

## The spider genus *Drassyllus* Chamberlin, 1922 in the Crimean fauna, with description of a new species (Aranei: Gnaphosidae)

### Пауки рода *Drassyllus* Chamberlin, 1922 в фауне Крыма, с описанием нового вида (Aranei: Gnaphosidae)

N. M. Kovblyuk  
Н.М. Ковблук

Zoology Department, National Taurida V.I. Vernadsky University, 4 Yaltinskaya str., Simferopol 95007 Ukraine.

Кафедра зоологии Таврического национального университета им. В.И.Вернадского, ул. Ялтинская 4, Симферополь 95007 Украина.

KEY WORDS: spiders, *Drassyllus*, new species, new records, ecology, the Crimea.

КЛЮЧЕВЫЕ СЛОВА: пауки, *Drassyllus*, новый вид, новые находки, экология, Крым.

**ABSTRACT:** Four species of the genus *Drassyllus* Chamberlin, 1922 are found in the Crimea: *D. crimeaensis* sp.n., *D. praeficus* (L. Koch, 1866), *D. pumilus* (C.L. Koch, 1839) and *D. pusillus* (C.L. Koch, 1833). *D. crimeaensis* sp.n. (♂♀) is closely related to *D. villicus* (Thorell, 1875), but differs from it by lacking a swelling on the femur and a notch on the tibial apophysis of the male palp; in addition, the new species has a tegular swelling and the epigynal structure is different. The new species is also similar to *D. praeficus*, but the male palp and the epigyne are much smaller. For all species, diagnostic drawings, distribution, landscape zone data, and phenology are provided.

**РЕЗЮМЕ:** В Крыму обнаружены четыре вида рода *Drassyllus* Chamberlin, 1922: *D. crimeaensis* sp.n., *D. praeficus* (L. Koch, 1866), *D. pumilus* (C.L. Koch, 1839) и *D. pusillus* (C.L. Koch, 1833). *D. crimeaensis* sp.n. (♂♀) близок к *D. villicus* (Thorell, 1875), но хорошо отличается от него отсутствием вздутия на бедре и выемки на выросте голени пальпы самца, наличием вздутия тегулюма, а также строением эпигины. Строением пальпы самца и эпигины новый вид похож на *D. praeficus*, но отличается гораздо меньшими размерами этих органов. Для всех упомянутых в статье видов даны диагностические рисунки, рассмотрены их ландшафтное распространение и фенология.

#### Introduction

Two species of the spider genus *Drassyllus* Chamberlin, 1922 have previously been recorded from the Crimea: *D. praeficus* (L. Koch, 1866) and *D. pusillus* (C.L. Koch, 1833) [see Spassky, 1927 and subsequent authors]. Two additional species are presented in our Crimean gnaphosid collection: *D. pumilus* (C.L. Koch, 1839) and the new species *Drassyllus crimeaensis* sp.n., which is described here.

#### Material and Methods

If not otherwise stated, all the specimens considered in this study were collected by the author, primarily using pitfall traps, and have been deposited in the following collections: EMZ — the personal collection of Mr. E.M. Zhukovets, Minsk, Belarus; EVP — the personal collection of Dr. E.V. Prokopenko, the Zoology Department of Donetsk National University, Donetsk, Ukraine; TNU — the Department of Zoology, V.I. Vernadsky Taurida National University, Simferopol, Ukraine, Mr. N.M. Kovblyuk; ZMMU — the Zoological Museum of the Moscow State University, Moscow, Russia, Dr. K.G. Mikhailov.

