

Revision of the Holarctic spider genus *Oreoneta* Kulczyński, 1894 (Arachnida: Aranei: Linyphiidae)

Ревизия голарктического рода пауков *Oreoneta* Kulczyński, 1894 (Arachnida: Aranei: Linyphiidae)

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КЛЮЧЕВЫЕ СЛОВА: пауки, Aranei, Linyphiidae, *Oreoneta*, *Hilaira*, новый вид, новая комбинация, новый статус, Голарктика.

ABSTRACT: The genus *Oreoneta* Kulczyński in Chyzer & Kulczyński, 1894 is removed from synonymy with *Hilaira* Simon, 1884. The genus comprises 31 species of which the following 18 are new to science: *Oreoneta banffkluane* sp.n., *O. beringiana* sp.n., *O. eskimopoint* sp.n., *Oreoneta eskovi* sp.n., *O. fennica* sp.n., *O. fortyukon* sp.n., *O. herschel* sp.n., *O. logunovi* sp.n., *O. magaputo* sp.n., *O. kurile* sp.n., *O. mineevi* sp.n., *O. repeater* sp.n., *O. sepe* sp.n., *O. tienschangensis* sp.n., *O. tuva* sp.n., *O. uralensis* sp.n., *O. vogelae* sp.n., and *O. wyomingia* sp.n.. Also 12 new combinations are presented, all ex *Hilaira* species: *Oreoneta alpina* (Eskov, 1987) comb.n., *Oreoneta arctica* (Holm, 1960) comb.n., *Oreoneta brunnea* (Emerton, 1882) comb.n., *Oreoneta frigida* (Thorell, 1872) comb.n., *Oreoneta garrina* (Chamberlin, 1948) comb.n., *Oreoneta intercepta* (O. Pickard-Cambridge, 1873) comb.n., *Oreoneta leviceps* (L. Koch, 1879) comb.n., *Oreoneta mongolica* (Wunderlich, 1995) comb.n., *Oreoneta montigena* (L. Koch, 1872) comb.n., *Oreoneta punctata* (Tullgren, 1955) comb.n., *Oreoneta sinuosa* (Tullgren, 1955) comb.n., and *Oreoneta tatica* (Kulczyński, 1915) comb.n. *O. montigena arctica* is removed from synonymy with *O. frigida intercepta*; *O. punctata* from that of *O. tatica*; *O. sinuosa* from that of *O. frigida*. Status of the following taxa is elevated from subspecies to species level: *O. arctica* stat.n. (ex *O. montigena a.*), *O. brunnea* stat.n. (ex *O. frigida b.*), *O. garrina* stat.n. (ex *O. tatica g.*) and *O. intercepta* stat.n. (ex *O. frigida i.*). *Nerienne rudis* O. Pickard-Cambridge, 1879 and *Tmetiscus niger* F.O. Pickard-Cambridge, 1891 are moved from synonymy with *O. montigena* (L. Koch, 1872) and placed as junior synonyms of *O. frigida* (Thorell, 1872). The species are assigned to six species groups. The structures of the copulatory organs are discussed in detail and compared with the type species of *Hilaira*,

Nerienne excisa O. Pickard-Cambridge, 1871. Illustrations, diagnoses, descriptions and distribution maps are given for each species.

РЕЗЮМЕ: Род *Oreoneta* Kulczyński in Chyzer & Kulczyński, 1894 выведен из синонимов *Hilaira* Simon, 1884. Этот род включает 31 вид, 18 из которых являются новыми для науки species: *Oreoneta banffkluane* sp.n., *O. beringiana* sp.n., *O. eskimopoint* sp.n., *Oreoneta eskovi* sp.n., *O. fennica* sp.n., *O. fortyukon* sp.n., *O. herschel* sp.n., *O. logunovi* sp.n., *O. magaputo* sp.n., *O. kurile* sp.n., *O. mineevi* sp.n., *O. repeater* sp.n., *O. sepe* sp.n., *O. tienschangensis* sp.n., *O. tuva* sp.n., *O. uralensis* sp.n., *O. vogelae* sp.n., и *O. wyomingia* sp.n.. Предложено 12 новых комбинаций: *Oreoneta alpina* (Eskov, 1987) comb.n., *Oreoneta arctica* (Holm, 1960) comb.n., *Oreoneta brunnea* (Emerton, 1882) comb.n., *Oreoneta frigida* (Thorell, 1872) comb.n., *Oreoneta garrina* (Chamberlin, 1948) comb.n., *Oreoneta intercepta* (O. Pickard-Cambridge, 1873) comb.n., *Oreoneta leviceps* (L. Koch, 1879) comb.n., *Oreoneta mongolica* (Wunderlich, 1995) comb.n., *Oreoneta montigena* (L. Koch, 1872) comb.n., *Oreoneta punctata* (Tullgren, 1955) comb.n., *Oreoneta sinuosa* (Tullgren, 1955) comb.n., и *Oreoneta tatica* (Kulczyński, 1915) comb.n., все ex *Hilaira*. Следующие три вида выведены из синонимии: *O. montigena arctica* с *O. frigida intercepta*; *O. punctata* с *O. tatica*; *O. sinuosa* с *O. frigida*. Статус четырёх подвидов поднят до видового: *O. arctica* stat.n. (ex *O. montigena a.*), *O. brunnea* stat.n. (ex *O. frigida b.*), *O. garrina* stat.n. (ex *O. tatica g.*) and *O. intercepta* stat.n. (ex *O. frigida i.*). *Nerienne rudis* O. Pickard-Cambridge, 1879 и *Tmetiscus niger* F.O. Pickard-Cambridge, 1891 выведены из синонимов *Hilaira montigena* L. Koch, 1872 и признаны младшими синонимами *Oreoneta frigida* (Thorell, 1872). Род разбит на 6 групп видов. В деталях

обсуждается структура копулятивных органов и сравнивается с таковыми у типового вида рода *Hilaira*, viz. *Neriene excisa* O. Pickard-Cambridge, 1871. Для каждого вида приведён диагноз, описание, рисунки, карта распространения.

Introduction

The genus *Oreoneta* was erected by Kulczyński in 1894 in *Araneae Hungariae* written by Chyzer and Kulczyński and consisting of three volumes [Chyzer and Kulczyński, 1891, 1894, and 1897]. Two species was included in the new genus, *Tmeticus niger* F. O. Pickard-Cambridge, 1891 and *Hilaira montigena* (L. Koch, 1872). This was further conformed by Kulczyński [1894: 323] who stated “*Oreoneta* für: *Tmeticus niger* F. O. P. Cambr. und *Erigone montigena* L. Koch”. The genus is currently considered to be a junior synonym of *Hilaira* Simon, 1884. However, the structure of the copulatory organs of the type species of these two genera, *Tmeticus niger* F. O. Pickard-Cambridge, 1891 and *Neriene excisa* O. Pickard-Cambridge, 1871 respectively, are basically so different that they cannot be considered as congeneric and accordingly the genus *Oreoneta* is here revalidated.

Millidge [1977: 8] has already questioned the monophyly of *Hilaira* pointing out some differences in the male copulatory organs between *H. excisa* and *H. nubigena* Hull, 1911, *H. pervicax* Hull, 1908, and *H. montigena* (L. Koch, 1872). We agree with him in that the latter three species are not congeneric with *H. excisa*. But, on the other hand, we do not think that they all are congeneric with each other. In our opinion, *H. montigena* is a typical representative of *Oreoneta* while *H. nubigena* Hull, 1911 and *H. pervicax* belong to a third, still undescribed genus. However, creating a new genus for these two species is beyond the scope of this study.

Oreoneta is a fairly large linyphiid genus comprising, according to the present concept, 31 species. This group has a Holarctic distribution and occurs from the highlands of Tien Shang and Colorado (southernmost localities, ca 42.5°N and 38.83°N respectively) to the high Arctic (Novaya Zemlya, ca 73°). Certain *Oreoneta* species have been erroneously reported from numerous localities. For example *Hilaira tatrlica* has been recorded from Fennoscandia [Palmgren, 1975], Polar Ural [Tanasevitch, 1985], Yenisei [Eskov, 1988], Yakutia [Marusik et al., 1993b], northeastern Siberia [Marusik et al., 1992], Caucasus [Tanasevitch, 1990], etc. and *Hilaira frigida* from many places in Europe and North America. However, comparative studies of different populations of “*Hilaira tatrlica*” revealed that this species is restricted to the Alps and Tatra Mountains only and specimens from other localities belong to several species either synonymized with *H. tatrlica* (*O. punctata* Tullgren, 1955) or new species (*O. magaputo* sp.n., *O. mongolica* Wunderlich, 1995, *O. uralensis* sp.n., *O. eskovi* sp.n., *O. tienshangensis* sp.n.). A similar situation exists with *Hilaira tatrlica garrina* as it was found that specimens identified as *H. t. garrina* by Å. Holm and Kirill Eskov in fact represent several species, e.g. *O.*

arctica, *O. beringiana* sp.n., *O. leviceps* (L. Koch, 1879) and *O. sepe* sp.n. *O. frigida* Thorell, 1872 also seems to be a problematic species as will be discussed.

In listing the examined material we have used capital letters for countries, and bold font for the largest administrative units or large geographical areas. Only one abbreviation has been used for geographical names, e.g. NWT for Northwest Territories. Distributional maps are mainly based on this material.

All measurements are in millimeters. Values given for the epigyne refer to the maximum width of apical and basal arms and are separated by a slash.

Abbreviations: [all not in use yet]

A. MUSEUMS: AMNH — American Museum of Natural History, New York, USA; CNC — Canadian National Collections, Ottawa; HECO — Hope Entomological Collection, Oxford, UK; IBPN — Institute for Biological Problems of the North, Magadan, Russia; ISEA — Institute for Ecology and Systematics of Animals, Novosibirsk, Russia; MCZ — Museum of Comparative Zoology, Harvard University, Boston, USA.; MZT — Zoological Museum, University of Turku, Finland; RMS — Royal Museum of Scotland, Edinburgh, UK; SMNH — Swedish Museum of Natural History, Stockholm, Sweden; UWBM — the Burke Memorial Museum, Seattle; UZM HC — Uppsala University Zoological Museum, Å. Holm’s spider collection, Sweden; ZISP — Zoological Institute, Russian Academy of Sciences, St.-Petersburg, Russia; ZMB — Zoological Museum, Bergen, Norway; ZMH — Zoological Museum, University of Helsinki, Finland; ZMMU — Zoological Museum of the Moscow State University, Russia.

B. ANATOMICAL CHARACTERS:

1. *Male palp*: CA — cap-like part of embolic membrane; CO — column; DA — dorsal apophysis of median plate; E — embolus; EC — posterior extension of the embolic membrane; EM — embolic membrane; LE — lamellar extension of dorsal apophysis; MP — median plate of radix; NO — posterodorsal notch of supratregular fold; PC — paracymbium; PE — peak-like part of embolic membrane; PP — paracymbial pocket; PT — protegulum; PST — posterior fold of supratregulum; RL — retrolateral lobe of cymbium; SD — sperm duct; SF — supratregular foramen; SBT — subtegulum; SRT — supratregulum; ST — stem of embolic membrane; T — tegulum; TA — tibial apophysis; TL — total length; TP — radical tailpiece; VA — ventral apophysis of median plate; X — triangular lobe on the embolic base.

2. *Epigyne*: AA — apical arm of median plate; AMP — anterior median plate; API — PMP/AMP; BP — basal arm of median plate; ED — apical end of sulcus; EPL — epigynal plate; ES — apical end of sulcus; GR — groove of anterior median plate; PMP — posterior median plate; PI — epigynal pit; RE — epigynal ridge; SU — sulcus.

Genus *Oreoneta* Kulczyński, 1894 gen. rev.

Oreoneta Kulczyński in Chyzer & Kulczyński, 1894: 77. — Type species by subsequent designation [Petrunkevitch, 1928: 236] *Tmeticus niger* F. O. Pickard-Cambridge, 1891 from England (= *Erigone frigida* Thorell, 1872: 152, from Greenland).

DIAGNOSIS. *Oreoneta* males may be recognized by having two heavily chitinized, anteriorly pointing apophysis on the radix, black, whip-like embolus and large crooked radical tailpiece (Fig. 1), and females by the boletus or hourglass

shaped or sometimes even polygonal epigynal plate with a pair of pits on its apical part (Fig. 4). The male carapace has a very typical profile with evenly raised ocular area (Fig. 6).

DESCRIPTION. Members of the genus *Oreoneta* are medium sized (TL = 2.5–4.75), usually relatively dark colored spiders; cephalothorax and legs brown, abdomen dark greenish-gray. They usually inhabit high mountains, boreal forests and arctic tundra, living in moss and litter and under stones.

The female carapace is unmodified while that of the male is evenly raised anteriorly. The copulatory organs of the different species within species groups are very similar. Therefore identification of *Oreoneta* specimens necessitates careful study. This is especially true for the females.

Male palp (Figs. 1, 3, 4):

Tibia. Anterodorsal corner of the tibia extended as a scooped, vertically standing apophysis (TA). Length of TA varies in different species from relatively short in *O. garrina* (tibial length/width ratio 0.66) to rather long in *O. magaputo* sp.n. (tibia twice as wide as long). TA with more or less distinct notch in the apical portion. In a few cases shape and length of TA can be used for species discrimination.

Cymbium unmodified, with a small retrolateral lobe (RL).

Paracymbium (PA) more or less parallel with the lateral side of the cymbium; its proximal part with a fairly deep excavation or paracymbial pocket (PP) the lateral wall of which is furnished with a row of long hairs; anterior part of paracymbium club-like, dilated; anteroventral edge characteristically twisted and furnished with two very long hairs. Shape of PA varies in minor ways, but these variations can be used for discrimination of sibling species.

Tegulum (T) with a blunt-tipped, weakly sclerotized area or prottegulum [PT; Holm 1979: 256, Hormiga 2000: 6] anterodorsally.

Suprattegulum (SRT) with rounded apex, proximal part folded and notched on its dorsal margin (NO) to hold the proximal part of the embolus.

Embolic division attached to the middle part of the suprattegulum via a short column (CO). When embolic division is cut loose from the suprattegulum a roundish aperture is left on its dorsal side. The sperm duct (SD) runs through this suprattegular foramen [SF; Hormiga 2000: 7] to enter into the embolic division.

Embolic membrane [EM; Hormiga 1994: 26] arises partly from the column and partly from the anterodorsal side of the embolic division just opposite to the embolus (E); it has a relatively long stem (ST) and a scooped, cap-like part (CA) with a more or less translucent anterior peak (PE). Its posterior part is often drawn into apically narrowing extension (EC). Shape of EM is one of the best diagnostic characters in *Oreoneta*.

Radix. Main body or radix of the embolic division is formed by the shield-like central area (MP) bearing two anterior extensions, dorsal (DA) and ventral apophysis (VA) while its posteroventral corner is drawn into a massive, dorsally curving hook-like extension or radical tailpiece [TP; Hormiga 2000: 7]. On the ventral edge of the dorsal apophysis there is a shallow, elongated recess edged with a lamellar extension (LE). Its shape and location is quite variable. Shape of DA and VA are very important characters for distinguishing species and species groups in *Oreoneta*.

Embolus (E) long, whip-like, arising from the postero-dorsal corner of the radix.

Epigyne (Fig. 4): More often than not the structure of the whole epigyne is visible in ventral view in most spider families. On the other hand, there are numerous linyphiid genera, which are characterized by having the epigyne turned over so that it is visible only from behind or even merely in

dorsal view. This is true for *Oreoneta* and the situation is schematically presented in Fig. 6B.

The epigyne is characterized by the boletus- or hourglass shaped or sometimes polygonal epigynal plate (EPL) which is bordered both sides by deep invaginations or sulci (SU). The embolus is inserted into the inner structures of the epigyne through the somewhat dilated apical end of the sulcus (ES). Apical parts of the lateral sulci are bounded by ridge-like elevations (RE) but otherwise the surface of the epigynal plate is about at the same level as the rest of the epigyne. The epigynal plate may be divided into two sections; its apical part apparently corresponds to the back wall of the epigynal cavity of the Micronetinae [Saaristo and Tanasevitch 1996: fig. 6] and is here called the anterior median plate (AMP) while the rest of it is equivalent to the posterior median plate (PMP). Lateral dilations of the anterior and posterior median plates are here respectively called apical (AA) and basal arms (BA). On the anterior median plate there is a pair of pits (PI), which lie at the median ends of more or less pronounced grooves (GR) of variable depth and width. During copulation the ventral apophysis of the embolic division is pushed into one of these pits. Accordingly the depth and diameter of the pit corresponds to the length and the basal diameter of the ventral apophysis.

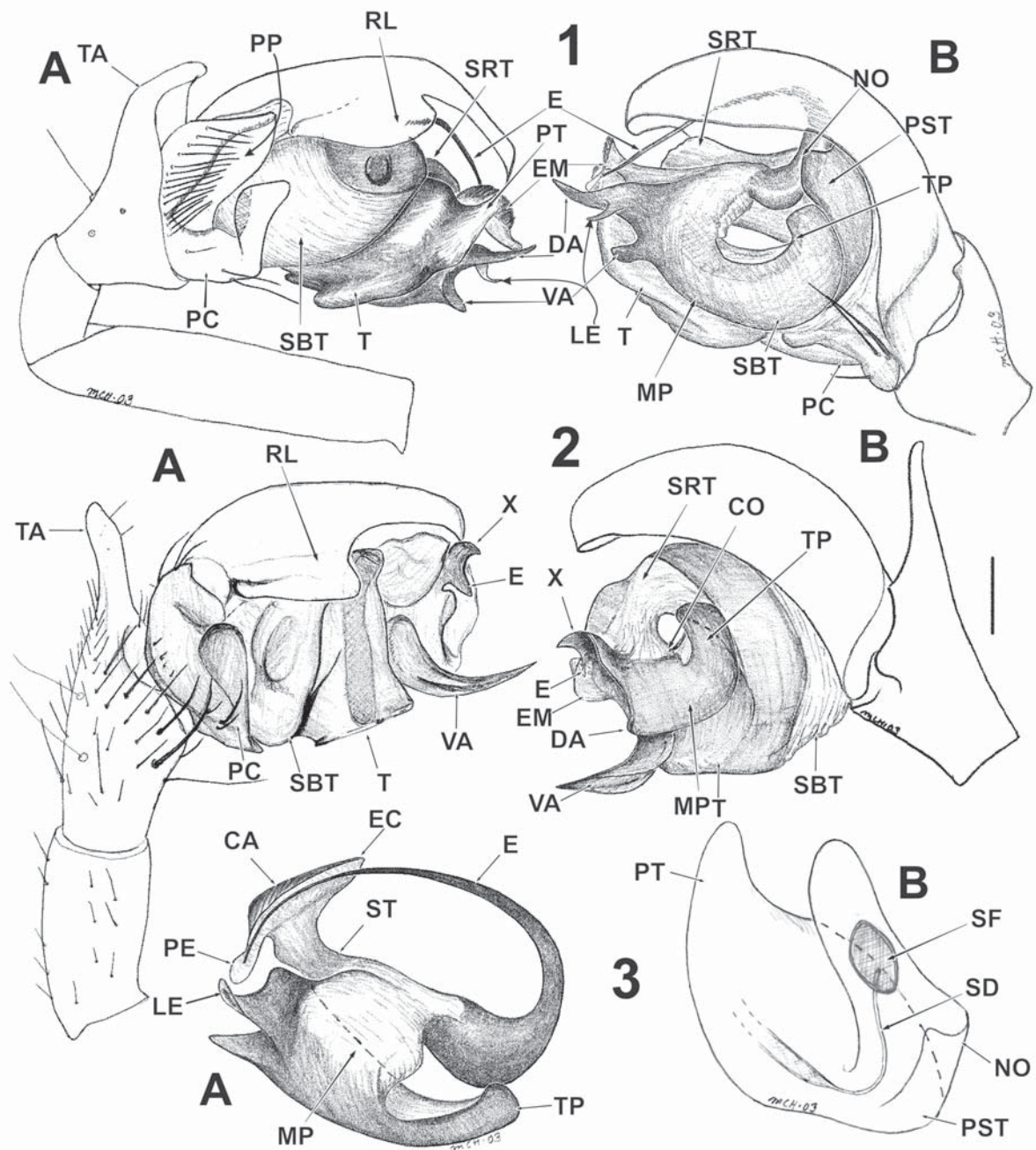
DISCUSSION. The general morphology of the male and female copulatory organs of *Oreoneta* is very constant throughout the genus, and this can be regarded as derived character, which supports the hypothesis that the genus is monophyletic. At the first sight the most striking difference between the male palp of *Oreoneta* and *Hilaira excisa* (O. Pickard-Cambridge, 1871), the type species of *Hilaira*, is the long, whip-like embolus of the former genus arising from the posterodorsal corner of the radix. That of *H. excisa* is very short, claw-like, furnished with a triangular basal apophysis and situated at the anterodorsal corner of the radix or exactly in the opposite site compared with *Oreoneta* (Fig. 2). On the other hand, despite the radical differences between the male copulatory organs of *Oreoneta* and *Hilaira* the epigynes of the two genera are amazingly similar (Figs. 4, 5), which points to the common ancestry of the two genera. Finally, the shape of the male carapace is stable within *Oreoneta*; the ocular area is evenly raised and there is no horn-like protrusion as in *H. excisa*, the type species of *Hilaira*.

Species and species groups

The genus *Oreoneta* now comprises 31 species. They are arranged into six species groups, which are based mainly on the male copulatory organs, as the female epigyne is quite difficult to interpret. Unfortunately certain characters seem to have a contradictory distribution, which has made it difficult to establish unambiguous species groups.

1. *arctica*-group

The males of this group are characterized by the following combination of characters: embolic membrane without posterior extension (resembling a bird's head with a long neck); dorsal apophysis with an apical lamellar extension preceded by a more or less conspicuous fold; ventral apophysis either short and blunt tipped or fairly long and sharp pointed, in the last mentioned case its tip may be occasionally broken away. Form of epigyne variable, either boletus- or hourglass shaped. This group includes the following seven species: *O. arctica* (Holm, 1960), *O. banffkluan* sp.n., *O. brunnea* (Emerton, 1882), *O. fennica* sp.n., *O. fortyukon* sp.n., *O. logunovi* sp.n., and *O. vogelae* sp.n.



Figs. 1–3. Male copulatory organs. 1 — palp of *Oreoneta sinuosa* (Tullgren) laterally (A) and mesially (B); 2 — palp of *Hilaira excisa* (O. Pickard-Cambridge) laterally (A) and mesially (B); 3 — embolus and tegulum of *Oreoneta punctata* (Tullgren) mesially (A) and laterally (B).

Рис. 1–3. Детали строения пальца самца. 1 — палепа *Oreoneta sinuosa* (Tullgren) ретролатерально (A) и пролатерально (B); 2 — палепа *Hilaira excisa* (O. Pickard-Cambridge) ретролатерально (A) и пролатерально (B); 3 — эмболюс и тегулюм *Oreoneta punctata* (Tullgren) пролатерально (A) и тегулюм и супратегулюм *Oreoneta* sp. пролатерально (B).

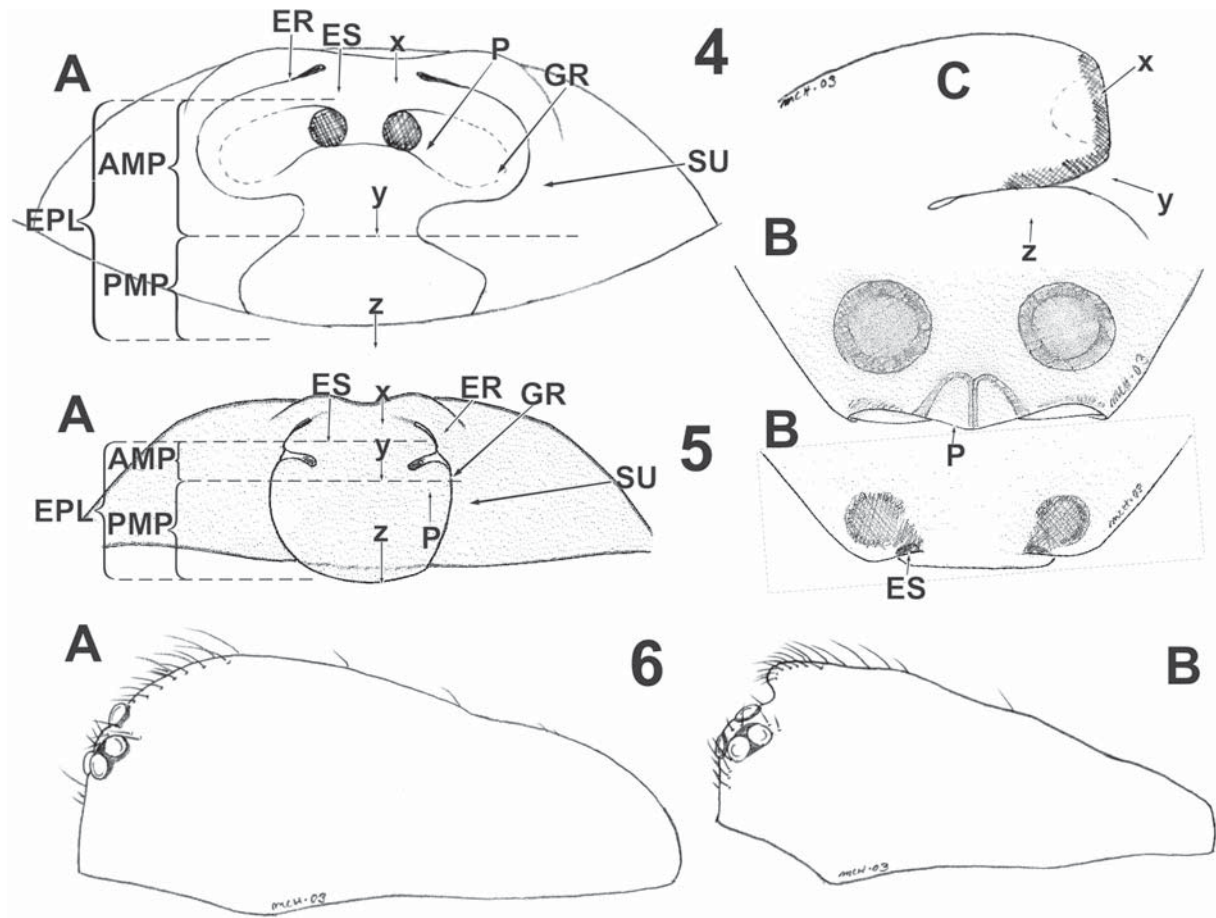
2. *frigida*-group

The males of this group have an embolic membrane similar to that of *arctica*-group but differ by having claw-like or triangular, more basally situated lamellar extension on dorsal apophysis and short, truncate ventral apophysis. Again the form of epigyne is variable, either boletus- or hourglass shaped. This group includes the following five species: *O.*

alpina (Eskov, 1987), *O. frigida* (Thorell, 1872), *O. herschel* sp.n., *O. leviceps* (L. Koch, 1879), and *O. sinuosa* (Tullgren, 1955).

3. *montigena*-group

This group comprises a single species, *O. montigena* (L. Koch, 1872) and is characterized by the sandglass shaped



Figs. 4–6. Female epigyne. 5 — epigyne of *Oreoneta* sp. ventrally (A) laterally (B), and dorsally (C); 6 — epigyne of *Hilaria excisa* (O. Pickard-Cambridge) ventrally (A) and dorsally (B).

Рис. 4–6. Эпигина самки. 5 — *Oreoneta* sp. вентрально (A) латерально (B), и дорзально (C); 6 — *Hilaria excisa* (O. Pickard-Cambridge) вентрально (A) и дорзально (B).

median plate with conspicuously small pits widely separated from each other. It resembles that of *O. leviceps* but the middle point is much wider.

4. *intercepta*-group

This group includes only *O. intercepta* (O. Pickard-Cambridge, 1873) and is characterized by the almost circular median plate with conspicuously small pits widely separated from each other.

5. *punctata*-group

The males of this group have the posterior part of the embolic membrane drawn into an apically narrowing extension giving to it a mushroom-like appearance. Epigynal plate either boletus- or hourglass shaped. This group includes the following eleven species, *O. beringiana* sp.n., *O. eskovi* sp.n., *O. magaputo* sp.n., *O. mineevi* sp.n., *O. mongolica* (Wunderlich, 1995), *O. punctata* (Tullgren, 1955), *O. repeater* sp.n., *O. sepe* sp.n., *O. tuva* sp.n., *O. uralensis* sp.n., and *O. wyomingia* sp.n.

6. *tatrica*-group

This group is close to the previous one but the posterior extension of the embolic membrane is much shorter with

roundish end. The following five species are included in this group: *O. eskimopoint* sp.n., *O. garrina* (Chamberlin, 1948), *O. kurile* sp.n., *O. tatrica* (Kulczyński, 1915), and *O. tianschagensis* sp.n.

Description of the species

1. *arctica*-group

Oreoneta arctica (Holm, 1960) **comb.n., stat.n.**

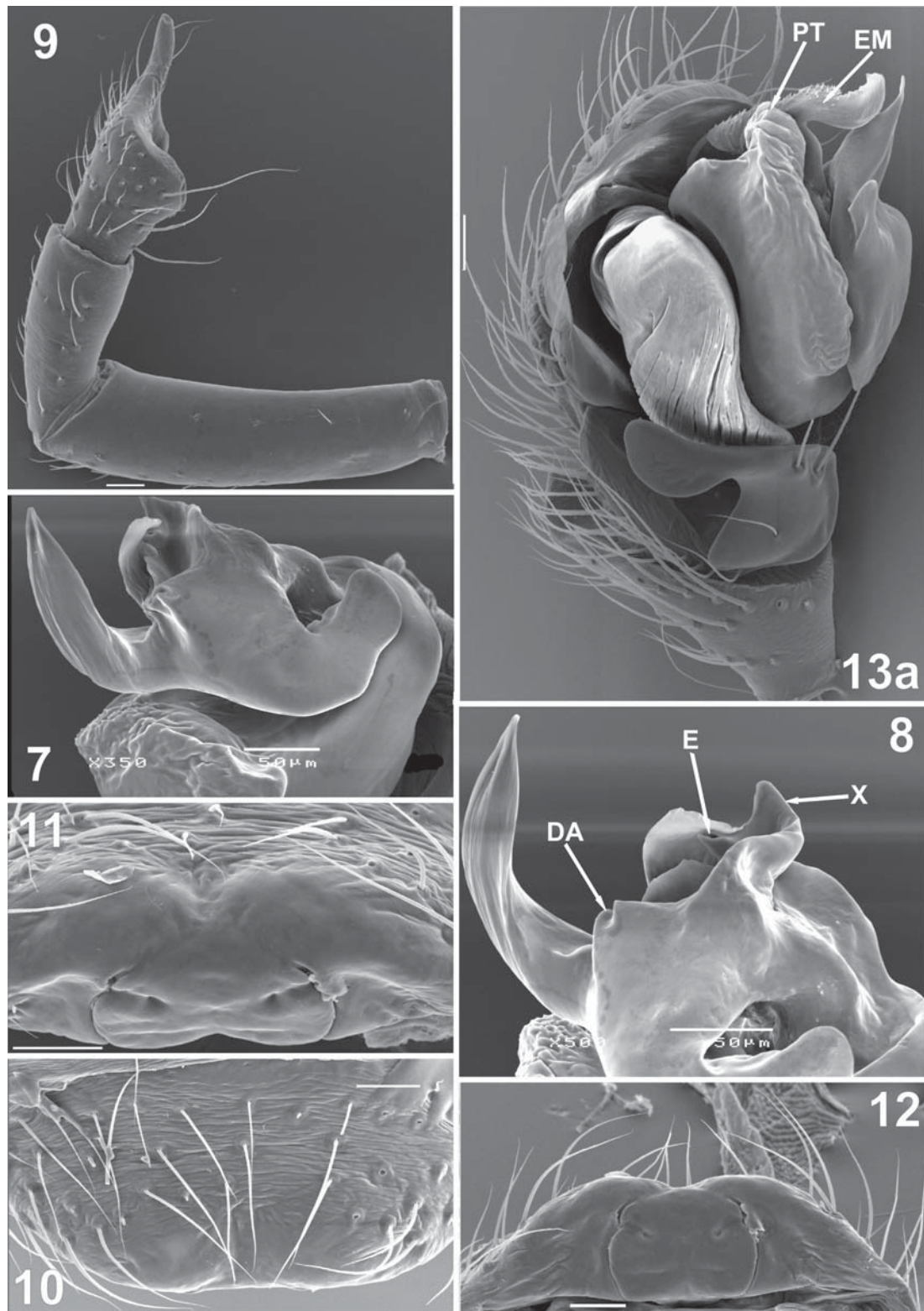
Figs. 13b–15, 32–33, 41–42, 53–54.

