

## The spider genus *Pireneitega* Kishida, 1955 in the Caucasus (Aranei: Agelenidae: Coelotinae)

### Пауки рода *Pireneitega* Kishida, 1955 Кавказа (Aranei: Agelenidae: Coelotinae)

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КЛЮЧЕВЫЕ СЛОВА: *Pireneitega*, новый вид, первоописание, Кавказ.

ABSTRACT. Two *Pireneitega* Kishida, 1955 species are found in the Caucasus. *Pireneitega ovtchinnikovi* sp.n. (♂♀) is described from West Caucasus (Western Georgia, Adygeya and Abkhazia). *Pireneitega segestriformis* (Dufour, 1820) is rejected from the list of spiders of Russia and Caucasus (its records are the result of misidentifications of *P. ovtchinnikovi* sp.n.). *Pireneitega spasskyi* (Charitonov, 1946) is re-described from East Caucasus (Dagestan, Eastern Georgia, Azerbaijan). The male of *P. spasskyi* is described and this species is recorded from Russia (Dagestan) for the first time. For comparison with Caucasian species, diagnostic drawings of *P. segestriformis* from France and *P. garibaldii* (Kritscher, 1969) from Italy are provided. Information on the distribution and phenology of both Caucasian species is provided.

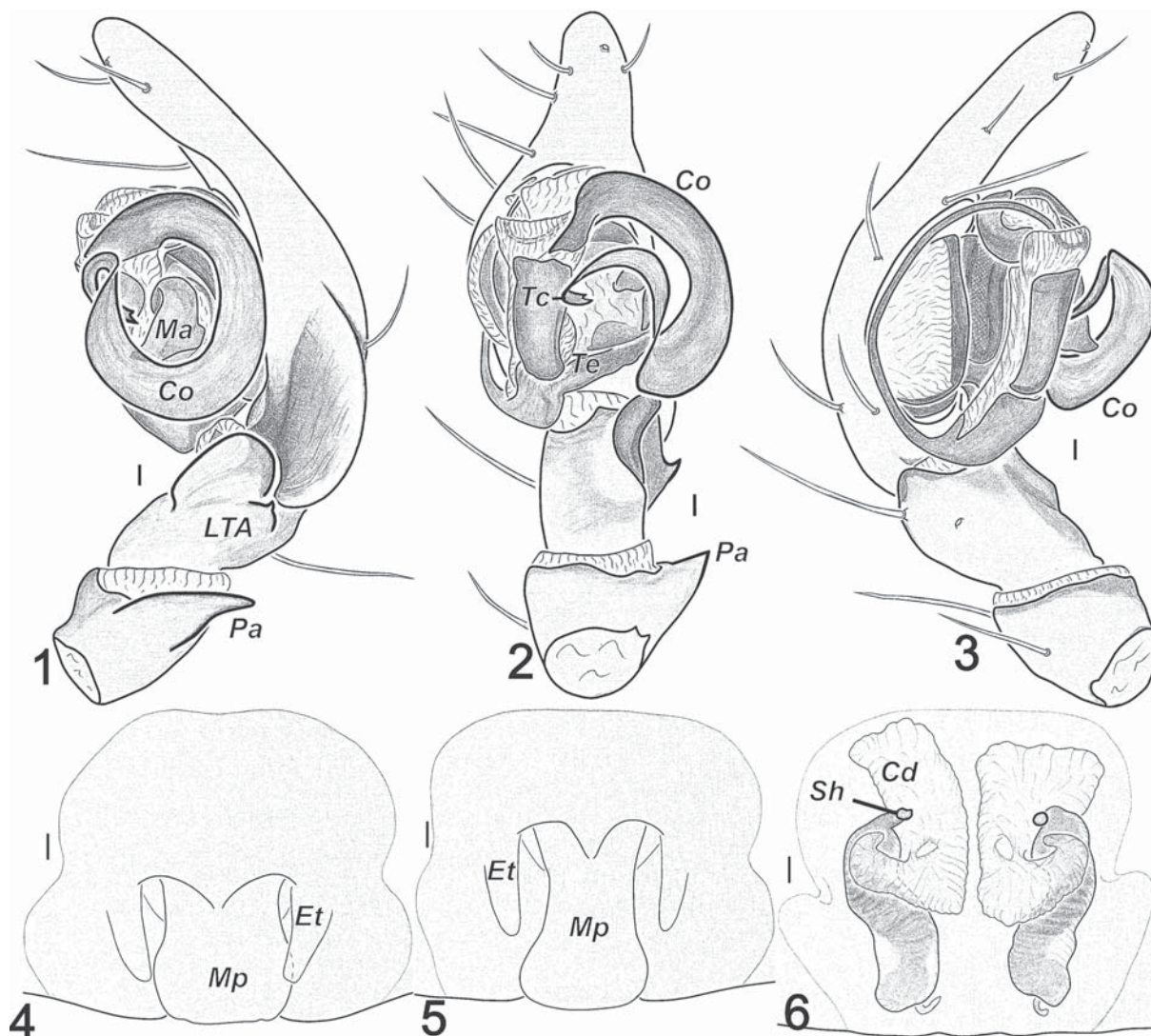
РЕЗЮМЕ. На Кавказе выявлено два вида пауков рода *Pireneitega* Kishida, 1955. *Pireneitega ovtchinnikovi* sp.n. (♂♀) описан как новый для науки из западного Кавказа (Западная Грузия, Абхазия, Адыгея). Установлено, что *Pireneitega segestriformis* (Dufour, 1820) ошибочно указан для России и Кавказа и все находки этого вида относятся к *P. ovtchinnikovi* sp.n. *Pireneitega spasskyi* (Charitonov, 1946) переописан на основании материалов из Восточного Кавказа (Дагестан, Азербайджан, Восточная Грузия). Самец *P. spasskyi* описан впервые, а вид впервые указан для Дагестана. Приведены срав-

нительные рисунки близких видов *P. segestriformis* (из Франции) и *P. garibaldii* (Kritscher, 1969) (из Италии). Приведены данные по распространению и фенологии обоих кавказских видов.

### Introduction

The Coelotinae F.O. Pickard-Cambridge, 1893 is a fairly large subfamily of chiefly Holarctic spiders with 623 species belonging to 23 genera [Wang, 2012]. Apart from the Holarctic region, Coelotinae are known in Southern China, Vietnam and Thailand. Most Coelotinae are local endemics. The subfamily ranking of this group was suggested by Lehtinen [1967] who placed it in the Agelenidae. Wunderlich [1986] transferred the subfamily to the Amaurobiidae but more recently [Miller et al., 2010] returned the Coelotinae to the Agelenidae. Some authors consider this group as a separate family [Ono, 2008; Nishikawa, 2009]. Coelotinae are well studied in Europe (42 species), the Nearctic (26 species) and China and Japan [cf. Wang, 2012]. Within the Palaearctic the most species rich regions are China and Europe. Relatively few species are known in between these areas. For example two species of Coelotinae are reported from Caucasus and eight from central Asia [Mikhailov, 1997, 2000].

The Coelotinae of the Caucasus have never been the subject of detailed studies. Of the two species re-



Figs 1–6. *Pireneitega ovtchinnikovi* sp.n. from Adygeya: 1 — male palp, retrolateral; 2 — male palp, ventral; 3 — male palp, prolateral; 4–5 — epigyne, ventral (variations); 6 — epigyne, dorsal. Scale = 0.1 mm.

Abbreviations: *Cd* — copulatory ducts; *Co* — conductor; *Et* — epigynal teeth; *LTA* — lateral tibial apophysis; *Ma* — median apophysis; *Mp* — median plate of epigyne; *Pa* — patellar apophysis; *Sh* — spermathecal heads; *Tc* — tip of conductor; *Te* — tegulum.