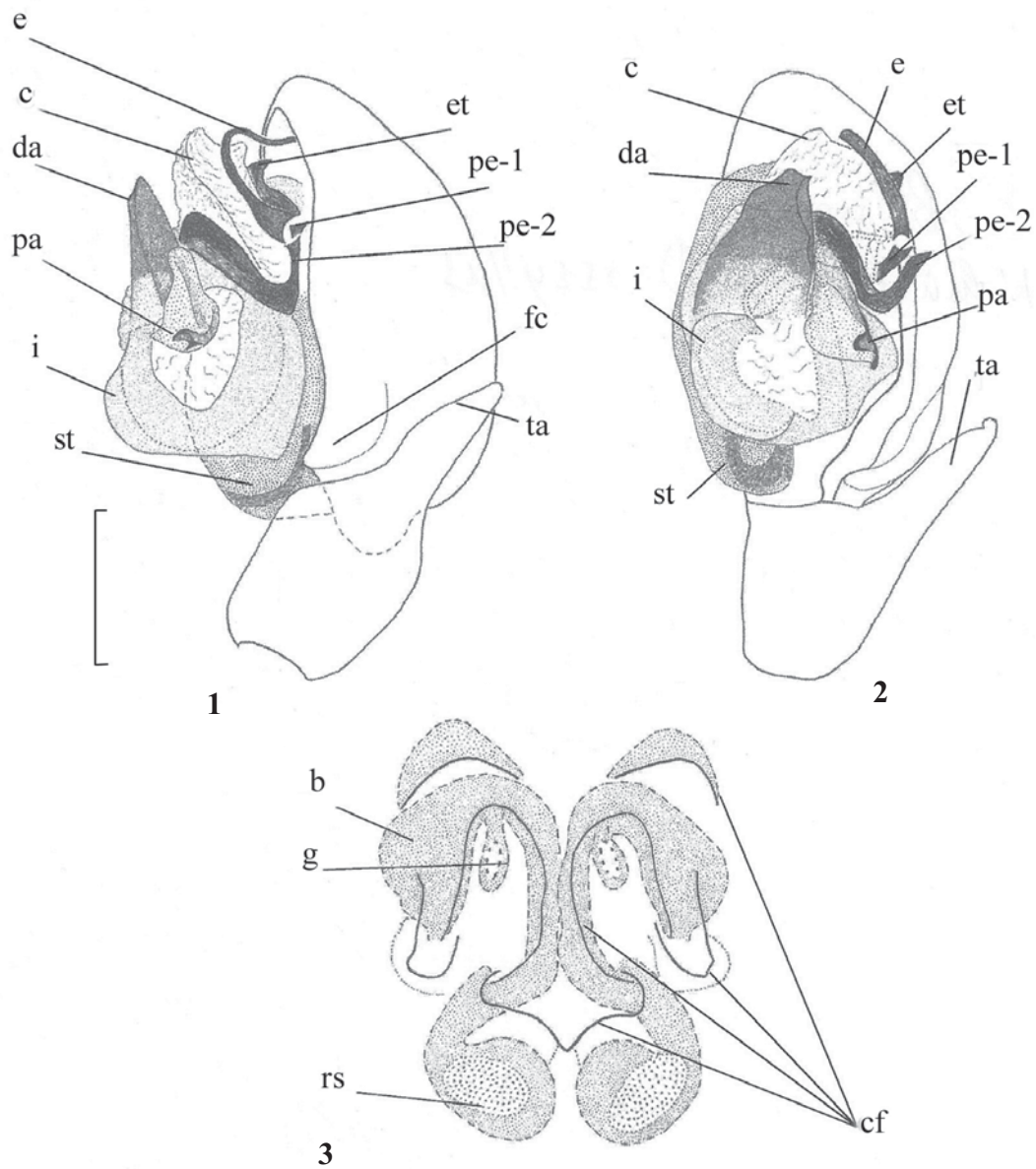
The sequence of leg segment measurements is as follows: femur + patella + tibia + metatarsus + tarsus. The following abbreviations are used in the text and illustrations: b — spermathecal bursa; c — conductor; cf — cuticular folds of the epigyne; d — dorsal; da — distal tegular apophysis; e — embolus; et — distal tooth at the dorsal side of the embolar base; fc — fold of the cymbium; g — spermathecal gland; i — swelling of the tegulum; p — prolateral; pa — proximal tegular apophysis; pe-1 — dorsal tegular apophysis (pseudoembolus # 1); pe-2 — basal tooth at the dorsal side of the embolic base (pseudoembolus # 2); r — retrolateral; rs — reservoir of the receptacula seminis; s.l. — same locality; st — subtegulum; ta — tibial apophysis; v — ventral. Most of the terms used in the genitalic descriptions are adopted from Miller [1967], Grimm [1985] and Thaler [1984, 1989]. All measurements are in mm.

#### Survey of species

##### *Drassyllus crimeaensis* sp.n.

Fig. 1–3, 5, 10, 13, 16.

**MATERIAL.** Ukraine, the Crimea: **Holotype:** 1 ♂ (ZMMU), ca 7 km NE of Yalta, Martyan Cape Reserve, *Carpinus betulus*, *Juniperus excelsa*, *Ruscus ponticus* forest, pitfall traps, 30.04.–7.05.2000. **Paratypes:** 1 ♂ (ZMMU), s.l., 4.–16.06.2001; 1 ♂ (ZMMU), s.l., *Arbutus andrachne*, *Juniperus excelsa*, *Cistus tauricus* forest, pitfall traps, 15.–22.04.2000; 2 ♂♂ (ZMMU), s.l., 7.–13.05.2000; 1 ♀ (ZMMU), s.l., 20.–27.05.2000; 1 ♀ (ZMMU), s.l., 2.–9.07.2000; 2 ♂♂ (TNU), s.l., 20.04.–19.05.2001; 1 ♀ (TNU), s.l.,



Figs. 1–3: The copulatory organs of *Drassyllus crimeaensis* sp.n.: 1–2 — male palp with particularly expanded bulbus: retrolateral view (1) ventral view (2); 3 — epigyne, ventral view. Abbreviations — see in “Material and Methods”. Scale bar: 0.5 mm.