Hilaria montigena arctica Holm, 1960: 119, pl. III f. 28–30 (D♂).

Hilaria montigena arctica: Holm, 1970: 13.

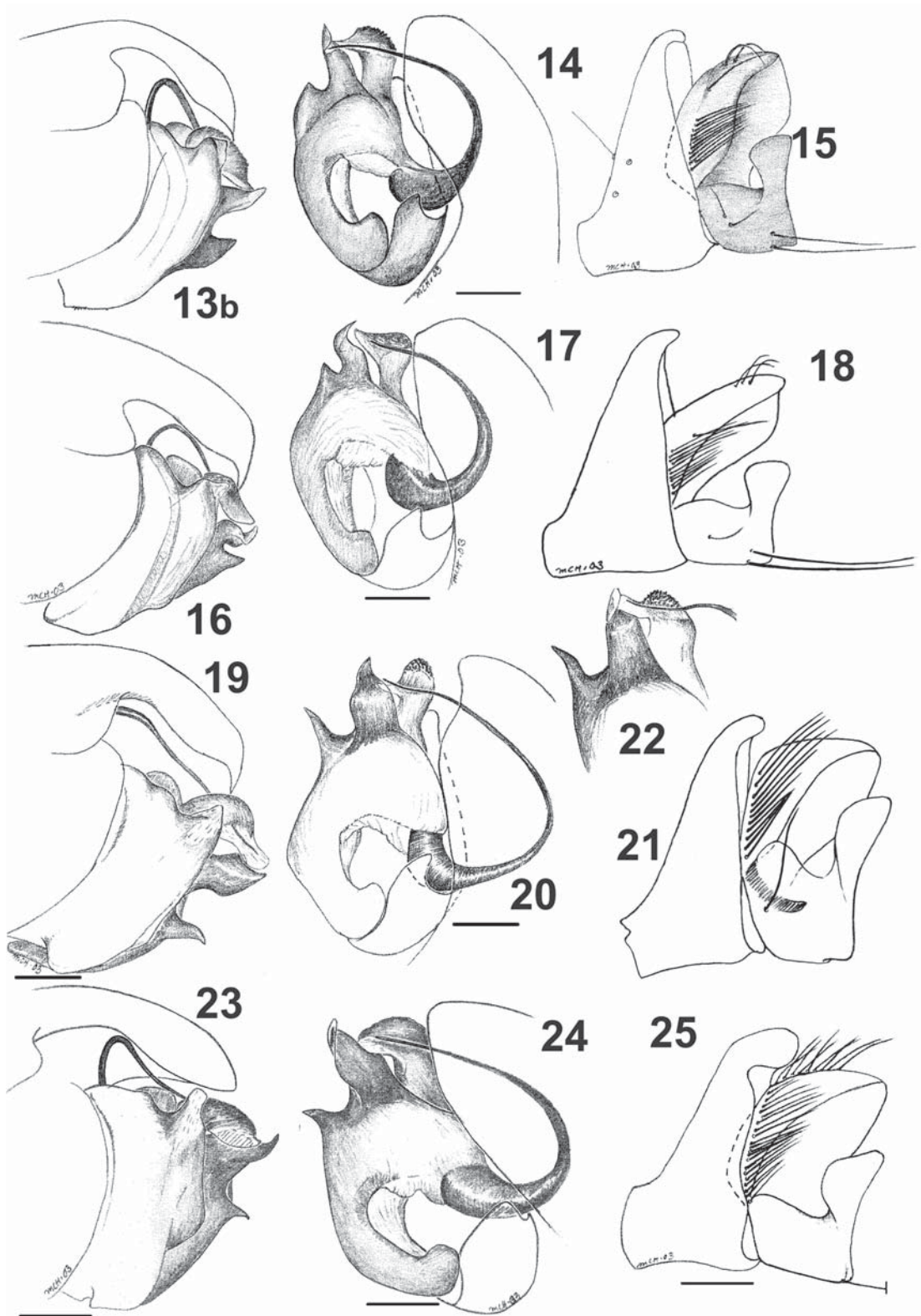
H. frigida intercepta (O. Pickard-Cambridge, 1873): Eskov, 1981: 1487 (synonymized two species).

Material examined: RUSSIA: 1 ♂ (MZT AE 058), NE Siberia, Wrangel Island, Roger's Bay, 71°N 179°30'W, 10.05.1990 (O.A. Khrulyova); 3 ♂♂ 5 ♀♀ (ZMMU), same locality and date; 1 ♂ 3 ♀♀ (ISEA BI-923), NE Siberia, Wrangel Isl., Somnitelnaya Bay, 1986 (O.A. Khrulyova); 2 ♂♂ 1 ♀ (NRS), NE Siberia, Rirkaipia, 12–13.09.1878 (Vega-exp. Nr 70); 1 ♂ (IBPN), Kurile Isles, NW shore of Shumshu Isl., 50°46'N 156°15'E, 9–13.09.1996 (Yu.M. Marusik). USA: 1 ♀ (IBPN), Alaska, Turquoise Lake, 60°48'N



Figs. 7–13a. Copulatory organs of *Hilaira excisa* (O. Pickard-Cambridge) (7–12) and *Oreoneta tuva* sp.n. (13a). 7–8 — embolic division, prolateral view; 9 — femur-tibia of male palp, retrolateral view; 10–11 — epigyne, ventral view, different turns; 12 — epigyne, view from behind; 13a — whole palp, retrolateral view. Scale = 0.05 mm.

Рис. 7–13а. Копулятивные органы *Hilaira excisa* (О. Pickard-Cambridge) (7–12) и *Oreoneta tuva* sp.n. (13). 7–8 — эмболюсный отдел, пролатерально; 9 — бедро-голень пальпы самца, ретролатерально; 10–11 — эпигина разные аспекты; 12 — эпигина, вид сзади; 13а — целая пальпа, ретролатерально. Масштаб 0,05 мм.



Figs. 13b–25. Male palp of *Oreoneta arctica* (Holm) (13–15), *O. fortyukon* sp.n. (16–18), *O. brunnea* (Emerton) (19–22) and *O. banffkluanne* sp.n. (23–25). 13b, 16, 19, 23 — terminal part, retrolateral view; 14, 17, 20, 24 — terminal part, prolateral view; 15, 18, 21, 25 — tibia and paracymbium, retrolateral view; 22 — terminal part of embolic division, prolateral view. Scale = 0.1 mm.

Рис. 13b–25. Пальпа самца *Oreoneta arctica* (Holm) (13–15), *O. fortyukon* sp.n. (16–18), *O. brunnea* (Emerton) (19–22) и *O. banffkluanne* sp.n. (23–25). 13b, 16, 19, 23 — верхняя часть, ретролатерально; 14, 17, 20, 24 — верхняя часть, пролатерально; 15, 18, 21, 25 — голень и парацимбиум, ретролатерально; 22 — верхняя часть эмболюсного отдела, пролатерально. Масштаб 0,1 мм.

154°W, 11.05–10.08.1997 (P. Tomkovitch); ♂ paratype (UZM, Typsamlingen nr 1955), **Alaska**, Umiat, 5–8. Aug. 1958 (C. Lindroth); 1♂ (UZM 1736: 18428), **Alaska**, Kodiak Isl., Amara Lake, 500–1200, ca. 57°19'N. 154°36'W, June 23, 1962 (G.E. Ball); 1♂ 1♀ (UZM 1434: 15787), **Alaska**, Kodiak Isl., 23.06.1962 (C.H. Lindroth).

DIAGNOSIS. The male of this species is easily distinguished by the small but distinct fold just before the lamellar extension of the fairly long, dorsal apophysis and by the very short, blunt-tipped ventral apophysis and the female by the narrow, elliptical anterior median plate with egg-shaped epigynal pits; anterior median plate as wide as the posterior one (API ~ 1).

DESCRIPTION. Measurements (male/female, sample from Wrangel Isl.). Total length 2.75–3.05/3.00–3.63. Carapace: 1.31–1.36/1.21–1.30 long, 1.04–1.06/0.90–0.91 wide. TmI 0.65/0.58. Carapace length/femur I ratio: 1.30/1.36. Leg I: 1.04 + 0.34 + 0.89 + 0.79 + 0.69/0.96 + 0.36 + 0.86 + 0.69 + 0.53. Coloration dark. Males with slightly swollen TaI. Epigyne 0.13/0.13.

DISTRIBUTION. All records of this species, except for Shumshu Island lie in Beringia (an area west and east of the Bering Strait). It occurs in eastern Chukotka, Alaska, Wrangel and Shumshu Islands. The range of *O. arctica* may be disjunctive. This species has not been found between the northern Kuriles (50°N) and mountains of south Alaska (ca 61°N).

REMARKS. Eskov [1981: 1487] synonymised *Hilaira montigena arctica* Holm, 1960 with *Hilaira intercepta* (O. Pickard-Cambridge, 1873), which he transferred from *Erigone* to *Hilaira* and reduced in status to a subspecies of *Hilaira frigida* (Thorell, 1872). *H. m. arctica* is herein removed from synonymy with *H. intercepta*, elevated to species status and transferred to *Oreoneta*.

Oreoneta banffkluane sp.n.

Figs. 23–25, 34–35, 43–44, 55–56

Types: Holotype ♂ (CNC) CANADA, Alberta, Banff National Park, halfway lodge, N of Allenby Pass, 6200 ft, spruce/fir, 15–17.08.1988 (R.G. Bennett). Paratypes: 5♀♀ (MZT), Yukon T., [53] Kluane L., Cultus Bay, 138°20'W, 61°11'N, 800 m, under stones around small lake on moraine, 14.07.1993 (Yu.M. Marusik); 6♀♀ (IBPN), Yukon T., [90] Kluane L., Christmas Bay, 138°21'W, 61°03'N, Little John Ck., 800 m, pebbly banks, 22.07.1993 (Yu.M. Marusik); 1♂ (IBPN), Yukon T., Kluane L., Cultus Bay, 138°20'W, 61°11'N, 900 m, 10–20.05.1994 (D.I. Berman); 1♂ 2♀♀ (ZMMU), Yukon T., [51] Kluane L., Cultus Bay, 138°20'W, 61°11'N, 4000 ft, willow grove with *Graminacea* on the N slope near ridge, 13.07.1993 (Yu.M. Marusik).

ETYMOLOGY. The specific name is a noun in apposition and derived from the collecting sites of the type specimens.

DIAGNOSIS. The male of this species can be distinguished by the following combination of characters: apex of tibial apophysis dilated, free end of paracymbium ventral apophysis small, pointed (tip often broken away!) and dorsal apophysis large with well-defined apical membrane. Females can be recognized by having the posterior edge of the epigyne notably notched, the anterior plate broader than the posterior one (API ~ 0.75), posteriorly diverging apical arms and small epigynal pits twice their diameter apart.

DESCRIPTION: Measurements (male/female). Total length 3.18/2.98–3.10. Carapace: 1.43/1.29–1.33 long, 1.10/1.03–1.04 wide. TmI 0.61/0.62. Carapace length/femur I ratio: 1.22/1.25. Leg I: 1.17 + 0.37 + 1.00 + 0.87 + 0.66/1.03 + 0.36 + 0.91 + 0.79 + 0.51. Epigyne 0.166/0.129.

DISTRIBUTION. Known so far from Alberta and Yukon Territory in Canada (Map 1).

REMARKS. Specimens were collected at elevations ranging from 800 m to almost 2000 m.

Oreoneta brunnea (Emerton, 1882) **comb.n., stat.n.** Figs. 19–22, 36–37, 45, 61.

Tmeticus brunneus Emerton, 1882: 58, pl. 17, f. 7 (D♂).

Tmeticus brunneus: Emerton, 1909: 194, pl. 4, f. 7 (♂, D♀).

Erigone fusca Marx, 1890: 534 (replacement name for *T. brunneus*, thought preoccupied in *Erigone*).

Oedothorax brunneus: Crosby & Bishop, 1928: 1050.

Hilaira frigida brunneus: Eskov, 1981: 1487 (removed ♂♀ from S of *H. leviceps*, placed as subspecies).

Material examined: USA: 1♀ (AMNH), **Alaska**, Umiat, Colville River, 69°25'N 151°20'W, 3.07.1949 #2387 (N.A. Weber); 3♀♀ (AMNH), **Alaska**, Anaktuvuk Pass, 68°20'N 151°30'W, 7–10.07.1949 (## 2407, 2408 & 2428) (N.A. Weber); 1♀ (IBPN), USA, **Alaska**, lower reaches of Kashuna River, Old Chevak Vill., 61.654°N 165.283°W, Summer 1993 (Ye.A. Kretschmar); holotype ♂ (MCZ), **New Hampshire**, Mt. Washington, June 10, 1877 (J.H. Emerton); 1♀ (CNC), **Maine**, Baxter State Park, Tableland of Mt. Katahdin, shrubby area, 26.06.1986 (Jennings, J. Redner, C.D. Dondale). CANADA: 1♂ (MZT AE 083), **NWT**, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, litter, 11.06–13.08.1990 (S. Koponen); 1♂ 3♀♀ (MZT AE 064), **NWT**, Belcher Islands, Sanikiluaq, stony shore, 15.08.1990 (S. Koponen); 1♂ 1♀ (CNC), **NWT**, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, stone bed, 17.08.1985 (S. Koponen); 3♂♂ (MZT AE 081), **Québec**, Kuujjuarapik, 55°17'N 77°48'W, 9.06–15.07.1990 (S. Koponen); 1♀ (CNC), **Québec**, Ft. Chimo, 5.07.1954 (J.F. McAlpine); 2♂♂ 2♀♀ (CNC), **Québec**, Schefferville, 54.814°N 66.823°W, hill top, 30.07.1978 (S. Koponen); 1♀ (CNC), **Québec**, Indian House Lake, 56°15'N 64°45'W, beetle trap, 19.08.1954 (W.R. Richardson); 1♀ [det Holm as *tatrica*] (AMNH), **Newfoundland**, Hebron, 58°05'N 62°30'W, 17.07.1939 (J. Oughton).

DIAGNOSIS. The male of this species can be distinguished by the following combination of characters: apex of tibial apophysis not dilated, paracymbium rather narrow with elongated free end, ventral apophysis long, sharply pointed, and dorsal apophysis sturdy, with elusive apical membrane. The female can be recognized by having a short, elliptical anterior median plate, rather large, circular epigynal pits about their diameter apart and anterior median plate notably wider as the posterior one (API ~ 0.65).

DESCRIPTION. Measurements (male/female, from Québec & Maine). Total length 2.63–3.0/3.18–3.38. Carapace: 1.40–1.44/1.46–1.57 long, 1.03–1.07/1.03–1.20 wide. TmI 0.63/0.67–0.69. Carapace length/femur I ratio: 1.21–1.31/1.26–1.38. Leg I: 1.10 + 0.37 + 0.93 + 0.83 + 0.63/1.14 + 0.41 + 1.00 + 0.80 + 0.57. Epigyne (Québec) 0.186.

DISTRIBUTION. The species has a trans-Nearctic range and known from western Alaska to Newfoundland and Maine (Map 3).

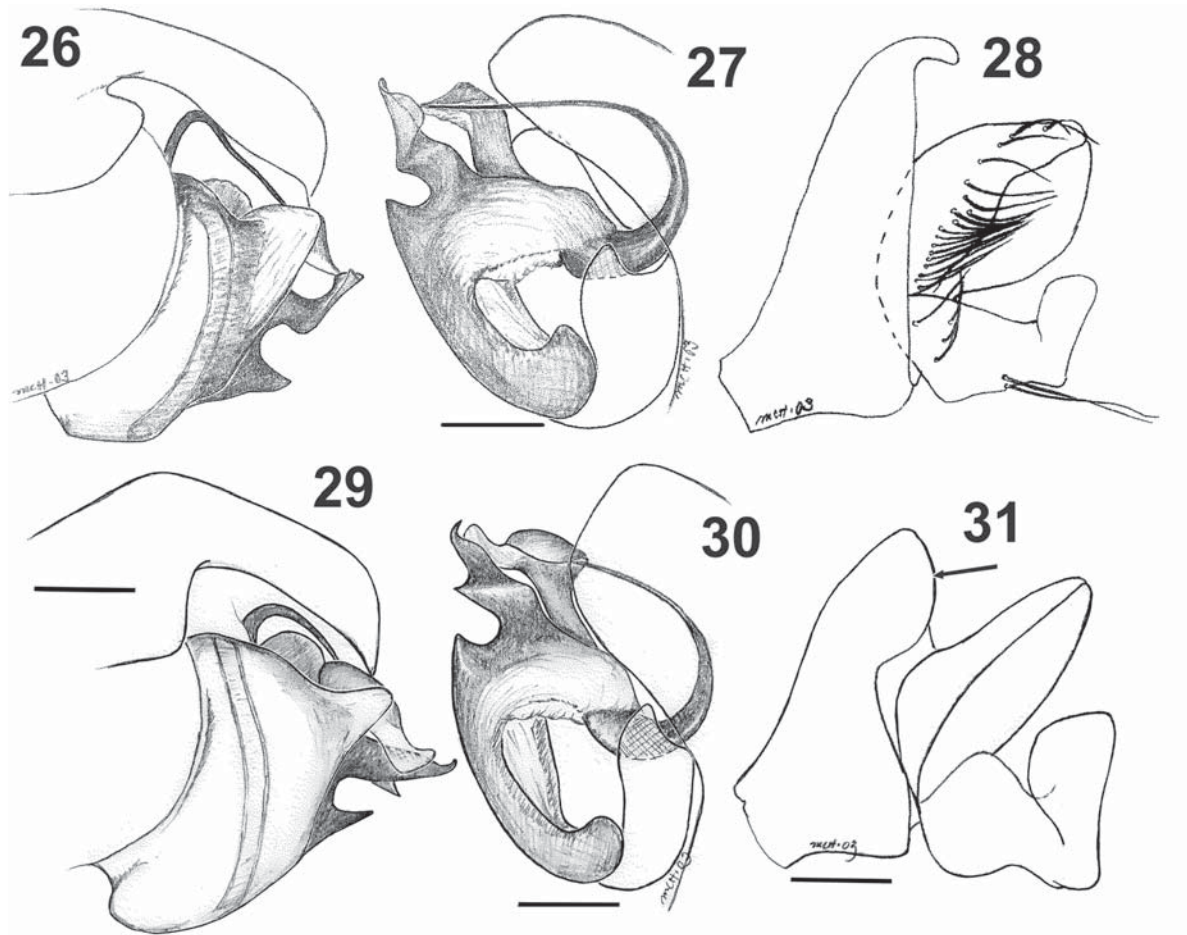
REMARKS. A specimen from Umiat, Alaska is smaller than those from the eastern Nearctic: carapace 1.26 long, 0.89 wide, TmI 0.52, carapace length/tibia I ratio 1.28. Kuskokwim's specimens are of the same size, while epigynal fovea has the same dimensions as in specimens from western Nearctic.

Hilaira brunneus is here restored to species status and transferred to *Oreoneta*.

Oreoneta fennica sp.n.

Fig. 46.

Types: Holotype ♀ (MZT AA 085) from FINLAND, **Kuusamo**, Oulanka, Taivalköngäs, 11.07.1962 (P.T. Lehtinen).



Figs. 26–31. Male palp of *Oreoneta vogelae* sp.n. (26–28) and *O. logunovi* sp.n. (29–31). 26, 29 — terminal part, retrolateral view; 27, 30 — terminal part, prolateral view; 28, 31 — tibia and paracymbium, retrolateral view. Scale = 0.1 mm.

Рис. 26–31. Пальпа самца *Oreoneta vogelae* sp.n. (26–28) и *O. logunovi* sp.n. (29–31). 26, 29 — верхняя часть, ретролатерально; 27, 30 — верхняя часть, пролатерально; 28, 31 — голень и парацимбиум, ретролатерально. Масштаб 0,1 мм.

ETYMOLOGY. Named after the country in which the new species was discovered.

DIAGNOSIS. The female (male unknown) can be recognized by having the anterior median plate as wide as the posterior one (API ~1) and the small epigynal pits twice their diameter apart.

DESCRIPTION. Measurements. Total length 3.28. Carapace: 1.46 long, 1.04 wide. Tm I 0.65. Carapace length/femur I ratio: 1.24. Leg I: 1.17 + 0.39 + 1.03 + 0.84 + 0.63. Epigyne 0.113/0.079/0.131 (top width/thinnest/down width), height equal to maximal width.

DISTRIBUTION. Known only from the type locality (Map 1).

***Oreoneta fortyukon* sp.n.**

Figs. 16–18, 38–40, 47.

Types: Holotype ♂ (AMNH), USA, Alaska, Fort Yukon, 13–16.08.1948 (R.D. Hamilton). Paratypes: USA: 1 ♂ 1 ♀ (CNC), Alaska, Isabel Pass mi 206 Richardson Hwy, 4500 ft, 17.08.1962 (R.E. Leech). CANADA: 1 ♂ (CNC), Yukon T., North Fork Pass, Ogilvie Mts., 4300 ft, 19.06.1962 (R.E. Leech); 1 ♂ (ZMMU), Yukon T., Kluane L., Cultus Bay, 61°11'N 138°20'W, mountain tundra, 5000 ft, willows on the top NWW slope, 12.07.1993 (Yu.M. Marusik).

ETYMOLOGY. The specific name is a noun in apposition and derived from the collecting site of the holotype.

DIAGNOSIS. The male of this species can be distinguished by the peculiarly twisted dorsal apophysis and the female by having the anterior median plate somewhat wider than the posterior one (API ~0.8) and the small epigynal pits three times their diameter apart.

DESCRIPTION. Measurements (male/female). Total length 2.68/3.75. Carapace: 1.21–1.36/1.59 long, 0.99–1.06/1.14 wide. Tm I 0.54–0.63/0.80. Carapace length/femur I ratio: 1.25/1.14. Leg I: 1.07 + 0.34 + 0.94 + 0.83 + 0.61/1.30 + 0.44 + 1.21 + 1.03 + 0.64. Epigyne (top width/mid-part width/down width ratio 1.94/1/1.61).

DISTRIBUTION. The species is known only from north-western Nearctic (or so called eastern Beringia): Alaska and Yukon Territory (Map 3).

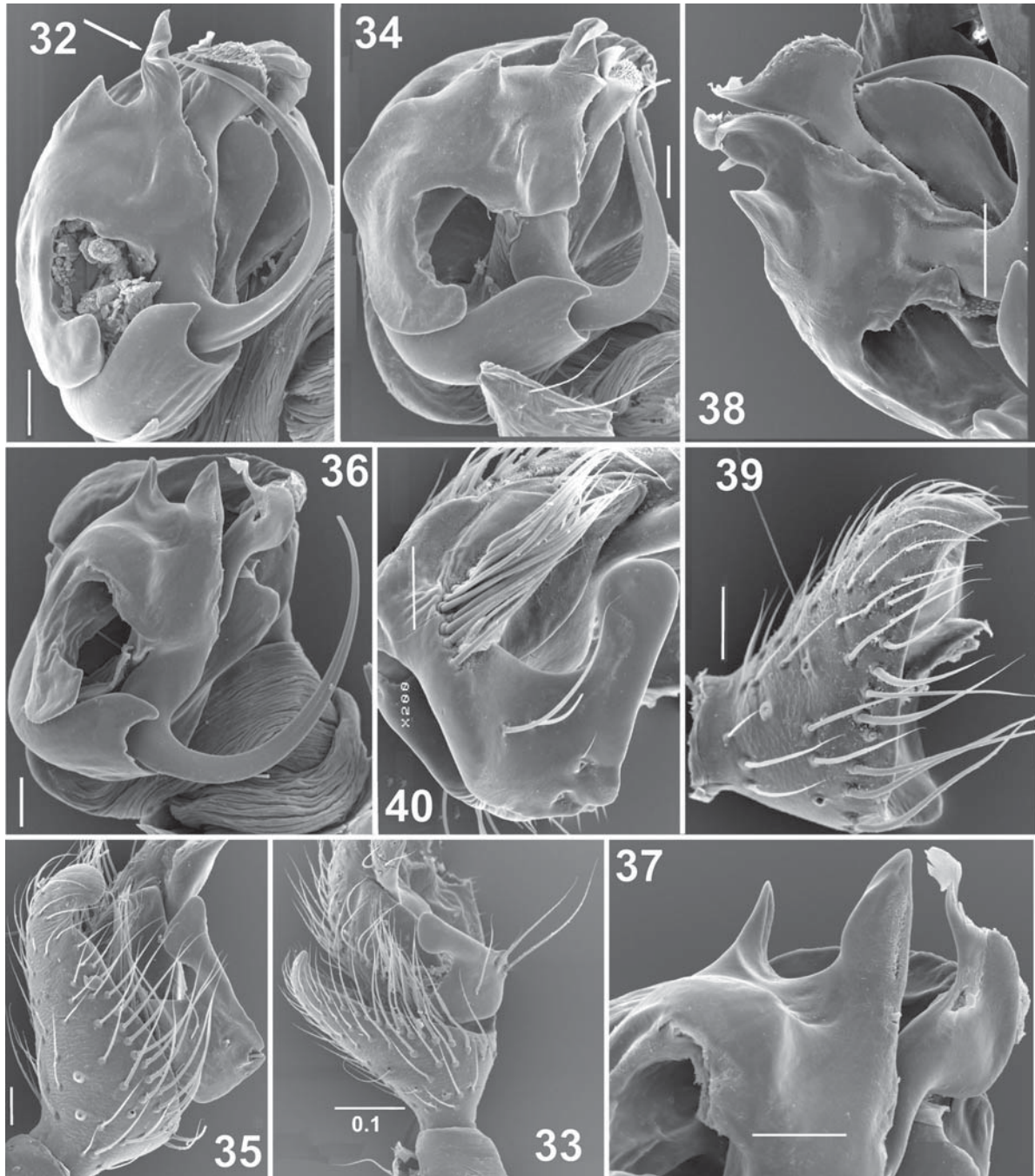
REMARKS. All specimens except the holotype have been collected from mountains (4300 ft and higher).

***Oreoneta logunovi* sp.n.**

Figs. 29–31, 48–49, 58–59.

Hilaira frigida intercepta: Eskov, 1992: 76 (in part).

Types. Holotype ♂ (ISEA) RUSSIA, Chita Area, Sokhondo Reserve, Lariionova Ck & Agutsa River confluence, -1350 m,



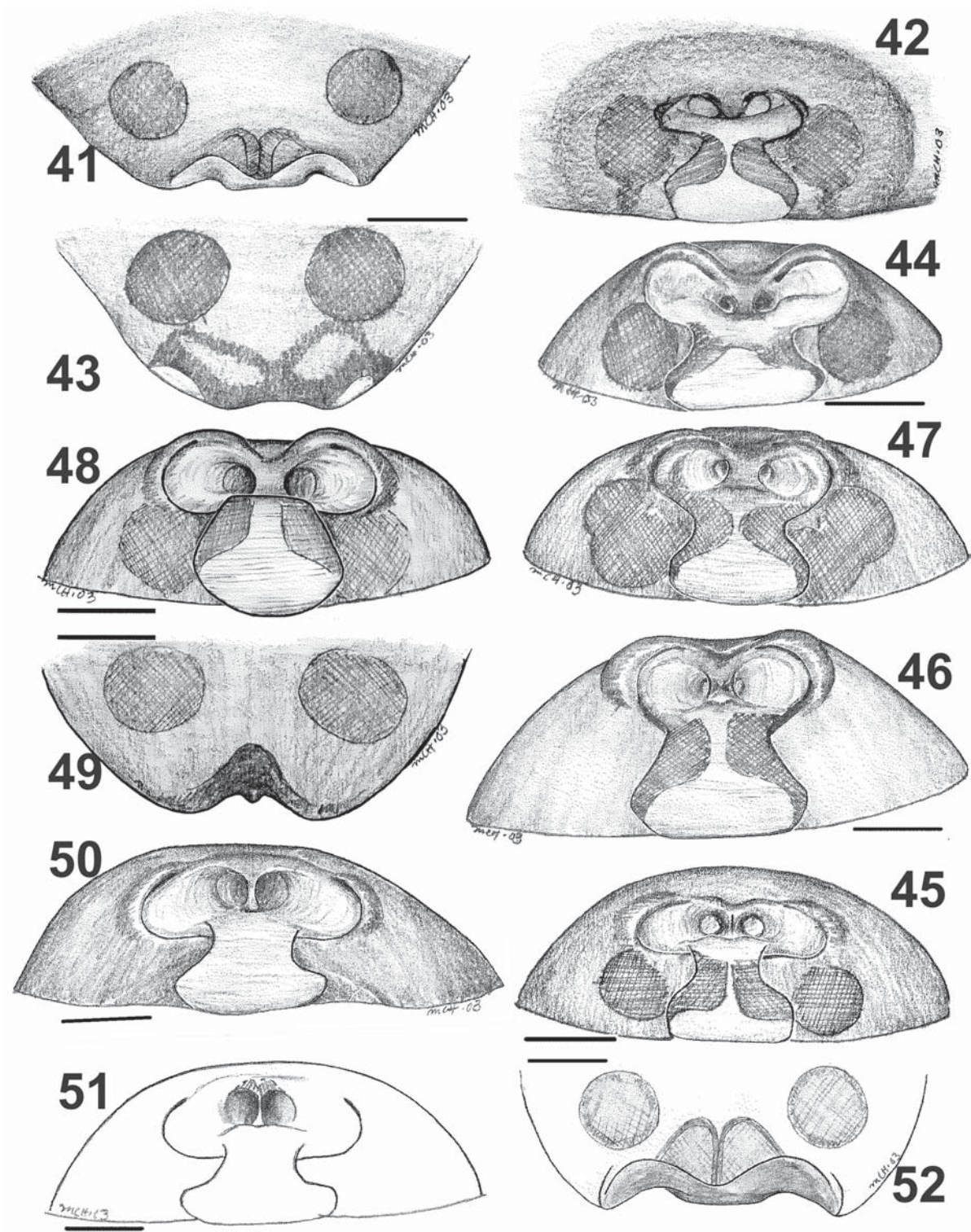
Figs. 32–40. Male palp of *Oreoneta arctica* (Holm) (32–33), *O. banffkluane* sp.n. (34–35), *O. brunnea* (Emerton) (36–37) and *O. fortyukon* sp.n. (38–40). 32, 34, 36, 38 — embolic division and protégulum, prolateral view; 33, 35 — paracymbium and tibia, retrolateral view; 37 — terminal part of embolic division 39, 40 — paracymbium and tibia respectively, retrolateral view. Scale = 0.05 mm if not otherwise indicated.

