

Two late-spring braconid genera of the subfamily Alysiinae (Hymenoptera: Braconidae) new for the fauna of Russia

Два новых для фауны России поздневесенних рода браконид из подсемейства Alysiinae (Hymenoptera: Braconidae)

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Two braconid genera from the subfamily Alysiinae, *Lodbrokia* Hedqvist, 1962 and *Asyntactus* Marshall, 1898, are recorded in the fauna of Russia and in the Asian continent for the first time. A new species *Lodbrokia uralica* sp. nov. is described from the Urals, and a key to species of this genus is provided. Redescriptions of the female and male of *Asyntactus rhogaleus* Marshall, 1898 with information about the level of variability of its morphological characters are given. *Asyntactus sigalphoides* Marshall, 1898 is synonymised with *A. rhogaleus* Marshall, 1898 (syn. nov.).

Роды *Lodbrokia* Hedqvist, 1962 и *Asyntactus* Marshall, 1898 из подсемейства Alysiinae впервые указывается для фауны России и Азиатского континента. С Урала описан новый вид *Lodbrokia uralica* sp. nov., и предложен ключ для определения видов этого рода. Даны переописания самки и самца *Asyntactus rhogaleus* Marshall, 1898, включающие информацию об изменчивости его морфологических признаков. *Asyntactus sigalphoides* Marshall, 1898 синонимизирован с *A. rhogaleus* Marshall, 1898, syn. nov.

Key words: endoparasitoids of flies, first records, Russia, Hymenoptera, Braconidae, Alysiinae, *Lodbrokia*, *Asyntactus*, new species, new synonym

Ключевые слова: эндопаразитоиды мух, первые находки, Россия, Hymenoptera, Braconidae, Alysiinae, *Lodbrokia*, *Asyntactus*, новый вид, новый синоним

INTRODUCTION

The members of the large subfamily Alysiinae are exclusively endoparasitoids of many families of cyclorrhaphous Diptera, and adults of these parasitoids emerge from the puparium of flies. This subfamily includes only two tribes, Alysiini and Dacnusiini (the position of the Nearctic tribe Exodentiellini in Opiinae or Alysiinae is discussed by Wharton, 1977; Quicke and Achterberg, 1990; Yu et al., 2005), the main diagnostic characters of which are the presence or absence of the second radiomedial vein of fore wing and the small or large

number of the mandibular teeth. However, a new supergeneric reclassification of subfamily Alysiinae is particularly needed (Wharton, 1994; Perepechaenko, 2000) because several intermediate taxa are known in both these tribes and because new information about contents and morphological characters of the taxa were received during last several dozens of years.

The members of the tribe Alysiini infest a wide range of hosts from more than twenty families of cyclorrhaphous Diptera (usually Phoridae, Anthomyiidae, Drosophilidae, Calliphoridae, Lonchopteridae,

Scathophagidae, Muscidae) (Shenefelt, 1974; Yu et al., 2005). On the other hand, the Dacnusiini taxa are restricted in host range mainly to members of the mining dipterous family Agromyzidae and less common by Chloropidae, Ephydriidae, Psilidae and Drosophilidae.

Two alysiine genera discussed below, *Asyntactus* Marshall, 1898 from the tribe Alysiini, and *Lodbrokia* Hedqvist, 1962 from the tribe Dacnusiini are very rare in collections and were only recorded in a few countries of the Western and Central Europe till now. *Asyntactus* is easily recognized within its tribe by the presence of striate sculpture on the second-fourth metasomal tergites, whereas *Lodbrokia* is the only micropterous genus in Dacnusiini. Both genera are newly recorded in the fauna of Russia as well as in the fauna of the Asian continent, and were collected in the second half of spring (end of April–May) on a lake shore, mainly on littoral vegetation (excepting *Lodbrokia* founded on the dry soil far from the shore).

For the terminology of the morphological features and sculpture, measurements and wing venation nomenclature see Belokobyskij & Maeto (2009). The holotype of the new species is kept in the Zoological Institute of the Russian Academy of Sciences (St. Petersburg, Russia) (ZIN), and the other (non-type) material in the same place and in the collection of T. Kostromina.

TAXONOMIC PART

Order **HYMENOPTERA**

Family **BRACONIDAE**

Subfamily **ALYSIINAE**

Tribe **DACNUSINI**

Lodbrokia Hedqvist, 1962

(Hedqvist, 1962: 99; Shenefelt, 1974: 1106; Sterzyński, 1984: 813; Tobias, 1986: 163; Perepechaenko, 2000: 61; Yu et al., 2005).

Type species: *Lodbrokia hirta* Hedqvist, 1962, by original designation (also monotypy).