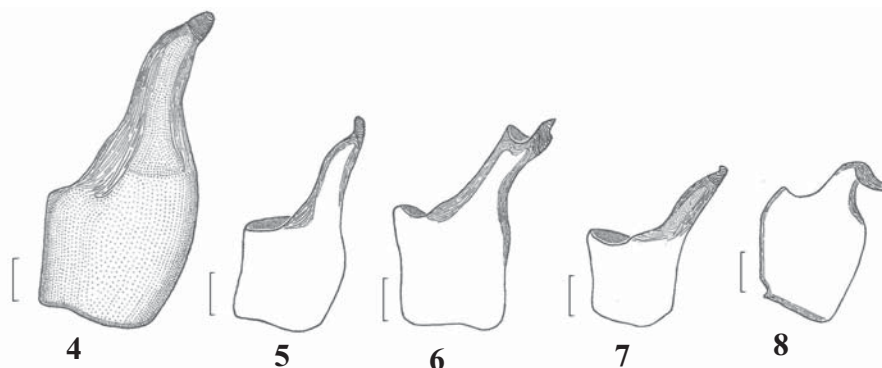
Рис. 1–3. Копулятивные органы *Drassyllus crimeaensis* sp.n.: 1–2 — палепус самца с частично развёрнутым бульбусом (1 — ретролатерально; 2 — вентрально); 3 — эпигина, вываренная в 10% NaOH водн., вентральный вид. Обозначения см. в “Материал и Методика”. Масштаб: 0,5 мм.

19.05–4.06.2001; 1♀ (TNU), near Yalta, Massandra Park, *Pistacia mutica* forest, pitfall traps, 18–25.05.2000; 7♂♂ (TNU), near Yalta, ca 1 km N of Nikita Vill., neglected field, pitfall traps, 22–30.04.2000; 2♂♂ (TNU), s.l., 30.04–7.05.2000; 2♂♂, 1♀ (TNU), s.l., 7–13.05.2000; 1♀ (TNU), s.l., 20–27.05.2000; 1♀ (TNU), s.l., 27.05–3.06.2000; 1♀ (EVP), s.l., 3–11.06.2000; 1♂ (EVP), s.l., 29.04–19.05.2001; 1♂ (TNU), s.l., 19.04–4.05.2001; 2♂♂, 1♀ (TNU), Lenin Distr., Kerch Peninsula, near Verkhne-Zamorskoe, pitfall traps, 13.06.1997; 3♂♂ (TNU), Saksy Distr., railway station Pribrezhnaya, meadow steppe, pitfall traps, 9–19.05.2000; 1♂ (TNU), Simferopol Distr., ca 3 km NO of Skvortsovo, steppe (*Stipa, Festuca*), pitfall traps, 27.04–9.05.2002; 4♂♂ (TNU), s.l., 9–19.05.2002; 2♀♀ (TNU), s.l., 19.05–

1.06.2002; 2♀♀ (TNU), Simferopol Distr., ca 3 km NW of Skvortsovo, neglected field, pitfall traps, 9–19.05.2002; 2♀♀ (TNU), s.l., 1–9.06.2002; 1♂ (TNU), Karadagh Nature Reserve, Biological Station, *Quercus pubescens, Pistacia mutica* forest, 19.04.2003; 1♀ (TNU), s.l., 26.05.2003; 1♂ (TNU), Karadagh Nature Reserve, Beregovoy Mt. Range, S slope, steppe, 24.04.2003; 2♀♀ (TNU), s.l., *Pistacia mutica* — silva rara, *Stipa, Festuca*, 25.05.2003.

COMPARATIVE MATERIAL. *Drassyllus villicus* (Thorell, 1875): 2♂♂, 2♀♀ (TNU), Slovakia, Bojnice, under rocks, pitfall traps, 12.07.1991, leg. et det. S. Pekár.

DIAGNOSIS. *D. crimeaensis* sp.n. is most similar to *D. villicus*, but can be distinguished by the shape of the femur



Figs. 4–8. Tibia of male palpi, retrolateral view: 4 — *Drassyllus praeficus*; 5 — *D. crimeaensis* sp.n.; 6 — *D. villicus*; 7 — *D. pusillus*; 8 — *D. pumilus*. Scale bar: 0.1 mm.

Рис. 4–8. Голени пальпы самцов, вид ретролатерально: 4 — *Drassyllus praeficus*; 5 — *D. crimeaensis* sp.n.; 6 — *D. villicus*; 7 — *D. pusillus*; 8 — *D. pumilus*. Масштаб: 0,1 мм.

(Figs. 10–11), the tibial apophysis (Figs. 5–6) and the conductor (Figs. 13–14) of the male palp; as well as by the presence of a remarkable swelling of the tegulum, which is also present in *D. praeficus*, but absent in other Central European *Drassyllus* species (s. Figs. 9–12). The females of *D. crimeaensis* sp.n. and *D. villicus* can be distinguished by the shape of epigyne (s. Figs. 16–17).

The structure of the palp, the epigyne and the spermathecae of *D. praeficus* are also similar to those of *D. crimeaensis* sp.n., but in the former species these organs are much larger (Figs. 4–5, 9–10, 15–16).