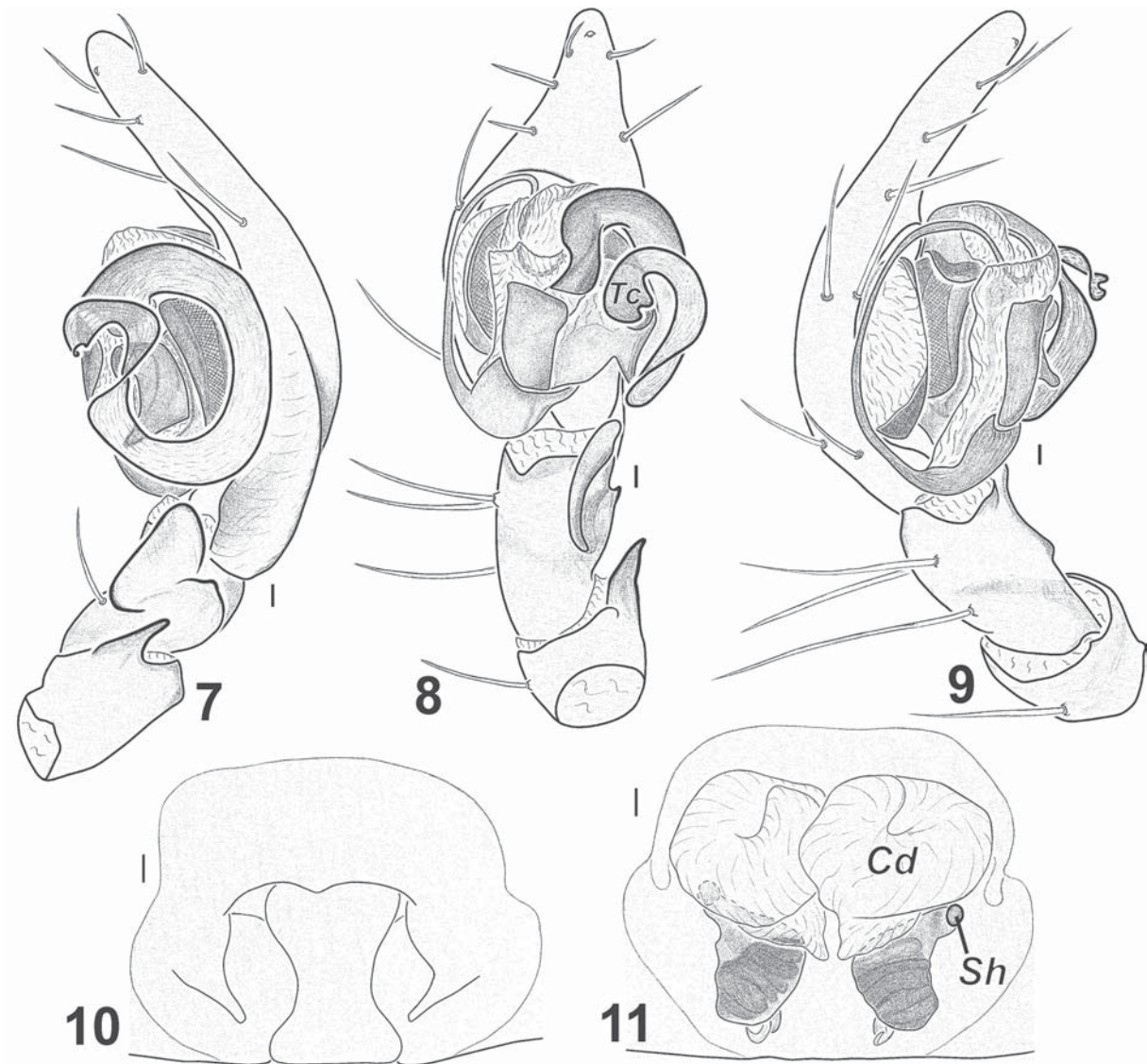
Рис. 1–6. *Pireneitega ovtchinnikovi* sp.n. из Адыгеи: 1 — палепа самца, ретролатерально; 2 — палепа самца, вентрально; 3 — палепа самца, пролатерально; 4–5 — эпигина, вентрально (вариации); 6 — эпигина, сверху. Масштаб 0,1 мм.

Сокращения: *Cd* — копулятивные трубки; *Co* — кондуктор; *Et* — зубчик эпигины; *LTA* — боковой отросток голени; *Ma* — медиальный отросток; *Mp* — медиальная пластинка эпигины; *Pa* — отросток колена; *Sh* — головка сперматеки; *Tc* — вершина кондуктора; *Te* — тегулом.

ported from the region, *Pireneitega segestriformis* (Dufour, 1820) and *P. spasskyi* (Charitonov, 1946), the latter is known only from females. Working with spiders of the Caucasus, we faced difficulties in identifying *Pireneitega* species because of the lack of detailed figures of the epigyne of *P. spasskyi* and the absence of males. Specimens from northwestern Caucasus differ from the European *P. segestriformis* in the palp and epigynes and from specimens from the eastern Caucasus Major, where *P. spasskyi* was described. The main goal of this study is to provide a morphological survey of *Pireneitega* from the Caucasian region.

## Material and Methods

Specimens for this study are deposited in the following collections: CP — personal collection of A.V. Ponomarev (Rostov-on-Don, Russia); MSNV — Museo Civico di Storia Naturale di Verona, Italy (F. Ballarin); GNM — Georgian National Museum, Tbilisi (V. Pkhakadze); RB — personal collection of R. Bosmans (Gent, Belgium); SOC — personal collection of Stefan Otto (Leipzig); TNU — Zoology Department, V.I. Vernadsky Taurida National University, Simfe-



Figs 7–11. *Pireneitega segestriformis* from France: 7 — male palp, retrolateral; 8 — male palp, ventral; 9 — male palp, prolateral; 10 — epigyne, ventral; 11 — epigyne, dorsal. Scale = 0.1 mm.

Abbreviations: *Cd* — copulatory ducts; *Sh* — spermathecal heads; *Tc* — tip of conductor.

Рис. 7–11. *Pireneitega segestriformis* из Франции: 7 — палпа самца, ретролатерально; 8 — палпа самца, вентрально; 9 — палпа самца, пролатерально; 10 — эпигина, вентрально; 11 — эпигина, сверху. Масштаб 0,1 мм.

Сокращения: *Cd* — копулятивные трубки; *Sh* — головка сперматеки; *Tc* — вершина кондуктора.

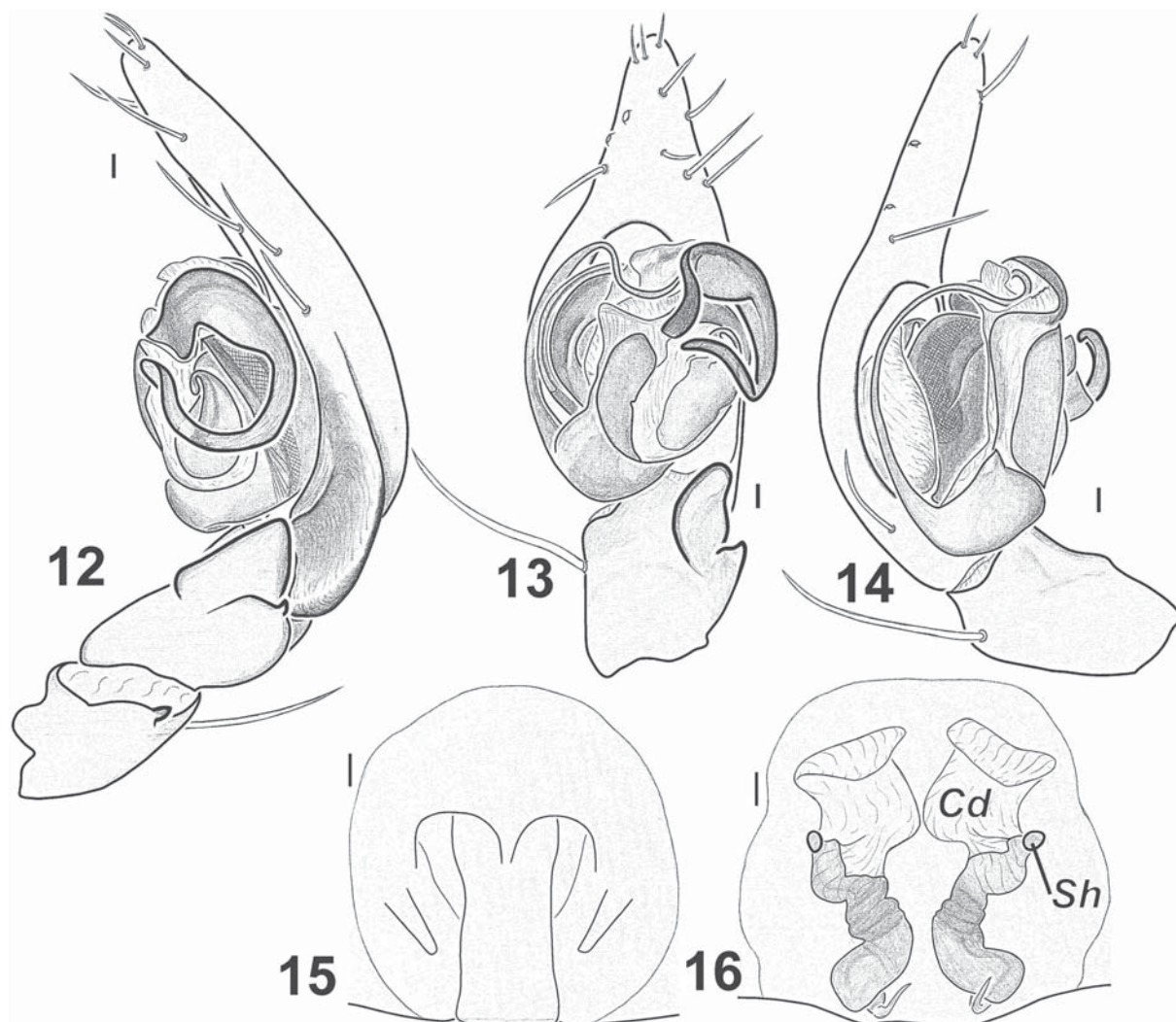
ropol, Ukraine (M.M. Kovblyuk); YMC — Yuri M. Marusik's temporary collection in Zoological Museum, University of Turku, Finland; ZMUM — Zoological Museum, Moscow State University, Moscow, Russia (K.G. Mikhailov).