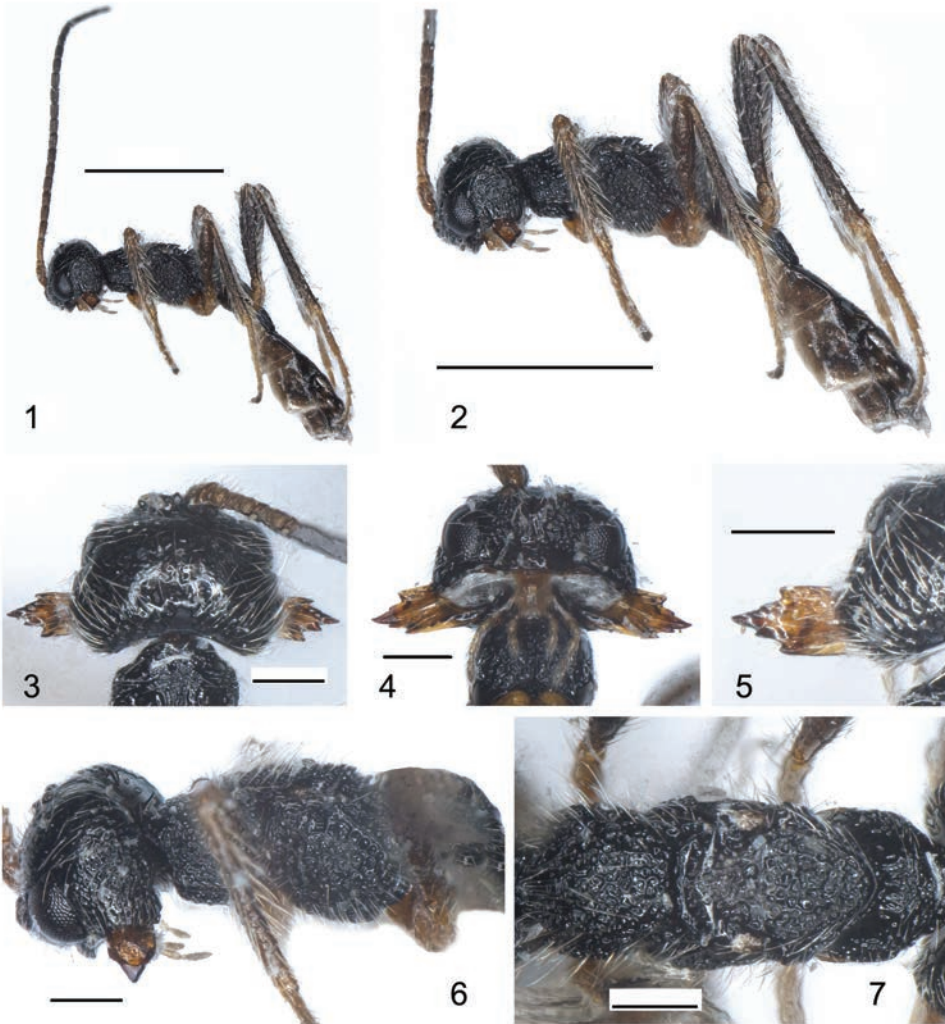
Lodbrokia is a small and very rare genus of the tribe Dacnusiini, containing only two European species, *L. hirta* from South Sweden and *L. mariae* Sterzyński, 1984 from Central Poland, up to this time. The members of this genus are micropterous or apterous and characterized by the distinct modification of the mesosoma, with reduction of the mesothorax as a result of disappearance of wings. *Lodbrokia* was included in the tribe Dacnusiini only on the basis of the enlarged number (5–7) of mandibular teeth, because all wings are strongly reduced or absent in this genus. The hosts of *Lodbrokia* species remain unknown. This genus with the new species *L. uralica* sp. nov. described below is recorded in the fauna of Russia for the first time, on the border of the European and Asian continents.

Lodbrokia uralica sp. nov.

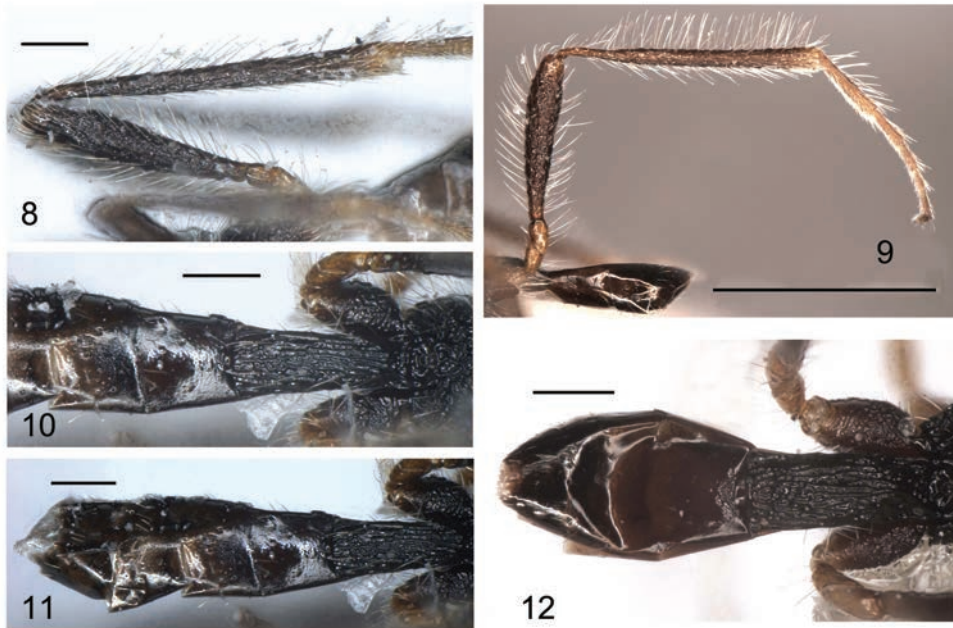
(Figs 1–8, 10, 11)