**DESCRIPTION.** Male (n = 7). **Measurements.** Total length 4.7–6.9; carapace 2.1–2.5 long and 1.6–2.05 wide. The holotype has the following measurements: 6.0; 2.4, 2.05 respectively. Leg formula — 4.1.2.3. Length of leg segments of the holotype: leg I — 1.95 + 1.1 + 1.4 + 1.2 + 1.1; leg II — 1.6 + 1 + 1.2 + 1.2 + 1; leg III — 1.5 + 0.75 + 1.1 + 1.2 + 0.8; leg IV — 2.1 + 1.15 + 1.9 + 2 + 1. Abdomen of holotype 3.4 long, 2.0 wide. Scutum 1.6 long, 1.2 width. **Leg spination.** Femora I-II: d 1-1-0, p 0-0-1; III: p 0-1-1, d 1-1-0, r 0-1-1; IV: p 0-0-1, d 1-1-0, r 0-0-1. Patellae III: r 1. Tibiae I-II: v 1-1-0; III: d 0-2-0, p 1-1, v 2-2-2, r 0-1; IV: d 0-2-0, p 1-1, v 2-2-2, r 2-1. Metatarsi I-II: v 2-0-0; III: d 0-1-2, p 1-1-1, v 2-0, r 1-1-1; IV: d 0-2-2, p 1-1-1, v 2-2-0, r 1-1-0. Chelicerae with 3 retromarginal and 6 promarginal extremely small teeth. **Coloration.** Cephalothorax, chelicerae, maxillae, labium, sternum and legs (except for tarsus and metatarsus) dark brown. Tarsus + metatarsus I–II — yellow, III–IV — copper coloured. Abdomen grey, with brown scutum. Book-lungs yellow. Palps brown. **Palpal structure** as in Figs. 1–2, 5, 10, 13.

**Female** (n = 4). **Measurements.** Some females are larger than males. Total length 4.8–7.2; carapace 2.1–2.7 long and 1.7–2.1 wide. Leg formula as in males. Length of leg segments of the paratype collected on 19.05–4.06.01: leg I — 2.1 + 1.3 + 1.6 + 1.3 + 1; leg II — 1.8 + 1 + 1.3 + 1.2 + 1; leg III — 1.5 + 1 + 1.1 + 1.2 + 0.8; leg IV — 2.3 + 1.25 + 1.9 + 2.1 + 1.1. Abdomen of this paratype is 4.75 long and 2.4 wide. There is no scutum. **Leg spination:** as in males, but tibiae III–IV r 1-1. Chelicerae as in males, but the number of promarginal teeth is 4. **Coloration** as in males. **Epigyne** as in Figs. 3, 16.

**TYPE LOCALITY.** Martyan Cape Reserve (the Crimea).

**DISTRIBUTION.** Ukraine: the Crimea (see material), Donetsk Area (personal communication by Dr. E.V. Prokoenko).

**ETYMOLOGY.** The specific epithet relates to the name of the Crimean Peninsula.

**HABITAT.** 50–200 m a.s.l. Shibliak: *Carpinus orientalis* + *Juniperus excelsae* — *Ruscus ponticus*; *Arbutus andrachne* + *Juniperus excelsae* — *Cistus tauricus* + *Achnatherus bromoides*; *Pistacia mutica* — silva rara. Steppe: *Stipa*, *Festuca*. Meadow steppe. This species is not particularly abundant.

**PHENOLOGY:** ♂♂ — IV–VI; ♀♀ — V–VII.

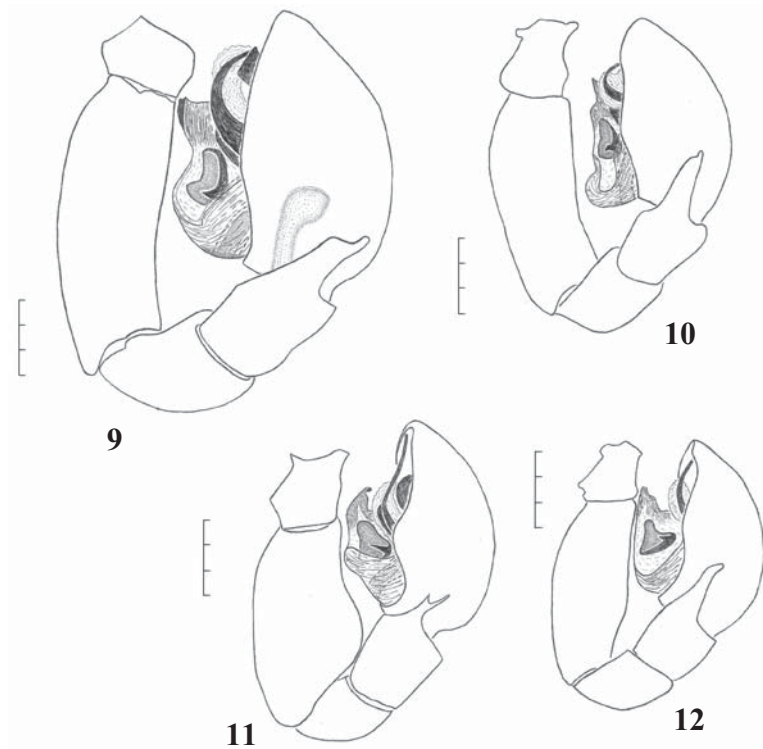
*Drassyllus praeficus* (L. Koch, 1866)

Fig. 4, 9, 15.

*Zelotes praeficus*: Spassky, 1927: 14; Charitonov, 1932: 140; Tyshchenko, 1971: 97, 100; Ovtsharenko, 1982: 839.