Illustrations of epigynes were made after maceration in 20% potassium hydroxide aqueous solution. Photographs were taken in dishes of different sizes with paraffin at the bottom. Specimens were photographed using an Olympus Camedia E-520 camera attached to an Olympus SZX16 stereomicroscope at the Zoological Museum, University of Turku. Digital images were prepared using "CombineZP" image stack-

ing software. Microphotographs were taken with an EVO-40 XVP (LEO 143 OVP) SEM in the South Scientific Centre RAS, Rostov-on-Don, Russia.

All measurements are given in mm: minimum–maximum; a figure in brackets represents the average.

The morphological terms are adopted from Wang [2002: f. 323–326] with two additions, (*Mp* and *Tc*): *Cd* — copulatory ducts; *Co* — conductor; *Em* — embolus; *Et* — epigynal teeth; *LTA* — lateral tibial apophysis; *Me* — median apophysis; *Mp* — median plate of epigyne; *Pa* — patellar apophysis; *Sh* — spermathecal heads; *Tc* — tip of conductor; *Te* — tegulum.



Figs 12–16. *Pireneitega garibaldii* from Italy: 12 — male palp, retrolateral; 13 — male palp, ventral; 14 — male palp, prolateral; 15 — epigyne, ventral; 16 — epigyne, dorsal. Scale = 0.1 mm.

Abbreviations: *Cd* — copulatory ducts; *Sh* — spermathecal heads.

Рис. 12–16. *Pireneitega garibaldii* из Италии: 12 — пальпа самца, ретролатерально; 13 — пальпа самца, вентрально; 14 — пальпа самца, пролатерально; 15 — эпигина, вентрально; 16 — эпигина, сверху. Масштаб 0,1 мм.

Сокращения: *Cd* — копулятивные трубки; *Sh* — головка сперматеки.

The following abbreviations have been used in the text: a — apical; d — dorsal; pl — prolateral; rl — retrolateral; v — ventral.

### Taxonomy

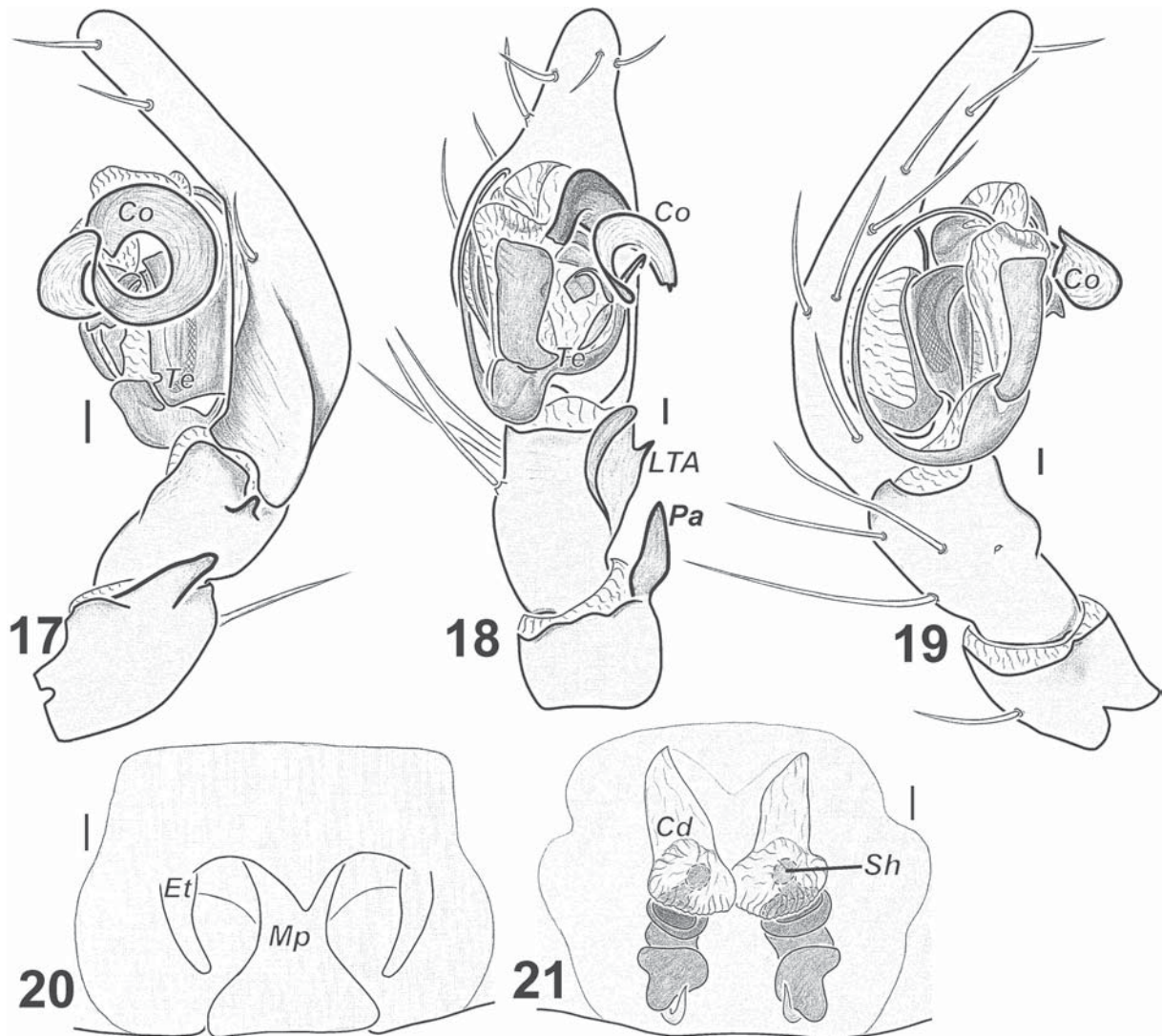
AGELLENIDAE C.L. Koch, 1837

Coelotinae F.O. Pickard-Cambridge, 1893

*Pireneitega* Kishida, 1955

TYPE SPECIES. *Coelotes roscidus* L. Koch, 1868 (= *C. segestriiformis* (Dufour, 1820)).

COMMENTS. *Pireneitega* is considered as senior synonym of *Paracoelotes* Brignoli, 1982 (type species *Coelotes armeniacus* Brignoli, 1978). Two names were synonymized by Wang & Jäger [2007]. *Pireneitega* was for long time regarded as a *nomen nudum* until Wang & Jäger [2007] found reasons to revalidate the name. The description of *Pireneitega* was just 6 hieroglyphs long, given in a key to «Tegenarini Kishida, 1928». Two names were synonymised following the principle of priority but against stability. Basic principle of zoological nomenclature was placed ahead of the object of ICZN. *Paracoelotes* was a widely accepted name, used in over 30 taxonomic and faunistic publications by more than 15 authors and therefore it



Figs 17–21. *Pireneitega spasskyi* from Azerbaijan: 17 — male palp, retrolateral; 18 — male palp, ventral; 19 — male palp, prolateral; 20 — epigyne, ventral; 21 — epigyne, dorsal. Scale = 0.1 mm.

Abbreviations: *Cd* — copulatory ducts; *Co* — conductor; *Et* — epigynal teeth; *LTA* — lateral tibial apophysis; *Mp* — median plate of epigyne; *Pa* — patellar apophysis; *Sh* — spermathecal heads; *Te* — tegulum.

Рис. 17–21. *Pireneitega spasskyi* из Азербайджана: 17 — палпа самца, ретролатерально; 18 — палпа самца, вентрально; 19 — палпа самца, пролатерально; 20 — эпигина, вентрально; 21 — эпигина, сверху. Масштаб 0,1 мм.

Сокращения: *Cd* — копулятивные трубки; *Co* — кондуктор; *Et* — зубчик эпигины; *LTA* — боковой отросток голени; *Mp* — медиальная пластинка эпигины; *Pa* — отросток колена; *Sh* — головка сперматеки; *Te* — тегулом.

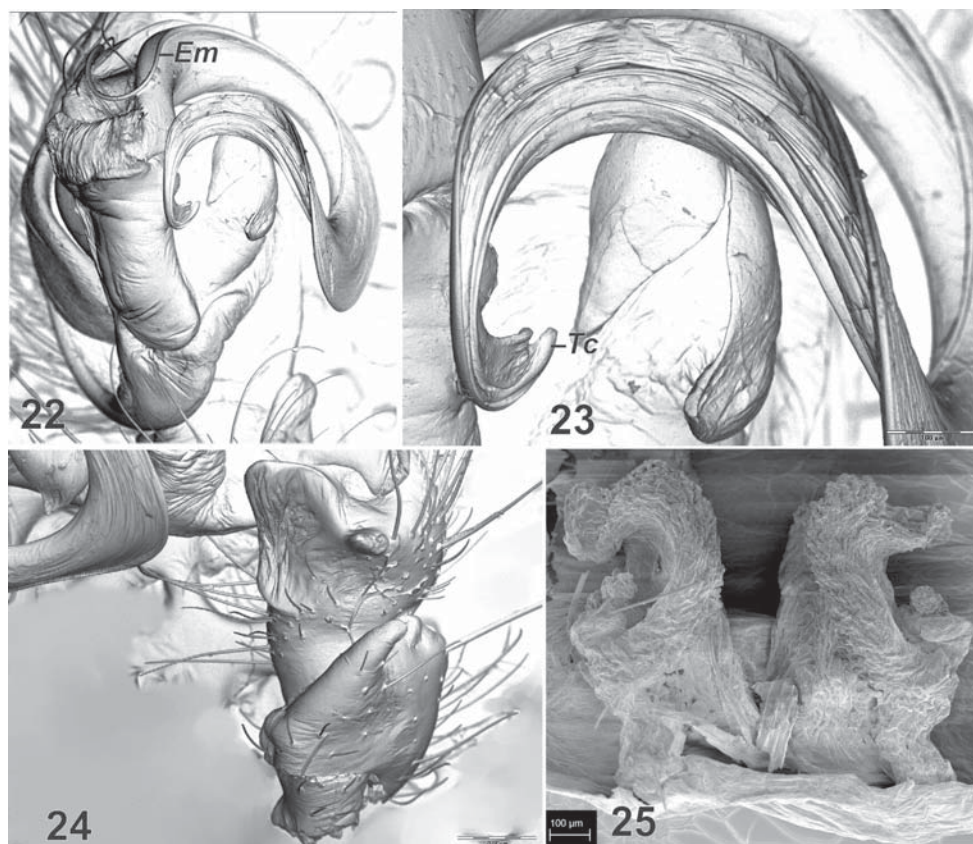
was possible to apply to Commission to suppress the senior synonym.

