on legs black up to dark brown. Anteroventral bristles on middle femora not longer than the diameter of femur at knee. Middle tibia with 1 stark anterodorsal and 1 stark posterodorsal bristle at the base. Hind femora with long bristles on the anterior surface. Apical part of hind tibia with 4–5 long stark bristles on the upper side. The second hindtarsal joint 1.9 times longer than the first hindtarsal joint. Abdomen black,

metallic brilliant, with stark black hairs. Hypopygium, hypandrium, and phallus as in Fig. 2. Hypopygium comparatively large. Gonopods apically split into ventral and dorsal lobes. Dorsal lobes of gonopods narrow. The basal part of hypandrium somewhat wider than the middle part. Apex of hypandrium with a small extension. Phallus narrowed towards apex, curved but not wavy in the lateral view. Length 3.8 mm.

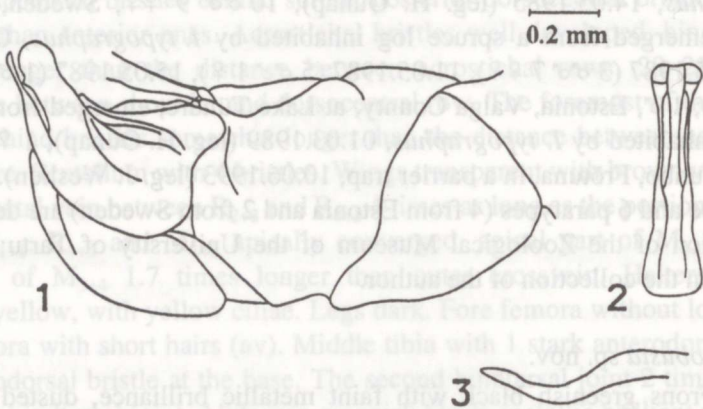


Fig. 2. *Medetera robusta* sp. nov. 1, hypopygium, lateral view; 2, hypandrium, ventral view; 3, phallus, lateral view.

Female similar to male but with larger face and with 1 long stark bristle on the upper side of the apical part of hind tibia.

Material: holotype 1 ♂ and paratypes 4 ♀♀, Sweden, Uppland, Viksta, Skyttorp, in a barrier trap, 06.07.1993 (leg. J. Weslien); paratypes: 2 ♀♀, Estonia, Valga County, Taagepera forest district, on a spruce trunk inhabited by bark beetles, 24.06.1976 (leg. H. Õunap); 1 ♀, Estonia, Saaremaa Island, the Viidumäe State Nature Reserve, on a spruce trunk inhabited by *Ips typographus*, *I. duplicatus*, and *Pityogenes chalcographus*, 15.07.1976 (leg. H. Õunap); 1 ♀, Estonia, Saaremaa Island, the Viidumäe State Nature Reserve, on a spruce log inhabited by *I. typographus*, 17.07.1976; 2 ♀♀, Estonia, Pärnu County, Kilingi-Nõmme, on a spruce trunk inhabited by *Hylurgops palliatus*, 06.07.1977 (leg. H. Õunap); 1 ♀, Estonia, Ruhnu Island, on a spruce trunk inhabited by *H. palliatus*, 11.07.1980 (leg. H. Õunap); 1 ♀, Sweden, Uppland, Funbo, Långsjön, in a barrier trap, 10.06.1993 (leg. J. Weslien); 1 ♀, Sweden, Uppland, Funbo, Frötuna, in a barrier trap, 06.07.1993 (leg. J. Weslien); 1 ♀, Sweden, Uppland, Åland, Fiby, in a barrier trap, 07.07.1993 (leg. J. Weslien); 2 ♀♀, Sweden, Uppland, Danmark, Lunsen, in a barrier trap, 08.07.1993 (leg. J. Weslien); 1 ♀, Sweden, Uppland, Björklinge, Gåsholmen, in a barrier trap, 13.07.1993 (leg. J. Weslien); 1 ♀, Sweden, Uppland,

Uppsala Näs, Hammarskog, in a barrier trap, 14.07.1993 (leg. J. Weslien); 1 ♀, Sweden, Västergötland, Halleberg, on a spruce trunk inhabited by bark beetles, 14.07.1994 (leg. H. Öunap).