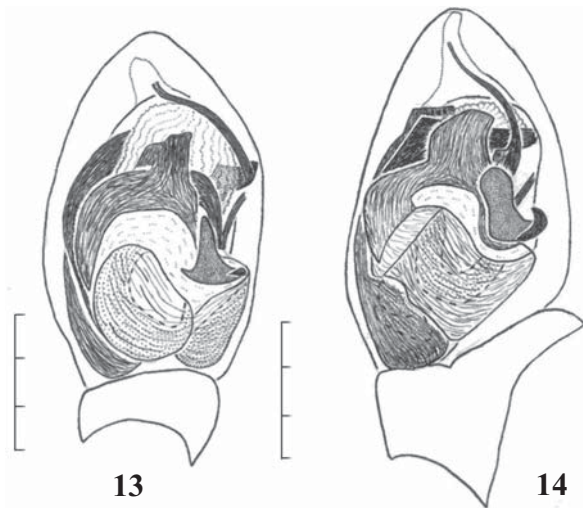
*Drassyllus praeficus*: Mikhailov, 1997: 170; Kovblyuk, 2000: 83; 2001: 96.

**MATERIAL.** Ukraine, the Crimea: 2 ♂♂ (EMZ), Sevastopol Distr., Khersones ruins, 29.05.1996; 2 ♂♂ (TNU), s.l., 19.06.1998; 1 ♀ (EMZ), Simferopol Distr., near Krasnolesie, 3.07.1996; 1 ♂ (EMZ), Simferopol Distr., near Kirpichnoe, 12.06.1997; 1 ♀ (EMZ), Lenin Distr. (Kerch Peninsula), near Aktash Lake, under stones, 7.06.1999; 1 ♂ (EMZ), Simferopol Distr., Lozovoe, in a premise, 13.06.1999; 2 ♀♀ (EMZ), Belogorsk Distr., ca 5 km NE Zarechnoe, under stones, 21.06.1999; 1 ♀ (EMZ), Saky Distr., near railway station Pribrezhnaya, sea level, under stones, 26.06.1999; 1 ♂ (TNU), s.l., meadow steppe on yellow porous limestone, pitfall traps, 30.04–9.05.2000; 1 ♀ (TNU), s.l., 9–19.05.2000; 1 ♂, 1 ♀ (TNU), s.l., 19–28.05.2000; 1 ♂, 1 ♀ (TNU), s.l., 28.05–8.06.2000; 3 ♀♀ (TNU), s.l., 3–19.07.2000; 1 ♂, 2 ♀♀ (TNU), s.l., salt meadow, pitfall traps, 19–28.05.2000; 1 ♂ (TNU), Simferopol Distr., near Lozovoe, *Pinus pallasiana* plantation with *Laburnum anagyroides*, *Festuca*, *Elytrigia* etc., pitfall traps, 26.05–6.06.2000; 2 ♂♂ (TNU), s.l., 6–23.06.2000; 1 ♂ (TNU), s.l., 23.06–13.07.2000; 1 ♀ (TNU), s.l., 13–26.07.2000; 1 ♀ (TNU), s.l., 26.07–8.08.2000; 1 ♂ (TNU), s.l., Kessler's Forest, edge of the *Quercus pubescens* forest, pitfall traps, 23.06–16.07.2000; 1 ♂ (TNU), s.l. and forest, *Brachypodium pinnatum*, *Elytrigia maeotica*, *Filipendula vulgaris* grassland, pitfall traps, 27.05–6.06.2000; 1 ♀ (TNU), s.l., 23.06–13.07.2000; 2 ♂♂, 2 ♀♀ (TNU), Simferopol Distr., Bairakly Mt. (519 m a.s.l.), *Stipa capillata*, *Festuca*, *Filipendula* steppe, pitfall traps, 6–23.06.2000; 1 ♂ (TNU), Simferopol Distr., near Bairakly Mt. (519 m a.s.l.), *Festuca*, *Stipa*, *Artemisia*, *Amygdalus nana* desertified steppe near *Pinus pallasiana* plantation, pitfall traps, 26.05–6.06.2000; 1 ♂, 1 ♀ (ZMMU), s.l., 6–23.06.2000; 2 ♀♀ (TNU), s.l., 23.06–16.07.2000; 1 ♀ (TNU), Simferopol, coast of the Simferopol water-reservoir, *Stipa*, *Festuca*, *Asphodeline* steppe, pitfall traps, 26.05–6.06.2000; 2 ♀♀ (TNU), s.l., 23.06–16.07.2000; 1 ♀ (TNU), near Yalta, ca 1 km N Nikita, neglected field, pitfall traps, 13–30.05.2000; 2 ♂♂ (TNU), s.l., 3–11.06.2000; 1 ♂ (TNU), s.l., *Pinus pallasiana* forest, pitfall traps,



Figs. 9–12. Male palpi, retrolateral view: 9 — *Drassyllus praeficus*; 10 — *D. crimeaensis* sp.n.; 11 — *D. villicus*; 12 — *D. pusillus*. Scale lines: 0.3 mm.

Рис. 9–12. Пальпы самцов, вид ретролатерально: 9 — *Drassyllus praeficus*; 10 — *D. crimeaensis* sp.n.; 11 — *D. villicus*; 12 — *D. pusillus*. Масштаб: 0,3 мм.