**DIAGNOSIS.** Wang & Jäger [2007] diagnosed the genus in the following way “The species of the genus *Pireneitega* can be easily recognized by the absence of a conductor dorsal apophysis and the presence of a long, broad clock-wise looped conductor in males and by the large atrium, the long, widely separated epigynal teeth, and the broad copulatory ducts in females”. To our mind the genus is distinguishable by the looped (coiled) tip of conductor, large atrium with subparallel margins and widely spaced epigynal teeth.

Length of the epigynal teeth can not be used as a key character, because some species have moderately short teeth (cf. Figs 39–40), and all species in genus have teeth much shorter than in *Urocoras* Ovtchinnikov, 1999 or *Himalocoelotes* Wang, 2002.

**COMPOSITION.** Currently genus encompasses 20 species [Platnick, 2012; Wang, 2012]. The genus is not split into species groups.

**DISTRIBUTION.** The genus is restricted to Palearctic and known from the Iberian Peninsula to Japan and Sakhalin. There is one clear disjunction of the range — between the Caucasus and Tien Shan. Most



Figs 22–25. *Pireneitega ovtchinnikovi* sp.n. from Adygeya: 22 — bulbus, ventral; 23 — tip of conductor, ventral; 24 — patella and tibia of male palp, retrolateral; 25 — epigyne, dorsal.

Abbreviations: *Em* — embolus; *Tc* — tip of conductor.

Рис. 22–25. *Pireneitega ovtchinnikovi* sp.n. из Адыгеи: 22 — бульбус, вентрально; 23 — вершина кондуктора, вентрально; 24 — колено и голень пальпы самца, ретролатерально; 25 — эпигина, сверху.

Сокращения: *Em* — эмболус; *Tc* — вершина кондуктора.

of species have limited distribution [Wang, 2002, 2003].

#### *Pireneitega ovtchinnikovi* sp.n.

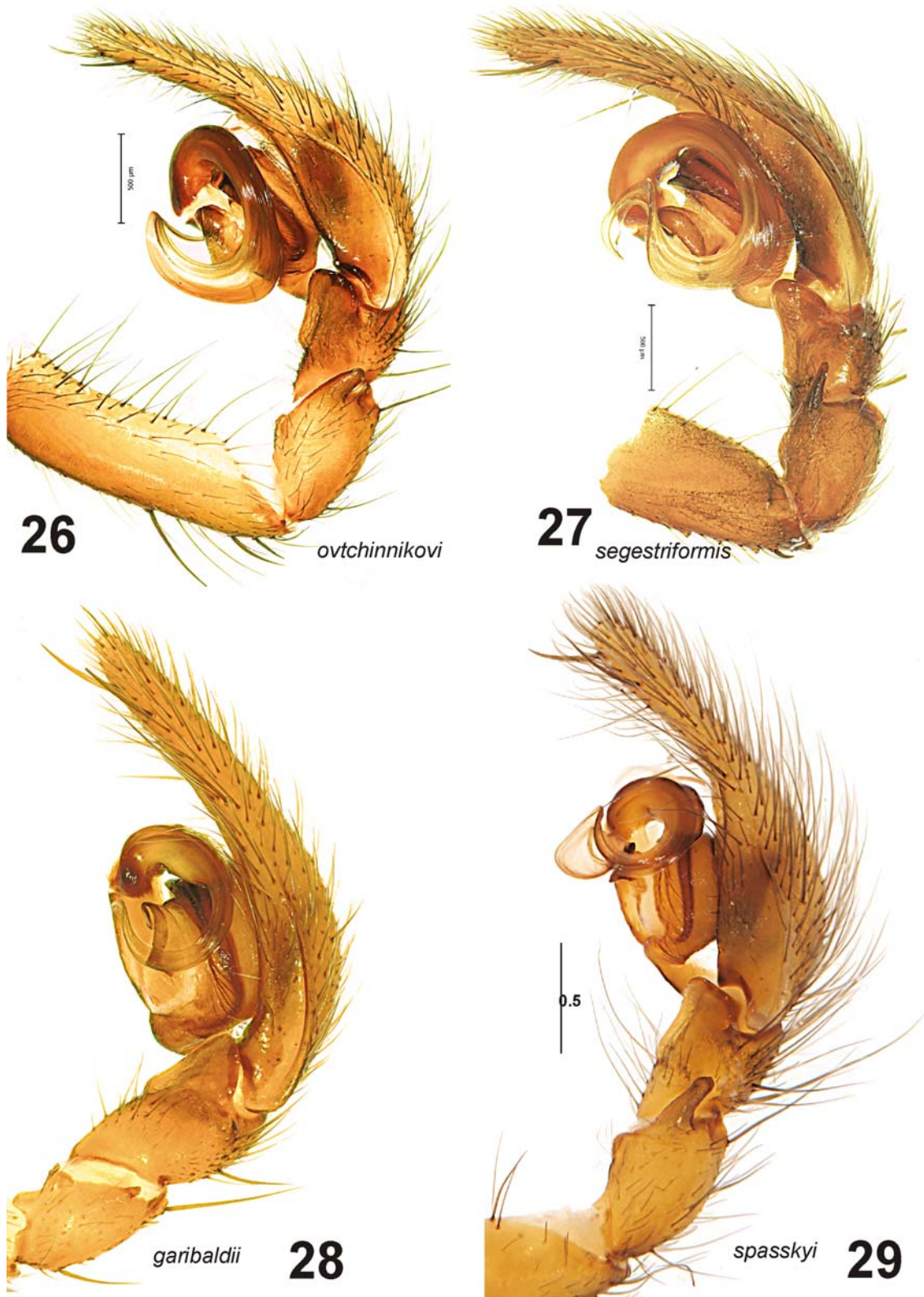
Figs 1–6, 22–25, 26, 30, 34, 38, 42, 45–48.

*Coelotes segestriformis* (Dufour, 1820): Ovtsharenko, 1977: 128; Mcheidze, 1997: 204, f. 429–430 (♀, in part).

*Pireneitega* sp.: Kovblyuk et al., 2011: 27.