Holotype. Male; **Russia**, Middle Urals, vicinity of Yekaterinburg, on soil, 25 Apr. 2010, coll. T. Kostromina; ZIN.

Description. *Male*. Body length 2.8 mm. Head width 1.6 times its median length, 1.35 times its maximum length, 1.65 times width of mesoscutum. Head behind eyes distinctly convex anteriorly and roundly narrowed posteriorly. Head at level of temple 1.1 times as wide as its width at level of eyes. Temple 1.45 times longer than transverse diameter of eye. Ocelli medium-sized, in triangle with base weakly smaller than its sides. POL 1.1 times OD, about 0.2 times OOL. Frons weakly concave in medioanterior half (before antennal sockets). Eyes glabrous, 1.3 times as high as long. Malar space very short. Face strongly convex, with distinct and rather wide vertical median obtuse keel; width of face 1.8 times its median height, 1.3 times maximum diameter of eye. Clypeus convex, wide and not high, distinctly separated from face; upper part of clypeus with distinct transverse carina, ventral margin of clypeus weakly convex. Tentorial pits rather large and round.



Figs 1–7. *Lodbrokia uralica* sp. nov., holotype. **1**, habitus, lateral view; **2**, body, lateral view; **3**, head, dorsal view; **4**, head, ventro-frontal view; **5**, mandible; **6**, head and mesosoma, lateral view; **7**, mesosoma, dorsal view. Scale bars: 1 mm (1, 2), 0.2 mm (3–7).



Figs 8–12. *Lodbrokia uralica* sp. nov., holotype (8, 10, 11) and *L. mariae* (9, 12). 8, hind femur and tibia; 9, hind leg; 10, three basal tergites of mesosoma, dorsal view; 11, 12, mesosoma, dorsal view. Scale bars: 0.2 mm (8, 10–12), 1 mm (9).

Mandible parallel-sided, its median length 1.5 times maximum width; formula of its teeth 1+a2b+3. Upper tooth rather small, not outstanding, rectangular, pointed apically. Median tooth long, rather narrow, almost straight, pointed apically and weakly curved up, submedially with small and rounded additional dorsal tooth and more distinct and subpointed additional ventral tooth. Excision between upper and median teeth rather deep and rectangular. Lower tooth rather long, not wide, narrowed toward apex and rounded apically.

Antenna filiform, rather thick, 27-segmented, weakly longer than body. First flagellar segment 3.0 times longer than its apical width, 1.2 times longer than broad second segment; second segment 2.5 times longer than its maximum width. Penultimate segment about 2.0 times longer than wide, 0.6 times as long as first flagellar segment, 0.95 times as long as apical segment; latter segment obtuse apically.

Mesosoma 2.3 times longer than high. Side of pronotum with deep, very wide and densely crenulate oblique groove. Mesoscutum very weakly elevated above dorsal part of pronotum. Notauli absent. Prescutellar depression distinct, relatively long, with two coarse carinae, very finely sculptured, 0.3 times as long as scutellum. Scutellum small, but distinctly delineated, weakly convex, without transverse posterior depression. Metanotum with short median tooth. Sternaulus (precoxal sulcus) very shallow, wide and oblique, disappearing among reticulate-areolate sculpture. Furrow before mesopleural suture densely and distinctly crenulate. Propodeum convex; propodeal spiracle relatively large and round.

Wings. Fore wing very short and scale-like, not reaching metanotum; small tegulae present. Hind wing entirely absent.

Legs long and slender. Hind femur slender, subclavate, 4.7 times longer than wide. Hind tarsus 0.8 times as long as hind tibia.

Table. Differences between *L. uralica* sp. nov. and *L. mariae* (characters are for males unless stated otherwise).

<i>Lodbrokia uralica</i> sp. nov.	<i>Lodbrokia mariae</i>
1. Antennal segments slender, length of first flagellar segment 3.0 times its apical width; length of second flagellar segment 2.5 times and median one about 2.0 times their maximum width.	1. Antennal segments thick, length of first flagellar segment 2.6 (2.8 in female) times its apical width; length of second flagellar segment 2.0 times and median one about 1.5 times their maximum width.
2. Mesosoma more slender, 2.3 times longer than high.	2. Mesosoma less slender, 2.05 (2.3 in female) times longer than high.
3. First metasomal tergite long and slender (dorsal view), less strongly convex in basal half (lateral view); its length 3.1 times apical width.	3. First metasomal tergite short and broad (dorsal view), rather strongly convex in basal half (lateral view); its length 2.4 (2.8 in female) times apical width.
4. Median length of the second metasomal tergite 1.3 times its basal width.	4. Median length of the second metasomal tergite equal to (1.1 times larger in female) its basal width.
5. Hind legs with semi-erect setae, length of setae on dorsal surface of hind tibia 1.2–1.4 times maximum width of tibia.	5. Hind legs with erect setae, length of setae on dorsal surface of hind tibia 1.5–1.7 (1.4–1.9 in female) times maximum width of tibia.