Figs. 13–14. Male palpi, ventral view: 13 — *Drassyllus crimeaensis* sp.n.; 14 — *D. villicus*. Scale lines: 0.3 mm.

Рис. 13–14. Пальпы самцов, вентральный вид: 13 — *Drassyllus crimeaensis* sp.n.; 14 — *D. villicus*. Масштаб: 0,3 мм.

27.05–3.06.2000; 4 ♂♂, 2 ♀♀ (TNU), s.l., 3–11.06.2000; 1 ♀ (TNU), s.l., 11–17.06.2000; 1 ♂, 1 ♀ (TNU), s.l., 8–24.06.2000; 14 ♀♀ (TNU), Simferopol Distr., 3 km NW Skvortsovo, steppe (*Stipa, Festuca*), pitfall traps, 30.06–10.07.2002.

DISTRIBUTION. West-Palaeartic Range: Europe, the Caucasus, Kazakhstan, W and S Siberia, Minor Asia [Tuneva & Esyunin, 2002].

#### *Drassyllus pumilus* (C.L. Koch, 1839)

Fig. 8, 18.

MATERIAL. Ukraine, the Crimea: 1 ♂ (TNU), Simferopol Distr., near Lozovoe, Bairakly Mt. (519 m a.s.l.), *Stipa capillata, Festuca, Filipendula* steppe, pitfall traps, 1–14.05.2000; 1 ♂ (TNU), s.l., 26.05–6.06.2000; 2 ♂♂ (TNU), s.l., 6–23.06.2000; 1 ♀ (TNU), s.l., 23.06–16.07.2000; 1 ♀ (TNU), s.l., 16–26.07.2000; 1 ♀ (TNU), s.l., 26.07–8.08.2000; 1 ♀ (TNU), Simferopol Distr., near Bairakly Mt. (519 m a.s.l.), *Festuca, Stipa, Artemisia, Amygdalus nana* steppe near *Pinus pallasiana* plantation, pitfall traps, 26.05–6.06.2000; 1 ♀ (TNU), s.l., 6–23.06.2000; 2 ♂♂, 3 ♀♀ (ZMMU), Simferopol, coast of the Simferopol water reservoir, *Stipa, Festuca, Asphodeline* steppe, pitfall traps, 26.05–6.06.2000; 3 ♀♀ (TNU), s.l., 6–23.06.2000.

COMMENTS. *D. pumilus* is a new species record for the Crimea fauna.

DISTRIBUTION. West-Palaeartic Range: Central Europe, the Caucasus, Minor Asia [Grimm, 1985; Mikhailov, 1997].

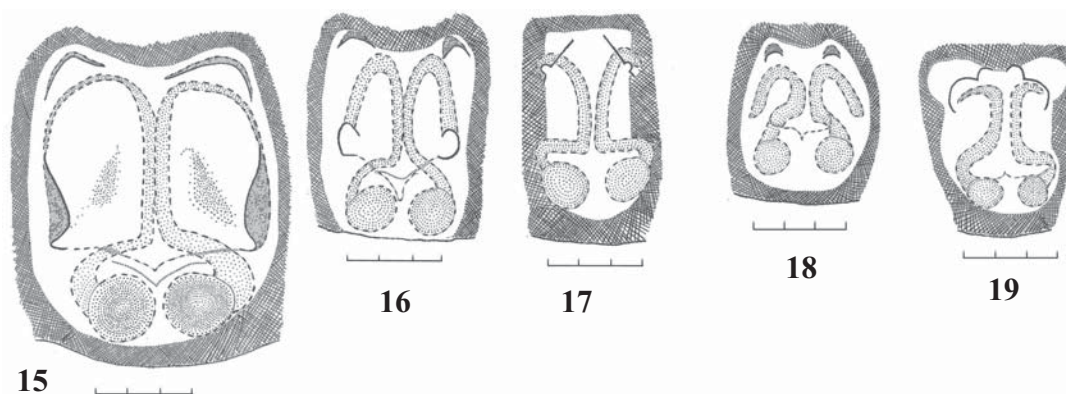
#### *Drassyllus pusillus* (C.L. Koch, 1833)

Fig. 7, 12, 19.

*Zelotes pusillus*: Spassky, 1927: 14; Charitonov, 1932: 140; Azheganova, 1968: 101; Tyschenko, 1971: 99; Ovtsharenko, 1982: 839.

*Drassyllus pusillus*: Mikhailov, 1997: 170; Kovblyuk, 2001: 96.

MATERIAL. Ukraine, the Crimea: 1 ♂ (EMZ), Simferopol, under stones, 14.05.1997; 2 ♂♂ (EMZ), Simferopol Distr., near Kirpichnoe, *Hordeum* field, pitfall traps, 14–31.05.1997; 2 ♂♂, 1 ♀ (EMZ), s.l., 31.05–12.06.1997; 1 ♂ (EMZ), Simferopol Distr., near Kirpichnoe, forest plantation, pitfall traps, 31.05–12.06.1997; 1 ♂ (EMZ), coast of the Simferopol water reservoir, *Quercus rubra*



Figs. 15–19. Epigynes, ventral view: 15 — *Drassyllus praeficus*; 16 — *D. crimeaensis* sp.n.; 17 — *D. villicus*; 18 — *D. pumilus*; 19 — *D. pusillus*. Scale lines: 0.3 mm.