Рис. 32–40. Пальпа самца *Oreoneta arctica* (Holm) (32–33), *O. banffkluane* sp.n. (34–35), *O. brunnea* (Emerton) (36–37) и *O. fortyukon* sp.n. (38–40). 32, 34, 36, 38 — эмболюсный отдел и протегулом, пролатерально; 33, 35 — парацимбиум и голень, ретролатерально; 37 — верхняя часть эмболюсного отдела 39, 40 — парацимбиум и голень соответственно, ретролатерально. Масштаб 0,05 мм, если не указано иначе.

forest opening, sample # 30, 13.06.1991 (D.V. Logunov). Paratypes: 2 ♀♀ (ISEA), **Chita Area**, Sokhondo Reserve, Bukukun River upper flow, 1500 m, gravelly river bank, 31.05.1991 (D.V. Logunov); 1 ♀ (MMUM), **Chita Area**, Sokhondo Reserve, Larionova Ck & Agutsa River confluence, -1350 m, birch-larch forest, sample # 28, 13.06.1991 (D.V. Logunov).

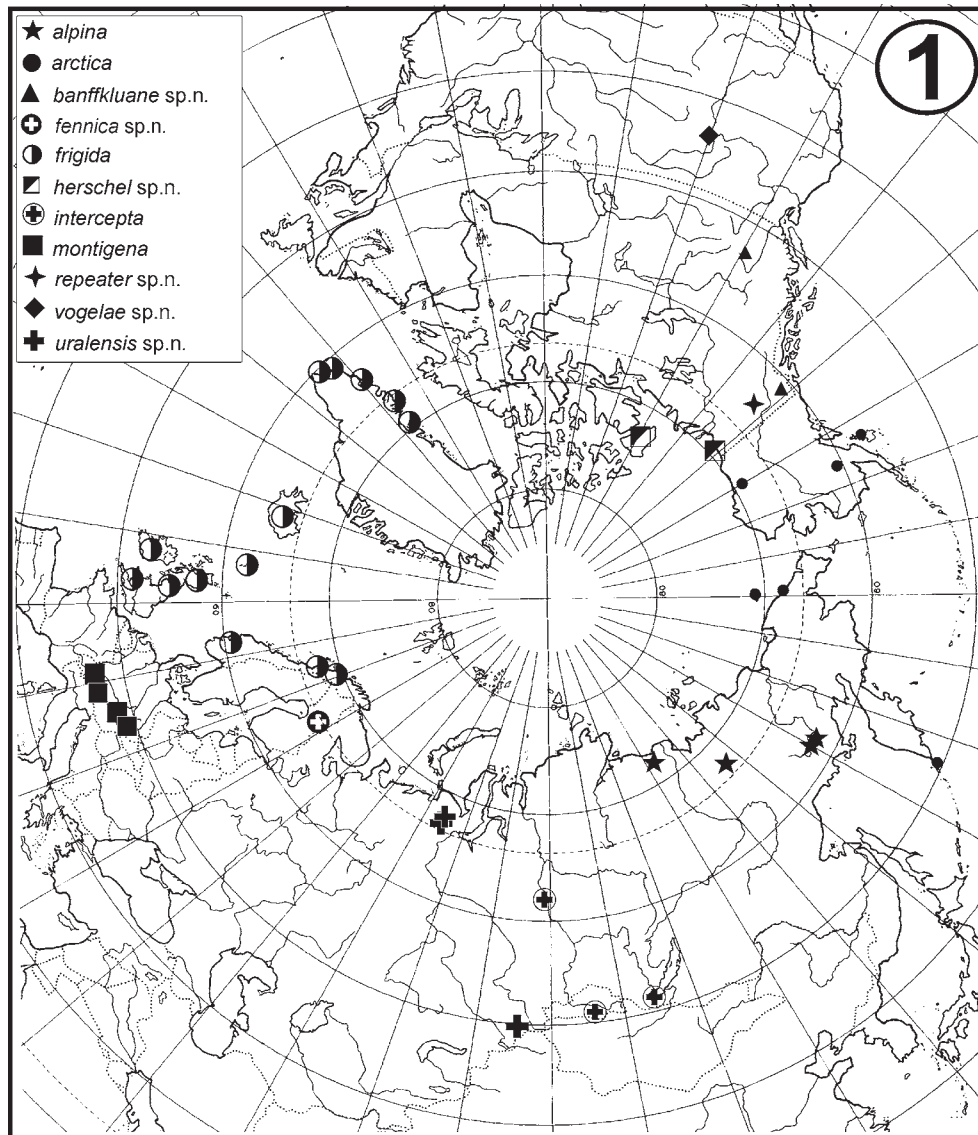
ETYMOLOGY. Named after our friend and skilled arachnologist Dr. Dmitri Logunov.

DIAGNOSIS. This is a very easily recognizable species. The male can be distinguished by the conspicuously dilated apex of the tibial apophysis and the long dorsal apophysis



Figs. 41–52. Epigyne of *Oreoneta arctica* (Holm) (41–42), *O. banffkluane* sp.n. (43–44), *O. brunnea* (Emerton) (45), *O. fennica* sp.n. (46), *O. fortyukon* sp.n. (47), *O. logunovi* sp.n. (48–49) and *O. vogelae* sp.n. (50–52). 41, 43, 49, 52 — ventral view; 42, 44, 45–48, 50–51 — view from behind. Scale = 0.1 mm.

Рис. 41–52. Эпигина *Oreoneta arctica* (Holm) (41–42), *O. banffkluane* sp.n. (43–44), *O. brunnea* (Emerton) (45), *O. fennica* sp.n. (46), *O. fortyukon* sp.n. (47), *O. logunovi* sp.n. (48–49) и *O. vogelae* sp.n. (50–52). 41, 43, 49, 52 — вид снизу; 42, 44, 45–48, 50–51 — вид сзади. Масштаб 0,1 мм.



Map 1. Distribution of *Oreoneta* species.
Карта 1. Распространение видов рода *Oreoneta*.

with a pointed, median extension and hooked, sharp-pointed apex. In dorsal view the female epigyne has a deep incision with a small round extension at its middle; anterior median plate notably wider than the posterior one (API ~ 0.7), pits large, about their diameter apart.

DESCRIPTION. Measurements (male/female). Total length 2.75/3.25–3.63. Carapace: 1.40/1.39–1.50 long, 10.5/1.00–1.07 wide. Tm I 0.58/0.62. Carapace length/femur I ratio: 1.21/1.35–1.38. Leg I: 1.16 + 0.37 + 0.99 + 0.84 + 0.64/1.03 + 0.36 + 0.94 + 0.73 + 0.57. Coloration dark. Males with swollen TaI. Palpal tibia not pointed. Epigyne 0.123/0.143.

DISTRIBUTION. This species is known only from the type locality, Sokhondo Reserve in Chita Area (Map 3).

REMARKS. Specimens from Chita Area were misidentified by Eskov [1992].

Oreoneta vogelae sp.n.

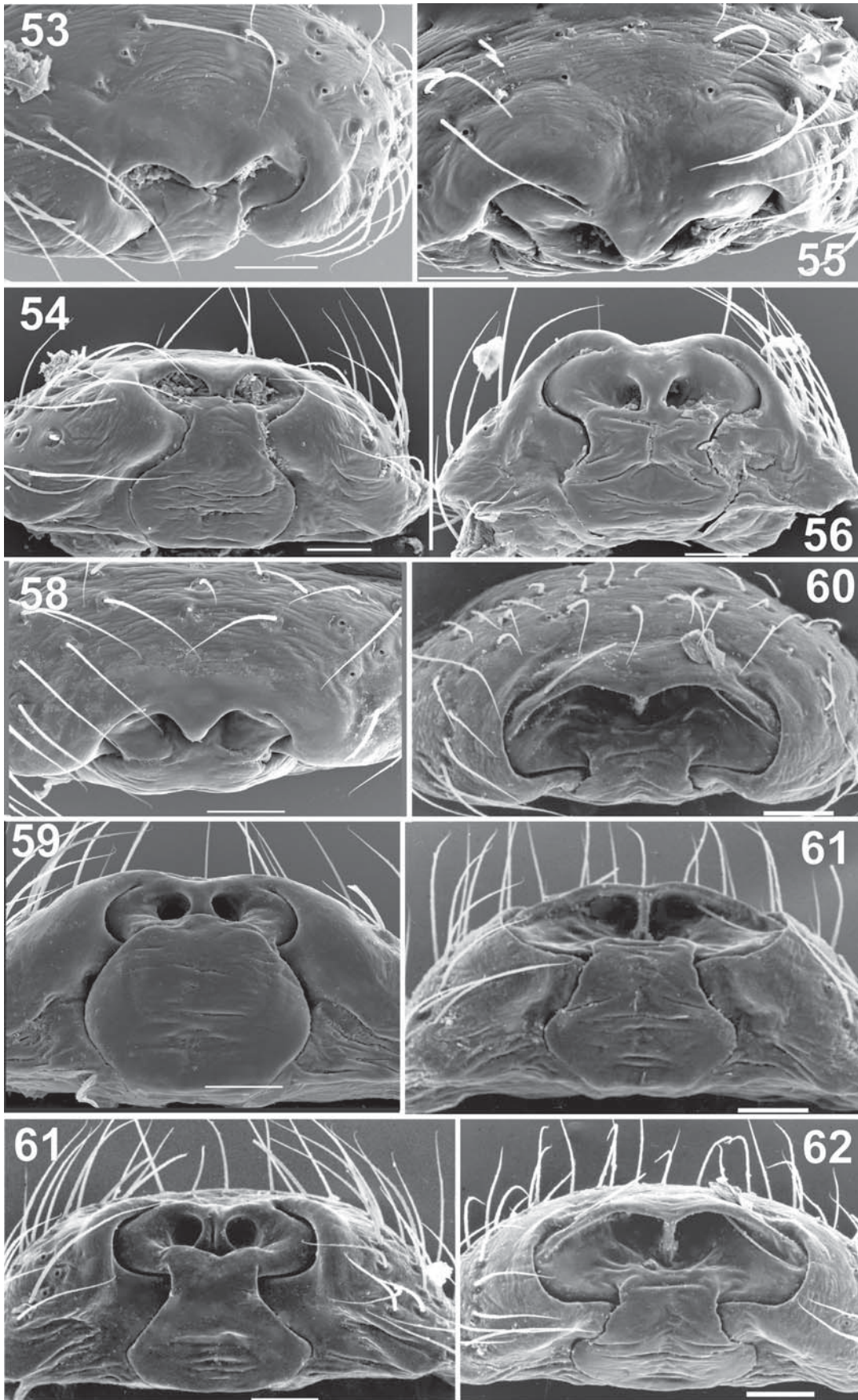
Figs. 26–28, 50–52, 60–62

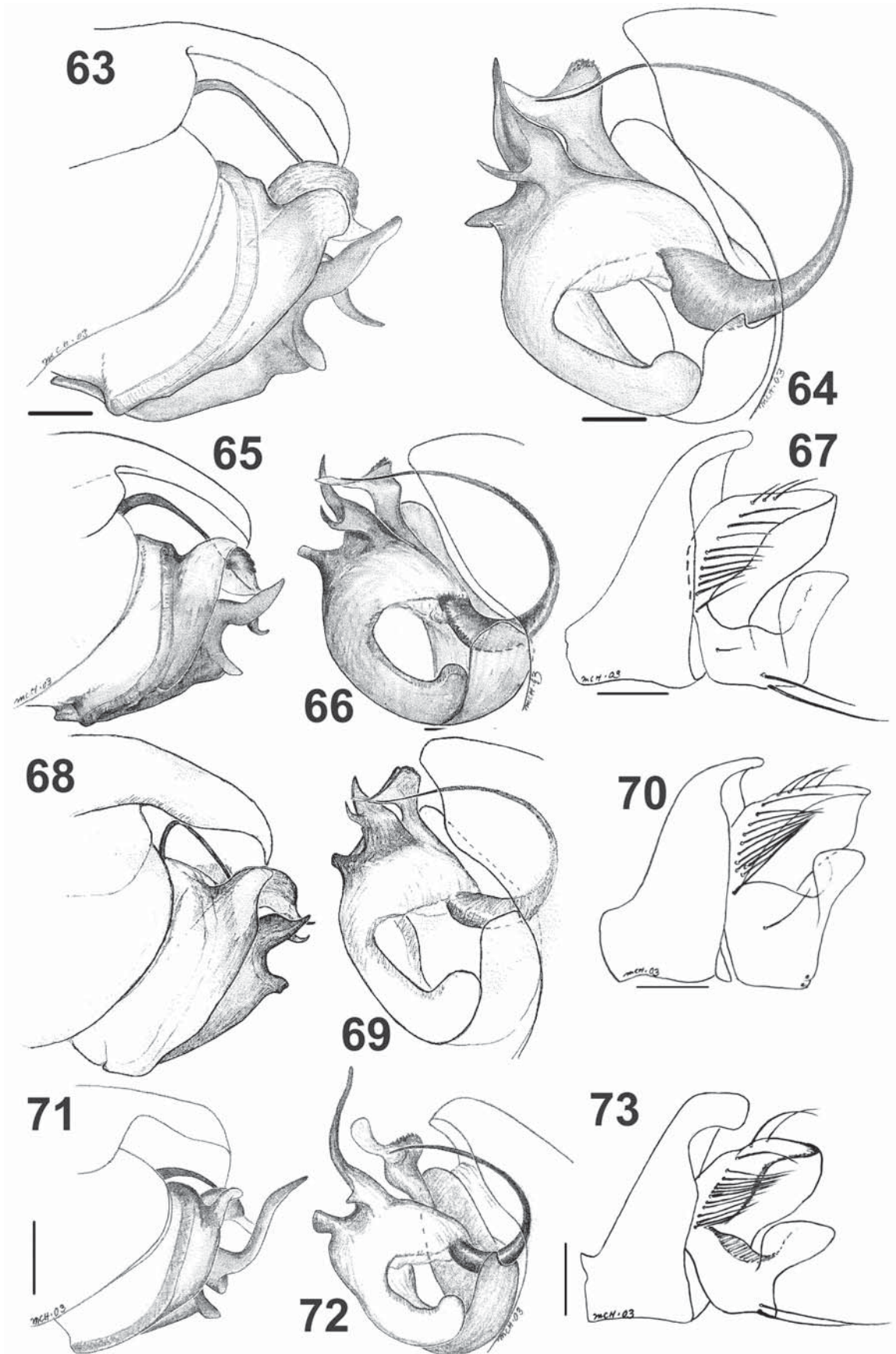
Types: Holotype ♂ and paratype ♀ (ZMT AE 105), USA, Wyoming, Park Co., W-Summit of Beartooth Hwy, ca 44°4'N 109°25'W, 10900 ft, 15.08.1974 (M. Saaristo). 1 ♀ (ZMT AE 106), Wyoming, Park Co., W-Summit of Beartooth Hwy, 10900 ft, 15.08.1974 (M. Saaristo).

ETYMOLOGY. Named after Dr. Beatrice Vogel a dedicated student of American lycosids.

Figs. 53–62. Epigyne of *Oreoneta arctica* (Holm) (53–54), *O. banffkluane* sp.n. (55–56), *O. logunovi* sp.n. (58–59), *O. vogelae* sp.n. (60–62) and *O. brunnea* (Emerton) (61). 53, 55, 58, 60, 62 — ventral view; 54, 56, 59, 60, 61 — view from behind. Scale = 0.05 mm.

Рис. 53–62. Эпигина *Oreoneta arctica* (Holm) (53–54), *O. banffkluane* sp.n. (55–56), *O. logunovi* sp.n. (58–59), *O. vogelae* sp.n. (60–62) и *O. brunnea* (Emerton) (61). 53, 55, 58, 60, 62 — вид снизу; 54, 56, 59, 60, 61 — вид сзади. Масштаб 0,05 мм.





DIAGNOSIS. An easily recognizable species. The male can be distinguished by the structure of the dorsal apophysis which in retrolateral view is suggestive of a foot. Anterior median plate of the female epigyne notably wider than the posterior one (API ~ 0.7), pits large, separated from each other only by their walls.

DESCRIPTION. Measurements (male/female, AE 105). Total length 2.58/2.75. Carapace: 1.24/1.21 long, 1.00/0.93 wide. Tm I 0.64/0.64. Carapace length/femur I ratio: 1.18/1.40. Leg I: 1.04 + 0.31 + 0.89 + 0.80 + 0.57/0.93 + 0.34 + 0.83 + 0.70 + 0.50. Coloration from pale to moderate dark. Males with slightly swollen Ta I. Epigyne 0.204/0.071/0.137

DISTRIBUTION. This species is known only from the type locality (Map 1).

2. *frigida*-group

Oreoneta alpina (Eskov, 1987) **comb.n.**

Figs. 71–75, 87, 98–99

Hilaira alpina Eskov, 1987: 1020, f. 1.1–4 (D♂♀).

Hilaira aplina: Marusik et al., 1992: 142.

Hilaira alpina: Marusik et al., 1993b: 73.

Material examined: RUSSIA: 1♂ (MZT AE 137), NE Yakutia, middle reaches of Yana River, Tuostakh River (right tributary of Adycha River), 1989 (V.V. Sivtsev); 1♂ 1♀ (paratypes, MZT AE 107), **Magadan Area**, Kolyma River upper flow (ca 62°N), environs of Sibit-Tyellakh Vil, 1100 m, mountain tundra, 24.08.1984 (K.Yu. Eskov); 22♂♀ (IBPN), **Magadan Area**, Kolyma River upper flow, Kulu River, Kontakt Field station, 61°51'N 147°40'E, 1200 m, mountain tundra, summer 1999 (S.P. Bukhhalo); 18♂♀ (IBPN) same locality, July 2002 (Yu.M. Marusik).

DIAGNOSIS. This is one of the easiest *Oreoneta* species to recognize. The male is distinguished by the very long, curved dorsal apophysis bearing at its base short, flat, truncate outgrowth and the female by the large, median opening enclosing both of the epigynal pits.

DESCRIPTION. Measurements (male/female, AE 107). Total length 2.60/2.80. Carapace: 1.25/1.36 long, 0.96/0.96 wide. Tm I 0.63/0.60. Carapace length/femur I ratio: 1.21/1.31. Leg I: 1.03 + 0.29 + 0.89 + 0.77 + 0.57/0.97 + 0.36 + 0.87 + 0.71 + 0.54. Coloration pale to moderately dark. Males with slightly swollen Ta I.

DISTRIBUTION. This species is known from Olenyok River in NW Yakutia, environs of Tiksi [Marusik et al., 1993b], middle reaches of the Yana River and upper reaches of the Kolyma River [Marusik et al., 1992] (Map 1).

REMARKS. *O. alpina* occurs in mountain tundra within the taiga zone and in zonal tundra within the tundra zone.

Oreoneta frigida (Thorell, 1872) **comb.n.**

Figs. 63–64, 76–77, 88–89, 92–95.

Erigone frigida Thorell, 1872: 152 (D♀).

Erigone modesta Thorell, 1872: 154 (Djuv.).

Nerienne rudis O. Pickard-Cambridge, 1879: 197 (D♀).

Tmeticus frigidus: Simon, 1884: 420.

Erigone cryophila Koelbel, 1886: 56, pl. 4, f. 14 (D♀).

Tmeticus niger F.O. Pickard-Cambridge, 1891: 80, pl. 2, f. 4 (D♂♀).

Porrhomma nigrum: O. Pickard-Cambridge 1891: 92.

Oreoneta nigra: Kulczyński in Chyzer & Kulczyński, 1894: 78, pl. 3, f. 17 (♂♀).

Hilaira frigida: Lenz, 1897: 74, f. 5 (D♂, not ♀).

Hilaira frigida: Fedotov, 1912: 457, pl. 8, f. 6 (♀) (misidentified, may belong to *sinuosa*)

Hilaira frigida: Hull, 1911: 47, pl. 2, f. 3, 11 (♂♀).

Hilaira montigena: O. Pickard-Cambridge, 1911: 39 (misidentification).

Hilaira faeroica Schenkel, 1925: 398, f. 1 (D♀).

Oreoneta frigida: Hull, 1932: 109.

Hilaira frigida: Braendegaard, 1946: 40, f. 24–25 (♂♀).

Hilaira frigida: Locket & Millidge, 1953: 323, f. 195C, H, 196H (♂♀).

Hilaira frigida: Braendegaard, 1958: 73, f. 70–71 (♂♀).

Hilaira frigida: Merrett, 1963: 388, f. 48A–B (♂).

Hilaira frigida: Pakhorukov & Utotchkin, 1977: 908, f. 5 (♀) (misidentified, may belong to *uralensis* sp.n.).

Hilaira frigida: Roberts, 1987: 107, f. 51b, 52c (♂♀).

Hilaira frigida: Heimer & Nentwig, 1991: 170, f. 460 (♂♀).

Hilaira frigida: Agnarsson, 1996: 125, f. 134A–C (♂♀).

N.B. *Nerienne rudis* O. Pickard-Cambridge, 1879 and *Tmeticus niger* F. O. Pickard-Cambridge, 1891 are herein moved from synonymy with *Hilaira montigena* L. Koch, 1872 and placed as junior synonyms of *Erigone frigida* Thorell, 1872.

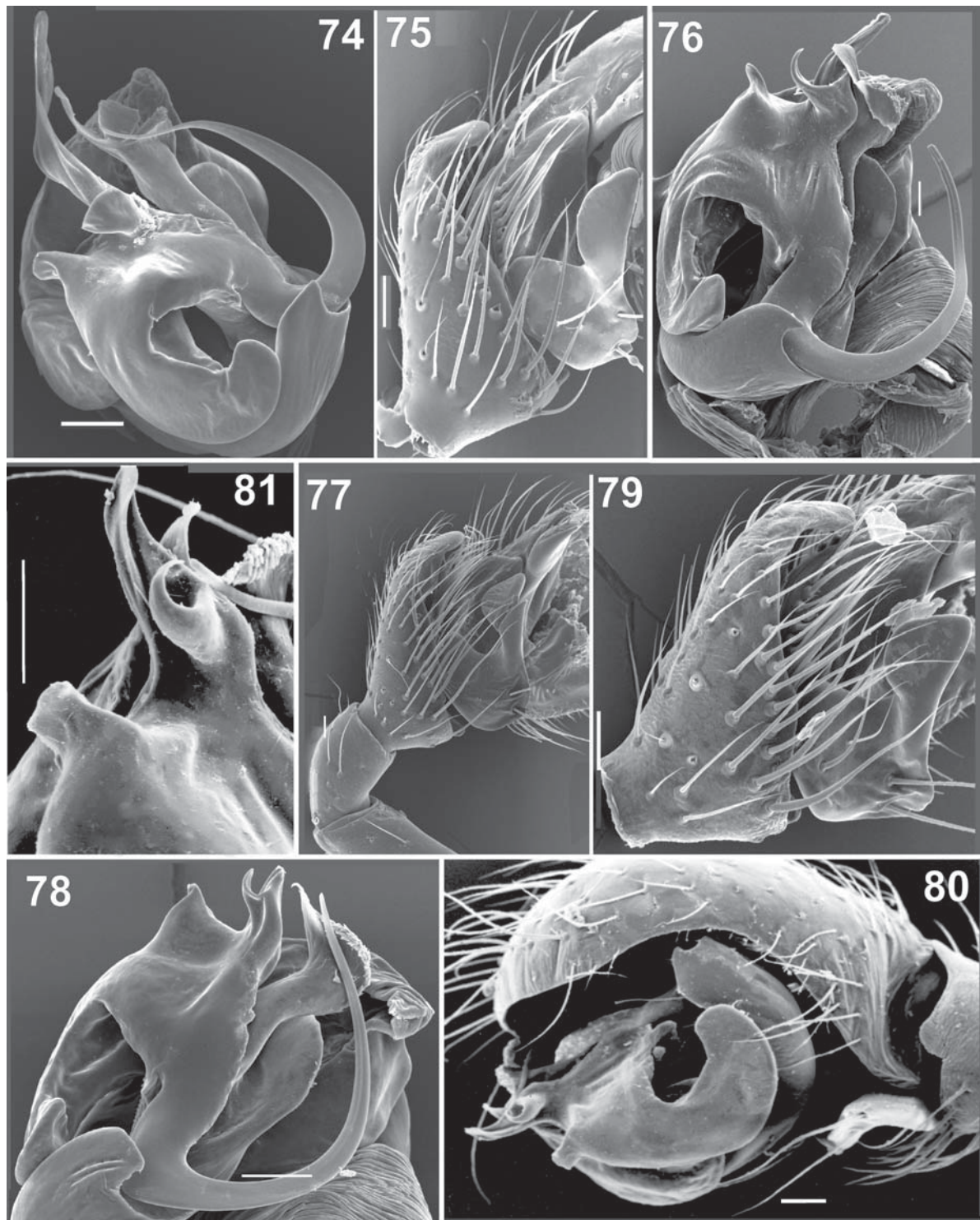
Material examined: GREENLAND: Holotype ♀ (Zoological Museum of the Uppsala University), Grönland, Quansersoit, C. Nyström, coll[ectio] Thorell no 531a; 1♀, Ravnsford, 68°30'N, 26.07.1932 (M. Degerbøl); 1♀ (MZT, AE 071), Narssaq-area, Kangerdluarssuk, 60°53'N 45°50'W, 21.07.1976 (S. Koponen); 1♂ (MZT, AE 070), Narssaq-area, Kangerdluarssuk, 60°53'N 45°50'W, 10.08.1976 (S. Koponen); 4♂♂ 12♀♀ (NRS), Ny Hernhut [64°10'N], 08.1913 (Klinckowstr); 2♂♂ 1♀ (CNC), Sodrestrom Air Base, 15.08.1952 (W.J. Brown). GREAT BRITAIN: 2♀♀ (MZT AE 110), **Scotland**, Benn Eghe, Sgurr Bhan 3000 ft, under stones on Y ridge, 6.07.1966; 1♀ (MZT, AE 069), **Scotland**, Meall Horn, Sabhal Mor, NC 360 440, 703 m, stone, 10.08.1994 (A. Wilson) Mountain Spider Project NMSNH 1993.097; 1♂ (MZT, AE 068), **Scotland**, Ladhar Bheinn, NG-8204, 1036 m, stones, 5.09.1993 (D. Dariel). NORWAY: 20♂♂ 10♀♀ (ZMB), **Faeroes** Islands, Havnadalur, St.1, 21.06.1986 (?); 1♂ 1♀ (ZMB-C1716), **Hordaland**: Ulvik, Finse, Nordnaut, 20.08.1970 (Feltkus); 1♂ (ZMB-C7102), **Hordaland**: Ulvik, veteng 8271/69, 8.10.1969 (E. Østbye et al.); 1♂ (ZMB-C7107), **Hordaland**: Ulvik, veteng 952-15/69, 3.09.1971 (E. Østbye et al.); 1♂ (ZMB-C7113), **Hordaland**: Ulvik, pionér 950-15/71, 3.09.1971 (E. Østbye et al.); 1♂ 1♀ (ZMB-C2898), **Nordland**: Ankenesfjeld, 150 m.o.h., 28.07.1966 (E. Hauge); 2♂♂ 2♀♀ (ZMB-C1869), **Troms**: Lyngen, Forholdtdalen, u/stones, 21.08.1969 (D. Goddard et al.).

DIAGNOSIS. This species is very similar to *O. sinuosa* but decidedly larger. The dorsal apophysis of *O. frigida* is more heavily built than that of *O. sinuosa* and the hooked lamellar extension is more basally situated. The anterior median plate of *O. frigida* female is relatively wider (API ~ 0.5) than that of *O. sinuosa* (API ~ 0.56) and the pits are larger and closer to each other.

dimension of the median plate / population	<i>frigida</i>			<i>sinuosa</i>
	Faeroes	Sodrestrom, Greenland	SW Norway	Abisko, Sweden
a (apical arms width)	33–38	31–34	29–35	26–27
b (basal arms width)	26–26.5	22–23	20–21	17–17.5
d (stem width)	8	6–7	5.5–6	4.5–5

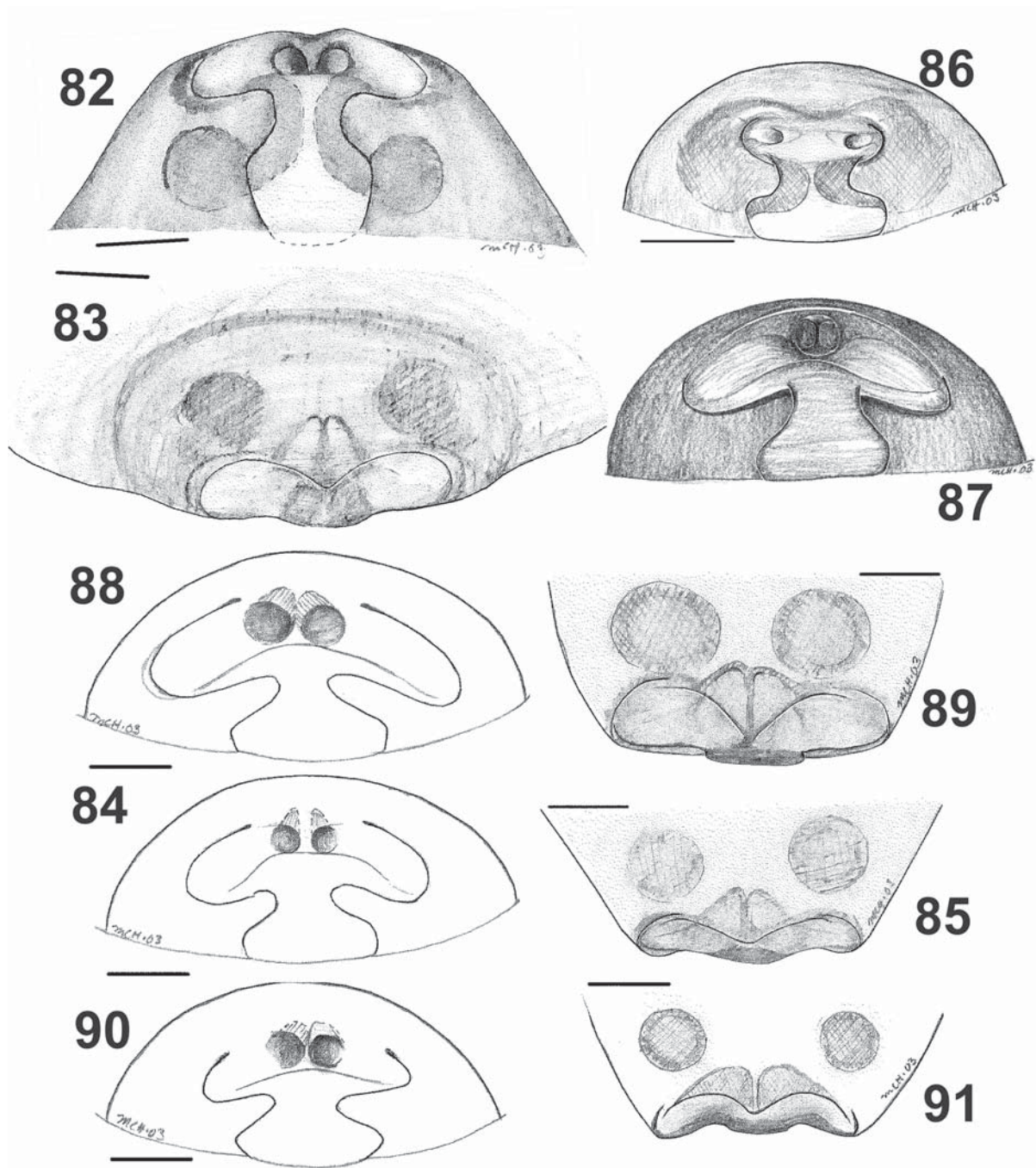
Figs. 63–73. Male palp of *Oreoneta frigida* (Thorell) (63–64), *O. sinuosa* (Tullgren) (65–67), *O. leviceps* (L. Koch) (68–70) and *O. alpina* (Eskov) (71–73). 63, 65, 68, 71 — terminal part, retrolateral view; 64, 66, 69, 72 — terminal part, prolateral view; 67, 70, 73 — tibia and paracymbium, retrolateral view. Scale = 0.1 mm.

