Arthropoda Selecta 20(4): 267–272

Redescription of a little-known species, *Pholcus crassipalpis* Spassky, 1937 (Aranei: Pholcidae)

Переописание малоизвестного вида *Pholcus crassipalpis* Spassky, 1937 (Aranei: Pholcidae)

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KEY WORDS: spiders, *Pholcus*, redescription, Crimea.
КЛЮЧЕВЫЕ СЛОВА: пауки, *Pholcus*, переописание, Крым.

ABSTRACT. Redescription of the little-known species, *Pholcus crassipalpis* Spassky, 1937, is provided. It is based on specimens from Crimea. Illustrations, diagnosis, distribution and seasonal dynamic of activity are presented.

РЕЗЮМЕ. По экземплярам из Крыма переописан малоизвестный вид *Pholcus crassipalpis* Spassky, 1937. Приведены рисунки таксономических признаков, диагноз, сведения о распространении и сезонной динамики активности половозрелых особей.

Introduction

Genus *Pholcus* Walckenaer, 1805, contains 178 species, mostly from the East Hemisphere, except two species, Holarctic *P. opilionoides* (Schrank, 1781) and cosmopolitan *P. phalangioides* (Fuesslin, 1775) [Platnick, 2011]. So far, six species have been reported from Ukraine [Mikhailov, 1997; Fedoriak, 2008]: *P. alticeps* Spassky, 1932; *P. crassipalpis* Spassky, 1937; *P. opilionoides*; *P. phalangioides*; *P. ponticus* Thorell, 1875 and *P. velitchkovskyi* Kulczyński, 1913. In adjacent regions 5 more species are known: *P. donensis* Ponomarev, 2005, from Rostov Area of Russia; *P. sidorenkoi* Dunin, 1994, from Samara Area of Russia; *P. sogdianae* Brignoli, 1978, from Kalmykia, Orenburg Area of Russia and Kazakhstan; *P. spasskyi* Brignoli, 1978, and *P. turcicus* Wunderlich, 1980, from Turkey [Brignoli, 1978; Wunderlich, 1980; Dunin, 1994, 1998; Efimik et al., 1997; Ponomarev, 2005]. Most of these species are poorly known, described on specimens of one sex only, and/or known by the type specimen(s) only, and not recorded after the first description. For example, *P. crassipalpis* is known after original descriptions by Spassky [1937, 1940] and was illustrated only once [Spassky, 1940]. Absence of redescriptions and new illustrations of *P. crassipalpis* make these species difficult to be identified.

The aim of this article is to provide a redescription of *P. crassipalpis*, and also to provide data on the distribution and seasonal dynamics of activity adults in Crimea.

Material and Methods

Specimens for this study were recently collected in Crimea. All specimens are deposited in the collection of Zoology Department, V.I. Vernadsky Taurida National University, Simferopol, Ukraine, curator M.M. Kovblyuk.

