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The species of the genus *Orgilus* HALIDAY from the Russian Far East

(Hymenoptera: Braconidae)

Contributions to the knowledge of East Palaearctic insects (3)

With 46 figures

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Zusammenfassung

Fünf neue Arten der Gattung *Orgilus* HALIDAY werden aus dem Primorskij Kraj und von Sachalin beschrieben: *O. bohayicus* sp. n., *O. spasskensis* sp. n., *O. eous* sp. n., *O. leleji* sp. n. und *O. sudzuchae* sp. n. Außerdem werden folgende Arten aus den Fernen Osten Rußlands gemeldet: *O. pappianus* TAEGER (Primorskij Kraj), *O. ischnus* MARSHALL (Primorskij Kraj, Kurilen), *O. longiceps* MUESEBECK (Primorskij Kraj, Kurilen), *O. kumatai* WATANABE (Primorskij Kraj), *O. punctulator* (NEES) (Khabarovskij und Primorskij Kraj), *O. pimpinellae* NIEZABITOWSKI (Buryatien, Khabarovskij und Primorskij Kraj, Kamtschatka), *O. leptcephalus* (HARTIG) (Primorskij Kraj, Amur-Gebiet, Kamtschatka) und *O. coreanus* TAEGER (Tschita-Region, Kurilen). *O. parapappianus* CHOU, 1995, ist jüngeres Synonym von *O. pappianus* TAEGER, 1987. Ein Bestimmungsschlüssel für die paläarktischen Arten Ostasiens wird vorgelegt.

Резюме

Пять новых видов рода *Orgilus* HALIDAY описываются из Приморского края и с о. Сахалин: *O. bohayicus* sp. n., *O. spasskensis* sp. n., *O. eous* sp. n., *O. leleji* sp. n. и *O. sudzuchae* sp. n. В фауне Дальнего Востока России отмечаются *O. pappianus* TAEGER (Приморский край), *O. ischnus* MARSHALL (Приморский край, Курильские острова), *O. longiceps* MUESEBECK (Приморский край, Курильские острова), *O. kumatai* WATANABE (Приморский край), *O. punctulator* (NEES) (Хабаровский и Приморский края), *O. pimpinellae* (NIEZABITOWSKI) (Бурятия, Хабаровский и Приморский края, Камчатка), *O. leptcephalus* (HARTIG) (Амурская область, Приморский край, Камчатка) и *O. coreanus* TAEGER (Читинская область, Курильские острова). *O. parapappianus* CHOU, 1995 является новым синонимом *O. pappianus* TAEGER, 1987. Дается определительная таблица Восточноазиатских палеарктических видов рода *Orgilus*.

Summary

Five new species of the genus *Orgilus* HALIDAY from Primorskij Kray and Sakhalin are described and illustrated: *O. bohayicus* sp. n., *O. spasskensis* sp. n., *O. eous* sp. n., *O. leleji* sp. n. and *O. sudzuchae* sp. n. Further records for the fauna of the Russian Far East are given: *O. pappianus* TAEGER (Primorskij Kray), *O. ischnus* MARSHALL (Primorskij Kray, Kuril Islands), *O. longiceps* MUESEBECK (Primorskij Kray, Kuril Islands), *O. kumatai* WATANABE (Primorskij Kray), *O. punctulator* (NEES) (Khabarovskiy and

Primorskiy Kray), *O. pimpinellae* NIEZABITOWSKI (Buryatia, Khabarovskiy and Primorskiy Kray, Kamchatka), *O. leptcephalus* (HARTIG) (Primorskiy Kray, Amur Province, Kamchatka), and *O. coreanus* TAEGER (Chita Province, Kuril Islands). *O. parapappianus* CHOU, 1995, is a junior synonym of *O. pappianus* TAEGER, 1987. A key to East Asian Palaearctic species of *Orgilus* is given.

**Key words:** *Orgilus*, Hymenoptera, Braconidae, new species, Russian Far East, key, East Palaearctic.

## Introduction

The genus *Orgilus* HALIDAY comprises about 245 described species from different zoogeographical regions (TAEGER, 1989, 1991; CHOU, 1995). Eighty species are known from the Palaearctic Region. Most of these species are recorded from the West Palaearctic, and 31 species are indicated for the East Palaearctic (mainly from Mongolia). Only a few species are described from Japan (3) and Korea (3) (MUESEBECK, 1933; WATANABE, 1968; TAEGER, 1987, 1989). Five species have been previously recorded from Russian Far East (TOBIAS, 1986; BELOKBYLSKIY, 1990). Five new species of the genus *Orgilus* are described in this paper from Primorskiy Kray and Sakhalin.

The following abbreviations are used for morphological terms: POL - postocellar line, OOL - ocular-ocellar line, OD - maximal diameter of lateral ocelli; for institutions: DEI - Deutsches Entomologisches Institut (Eberswalde, Germany), IZANU - Institute of Zoology, Ukrainian Academy of Sciences (Kiev, Ukraine), ZIP - Zoological Institute, Russian Academy of Sciences (St. Petersburg, Russia).

### *Orgilus bohayicus* BELOKBYLSKIY & TAEGER, sp. n.

(Figs 1-9)

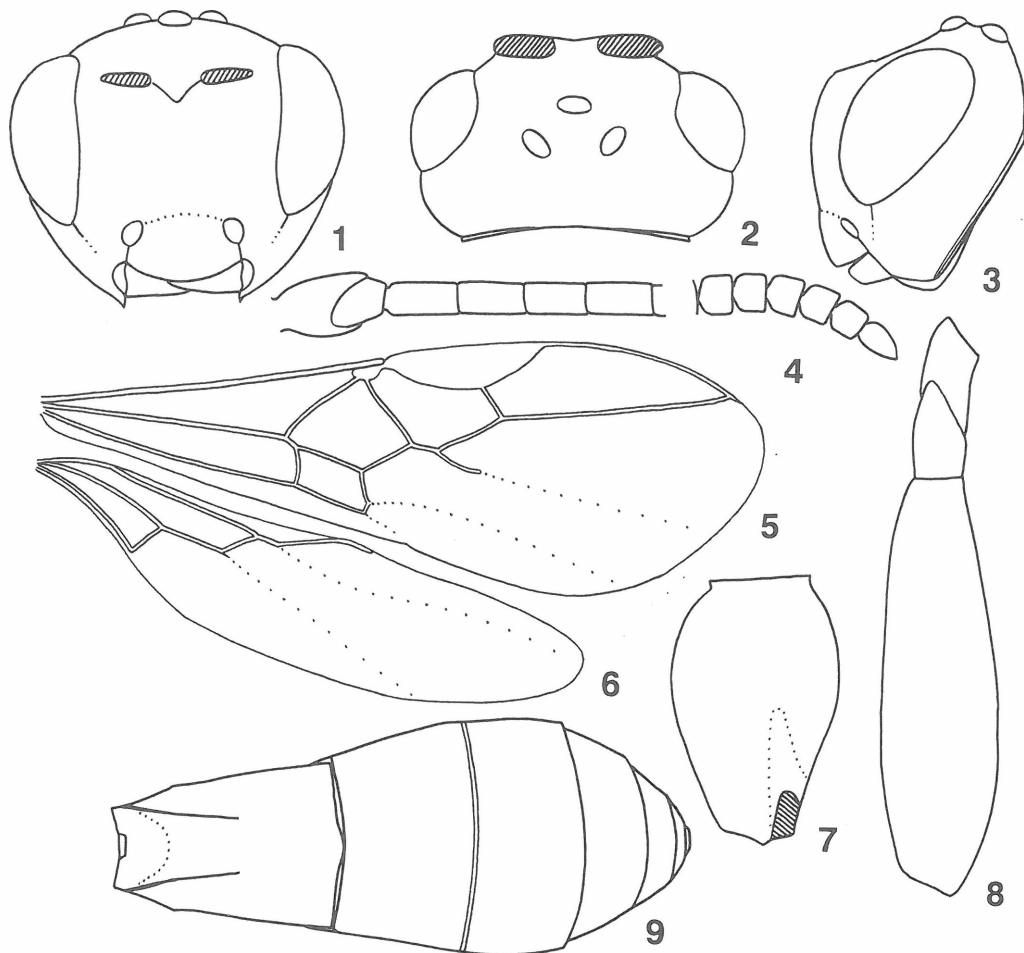
**Holotype:** 1♀, Primorskiy Kray, Ussuriysk District, 20 km SW Putzilovka, Monakino, forest, glades, 24-28.06.1993 (S. Belokobylskiy) (ZIP).

**Paratypes.** Primorskiy Kray: 2♀, 3♂, same label as holotype (ZIP, DEI); 1♂, Barabash-Levada, at light, 23.06.1978 (S. Belokobylskiy) (ZIP); 1♀, 3♂, Spassk-Dal'niy, mixed forest, 25.06.1981 (S. Belokobylskiy) (ZIP, DEI).

### Description

**Female.** Body length 3.5-3.8 mm; fore wing length 2.7-3.1 mm. Head width 1.9-2.0 times its length, 1.1-1.2 times width of mesoscutum. Temple distinctly roundly narrowed behind eye. Length of eye (in dorsal view) 1.45-1.55 times length of temple. Vertex distinctly convex. Occiput very weakly concave. Occipital carina in lateral view reaching up to the top of the compound eye. Frons without carina and furrow. Ocelli medium-sized, in triangle with base 1.2 times its sides; OD:POL:OOL=1:1.5:1.8. Eye densely and shortly setose, 1.6-1.7 times as high as broad. Cheek height about 0.35 times height of eye, 1.2-1.3 times basal width of mandible. Subocular suture very fine. Face weakly convex, with small medial tubercle, width of face 1.5-1.6 times its medial height, almost equal to height of eye. Tentorial pits distinct, situated at lower level of eyes, distance between pits 1.4-1.7 times distance from pit to eye. Clypeal suture almost absent dorsally. Clypeus width 1.5-1.6 times its medial height, ventral margin of clypeus almost straight. Cheek strongly and roundly narrowed below eyes. Maxillary palpi nearly 0.9

times as long as head height. Apical segment of labial palpi about 3-4 times as long as wide. Antenna 31-segmented, 0.8-0.9 times body length. Length of scapus 1.6-1.7 times its width, 1.3-1.5 times first flagellar segment. First flagellar segment twice as long as its apical width, nearly as long as second segment. Length of penultimate segment 1.1-1.25 times its width, 0.6-0.75 times apical segment.