Hind basitarsus 0.6 times as long as second-fifth segments combined. Second segment about 0.5 times as long as basitarsus, 1.3 times longer than fifth segment (without pretarsus). Claws rather short and weakly curved.

Metasoma almost as long as head and mesosoma combined. First tergite long and narrow, almost parallel-sided, but very weakly narrowed apically, with separated and short dorsal carinae in basal 0.2, with rather distinct spiracular tubercles in basal 0.4, and with deep dorsope. Apical width of first tergite equal to its minimum width, 0.9 times its maximum width subapically; length of first tergite 3.1 times its apical width, 1.3 times length of propodeum. Second suture present, but very shallow and curved. Median length of second tergite 1.3 times its basal width, 1.2 times length of third tergite.

Sculpture and pubescence. Vertex smooth in anterior half, widely rugose-reticulate laterally in posterior half; frons smooth, but entirely finely rugulose with striae in concave part; face distinctly rugose-reticulate, almost smooth on narrow median vertical area, clypeus finely rugulose-punctate; temple almost entirely and coarsely ru-

gose-reticulate. Mesosoma entirely coarsely rugose-areolate. Hind coxa coarsely rugose; hind femur almost entirely rugulose with undulate striation, partly with granulation; hind tibia densely granulate, partly with rugulosity. First tergite distinctly striate in basal half and striate-reticulate in apical half. Second tergite mediobasally shortly rugulose. Remaining tergites smooth. Head almost entirely with long, dense, white and semi-erect setae; mesosoma almost entirely with long, rather dense and white erect setae. First and second metasomal tergites entirely with sparse, semi-erect and rather short white setae, remaining tergites each with a single subapical row of dense, short and white setae. Legs with dense, long and semi-erect white setae; length of setae on dorsal surface of hind tibia 1.2–1.4 times maximum width of tibia.

Colour. Body black, metasoma behind first tergite dark brown to brown, paler ventrally. Mandible light reddish brown. Scape of antenna dark reddish brown; basal 0.3 of flagellum light reddish brown to reddish brown, and its remaining part dark brown to black. Palpi brownish yellow. Fore leg light reddish brown; fore tibia dark brown

at wide distance. Middle leg dark reddish brown, but its coxa and trochanter light reddish brown to reddish brown. Hind leg dark reddish brown to black, but its trochanter reddish brown. All tarsi yellowish brown with dark fifth segments.

Female unknown.

Distribution. Russia (Middle Urals).

Diagnosis. The new species is very similar to *L. mariae* from Poland (Sterzyński, 1984) (two paratypes from Museum and Institute of Zoology in Warsaw, Poland, were studied: one female, "Polonia, Lomna ad Warszawa, trawnik p. Barbera, 7–20. IV.1977, leg Ekipa, IZ PAN"; one male, "Polonia, Hamernia ad Warszawa, łąka łąkowa, 4.IV.1977, leg. E. Nowakowski"). Their differences are showed in Table (see p. 89).

Key to species of *Lodbrokia*

1. Mandible with seven teeth. Most of head smooth. Tarsi of all legs with short dorsal setae. Body length 3.0 mm. – Sweden *L. hirta*
- Mandible with five teeth. Most or large part of head rugose-reticulate with striation. Tarsi of all legs with long dorsal setae (Figs 8, 9) 2
2. Hind legs with erect setae; length of setae on dorsal surface of hind tibia 1.4–1.9 times maximum width of tibia (Fig. 9). First metasomal tergite short and broad, its length 2.4–2.8 times apical width (Fig. 12). Median length of second metasomal tergite equal to or 1.1 times larger than its basal width (Fig. 12). Length of second flagellar segment of antenna 2.0 times and median segments of antenna about 1.5 times their maximum width. Body length 2.3–2.6 mm. – Poland *L. mariae*
- Hind legs with semi-erect setae, length of setae on dorsal surface of hind tibia 1.2–1.4 times maximum width of tibia (Fig. 8). First metasomal tergite long and slender, its length 3.1 times its apical width (Figs 10, 11). Median length of second metasomal tergite 1.3 times its basal width (Figs 10, 11). Length of second flagellar segment of antenna 2.5 times and median segments of antenna about 2.0 times their maximum width. Body length 2.8 mm. – Russia (Urals) *L. uralica* sp. nov.