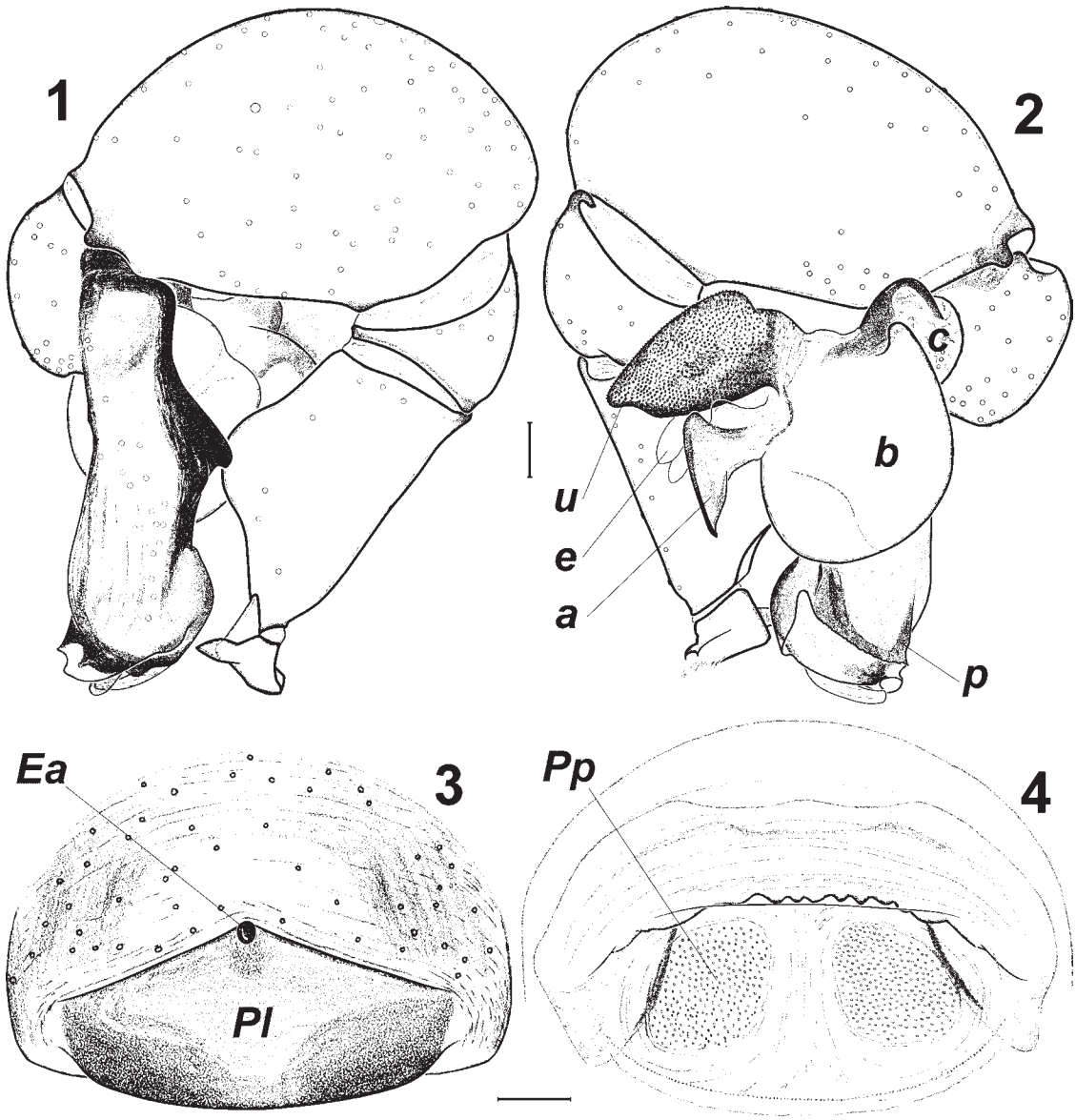
The following abbreviations of morphological terms adobe from Huber [2001] and Zhand & Zhu [2009] and have been used in the text and figures.

Palp: *a* — appendix; *b* — bulb; *c* — connecting piece between bulb and cymbium; *e* — embolus; *u* — uncus; *p* — procursus. Epigyne: *Ea* — epigynal apophysis; *Pl* — plate of epigyne; *Pp* — pore plate.

Illustrations were made using reflecting- and transmitted-light microscopes. Illustrations of epigynes were made after maceration in 20% KOH solution. Segments of legs and palps were measured after their separation from the cephalothorax. All measurements are in mm. All scale bars are equal 0.1 mm.

Pholcus crassipalpis Spassky, 1937
Figs 1–22.

P. c. Spassky, 1937: 134 (♂♀).
P. c.: Spassky, 1940: 359, f. 9–11 (♂♀).
FAUNISTIC RECORDS. Spassky, 1937, 1940; Mikhailov, 1997; Dunin, 1998; Kovblyuk, 2002, 2004; Kovblyuk & Kukushkin,



Figs 1–4. Male palp and epigyne of *Pholcus crassipalpis*: 1 — palp, retrolateral view; 2 — palp, prolateral view; 3 — epigyne, ventral view; 4 — epigyne, dorsal view.