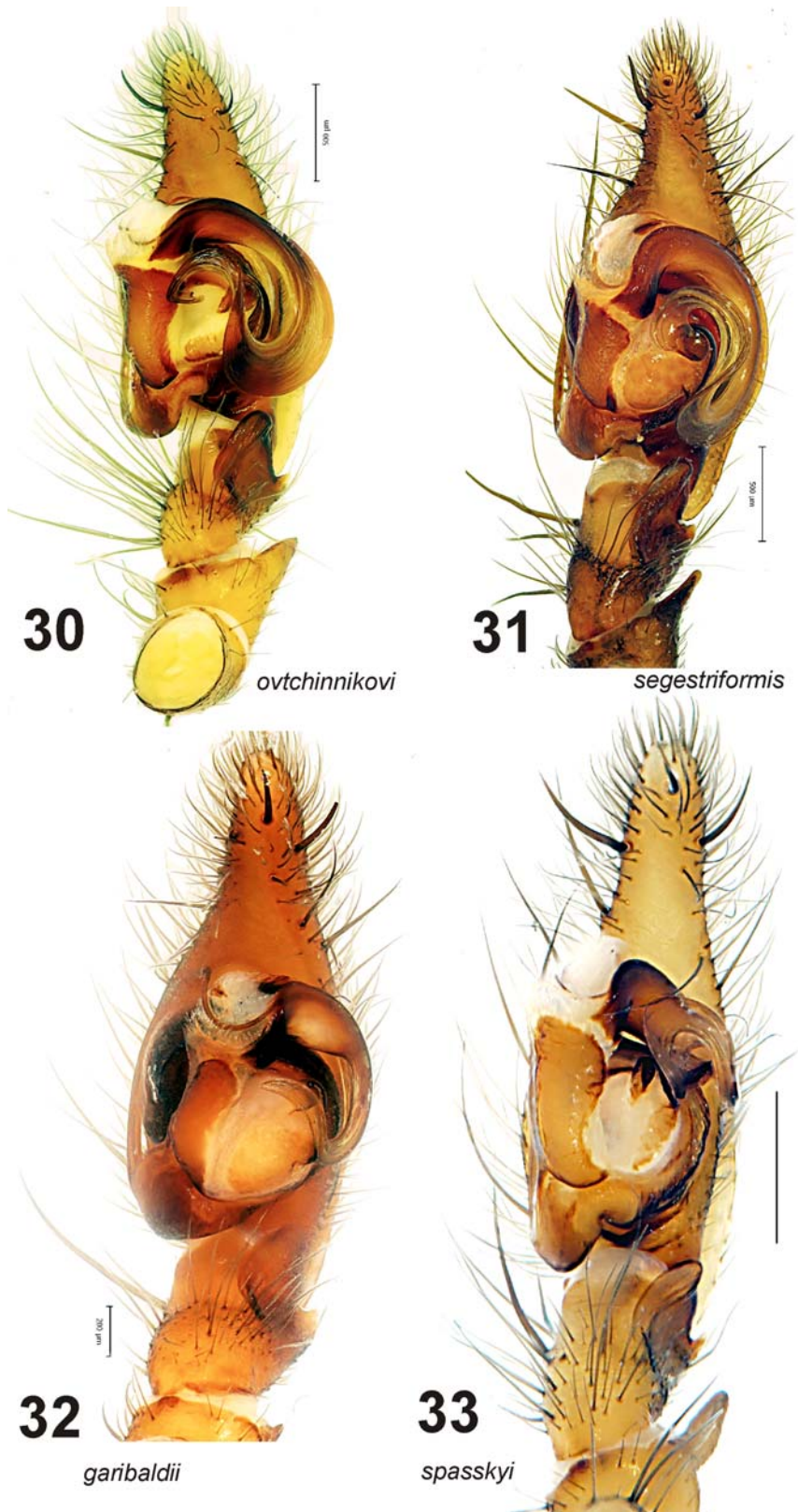
**MATERIAL EXAMINED. RUSSIA, Adygeya:** Holotype ♂ (ZMUM), Caucasian Reserve, Pastbishche Abago Mt. range, 43°53'–56'N, 40°12'–16'E, 1727–2010 m, forest and subalpine zone, 18–23.08.2009 (M.M. Kovblyuk). **Paratypes: RUSSIA, Adygeya:** 1 ♂ (CP), Maykop Distr., 44°20.724'N, 40°11.368'E, pitfalls, 1–25.05.2009 (A.R. Bibin); 6 ♂♂, 5 ♀♀ (TNU-2717/4), near Dakhovskaya Vill., Belaya River valley, 44°15'N, 40°12'E, 400–582 m, mixed forest and meadows, 17–20.06.2009 (M.M. Kovblyuk); 1 ♂, 8 ♀♀ (TNU-2718/8), Caucasian Reserve, near kordon Guzeripl, right bank of Belaya River, 44°00'N, 40°08'E, 670 m, forest with *Abies* and *Fagus*, 13–17.08.2009 (M.M. Kovblyuk); 2 ♂♂ (TNU-2719/7), same locality, pitfalls, 16–23.08.2009 (M.M. Kovblyuk); 7 ♂♂, 11 ♀♀ (TNU-2657/7), Caucasian Reserve, Pastbishche Abago Mt. range, 43°53'–56'N, 40°12'–16'E, 1727–2010 m, forest and subalpine zone, 18–23.08.2009 (M.M. Kovblyuk); 10 ♂♂, 4 ♀♀ (CP), Caucasian Reserve, Pastbishche Abago Mt. range, 1750 m, *Acer*, pitfalls, 2.07–28.09.2009 (Yu.A. Chumachenko); 1 ♂, 1 ♀ (CP), Caucasian Reserve, near kordon Guzeripl,

1800 m, subalpine zone, pitfalls, 4.06–28.09.2009 (Yu.A. Chumachenko); 47 ♂♂, 6 ♀♀ (CP), Caucasian Reserve, near kordon Guzeripl, 3rd km of the road Guzeripl-Abago, 1000 m, *Fagus* and *Abies* wood, 20.05–13.10.2009 (Yu.A. Chumachenko); 1 ♀ (CP), Plateau Lago-Naki, 23.08.2009 (A.V. Ponomarev); 6 ♀♀ (CP), same locality, 24.06.2010 (D.D. Volkova); 1 ♀ (CP), near kordon Guzeripl, 13.06.2011 (D.D. Volkova); 3 ♀♀ (CP), Plateau Lago-Naki, under stones, 15.06.2011 (D.D. Volkova). **Krasnodar Province:** 3 ♂♂, 1 ♀ (CP), Apsheronskiy Distr., Mezmai Vill., 17–30.07.2010 (D.D. Volkova). **Kabardino-Balkaria:** 1 ♀ (CP), Elbrus Mt., 25–28.06.2008 (N.I. Barvinenko). **ABKHAZIA: Gudauta Distr.:** 6 ♂♂, 1 ♀ (CP-22.12.5/2), 25 km N Gudauta, 15 km N from Achandara Vill., Gunarkhva, 7–10.10.2007 (P.P. Ivliev). **Sukhum Distr.:** 11 ♀♀ (TNU-2640/12), Gumista Reserve, west slope of Dzikhva Mt., 43°12'N, 41°05'E, 650 m, forest, 17–19.07.2008 (M.M. Kovblyuk); 2 ♂♂, 78 ♀♀ (TNU-2641/1), Buru Range, Kot-Kot River, 43°13'N, 41°07'E, 2300 m, alpine zone, 19–26.07.2008 (M.M. Kovblyuk); 3 ♀♀ (TNU-2642/1), Buru Range, Dzikhva Mt., 43°13'N, 41°07'E, 2200 m, wood with *Fagus*, *Abies*, *Acer*, 25.07.2008 (M.M. Kovblyuk); 1 ♀ (TNU-2644/16), Gumysta Reserve, East Gumysta River, kordon Tsymur, 43°10'N, 41°02'E, 420 m, wood with *Fagus*, *Acer* and *Castanea sativa*, 26–29.07.2008 (M.M. Kovblyuk). **Gagra Distr.:** 64 ♀♀ (TNU-2652/2), Gagra Range, Mamdyzhkha Mt., 43°18'N, 40°19'E, 1705–1866 m, from border of forest to peak, wood with *Abies*, *Fagus*, *Acer* and alpine meadows, 7–15.07.2009 (M.M. Kovblyuk). **GEORGIA:** 1 ♀ (GNM), ca 13 km E of Tkibuli, Mukhura Vill., shaded creek, 42°18'56.7"N, 43°05'33.5"E, 506 m, 24.07.2012 (Y.M. Marusik).



Figs 26–29. Male palps of *Pireneitega* species, retrolateral: 26 — *P. ovtchinnikovi* sp.n.; 27 — *P. segestriiformis*; 28 — *P. garibaldii*; 29 — *P. spasskyi*.

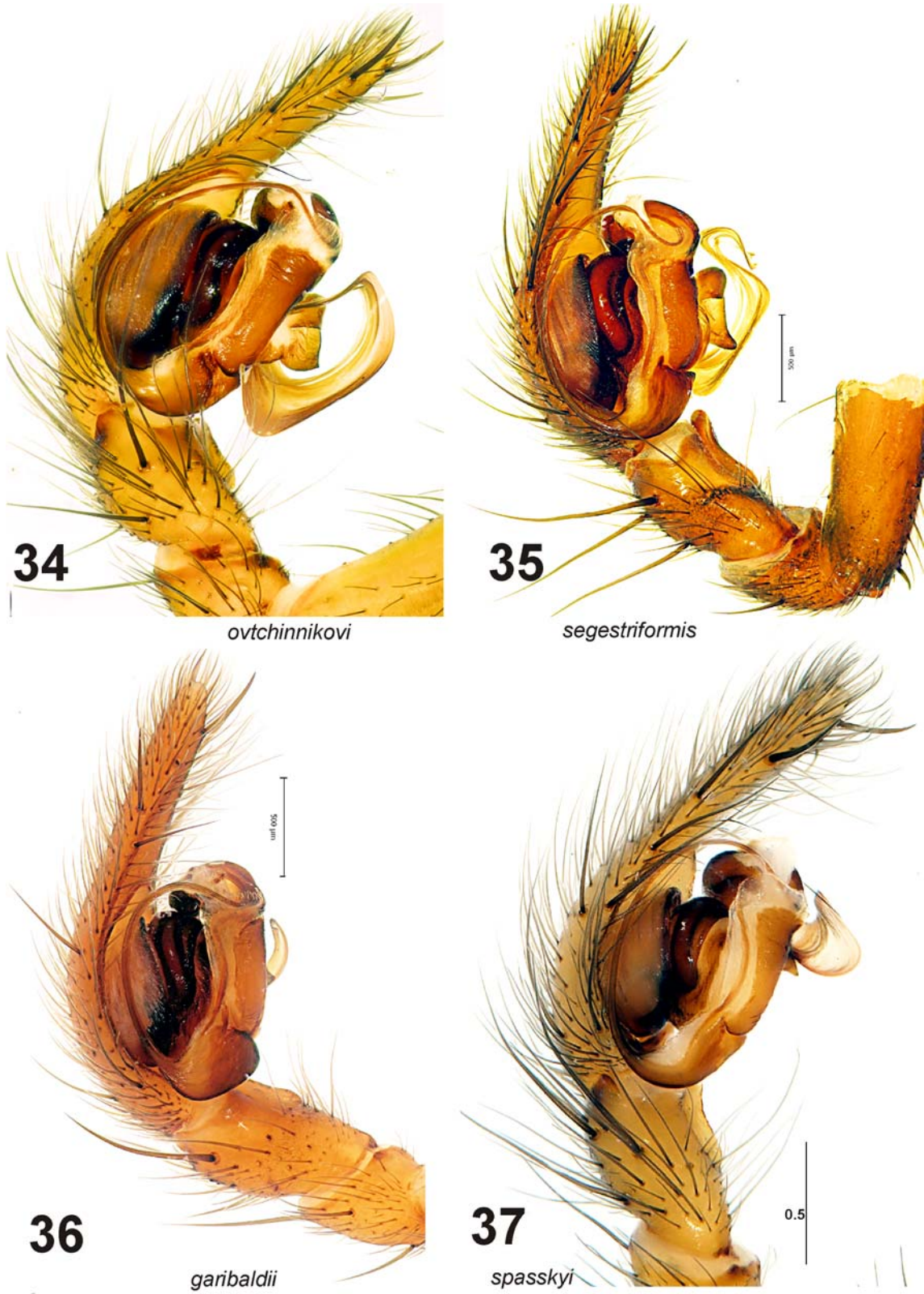
Рис. 26–29. Пальпа самца у видів *Pireneitega*, ретролатерально: 26 — *P. ovtchinnikovi* sp.n.; 27 — *P. segestriiformis*; 28 — *P. garibaldii*; 29 — *P. spasskyi*.



