

## A new species of the genus *Diplocephalus* Bertkau, 1883 (Aranei: Linyphiidae) from the Crimea

### Новый вид пауков рода *Diplocephalus* Bertkau, 1883 (Aranei: Linyphiidae) из Крыма

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КЛЮЧЕВЫЕ СЛОВА: *Diplocephalus pseudocrassilobus* sp.n., Linyphiidae, новый вид, описание.

ABSTRACT. A description and illustrations of the new spider species, *Diplocephalus pseudocrassilobus* sp.n. (Linyphiidae), from the Crimea are presented.

РЕЗЮМЕ. Приводится иллюстрированное описание нового вида пауков, *Diplocephalus pseudocrassilobus* sp.n. (Linyphiidae), из Крыма.

#### Introduction

In the territory of the Ukraine the genus *Diplocephalus* Bertkau, 1883 is represented by nine species: *D. alpinus* (O. Pickard-Cambridge, 1872); *D. connatus* Bertkau, 1889; *D. connectens* Kulczynski, 1894; *D. cristatus* (Blackwall, 1833); *D. dentatus* Tullgren, 1955; *D. helleri* (L. Koch, 1869); *D. latifrons* (O. Pickard-Cambridge, 1863); *D. permixtus* (O. Pickard-Cambridge, 1871); and *D. picinus* (Blackwall, 1841) [Mikhailov, 1997–2000].

However, to date *D. picinus* has been the only *Diplocephalus* registered in the Crimean peninsula, despite the rather comprehensive arachnological studies undertaken in the region [Kovbljuk, 2003]. The species diversity of *Diplocephalus* in the Crimea seems to be significantly lower even in comparison with the adjacent territories of the Caucasus, from which four *Diplocephalus* species have been recorded: *D. caucasicus* Tanasevitch, 1987; *D. latifrons*; *D. picinus*; and *D. trancaucasicus* Tanasevitch, 1990 [Tanasevitch, 1990].

A new *Diplocephalus* species has been found in the Crimea, and it is described below.

Abbreviations for the names of the separate palpal structures were adopted from Hormiga [2000]: Arp — anterior radical process, Dsa — distal suprategular apophysis, E — embolus, i — ventral tooth of the process of the radical part, P — paracymbium, Pt — protegulum, Pta — pedipalpal tibial apophysis, R — radix,

Spt — suprategulum, St — subtegulum, T — tegulum, Trp — radical tailpiece. Other abbreviations are: Fe — femur, Pti — palpal tibia, Ti — tibia. All measurements are in mm.

#### *Diplocephalus pseudocrassilobus* sp.n.

Figs 1–2.

MATERIAL. Holotype ♂ (Zoology department of the Sumy Teachers' Training University), Ukraine, the Crimea, Alushta distr., South macroslope of the Demerdji mountain massif, the bottom of Djurla river ravine, in grass nearby water, 18.04.02, V.A. Gnelitsa. Paratypes: 2 ♀♀, 2 ♂♂ (Zoology department of the Sumy Teachers' Training University), the same locality, local plateau, meadow, in grass close to a water spring, 16.04.02, V.A. Gnelitsa.

DIAGNOSIS. Morphologically, the three species, viz. *Diplocephalus pseudocrassilobus* sp.n., *D. crassilobus* (Simon, 1884) (palp Fig. 3a, b) and *D. hungaricus* Kulczynski, 1915 (palp Fig. 3c, d, e), are very close to each other. The last two (*D. crassilobus* and *D. hungaricus*) are so similar in their palpal conformation, epigyne and vulva that Millidge [1979] supposed that “both of them belong to the same species”. Nevertheless, in Platnick's catalogue [2004] these two species are listed separately.

The male of the new species clearly differs from both *D. hungaricus* and *D. crassilobus* by the shape and size of the distal piece of the anterior radical process (Arp), by the shape of its ventral tooth (i; a sharply pointed ventral tooth in *D. hungaricus* and *D. crassilobus*), by the shape of the distal suprategular apophysis (Dsa, two branches of which are subequal in *D. hungaricus* and *D. crassilobus* and differ in length in *D. pseudocrassilobus* sp.n.), and by the shape of the carapace, particularly the anterior part of the cephalic region. The epigyne and especially the vulva of *D. pseudocrassilobus* sp.n. are easily recognizable from both related species (Fig. 1e, f).