Рис. 15–19. Эпигины, вентральный вид: 15 — *Drassyllus praeficus*; 16 — *D. crimeaensis* sp.n.; 17 — *D. villicus*; 18 — *D. pumilus*; 19 — *D. pusillus*. Масштаб: 0,3 мм.

plantation, pitfall traps, 4–24.04.1999; 1♂ (TNU), s.l., *Phragmites communis*, pitfall traps, 1–14.05.2000; 2♀♀ (TNU), s.l., 23.06–16.07.2000; 1♂ (TNU), s.l., *Stipa, Festuca, Asphodeline* steppe, pitfall traps, 14–26.05.2000; 1♂ (TNU), s.l., 6–23.06.2000; 1♀ (TNU), s.l., 23.06–16.07.2000; 3♂♂ (EMZ), s.l., 24.04–6.06.1999; 1♂ (TNU), Simferopol Distr., near Lozovoe, Kessler's Forest, *Quercus pubescens, Cornus mas* forest with *Physospermum danaea* and *Polygonatum*, pitfall traps, 1–14.05.2000; 2♂♂ (TNU), s.l., edge of the *Quercus pubescens* forest, pitfall traps, 27.05–6.06.2000; 1♂ (TNU), s.l., 6–23.06.2000; 1♂, 1♀ (ZMMU), s.l., 6–23.06.2000; 1♀ (TNU), s.l., 23.06–13.07.2000; 1♀ (TNU), s.l., 13–26.07.2000; 1♀ (TNU), s.l., *Brachypodium pinnatum, Elytrigia maeotica, Filipendula vulgaris* grassland, pitfall traps, 27.05–6.06.2000; 1♂ (TNU), s.l., 26.05–6.06.2000; 1♂ (TNU), Simferopol Distr., massif Chatyr-Dagh, *Quercus petraea, Cornus mas* forest, pitfall traps, 7–21.05.2000; 1♀ (TNU), s.l., 10–25.06.2000; 2♀♀ (ZMMU), Simferopol Distr., near Lozovoe Vill., *Pinus pallasiana* plantation with *Laburnum anagyroides, Festuca, Elytrigia* etc., pitfall traps, 14–26.05.2000; 3♂♂ (TNU), s.l., 26.05–6.06.2000; 3♂♂ (TNU), 6–23.06.2000; 2♂♂ (TNU), s.l., Bairakly Mt. (519 m a.s.l.), *Stipa capillata, Festuca, Filipendula* steppe, pitfall traps, 1–14.05.2000; 2♂♂ (TNU), s.l., 26.05–6.06.2000; 2♂♂ (ZMMU), s.l., 6–23.06.2000; 1♀ (TNU), s.l., 16–26.07.2000; 1♂ (TNU), ca 7 km NE of Yalta, Martyan Cape Reserve, *Pinus pallasiana, Quercus pubescens, Juniperus excelsa* forest, pitfall traps, 3–11.06.2000; 1♂ (TNU), Nikitskaya Yaila (Scrinita) plateau, ca 1200 m a.s.l., *Pinus kochiana* forest, pitfall traps, 12–23.06.2001; 3♂♂ (TNU), s.l., *Zerna cappadocica* meadow, pitfall traps, 25.05–2.06.06.2001; 6♂♂ (TNU), s.l., 2–12.06.2001; 3♂♂, 1♀ (TNU), s.l., 12–23.06.2001; 1♂ (TNU), s.l., 3–14.07.2001; 1♂ (TNU), s.l., *Festuca, Rosa* steppe, pitfall traps, 25.05–2.06.2001; 2♀♀ (TNU), s.l., 2–12.06.2001; 1♂ (TNU), s.l., 12–23.06.2001; 1♀ (TNU), s.l., 3–14.07.2001.

**DISTRIBUTION.** Trans-Palaeartic Range: Europe, the Caucasus, Siberia, Kazakhstan, Minor Asia, Mongolia, China, the Russian Far East [Marusik, Logunov & Koponen, 2000; Tuneva & Esyunin, 2002].

### Phenology

Many specimens were collected using pitfall traps, which were regularly checked over one year or more. Thus, the seasonal dynamics of the adults can be assessed, based on our collection. The maximum number of individuals and peak of activity for the adults of *D. crimeaensis* and *D. pumilus* occurred during May, and for *D. praeficus* and *D. pusillus*, these occurred in

June (see Fig. 20). The phenology of the three later species corresponds to that observed in Central Europe [cf. Grimm, 1985]. As is evident from Fig. 20, all the species studied have only one generation per year.