**Figs 1-9** *Orgilus bohayicus* sp. n.: 1 head, frontal view; 2 head, dorsal view; 3 head, lateral view; 4 basal and apical segments of antenna; 5 fore wing; 6 hind wing; 7 hind coxa; 8 hind trochanter and femur; 9 metasoma, dorsal view.

**Mesosoma.** Length 1.6-1.7 times its maximum height, height 1.3-1.4 times its width. Notauli deep, complete, crenulate. Prescutellar depression short, crenulate, 0.2-0.25 times length of scutellum. Sternauli long, curved, crenulate. Prepectal carina complete. Propodeum in lateral view convexly and roundly narrowed from base to apex.

**Wings.** Length of fore wing 2.8-3.0 times its width. Length of pterostigma 3.3-3.5 times its maximum width, 0.7-0.8 times metacarpus (within radial cell). Metacarpus (within radial cell)

3.8-4.3 times the distance from apex of radial cell to apex of wing. Radial vein arising behind middle of pterostigma. First radial abscissa 0.75 times maximum width of pterostigma, about 0.15 times straight second abscissa, 0.55 times first radiomedial vein. Recurrent vein 1.8-2.5 times second abscissa of medial vein. Third medial abscissa long, 1.2-2.3 times second abscissa. Discoidal cell narrowly sessile, its length 1.2-1.3 times its width. Distance from nervulus to basal vein 0.3 times nervulus length. Length of hind wing 3.8-4.1 times its width. Second abscissa of mediocubital vein 0.5 times first abscissa, 1.4-1.6 times nervellus, almost twice basal vein.

Legs. Hind femur 3.5-3.8 times as long as wide, 1.5-1.6 times hind coxa, 0.8 times hind tibia. Inner spur of hind tibia nearly 0.55 times basitarsus. Hind tarsus as long as hind tibia, its second segment about 0.35 times first segment, 1.4-1.5 times fifth segment (without pretarsus). Claws simple.

Metasoma 1.1-1.3 times longer than mesosoma. Laterotergites distinct on second and basal half of third tergite. First tergite distinctly widened from base to apex, with small spiracular tubercles in basal third and distinct dorsal carinae in basal half. Apical width of first tergite 2.0-2.4 times its minimum width; its length about 1.25-1.35 times its apical width. Length of second tergite 0.75 times basal width of second tergite, 1.2-1.3 times third tergite. Second suture distinct, straight and crenulate. Ovipositor sheath 1.3-1.5 times hind femur, 0.45-0.5 times fore wing, 0.7-0.85 times length of metasoma.

Sculpture. Head almost smooth, face punctulate, cheeks partly and areas between antennal socket and eye densely granulate. Pronotum reticulate-rugose, almost smooth dorso-laterally. Mesoscutum and scutellum finely punctulate. Mesopleura almost smooth. Metapleurae finely punctulate. Propodeum with short medial carina, reticulate-rugulose, almost smooth basally. Hind coxa rugulose dorsally, hind femur densely and finely granulate. First-third metasomal tergites almost completely and fourth tergite in basal half or third reticulate-rugulose. Other tergites smooth.

Colour. Body black, clypeus medio-ventrally light reddish brown. Antenna light reddish brown, two basal segments darker, apical two fifths dark brown or black. Palpi dark reddish brown, tegulae almost black. Legs light reddish brown, hind femur and tibia in apical quarter and hind tarsus almost completely dark reddish brown, hind tibia in basal third yellowish. Sometimes hind coxae basally dark. Wing faintly infusate. Pterostigma dark brown.

Male. Body length 3.4-3.7 mm; fore wing length 3.1 mm. Cheek height about 0.3 times height of eye, 1.1-1.3 times basal width of mandible. Antennae thickened, entirely black, longer than body. First flagellar segment 1.8-1.9 times as long as its apical width. Penultimate segment 1.6 times as long as wide. Pterostigma 0.9 times metacarpus (within radial cell), which is 3.5-4.4 times distance from apex of radial cell to apex of wing. Distance from nervulus to basal vein 0.25-0.35 times nervulus length. Length of first tergite 1.2-1.3 times its apical width. Clypeus and all coxae almost black. Face rugulose in upper third. Otherwise similar to female.

### Discussion

This new species is closely related to *O. sharkeyi* TAEGER from Japan (TAEGER, 1989). However, it clearly differs by its shorter ovipositor and mainly reddish brown legs. Furthermore, the tergites are somewhat longer.

**Etymology.** The specific name is an acronymic adjective inspired by the old Kingdom Bohay on the territories of the Primorskiy Kray, parts of Korea, and south-eastern China.

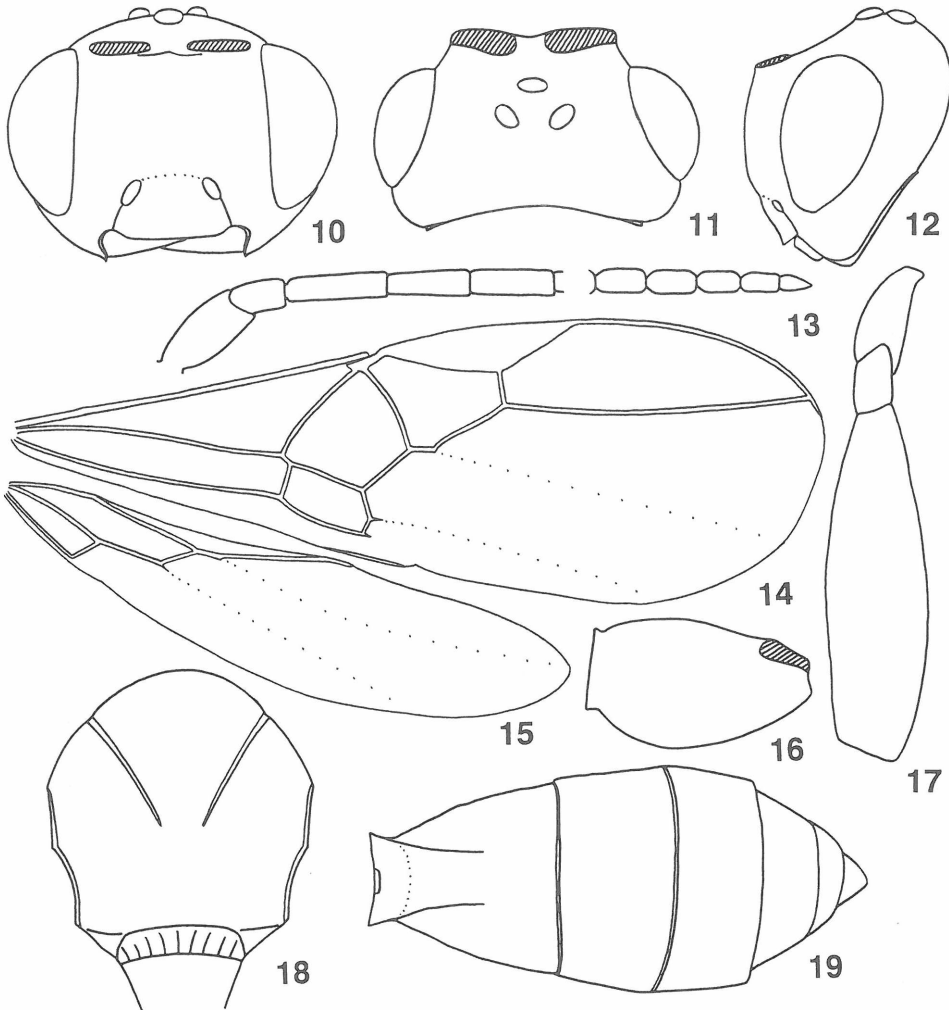


***Orgilus spasskensis* BELOKOBYLSKIJ & TAEGER, sp. n.**

(Figs 10-19)

Holotype: 1♀, Primorskiy Kray, Spassk-Dal'niy, forest, glades, 17.07.1991 (S. Belokobylskij) (ZIP).

Paratype: 2♀, same label as holotype (ZIP, DEI).



**Figs 10-19** *Orgilus spasskensis* sp. n.: 10 head, frontal view; 11 head, dorsal view; 12 head, lateral view; 13 basal and apical segments of antenna; 14 fore wing; 15 hind wing; 16 hind coxa; 17 hind trochanter and femur; 18 mesoscutum, dorsal view; 19 metasoma, dorsal view.

**Description**

Female. Body length 2.4-2.6 mm; fore wing length 2.5 mm. Head width 1.9-2.0 times its length, 1.2-1.3 times width of mesoscutum. Temple strongly roundly narrowed behind eye.

Length of eye (in dorsal view) 2.5-3.0 times length of temple. Vertex distinctly convex. Occipital carina short and present laterally only, in lateral view reaching up to the middle of the compound eye. Occiput weakly concave. Frons without carina and furrow. Ocelli medium-sized, in equilateral triangle; OD:POL:OOL=1:1.0:2.0-2.5. Eye sparsely and shortly setose, 1.3-1.4 times as high as broad. Cheek height 0.2-0.25 times height of eye, 0.75 times basal width of mandible. Subocular suture indistinct. Face weakly convex, its width 1.3-1.5 times its medial height, 1.1 times height of eye.

Tentorial pits distinct, situated slightly above lower level of eyes, distance between pits 1.2-1.3 times distance from pit to eye. Clypeal suture almost lost dorsally. Clypeus width almost twice its medial height, ventral margin of clypeus weakly concave. Cheek strongly and roundly narrowed below eyes. Maxillary palpi 1.1-1.3 times as long as head height. Apical segment of labial palpi 4-5 times as long as wide.