Tribe ALYSIINI

Asyntactus Marshall, 1898

(Marshall, 1898: 240; Fischer, 1971: 72; Shenefelt, 1974: 982; Tobias, 1986: 157; Belokobylskij, 2005: 432; Yu et al., 2005).

Type species: *Asyntactus rhogaleus* Marshall, 1898 by subsequent designation (Viereck, 1914).

Asyntactus Marshall, 1898 is a rare alysin genus having most basal tergites widely rugulose-striate and a dorsoventrally depressed metasoma (Marshall, 1898; Fischer, 1971; Belokobylskij, 2005). Both species of this genus, *A. rhogaleus* (male) and *A. sigalphoides* Marshall, 1898 (male), were described from Germany (Thuringia) and their distributions were restricted till now only to Central Europe. The genus *Asyntactus*, and its type species *A. rhogaleus*, are recorded in the faunas of Russia and the Asian continent for the first time.

Asyntactus rhogaleus Marshall, 1898 (Figs 13–28)

Asyntactus rhogaleus Marshall, 1898: 240.

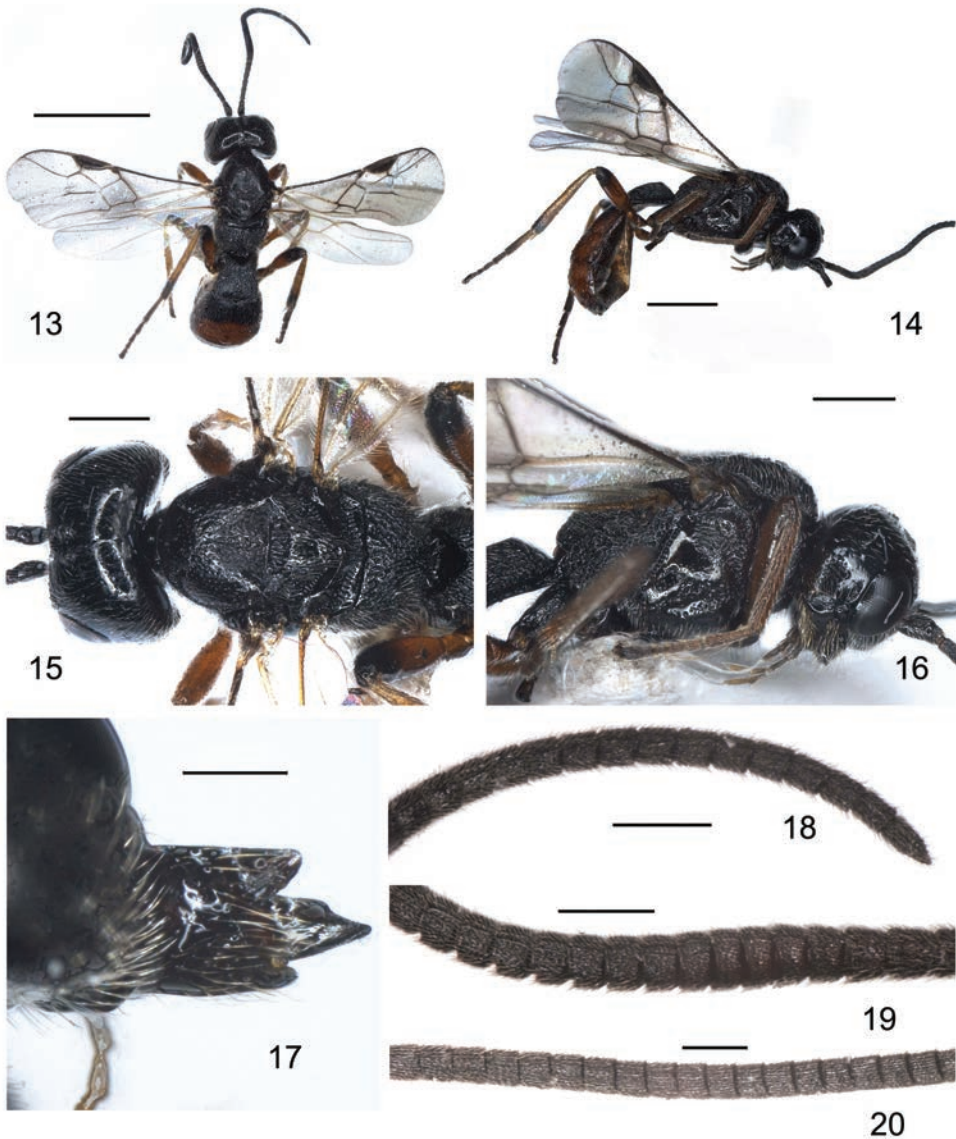
Asyntactus rhogaleus – Fischer, 1971: 72; Shenefelt, 1974: 982; Tobias, 1986: 157; Koponen, 2000: 241; Achterberg and Rezbanyai-Reser, 2001: 112; Belokobylskij, 2005: 432; Yu et al., 2005.