Рис. 63–73. Пальпа самца *Oreoneta frigida* (Thorell) (63–64), *O. sinuosa* (Tullgren) (65–67), *O. leviceps* (L. Koch) (68–70) и *O. alpina* (Eskov) (71–73). 63, 65, 68, 71 — верхняя часть, ретролатерально; 64, 66, 69, 72 — верхняя часть, пролатерально; 67, 70, 73 — голень и парацимбиум, ретролатерально. Масштаб 0,1 мм.



Figs. 74–81. Male palp of *Oreoneta alpina* (Eskov) (74–75), *O. frigida* (Thorell) (76–77), *O. leviceps* (L. Koch) (78–79) and *O. sinuosa* (Tullgren) (80–81). 74, 76, 78, 81 — embolic division with protegulum, prolateral view; 75, 77, 79 — tibia and paracymbium, retrolateral view; 80 — whole palp, prolateral view. Scale = 0.05 mm.

Рис. 74–81. Пальпа самца *Oreoneta alpina* (Eskov) (74–75), *O. frigida* (Thorell) (76–77), *O. leviceps* (L.Koch) (78–79) и *O. sinuosa* (Tullgren) (80–81). 74, 76, 78, 81 — эмболюсный отдел с протегулом, пролатерально; 75, 77, 79 — голень и парацимбиум, ретролатерально; 80 — целая пальпа, пролатерально. Масштаб 0,05 мм.



Figs. 82–91. Epigyne of *Oreoneta sinuosa* (Tullgren) (82–85), *O. leviceps* (L. Koch) (86), *O. alpina* (Eskov) (87), *O. frigida* (Thorell) (88–89) and *O. herschel* sp.n. (90–91). 82, 84, 86–88, 90 — view from behind; 83, 85, 89, 91 — ventral view. Scale = 0.1 mm.

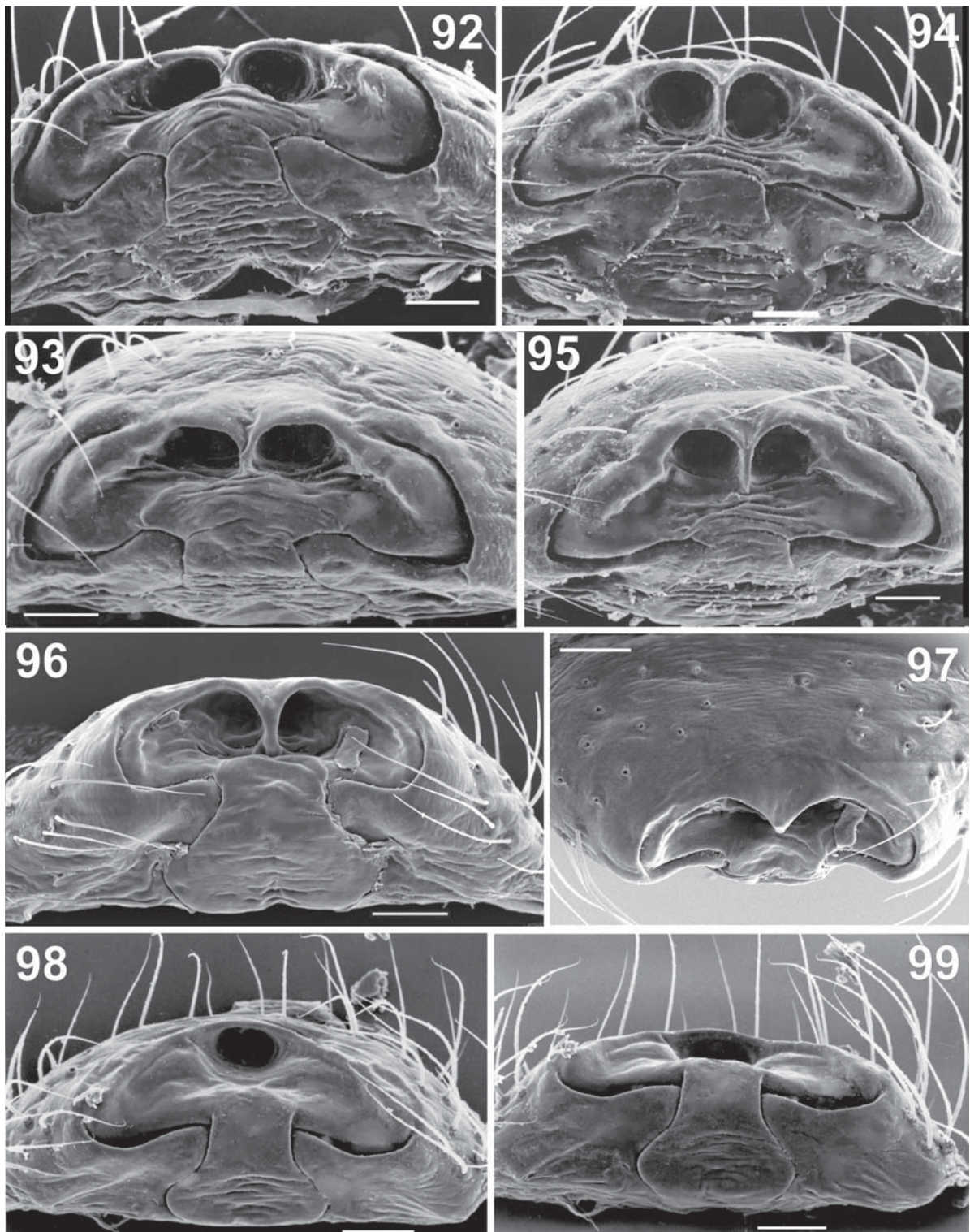
Рис. 82–91. Эпигина *Oreoneta sinuosa* (Туллгрена) (82–85), *O. leviceps* (Л. Коха) (86), *O. alpina* (Эсков) (87), *O. frigida* (Торелла) (88–89) и *O. herschel* sp.n. (90–91). 82, 84, 86–88, 90 — вид сзади; 83, 85, 89, 91 — вид снизу. Масштаб 0,1 мм.

DESCRIPTION. Measurements (male/female, from Ny Hurnhut). Total length 3.25–4.25/3.4–4.7. Carapace 1.50–1.80/1.50–1.70 long, 1.14–1.29/1.07–1.21 wide. TmI 0.62–0.69/0.61–0.65. Carapace length/femur I ratio: 1.17–1.29/1.24–1.25. Leg I: 1.40 + 0.44 + 1.21 + 1.11 + 0.67/1.36 + 0.46 + 1.24 + 1.06 + 0.74. Stridulating field on male chelicera covers only part of lateral surface. Epigyne: maximal width of apical arms 0.335–0.357, while smallest specimen has 0.314.

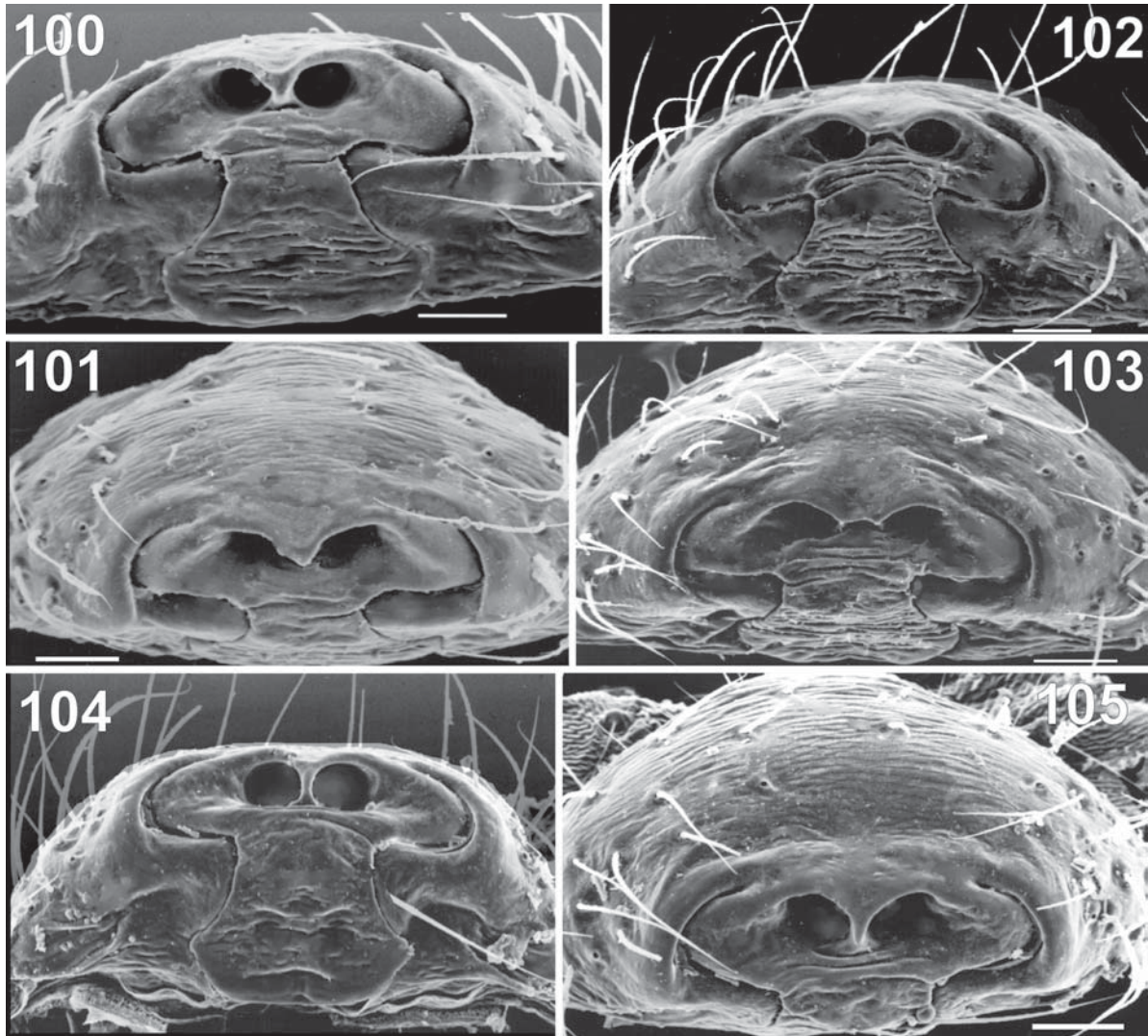
Specimens from Ny Hurnhut vary greatly in carapace size and females in epigyne size also.

DISTRIBUTION. With one exception, this species is found exclusively on North Atlantic islands: Scotland, Faeroes, Jan Mayen, Island, Norway, and Greenland (Map 1). Records of this species from Sweden, Finland and Russia refer to other species.

REMARKS. It seems that, in spite of our having removed *O. sinuosa* from synonymy with *O. frigida* there may still be



Figs. 92–99. Epigyne of *Oreoneta frigida* (O. Pickard-Cambridge) (92–93 from Greenland, 94–95 from Scotland), *O. herschel* sp.n. (96–97) and *O. alpina* (Eskov) (98–99). 92, 94, 96, 98–99 — view from behind; 93, 95, 97 — ventral view. Scale = 0.05 mm.
 Рис. 92–99. Эпигина *Oreoneta frigida* (O. Pickard-Cambridge) (92–93 из Гренландия, 94–95 из Шотландии), *O. herschel* sp.n. (96–97) и *O. alpina* (Eskov) (98–99). 92, 94, 96, 98–99 — вид сзади; 93, 95, 97 — вид снизу. Масштаб 0,05 мм.



Figs. 100–105. Epigyne of *Oreoneta sinuosa* (Tullgren). 100, 102, 104 — view from behind; 101, 103, 105 — ventral view. 100–103 — specimens from Finland, 104–105 — specimen from Sweden. Scale = 0.05 mm.

Рис. 100–105. Эпигина *Oreoneta sinuosa* (Tullgren). 100, 102, 104 — вид сзади; 101, 103, 105 — вид снизу. 100–103 — экземпляры из Финляндии, 104–105 — экземпляр из Швеции. Масштаб 0,05 мм.

at least 3 different taxa involved. They can be rather easily distinguished by the size of the epigyne. In the following table are presented results of measuring epigynes of *O. frigida* females from three different populations as well as a corresponding data for *O. sinuosa* (measurements are given in micrometer units with magnification $\times 70$, so real size can be computed by dividing number by 70).

The Sonderstrom and Norwegian populations can be easily separated by the size and distance of the transparent seminal receptaculæ (7.5/6 in Greenland and 8/3.5 in Norwegian). True, large sized *O. frigida* seems to be present in Scotland, Faeroes, Jan Mayen, and SW Greenland, while CW Greenland and western Norway are populated with two different taxa. For various reasons it has not been possible to go deeper with this problem and the case has been left open for further studies.

Oreoneta herschel sp.n.

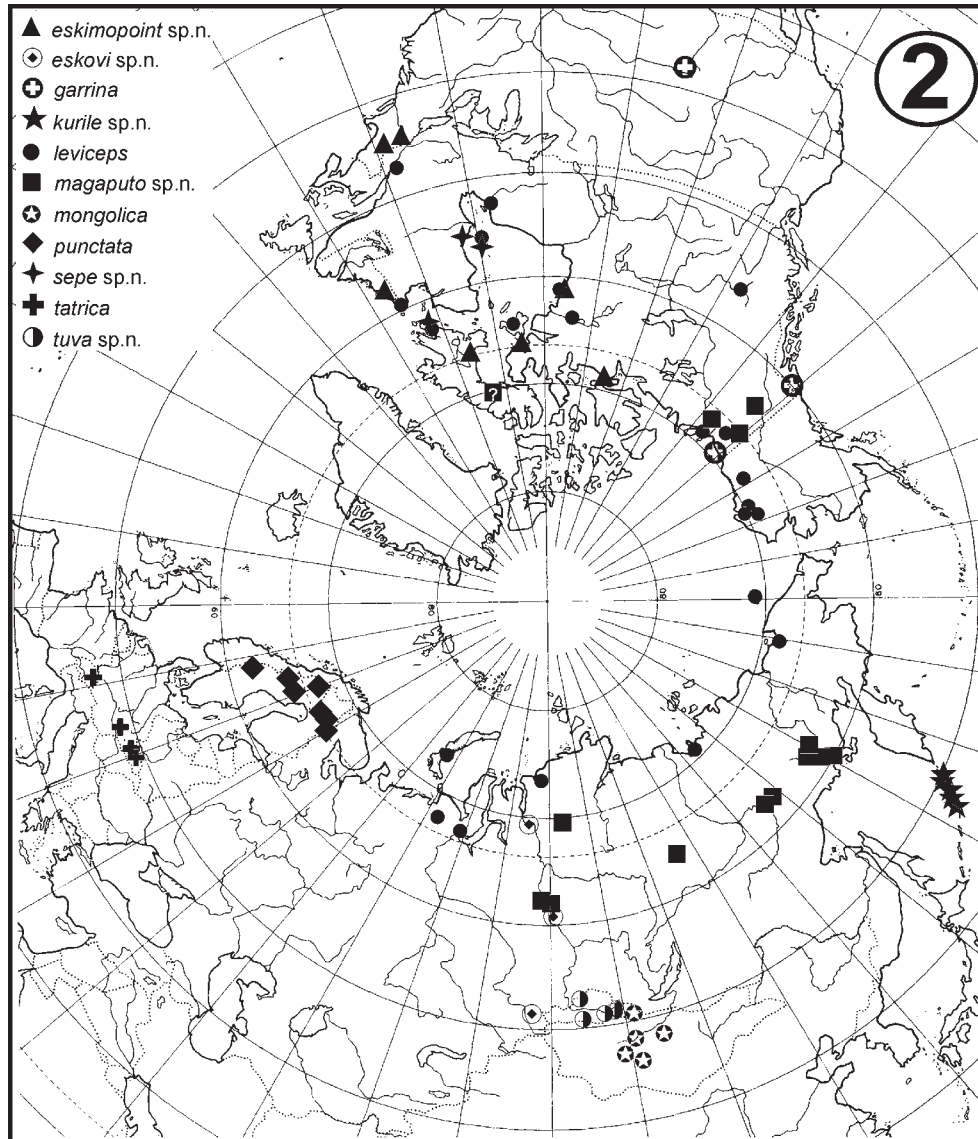
Figs. 90–91, 96–97.

Types: Holotype ♀ and paratype ♀ (CNC) CANADA, Yukon Territory, Herschel Isl., 69.622°N 139.114°W, 5.09.1948 (Hamilton, Larsen & Mott). Paratypes: 1 ♀ (CNC), NWT, Banks Isl., Masik R., pan trap, 18.07.1968 (W.R.M. Mason); 1 ♀ (CNC), NWT, Banks Isl., Masik R., pan trap, 29.07.1968 (W.R.M. Mason).

ETYMOLOGY. The specific name is a noun in apposition and derived from the collecting site of the type specimens.

DIAGNOSIS. The female (male unknown) of this species resembles those of *O. frigida* and *O. sinuosa* but the anterior median plate is not so wide as in these species (API ~ 0.7); pits conspicuously large.

DESCRIPTION. Measurements (from Herschel). Total length 2.75–3.00. Carapace: 1.29–1.34 long, 0.93–0.96 wide. Tm I 0.59–0.64. Carapace length/femur I ratio: 1.29–1.31.

Map 2. Distribution of *Oreoneta* species.Карта 2. Распространение видов рода *Oreoneta*.

Leg I: 1.03 + 0.37 + 0.83 + 0.79 + 0.56. Epigyne 0.205/0.143. Coloration overage.

DISTRIBUTION. The species is known only from two islands in NW Arctic Canada: Herschel & Banks (Map 1).

Oreoneta leviceps (L. Koch, 1879) **comb.n.**

Figs. 68–70, 78–79, 86, 123.

Erigone leviceps L. Koch, 1879: 63, pl. 2, f. 15 (D♂♀).

Gongylidium laeviceps: Simon 1884: 500.

Hilaira leviceps: Kulczyński, 1908: 30, pl. 2, f. 43–44, 46–47, 59 (♂♀).

Hilaira leviceps: Dahl, 1928: 21, f. 29–32 (♂).

Hilaira leviceps: Jackson, 1933: 152, pl. 2, f. 7–8 (♀).

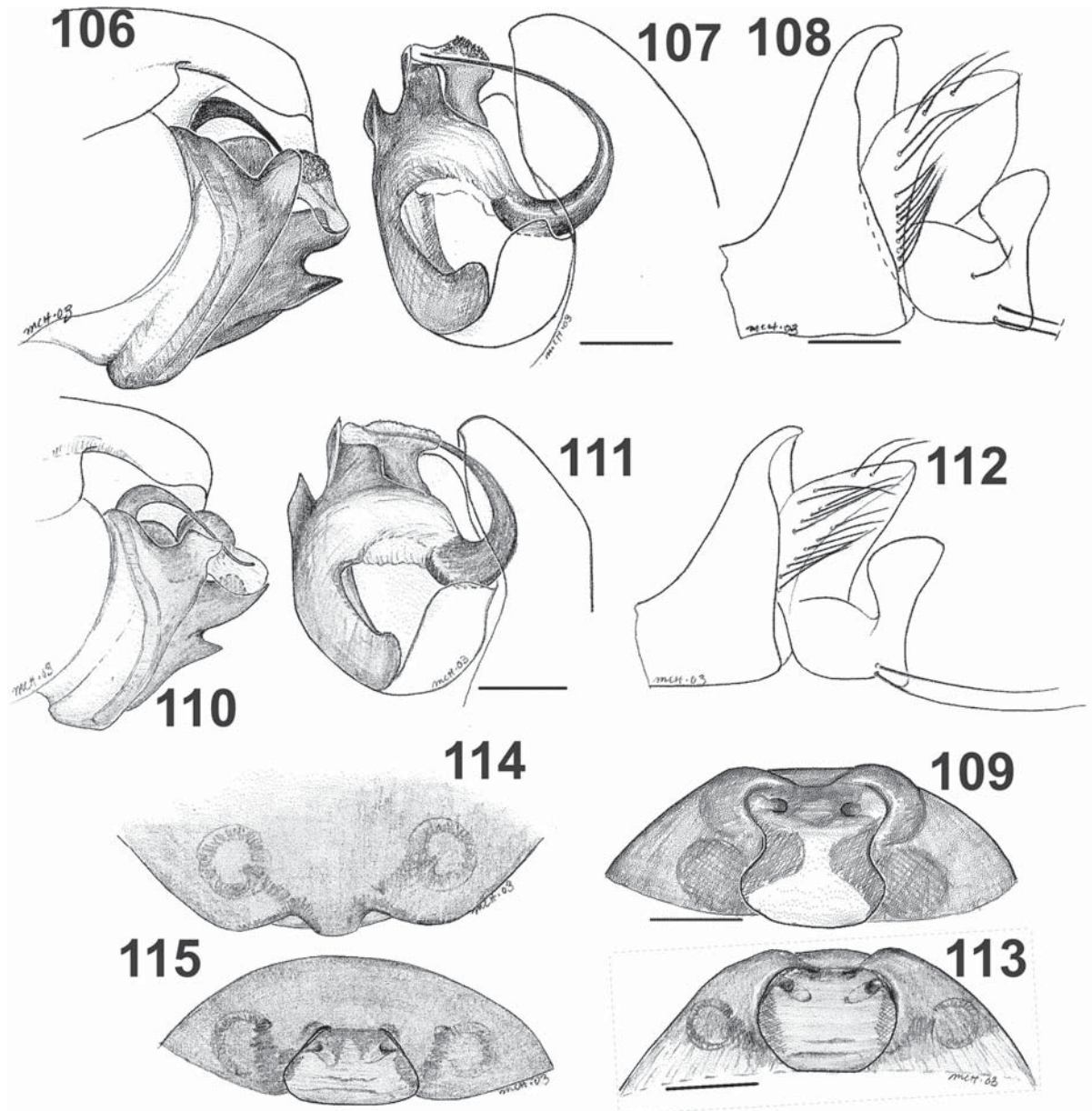
Hilaira leviceps: Holm, 1960: 118, f. 31 (♀).

Hilaira leviceps: Eskov, 1987: 1030.

Hilaira leviceps: Marusik et al., 1993a: 76 (misidentified, refers to *O. arctica*).

Material examined: RUSSIA: Lectotype ♂ [designated here] and paralectotypes 1 ♂ 7 ♀♀ (NRS), **Novaya Zemlya** Isl.,

Matotchkin Shar, “Novaya Zemlja Expd. 1875 No92, July 14 (coll. Stuxberg & Thilly)”; 1 ♂ 3 ♀♀ (MZT AE 111), **Polar Urals**, S/SW shore of Maloye Shchuchye Lake, 13–14.08.1996 (V. Relys); 1 ♂ (MZT AE 112), **Polar Urals**, Malaya Kara 10 km to Ocha-Nyrd Mts., 17.08.1996 (V. Relys); 1 ♂ 1 ♀ (MZT AE 134), **Polar Urals**, from Neozhydannyi Pass down to Usva-Ty Lake, 12.08.1996 (V. Relys); 2 ♀♀ (MZT AE 135), **Polar Urals**, Bolshaya Usa & Upper Valley of Paipudina River, 8–9.08.1996 (V. Relys); 8 ♂♀ (ZMMU), **Krasnoyarsk Prov.**, NW Taimyr, Rogozinka River, meadow, among stones, 17.08.1983 (Yu.I. Chernov); 2 ♂♂ (IBPN) **Yakutia**, lower reaches of Yana River, environs of Kular Vill., ca. 70°35′N 134°34′E, 07.2000 (N.K. Potapova); 11 ♂♂ 4 ♀♀ (ZMMU & MZT), **Yakutia**, lower reaches of Yana River, Kular Vill., 70°35′N 134°34′E, July 1996 & 1997 (S.N. Nogovitsyna). USA: 2 ♂♂ (AMNH), **Alaska**, North Slope Brgh Meade R., 60 mi S Barrow, 24.08.1978 (B. Vogel); 1 ♂ (AMNH), **Alaska**, North Slope Brgh Meade R., 60 mi S Barrow, 15.08.1978 (B. Vogel); 1 ♀ (MZT AE 074), **Alaska**, Northern Slope, Toolik Lake, 68°38′N 149°W, (dry) bog, 2–7.07.1982 (S. Koponen). CANADA: 1 ♀ (CNC), **Yukon T.**, Dempster Hwy, km. 465, pan trap, 10–22.07.1982 (M. Wood); 1 ♀ (CNC), **Yukon T.**, Dempster Hwy,

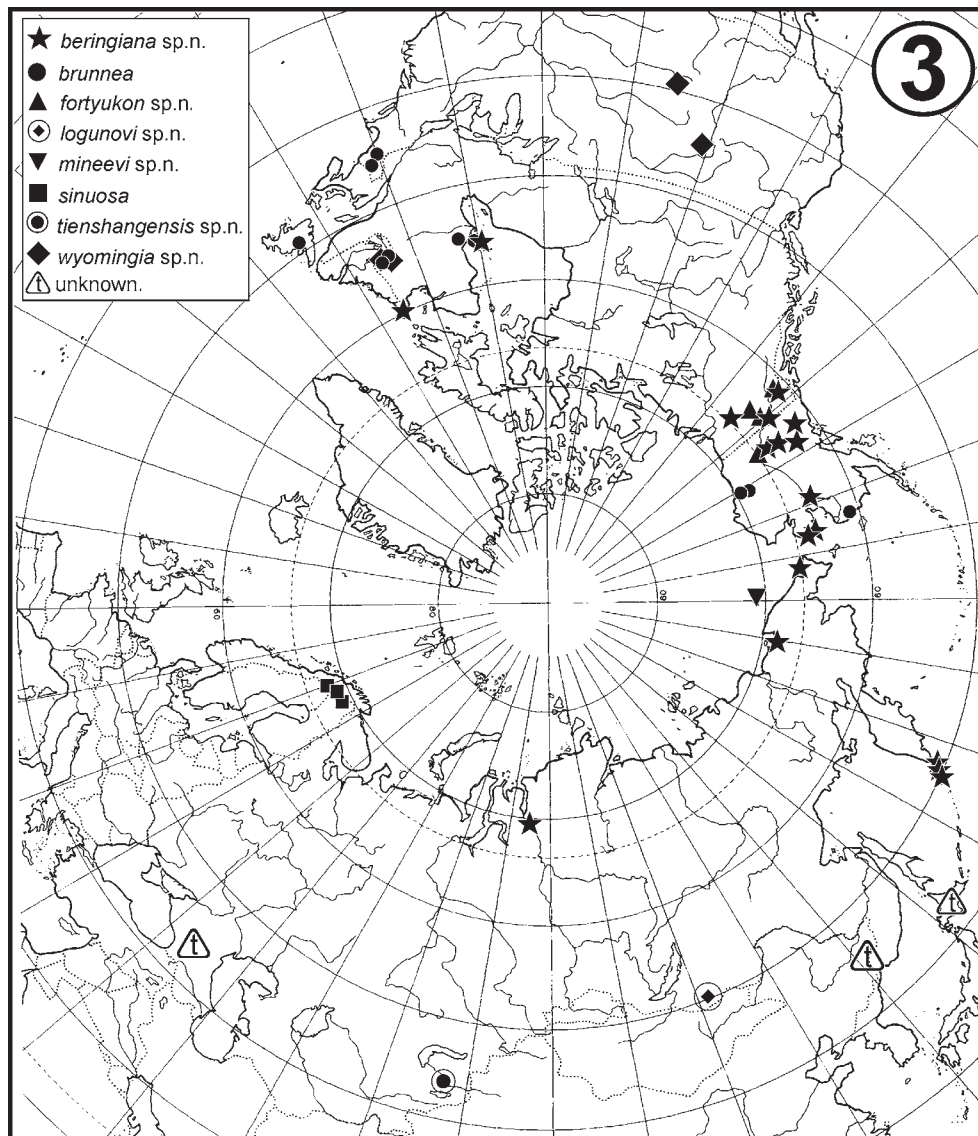


Figs. 106–115. Copulatory organs of *Oreoneta intercepta* (O. Pickard-Cambridge) (106–108, 113–114) and *O. montigena* (L. Koch) (109–112). 106, 110 — male palp, terminal part, retrolateral view; 107, 111 — male palp, terminal part, prolateral view; 108, 112 — tibia and paracymbium, retrolateral view; 109, 113 — epigyne, view from behind; 114–115 — epigyne, ventral view, different turns. Scale = 0.1 mm.

Рис. 106–115. Копулятивные органы *Oreoneta intercepta* (O. Pickard-Cambridge) (106–108, 113–114) и *O. montigena* (L. Koch) (109–112). 106, 110 — пальпа самца, верхняя часть, ретролатерально; 107, 111 — пальпа самца, верхняя часть, пролатерально; 108, 112 — голень и парацимбиум, ретролатерально; 109, 113 — эпигина, вид сзади; 114–115 — эпигина, вид снизу, разные ракурсы. Масштаб 0,1 мм.

km. 465, pan trap, 22.07.1982 (M. Wood); 3 ♂♂ (MZT AE 075), NWT, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, 11.06–13.08.1988 (S. Koponen); 1 ♂ (MZT, AE 078), NWT, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, 11.06–13.08.1990 (S. Koponen); 2 ♂♂ (MZT AE 080), NWT, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, under stones in village, 14.08.1990 (S. Koponen); 1 ♂ (MZT AE 079), NWT, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, 11.06–13.08.1990 (S. Koponen); 1 ♂ 1 ♀ (MZT AE 073), NWT, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, under stones, 16.08.1985 (S. Koponen); 3 ♂♂

(MZT AE 076), NWT, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, 11.06–13.08.1990 (S. Koponen); 4 ♂♂ (MZT AE 077), NWT, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, 11.06–13.08.1990 (S. Koponen); 3 ♀♀ (AMNH), CANADA: NWT, Baker Lake, 64°20'N 96°10'W, 14.06.1947 (T.N. Freeman); 2 ♀♀ (AMNH), NWT, Port Burwell, 20.08.1927 (coll. ?); 4 ♀♀ [det by Holm as *Hilaira vexatrix*] (AMNH), NWT, Buffin Isl., Lake Harbour, 62°50'N 69°50'W, 24–30.07.1939 (J. Oughton); 2 ♂♂ (AMNH), NWT, Buffin Isl., Lake Harbour, 62°50'N 69°50'W, 15.08.1935 (W.J. Brown); 1 ♀♀ (CNC), NWT, 20 mi. E of Tukto-



Map 3. Distribution of *Oreoneta* species. T in triangle refers to 3 southernmost records of unclear species (all listed as *O. tatarica*).