Antenna 25-segmented, 1.2 times length of body. Length of scapus 2.0-2.2 times its width, 1.1 times first flagellar segment. First flagellar segment 3.3-3.5 times as long as its apical width, 1.2 times as long as second segment. Length of penultimate segment 1.8-2.0 times its width, 0.8 times apical segment.

Mesosoma. Length 1.5 times its maximum height, height 1.3-1.5 times its width. Notauli deep, lost posteriorly, crenulate. Prescutellar depression deep, short, crenulate, almost 0.3 times length of scutellum. Sternauli long, shallow, crenulate-coriaceous. Prepectal carina shortly lost medioventrally. Propodeum distinctly and roundly narrowed from base to apex (in lateral view). Wings. Length of fore wing 2.7 times its width. Length of pterostigma 3.6-4.2 times its maximum width, 0.75 times metacarpus (within radial cell). Metacarpus (within radial cell) 7.5 times the distance from apex of radial cell to apex of wing. Radial vein arising behind middle of pterostigma. First radial abscissa 0.75-0.85 times maximum width of pterostigma, 0.15 times weakly curved second abscissa, 0.4-0.45 times first radiomedial vein. Recurrent vein 2.2-3.0 times second abscissa of medial vein. Third medial abscissa lost. Discoidal cell narrowly sessile, its length almost equal to its width. Distance from nervulus to basal vein 0.2-0.5 times nervulus length. Length of hind wing 4.3-4.4 times its width. Second abscissa of mediocubital vein 0.5-0.6 times first abscissa, twice nervellus and basal vein.

Legs. Hind femur 3.5 times as long as wide, 1.5-1.7 times hind coxa, 0.75-0.8 times hind tibia. Inner spur of hind tibia 0.4-0.5 times basitarsus. Hind tarsus slightly longer than hind tibia, its second segment 0.35 times first segment, 1.1-1.2 times fifth segment (without pretarsus). Claws simple. Metasoma equal to or slightly longer than mesosoma.

Laterotergites distinct on second and anterior half of third tergite. First tergite distinctly widened from base to apex, without spiracular tubercles, with rather distinct dorsal carinae in basal half. Apical width of first tergite 2.5-2.7 times its minimum width, equal to its length. Length of second tergite 0.6 times basal width of second tergite, 1.3-1.4 times length of third tergite. Second suture distinct, weakly curved and smooth. Ovipositor sheath 1.7-1.8 times hind femur, 0.4-0.5 times fore wing, 0.9-1.0 times metasoma.

Sculpture. Vertex and temple finely and densely coriaceous-punctulate, face and clypeus densely and finely punctulate, with some very fine microsculpture. Pronotum almost completely densely granulate, fine granulate postero-laterally. Mesoscutum and scutellum finely coriaceous. Meso- and metapleurae coriaceous. Propodeum without carinae, finely coriaceous. Hind coxa densely granulate, hind femur very finely coriaceous. First and second metasomal tergites densely reticulate-rugulose, third tergite very finely coriaceous or almost smooth.

Colour. Body dark brown dorsally, face and ventral side of the body yellowish brown. Antenna

brown, 4-5 basal segments light. Palpi and tegulae yellowish brown. Legs light brown, coxae whitish. Wing almost hyalin. Pterostigma light brown.

Male unknown.

#### Discussion

This new species is closely related to *O. nepalensis* TAEGER from Nepal (only ♂ known, TAEGER, 1989) and differs in having distinct dorsal carinae on the first metasomal tergite and metasomal tergites 4-7 smooth. Furthermore the first metasomal tergite is short and wide (in *nepalensis* about 1.5 times as long as broad apically) and the second tergite is more transverse. The last characters may be similar to *nepalensis* in the hitherto unknown ♂ of the present species. *O. galbinus* CHOU from Taiwan seems to be similar to the present species, too, but it is distinguished easily by its well developed occipital carina and its more slender mesosoma and hind wings.

**Etymology.** The specific name is derived from the type locality Spassk-Dal'niy.

#### *Orgilus eous* BELOKOBYLSKIY & TAEGER, sp. n.

(Figs 20-28)

**Holotype:** 1♀, Primorskiy Kray, Anisimovka, glades, forest, 4.08.1988 (S. Belokobylskij) (ZIP).

**Paratypes.** Primorskiy Kray: 1♀, Anisimovka, forest, glades, 5.08.1988 (S. Belokobylskij) (DEI); 1♀, Lazovskiy Nature Reserve, Benevskoe, floodlands of river Kievka, forest, 18.08.1986 (A. Kotenko) (IZANU); 2♂, "Kedrovaya Pad'" Nature Reserve, at light, 18.07. & 7.08.1988 (E. Budrys) (ZIP); Sakhalin Island: 1♂, Novoalexandrovsk, meadow, 28.07.1978 (S. Belokobylskij) (ZIP).

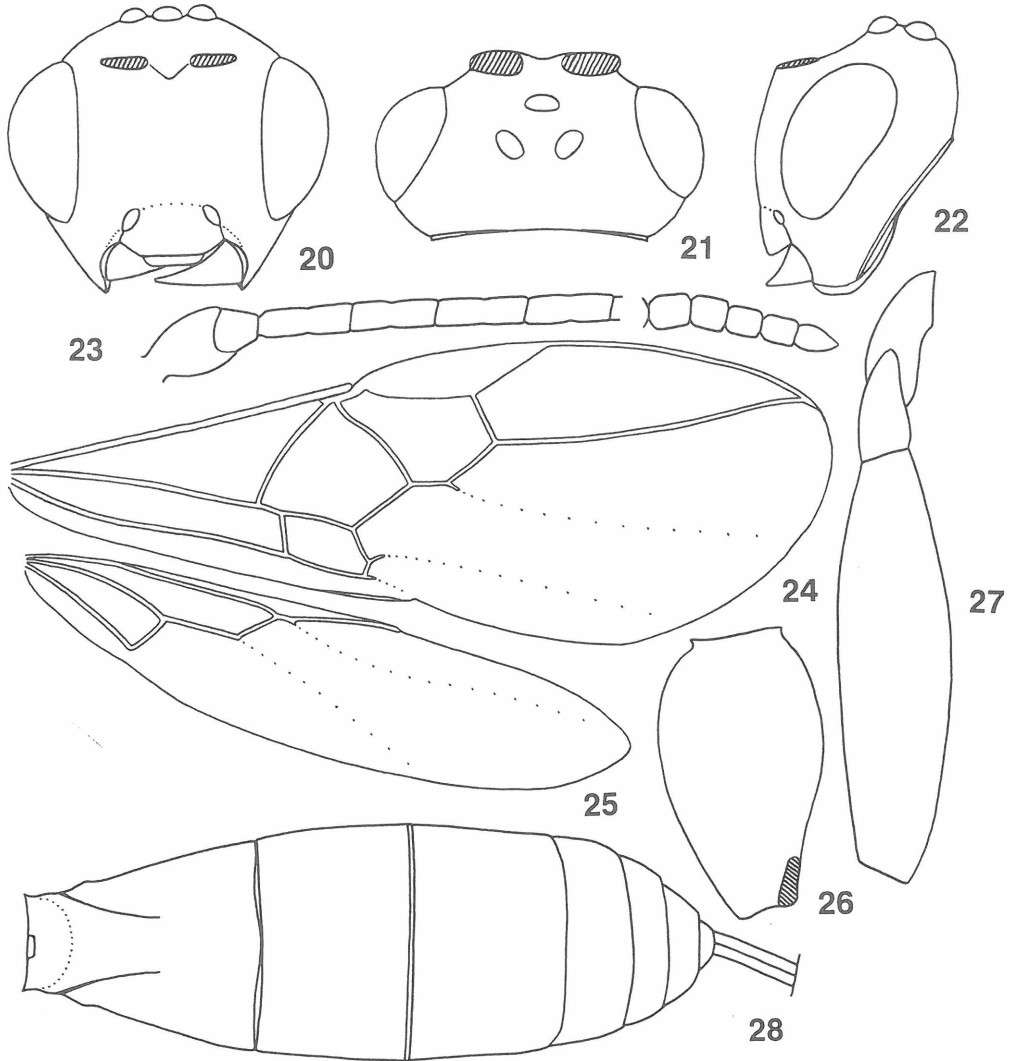
**Additional material:** 1♀, 20 km SE Ussuriysk, forest, glades, 2.08.1991 (S. Belokobylskij) (ZIP).

#### Description

**Female.** Body length 3.5-4.2 mm; fore wing length 3.0-3.7 mm. Head width 2.0-2.1 times its length, 1.1 times width of mesoscutum. Temple strongly roundly narrowed behind eye. Length of eye (in dorsal view) 2.4-2.5 times length of temple. Vertex distinctly convex. Occiput very weakly concave. Occipital carina in lateral view reaching up to the top of the compound eye. Frons without carina and furrow. Ocelli medium-sized, in equilateral triangle; OD:POL:OOL = 1:1.0:2.0-2.2. Eye very sparsely and very shortly setose, 1.4 times as high as broad. Cheek height 0.25-0.3 times height of eye, 0.75 times basal width of mandible. Subocular suture lost. Face weakly convex, its width 1.3 times its medial height, about 1.1 times height of eye. Tentorial pits distinct, situated at lower level of eyes, distance between pits 1.5-1.8 times distance from pit to eye. Clypeal suture very fine dorsally. Clypeus width almost twice its medial height, ventral margin of clypeus straight. Cheek distinctly and almost linearly narrowed below eyes. Maxillary palpi as long as head height. Apical segment of labial palpi 3.5-4.0 times as long as wide.

Antenna 30-segmented, nearly as long as body. Length of scapus 1.6-1.7 times its width, 0.9-1.0 times first flagellar segment. First flagellar segment 2.7-3.0 times as long as its apical width, 1.0-1.1 times as long as second segment. Length of penultimate segment 1.4-1.5 times its width, 0.6-0.8 times apical segment.