Figs 30–33. Male palps of *Pireneitega* species, ventral: 30 — *P. ovtchinnikovi* sp.n.; 31 — *P. segestriiformis*; 32 — *P. garibaldii*; 33 — *P. spasskyi*.

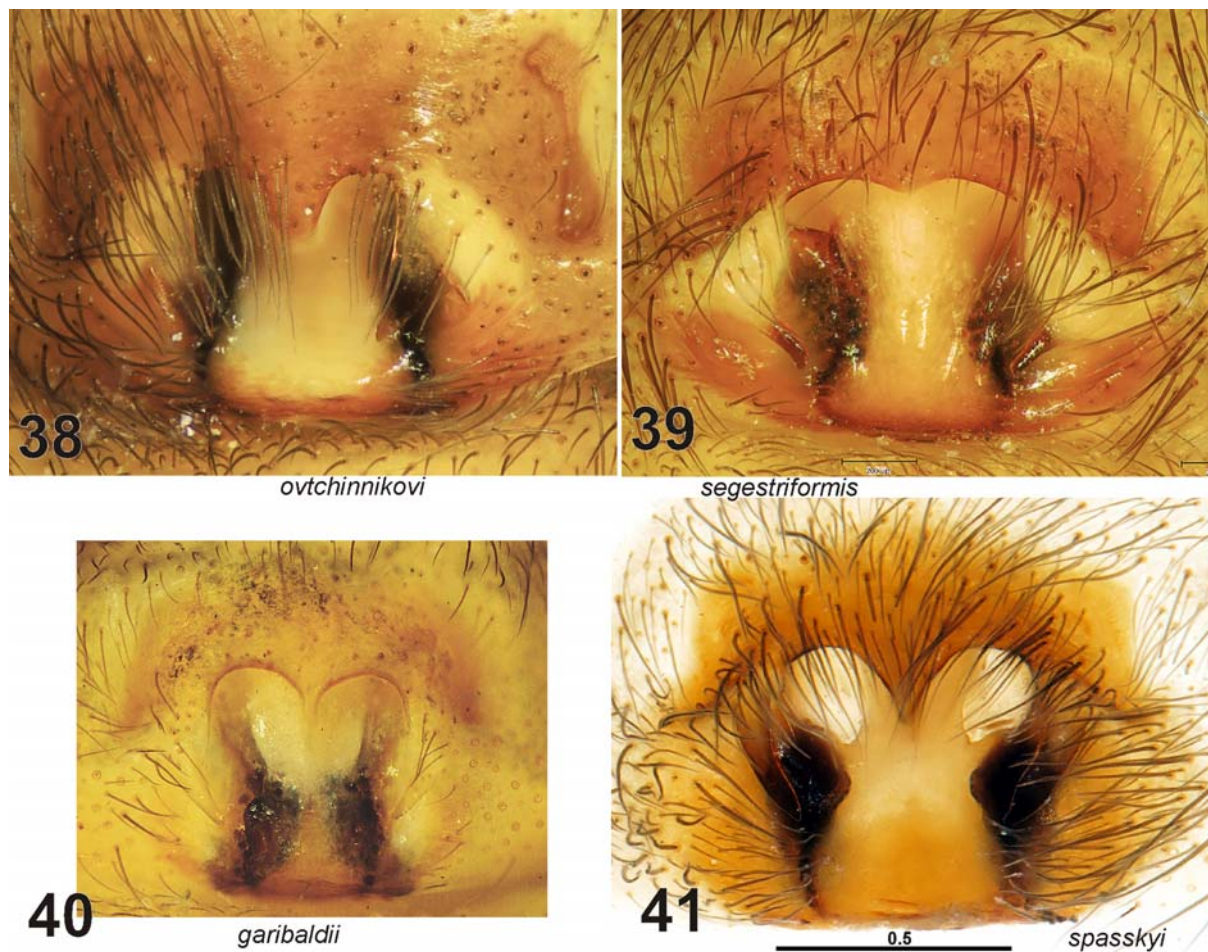
Рис. 30–33. Пальпа самця у видів *Pireneitega*, вентрально: 30 — *P. ovtchinnikovi* sp.n.; 31 — *P. segestriiformis*; 32 — *P. garibaldii*; 33 — *P. spasskyi*.





Figs 34–37. Male palps of *Pireneitega* species, prolateral: 34 — *P. ovtchinnikovi* sp.n.; 35 — *P. segestriiformis*; 36 — *P. garibaldii*; 37 — *P. spasskyi*.

Рис. 34–37. Пальпа самца у видів *Pireneitega*, пролатерально: 34 — *P. ovtchinnikovi* sp.n.; 35 — *P. segestriiformis*; 36 — *P. garibaldii*; 37 — *P. spasskyi*.



Figs 38–41. Epigynes of *Pireneitega* species, ventral: 38 — *P. ovtchinnikovi* sp.n.; 39 — *P. segestriformis*; 40 — *P. garibaldii*; 41 — *P. spasskyi*.

Рис. 38–41. Эпигина у видов *Pireneitega*, вентрально: 38 — *P. ovtchinnikovi* sp.n.; 39 — *P. segestriformis*; 40 — *P. garibaldii*; 41 — *P. spasskyi*.

#### Comparative material.

*Pireneitega segestriformis* (Dufour, 1820): **FRANCE**: 1 ♂, 1 ♀ (RB), Pyrénées, 4.09.1984 (R. Bosmans). Figs 7–11, 27, 31, 35, 39.

*Pireneitega garibaldii* (Kritscher, 1969). **ITALY, Calabria**: 1 ♂ (MSNV, vial 81), Reggio Calabria, Gambarie (Aspromonte), 1500 m, 19.10.1966 (Osella); 1 ♀ (MSNV, vial 11), Reggio Calabria, Pendici del Montalto (Aspromonte), 23.06.1958 (Ruffo). Figs 12–16, 28, 32, 36, 40, 43.