Рис. 1–4. Пальпа самца и эпигина *Pholcus crassipalpis*: 1 — пальпа, ретролатерально; 2 — пальпа, пролатерально; 3 — эпигина, вентрально; 4 — эпигина, дорсально.

2007; Ponomarev & Mikhailov, 2007; Kovblyuk et al., 2008; Ponomarev, 2010, 2011; Ponomarev & Ivliev, 2010.

MATERIAL. UKRAINE. ***Crimea*:** Feodosiya Distr.: 9 ♂♂, 20 ♀♀, Karadag Nature Reserve, 24.04–3.07.2004, M.M. Kovblyuk & O.V. Kukushkin; 2 ♂♂, same place, 3.06.2005, O.V. Kukushkin; 3 ♂♂, 3 ♀♀, same place, 12.05. & 26.09–20.10.2006, O.V. Kukushkin; 7 ♂♂, 10 ♀♀, same place, 22.04–5.07.2007, A.A. Nadolny & O.V. Kukushkin; 19 ♂♂, 37 ♀♀, same place, 14.05–6.06.2008, A.A. Nadolny, M.M. Kovblyuk & O.V. Kukushkin; 2 ♂♂, 2 ♀♀, Echkidag Mt., S slope, 1.06.2008, A.A. Nadolny.

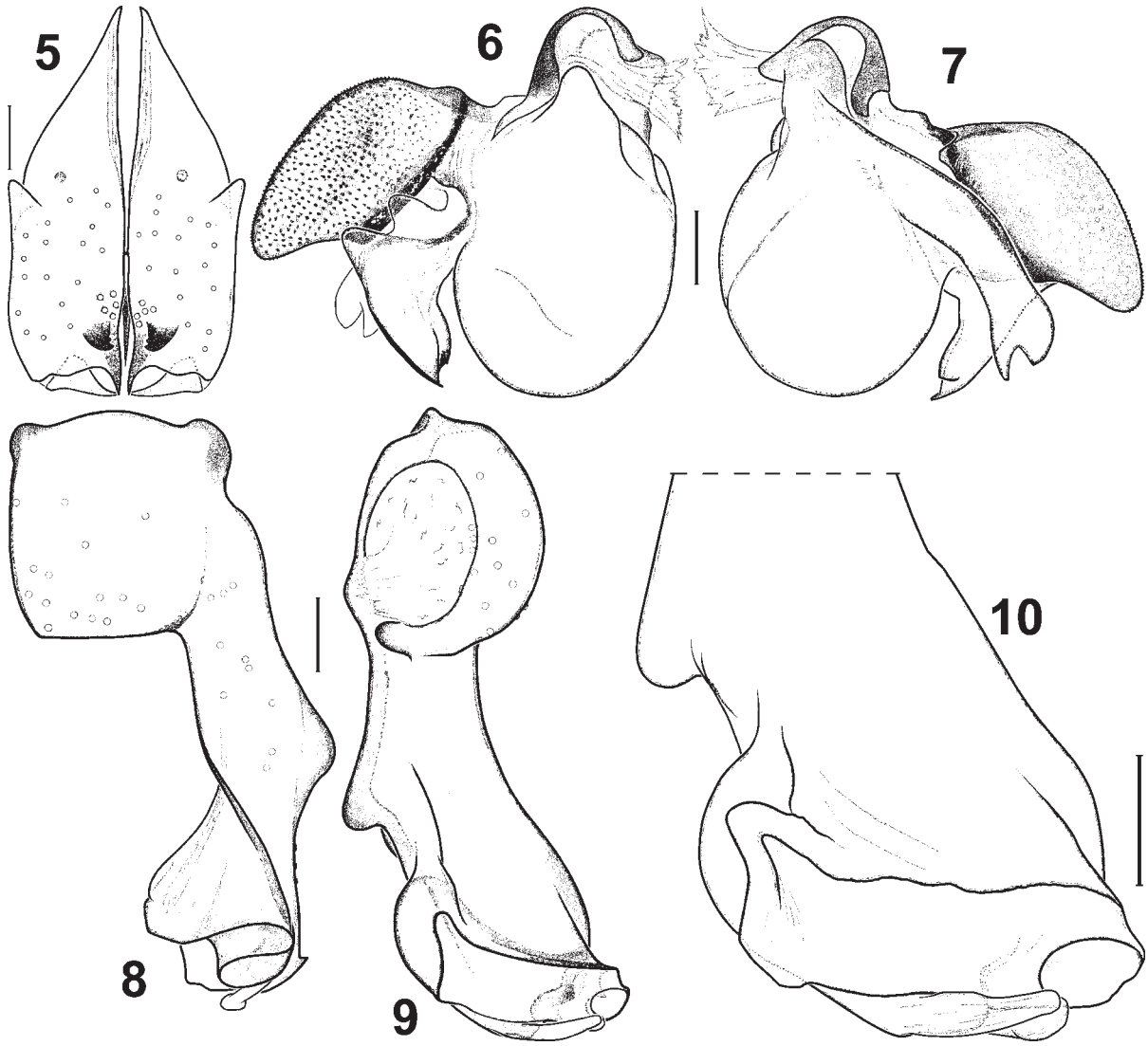
DIAGNOSIS. Differs from other described *Pholcus* species by the shapes of the bulbal apophyses, procursus and epigyne, and by its remarkably small size (carapace length smaller than 1 mm; we are not aware of any *Pholcus* spider being as small as this one).