DESCRIPTION. MALE. Total length 1.74. Carapace (Fig. 2a, b) 0.91 long, 0.70 wide, yellow-brown. Sternum 0.53 long, 0.50 wide, yellow-grey, gradually darkening towards its margins. Posterior median eyes are separated

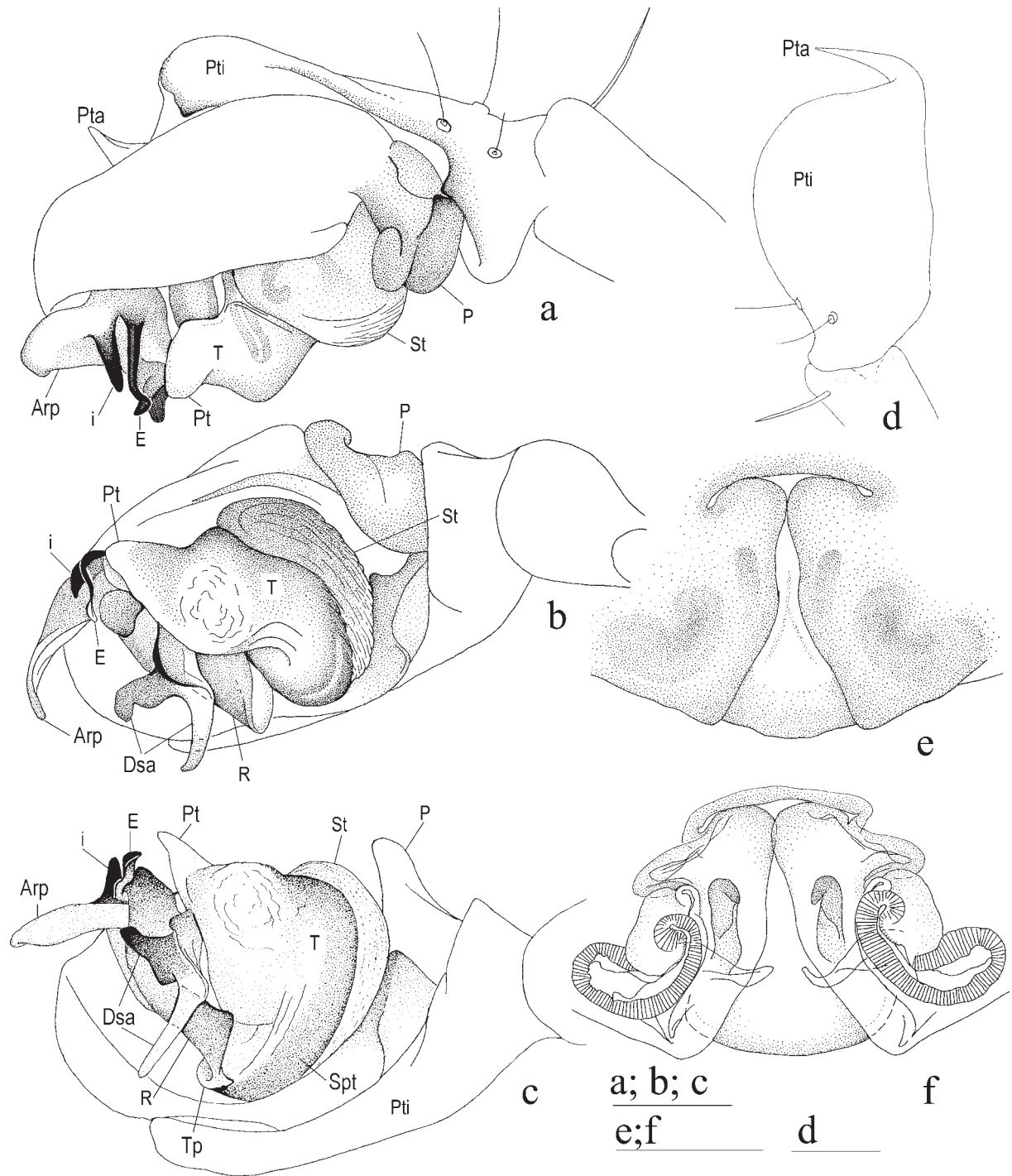


Fig.1. *Diplocephalus pseudocrassilobus* sp.n.: a-c — male palp, lateral, ventral and median views; d — palpal tibia, dorsal view; e — epigyne, ventral view; f — vulva. Scale 0.1 mm.

Рис.1. *Diplocephalus pseudocrassilobus* sp.n.: а-с — палпы ♂, вид сбоку, вентрально и медиально; d — бедро пальпы, дорзально; e — эпитина, вид снизу; f — вульва. Масштаб 0,1 мм.