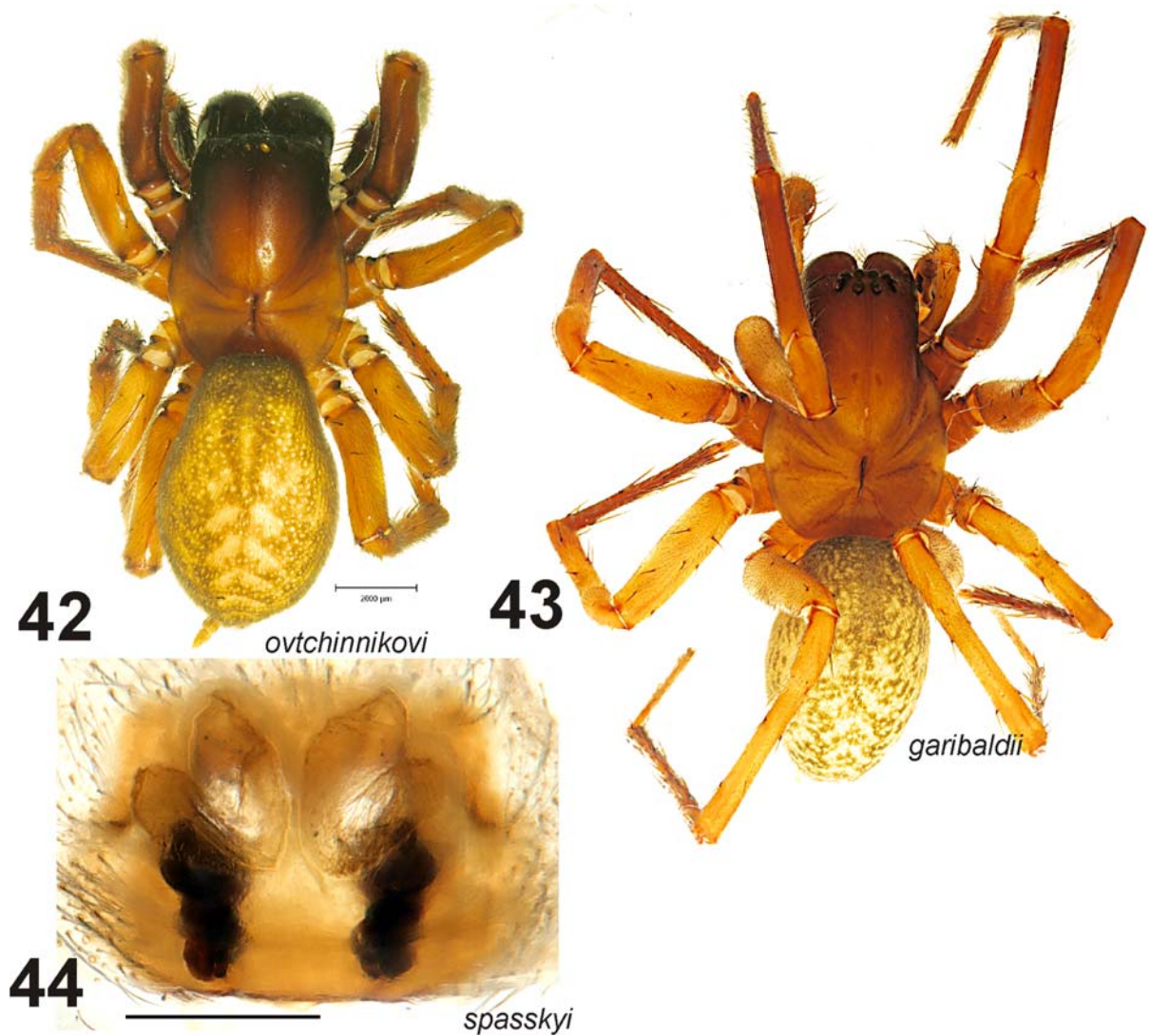
**ETYMOLOGY.** The species is named after our late colleague Sergei V. Ovtchinnikov who made important contributions to the taxonomy and faunistics of spiders and particularly to the taxonomy of Coelotinae.

**DIAGNOSIS.** *Pireneitega ovtchinnikovi* sp.n. morphologically is mostly related to the type species of the genus, *P. segestriformis*. The new species was earlier confused in the Caucasus with *P. segestriformis*. Two species can be distinguished by the shape of the copulatory organs. The main differences are as follows by 1) the tapering tip of conductor (widened in *P. segestriformis*, cf. Figs 2 & 8, 30 & 31); 2) the thick patellar apophysis (thin in *P. segestriformis*, cf. Figs 1 & 7, 26 & 27, 30 & 31); 3) the wide and straight

epigynal teeth (sharply narrowed in *P. segestriformis*, cf. Figs 4–5 & 10, 38 & 39); 4) the rectangular copulatory ducts (rounded in *P. segestriformis*, cf. Figs 6 & 11).

The new species differs from the only other Caucasian species, *P. spasskyi*, by the following characters: 1) the long and wide tip of conductor (short and thin in *P. spasskyi*, cf. Figs 1–2 & 17–18, 26 & 29, 30 & 33, 34 & 37); 2) the straight epigynal teeth (curved in *P. spasskyi*, cf. Figs 4–5 & 20, 38 & 41); 3) the rectangular copulatory ducts (triangular in *P. spasskyi*, cf. Figs 6 & 21). Differences between *P. ovtchinnikovi* sp.n. and *P. garibaldii* can be seen on Figs 12–16, 28, 32, 36, 40, 43.

We had no opportunity to examine all other 17 species assigned to *Pireneitega*, but judging from the figures (all species are illustrated in Wang [2012]) the new species well differs from them either by size (*P. spinivulva* (Simon, 1880) — much larger), or by the shape of male palp and epigyne. Limited species distribution of these taxa make it unlikely they will be confused with species known from Europe, Anatolia, Central or Far East Asia.



Figs 42–44. Habitus and epigyne of *Pireneitega* species: 42 — female of *P. ovtchinnikovi* sp.n., dorsal; 43 — male of *P. garibaldii*, dorsal; 44 — epigyne of *P. spasskyi*, dorsal.

Рис. 42–44. Габитус и эпигина: 42 — female of *Pireneitega ovtchinnikovi* sp.n., сверху; 43 — самец *P. garibaldii*, сверху; 44 — эпигина *P. spasskyi*, сверху.

DESCRIPTION. Males (n=5) and females (n=5) from Adygeya. Measurements (♂/♀): total length 7.2–11.1 (9.6) / 10.0–13.6 (11.9); carapace 3.6–5.6 (4.8) / 5.5–5.9 (5.7) length, 2.4–4.2 (3.5) / 3.9–4.3 (4.1) width. Abdomen 3.6–5.5 (5.0) / 5.5–7.3 (6.5) length, 2.3–3.5 (3.1) / 3.7–4.8 (4.3) width. Length of palp segments (♂/♀): femur 1.4–2.0 (1.7) / 1.8–2.0 (1.9), patella 0.6–

1.0 (0.8) / 0.9–1.0 (0.9), tibia 0.4–0.6 (0.5) / 1.0–1.2 (1.1), tarsus 1.9–2.5 (2.3) / 1.8–2.0 (1.8). Length of leg segments as in Tables 1 & 2.

Chelicerae with 3 promarginal and 3–5 retromarginal teeth in males and females. Number of retromarginal teeth varies from 3 (most common in females) to 4 (most common in males) or 5 (occasional in both

TABLE 1. *Pireneitega ovtchinnikovi* sp.n. leg measurements (males).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	2.2–4.2 (3.6)	1.2–2.2 (1.8)	2.4–3.8 (3.3)	2.6–4.3 (3.6)	1.5–2.2 (1.9)	10.0–16.8 (14.1)
II	2.6–4.0 (3.4)	1.2–2.0 (1.7)	2.0–3.2 (2.8)	2.3–3.8 (3.2)	1.4–2.0 (1.7)	9.5–15.0 (12.8)
III	2.2–3.5 (3.1)	1.0–1.8 (1.5)	1.6–2.6 (2.2)	2.2–3.6 (3.1)	1.2–1.8 (1.5)	8.2–13.4 (11.5)
IV	2.8–4.2 (3.7)	1.2–2.0 (1.7)	2.4–3.7 (3.1)	2.9–4.7 (4.0)	1.4–2.0 (1.8)	10.6–16.6 (14.2)

TABLE 2. *Pireneitega ovtchinnikovi* sp.n. leg measurements (females).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	3.6–3.8 (3.8)	1.9–2.0 (2.0)	2.8–3.2 (3.0)	3.1–3.3 (3.2)	1.6–1.8 (1.7)	13.2–14.2 (13.7)
II	3.4–3.6 (3.5)	1.8–2.0 (1.9)	2.4–2.7 (2.6)	2.8–3.0 (2.9)	1.4–1.7 (1.6)	11.9–12.9 (12.5)
III	3.0–3.2 (3.1)	1.6–1.8 (1.7)	2.0–2.2 (2.1)	2.8–3.0 (2.9)	1.4–1.4 (1.4)	11.0–11.6 (11.2)
IV	3.8–3.9 (3.8)	1.8–2.0 (1.9)	2.9–3.2 (3.0)	3.6–3.9 (3.7)	1.6–1.8 (1.7)	13.6–14.7 (14.2)



Figs 45–48. Webs and live specimens of *Pireneitega ovtchinnikovi* sp.n.: 45–47 — in Adygeya (15.08.2009); 48 — in Abkhazia (18.07.2008).

Рис. 45–48. Сети и живые особи *Pireneitega ovtchinnikovi* sp.n.: 45–47 — Адыгея (15.08.2009); 48 — Абхазия (18.07.2008).

sexes). In some specimens, the number of retromarginal teeth varies in the left and right chelicera (4 and 3, or 4 and 5).

General colouration dark brownish with indistinct pattern on abdomen or pattern totally lacking.

Palp as in Figs 1–3, 22–24, 26, 30, 34: patellar apophysis (*Pa*) thick, pointed; lateral tibial apophysis (*LTA*) small, poorly visible; conductor (*Co*) long and wide, its basal loop (coil) equal in diameter to height of tegulum; tip of conductor (*Tc*) tapering, tip thinner than basal loop.

Epigyne as in Figs 4–6, 38: epigynal teeth (*Et*) wide and straight; median plate (*Mp*) almost rectangular, about 1.5 times longer than wide; copulatory ducts (*Cd*) rectangular; spermathecal heads (*Sh*) directed inside.

TYPE LOCALITY. Russia, Adygeya, Caucasian Reserve, Pastbishche Abago Mt. range.

DISTRIBUTION. West Caucasus: Russia (Krasnodar Province, Adygeya, Kabardino-Balkaria) and Abkhazia. Some of the records of *P. spasskyi* by Mcheidze [1960, 1964, 1968, 1997] [cf. Otto & Tramp, 2011]



Fig. 49. Distribution of *Pireneitega ovtchinnikovi* sp.n. (circles) and *P. spasskyi* (squares) based on examined material. Some symbols indicate more than one locality. Type localities indicated by arrows.