Mesosoma. Length 1.6-1.7 times its maximum height, height 1.4-1.5 times its width. Notauli deep, complete, crenulate. Prescutellar depression short, with medial carina, crenulate, 0.3 times length of scutellum. Sternauli long, curved, crenulate. Prepectal carina complete. Propodeum roundly narrowed from base to apex (in lateral view).



Figs 20-28 *Orgilus eous* sp. n.: 20 head, frontal view; 21 head, dorsal view; 22 head, lateral view; 23 basal and apical segments of antenna; 24 fore wing; 25 hind wing; 26 hind coxa; 27 hind trochanter and femur; 28 metasoma, dorsal view.

Wings. Length of fore wing 2.7-3.0 times its width. Length of pterostigma 3.6-4.0 times its maximum width, 0.7 times metacarpus (within radial cell). Metacarpus (within radial cell) 8-9 times the distance from apex of radial cell to apex of wing. Radial vein arising from middle of

pterostigma. First radial abscissa almost as long as maximum width of pterostigma, 0.15-0.2 times straight second abscissa, 0.7-0.8 times first radiomedial vein. Recurrent vein 1.6-1.9 times second abscissa of medial vein. Third medial abscissa short, 0.35 times second abscissa. Discoidal cell narrowly sessile, its length 1.2 times its width. Distance from nervulus to basal vein about 0.3-0.4 times nervulus length. Length of hind wing 4.2-4.4 times its width. Second abscissa of mediocubital vein 0.5-0.6 times first abscissa, 1.6-1.7 times nervellus, almost twice basal vein.

Legs. Hind femur 3.8-4.0 times as long as wide, 1.4 times hind coxa, 0.75 times hind tibia. Inner spur of hind tibia nearly 0.5 times basitarsus. Hind tarsus slightly longer than hind tibia, its second segment 0.35-0.4 times first segment, 1.7 times fifth segment (without pretarsus). Claws with small basal lobe.

Metasoma 1.3 times longer than mesosoma. Laterotergites distinct on second and third tergite. First tergite distinctly widened from base to apex, with small spiracular tubercles in basal quarter and distinct dorsal carinae in basal half. Apical width of first tergite 2.0-2.4 times its minimum width; its length 1.1 times its apical width. Length of second tergite 0.7 times basal width of second tergite, almost as long as third tergite. Second suture distinct, straight, crenulate. Ovipositor sheath 3.7-4.3 (holotype 4.3) times hind femur, 1.0-1.2 times fore wing, 0.9-1.1 times as long as the body.

Sculpture. Head almost smooth, temple ventrally and cheek densely granulate, face finely punctulate. Pronotum granulate, smooth latero-dorsally. Mesoscutum densely punctulate. Scutellum nearly smooth. Meso- and metapleurae punctulate. Propodeum without carinae, completely rugulose. Hind coxa coriaceous dorsally, laterally punctulate, hind femur punctulate. Metasomal tergites almost completely rugose-striate, only posterior margins of third-sixth tergites smooth.

Colour. Head light brown, dorsally with black spot near ocellar triangle and in medial part of frons. Thorax light brown, dorsally (except light scutellum and mesoscutum along notauli) and mesosternum almost black. Metasoma black, ventrally and posterior margins of first and third-sixth tergites light brown. Ovipositor sheath black. Antenna black, in basal half ventral part of segments light. Palpi and tegulae light brown. Legs light brown, hind tibia black with pale annulus basally and pale marking in the middle, middle and hind tarsi dark. Wing hyaline. Pterostigma brown.

Male. Body length 3.5-3.6 mm; fore wing length 3.0-3.2 mm. Length of eye (in dorsal view) 2.1-2.3 times length of temple. Cheek height about 0.25 times height of eye, 0.7-0.8 times basal width of mandible. Antennae 26-27-segmented, slightly longer than body. Pterostigma 0.75 times metacarpus (within radial cell). Metasoma behind third tergite finely rugulose basally or medially. Otherwise similar to female.

## Discussion

The relationship of this new species is uncertain. In the key to the Palaearctic species (TAEGER, 1989) it runs to couplet 7(6), but does not fit with the mentioned characters. The short third medial abscissa, long radial cell, and the almost completely rugose-striate metasoma with completely separated laterotergites of the third tergite and deep second metasomal suture will separate *O. eous* from all known species. There is a considerable variability regarding the length of the ovipositor (the ♀ from 20 km SE Ussuriysk has the ovipositor only 3.7 times as long as hind femur). Because no further differences have been found, we think that all included

specimens belong to the same species. *O. cunctus* CHOU from Taiwan is close to the present species, but it can be distinguished by its shorter ovipositor (3.2 times as long as hind femur) and the different sculpture of the metasoma (terga not clearly striate and sculpture less developed).

**Etymology.** The specific name is based on the Latin adjective *eous* meaning eastern in reference to the known distribution.

***Orgilus leleji* BELOKOBYSKIJ & TAEGER, sp. n.**

(Figs 29-37)

Holotype: 1♀, Primorskiy Kray, 25 km S Slavyanka, Andreevka, 17.08.1987 (A. Lelej) (ZIP).

**Description**

**Female.** Body length 4.6 mm; fore wing length 3.3 mm. Head width 1.7 times its length, 1.1 times width of mesoscutum. Temple roundly narrowed behind eye, Length of eye (in dorsal view) 1.5 times length of temple. Vertex distinctly convex. Occiput strongly concave. Occipital carina in lateral view reaching up to the top of the compound eye. Frons with distinct medial carina. Ocelli medium-sized, almost in equilateral triangle; OD:POL:OOL=1:1.5:2.0. Eye sparsely and rather longly setose, 1.4 times as high as broad. Cheek height 0.45 times height of eye, 1.6 times basal width of mandible. Subocular suture indistinct. Width of face 1.5 times its medial height, 1.1 times height of eye. Tentorial pits large, situated distinctly below lower level of eyes, distance between pits 1.8 times distance from pit to eye. Clypeal suture almost lost dorsally. Clypeus width 1.8 times its medial height. Cheek strongly and roundly narrowed below eyes. Maxillary palpi slightly longer than head height. Apical segment of labial palpi about 4 times as long as wide.

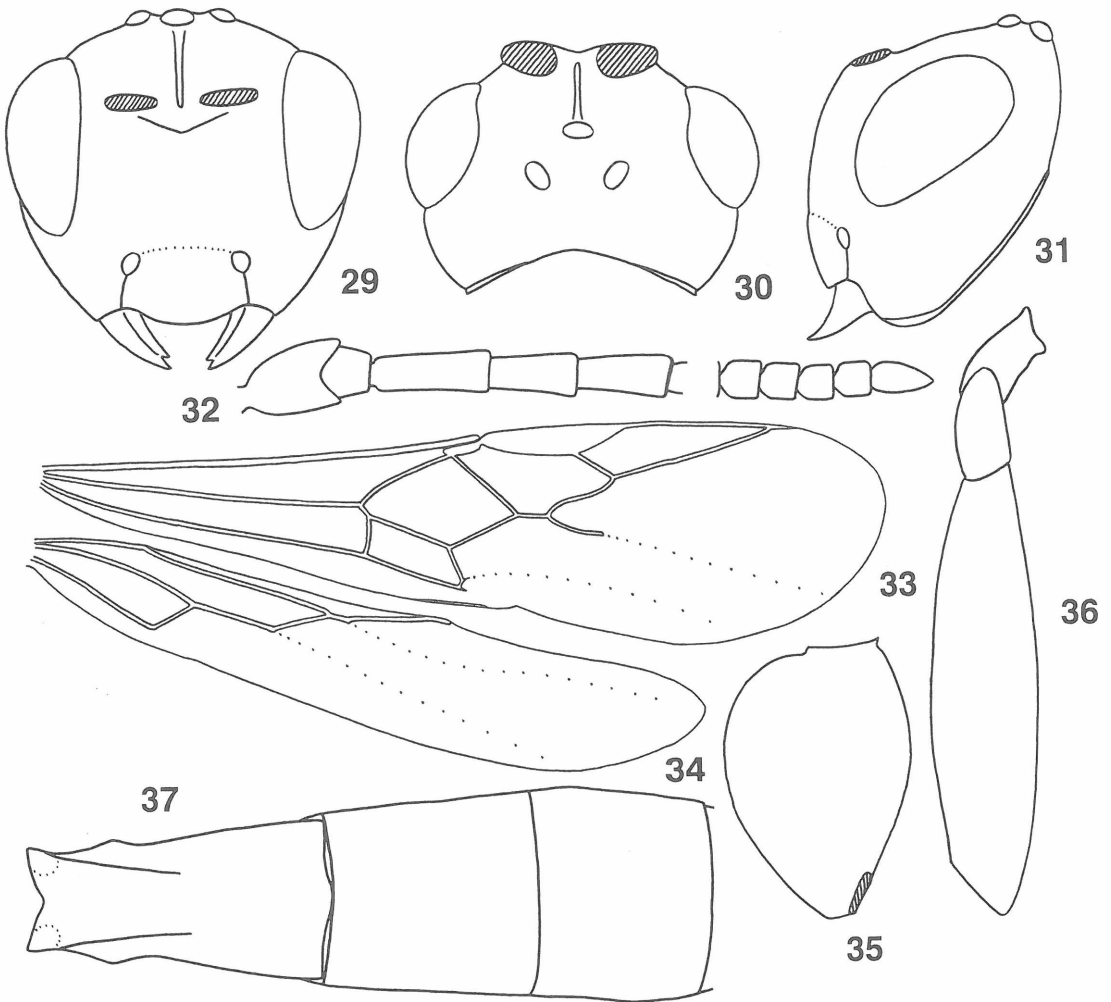
Antenna 35-segmented, 0.85 times length of body. Length of scapus 1.7 times its width, about as long as the first flagellar segment. First flagellar segment 2.8 times as long as its apical width, 1.25 times as long as second segment. Length of penultimate segment 1.2 times its width, 0.6 times apical segment. Some of the subapical segments clearly broader than long.