Карта 3. Распространение видов рода *Oreoneta*. Т в треугольнике показывает три самых южных точки относящиеся к неизвестным видам (везде виды упоминаются как *O. tatarica*).

yaktuk, 28–30.06.1971 (W.R.M. Mason); 1 ♂ (CNC), NWT Eskimo Point, 62°N 94°W, 30.05.1950 (G. Roberts); 1 ♂ 3 ♀♀ (CNC), NWT Eskimo Point, 62°N 94°W, 10.06.1950 (G. Roberts); 1 ♂ (CNC), NWT, Southhampton Is., 1.09.1954 (H. Huckle); ♂♂ ♀♀ (CNC), Payne Bay, 27.08.1954 (R. McCondochic); 1 ♀ (CNC), British Columbia, Alaska Hwy, Pink Mtn., 57°N 122°W, under stones, 10.08.1981 (C.D. Dondale); 1 ♂ (MZT AE 072), Québec, Lac Barette, 47°27'N 71°15'W, bog, 26.07–7.08.1985 (S. Koponen).

DIAGNOSIS. The male of this species resembles those of *O. frigida* and *O. sinuosa* in that the structure of the dorsal apophysis is very similar but it is relatively much shorter and the hook-like lamellar extension is more apically situated. The hourglass-like epigyne of the female is very similar to that of *O. intercepta* but the middle point is much narrower.

DESCRIPTION. Measurements (male/female, Yakutia/Polar Ural). Total length 2.9–3.1/2.9–3.2. Carapace: 1.33–1.40/1.23–1.45 long, 0.98–1.00/0.98–1.05 wide. Tm I 0.61/0.65. Coloration standard, cephalic part darker than thoracic one in some specimens. Carapace length/femur I ratio: 1.29/

1.23. Leg I: 1.03 + 0.38 + 0.90 + 0.78 + 0.60/1.00 + 0.38 + 0.88 + 0.75 + 0.53. Spination standard. Epigyne 0.120/0.050/0.120, height 0.135.

DISTRIBUTION. The species has Siberio-Nearctic arctic range and known from Polar Ural and Novaya Zemlya throughout northern Siberia, Alaska, Yukon and NWT to Québec (Map 2). The northernmost records of *O. leviceps* lie in Taimyr Peninsula and Novaya Zemlya (ca 73°N). While in Palaearctic all records of this species are north of the Polar Circle, in Nearctic many localities lie below 60°N and southernmost record belongs to 47°N.

REMARKS. The original type series of this species was large and incorporated four species: *O. beringiana* sp.n., *O. eskovi* sp.n. and *O. magaputo* sp.n.

Oreoneta sinuosa (Tullgren, 1955), **comb.n., stat.rev.**
Figs. 1, 65–67, 80–85, 100–105.

Hilaira sinuosa Tullgren, 1955: 388, f. 89a–b (D♀).

Hilaira frigida: Kleemola, 1961: 133, f. 113 (♀ = *sinuosa*; misidentification).

Hilaira frigida: Palmgren, 1975: 91, f. 22.16–17 (♂♀; misidentification).

Hilaira frigida: Gustafsson & Holm, 1980: 133, f. 6 (♀; misidentification).

Material examined: SWEDEN: holotype ♀ (SMNH), **Torne Lappmark**, Abisko, 24.06–04.07.1947 (T. Palm) and 3 ♀♀ (CNC), 13.06.1961 (J. R. Vockeroth), 1 ♂ 2 ♀♀ (MZT, AE 067), Kuolpaäive, 1750 m, 26.07.1967 (A. Suomala), FINLAND: 1 ♂ 3 ♀♀ (MZT, AE 065), **Inari Lapland**, Terävänkivenpää, 12.09.1969 (P. Saaristo); 2 ♂♂ 5 ♀♀ (MZT, AE 066), **Enontekiö Lapland**, Kilpisjärvi, Saana (767:25), 21.08.1969 (A. Suomala).

DIAGNOSIS. See *O. frigida* above.

DESCRIPTION. Measurements (male/female). Total length 3.63/3.13–3.18. Carapace: 1.40/1.30–1.43 long, 1.00/0.97–1.01 wide. Tm I 0.60/0.63. Males slightly larger than females. Carapace length/femur I ratio: 1.27/1.30–1.38. Leg I: 1.10 + 0.31 + 0.96 + 0.81 + 0.60/1.03 + 0.36 + 0.89 + 0.76 + 0.54. Spination standard. Epigyne 0.214/0.150

DISTRIBUTION. This species is known only from northern Fennoscandia (Sweden and Finland) (Map 3). *O. sinuosa* vicariates with *O. frigida* (*s.l.*) in the west.

REMARKS. It seems that all records of *O. frigida* from Finland and Sweden refer to this species. Its occurrence in eastern Norway, Karelia and Murmansk Area is highly probable.

3. *montigena*-group

Oreoneta montigena (L. Koch, 1872)

Figs. 109–112, 116, 120–122.

Erigone montigena L. Koch, 1872: 269 (D♂♀).

Erigone pacifica Thorell, 1875a: 89 (D♂).

Erigone pacifica: Thorell, 1875b: 42 (♂).

Neriere rudis O. Pickard-Cambridge, 1879: 197 (D♂♀).

Porrhomma montigena: Simon, 1884: 369, f. 144 (♂♀).

Oreoneta montigena: Kulczyński in Chyzer & Kulczyński, 1894: 77.

Hilaira montigena: Lessert, 1910: 119.

Hilaira montigena: Hull, 1911: 47, pl. 2, f. 2, 12.

Hilaira montigena: Kulczyński, 1915: 927, pl. 66, f. 43, 45, 47, 49, 60 (♂♀).

Hilaira rudis: Schenkel, 1923: 95, pl. 7, f. 7 (♀, misidentification).

Hilaira montigena: Schenkel, 1923: 95, pl. 7, f. 8 (♂♀).

Hilaira rudis montigena: Schenkel, 1927: 249, f. 11–12 (♂♀).

Oreoneta montigena: Hull, 1932: 109 (misidentification).

Hilaira montigena: Sytshevskaja, 1935: 91, f. 5 (♀) (misidentification, may refer to *O. magaputo* sp.n.).

Hilaira montigena: Wiehle, 1963: 246, f. 39–42 (♂♀).

Hilaira montigena: Miller, 1971: 236, pl. XLVI, f. 25 (♂).

Hilaira montigena: Millidge, 1977: 8, f. 17, 188 (♂).

Hilaira frigida montigena: Eskov, 1981: 1487 (reduced to subspecies).

Hilaira montigena: Thaler, 1983: 140, f. 37–38 (♀).

Hilaira montigena: Heimer & Nentwig, 1991: 168, f. 456 (♂♀, elevated from subspecies of *H. frigida*).

Material examined: SWITZERLAND: 1 ♂ 2 ♀♀ (AMNH), Saas-Fee, Wallis. [Schenkel det]; 1 ♂ 1 ♀ (AMNH), no label. AUSTRIA: 2 ♂♂ 2 ♀♀ (MZT AE 109), **Nordriol**, Telfs, Hohe Munde, ca 47°19'N 11°05'E, 2600 m, 18.08.1991 (B. Knoflach); 1 ♂ 19 ♀♀ (ZMUH), **Tirol**, Obergurgl, 2500 m, 16.07.1964 (P. Palmgren); 1 ♂ (ZMUH), **Tirol**, Obergurgl, 2500 m, 24.08.1961 (P. Palmgren).

DIAGNOSIS. The male of this species is characterized by the following combination of characters: embolic membrane with short but distinct posterior extension, dorsal apophysis short and broad provided extensive lamellar extension, ventral apophysis short, pointed and embolus perceptibly short.

The epigyne of the female greatly resembles that of that of *O. leviceps* but the middle point is much wider.

DESCRIPTION. Measurements (male/female). Total length 3.05/3.13–3.75. Carapace: 1.46/1.43–1.71 long, 1.10/1.01–1.17 wide. Tm I 0.65/0.66. Carapace length/femur I ratio: 1.2/1.18–1.32. Leg I: 1.21 + 0.40 + 1.07 + 0.93 + 0.64/1.30 + 0.43 + 1.14 + 0.96 + 0.64. Spination standard. Coloration dark. Unlike other species male tarsus I not swollen.

DISTRIBUTION. The species is known only from the highlands of Central Europe from Switzerland to Slovakia (Map 1).

REMARKS. Records of this species from Kamchatka Peninsula [Sytshevskaja, 1935] are based on misidentifications and may refer to *O. magaputo* sp.n. or another East Siberian species.

4. *intercepta*-group

Oreoneta intercepta (O. Pickard-Cambridge, 1873) **comb.n., stat.n.**

Figs. 106–108, 113–114, 112–119

Erigone intercepta O. Pickard-Cambridge, 1873: 443, pl. 41, f. 3 (D♂).

Porrhomma intercepta: Simon 1884: 372.

Phaulothrix intercepta: Roewer, 1942: 537.

Hilaira frigida intercepta: Eskov, 1981: 1487 (T ♂ from *Phaulothrix* = *Leptothrix*, reduced to subspecies, S with *Hilaira montigena arctica* Holm, 1960).

Hilaira frigida intercepta: Eskov, 1992: 76 (in part).

Hilaira frigida intercepta: Eskov & Marusik, 1994: 72.

Material examined: RUSSIA: ♂♂♀♀ (MZT AE 108), **Krasnoyarsk Prov.**, Yenisei River, Mirnoye Field Station (62°20'N), 08.1979 (K.Yu. Eskov); 1 ♂ (ZMMU), same locality, 14–24.06.1991 (L. Rybalov); 20 ♂♀ (ZMMU), SE **Tuva**, Khorumnug Mt. Range, Shuurmak Ck.(50°44'N 95°19'E, -1100 m), pit-fall traps in larch forest, 20.06–18.07.1996 (Yu.M. Marusik & D. Obydov).

DIAGNOSIS. The male of this species somewhat resembles that of *O. montigena* but the *O. montigena* male has a distinct recess on ventral side of the ventral apophysis and the dorsal apophysis is much narrower.

The female is distinct from all other *Oreoneta* by having almost circular epigynal plate.

DESCRIPTION. Measurements (male/female). Total length 2.50–2.95/3.13–3.35. Carapace: 1.27–1.34/1.36–1.39 long, 0.93–0.94/0.94–0.96 wide. Tm I 0.59–0.60/0.65–0.68. Males slightly smaller than females. Carapace length/femur I ratio: 1.31–1.34/1.29. Leg I: 1.00 + 0.36 + 0.87 + 0.73 + 0.54/1.07 + 0.36 + 0.93 + 0.71 + 0.50. Spination standard. Coloration standard.

DISTRIBUTION. The species is known from few localities ranging from Yenisei to Transbaikalia (Map 1).

REMARKS. Holotype ♂ (in Oxford) of this species was examined by K.Yu. Eskov and compared with Yenisei specimens. *O. intercepta* is here elevated from subspecies of *O. frigidato* to species status and transferred to *Oreoneta*.

5. *punctata*-group

Oreoneta beringiana sp.n.

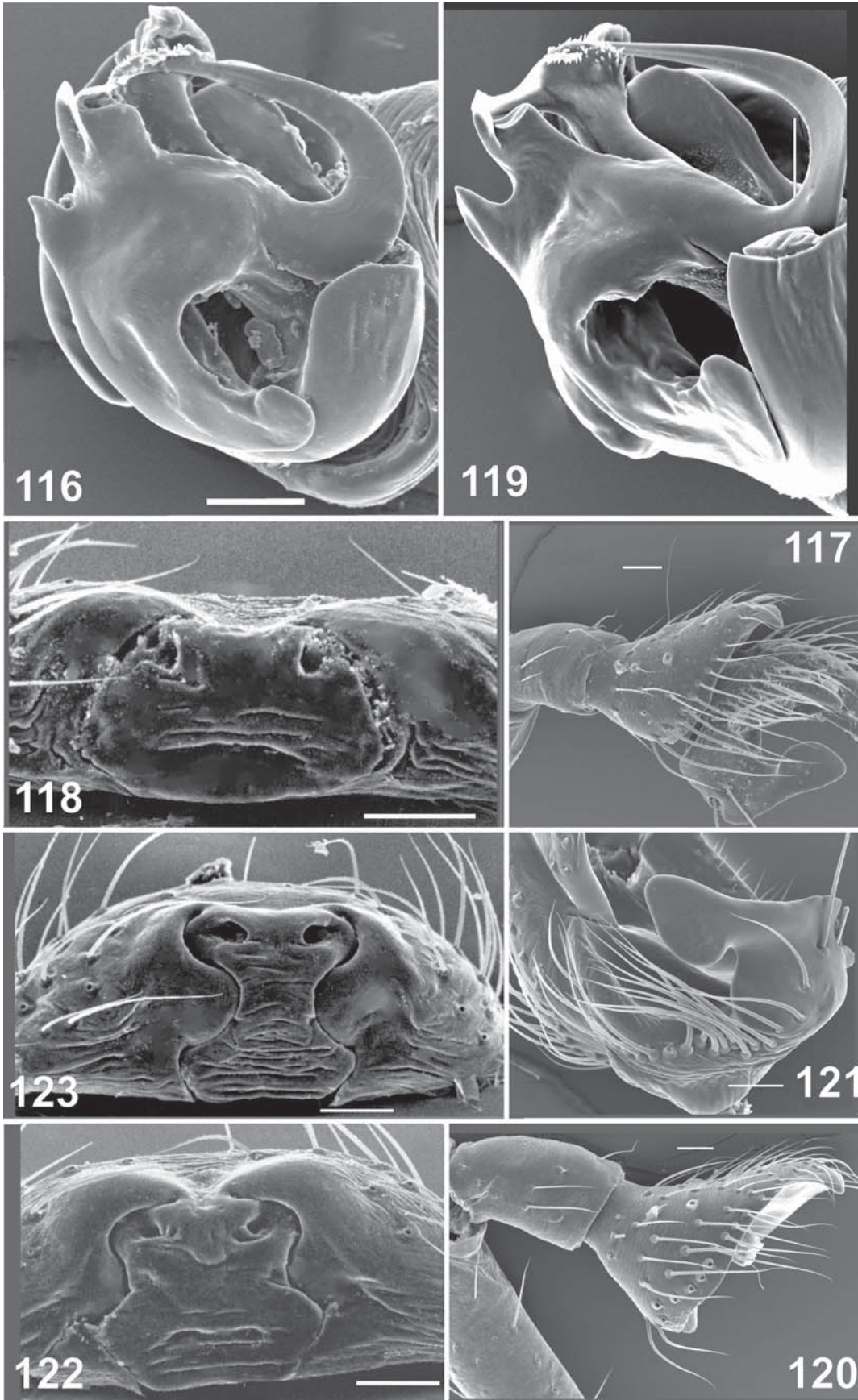
Figs. 124–126, 138, 140–141, 166a–b, 186–187.

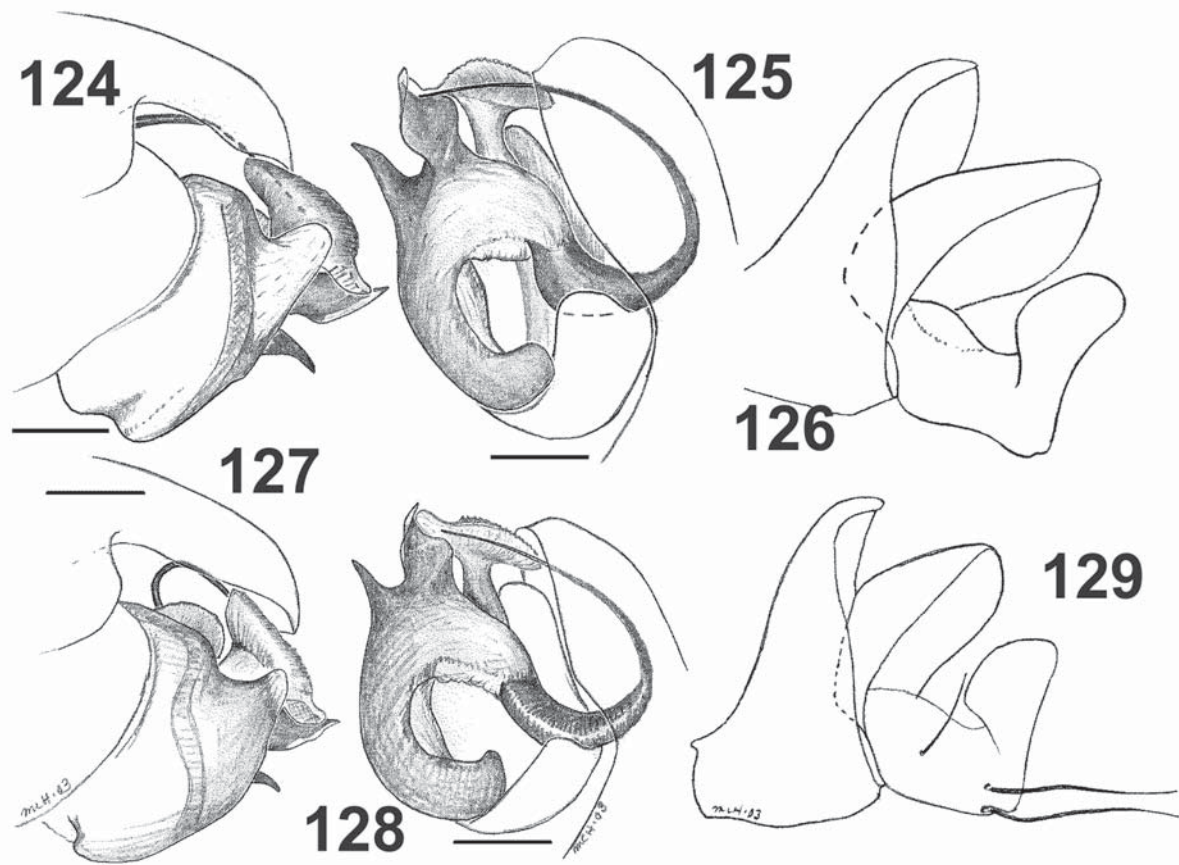
Erigone leviceps L. Koch, 1879: 63, pl. 2, f. 15 (in part).

Hilaira tatica garrina: Holm, 1970: 194.

Hilaira tatica tatica: Eskov, 1987: 1031 (in part).

Hilaira tatica tatica: Marusik et al., 1992: 143.





Figs. 124–129. Male palp of *Oreoneta beringiana* sp.n. (124–126) and *O. wyomingia* sp.n. (127–129). 125, 127 — terminal part, retrolateral view; 125, 128 — terminal part, prolateral view; 126, 129 — tibia and paracymbium, retrolateral view. Scale = 0.1 mm.

Рис. 124–129. Пальпа самца *Oreoneta beringiana* sp.n. (124–126) и *O. wyomingia* sp.n. (127–129). 125, 127 — верхняя часть, ретролатерально; 125, 128 — верхняя часть, пролатерально; 126, 129 — голень и парацимбиум, ретролатерально. Масштаб 0,1 мм.

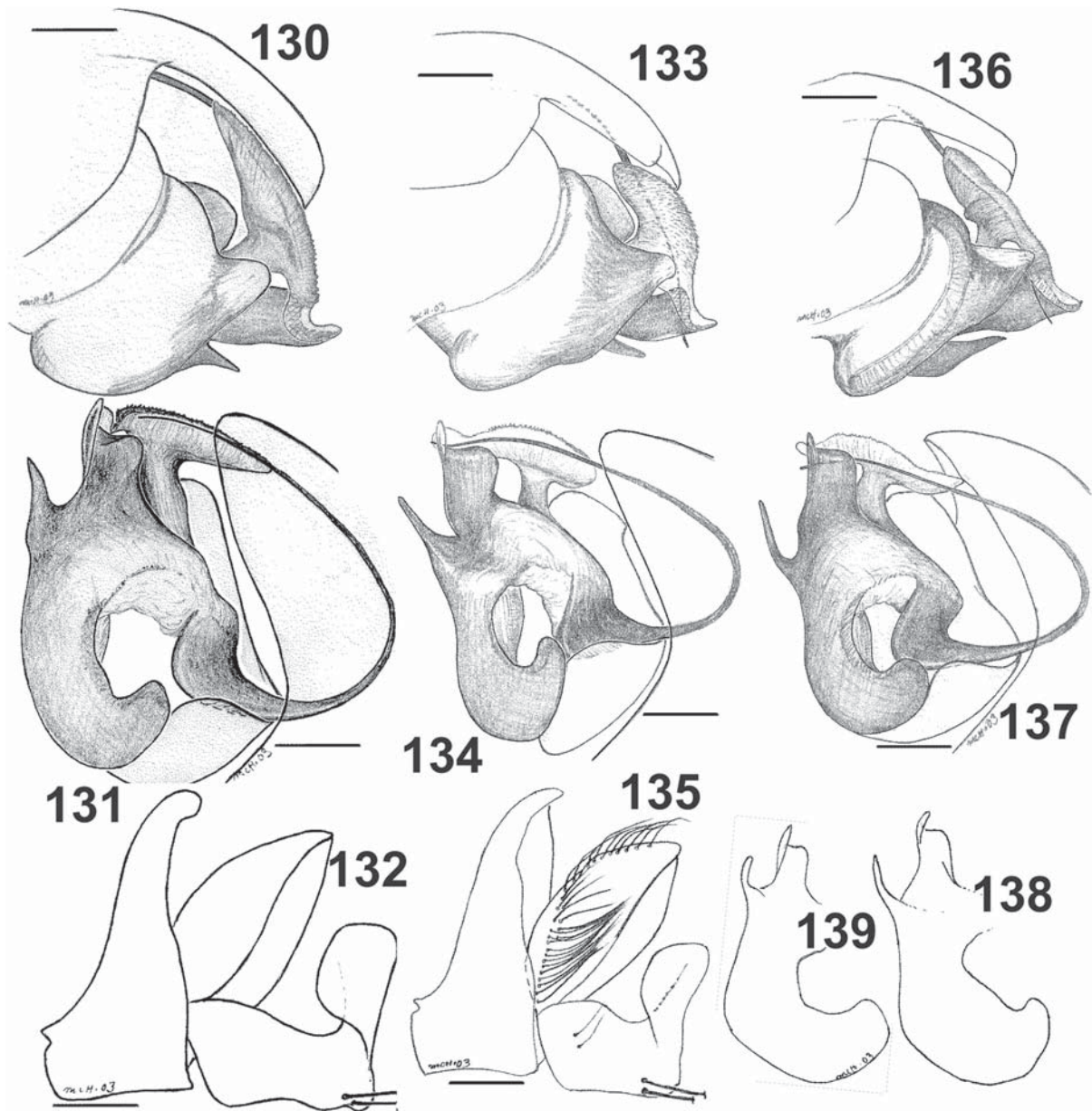
Hilaira tatrica tatrica: Marusik et al., 1993b: 73.

Types. Holotype ♂ and paratypes 1 ♂ 2 ♀♀ (ZMMU), **Chukotka**, lower reaches of Chaun River, 30.08–6.09.1985 (A.S. Ryabukhin). Paratypes: 1 ♂ 1 ♀ (NRS, syntypes of *Erigone leviceps*, #48), **RUSSIA: Middle Siberia**, Dudino [=Dudinka now], 69°25'N, 30.07–4.08.1876 (Theel & Trybom). 1 ♀ (UWBM), [SU-97-RLC-032], **Kurile Isles**, Shumshu Isl., Bolshoye L. 3 km NE, 20 m, 50.776°N 156.284°E, ex alder thicket litter, 9.08.1997 (R.L. Crawford); 1 ♀ 2 juv (UWBM), [SU-97-RLC-034], **Kurile Isles**, Shumshu Isl., SW side, Yuzhanka River, 15 m, 50.654°N 156.387°E, ex ravine alder-herb litter, 10.08.1997 (R.L. Crawford); 1 ♀ (UWBM), [PA-97-RLC-050], **Kurile Isles**, Paramushir Isl., Alyonushkina River, 40 m, 50.283°N 155.354°E, ex *Alnus-Filipendula* litter, 14.08.1997 (R.L. Crawford); 1 ♂ 1 ♀ (UWBM), [PA-97-TAP-111], **Kurile Isles**, Paramushir Isl., E of Bolshaya

River, 35 m, 50.057°N 155.359°E, ex floating stream drift, 16.08.1997 (T.A. Pearce). 1 ♀ (ZMMU), **Kurile Isles**, Onkotan Isl. CE shore, Mussel' Bay, 49°24'N 154°50'E, 31.08–6.09.1996 (Yu.M. Marusik); 2 ♀♀ (NRS), **Chukotka**, Pitlekai-Yinretlen, 5–7-07-1879 (Nr 1028, Vega exp.). USA: 1 ♂ (AMNH), **Alaska**, Circle Hot Springs, 65°30'N 144°40'W, 14.08.1968 (W. Ivie); 1 ♂ [det as *garrina* by Holm] (AMNH), **Alaska**, Berry, under rocks, etc. in grass, 15.09.1959 (A.B. Krom); 1 ♂ (AMNH), **Alaska**, Kaltag 4 mi downstream (Yukon R.), from frog stomach, 1948 (R.D. Hamilton); 1 ♂ [det Gertsch as *leviceps*, and *Tmeticus brunneus* det Emerton] (AMNH), **Alaska**, Nome, (64.504°N 165.377°W, E.A.E. [possibly studied by Holm and drawn as *t. garrina*]; 5 ♂♀ (NRS) [det as *t. garrina* by Holm], **Alaska**, Port Clarence etc., 23–24.07.1879 (Nr 1051, Vega-exp); 1 ♂ 2 ♀♀ (AMNH), **Alaska**, Steese Highway, 18 km NE of Fairbanks,

Figs. 116–123. Copulatory organs of *Oreoneta intercepta* (O. Pickard-Cambridge) (117–119), *O. montigena* (L. Koch) (116, 120–122) and *O. leviceps* (L. Koch) (123). 116, 119 — embolic division and protegulum, prolateral view; 117 — tibia and paracymbium of male palp, retrolateral view; 120 — male palp with removed terminal joint, retrolateral view; 121 — paracymbium, retrolateral view; 118, 122–123 — epigyne, view from behind. Scale = 0.05 mm

Рис. 116–123. Копулятивные органы *Oreoneta intercepta* (O. Pickard-Cambridge) (117–119), *O. montigena* (L. Koch) (116, 120–122) и *O. leviceps* (L. Koch) (123). 116, 119 — эмболюсный отдел и протегулюм, пролатерально; 117 — голень и парацимбиум Пальпа самца, ретролатерально; 120 — Пальпа самца с отделенной верхней частью, ретролатерально; 121 — парацимбиум, ретролатерально; 118, 122–123 — Эпигина, вид сзади. Масштаб 0,05 мм



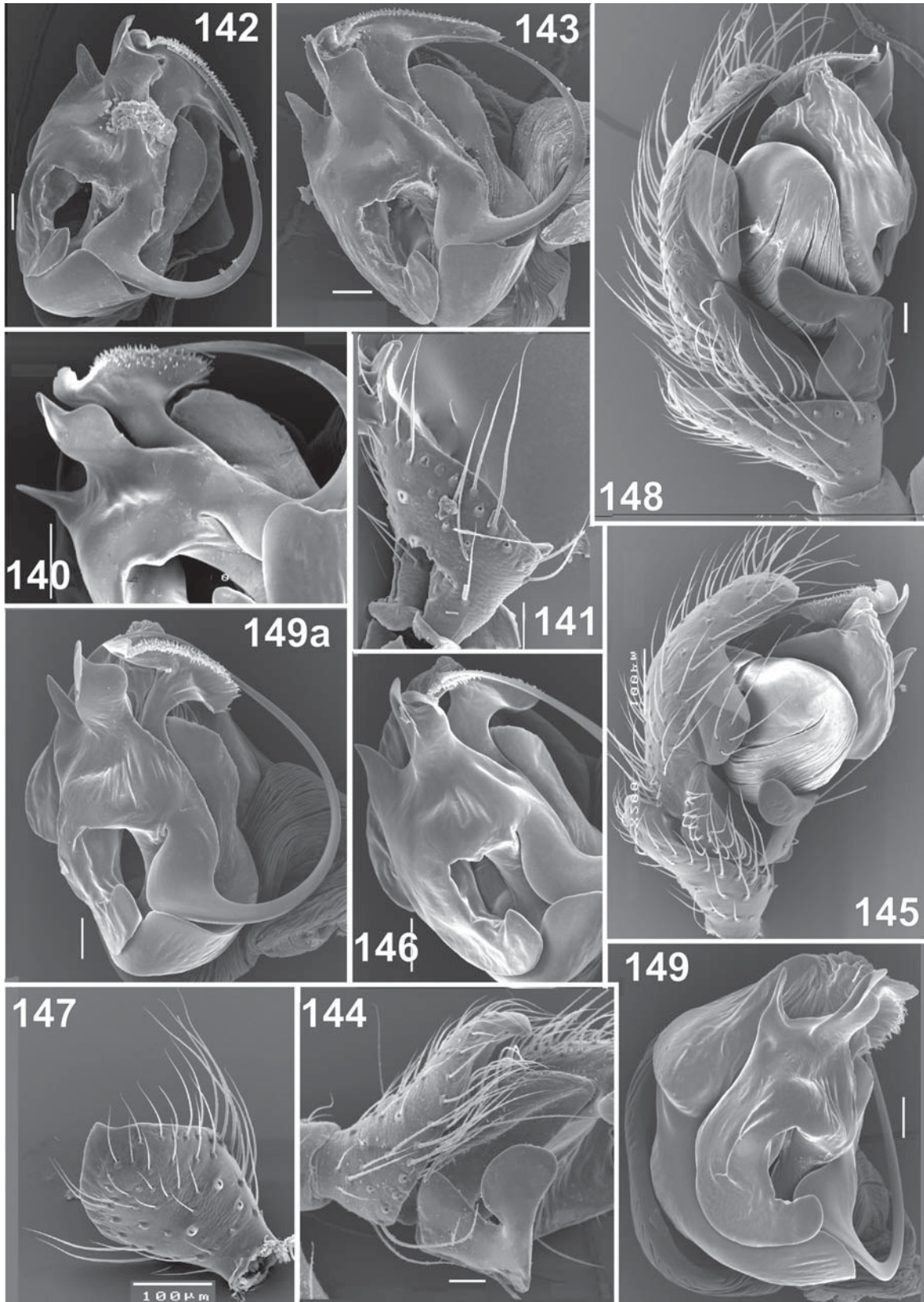
Figs. 130–139. Male palp of *Oreoneta magaputo* sp.n. (130–132), *O. uralensis* sp.n. (133–135), *O. eskovi* sp.n. (136–137) and embolus without embolus, prolateral view of *O. beringiana* sp.n. (138) and *O. wyomingia* sp.n. (139). 130, 133, 136 — terminal part, retrolateral view; 131, 134, 137 — terminal part, prolateral view; 132, 135 — tibia and paracymbium, retrolateral view. Scale = 0.1 mm.