Holotype and 6 paratypes (1 from Estonia and 5 from Sweden) are deposited in the collection of the Zoological Museum of the University of Tartu; the other paratypes, in the collection of the author.

M. piceae sp. nov. is similar to *M. pinicola* Kowarz and *M. breviseta* Parent. It differs from *M. pinicola* in short anteroventral bristles on middle femora and in the shape of gonopods. Dorsal lobes of its gonopods are shorter and keep more aloof from ventral lobes than in *M. pinicola*. Male *M. piceae* sp. nov. differs from *M. breviseta* in the wide hypandrium and more curved gonopods. Female *M. piceae* sp. nov. differs from *M. breviseta* in the blue clypeus and epistoma, brown propleural bristles, and the ratio of the length of the second to the first hindtarsal joint, as well as in the ratio of the length of the apical part of M_{3+4} to the outer crossvein. In *M. piceae* sp. nov. the values of these ratios are higher (1.82–2.14 and 1.63–2.00, respectively) than in *M. breviseta* (1.60–1.97 and 1.45–1.56, respectively) (Fig. 3).

M. robusta sp. nov. is similar to *M. penicillata* Negrobov, *M. dichrocera* Kowarz, and *M. obscura* (Zetterstedt). It differs from *M. penicillata* and *M. dichrocera* in the shape of gonopods, hypandrium, and phallus. The gonopods of *M. robusta* sp. nov. are split into two lobes, whereas those of *M. penicillata* and *M. dichrocera* are split into three lobes. The hypandrium of *M. robusta* sp. nov.

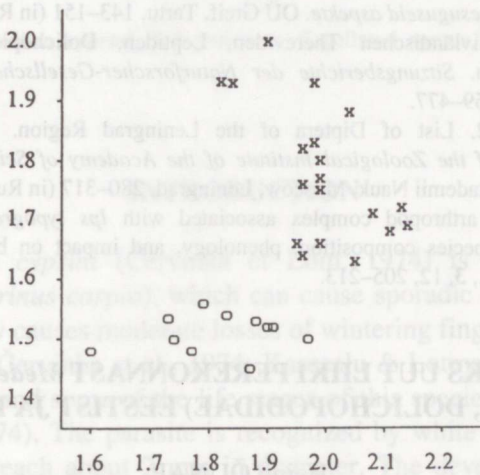


Fig. 3. Ratio of the lengths of the apical part of M_{3+4} to the outer crossvein (vertical axis), and ratio of the lengths of the second and first hindtarsal joints (horizontal axis) in female *Medetera breviseta* Parent (o) and female (x) *Medetera piceae* sp. nov.

has only a small extension in the apex, its phallus is narrowed towards the apex, without an extension near it. Also *M. robusta* sp. nov. differs from *M. dichrocer*a in a more robust body, the shorter third joint of antennae, and in long stark bristles on the upper side of the apical part of hind tibia. *M. robusta* sp. nov. differs from *M. obscura* in the duller epistoma and clypeus, in black postocular bristles, in the absence of an appendage on dorsal lobes of gonopods, the narrower basis of the hypandrium, and in the shape of the phallus, which is curved but not wavy.

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KAKS UUT LIIKI PEREKONNAST *Medetera* (DIPTERA, DOLICHOPODIDAE) EESTIST JA ROOTSIST

Heino ÕUNAP

On kirjeldatud kaht teadusele uut liiki perekonnast *Medetera*. Mõlemat liiki, *Medetera piceae* sp. n. ja *Medetera robusta* sp. n., on leitud nii Eestist kui ka Rootsist.