Asyntactus sigalphoides Marshall, 1898: 241
(*syn. nov.*)

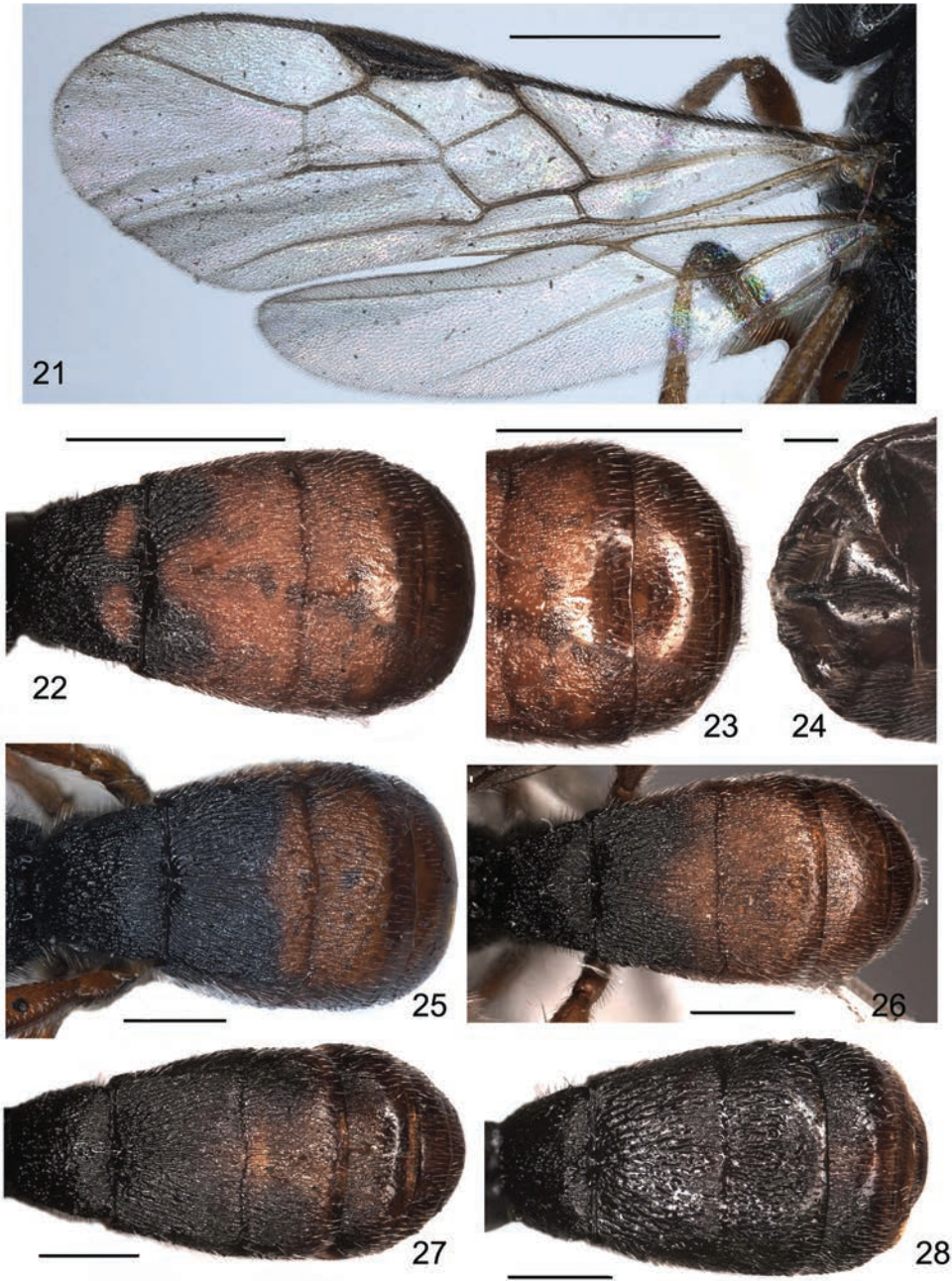
Asyntactus sigalphoides – Fischer, 1971: 74; Shenefelt, 1974: 982; Tobias, 1986: 157; Belokobylskij, 2005: 433; Yu et al., 2005.

Material examined. Four males; **Russia**, Middle Urals, Yekaterinburg City, outskirts of Verkh-Isetsk pond, Baran I., sweeping on shore vegetation, mainly on sedge, 11 May 2008, coll. T. Kostromina; 36 females, 115 males, same locality, sweeping on tussock of sedge, 11–19 May 2009, coll. T. Kostromina.

Description. Female. Body length 3.7–5.1 mm; fore wing length 3.2–3.8 mm. Head behind eyes (dorsal view) regularly and more or less distinctly widened, roundly narrowed in posterior third, 1.8–2.2 times as wide as median length, 1.6–1.7 times as wide as maximum length, 1.4–1.45 times as wide as mesoscutum. Vertex with distinct



Figs 13–20. *Asyntactus rhogaleus*: **13**, habitus, dorsal view; **14**, habitus, lateral view; **15**, head and mesosoma, dorsal view; **16**, head and mesosoma, lateral view; **17**, mandible; **18**, apical segments of antenna, female; **19**, **20**, median segments of antenna (**19**, female; **20**, male). Scale bars: 2 mm (13), 1 mm (14), 0.5 mm (15, 16), 0.2 mm (17–20).