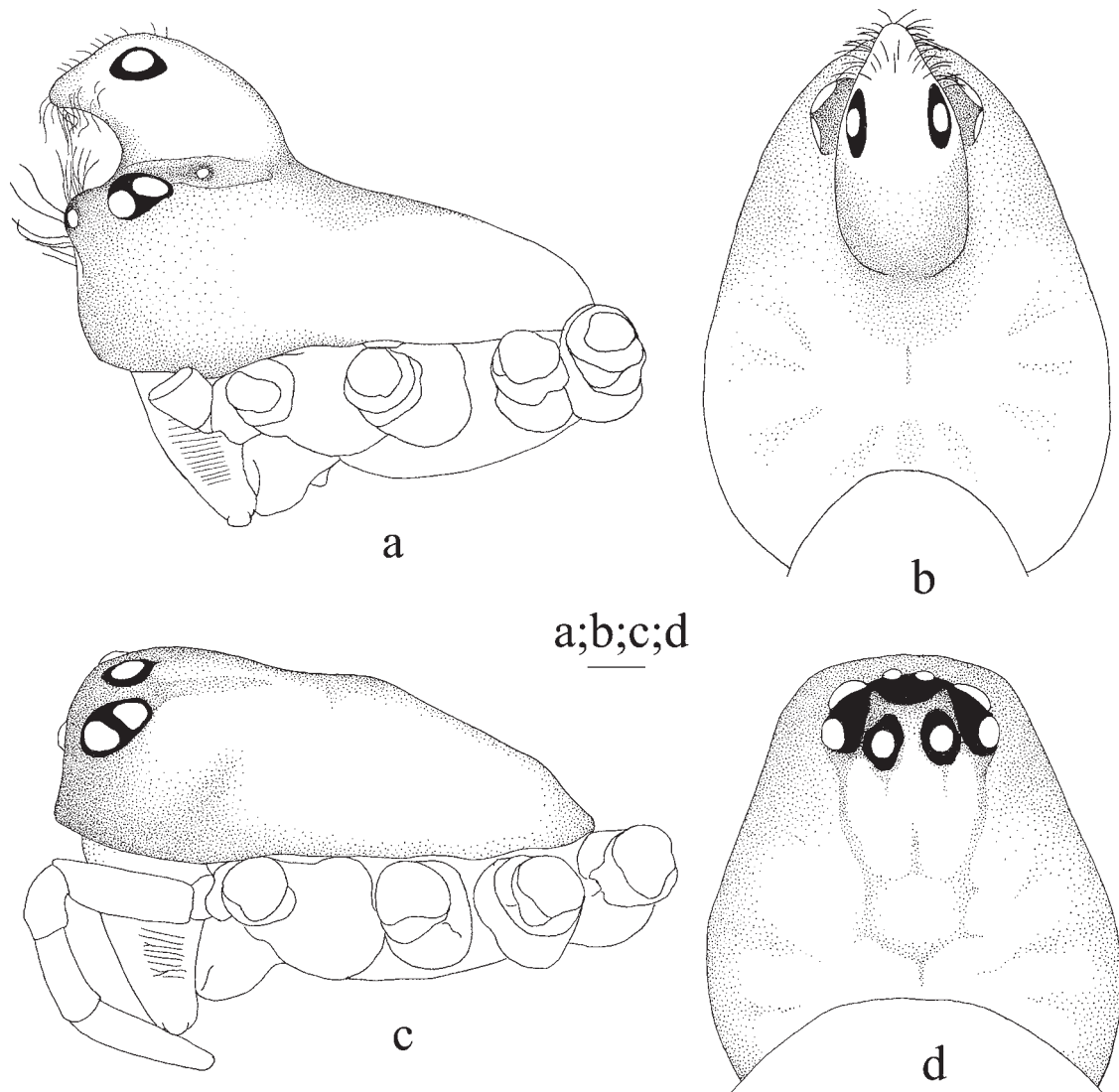


Fig. 2. *Diplocephalus pseudocrassilobus* sp.n.: a–b — male carapace, lateral and dorsal views; c–d — female carapace, lateral and dorsal views. Scale 0.1 mm.

Рис. 2. *Diplocephalus pseudocrassilobus* sp.n.: a–b — карапакс ♂, вид сверху и вид сбоку; c–d — карапакс ♀, вид сверху и вид сбоку. Масштаб 0,1 мм.

by less than their diameter. Promargins of chelicerae with 5 separated teeth, with a sixth tooth further apart from the others. Legs brownish yellow; tibial spination 2:2:1:1, TiI spines short, thin, poorly visible, TiII spines slightly longer but also poorly visible, TiIII and TiIV spines distinctly visible. Position of the metatarsal trichobothrium: I — 0.47, II — 0.48, III — 0.41. Length of leg segments:

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	0.74	0.24	0.64	0.62	0.42
II	0.66	0.22	0.56	0.55	0.36
III	0.56	0.21	0.46	0.48	0.32
IV	0.73	0.21	0.70	0.62	0.36

Palp — Fig. 1 (a–c), palpal tibia — Fig. 1d. Abdomen: uniformly dark grey.