Mesosoma. Length 1.5 times its maximum height, height 1.6 times its width. Notauli deep, complete and crenulate.

Prescutellar depression rather short, crenulate, almost 0.25 times length of scutellum. Sternauli long, oblique, rugulose. Propodeum distinctly and roundly narrowed from base to apex (in lateral view).

Wings. Length of fore wing 3.7 times its width. Length of pterostigma 4.7 times its maximum width, almost as long as metacarpus (within radial cell). Metacarpus (within radial cell) 1.25 times the distance from apex of radial cell to apex of wing. Radial vein arising distinctly behind middle of pterostigma. First radial abscissa 1.3 times maximum width of pterostigma, 0.25 times straight second abscissa, 0.6 times S-like curved first radiomedial vein. Second abscissa of medial vein 0.45 times recurrent vein, 0.55 times third medial abscissa. Discoidal cell very narrowly sessile, its length almost twice its width. Distance from nervulus to basal vein nearly 0.2 times nervulus length. Length of hind wing 5.3 times its width. Second abscissa of mediocubital vein 0.45 times first abscissa, 1.75 times nervellus, 1.5 times basal vein.

Legs. Hind femur 4 times as long as wide, 1.7 times hind coxa, 0.8 times hind tibia. Inner spur of hind tibia nearly 0.55 times basitarsus. Hind tarsus slightly longer than hind tibia, its second segment 0.4 times first segment, 1.6 times fifth segment (without pretarsus). Claws simple.



Figs 29-37 *Orgilus leleji* sp. n.: 29 head, frontal view; 30 head, dorsal view; 31 head, lateral view; 32 basal and apical segments of antenna; 33 fore wing; 34 hind wing; 35 hind coxa; 36 hind trochanter and femur; 37 3 basal segments of metasoma, dorsal view.

Metasoma 1.3 times as long as mesosoma. Laterotergites distinct on second and anterior third of third tergites. First tergite distinctly widened from base to apex, with large spiracular tubercles in basal quarter and distinct dorsal carinae in basal half. Apical width of first tergite 1.7 times its minimum width; its length 1.7 times its apical width. Length of second tergite 1.2 times basal width of second tergite, 1.2 times length of third tergite. Second suture shallow, almost straight and smooth. Ovipositor sheath 4.0 times hind femur, 1.6 times fore wing, 2.2 times metasoma, slightly longer than body.

Sculpture. Head. Vertex and temple densely granulate, frons granulate, with transverse rugae near antennal sockets, upper face densely and finely coriaceous-punctulate, lower face punctulate and shiny, clypeus smooth.

Pronotum rugose laterally, anteriorly also densely granulate. Mesoscutum finely punctulate, densely and finely granulate along notauli. Scutellum almost smooth. Mesopleurae very finely coriaceous, above the sternaui nearly impunctate and shiny, mesosternum finely granulate. Metapleurae densely granulate, with rugae posteriorly. Propodeum with carina in basal quarter and two carinae apically, almost completely rugulose, smooth in small areas basolaterally. Hind coxa and femur densely granulate. First metasomal tergite rugulose-striate, reticulate apically. Second tergite finely reticulate medially.

Colour. Head and thorax black. Metasoma in anterior half reddish brown, with dark medial spots on distal half of first and second tergites, in posterior half metasoma almost black. Antenna light reddish brown, scapus dorsally and distal third of flagellum dark reddish brown or black. Palpi, clypeus and tegulae light brown. Legs light reddish brown, inner side of femora towards the apex, distal third of hind tibia and all tarsi darker. Wing infusate. Pterostigma brown.

Male unknown.

### Discussion

This new species is very similar to *O. dorni* TAEGER from Mongolia. It differs mainly in having ovipositor shorter (in *dorni* about 5.2 times the hind femur) and distinctly less striate sculpture of the first tergite. Furthermore, in *leleji* some of the antennal segments broader than long, in *dorni* all segments are longer than broad. The differences in colour (*dorni* less dark), in the ocelli (in *dorni* the ocelli are somewhat smaller and forming a more obtuse angle), and in the length of radial cell (metacarpus in *dorni* only about 0.9 times the distance from apex of radial cell to apex of wing) may be subject to variation. (In both cases only the holotypes are known.) *O. leleji* sp. n. is related also to the Mongolian *O. kaszabi* TAEGER, and differs by having the last labial segment longer, thorax, hind femur and hind wing slender, mesoscutum densely and finely granulate along notauli, mesopleura finely granulate-coriaceous, propodeum almost completely rugulose, first and second metasomal tergites distinctly longer, ovipositor shorter, legs mostly light reddish brown.

The new species runs in the key by TAEGER (1989) to couplet 114/115. The species related may be separated as follows:

- 114 Ovipositor sheath about 2 times as long as the fore wing . . . . . 115
- Ovipositor sheath about 1.2-1.7 times as long as the fore wing (or shorter) . . . . . 115a
- 115 Mainly black species; 1st tergite about 1.4 times as long as wide at apex; metapleuron anteriorly shallow granulate and shiny.
- Mongolia . . . . . *Orgilus kaszabi* TAEGER, 1991
- Legs mainly yellowish brown, sternites mainly and tergites at least partly yellowish brown; 1st tergite about 1.8 times as long as wide at apex; metapleuron completely granulate and mat.
- Mongolia . . . . . *Orgilus dorni* TAEGER, 1989
- 115a Ovipositor about 1.5-1.7 times as long as the fore wing (4.0-4.5 times hind femur); legs mainly yellowish brown . . . . . 115b
- Ovipositor about 1.2-1.4 times as long as the fore wing (3.3-3.8 times hind femur); legs mainly black . . . . . 116



115b Metapleuron anteriorly largely shiny, mesosternum smooth; metasoma mainly dark (brown ventrally); 1st tergite about 1.5 times as long as wide at apex.

Czech, Austria . . . . . *Orgilus hofferi* ČAPEK, 1989

- Metapleuron completely granulate and mat, mesosternum finely granulate; metasoma partly pale (basal sternites yellowish brown); 1st tergite about 1.7 times as long as wide at apex.

Primorskiy Kray . . . . . *Orgilus leleji* sp. n.

**Etymology.** We have named this species after the Far Eastern hymenopterologist and our friend Dr. ARKADIY LELEJ.

***Orgilus sudzuchae* BELOKOBYLSKIJ & TAEGER, sp. n.**

(Figs 38-46)

**Holotype:** 1♀, Primorskiy Kray, Lazovskiy Nature Reserve, Benevskoe, floodlands of river Kievka, forest, 18.08.1986 (A. Kotenko) (IZANU).

**Description**

**Female.** Body length 3.6 mm; fore wing length 3.1 mm. Head width 1.8 times its length, 1.2 times width of mesoscutum. Temple roundly narrowed behind eye, Length of eye (in dorsal view) 1.5 times length of temple. Vertex weakly convex. Occiput weakly concave. Occipital carina in lateral view reaching up to the top of the compound eye. Frons without carina. Ocelli medium-sized, almost in equilateral triangle; OD:POL:OOL = 1:1.2:2.5. Eye (nearly) not setose, 1.3 times as high as broad. Cheek height 0.3 times height of eye, almost equal to basal width of mandible. Subocular suture very shallow. Width of face 1.6 times its medial height, 1.3 times height of eye. Tentorial pits distinct, situated at lower level of eyes, distance between pits 1.2 times distance from pit to eye.

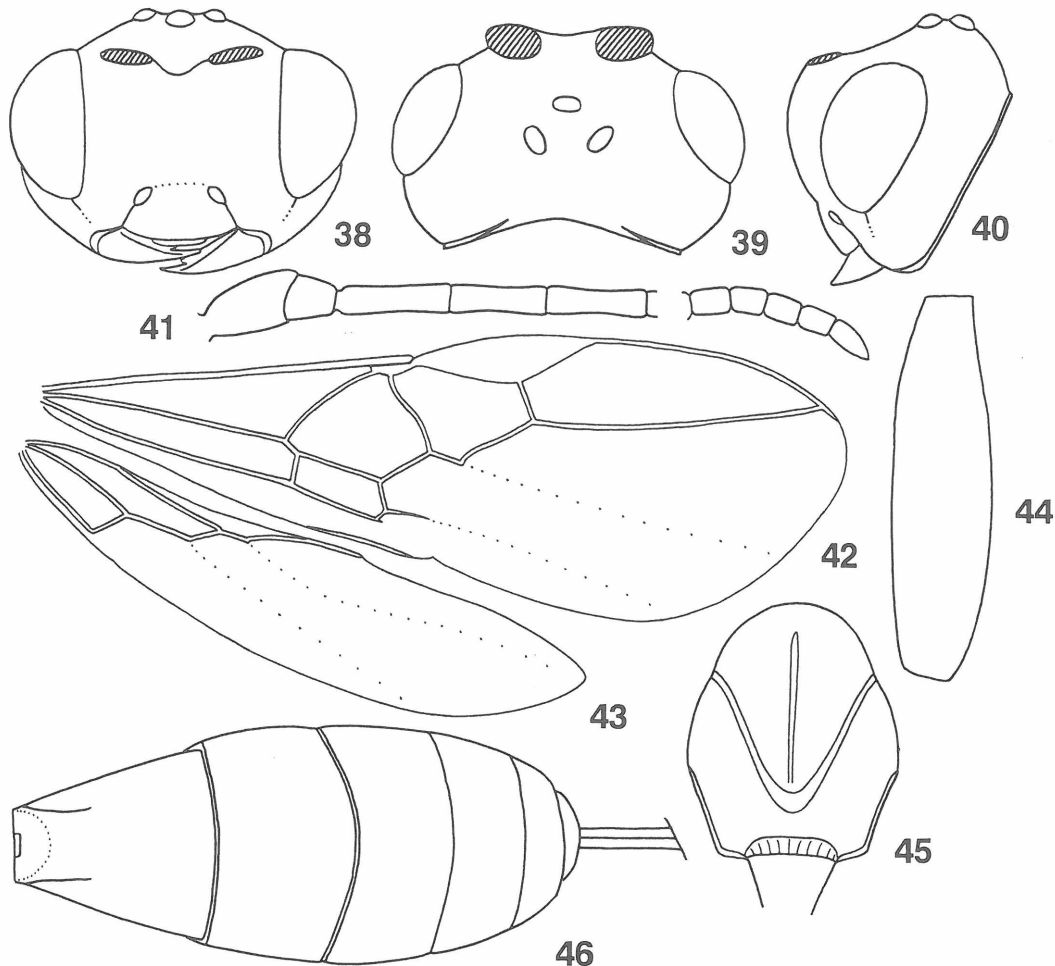
Clypeal suture lost dorsally. Clypeus width almost twice its medial height. Cheek strongly and roundly narrowed below eyes. Maxillary palpi nearly 0.9 times as long as head height. Apical segment of labial palpi 4.5 times as long as wide.