Fig. 49. Распространение *Pireneitega ovtchinnikovi* sp.n. (кружки) и *P. spasskyi* (квадраты) на основе исследованного материала. Некоторые из символов соответствуют более чем одному локалитету. Типовые местообитания показаны стрелками.

from western Georgia most probably refer to *P. ovtchinnikovi* sp.n.

**HABITATS.** The species was found at elevations from 400 to 2300 m in forests with *Castanea sativa*, *Acer*, *Fagus* and *Abies*, in the subalpine zone and alpine meadows. It makes webs under the bark of fallen trees, near the base of trunks or under stones.

**PHENOLOGY.** ♂♂ — V–X, ♀♀ — VI–X.

**NATURAL HISTORY.** This species builds small funnel webs (Figs 45–46) with the tube hidden under stones or tree bark (Fig. 47). The tube has a widened section (Fig. 48) that serves as a retreat (shelter) where females build the egg cocoon. Sometimes *P. ovtchinnikovi* sp.n. can be found in large densities and two to three specimens are found under one stone ca 30 cm<sup>2</sup> (Fig. 48). Judging from the remains of food found in the web, the spiders mainly feed on beetles.

*Pireneitega spasskyi* (Charitonov, 1946)  
Figs 17–21, 29, 33, 37, 41, 44.

*Coelotes* s. Charitonov, 1946: 20, f. 6 (♀).

*Coelotes* s.: Charitonov, 1969: 83 (♀); Mcheidze, 1997: 204, f. 429–430 (♀, partly); Dunin, 1989: 35; Gadjeiev, 1996: 60.

*Paracoelotes* s.: Ponomarev et al., 2008: 66.

**MATERIAL EXAMINED. RUSSIA: Dagestan:** 2 ♂♂, 6 ♀♀ (CP), Tsumadinskyi Distr., Khvarshy Vill., 42°21'N, 46°06'E, 06-07.1991 (G.M. Abdurakhmanov); 1 ♂, 8 ♀♀ (CP), Charodinskyi Distr., Archib Vill., 42°04'N, 46°52'E, 06–07.1991 (G.M. Abdurakhmanov); 2 ♀♀ (CP), Tlyaratinskyi Distr., Khidib Vill., 42°10'N, 46°22'E, 23.07.2008 (A.H. Halidov); 1 ♀ (CP), Rutul'skiy Distr., Amsar Vill., 41°36'N, 47°19'E, 21–30.04.2010 (S.V. Alieva); 7 ♀♀ (CP), Gumbetovskiy Distr., Andyiskie vorota, 42°50'N, 46°20'E, 26.06.2010 (S.V. Alieva); 5 ♀♀ (CP), Gumbetovskiy Distr., Kharibskiy pass, 42°55'N, 46°30'E, 27.06.2010 (S.V. Alieva). **GEORGIA:** 2 ♀♀ (SOC), Mtskheta-Mtianeti Region, above village Gergeti near Kazbegi (Stepantsminda) on eastern slope of Mt. Kazbek, N

42.67038°, E 44.60978°, 2000 m, altomontane forest, under rocks, 5.09.2006 (S. Otto); 1 ♂ 1 ♀ (SOC), Pshavi Region, Matura Valley, N 42.48480°, E 45.10867, alpine meadow, 2800 m, 23.VII.2007 (S. Otto); 1 ♂ 1 ♀ 1 juv (ZMMU), Lagodekhi Reserve, along trail to meteorological station, hornbeam forest, 41°51'38.0"N, 46°20'26.5"E, 1700 m, 27.07.2012 (Y.M. Marusik). **AZERBAIJAN:** 2 ♀♀ (ZMMU), Gabala Distr., Vandam Vill., 12.07.1979 (P.M. Dunin); 4 ♀♀ (ZMMU), same site, 16.07.1979 (P.M. Dunin); 3 ♀♀ (ZMMU), same site, 24.07.1979 (P.M. Dunin); 11 ♀♀ (ZMMU), Zagatala Reserve, 5-10.07.1985 (P.M. Dunin); 7 ♀♀ (ZMMU), Shemakha, Pirkuli Reserve, 10.08.1989 (P.M. Dunin); 3 ♂♂, 1 ♀ (YMC, # 1319), Ismailly Reserve, 1000–1200 m, 14.07.2001 (E.F. Huseynov); 1 ♂, 2 ♀♀ (YMC, # 1344), Gusar Distr., Dogguzul, 2000 m, 5.08.2001 (E.F. Huseynov).

**DIAGNOSIS.** *Pireneitega spasskyi* differs from all other congeners only in the shape of the copulatory organs. For differences between *P. spasskyi* and *P. ovtchinnikovi* sp.n., see the diagnosis of *P. ovtchinnikovi* sp.n.

**DESCRIPTION.** Males (n=4) and females (n=3) from Azerbaijan. Measurements (♂/♀): total length 9.8–11.1 (10.4) / 11.5–12.1 (11.9); carapace 4.5–5.6 (5.3) / 5.4–5.7 (5.4) length, 3.2–3.9 (3.7) / 3.5–4.0 (3.8) width. Abdomen 4.7–6.0 (5.2) / 6.7–6.9 (6.8) length, 2.8–3.6 (3.2) / 4.4–4.5 (4.4) width. Length of palp segments (♂/♀): femur 1.8–2.0 (1.9) / 1.6–2.0 (1.8), patella 0.8–0.8 (0.8) / 0.6–0.9 (0.8), tibia 0.4–0.6 (0.5) / 0.9–1.0 (1.0), tarsus 2.0–2.1 (2.0) / 1.5–1.8 (1.7). Length of leg segments as in Tables 3 & 4.

Chelicerae with 3 promarginal teeth in males and females, and with 3 retromarginal teeth in males. The number of retromarginal teeth varies in females from 3 (common) to 4 (seldom). One of three females studied had one chelicera with 3 and the other with 4 retromarginal teeth.

Coloration dark brown, with indistinct pattern or markings absent.

**TABLE 3.** *Pireneitega spasskyi* leg measurements (males).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	3.4–4.0 (3.8)	1.8–2.0 (1.9)	2.8–3.4 (3.1)	3.2–3.7 (3.5)	1.8–2.0 (2.0)	13.0–15.1 (14.4)
II	3.2–3.7 (3.5)	1.7–2.0 (1.8)	2.4–2.9 (2.7)	2.9–3.4 (3.2)	1.7–1.9 (1.8)	12.0–13.8 (13.1)
III	2.8–3.3 (3.1)	1.4–1.7 (1.6)	2.0–2.4 (2.2)	2.9–3.4 (3.2)	1.6–1.6 (1.6)	10.8–12.4 (11.8)
IV	3.4–3.8 (3.7)	1.6–1.8 (1.8)	2.8–3.4 (3.2)	3.8–4.4 (4.2)	1.8–1.9 (1.8)	13.6–15.2 (14.6)

**TABLE 4.** *Pireneitega spasskyi* leg measurements (females).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	3.4–4.0 (3.7)	1.8–2.0 (1.9)	2.6–3.6 (3.1)	2.9–3.5 (3.1)	1.5–1.9 (1.7)	12.2–14.9 (13.6)
II	3.2–3.6 (3.4)	1.7–1.8 (1.8)	2.2–2.8 (2.5)	2.6–3.2 (3.0)	1.4–1.8 (1.6)	11.2–13.2 (12.3)
III	2.7–3.2 (3.0)	1.6–1.7 (1.6)	2.0–2.2 (2.1)	2.8–3.2 (3.0)	1.3–1.6 (1.5)	10.3–12.0 (11.3)
IV	3.4–4.0 (3.8)	1.7–2.0 (1.8)	2.8–3.4 (3.1)	3.6–4.3 (4.0)	1.6–1.8 (1.7)	13.1–15.6 (14.4)

Palp as in Figs 17–19, 29, 33, 37: patellar apophysis (*Pa*) thick rectangular (not pointed); lateral tibial apophysis (*LTA*) large, digitiform, clearly visible; conductor (*Co*) relatively short and broad, diameter of its basal loop about half the height of tegulum.

Epigyne as in Figs 20–21, 41, 44: epigynal teeth (*Et*) wide and curved; median plate (*Mp*) about 1.5 times wider than long, base of plate trapezoidal, its upper half 2.5 times thinner than basal width; copulatory ducts (*Cd*) triangular; spermathecal heads (*Sh*) hidden under the copulatory ducts.

TYPE LOCALITY. Eastern Georgia, Lagodekhi.

DISTRIBUTION. Although this species is reported from the whole of the Caucasus Major and Lesser Caucasus [cf. Otto & Tramp, 2011], it seems that the species is restricted to the eastern part of Caucasus Major: Dagestan, eastern Georgia and Azerbaijan. Records of this species from west Caucasus, or at least from the west part of Caucasus Major, correspond to *P. ovtchinnikovi* sp. n. Records of *P. segestriiformis* from Ingushetia and Chechnya (an eastern half of the Caucasus Major by Minoranskiy et al. [1984: 78–79] most likely to refer to this species.

HABITATS. The species occurs at elevations from 1000 to 2000 m.

PHENOLOGY. ♂♀ — VII–VIII.

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