Рис. 130–139. Пальпа самца *Oreoneta magaputo* sp.n. (130–132), *O. uralensis* sp.n. (133–135), *O. eskovi* sp.n. (136–137) и эмболюсный отдел без эмболюса, пролатерально *O. beringiana* sp.n. (138) и *O. wyomingia* sp.n. (139). 130, 133, 136 — верхняя часть, ретролатерально; 131, 134, 137 — верхняя часть, пролатерально; 132, 135 — голень и парацимбиум, ретролатерально. Масштаб 0,1 мм.

147°30'W 65°01'N, 11.08.1968 (W. Ivie); 1♂ 1♀ (CNC), Alaska, rut. ruc Kinley Park, 18.08.1936 (S. Williams); 1♀ (CNC), Alaska, Ogotoruk Cr., 25.08.1961 (collector unknown); 1♀ (CNC), Alaska, Collinson Pt., VI., 1914 (collector unknown); 1♀ (MZT AE 103), Alaska, White Mts, Eagle Summit, 15.07.1982 (S. Koronen); 4♀♀ [det Holm as *t.garrina*] (AMNH), Alaska,

Gulkana River near Paxson, 62°56'N 145°30'W, 06–08.1995 (G. Schumann). CANADA: 1♀ (CNC), Yukon T., Sheep-Bullion Plateau, Kluane Nat'l Park, pitfall in willow, 06–6.07.1981 (C.D. Dondale); 1♀ (CNC), Yukon T., Richardson Mts., Erebia Cr. on Fish Cr. 67°58'N 136°29'W, ex. dry willow litter on floodplain of Fish Creek 29.06.1987 VB55-87 (V. Behan); 2♀♀ (AMNH),

Рис. 140–149. Пальпа самца *Oreoneta magaputo* sp.n. (142–144), *O. beringiana* sp.n. (140–141), *O. tuva* sp.n. (145–147) и *O. uralensis* sp.n. (148–149). 140, 142–143, 149 — эмболюсный отдел и протегулюм, пролатерально; 141 — голень, ретролатерально; 144 — голень и парацимбиум, ретролатерально; 145, 148 — вся пальпа, ретролатерально; 147 — голень, вид сверху. Масштаб 0,05 мм, если не указано иначе.



Figs. 140–149. Male palp *Oreoneta magaputo* sp.n. (142–144), *O. beringiana* sp.n. (140–141), *O. tuva* sp.n. (145–147) and *O. uralensis* sp.n. (148–149). 140, 142–143, 149 — embolic division and protegulum, prolateral view; 141 — tibia, retrolateral view; 144 — tibia and paracymbium, retrolateral view; 145, 148 — whole palp, retrolateral view; 147 — tibia, dorsal view. Scale = 0.05 mm if not otherwise indicated.

NWT, Port Burwell, under rocks on hillside (open), 19.07.1939 (J. Oughton); 2 ♂♂ 3 ♀♀ (MZT AE 104), NWT, Belcher Islands, Sanikiluaq, 56°10'N 79°20'W, 15.06–13.08.1990 (S. Koponen).

ETYMOLOGY. The specific name is a noun in apposition taken from the biogeographical area called Beringia (NE Siberia and NW Nearctic), the main distributional area of this species.

DIAGNOSIS. The male of this species can be distinguished by the following combination of characters: dorsal apophysis slightly longer than wide with characteristic ventral curvature, lamellar extension very narrow, ventral apophysis conspicuously large with pointed apex. The female can be distinguished by the almost triangular posterior median plate, the distal part of which extends over the anterior median plate, the posteriorly diverging apical arms and the small pits about twice their diameter apart from each other. This species closely resembles *O. wyomingia* sp.n. (see below).

DESCRIPTION. Measurements (male/female). Total length 2.88/3.00–3.25. Carapace: 1.57/1.66 long, 1.2/1.20 wide. Tm I 0.68. Males slightly smaller than female. Carapace length/femur I ratio: 1.10–1.18. Leg I: 1.43 + 0.43 + 1.29 + 1.11 + 0.73/1.40 + 0.46 + 1.21 + 1.07 + 0.71. Coloration overage. Stridulating field >>0.5.

DISTRIBUTION. The species has a Siberio-Nearctic range and occurs from Yenisei River to Hudson Bay (Map 3). The northernmost record is from Dudinka (69.5°N) and the southernmost one from Onkotan Island (49.5°N).

REMARKS. This species has widest range among all other congeners.

Oreoneta eskovi sp.n.

Figs. 136–137, 167.

Erigone leviceps L. Koch, 1879: 63, pl. 2, f. 15 (D♂♀, in part).

Hilaira tatica tatica: Holm, 1973: 85 (in part).

Hilaira tatica tatica: Eskov, 1987: 1031 (in part).

Hilaira tatica tatica: Eskov, 1988: 116 (in part).

Types: Holotype ♂ and paratype ♀ (ZMMU) RUSSIA, Krasnoyarsk Prov., Yenisei River, Mirnoye Field Station (62°20'N), 10–16.08.1979 (K.Yu. Eskov). Paratypes: 1 ♂ (NRS, syntypes of *Erigone leviceps*, #13), Krasnoyarsk Prov., Yenisei River, Dudino, 69°15'N, 1–3.09.1875 (Nordenskiöld & Stuxberg); 1 ♀ (ISEA), Altai, SE Altai, 2 km E of Aktash, 26.06.1996 (A & R. Dudko).

ETYMOLOGY. Named after our friend and skilled arachnologist Dr. Kirill Eskov who was one of the initiators of this project.

DIAGNOSIS. The male of *O. eskovi* sp.n. can be distinguished by the embolic membrane with extraordinary long anterior and posterior sections and by the long and thin ventral apophysis, which is nearly parallel with the dorsal apophysis. The female can be recognized by the following combination of characters: distal borders of the anterior median plate distinctly curved to point basally; pits conspicuously small, slightly less than their diameter apart; sides of posterior median plate parallel.

DESCRIPTION. Measurements (male/female from Mirnoye). Total length 2.93/3.60. Carapace: 1.44/1.53 long, 1.09/1.14 wide. Tm I 0.62/0.56. Carapace length/femur I ratio: 1.25/1.29. Leg I: 1.16 + 0.37 + 0.96 + 0.79 + 0.60/1.19 + 0.40 + 1.10 + 0.89 + 0.64.

DISTRIBUTION. The species is known from two localities along Yenisei River and, with some uncertainty, from Altai (Map 2).

REMARKS. Paratype female from Altai may refer to another species. Lack of males from Altai prevent us to make final decision.

Oreoneta magaputo sp.n.

Figs. 130–132, 142–144, 168, 191–194.

Erigone leviceps L. Koch, 1879: 63, pl. 2, f. 15 (D♂♀, in part).

Hilaira tatica tatica: Holm, 1973: 85 (in part).

Hilaira tatica tatica: Eskov, 1987: 1031 (in part)

Hilaira tatica tatica: Eskov, 1988: 116 (in part)

Hilaira tatica tatica: Marusik et al., 1992: 143.

Hilaira tatica tatica: Marusik et al., 1993b: 73.

Hilaira mongolica Wunderlich, 1995: 498, f. 77–83 (D♂♀, paratypes from Magadan Area misidentified).

Types: Holotype ♂ and 18 ♂♂ 19 ♀♀ paratypes (IBPN and MZT AE 530), RUSSIA, Magadan Area, Kolyma River upper flow (ca 62°N), environs of Sibit-Tyellakh Vil., 600–800 m, thin larch forest, mainly under alder bushes, Summer 1986 (Yu.M. Marusik). Paratypes: 1 ♂ 2 ♀♀ (NRS, syntypes of *Erigone leviceps*, #32), Intsarevo [=Lebed' now], 62°05'N, 19.09.1875 (Nordenskiöld & Stuxberg); 1 ♂ (NRS, syntype of *Erigone leviceps*, #30), 63°30' Aninskoj' [=Alinskoye now], 63°30'N, 17.09.1875 (Nordenskiöld & Stuxberg); 1 ♂ 2 ♀♀ (ZMUT, AE 090), Krasnoyarsk Prov., Putorana Plateau, Ayan Lake, 69.198°N 93.897°E, Larix taiga, 2.08.1983 (K.Yu. Eskov); 9 ♀♀ (ZMUT, AE 089), Putorana Plateau, Ayan Lake, 69.198°N 93.897°E, larch forest with green moss litter, 2.08.1983 (K.Yu. Eskov); 1 ♀ (ZMUT) Yakutia, Toibochoi, moist meadow & Picea forest, 26.07.1977 (S. Koponen); 1 ♂ (IBPN), Yakutia, East Khandyga River, 62°30'N. 136°E, Chosenia riverside forest, 12–26.06.1991 (? collector); 1 ♀ (ISEA), Yakutia, East Khandyga River, ca 180 km NE of Khandyga, flood-plain forest, pitfall traps, 1.07–7.08.1985 (V.V. Dubatolov); 2 ♂♂ (ZMUT, AE 093), Magadan Area, Ola River down flow, 59.693°N 151.344°E, edge of Chosenia-poplar flood-plain forest, 7.10.1984 (Yu.M. Marusik); 2 ♂♂ (IBPN), Magadan Area, Kolyma River upper flow, Kulu River, Kontakt Field station, 61°51'N 147°40'E, Summer 1999 (S.P. Bukhkalov); 1 ♂ 1 ♀ (ISEA, BI-916), Magadan Area, upper Kolyma, Detrin River, 40 km upstream from mouth, 1.07.1987 (Yu.M. Marusik). CANADA: 1 ♂ (CNC), Yukon Territory, Old Crow, 5–16.07.1981 (L. Barton); 1 ♀ (CNC), Yukon Territory, North Fork Pass, 64°33'N 138°15'W, sifting litter, 20.06.1981 (C.D. Dondale); 4 ♀♀ (CNC), NWT, Reindeer Station, Caribou Hills, litter, 2.07.1972 (A. Smetana); 1 ♀ (CNC), NWT, Inuvik, pitfall traps, 11–14.07.1980 (L. Humble); 1 ♂ (CNC), NWT, Involved Hills, pan traps, low shrubs tundra, 30.06–6.07.1980 (L. Humble).

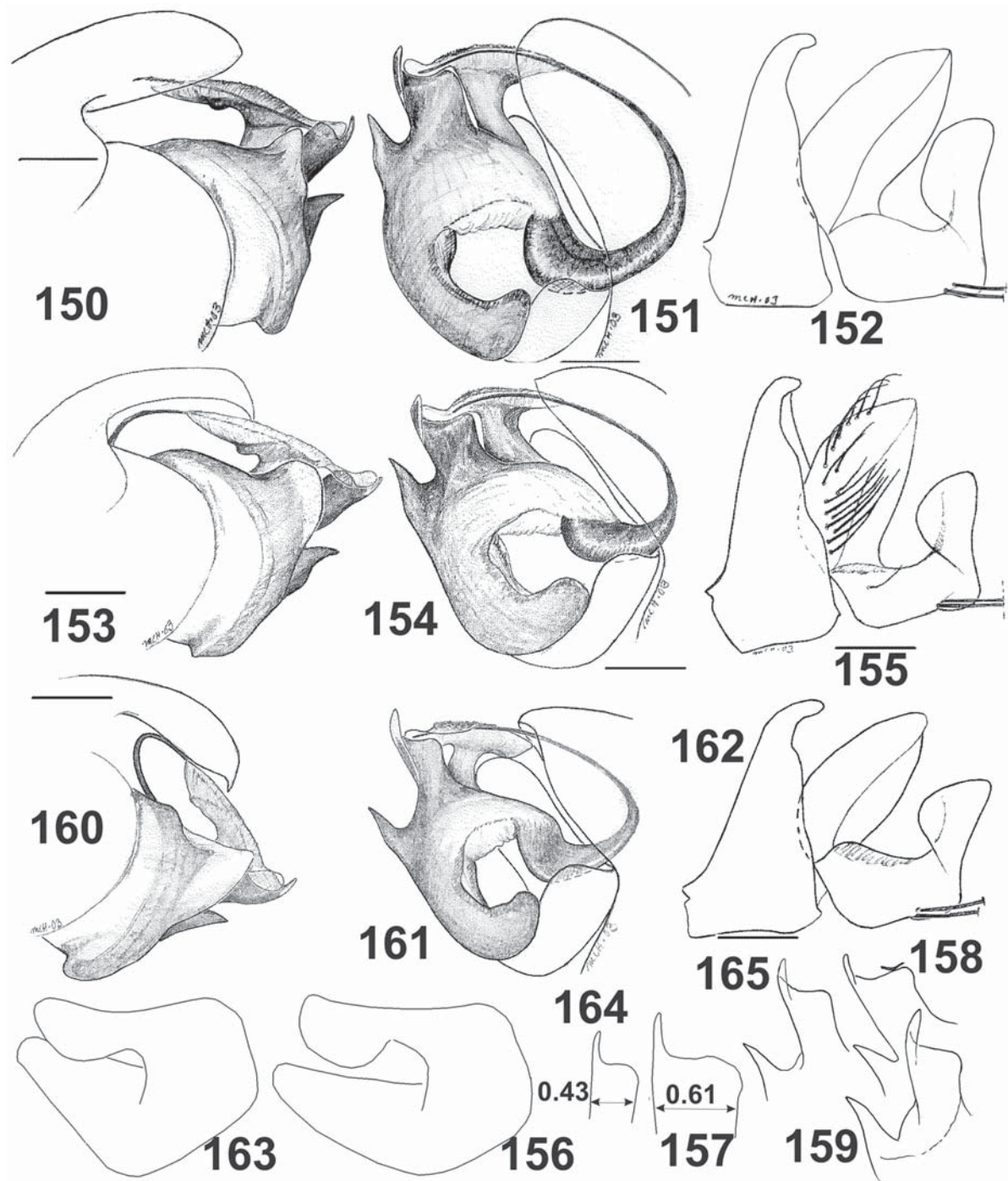
ETYMOLOGY. The specific name is a noun in apposition and derived from the collecting sites of the type specimens (Magadan and Putorana Plateau).

DIAGNOSIS. *O. magaputo* sp.n. is closest to *O. mongolica* and *O. punctata*. Its male can be distinguished from *O. mongolica* by having no basal knob on the less pointed posterior part of the embolic membrane and by its larger size. From *O. punctata* it can be recognized by having a distinct basal ridge on the posterior part of the embolic membrane but no knob. The female of *O. magaputo* sp.n. differs from that of *O. mongolica* by the broader apical arms and rather large pits about their diameter apart; those of *O. mongolica* are more than their diameter apart. From *O. punctata* it can be recognized by the wider anterior median plate (DSI = 0.6, that of *O. punctata* = 0.75).

DESCRIPTION. Measurements (male/female, Kontakt & Ola). Total length 2.88–3.25/3.90. Carapace: 1.39–1.43/1.43–1.50 long, 1.13/1.07–1.09 wide. Tm I 0.58–0.63/0.61–0.63. Males smaller than females. Carapace length/femur I ratio: 1.18/1.25–1.35. Leg I: 1.17 + 0.39 + 1.01 + 0.93 + 0.64/1.11 + 0.41 + 1.09 + 0.86 + 0.63. Spination standard. Coloration dark, carapace brown, abdomen in male almost black.

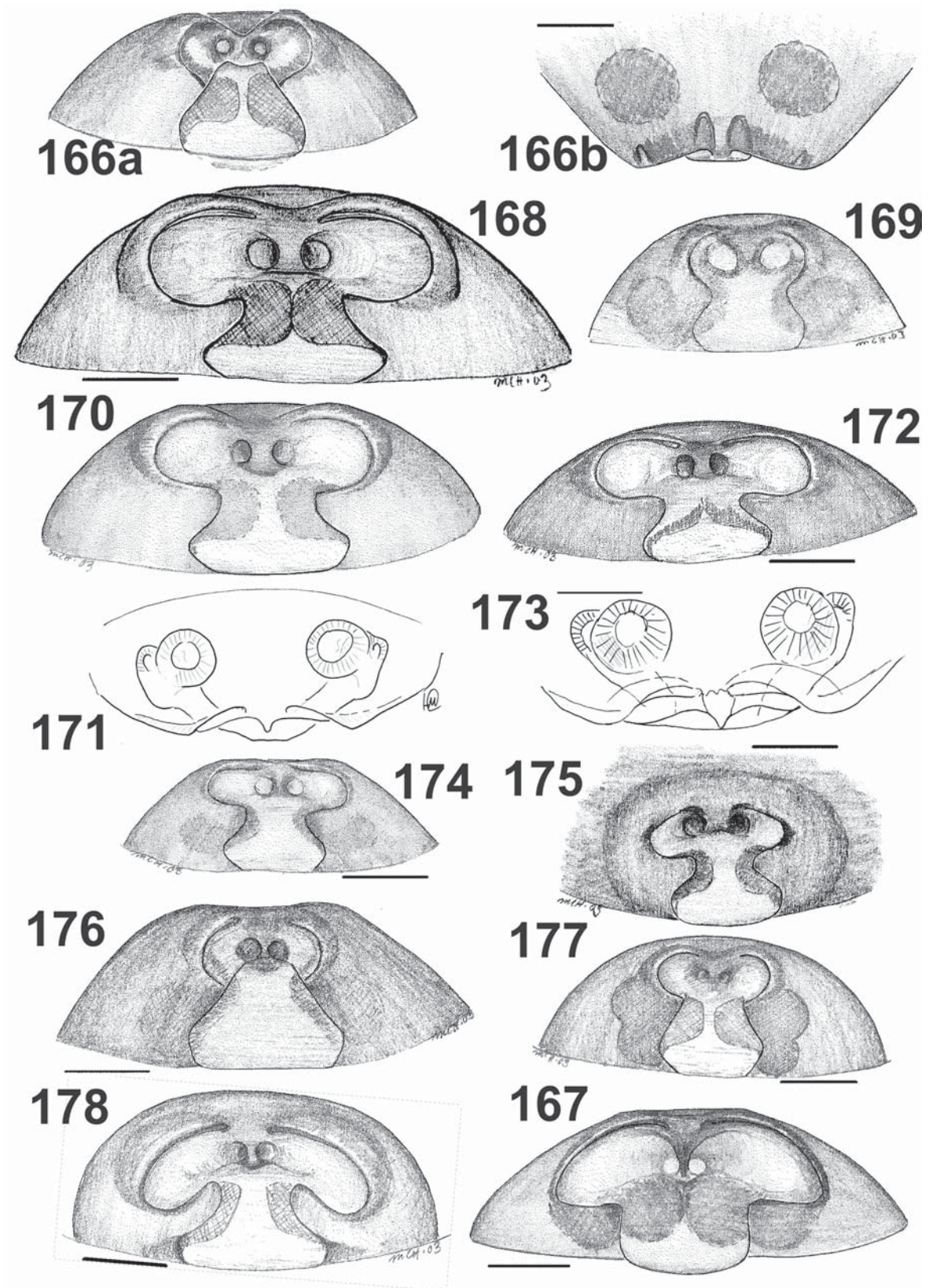
DISTRIBUTION. The species has Siberio-W Nearctic arcto-boreal range and distributed from Yenisei River to NW Canada (Map 2).

REMARKS. *O. magaputo* sp.n. belongs, together with *O. mongolica*, *O. punctata*, and *O. tuva* sp.n., to a cluster of four species, which have quite similar copulatory organs.



Figs. 150–165. Male palp of *Oreoneta punctata* (Tullgren) (150–152), *O. mongolica* (Wunderlich) (153–159) and *O. tuva* sp.n. (160–164). 150, 153, 160 — terminal part, retrolateral view; 151, 154, 161 — terminal part, prolateral view; 152, 155, 162 — tibia and paracymbium, retrolateral view; 156, 163 — paracymbium, retrolateral view showing differences between two closely related species; 157, 164 — dorsal apophysis, prolateral view; 158–159, 165 — embolic apophyses, prolateral view. Scale = 0.1 mm.

Рис. 150–165. Пальпа самца *Oreoneta punctata* (Tullgren) (150–152), *O. mongolica* (Wunderlich) (153–159) и *O. tuva* sp.n. (160–164). 150, 153, 160 — верхняя часть, ретролатерально; 151, 154, 161 — верхняя часть, пролатерально; 152, 155, 162 — голень и парацимбиум, ретролатерально; 156, 163 — парацимбиум, ретролатерально показана разница между двумя близкими видами; 157, 164 — дорзальный апофиз, пролатерально; 158–159, 165 — эмболюсный отросток, пролатерально. Масштаб 0,1 мм.



Figs. 166–178. Epigyne of *Oreoneta beringiana* sp.n. (166a–b), *O. eskovi* sp.n. (167), *O. magaputo* sp.n. (168), *O. repeater* sp.n. (169), *O. punctata* (Tullgren) (170–171), *O. mongolica* (Wunderlich) (172–173), *O. tuva* sp.n. (174), *O. mineevi* sp.n. (175), *O. sepe* sp.n. (176), *O. wyomingia* sp.n. (177) and *O. uralensis* sp.n. (178). 166a, 167–170, 172, 174–178 — view from behind; 166b, 171, 173 — ventral view. Scale = 0.1 mm.

Oreoneta mineevi sp.n.

Fig. 175.

Types: Holotype ♀ & paratype ♀ (without epigyne, ZISP), RUSSIA, NE Siberia, Wrangel Isl., SE part, tundra, 20.06.1933 (A. Mineev).

ETYMOLOGY. This species is named after the collector of the holotype.

DIAGNOSIS. The female (male unknown) of this species is distinguished by the hourglass shaped median plate with relatively narrow, roughly triangular anterior median plate (API ~ 0.8) with fairly large pits slightly more than their diameter apart.

DESCRIPTION. Measurements. Total length 2.75–2.80. Carapace: 1.14–1.17 long, 0.86–0.90 wide. Tm I 0.56. Carapace length/femur I ratio: 1.32. Leg I: 0.89 + 0.34 + 0.79 + 0.64 + 0.47. Epigyne 0.150/0.157. Abdomen elongated as in most of *Walckenaeria* (1.77 long, 1.00 wide).

DISTRIBUTION. Known only from the type locality on Wrangel Island, NE Siberia (Map 3).

REMARKS. The holotype and paratype specimens were examined by Charitonov. According to the labels, he planned to describe a new species and dissected one epigyne. The slide with the dissected epigyne may be in Perm University (Charitonov's collection) or in ZISP (among unlabeled or unsorted slides).

Oreoneta mongolica (Wunderlich, 1995) comb.n.

Figs. 153–159, 172–173, 183–185, 199–201.

Hilaira tatriva tatriva: Eskov, 1989: 63

Hilaira mongolica Wunderlich, 1995: 498, f.77–83 (D♂♀).

Oreoneta mongolica: Marusik & Logunov, 1998: 244.

"*Hilaira*" *mongolica*: Logunov et al., 1998: 135 (misidentified, refers to *O. tuva* sp.n.).

Hilaira mongolica: Marusik et al., 2000: 50 (misidentified, refers to *O. tuva* sp.n.).

Material examined: MONGOLIA: 5 ♂♂ 4 ♀♀ (IBPN), Arkhangai Aimak, Ondrer-Ulaan, Tsakhir, Chulut Gorge, 48°07'N 100°22'E, 2100 m, 7–10.06.1997 (Yu.M. Marusik); 19 ♀♀ (IBPN), Bayanhongor Aimak, Gurvanbulag S., Khokh-Nuur (Lake), 47°32'N 98°32'E, 2600 m, 10–13.06.1997 (Yu.M. Marusik); 5 ♂♂ 3 ♀♀ (ZMMU), Khubsugul (Khovsgol) Aimak, Zhargalant Somon, Tarbagatai Mt. Range, under the bark of felled tree in pine forest (51), 20.08.1985 (B. Sheftel); 1 ♂♂ 3 ♀♀ (MZT AE 091), same locality and date; 1 ♂♂ 8 ♀♀ (IBPN & MZT), Overkhangai Aimak, Zuunbayan-Ulaan S., Zamtyin Davaa, 46°43'N 102°51'E, 2000 m, 14–18.06.1997 (Yu.M. Marusik); 9 ♀♀ (MZT AE 063), Tov (=Central) Aimak, Baga-Mukhar, 48°22'N 106°18'E, 1100 m, 18–23.06.1997 (Yu.M. Marusik).

DIAGNOSIS. The sharp pointed posterior part of the embolic membrane with basal knob is characteristic of the male. The female can be recognized by the wide anterior median plate (DSI = 0.6) with small epigynal pits more than their diameter apart. (See also *O. magaputo* sp.n. above). From *O. punctata* it can be recognized by having a distinct basal ridge on the posterior part of the embolic membrane but no knob. The female of *O. magaputo* sp.n. differs from that of *O. mongolica* by having broader apical arms and larger pits which are about their diameter apart; those of *O. mongolica* are more than their diameter apart. From *O. punctata* it can be recognized by the wider anterior median plate (DSI = 0.6, that of *O. punctata* = 0.75).

DESCRIPTION. Measurements (Taingol River). Total length 2.75/3.05–3.63. Carapace: 1.40/1.31–1.37 long, 1.07/0.94–0.97 wide. Tm I 0.62/0.58–0.64. Carapace length/femur I ratio: 1.32/1.27–1.31. Leg I: 1.06 + 0.34 + 0.89 + 0.79 + 0.60/1.04 + 0.36 + 0.90 + 0.76 + 0.51. Epigyne 0.208/0.131 and 0.189/0.129.

DISTRIBUTION. The range of the species seems to be restricted to the central and northern Mongolia (cf. Map 2).

REMARKS. Part of the paratypes derived from Magadan Area belongs to *O. magaputo* sp.n.

Oreoneta punctata (Tullgren, 1955) comb.n.

Figs. 3, 150–152, 170–171, 179–182, 195, 202–204.

Hilaira punctata Tullgren, 1955:387, f. 88a–c (D♀).

Hilaira tatriva, Gustafsson & Holm 1980: 133, f. 5 (♀, misidentification).

Hilaira tatriva, Eskov 1987: 1029. (synonymised with *H. punctata*).

Material examined: SWEDEN: 2 ♀♀ (paralectotypes, NRS), Torne Lappmark, Jukkaskarvi, under stones near river, 12.08.1900 (A. Tullgren); 1 ♀ (paralectotype, NRS), Västerbotten, Ammarnäs, 1939 (N. Odhner); 1 ♀ (lectotype, here designated, NRS), Åre, Totthummeln, 24.07.1934 (A. Tullgren); 1 ♀ (UZM HC 226: 2531), Lule lappmark, Jokkmokk, 05.07.1924 (E. Arwidsson); 3 ♂♂ 14 ♀♀ (UZM HC 1434: 15793), Muddus, 22.06.1975 (E. Holm); 3 ♀♀ (UZM HC 226: 2491), Lycksele lappmark, Gäutavardo, 27.06.1937 (E. Holm). FINLAND: 2 ♂♂ (ZMH No 34.194), Pelkosenniemi (7449: 524), 07–20.06.1994 (M. Similä & J. Itämies); 1 ♀ (ZMH No 34.195), Pelkosenniemi (7449: 524), 15–29.08.1994 (M. Similä & J. Itämies); 1 ♂, (ZMH No. 28.648), Savukoski, Leukkuhamara (7497: 564), a bog, 06.08.1972. RUSSIA: 1 ♂ (ZMUH No 8519), Karelia, "Paanajarvi, Tunturilampi, 28.06.1935".

DIAGNOSIS. The male of *O. punctata* is distinguished by having no ridge on posterior part of the embolic membrane but a distinct basal knob. The female can be recognized by the relatively narrow anterior median plate (DSI = 0.75) with small epigynal pits about their diameter apart. (See also *O. magaputo* sp.n. above).

DESCRIPTION. Measurements: Total length 3.05/2.88–3.38. Carapace: 1.37/1.29–1.53 long, 1.00/0.90–1.13 wide. Tm I 0.66/0.58–0.65. Carapace length/femur I ratio: 1.28/1.20–1.27. Leg I: 1.07 + 0.36 + 1.00 + 0.86 + 0.66/1.07 + 0.39 + 0.96 + 0.76 + 0.57. Spination standard. Epigyne 0.20/0.13

DISTRIBUTION. So far, this species is restricted to northern Fennoscandia and occurs in Sweden, Finland, and northern Karelia (Map 2).

REMARKS. No holotype was designated in the original description of the species. Accordingly the female from Åre, Totthummeln is herein selected as lectotype.

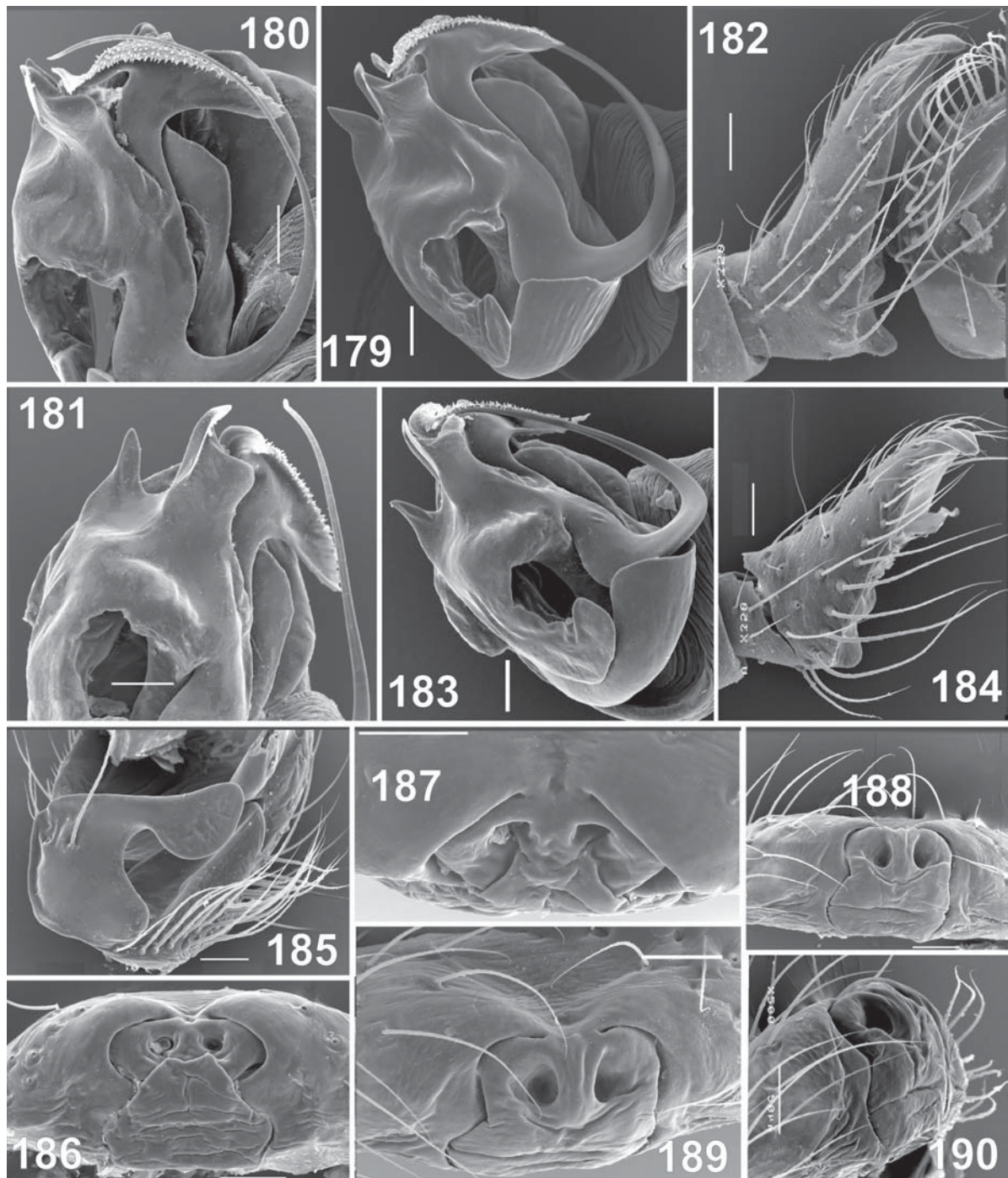
Oreoneta repeater sp.n.