FEMALE. Total length 2.23. Carapace (Fig. 2c, d) 0.92 long, 0.71 wide, yellow-brown. Sternum 0.55 long, 0.52 wide, brown. Posterior median eyes are separated by more than their diameter. Promargins of chelicerae with 6 teeth. Legs brownish yellow, tibial spinal formula as in male. Position of the metatarsal trichobothrium: I — 0.55, II — 0.49, III — 0.47. Length of leg segments:

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	0.73	0.25	0.63	0.59	0.38
II	0.67	0.25	0.55	0.52	0.34
III	0.59	0.22	0.48	0.46	0.31
IV	0.78	0.24	0.71	0.60	0.34

Abdomen: uniformly dark grey. Epigyne and vulva as in Fig. 1e, f.

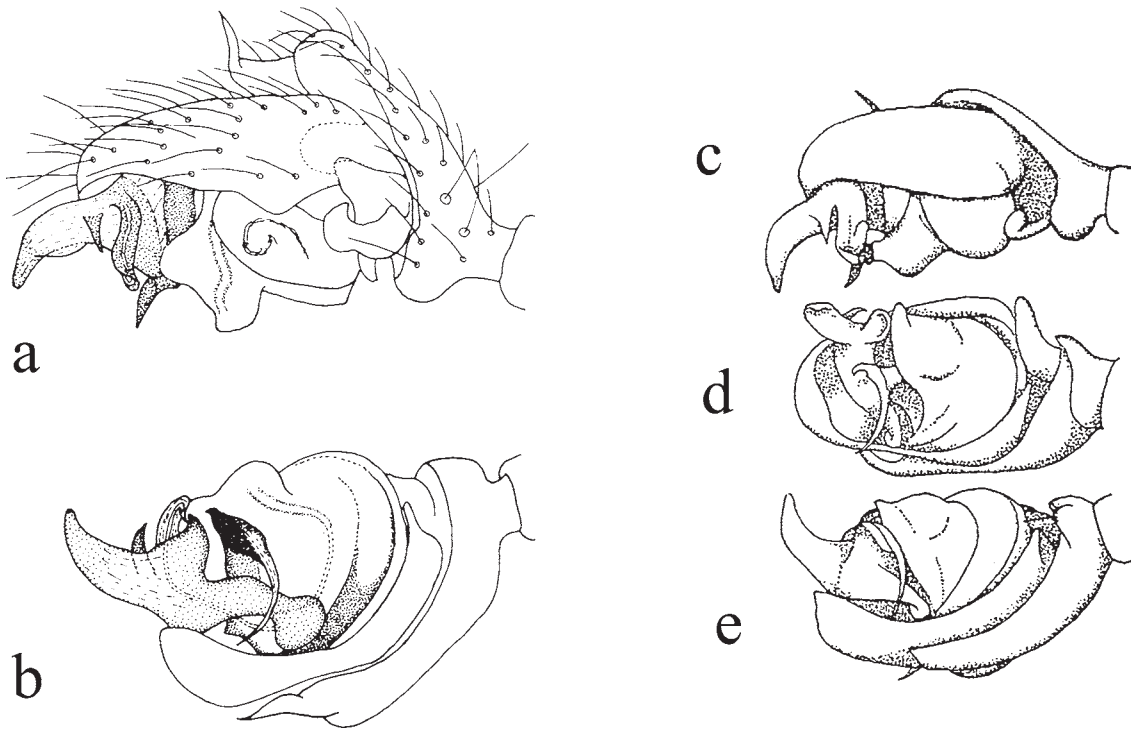


Fig. 3. *Diplocephalus* spp.: a–b — *D. crassilobus* (from Millidge, 1979), male palp, lateral and median views; c–e — *D. hungaricus* (from Kulczyński, 1915), male palp, lateral, ventral and median views.

Рис. 3. *Diplocephalus* spp.: a–b — *D. crassilobus* (из Millidge, 1979), палепа ♂, вид сбоку и медиально; c–e — *D. hungaricus* (из Kulczyński, 1915), палепа ♂, вид сбоку, вентрально и медиально.

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