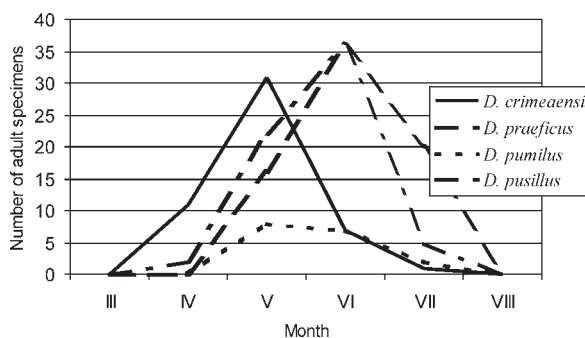


Fig. 20. Comparative phenology of *Drassyllus* species in the Crimea, based on the specimens kept in author's collection.

Рис. 20. Сравнительная фенология пауков рода *Drassyllus* в Крыму по материалам коллекции.

### Chorology

Traditionally, seven natural (landscape, altitudinal, physico-geographical) zones are found in the Crimean peninsula [Biodiversity..., 1999]. The distribution of the *Drassyllus* species in these zones is given in Table 1.

**ACKNOWLEDGEMENTS.** The author sincerely thanks Dr. S. Pekár (Brno, Czech Republic) for providing comparative material of *D. villicus*, Dr. E.V. Prokopenko (Donetsk, Ukraine) for refining the distribution of *D. crimeaensis* sp.n. in Donetsk Area, Dr. K. Thaler (Innsbruck, Austria) for his great help in the search for relevant references, and Mr. A.V. Shumsky for preparing botanical descriptions of some habitats. The author is also very grateful to Dr. K.G. Mikhailov (Moscow, Russia) for important remarks and corrections, which helped to improve the manuscript. Special acknowledgements are due to Mr. P.E. Gol'din, who read the English version of manuscript, and to Dr David Penney (Manchester, UK) for final editing of the English style.

Table 1. Distribution of *Drassyllus* species in the landscape (major habitat, natural, altitudinal, physico-geographical) zones of the Crimea.

Таблица 1. Ландшафтное распространение пауков рода *Drassyllus* в Крыму.

Landscape zones	<i>Drassyllus</i> species			
	<i>crimeaensis</i>	<i>praeficus</i>	<i>pumilus</i>	<i>pusillus</i>
Semi-desert steppe and saline lands	+	+		
Genuine steppe	+	+	+	+
Submontane forest-steppe		+		+
Forests of the northern slope				+
Mountain meadows and yaila steppe				+
Forests of the southern slope		+		+
Sub-Mediterranean vegetation of the southern coast	+	+		+

## References

- Azheganova N.S. 1968. [A brief key to spiders (Aranei) of the forest and forest-steppe zone of the USSR]. Leningrad: Nauka. 149 pp. [in Russian]
- Biodiversity Support Program. Priority-setting in Conservation: A new approach for the Crimea. 1999. Results of the Conservation Needs Assessment in the Crimea. Washington: BSP. 257 pp. [in Russian and English].
- Charitonov D.E. 1932. Katalog der russischen Spinnen. AN SSSR. Leningrad: Izdatelstvo AN SSSR. 206 pp. [in Russian and German]
- Grimm U. 1985. Die Gnaphosidae Mitteleuropas (Arachnida, Araneae) // Abhandlungen des Naturwissenschaftlichen Vereins in Hamburg (N.F.). Bd.26. H.1 318 S.
- Kovblyuk N.M. 2000. [Spiders from a people's buildings in the Crimea] // Actual questions by recent biology. Materials of the 1st Republican Conference of Young Scientists from Crimea. (Simferopol, May 2000). Simferopol: Tavria. P.82–83. [in Russian]
- Kovblyuk N.M. 2001. [About the necessity of forest edges examining during the study of local fauna of spiders (Arachnida, Aranei)] // Uchenye zapiski TNU. Series: Biology. Vol.14. No.1. P.94–98. [in Russian]
- Mikhailov K.G. 1997. Catalogue of the spiders of the territories of the former Soviet Union (Arachnida, Aranei). Moscow: Zoological Museum of the Moscow State University. 416 pp.
- Miller F. 1967. Studien über die Kopulationsorgane der Spinnengattung *Zelotes*, *Micaria*, *Robertus* und *Dipoena* nebst Beschreibung einiger neuen oder unvollkommen bekannten Spinnenarten // Acta sci. natur. Acad. sci. bohemoslov. Vol.1. P.251–298.
- Ovtsharenko V.I. 1982. A systematic list of the spider family Gnaphosidae (Aranei) of the European part of the USSR and the Caucasus // Entomol. Obozrenie. T.61. Vol.4. P.830–844. [in Russian].
- Spassky S.A. 1927. [Materials to the spider fauna of the Tauric Gouvernement] // Izvestiya Donskogo Instituta Sel'skogo Khozyaistva i Melioratsii. Vol.7. P.66–80 [in Russian].
- Thaler K. 1984. *Haplodrassus aeneus* n. sp. aus Österreich und der Schweiz (Arachnida: Araneae, Gnaphosidae) // Bulletin de la Société Entomologique Suisse. T.57. P.132–136.
- Thaler K. 1989. Das Männchen von *Zelotes devotus* Grimm (Arachnida, Araneae, Gnaphosidae) // Bulletin de la Société Entomologique Suisse. T.62. P.363–366.
- Tyschenko V.P. 1971. [Identification key to spiders of the European part of the USSR]. Leningrad: Nauka. 281 pp. [in Russian].