Antenna 31-segmented, 1.2 times length of body. Length of scapus 1.8 times its width, 0.9 times first flagellar segment. First flagellar segment 4 times as long as its apical width, 1.15 times as long as second segment. Length of penultimate segment 1.5 times its width, 0.8 times apical segment. All flagellar segments clearly longer than broad.

Mesosoma. Length 1.6 times its maximum height, height 1.3 times its width. Notauli deep, complete, but very shallow posteriorly, crenulate. Prescutellar depression short, with fine medial carina, crenulate, almost 0.25 times length of scutellum. Sternauli long, very shallow, smooth. Propodeum distinctly and roundly narrowed from base to apex (in lateral view).

Wings. Length of fore wing 2.8 times its width. Length of pterostigma 4 times its maximum width, 1.2 times longer than metacarpus (within radial cell). Metacarpus (within radial cell) nearly 8 times the distance from apex of radial cell to apex of wing. Radial vein arising slightly behind middle of pterostigma. First radial abscissa 0.85 times maximum width of pterostigma, 0.15 times almost straight second abscissa, 0.5 times first radiomedial vein. Recurrent vein almost twice second abscissa of medial vein. Third medial abscissa lost. Discoidal cell narrowly sessile, its length 1.3 times its width. Distance from nervulus to basal vein 0.35 times nervulus

length. Length of hind wing 4.5 times its width. Second abscissa of mediocubital vein 0.55 times first abscissa, 1.6 times nervellus, 2.25 times basal vein.



Figs 38-46 *Orgilus sudzuchae* sp. n.: 38 head, frontal view; 39 head, dorsal view; 40 head, lateral view; 41 basal and apical segments of antenna; 42 fore wing; 43 hind wing; 44 hind femur; 45 mesoscutum, dorsal view; 46 metasoma, dorsal view.

Legs. Hind femur 3.7 times as long as wide, 1.5 times hind coxa, 0.8 times hind tibia. Inner spur of hind tibia nearly 0.5 times basitarsus. Hind tarsus 1.2 times hind tibia, its second segment 0.35 times first segment, 1.4 times fifth segment (without pretarsus). Claws with small basal lobe.

Metasoma slightly longer than mesosoma. Laterotergites distinct on second and anterior two thirds of third tergites. First tergite distinctly widened from base to apex, without spiracular tubercles, with distinct dorsal carinae in basal third. Apical width of first tergite 2.8 times its minimum width, equal to its length. Length of second tergite 0.6 times basal width of second tergite, 1.5 times length of third tergite. Second suture deep, curved and crenulate. Ovipositor sheath 1.2 times hind femur, 0.35 times fore wing, 0.6 times metasoma.

**Sculpture.** Vertex and temple finely coriaceous, frons densely punctulate, face and clypeus densely and finely punctulate. Pronotum completely granulate, very finely coriaceous in distal dorso-lateral part. Mesoscutum and scutellum finely punctulate. Mesopleura above the sternaui and propodeum completely smooth, mesosternum and metapleurae sparsely punctulate; propodeum without carinae. Hind coxa dorsally and femur punctulate, femur partly granulate. First metasomal tergite rugulose-striate, nearly smooth laterally. Second tergite completely and third tergite in basal third densely punctate, with sparse rugae.

**Colour.** Body mainly light brown, lateral lobes of the mesonotum, metanotum, propodeum behind, parts of the tergites, and ovipositor sheath dark brown. Stemmaticum black. Antenna light brown, darker dorsally and apically. Palpi and tegulae yellow. Legs light brown, hind tibia in distal quarter dark. Wing slightly infusate. Pterostigma light brown.

**Male unknown.**

### Discussion

This new species is closely related to *O. kumatai* WATANABE from Japan, Korea and Russian Far East (WATANABE, 1968; TAEGER, 1989) and *O. lini* CHOU from Taiwan. It differs by having a broader face, the first flagellar segment and temple longer, maxillary palpi shorter, less sculpture (mesonotum only punctulate, mesopleurae completely smooth, sternaui very shallow, wide and smooth, first tergite nearly smooth laterally) and nervulus distinctly postfurcal. In addition, in *kumatai* the first metasomal tergite and the ovipositor are shorter and the propodeum is slightly coriaceous.

**Etymology.** The specific name is an acronymic noun inspired by the native name of the Kievka River (type locality).

### *Orgilus pappianus* TAEGER, 1987

TAEGER, 1987: 203; 1989: 148; BELOKOBYLSKIJ, 1990: 38.

*Orgilus parapappianus* CHOU, 1995 (type-material not examined) **syn. nov.** CHOU, 1995: 195.

### Discussion

The description of *O. parapappianus* agrees in all respects with the specimens of *pappianus* listed below. The shape of the head in lateral view (the only specific character mentioned for *parapappianus*) is the typical one of *pappianus*, though this is not clear from the figures or the description given by TAEGER (1987).

**Material.** Primorskiy Kray: 2♀, Vladivostok, 19-21.08.1972 (V. Kuslitzky); 4♂, Vladivostok, Akademgorodok, glades in foliage forest, 13.08.1986 (A. Kotenko); 1♀, 5♂, Vladivostok Morskoe Cemetery, oak-forest, glades, 13.08.1993 (S. Belokobylskij); 1♂, "Kedrovaya Pad'" Nature Reserve, meadow, 24.08.1976 (N. Storozheva); 1♀, 50 km N Ol'ga, mixed forest, 30.07.1979 (S. Belokobylskij); 1♀, 1♂, Nakhodka, oak-forest, shrubs, 20.08.1985 (S. Belokobylskij); 1♂, Khasan, Golubiny Utyos, oak-forest, shrubs, 27.08.1988 (S. Belokobylskij); 1♀, Khasan, oak-forest, meadow with shrubs, 30.08.1988 (S. Belokobylskij); 1♀, 1♂, 20 km SE Ussuriysk, forest, 4 & 5.08.1991 (S. Belokobylskij); 1♀, 4♂, Spassk-Dal'niy, forest, border of

forest, shrubs, glades, 10-12.07.1993 & 9-11.07.1995 (S. Belokobylskij); 1♀, 1♂, Novokachalinsk, mixed forest on the coast of Khanka Lake, 25.07.1995 (S. Belokobylskij). Kuril Islands: 1♂, Shikotan Is., 5-7 km S Krabozavodsk, 17.08.1973 (D. Kasparyan).

### *Orgilus longiceps* MUESEBECK, 1933

MUESEBECK, 1933: 52; TAEGER, 1989: 108; BELOKOBYSKIJ, 1990: 37.

**Material.** Primorskiy Kray: 1♂, 10 km S Partizansk, oak-forest, 19.07.1979 (S. Belokobylskij); 3♀, 1♂, 15 km NE Zarubino, meadow, 15.09.1981 (S. Belokobylskij); 1♀, 30 km S Slavyanka, Bay Troitza, 13.07.1972 (M. Kozlov); 1♀, 30 km S Slavyanka, forest, glades, 4.08.1985 (S. Belokobylskij). 1♀, 15 km S Slavyanka, Ryazanovka, at light, 3.09.1987 (S. Belokobylskij); 2♀, same place, shrubs, meadow, 3.09.1987 & 2-4.09.1995 (S. Belokobylskij); 1♀, Ussuriysk Nature Reserve, cordon "Staraya baza", border of forest, glades, 12.08.1986 (A. Kotenko); 2♀, 3♂, "Kedrovaya Pad'" Nature Reserve, cordon "Sukhaya rechka", 26, 28, 29.07.1988 (E. Budrys). Kuril Islands: 3♀, 2♂, Kunashir Island, Tretyakovo 3 & 5.08.1973 (D. Kasparyan); 1♀, Kunashir Island, Alyokhino, coast of Okhotsk Sea, meadow, Rosa, 11.08.1988 (A. Kotenko). Japan: 1♀, Kyushu, Fukuoka, Mt. Hiko, MT, 700 m, 29.07-4.08. 1989 (K. Takeno & M.J. Sharkey).

**Distribution.** Russia (Primorskiy Kray, Kuril Islands), Japan (Honshu, Kyushu), USA (?).

**Remarks.** Most of the specimens of this species have legs (especially hind) with intensive dark colouration. These specimens very much resemble *Orgilus obscurator* (NEES) from Europe, but they can be distinguished by the less sculptured lateral hind coxae and more strongly sculptured abdominal tergites 2 and 3.

### *Orgilus kumatai* WATANABE, 1968

WATANABE, 1968: 4; PAPP, 1985: 343; TAEGER, 1989: 108; BELOKOBYSKIJ, 1990: 38.