Figs 21–28. *Asyntactus rhogaleus*: 21, wings; 22, 25–28, metasoma, dorsal view (22, 25, female; 26–28, male); 23, apical tergites of mesosoma, female, dorsal view; 24, apical part of mesosoma and ovipositor, ventral view. Scale bars: 1 mm (21–23), 0.2 mm (24), 0.5 mm (25–28).

and narrow median longitudinal furrow. Temple 1.0–1.1 times as long as transverse diameter of eye (1.2–1.3 times if measured in a straight line). Ocelli arranged in triangle with base 1.1–1.2 times longer than its sides. POL 1.0–1.2 times OD, 0.3–0.4 times OOL. Eyes glabrous, 1.3–1.4 times as high as broad. Face width 1.2–1.3 times height of eye, 2.0–2.2 times median height of face. Width of clypeus 2.2–2.7 times its median width, 0.7–0.8 times width of face. Mandible almost parallel-sided, its median length 1.5–2.0 times distal width. Teeth of mandible as in Fig. 17.

Antennae rather thick, weakly fusiform, submedially with short and wide segments, 40–44-segmented, about 0.7 times as long as body. Scape 1.4–1.6 times longer than its maximum width. First flagellar segment 2.3–2.6 times longer than its apical width, 1.6–1.8 times longer than second segment. Submedian transverse segments 0.7–0.8 times as long as their maximum width. Penultimate segment 1.3–1.4 times longer than its width, 0.3–0.4 times as long as first flagellar segment, 0.7 times as long as apical segment. Last segment more or less pointed apically.

Mesosoma 1.4–1.5 times longer than height. Pronotum with distinct small pronope. Mesonotum with distinct median longitudinal depression in posterior half, 0.8–0.9 times as long as maximum width. Notauli deep and crenulate in anterior third, very shallow submedially, almost absent in posterior third. Prescutellar depression deep, coarsely crenulate, 0.3–0.5 times as long as weakly convex scutellum. Metanotum with distinct median longitudinal carina (dorsal view) transformed apically to a short, wide and pointed tooth (lateral view). Sternaulus (precoxal sulcus) wide or very wide, rather deep, coarsely rugose-striate. Subalar depression rather shallow, not wide, coarsely rugose-striate. Metapleural flange wide. Propodeal spiracles very small and round.

Wings. Fore wing 2.7–2.8 times longer than wide. Pterostigma short and wide, 3.0–3.4 times longer than its maximum

width. Radial cell rather distinctly shortened. Metacarp 1.1–1.2 times longer than pterostigma, 2.6–3.3 times longer than distance from apex of radial cell to apex of wing. Radial vein arising behind middle of pterostigma. Inner anterior margin of pterostigma 1.4–1.5 times longer than its inner posterior margin. Second radial abscissa 3.0–3.6 times longer than first abscissa, 0.3–0.4 times as long as third abscissa, 0.65–0.70 times as long as first radiomedial vein. Second radiomedial cell 1.9–2.2 times longer than wide, 1.3–1.5 times longer than brachial cell. Recurrent vein distinctly postfurcal. Submedial cell weakly roundly widened toward subapex, then weakly narrowed. Distance between basal vein and nervulus 0.6–0.9 times nervulus length. Brachial cell widely open. Parallel vein arising almost from middle of apical margin of brachial cell. Hind wing 3.9–4.2 times longer than its maximum width. First costal abscissa 0.6–0.7 times as long as second abscissa. First abscissa of mediocubital vein 3.0–3.7 times longer than second abscissa.

Legs. Hind femur 3.7–4.1 times longer than its maximum width. Hind tarsus 0.9 times as long as hind tibia. Hind basitarsus 0.6 times as long as second-fifth segments combined. Second segment of hind tarsus 0.5 times as long as hind basitarsus, 1.1–1.3 times longer than hind fifth segment (without pretarsus).

Metasoma more or less distinctly widened from base up to fourth tergite; distal segments shortly protruding behind fourth tergite, 1.8–2.3 times longer than its maximum width, 0.9–1.1 times as long as head and mesosoma combined. First tergite weakly-roundly widened from base to apex, without dorsope, with distinct dorsal carinae fused in basal 0.2. Length of first tergite 0.9–1.0 times its apical width; apical width 1.8–2.1 times its basal width. Median length of second tergite 0.75–0.80 times its basal width, 0.5–0.6 times its apical width, 1.2–1.4 times length of third tergite. Second suture rather deep and crenulate. Fourth tergite 0.6–0.7 times as long as third tergite.

Second-fifth tergites with separated latero-tergites. Ovipositor sheath very short, not protruding behind tip of metasoma, about as long as third segment of hind tarsus.