DESCRIPTION. Male and female. Measurements (male/female): total length 3.0 / 3.4; carapace 0.9 / 1.0 long, 0.9 / 0.9 wide. Length of leg segments (male/female):

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	4.3 / 4.1	0.4 / 0.4	4.5 / 4.2	5.8 / 5.3	1.2 / 1.2
II	3.3 / 3.1	0.4 / 0.4	3.0 / 2.8	4.0 / 3.7	0.9 / 0.8
III	2.7 / 2.5	0.4 / 0.4	2.3 / 2.1	3.0 / 2.7	0.6 / 0.6
IV	3.6 / 3.5	0.4 / 0.4	3.3 / 3.1	3.9 / 3.8	0.8 / 0.8

General appearance: male — Figs 11–12; female — Figs 13–14.

Male palp: Figs 1–2, 6–10, 15–19; epigyne: Figs 3–4, 20–22.



Figs 5–10. Male of *Pholcus crassipalpis*: 5 — chelicerae, frontal view; 6 — bulbus, prolateral-dorsal view; 7 — bulbus, retrolateral-ventral view; 8 — procursus, dorsal view; 9 — procursus, prolateral view; 10 — distal part of procursus, prolateral view.

Рис. 5–10. Самец *Pholcus crassipalpis*: 5 — хелицеры, спереди; 6 — бульбус, пролатерально-дорсально; 7 — бульбус, ретролатерально-вентарльно; 8 — прокурсус, дорсально; 9 — прокурсус, пролатерально; 10 — дистальная часть прокурсуса, пролатерально.

VARIATION. Males (n=5): carapace length 0.9, width 0.9. Females (n=5): carapace length varies from 1.0 to 1.1, carapace width — from 0.9 to 1.0.