**Material.** Primorskiy Kray: 1♂, 25 km E Spassk-Dal'niy, forest, 19.06.1978 (Z. Kononova); 3♀, 2♂, Spassk-Dal'niy, glades, forest, 17 & 27.07.1991, 17.08.1993 & 16.08.1995 (S. Belokobylskij); 1♀, 1♂, 20 km N Spassk-Dal'niy, forest, border of forest, 18.08.1991 (S. Belokobylskij); 1♀, 35 km NE Spassk-Dal'niy, Vasil'kovka, forest, meadow, 13.07.1993 (S. Belokobylskij); 1♂, 15 km SW Spassk-Dal'niy, forest, glades, 14.07.1995 (S. Belokobylskij); 3♂, Vladivostok, Sedanka, glades, border of forest, 21.08.1986 (A. Kotenko); 2♂, Khanka District, Novokachalinsk, forest, 3.09.1986 (A. Kotenko); 1♀, same locality, mixed forest on the coast of Khanka Lake, 23.07.1995 (S. Belokobylskij); 1♀, 15 km E Chernigovka, Gorny Khutor, glades, forest, 20.07.1991 (S. Belokobylskij); 1♀, 15 km E Dmitrievka, Merkushevka, forest, glades, 21.07.1991 (S. Belokobylskij); 1♀, "Kedrovaya Pad'" Nature Reserve, forest, 31.08.1986 (A. Kotenko); 1♀, 1♂, Anisimovka, glades, forest, 3 & 4.09. 1988 (S. Belokobylskij). 4♂, 10 km SW Sokol'chi, Lazovskiy Nature Reserve, rocks, mixed forest, 23.07.1993 (S. Belokobylskij); 1♂, same locality, forest, glades, 22 & 24.07.1993 (S. Belokobylskij). Japan: 1♀, Honshu, Aichi Pref., Mt. Sanage-yama, 15-21.08.1989 (A. Takano).

**Distribution.** Russia (Primorskiy Kray), Japan (Hokkaido, Honshu), Korea.

*Orgilus punctulator* (NEES, 1812)

TAEGER, 1989: 168.

**Material.** Primorskiy Kray: 1♀, 2♂, Vladivostok, Sedanka, border of forest, glades, 24.08.1986 (A. Kotenko); 4♀, "Kedrovaya Pad'" Nature Reserve, forest, 30-31.08.1986 (A. Kotenko); 1♂, same place, cordon "Sukhaya rechka", 6.08.1988 (E. Budrys); 1♀, 20 km SE Ussuriysk, forest, 5.08.1991 (S. Belokobylskij); 1♀, 3♂, Ussuriysk Nature Reserve, cordon "Staraya baza", border of forest, glades, 11-12.08.1986 (A. Kotenko); 1♀, Lazovskiy Nature Reserve, Benevskoe, floodlands of river Kievka, forest, 18.08.1986 (A. Kotenko); 1♂, Lazovskiy Nature Reserve, cordon Petrova, coast of sea, 15.08.1986 (A. Kotenko); 2♂, 10 km SE Partizansk, oak-forest, 20-21.07.1984 (S. Belokobylskij); 3♂, Spassk-Dal'niy, forest, glades, 30.06. & 3-6.07.1993, 8.07.1995 (S. Belokobylskij); 1♂, 35 km NE Spassk-Dal'niy, Vasil'kovka, forest, meadow, 3.07.1993 (S. Belokobylskij); 1♂, 30 km E Spassk-Dal'niy, forest, 12.07.1995 (S. Belokobylskij).

Khabarovskiy Kray: 1♂, EAO, Amurzet, forest, 16.06.1985 (S. Belokobylskij).

**Remarks.** The specimens are on average somewhat more slender than European specimens. The first tergite is 1.1-1.3 times as long as broad apically, in European specimens about 1.1 times.

*Orgilus ischnus* MARSHALL, 1898

TOBIAS, 1986: 271; TAEGER, 1989: 104; CHOU, 1995:192.

**Material.** Primorskiy Kray: 1♀, Chernigovka District, Sivakovka, rice, 28.07.1970 (Pinsker); 2♀, Lazovskiy Nature Reserve, cordon Petrova, 15 & 17.08.1986 (A. Kotenko); 1♀, Lazovskiy Nature Reserve, Benevskoe, floodlands of river Kievka, forest, 18.08.1986 (A. Kotenko); 1♀, 7 km E Khasan, Golubiny Utyos, 26.08.1986 (A. Kotenko); 2♀, Spassk-Dal'niy, forest, shrubs, glades, 19.08.1987 & 6.08.1995 (S. Belokobylskij); 1♂, 15 km SW Spassk-Dal'niy, forest, glades, 14.07.1995 (S. Belokobylskij); 1♀, 20 km SE Spassk-Dal'niy, forest, border of forest, 17.07.1995 (S. Belokobylskij); 1♀, 20 km NW Spassk-Dal'niy, meadow and shrubs on the coast of Khanka Lake, 18.08.1995 (S. Belokobylskij); 1♀, 20 km SW Krounovka, dry slopes, 3-5.08.1993 (S. Belokobylskij); 1♀, Novokachalinsk, forest, meadow, 21-22.07.1995 (S. Belokobylskij). Kuril Islands: 1♀, Shikotan Island, 5-7 km S Krabozavodsk, 15.08.1973 (D. Kasparyan).

Form with short second tergite (var. a). Primorskiy Kray: 1♂, "Kedrovaya Pad'" Nature Reserve, forest, 30.08.1986 (A. Kotenko); 2♀, Khanka District, Novokachalinsk, forest, 3.09.1986 (A. Kotenko); 2♀, Khasan District, 15 km NE Zarubino, 15.09.1981 (S. Belokobylskij); 3♀, Anisimovka, forest, glades, 5.09.1988 (S. Belokobylskij); 1♀, Spassk-Dal'niy, forest, glades, 14.09.1988 (S. Belokobylskij).

Distribution. West Palaearctic, Mongolia, Russia (Primorsk Territories, Kuril Islands), Taiwan.

**Remarks.** Some of the specimens have fine but distinctly sculptured tergites 4-6 (similar to *O. luctuosus*); these specimens may represent a different (undescribed) species. Because of the difficulties of the separation of species (cf. TAEGER, 1985) within the *ischnus-pimpinellae* complex we refrain from describing it as new.

***Orgilus pimpinellae* NIEZABITOWSKI, 1910**

TOBIAS, 1986: 276; TAEGER, 1987: 205; 1989: 157; 1991: 138.

**Material.** Buryatia: 1♂, Kyahta, 28.07.1977 (A. Kupyanskaya). Khabarovsk Territory: 1♀, Amurzet, meadow, 16.06.1985 (S. Belokobylskij); 2♀, 4♂, 20 km NW Amurzet, meadow, 17.06.1985 (S. Belokobylskij). Primorskiy Kray: 2♂, Barabash-Levada, forest, 16 & 21.06.1978 (S. Belokobylskij); 1♀, 15 km NW Partizansk, forest, 16.08.1985 (S. Belokobylskij); 1♀, 7 km E Khasan, Golubiny Utyos, 26.08.1986 (A. Kotenko); 2♂, 20 km SW Putzilovka, Monakino, forest, glades 24-28.06.1993 (S. Belokobylskij); 1♂, Spassk-Dal'niy, forest, glades, shrubs, 10-12.07.1993 (S. Belokobylskij). Kamchatka: 1♂, Kozyrevsk, birch-forest, 13.07.1985 (S. Belokobylskij).

Form with smooth vertex, mesonotum and mesopleurae. Primorskiy Kray: 2♀, 10 km SW Sokol'chi, Lazovskiy Nature Reserve, rocks, mixed forest, 23.07.1993 (S. Belokobylskij); 2♀, 20 km SW Krounovka, dry slopes, 3 & 5.08.1993 (S. Belokobylskij); 1♀, Nadezhdinskiy District, 15 km SSW Nezhino, forest, 16-18.07.1993 (S. Belokobylskij).

Distribution. West Palaearctic. Mongolia, Korea. Russia: Buryatia, Khabarovsk and Primorsk Territories, Kamchatka.

**Remarks.** *O. pimpinellae* seems to be highly variable or a complex of species (TAEGER, 1985). At present it is not possible to separate distinct units within this taxon.

***Orgilus leptcephalus* (HARTIG, 1838)**

TAEGER, 1989: 110.

**Material.** Kamchatka: 4♂, Mil'kovo, birch-forest, 7.07.1985 (S. Belokobylskij); 15♀, 8♂, Kozyrevsk, mixed or birch forests, 13-15, 22, 24.07.1985 (S. Belokobylskij); Primorskiy Kray: 1♀ 15 km S Slavyanka, Ryazanovka, shrubs, meadow, 3.09.1987 (S. Belokobylskij).

Distribution. North America, West Palaearctic. Kazakhstan, China, Mongolia. Russia: european part, Ural, Amur Provinces, Kamchatka.

**Remarks.** The specimens of this species from Kamchatka belong to variation a, because they have more cubical head, shorter body, longer apical segments of antenna, shorter ovipositor sheath, and mesosoma usually without granulate sculpture. The sculpture of metasoma is different in these specimens, and most have a typical sculpture (second tergite is almost completely punctulo-rugulose). Some specimens (both male and female) have sculpture at basal third of third tergite or third and second tergites almost completely smooth.

***Orgilus coreanus* TAEGER, 1987**

TAEGER, 1987: 199; 1989: 69.

**Material.** Chita Province: 1♀, Alexandrovskiy Zavod, southern slope of mountain, 16.07.1977 (A. Kupyanskaya). Kuril Islands: 1♀, Shikotan Is., 5-7 km S Krabozavodsk, 17.08.1973 (D. Kasparyan).

Distribution. Korea. Russia: Chita Province, Kuril Islands.