Figs. 169, 188–189.

Types: Holotype ♀ (CNC) and paratypes 6 ♀♀ & 1 juv. (CNC & MZT), CANADA, Yukon T., Dempster Hwy, km. 140.5, Repeater Mtn, 6000 ft, 21.07.1980 (M. Wood).

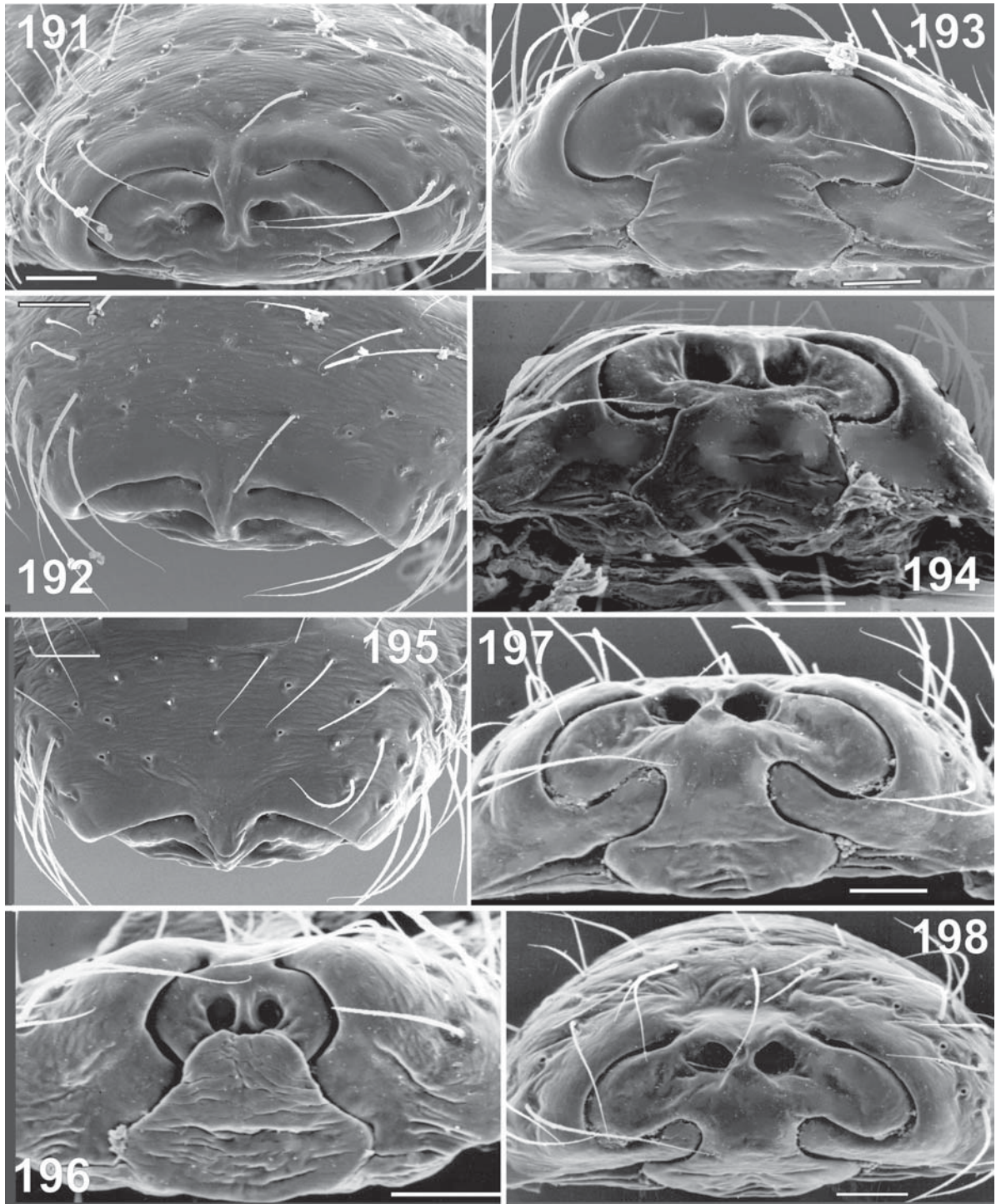
ETYMOLOGY. The specific name is a noun in apposition taken from the collecting site of the type specimens.

DIAGNOSIS. The female (male unknown) of this species is easily distinguished by having hourglass shaped epigyne



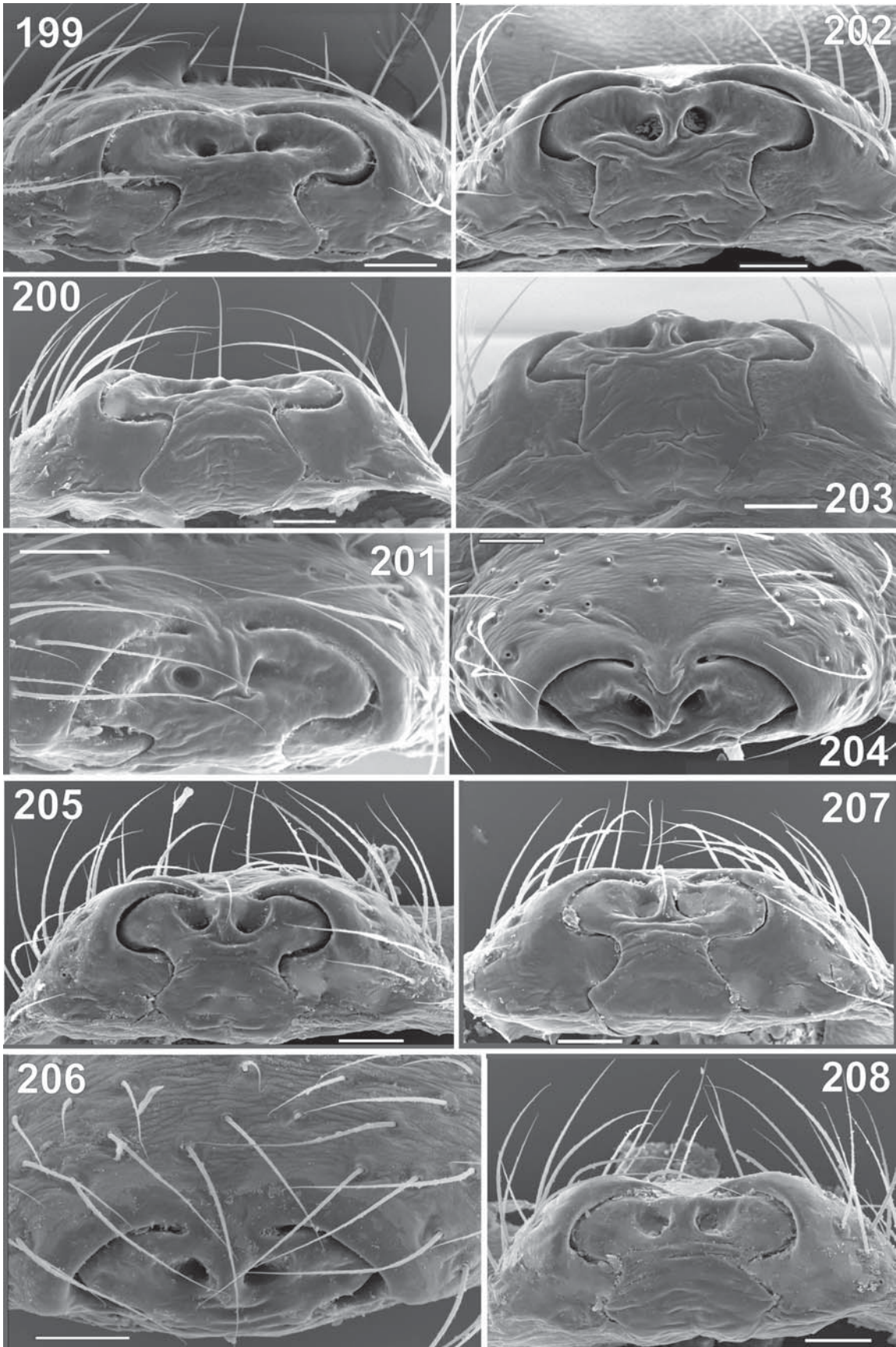
Figs. 179–190. Copulatory organs of *Oreoneta punctata* (Tullgren) (179–182), *O. mongolica* (Wunderlich) (183–185), *O. beringiana* sp.n. (186–187) and *O. repeater* (188–189). 179, 180–181, 183 — embolic division and protegulum, prolateral view; 182, 184 — tibia of male palp, retrolateral view; 185 — paracymbium, retrolateral view; 186, 188 — epigyne, view from behind; 187, 189 — ventral view, different turns; 190 — epigyne, lateral view. Scale = 0.05 mm.

Рис. 179–190. Копулятивные органы *Oreoneta punctata* (Tullgren) (179–182), *O. mongolica* (Wunderlich) (183–185), *O. beringiana* sp.n. (186–187) и *O. repeater* (188–189). 179, 180–181, 183 — эмболюсный отдел и протегулюм, пролатерально; 182, 184 — голень пальпы самца, ретролатерально; 185 — парацимбиум, ретролатерально; 186, 188 — эпигина, вид сзади; 187, 189 — вид снизу, разные ракурсы; 190 — эпигина, вид сбоку. Масштаб 0,05 мм.



Figs. 191–198. Epigyne of *Oreoneta magaputo* sp.n. (191–194), *O. punctata* (Tullgren) (195), *O. sepe* sp.n. (196) and *O. uralensis* sp.n. (197–198). 191–192, 195, 198 — ventral view, different turns; 193–194, 196–197 — view from behind; Specimens from Kolyma (191–193) and Ola (194) Rivers Scale = 0.05 mm.

Рис. 191–198. Эпигина *Oreoneta magaputo* sp.n. (191–194), *O. punctata* (Туллгрена) (195), *O. sepe* sp.n. (196) и *O. uralensis* sp.n. (197–198). 191–192, 195, 198 — вид снизу, разные ракурсы; 193–194, 196–197 — вид сзади; экземпляры из верховий Колымы (191–193) и реки Ола (194). Масштаб 0,05 мм.



with evenly wide anterior and posterior median plates (API = 1); small, egg-shaped, anteriorly diverging plate grooves; fairly large pits slightly wider apart than their diameter.

DESCRIPTION. Measurements. Total length 2.95–3.38. Carapace: 1.37–1.46 long, 1.0–1.03 wide. Tm I 0.78–0.81. Carapace length/femur I ratio: 1.14. Leg I: 1.26 + 0.39 + 1.17 + 0.99 + 0.61. Epigyne 0.119/0.131.

DISTRIBUTION. The species is known only from type locality (Map 1).

Oreoneta sepe sp.n.

Figs. 176, 196.

Types: Holotype ♀ (CNC), CANADA: Québec, Poste-de-la-Baleine, Hudson Bay shore, 26.06.1985 (S. Koponen). Paratypes: CANADA: 2 ♀♀ (MZT 532), NWT, Belcher Islands, 20.06.1981 (S. Koponen); 2 ♀♀ (AMNH), NWT, Baffin Isl., Lake Harbour, 62°50'N 69°50'W, 8.08.1935 (W.J. Brown); 1 ♀ (AMNH), NWT, Baffin Isl., Lake Harbour, 62°50'N 69°50'W, 9.06.1939, G-1063 (J. Oughton).

ETYMOLOGY. The specific name is a noun in apposition taken from the nickname of Seppo "Sepe" Koponen, our good friend and a dedicated student of the biodiversity of the Holarctic spider fauna.

DIAGNOSIS. The female (male unknown) has quite similar epigyne to that of *O. beringiana* but the anterior median plate is almost circular and narrower than the posterior one (API ~ 1.3).

DESCRIPTION. Measurements (Belcher Isles). Total length 3.00–3.13. Carapace: 1.21–1.29 long, 0.86–0.89 wide. Tm I 0.68. Carapace length/femur I ratio: 1.45. Leg I: 0.89 + 0.33 + 0.74 + 0.64 + 0.49.

DISTRIBUTION. This species is known Northwestern Territories to Labrador, and south to New England (Map 2).

REMARKS. Specimens of this species from AMNH were identified by Holm either as *Hilaira leviceps* or *H. t. garrina*.

Oreoneta tuva sp.n.

Figs. 13a, 145–147, 160–164, 174, 205–208.

Hilaira tatica tatica: Eskov, 1992: 76.

"*Hilaira*" *mongolica*: Logunov et al., 1998: 135.

Hilaira mongolica: Marusik et al., 2000: 50.

Types: Holotype ♂ and paratype ♀ (ISEA), RUSSIA, SE Tuva, East Tannu-Ola Mt. Range, ca 15 km NW of Khol-Oozhu Vill., 50°47'N 94°19'E, 2000–2100m, *Rhododendron-Larix* taiga, 17.06.1995 (D.V. Logunov). Paratypes: 4 ♂♂ (ISEA), RUSSIA, SE Tuva, East Tannu-Ola Mt. Range, ca 15 km NW of Khol-Oozhu Vill., 50°47'N 94°19'E, 2000–2100 m, *Rhododendron-Larix* taiga, 17.06.1995 (D.V. Logunov); 1 ♂ (ZMMU), SE Tuva, East Tannu-Ola Mt. Range, ca 15 km NW of Khol-Oozhu Vill., 50°50'N 94°19'E, mountain *Larix*-moss-stony forest-tundra, 2175 m, 8–16.06.1995 (D.V. Logunov); 3 ♂♂ (MZT AE 535), Tuva, East Tannu-Ola Mt. Range, S slope, 50°47'N 94°21'E, 1500 m, *Larix* forest, 8–17.06.1995 (S. Koponen); 1 ♂ (MZT AE 536), Tuva, East Tannu-Ola Mt. Range, S slope, 50°48'N 94°18'E, 2100 m, *Pinus cembra* — *Larix* forest, 8–17.06.1995 (S. Koponen); 2 ♀♀ (ZMMU), SE Tuva, East Tannu-Ola Mt. Range, 50°49'N 94°23'E, 1510 m, 17.06.1995 (Yu.M. Marusik); 1 ♀ (MZT AE 537), Tuva, East Tannu-Ola Mt. Range, S slope, 50°47'N 94°19'E, 1670 m, *Larix-Rhododendron* forest, 8–17.06.1995 (S. Koponen); 1 ♂ 5

♀♀ (MZT, AE 095), Tuva, Turan Vil. env. (West Sayan), 52°11'N 93°58'E, floodplain forest (birch, spruce, *Abies*), 7.08.1984 (B. Sheftel); 2 ♀♀ (IBPN) SE Tuva, Sangelen Mt. Range, Dzhen-Aryk (Ck) upper flow, 50°28'N 95°25'E, 1750 m, 16–18.07.1996 (Yu.M. Marusik); 5 ♀♀ (IBPN), SE Tuva, middle reaches of Kargy Riv., 50°35'N 97°05'E, 1300 m, 2–4.07.1996 (Yu.M. Marusik).

ETYMOLOGY. The specific name is a noun in apposition taken from the collecting site of the type specimens.

DIAGNOSIS. The male of *O. tuva* sp.n. is distinguished by the relatively short and broadly truncate posterior part of the embolic membrane and the narrow dorsal apophysis. The female is recognized by the fairly large pits with clearly posteriorly directed grooves.

DESCRIPTION. Measurements (male/female from Khol-Oozhu). Total length 2.88/3.13–3.58. Carapace: 1.28–1.36/1.36–1.39 long, 0.97–1.03/1.0–1.01 wide. Tm I 0.67/0.60. Carapace length/femur I ratio: 1.32/1.30. Leg I: 0.97 + 0.33 + 0.83 + 0.70 + 0.53/1.04 + 0.34 + 0.89 + 0.79 + 0.54.

DISTRIBUTION. So far the species is known only from Tuva (Map 2).

REMARKS. Judging from the shape of epigyne, some of paratype females may not be conspecific with the holotype.

Oreoneta uralensis sp.n.

Figs. 133–135, 148–149, 178, 197–198.

?*Hilaira frigida*: Pakhorukov & Utotchkin, 1977: 908, f. 5 (♀, may refer to *O. punctata*).

Hilaira tatica: Tanasevitch, 1985: 61.

Hilaira frigida: Koponen et al., 1997: 110.

Hilaira tatica tatica: Koponen et al., 1997: 114.

Types: Holotype ♂ (ZMMU), Polar Ural, Malaya Kara 10 km to Ocha-Nyrd Mts., 17.08.1996 (V. Relys). Paratypes: 3 ♂♂ (MZT AE 086), RUSSIA, Polar Ural, Krasnyi Kamen, 66°55'N 65°40'E, *Picea-Betula-Equisetum* forest, 8–18.07.1994 (S. Koponen); 1 ♀ (MZT AE 538), Polar Ural, Krasnyi Kamen, 66°55'N 65°40'E, 230 m, rotten larch, 1.07.1994 (M. Uusitalo); 3 ♀♀ (MZT, AE 087), Polar Ural, Krasnyi Kamen, 66°55'N 65°40'E, mixed forest (*Equisetum*, etc), 5.07.1994 (P.T. Lehtinen); 1 ♀ (MZT AE 088), Polar Ural, Krasnyi Kamen, 66°55'N 65°40'E, mixed forest (*Equisetum*, etc), 5.07.1994 (P.T. Lehtinen); 1 ♀ (ISEA), Altai, SW Altai, Sarymsakty Mt. Range, Sarymsakty River, upper part of forest zone, 1800–1900 m, 0.06.1997 (R. Dudko & V. Zinchenko).

ETYMOLOGY. The specific name is a noun in apposition taken from the collecting site of the type specimens.

DIAGNOSIS. The male of *O. uralensis* sp.n. is characterized by the long and narrow ventral apophysis and the round ended posterior part of the embolic membrane. The female is easily recognized by having the apical arms strongly pointing basally.

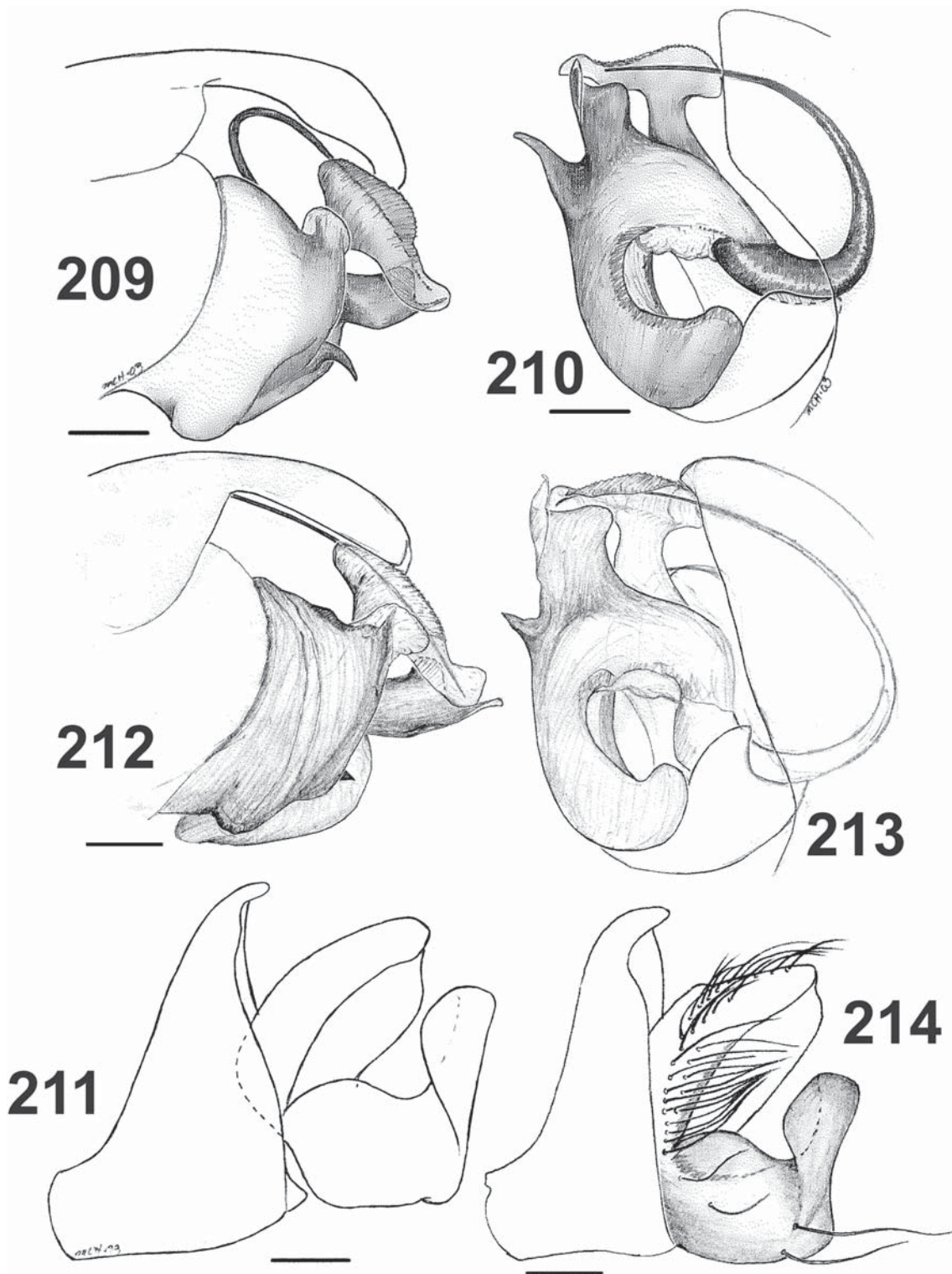
DESCRIPTION. Measurements (male/female, from Krasnyi Kamen). Total length 3.00–3.55/3.13–3.38. Carapace: 1.54–1.64/1.43–1.50 long, 1.19–1.21/1.01–1.06 wide. Tm I 0.60–0.66/0.68. Males larger than females. Carapace length/femur I ratio: 1.27–1.35/1.28–1.31. Leg I: 1.29 + 0.43 + 1.10 + 0.91 + 0.64/ 1.14 + 0.43 + 0.99 + 0.83 + 0.59. Spination standard. Coloration dark. Stridulating field covers whole lateral surface of chelicera. Epigyne 0.175/0.110.

DISTRIBUTION. The species is known from Polar Ural and Altai (Map 1).

REMARKS. Paratype female from Altai may belong to another species.

Figs. 199–208. Epigyne of *Oreoneta mongolica* (Wunderlich) (199–201), *O. punctata* (Tullgren) (202–204) and *O. tuva* sp.n. (205–208). 199–200, 202–203, 205, 207–208 — view from behind; 201, 204, 206 — ventral view, different turns. Specimens 205–206 from Tannu-Ola, 207 — from Dzhen-Aryk, 208 — from Kargy. Scale = 0.05 mm.

Рис. 199–208. Эпигина *Oreoneta mongolica* (Wunderlich) (199–201), *O. punctata* (Tullgren) (202–204) и *O. tuva* sp.n. (205–208). 199–200, 202–203, 205, 207–208 — вид сзади; 201, 204, 206 — вид снизу, разные ракурсы. Экземпляры 205–206 — из Танну-Ола, 207 — из Джен-Арыка, 208 — из Каргы. Масштаб 0,05 мм.



Figs. 209–214. Male palp of *Oreoneta kurile* sp.n. (209–211) and *O. eskimopoint* sp.n. (212–214). 209, 212 — terminal part, retrolateral view; 210, 213 — terminal part, prolateral view; 211, 214 — tibia and paracymbium, retrolateral view. Scale = 0.1 mm.
 Рис. 209–214. Пальпа самца *Oreoneta kurile* sp.n. (209–211) и *O. eskimopoint* sp.n. (212–214). 209, 212 — верхняя часть, ретролатерально; 210, 213 — верхняя часть, пролатерально; 211, 214 — голень и парацимбиум, ретролатерально. Масштаб 0,1 мм.

Oreoneta wyomingia sp.n.

Figs. 127–129, 139, 177.

Types: Holotype ♂ and 3 ♀♀ paratypes (MZT AE 098), USA, Wyoming, Park Co., W-Summit of Beartooth Hwy, 45°N 109°25'W, 10900 ft, 15.08.1974 (M.I. Saaristo). Paratypes: 2 ♀♀ (MZT AE 099); USA, Wyoming, Park Co., W-Summit of Beartooth Hwy, 45°N 109°25'W, 10900 ft, 15.08.1974 (M.I. Saaristo); 3 ♀♀ (MZT AE 100 and ZMMU), Wyoming, Park Co., W-Summit of Beartooth Hwy, 45°N 109°25'W, 10900 ft, 15.08.1974 (M.I. Saaristo); 1 ♂ (AMNH), Colorado, Summit Lake, 12800 ft (W105.38: N39.36), 17.08.1952 (Malkin & Thatcher); CANADA: 2 ♂♂ (CNC), Québec, Schefferville, alpine bog, 23.07–10.08.1978 (S. Koponen); 1 ♂ 1 ♀ (MZT AE 101), Québec, Kuujuaarapik, moist meadow, 09.06–15.07.1990 (S. Koponen).

ETYMOLOGY. The specific name is a noun in apposition and derived from the collecting site of the holotype.

DIAGNOSIS. This species is close to *O. beringiana*. Its male differs from that species by having more slender ventral apophysis and broader and shorter dorsal one. The female differs from that of *O. beringiana* in that the distal part of the posterior median does not extend over the anterior median plate and the pits are very small about their diameter apart from each other. (See *O. beringiana* before).

DESCRIPTION. Measurements (male/female). Total length 2.50/3.28. Carapace: 1.14/1.29–1.46 long, 0.86/0.89–1.07 wide. Tm I 0.59/0.58–0.73. Males smaller than female. Carapace length/femur I ratio: 1.33/1.28–1.45. Leg I: 0.86 + 0.30 + 0.71 + 0.64 + 0.49/1.14 + 0.39 + 1.01 + 0.90 + 0.54. Coloration overage. Spination standard.

DISTRIBUTION. It seems that this species has a disjunctive arcto-alpine range, occurring at high altitudes in the Rocky Mountains and in tundra habitats in Québec.

REMARKS. There is large difference in size between paratype females (AE-098), and one of them might not be conspecific with the holotype.

6. *tatrica*-group*Oreoneta eskimopoint* sp.n.

Figs. 212–216, 237–238, 245.

Types: Holotype ♂ and 4 ♀♀ paratypes (CNC), CANADA: NWT, Eskimo Point, 62°N 94°W, 30.05.1950 (G. Roberts). Paratypes: CANADA: 1 ♂ 4 ♀♀ (MZT), NWT, Eskimo Point, 10.06.1950 (G. Roberts); 1 ♂ 8 ♀♀ (CNC), NWT, Cambridge Bay, 23.06.1950 (E.H. Smith); 2 ♂♂ 3 ♀♀ (CNC), NWT, Repulse Bay, 4.09.1954 (H. Huckel); 2 ♂♂ (CNC), NWT, Baffin Isl., Taverner Bay, under rocks, 17.06.1939 (? collector); 1 ♀ (CNC), Labrador, Nain, 15.06.1922 (? collector). USA: 1 ♀ (CNC), New York, Adirondacks Algonquin Mt., 1700 m, ex *Arenaria*, *Diapensia*, moss in alpine zone, 16.08.1985 (V. Behan); 2 ♀♀ (CNC), New Hampshire, Mt. Washington, 4.06.1907; 1 ♂ 16 ♀♀ (CNC), New Hampshire, Summit of Mt. Washington, 44°N 71°W, (date and collector unknown); 1 ♂ 3 ♀♀ [det Banks as *Oedothorax brunneus*] (AMNH), New Hampshire, Mt. Washington, 44°N 71°W (N.Y. Banks).

ETYMOLOGY. The specific name is a noun in apposition and derived from the collecting site of the holotype.

DIAGNOSIS. The male of this species is easily recognized by the voluminous dorsal apophysis with large lamellar extension and the exceptionally small ventral apophysis, and the female by the large anterior median plate much wider than the posterior one (API ~ 0.55) and the conspicuous small epigynal pits two times their diameter apart.

DESCRIPTION. Measurements (male/female, from Mt. Washington). Total length 3.25–3.70/3.38–4.08. Carapace 1.66–1.73/1.51–1.73 long, 1.33–1.43/1.17–1.27 wide. Tm I

0.68–0.72/0.71–0.76. Carapace length/femur I ratio: 1.14–1.29/1.18–1.21. Leg I: 1.51 + 0.46 + 1.36 + 1.16 + 0.79/1.37 + 0.46 + 1.30 + 1.10 + 0.73. Stridulating field on male chelicera covers whole lateral surface. Epigyne 0.184/0.139.

DISTRIBUTION. This new species is restricted to eastern Nearctic and occurs from the Polar Circle (Repulse Bay) to the highlands of northern New York and New Hampshire states (Map 2).

Oreoneta garrina (Chamberlin, 1948) comb.n., stat.n.

Figs. 217–218, 232–235, 239–240, 244–245.

Hilaira garrina Chamberlin, 1948: 532, f. 63–68 (D♂♀)

Hilaira tatrica garrina: Holm, 1960: 119, f. 26–27 (♂♀, reduced to subspecies, misidentification).

Hilaira tatrica garrina: Holm, 1970: 194 (misidentification).

Hilaira tatrica garrina: Marusik et al., 1992: 143 (misidentification).

Material examined: CANADA: 1 ♂ 1 ♀ (CNC), Yukon T., Kaskawulsh nunatak, 60°39'N 138°52'W, 2.07.1991 (ID I34, Site 3); 1 ♀ (CNC), Yukon T., British Mts., June Cr, nr Firth R., 69°13'N 140°05'W, 700 m, ex wet meadow w/ *Equisetum*, *Eriophorum* sedges, moss, *Salix*, 20.06.1984 VB54-84 (V. Behan). USA: 2 ♂♂ 2 ♀♀ (paratypes, AMNH), Colorado, Pikes Peak, 13,700 ft, 38°50'N 105°04'W, 22.06.1940 (W. Ivie); 1 ♂ 2 ♀♀ (paratypes, AMNH), Colorado, Pikes Peak, 13,700 ft, 38°50'N 105°04'W, 22.06.1940 (W. Ivie); 12 ♀♀ (paratypes, AMNH), Colorado, Pikes Peak, 13,700 ft, 38°50'N 105°04'W, 22.06.1940 (W. Ivie); 4 ♀♀ (AMNH), Colorado, Pikes Peak, 13,700 ft, W105°04' N38°50', 22.06.1940 (W.Ivie); 1 ♀ (IBPN), Colorado, Pikes Peak (above timberline), W105°05' N38°50', 30.07.1941 (C. & M. Goodnight).