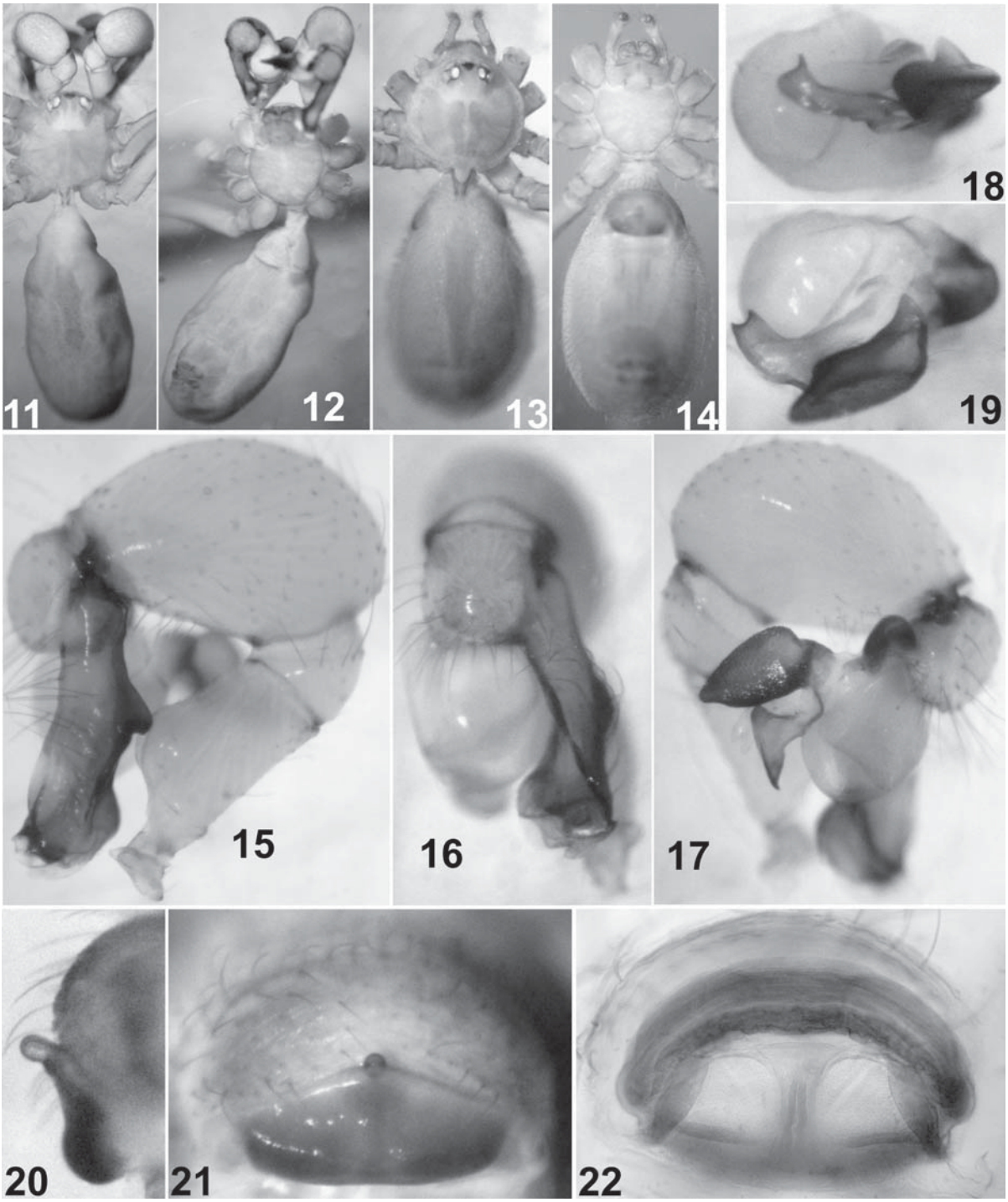
TYPE LOCALITY. Gelendzhik, Krasnodar Area of Russia [Spassky, 1937: 134].

DISTRIBUTION. Ukraine (Kherson, Karadag, Kerch) and Russia (Krasnodar Area: env. Anapa, Gelendzhik, Novorossiysk; Rostov Area: Manych and env. Don River) [Spassky, 1937, 1940; Dunin, 1998; Ponomarev & Mikhailov, 2007; Ponomarev, 2010, 2011; Ponomarev & Ivliev, 2010; present data]. See localities at the Map 1.

HABITATS. In Crimea it was collected under stones in sparse forest with *Pistacia mutica, Quercus pubescens, Juniperus excelsa.* In Rostov area it occurs in clay cliffs. Almost all specimens we collected by hand picking. The species is rare in pitfall traps.