Key to East Asian Palearctic species of *Orgilus*

1. Third abscissa of medial vein (2+3-M) absent or short, not more than 0.5 times second abscissa (2-SR+M) (fig. 14, 24, 42) . . . . . 2
  - Third abscissa of medial vein always present and long, not shorter than second abscissa (fig. 5, 33) . . . . . 6
2. Third abscissa of medial vein absent (fig. 14, 42). Ovipositor sheath shorter than metasoma . . . . . 3
  - Third abscissa of medial vein nearly 0.2-0.5 times second abscissa (fig. 24). Ovipositor sheath not shorter than body . . . . . 5
3. Occipital carina short laterally, present to level of middle of eye (fig. 12). Notauli absent in posterior third (fig. 18). Length of eye 2.5 times length of temple (fig. 11). 2.4 mm. Russia (Primorskiy Kray) . . . . . *O. spasskensis* sp. n.
  - Occipital carina long laterally, present to upper level of eye (fig. 40). Notauli complete (fig. 45). Length of eye 1.5-2 times length of temple (fig. 39) . . . . . 4
4. Length of eye twice length of temple. First flagellar segment 3 times as long as apical width. Face about 1.1 times height of eye. Mesothorax finely and densely granulate. Propodeum rugulose even if medially. Sternauli deep and crenulate. Hind femur 3.3- 3.5 times as long as wide. Nervulus interstitial or slightly postfurcal. First tergite longer, its length 1.1-1.3 times its basal width. Ovipositor sheath longer, nearly 1.6 times hind femur, slightly shorter than metasoma. 2.5-3.5 mm.
  - Japan, Korea, Russia (Primorskiy Kray) . . . . . *O. kumatai* WATANABE, 1968
  - Length of eye 1.5 times length of temple (fig. 39). First flagellar segment 4 times as long as apical width (fig. 41). Face about 1.3 times height of eye (fig. 38). Mesothorax almost completely smooth. Propodeum smooth. Sternauli very shallow and smooth. Hind femur 4 times as long as wide. Nervulus distinctly postfurcal. First tergite shorter, its length equal to its basal width. Ovipositor sheath shorter, 1.2 times hind femur, 0.6 times metasoma. 3.6 mm. Russia (Primorskiy Kray) . . . . . *O. sudzuchae* sp. n.
5. Metasoma behind first tergite smooth. Radial cell of fore wing strongly shortened, metacarpus (within radial cell) slightly shorter than pterostigma, 1.2-1.7 times distance from apex of radial cell to apex of wing. Ovipositor sheath 2.0-2.5 times body. Length of eye 1.6-1.9 times length of temple. First metasomal tergite 1.5-1.8 times as long as its apical width. Length of second tergite 1.0-1.1 times its basal width. 3.5-6 mm.
  - Mongolia, Russia (Chita Province) . . . . . *O. elongatus* PAPP, 1971
  - Metasoma almost completely rugose-striate. Radial cell of fore wing long, metacarpus (within radial cell) 1.4 times pterostigma, 8-9 times distance from apex of radial cell to apex of wing (fig. 24). Ovipositor sheath nearly as long as body. Length of eye 2.4-2.5 times length of temple. First metasomal tergite 1.1 times as long as its apical width. Length of second tergite 0.7 times its basal width (fig. 28). 3.5-4.2 mm. Russia (Primorskiy Kray, Sakhalin) . . . . . *O. eous* sp. n.

6. Claws with distinct basal lobe. Head distinctly elongate and linearly narrowed ventrally. Second and third tergites large, almost covering posterior tergites, with separated laterotergites at first-third tergites. Ovipositor distinctly curved down apically. - Face width 0.9 times height of eye. 3.5-4.4 mm.  
Korea, Russia (Primorskiy Kray), Taiwan . . . . . *O. pappianus* TAEGER, 1987
- Claws without basal lobe. Head of different shape. Second and third tergites usual, not covering posterior tergites. Laterotergites separated at first, second and basal half of third or first-fifth tergites. Ovipositor straight apically . . . . . 7
7. Second-fifth tergites with sharp lateral edging and separated laterotergites. Metasoma almost completely and strongly punctulo-granulate. - First flagellar segment 2.0-2.3 times as long as its apical width. Temple punctulo-granulate. First metasomal tergite 1.1-1.3 times as long as its apical width. Body completely black. 3.8-4.3 mm.  
Europe, Russia (Primorskiy Kray) . . . . . *O. punctulator* (NEES, 1812)
- Only second and basal half of third tergites with sharp lateral edging and separated laterotergites. Metasoma behind third tergite usually smooth . . . . . 8
8. Head dorsally smooth and shining, sometimes finely punctulate. Metapleurae in dorsal half smooth or rugose-punctulate, without granulation . . . . . 9
- Head dorsally granulate and mat. Metapleurae in dorsal half densely granulate and usually with rugae . . . . . 14
9. Head and mesoscutum brownish-yellow. Fourth metasomal tergite distinctly punctulate. Length of eye 2.5 times length of temple. - Length of thorax 1.4 times its maximum height. Radial cell distinctly shortened. Ovipositor sheath slightly shorter than metasoma. Metasoma almost completely black. 4.1-5.0 mm.  
China (Gansu), Pakistan . . . . . *O. nigromaculatus* CAMERON, 1906
- Head and mesoscutum black, rarely reddish. Fourth metasomal tergite usually smooth. Length of eye 1.1-1.5 times length of temple . . . . . 10
10. Head width 1.4-1.6 (rarely 1.7) times its length. Width of face 0.8-0.9 (rarely 1.0) times height of eye. Head behind eyes widened or almost parallel-sided anteriorly. Occiput strongly concave . . . . . 11
- Head width 1.75-2 times its length. Width of face 1.1 times height of eye or wider. Head behind eyes distinctly narrowed anteriorly. Occiput weakly concave . . . . . 12
11. Hind coxae rugose on upper edge, but strongly shiny on outer side. Head width 1.4-1.5 times its length. Third metasomal tergite usually rugulose in basal half or third. First metasomal tergite 1.3 times as long as its apical width. 3.5-4.4 mm.  
Japan, Russia (Primorskiy Kray, Kuril Islands) . . . . . *O. longiceps* MUESEBECK, 1933
- Hind coxae rugose on upper edge, rugulose on outer side. Head width 1.5-1.7 times its length. Third metasomal tergite usually smooth completely. First metasomal tergite 1.1-1.2 times as long as its apical width. 2.7-3.7 mm.  
North America, West Palaearctic. Kazakhstan, China, Mongolia, Russia (European part, Ural, Amur Prov., Kamchatka) . . . . . *O. leptocephalus* (HARTIG, 1838), var. a



12. Cheek height about 0.5 times height of eye. Ovipositor sheath 3.4 times hind femur, 1.25 times fore wing. First flagellar segment 2.5 times as long as apical width, 0.9 times scapus. Length of thorax 1.4 times its height. Radial cell short, distance between apex of radial cell to apex of wing 0.6 times metacarpus (within radial cell). Third tergite smooth. 4.1 mm.  
Korea, Russia (Chita Province, Kuril Islands) . . . . . *O. coreanus* TAEGER, 1987
- Cheek height about 0.35 times height of eye. Ovipositor sheath 1.3-2.5 times hind femur, 0.45-0.7 times fore wing. First flagellar segment twice as long as apical width, 0.7- 0.75 times scapus. Length of thorax 1.55-1.7 times its height. Radial cell long, distance between apex of radial cell to apex of wing 0.2-0.3 times metacarpus (within radial cell). Third tergite reticulate-rugulose . . . . . 13
13. Ovipositor sheath longer, 2.5 times hind femur, 0.7 times fore wing. Apical segment of labial palpi 4 times as long as wide. Length of first metasomal tergite 1.1 times its apical width. Coxae of female black. 3.8 mm.  
Japan . . . . . *O. sharkeyi* TAEGER, 1989
- Ovipositor sheath shorter, 1.3-1.5 times hind femur, 0.45-0.5 times fore wing. Length of first metasomal tergite 1.25-1.35 times its apical width (fig. 9). Coxae of female light reddish brown. 3.4-3.8 mm.  
Russia (Primorskiy Kray) . . . . . *O. bohayicus* sp. n.
14. Ovipositor sheath 4 times hind femur, 1.6 times fore wing. Frons with distinct medial carina. Second metasomal tergite finely reticulate medially, third tergite smooth. - Cheek height 0.45 times height of eye. Length of first metasomal tergite 1.8 times its apical width. Length of second tergite 1.2 times its basal width. 4.6 mm.  
Russia (Primorskiy Kray) . . . . . *O. leleji* sp. n.
- Ovipositor sheath 1.2-2.4 times hind femur, 0.6-0.8 times fore wing. Frons without medial carina. Second metasomal tergite almost completely and distinctly sculptured, third tergite in basal half usually sculptured . . . . . 15
15. Length of first metasomal tergite 1.8-1.9 times its apical width. Ovipositor sheath 1.2 times hind femur. Hind femur 5.0-5.5 times as long as wide. Length of second tergite 1.1 times its basal width. 4.4-4.9 mm.  
Korea . . . . . *O. luctuosus* TAEGER, 1987
- Length of first metasomal tergite 1.2-1.6 times its apical width. Ovipositor sheath 1.5- 2.4 times hind femur. Hind femur 3.5-4.6 times as long as wide. Length of second tergite 0.7-1.0 times its basal width . . . . . 16
16. Length of mesosoma 1.4-1.55 times its height. Hind femur 3.8-4.6 times as long as wide. Length of hind wing 4-5 times its width. - Ovipositor sheath 1.5-2.4 times hind femur. Legs almost black or light brown. 3-4.5 mm.  
West Palaearctic; Mongolia, Korea, Russia (Buryatia, Khabarovsk and Primorskiy Kray, Kamchatka) . . . . . *O. pimpinellae* NIEZABITOWSKI, 1910
- Length of mesosoma 1.6-1.8 times its height. Hind femur 3.3-4.0 times as long as wide. Length of hind wing 5.2-5.7 times its width. - Second metasomal tergite 0.9-1.0 times (forma typica) or 0.7-0.8 times (var. a) as long as basal width. 2.9-3.8 mm.  
West Palaearctic; Mongolia, Russia (Primorskiy Kray), Taiwan  
. . . . . *O. ischnus* MARSHALL, 1898

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