DIAGNOSIS. The male of this species is distinguished by the dorsal apophysis which is almost as wide as long with large lamellar extension and the small, sharp-pointed triangular ventral apophysis and the female by having the anterior median plate slightly narrower than the posterior one (API ~ 1.05) and the small epigynal pits about their diameter apart.

DESCRIPTION. Measurements (male/female). Total length 3.15/3.3–3.6. Carapace: 1.4/1.35–1.45 long, 1.1/1.03–1.05 wide. Tm I 0.66/0.68. Carapace length/femur I ratio: 1.19/1.35. Leg I: 1.18 + 0.35 + 1.0 + 0.85 + 0.6/1.08 + 0.43 + 1.0 + 0.83 + 0.58. Coloration relatively light. Epigyne 0.139/0.100/0.139.

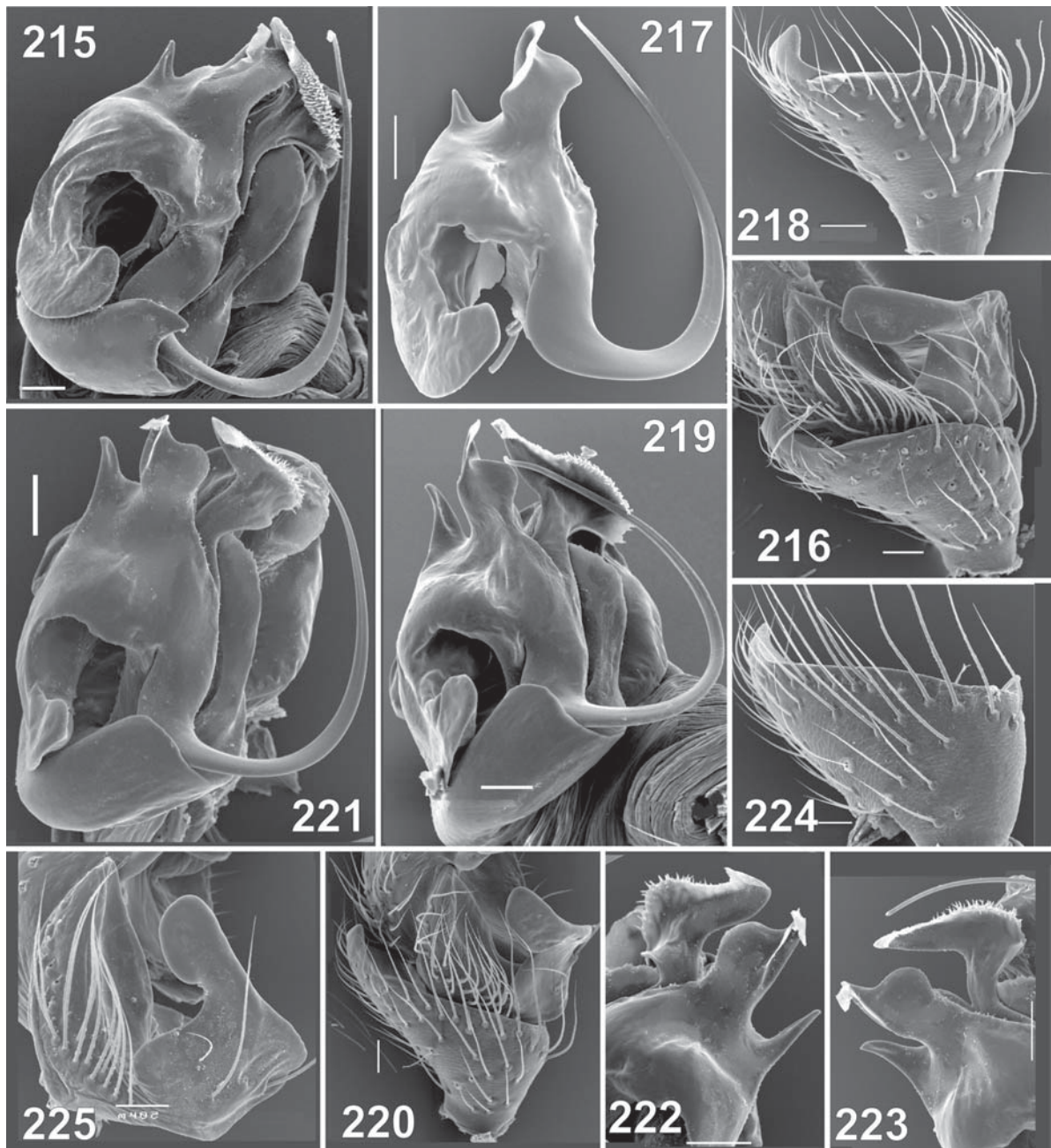
DISTRIBUTION. The species has an arcto-alpine range and occurs from the highlands of the Rocky Mountains in Colorado to Yukon Territory (Map 2).

REMARKS. Records of this species from northeastern Siberia refer to *O. beringiana* sp.n.

Oreoneta kurile sp.n.

Figs. 209–211, 236.

Types: Holotype ♂ (ZMMU), RUSSIA, Kurile Islands, Raikoke Isl. [RK-96-BS-029b], around roots of plants on upper beach rocks, 48.299°N 153.260°E, 13.08.1996 (B. Semsrott). Paratypes: RUSSIA: 1 ♀ (UWBM), Kurile Islands, Anstyferova Isl. [AN-97-TAP-101], NNW shore of island, 15 m, ex *Heracleum-Senecio* litter, 50.205°N 154.960°E, 15.08.1997 (T.A. Pearce); 1 ♀ (UWBM), Kurile Islands, Anstyferova Isl. [AN-97-RLC-055], NNW shore of island, 2–10 m, under stones, upper shore, 50.205°N 154.959°E, 15.08.1997 (R.L. Crawford); 1 ♀ (UWBM), Kurile Islands, Chirinkotan Isl. [CR-96-TWP-022], E side, Cape Ptochy, 15 m, ex tall grass litter on slope, 48.984°N 153.471°E, 10.08.1996 (T.W. Pietsch); 1 ♀ (UWBM), Kurile Islands, Makanrushi Isl. [MK-97-RLC-072], N edge, Cape Poludennyi Pen., 50 m, ex alder forest litter, 49.740°N 154.245°E, 18.08.1997 (R.L. Crawford); 6 ♀♀ (UWBM), Kurile Islands, Makanrushi Isl. [MK-97-RLC-073], S centr. foothills 100–125 m, under stones in

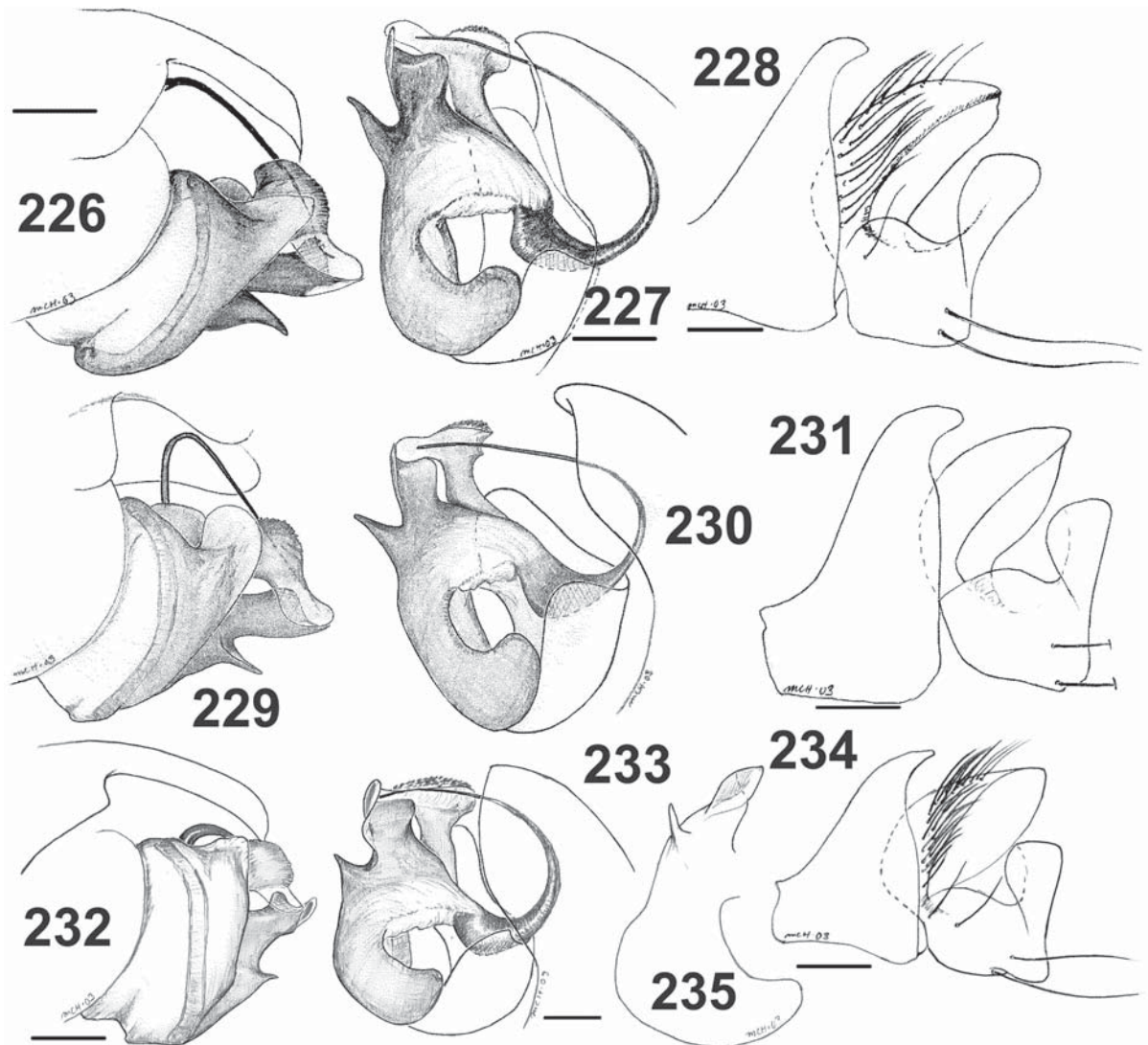


Figs. 215–225. Male palp of *Oreoneta eskimopoint* sp.n. (215–216), *O. garrina* (Chamberlin) (217–218), *O. tatrlica* (Kulczyński) (219–220) and *O. tienshangensis* sp.n. (221–225). 215, 217, 219 — embolic division and protegulum, prolateral view; 216, 220 — tibia and paracymbium; 218, 224 — tibia, retrolateral view; 222–223 — terminal part of embolic division, different turns; 225 — paracymbium. Scale = 0.05 mm.

Рис. 215–225. Пальпа самца *Oreoneta eskimopoint* sp.n. (215–216), *O. garrina* (Chamberlin) (217–218), *O. tatrlica* (Kulczyński) (219–220) и *O. tienshangensis* sp.n. (221–225). 215, 217, 219 — эмболюсный отдел и протегулюм, пролатерально; 216, 220 — голень и парацимбиум; 218, 224 — голень, ретролатерально; 222–223 — верхняя часть эмболюсного отдела, разные ракурсы; 225 — парацимбиум. Масштаб 0,05 мм.

rockslide, 49,743°N 154.425°E, 18.08.1997 (R.L. Crawford); 1 ♀ (UWBM) {epigyne missing}, **Kurile Islands**, Onekotan Isl. [ON-96-RLC-017], sifted from moss and meadow litter, riparian meadow, 4.08.1996 (R.L. Crawford); 1 ♀ 2 juv (UWBM), **Kurile Islands**, Raikoke Isl. [RK-96-BKU-058], under stones on base of steep rocky slope, 48.299°N 153.263°E, 13.08.1996 (B.K. Urbain); 1 ♀ (UWBM), **Kurile Islands**, Raikoke Isl. [RK-96-RLC-041], small cove SE side island under stones, upper beach, 48.281°N

153.259°E, 13.08.1996 (R.L. Crawford); 1 ♀ (UWBM), **Kurile Islands**, Ryponkicha Isl. [US-97-BKU-031], S ridge of island, 50 m, ex *Calamagrostis* litter, 47.533°N 152.825°E, 2.08.1997 (B.K. Urbain); 1 ♀ (UWBM), **Kurile Islands**, Shishkotan Isl. [SA-96-RLC-040], under driftwood at lower edge of beach meadow, 48.781°N 154.035°E, 11.08.1996 (R.L. Crawford); 1 ♀ (UWBM), **Kurile Islands**, Yankicha Isl. [US-97-RLC-014], SE corner Kraternaya Bay, 5 m, ex wet *Trollius* mdw. litter, 47.507°



Figs. 226–235. Male palp of *Oreoneta tatrica* (Kulczyński) (226–228), *O. tienshangensis* sp.n. (229–231) and *O. garrina* (Chamberlin) (232–235). 226, 229, 232 — terminal part, retrolateral view; 227, 230, 233 — terminal part, prolateral view; 228, 231, 234 — tibia and paracymbium, retrolateral view; 235 — embolic division without embolus, prolateral view. Scale = 0.1 mm.

Рис. 226–235. Пальпа самца *Oreoneta tatrica* (Kulczyński) (226–228), *O. tienshangensis* sp.n. (229–231) и *O. garrina* (Chamberlin) (232–235). 226, 229, 232 — верхняя часть, ретролатерально; 227, 230, 233 — верхняя часть, пролатерально; 228, 231, 234 — голень и парацимбиум, ретролатерально; 235 — эмболюсный отдел без эмболюса, пролатерально. Масштаб 0,1 мм.

152.815°E, 1.08.1997 (R.L. Crawford); 1 ♀ (UWBM), Kurile Islands, Yankicha Isl. [US-97-RLC-011], SE corner Kraternaya Bay, 5 m, ex *Calamagrostis* litter, 47.506°N 152.817°E, 1.08.1997 (R.L. Crawford); 3 ♀♀ (UWBM), Kurile Islands, Yankicha Isl. [US-95-YMM-059], peninsula in Kraternaya Bay, 30 m, ex meadow grass litter, 47.510°N 152.815°E, 14.08.1995 (Yu.M. Marusik); 1♀ (ZMMU), Kurile Islands, Yankicha Isl. [US-95-YMM-074-75], N & SE part of Kraternaya Bay, 47°30.64'N 152°48.93'E, 20.08.1995 (Yu.M. Marusik); 1 ♀ (UWBM), Kurile Islands, Yankicha Isl. [US-95-YMM-75a], peninsula in Kraternaya Bay, 30 m, ex meadow grass litter, 47°51'0"N 152°81'5"E, 20.08.1995 (Yu.M. Marusik).

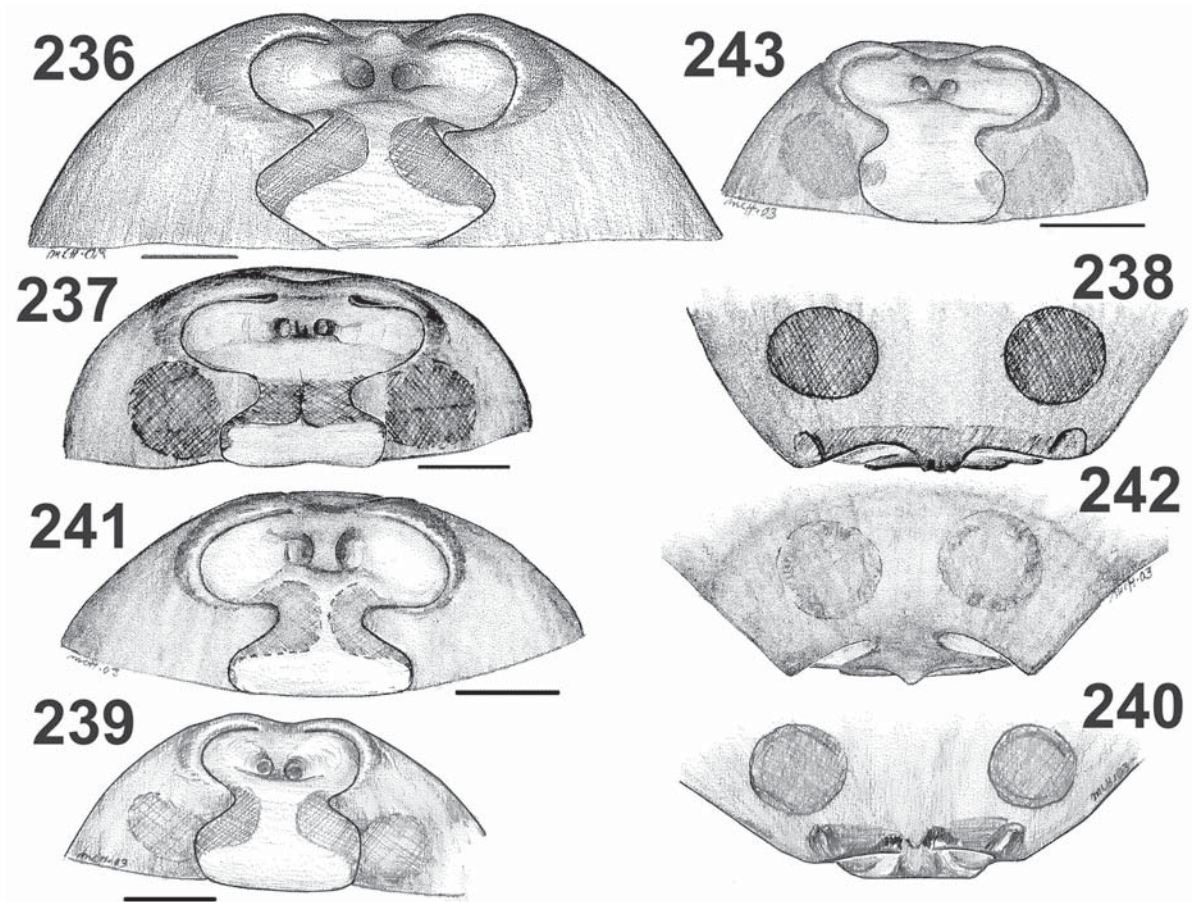
ETYMOLOGY. The specific name is a noun in apposition taken from the collecting site of the holotype.

DIAGNOSIS. This is a large species with copulatory organs very similar to those of *O. tatrica* and besides its larger size can be distinguished from it by the somewhat narrower dorsal apophysis and longer and more curved ventral one. The

epigyne of *O. kurile* sp.n. differs from that of *O. tatrica* in the following respects: frontal edges of the anterior median plate lie on the same straight line, those of *O. tatrica* diverge basally; posterior median plate rhomboid, that of *O. tatrica* roughly triangular.

DESCRIPTION. Measurements (male/female, ♀♀ from Yankicha, Makanrushi & Onekotan). Total length 4.0/3.78–4.75. Carapace: 1.93/1.93–2.09 long, 1.61/1.41–1.50 wide. Tm I 0.76/0.69–0.75. Carapace length/femur I ratio: 1.04/1.12–1.22. Leg I: 1.86 + 0.56 + 1.56 + 1.36 + 0.79/1.61 + 0.54 + 1.43 + 1.21 + 0.71. Coloration from light to dark. Stridulating field on male chelicera covers whole lateral surface. Epigyne 0.20/0.19.

DISTRIBUTION. This species is known from the Kurile Archipelago (Map 2) and distributed from Middle to North Kuriles (from Yankicha to Antsyferova).



Figs. 236–243. Epigyne of *Oreoneta kurile* sp.n. (236), *O. eskimopoint* sp.n. (237–238), *O. garrina* (Chamberlin) (239–240), *O. tatrlica* (Kulczyński) (241–242) and *O. tienshangensis* sp.n. (243), 236–237, 239, 241, 243 — view from behind; 238, 240, 242 — ventral view. Scale = 0.1 mm.

Рис. 236–243. Эпигина *Oreoneta kurile* sp.n. (236), *O. eskimopoint* sp.n. (237–238), *O. garrina* (Chamberlin) (239–240), *O. tatrlica* (Kulczyński) (241–242) и *O. tienshangensis* sp.n. (243), 236–237, 239, 241, 243 — вид сзади; 238, 240, 242 — вид снизу. Масштаб 0,1 мм.

REMARKS. It is possible that this species occurs also in Hokkaido as the figure of the paratype female of *H. monedula* Saito, 1986 (holotype male = *H. herniosa* (Thorell, 1875) resembles those of *O. kurile* sp.n.

***Oreoneta tatrlica* (Kulczyński, 1915) comb.n.**
Figs. 219–220, 226–228, 241–242, 248–251.

- Hilaira montigena tatrlica* Kulczyński, 1915: 927 (D♂♀).
Hilaira tatrlica: Wiehle, 1963: 246, f. 34–38 (♂♀).
Hilaira tatrlica: Miller, 1971: 237, pl. XLVI, f. 23–24 (♂).
Hilaira tatrlica: Palmgren 1975: 91, f. 22.18–19 (♂♀).
Hilaira tatrlica: Thaler, 1983: 140, f. 35–36 (♀).
Hilaira tatrlica: Heimer & Nentwig, 1991: 170, f. 459 (♂♀).
Hilaira tatrlica: Wunderlich, 1995: 498, f. 84 (♂).

N.B. The figures of Palmgren [1975] are apparently drawn from his Austrian specimens and thus represent real *H. tatrlica*. However, his [Palmgren, 1975] Finnish records of *O. tatrlica* proved to be *O. punctata*. Further, the following records and figures of *Hilaira tatrlica* are apparently misidentifications:

Tanasevitch 1990: 81, f. 22.31–32, 23.11–13 (from Caucasus, ♂♀); Sha & Zhu 1995: 287, f. 12–15 (from China, ♂♀); Song, Zhu & Chen 1999: 171, f. 98C–D, G–H (from China, ♂♀). Due to lack of original material it has not been possible to determine the actual species.

Material examined: SWITZERLAND: 1 ♂ 2 ♀♀ (AMNH), Saas-Fee (♀♀), Gadman Bern (♂), (dates and collector unknown).

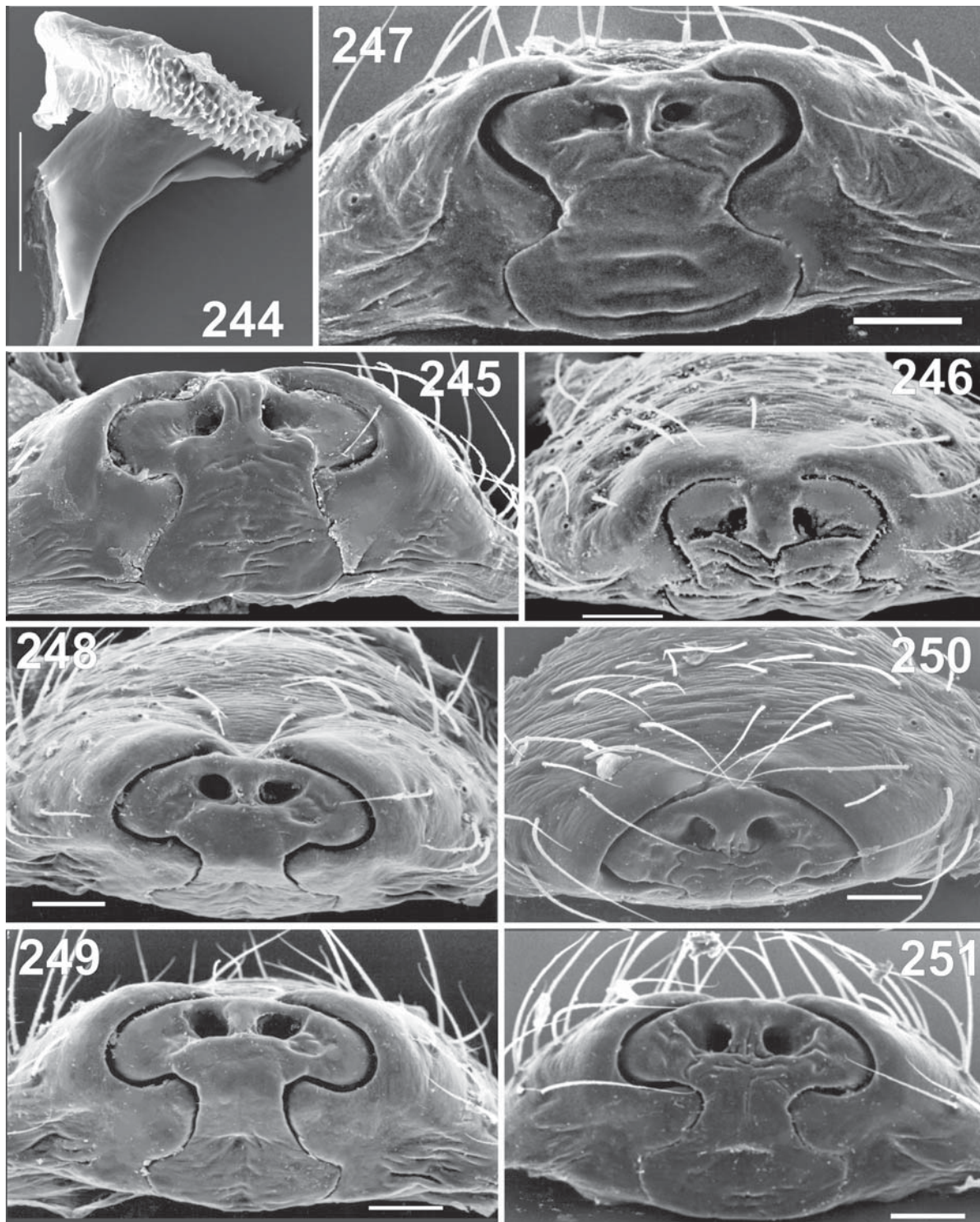
CZECH Republic: 2 ♂♀ (MZT AE 136), Šumava Mts., Zhůrská stat, peat bog, 5.10.1983 (A. Kůrka). AUSTRIA: ♂♂ ♀♀ (ZMUH), Nordtirol, Salzburg, Neukirchen, 14.08.1963 (P. Palmgren).

DIAGNOSIS. The male of this species is distinguished by the following combination of characters: posterior part of embolic membrane small; dorsal apophysis about as wide as long; ventral apophysis slightly curved apically. The female can be recognized by having the distal borders of the anterior median plate distinctly curved to point basally; the pits are relatively large, about their diameter apart. (See also *O. kurile* sp.n. above and *O. tienshangensis* sp.n. below).

DESCRIPTION. Measurements (male/female from Alps, Palmgren's). Total length 3.25–3.75/2.85–3.55. Carapace 1.50–1.64/1.50–1.54 long, 1.23–1.29/1.13–1.14 wide. Tm I 0.59/0.58. Males, at least carapaces, larger than females. Carapace length/femur I ratio: 1.18–1.21/1.22–1.35. Leg I: 1.39 + 0.44 + 1.19 + 1.01 + 0.69/1.14 + 0.39 + 1.03 + 0.84 + 0.60. Stridulating field on male chelicera occupies more than half of lateral surface. Spination Ti: 2-2-2-2, Ti I with 1 prolateral spine. Carapace from pale yellowish to light brown. Abdomen from whitish pale to gray. Epigyne 0.19/0.13.

DISTRIBUTION. The species is known from only the highlands of Central Europe (Map 2).

REMARKS. All records of *O. tatrlica* outside of Alps and Tatra mountains refer to other species.



Figs. 244–251. Embolic lamella and epigyne of *Oreoneta garrina* (Chamberlin) (244–245), *O. eskimopoint* sp.n. (245), *O. tienshangensis* sp.n. (247) and *O. tatica* (Kulczyński) (248–251). 244 — embolic lamella; 245, 247, 149, 251 — epigyne, view from behind; 246, 248, 250 — epigyne, ventral view. 248–249 — specimen from Tatry Mountains (Slovakia) and 250–251 — specimen from the Alps (Austria). Scale = 0.05 mm.

Рис. 244–251. Эмболюсная ламелла и эпигина *Oreoneta garrina* (Chamberlin) (244–245), *O. eskimopoint* sp.n. (245), *O. tienshangensis* sp.n. (247) и *O. tatica* (Kulczyński) (248–251). 244 — эмболюсная ламелла; 245, 247, 149, 251 — эпигина, вид сзади; 246, 248, 250 — эпигина, вид снизу. 248–249 — экземпляр из Татр (Словакия) и 250–251 — экземпляр из Альп (Австрия). Масштаб 0,05 мм.

Oreoneta tienshangensis sp.n.

Figs. 221–225, 229–231, 243, 247.

Hilaira frigida montigena: Eskov, 1987: 1030.

Types: Holotype ♂ and paratype ♀ (ZMMU), KAZAKHSTAN, **Alma-Ata Area**, environs of Alma-Ata, Zailiysky Alatau Mt. range, environs of Almaatinskoye Lake, 43.085°N 76.901°E, 2.09.1992 (K.Yu. Eskov). Paratypes: 1 ♂ 2 ♀♀ (MZT AE 097), KAZAKHSTAN, **Alma-Ata Area**, environs of Alma-Ata, Zailiysky Alatau Mt. range, environs of Almaatinskoye Lake, 43.085°N 76.901°E, 2.09.1992 (K. Yu. Eskov); 15 ♂♂ 20 ♀♀ (ZMMU and MZT AE 534), environs of Alma-Ata, Zailiysky Alatau Mt. range, Bolshaya Almaatinka River Canyon, 43.085°N 76.901°E, 2600 m, moss bog along creek, 1–2.09.1992 (K.Yu. Eskov).

DIAGNOSIS. The male of this species is distinguished by the following combination of characters: posterior part of embolic membrane very small; lamellar extension of the dorsal apophysis very narrow extending from base of the apophysis up to its apex; ventral apophysis straight, elongated triangular. The female can be recognized by having the anterior median plate approximately as wide as the posterior one (API ~ 1) and the very small epigynal pits slightly more than their diameter apart.

DESCRIPTION. Measurements (male/female). Total length 2.88–3.00/3.00–3.75. Carapace: 1.37–1.43/1.46–1.57 long, 1.07–1.14/1.07 wide. Tm I 0.59/0.55. Males smaller than females. Carapace length/femur I ratio: 1.25–1.33/1.33. Leg I: 1.03 + 0.36 + 0.93 + 0.83 + 0.63/1.19 + 0.39 + 1.01 + 0.87 + 0.63. Spination Ti: 2-2-2-2, TiI with 1 prolateral spine. Coloration overage. Epigyne 0.152/0.139.

DISTRIBUTION. The species is known only from the type locality and seems restricted to Zailiysky Alatau (Map 3).

REMARKS. This species was reported for the first time from northern Tien Shang sub *Hilaira frigida montigena* by Eskov [1987]. Northern Tien Shang is a southernmost known locality for the genus in Palaearctic.

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