PHENOLOGY. Spiders were collected in the Karadag Nature Reserve through the whole year, but only adult specimens have been accounted. Males were found from April to July and also in October; females were collected from April to July, and in September–October. Most of specimens were collected in May. Seasonal dynamics of adults' activity is shown at the Fig 23.

ACKNOWLEDGMENTS. We sincerely thank A. Senglet (Vich, Switzerland) for the references search, A.V. Ponomarev (Rostov-on-Don) for some useful remarks, and O.V. Kukushkin (Karadag Nature Reserve) for providing us



Figs 11–22. Habitus and copulatory organs of *Pholcus crassipalpis*: 11 — male, dorsal view; 12 — male, ventral view; 13 — female, dorsal view; 14 — female, ventral view; 15 — male palp, retrolateral view; 16 — male palp, dorsal view; 17 — male palp, prolateral view; 18 — bulbus, ventral view; 19 — bulbus, retrolateral-ventral view; 20 — epigyne, lateral view; 21 — epigyne, ventral view; 22 — epigyne, dorsal view.

Рис. 11–22. Габитус и копулятивные органы *Pholcus crassipalpis*: 11 — самец, дорсально; 12 — самец, вентрально; 13 — самка, дорсально; 14 — самка, вентрально; 15 — пальпа самца, ретролатерально; 16 — пальпа самца, дорсально; 17 — пальпа самца, пролатерально; 18 — бульбус, вентрально; 19 — бульбус, ретролатерально-вентрально; 20 — эпигина, латерально; 21 — эпигина, вентрально; 22 — эпигина, дорсально.

Map 1. Map of localities of *Pholcus crassipalpis*.
Карта 1. Места находок *Pholcus crassipalpis*.

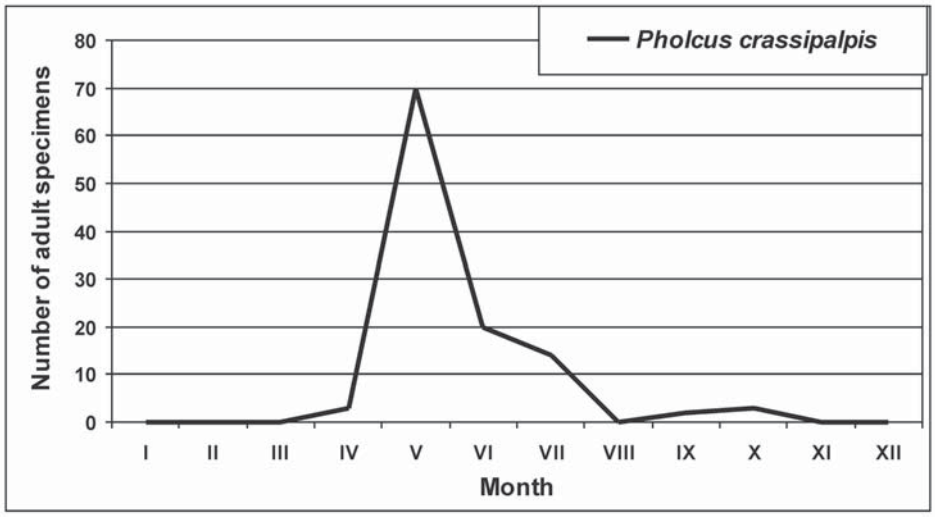


Fig. 23. Phenology of *Pholcus crassipalpis* in the Crimea.
Рис. 23. Фенология *Pholcus crassipalpis* в Крыму по материалам коллекции.

some spiders collected from Crimea. Authors sincerely thank Yu.M. Marusik (Magadan, Russia) for some useful comments and corrections. We thank P.E. Gol'din (Simferopol) for improving English of the earlier draft. English of the final draft was checked by R. Leech (Edmonton, Canada). This work of M.K. was supported in part by the Karadag Nature Reserve.

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Responsible editor Yu.M. Marusik