Sculpture and pubescence. Vertex and most of frons smooth or sometimes finely and sparsely punctate; frons rugulose in narrow median longitudinal stripe and sometimes rugulose-striate anteriorly. Face and clypeus densely and coarsely rugose-striate, widely with granulation. Mesoscutum finely rugulose-punctate, partly with very fine granulation, with striation medio-anteriorly. Scutellum sparsely punctate, rugulose posteriorly. Mesopleuron medially smooth with fine granulation and partly with rugulosity, anteriorly narrowly rugulose-punctate. Propodeum entirely coarsely and densely rugose-areolate. First and second tergites entirely and third in basal 0.6–0.8 densely and partly undulately striate with dense rugulosity and granulation between striae; third tergite apically smooth or very finely granulate; fourth tergite finely rugulose-granulate in basal 0.2–0.5 (rarely 0.7) and usually smooth or sometimes with punctation apically. Remaining tergites smooth. Vertex entirely and mesosoma widely covered by dense and short white setae.

Colour. Head and mesosoma entirely black; mandible black or dark brown. Metasoma light reddish brown; first tergite entirely (but sometimes excepting two distinct apico-lateral light reddish brown spots) and second tergite in basal 0.2–0.8 (sometimes only in short or long basolateral corners) black or at least distinctly infuscate; rarely second tergite almost entirely light reddish brown. Antenna entirely black. Palpi dark reddish brown to almost black. Tegula black or sometimes dark reddish brown. Fore leg light reddish brown, coxa reddish brown to black; middle leg light reddish brown, but coxa and apex of femur reddish brown to almost black; hind leg light reddish brown, whole coxa, apices of femur and tibia black or brown, and hind tarsus reddish brown. Fore wing faintly infuscate; veins dark brown to black, but

mediocubital and longitudinal anal veins mainly brownish yellow. Pterostigma dark brown to black, but pale basally.

Male. Body length 4.0–5.0 mm; fore wing length 3.4–4.0 mm. Head (dorsal view) more distinctly widened behind eyes, at level of temple weakly wider than at level of eyes. Vertex with fine or very fine longitudinal furrow. Temple 1.1–1.2 times longer than transverse diameter of eye (1.4–1.5 times if measured in a straight line). Face width 2.3–2.5 times its median height. Antennae weakly thickened, weakly setiform with subsquare submedian segments, 49–55-segmented, 1.0–1.1 times as long as body. Submedian antennal segments about as long as their maximum width. Fore wing 2.6–2.7 times longer than its width. Pterostigma 3.2–3.6 times longer than its maximum width; its inner anterior margin 1.3–1.4 times longer than its inner posterior margin. Second radial abscissa 0.7–0.8 times as long as first radiomedial vein. Sometimes recurrent vein almost interstitial or only weakly postfurcal. Hind femur 3.8–4.2 times longer than its maximum width. Hind tarsus 0.9–1.0 times as long as hind tibia. Metasoma and first tergite sometimes less wide than in female. Median length of second tergite 0.8–0.9 times its basal width. Fourth tergite 0.7–0.8 times as long as third tergite, distinctly and more coarsely rugulose-granulate in basal 0.7–0.8 (rarely 0.5). Sometimes second metasomal tergite almost entirely and third tergite in wide basolateral subtriangular spots almost black, or rarely second and third tergites entirely and fourth tergite mainly dark reddish brown to almost black. Rarely middle and hind femora and hind tibia widely infuscate. Otherwise similar to female.

Distribution. Germany, Austria, Switzerland, Finland, Poland, Russia (Urals Mts).

Remark. The large material of both sexes of *A. rhogaleus* Marshall (39 females and 119 males) was collected in the same locality in the vicinity of Yekaterinburg City on the shore of a pond on littoral vegetation during a short period in the middle of May.

Study of this material revealed distinct variation of several morphological structures as well as sculpture and colouration. According to Fischer's (1971) key to the known species of *Asyntactus*, *A. rhogaleus* Marshall and *A. sigalphoides* Marshall differ from each other in the range of sculpture on the apical segments of the metasoma and in the colouration of the metasoma. Our study of the above-listed large material distinctly showed the variability of these supposedly species characters within a single sex as well as between female and male (see redescription). The specimens, and especially males, collected in the same place in a short period have different levels of sculpture expansion on the apical metasomal tergites (mainly on fourth one) and variation of metasomal colouration from mainly light reddish brown to mainly dark reddish brown or almost black (Figs 22, 25–28). The data obtained allow us to propose the synonymy of *Asyntactus rhogaleus* Marshall, 1898 and *A. sigalphoides* Marshall, 1898, **syn. nov.**

ACKNOWLEDGEMENTS

The authors are sincerely grateful to M. Shaw (Edinburgh, U.K.) and C. van Achterberg (Leiden, The Netherlands) for the critical review of manuscript. The present work was supported in parts for the first author by the Russian Foundation for Basic Research (grant No. 10–04–00265) and by the Presidium RAS Program “Origin of Biosphere and Evolution of Geo-biological System”.

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Received March 29, 2011 / Accepted June 9, 2011