

## NEW DATA ON THE SPIDERS OF THE FAMILY DICTYNIDAE (ARANEAE) FROM SIBERIA

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### Abstract

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Four species of dictynid spiders are described from South Siberia: *Dictyna paramajor* sp.nov. (Krasnoyarsk Prov.), *Dictyna dunini* sp.nov. (Buryatia), *Dictyna dahurica* sp.nov. (Chita Area), *Dictyna shilenkovi* sp.nov. (Irkutsk Area, Buryatia). The female of *Emblyna mongolica* MARUSIK ET KOPONEN, 1998 is described for the first time. New records are presented for *Argenna prominula* TULLGREN, 1948, *Dictyna alaskae* CHAMBERLIN ET IVIE, 1947, *Dictyna schmidti* sensu LETHINEN, 1967 and *Dictyna absunurica* MARUSIK ET KOPONEN, 1998. *Emblyna logunovi* MARUSIK ET KOPONEN, 1998 is synonymised with *Emblyna wangi* (SONG ET ZHOU, 1986) comb.nov. (ex. *Dictyna*).

### Introduction

The spider family Dictynidae is still insufficiently studied in Siberia. Just a few papers are devoted to this family in the region (MARUSIK, 1988; DANILOV, 1994; MARUSIK, KOPONEN, 1998). Up to now 28 species of Dictynidae are known in Siberia (MIKHAILOV, 1997; MARUSIK, KOPONEN, 1998), 12 of them are described from this region.

In this paper, four new species are described and new records and synonym of other species of Dictynidae from South Siberia are presented. Material was collected by the author and several other researchers. It is deposited in the Institute of General and Experimental Biology, Ulan-Ude, Russia (IGEB) and Zoological Museum of Moscow State University, Russia (ZMMU). All measurements are in millimetres.

***Argenna prominula* TULLGREN, 1948 (Figs 1, 2)**

**Material:** 3 ♂♂ (IGEB): Buryatia, Kurumkansky Distr., Balan-Tamur Lake, larch forest, 1200 m, 16 July 1995, S. Danilov; 18 ♂♂ (IGEB): Chita Area, Kyrynsky Distr., Sokhoninsky Reserve, Verkhny Bukukun locality, larch forest, 1600 m, 21 July 1990, S. Danilov.

**Distribution:** Holarctic range.

***Dictyna alaskae* CHAMBERLIN ET IVIE, 1947 (Figs 3, 4)**

**Material:** 1 ♂ (IGEB): Irkutsk Area, Slyudyansky Distr., Baikalsk, birch forest, 14 July 1983, S. Didorenko.

**Distribution:** Holarctic range. In South Siberia, the species has been known in Tuva only (LOGUNOV et al., 1998).

***Dictyna dahurica* sp.nov. (Figs 5, 6)**

**Type locality:** Russia, Chita Area, Duldurginsky Distr., Toktchin Vill., steppe.

**Type material:** Holotype. 1 ♀ (ZMMU): Chita Area, Duldurginsky Distr., Toktchin Vill., steppe, 16 July 1997, Ts. Daminova.

**Description:** Female. Carapace 1.1 long, 0.8 wide, light brown. Abdomen 2.2 long, 1.5 wide, with typical pattern for 'major' group. Legs light brown. Epigyne as in Figs 5 and 6. Male unknown.

**Distribution:** Chita Area (Russia).

**Etymology:** The species is named after the traditional name of the southern part of the Chita Area «Dahuria».

**Diagnosis:** *D. dahurica* sp. nov. differs from the all known Palearctic *Dictyna* species by the internal structure of its epigyne (Fig. 6), it has narrow receptacula without any widening.

***Dictyna dunini* sp.nov. (Figs 7, 8)**

**Type locality:** Russia, Buryatia, environs of Ulan-Ude, grassland.

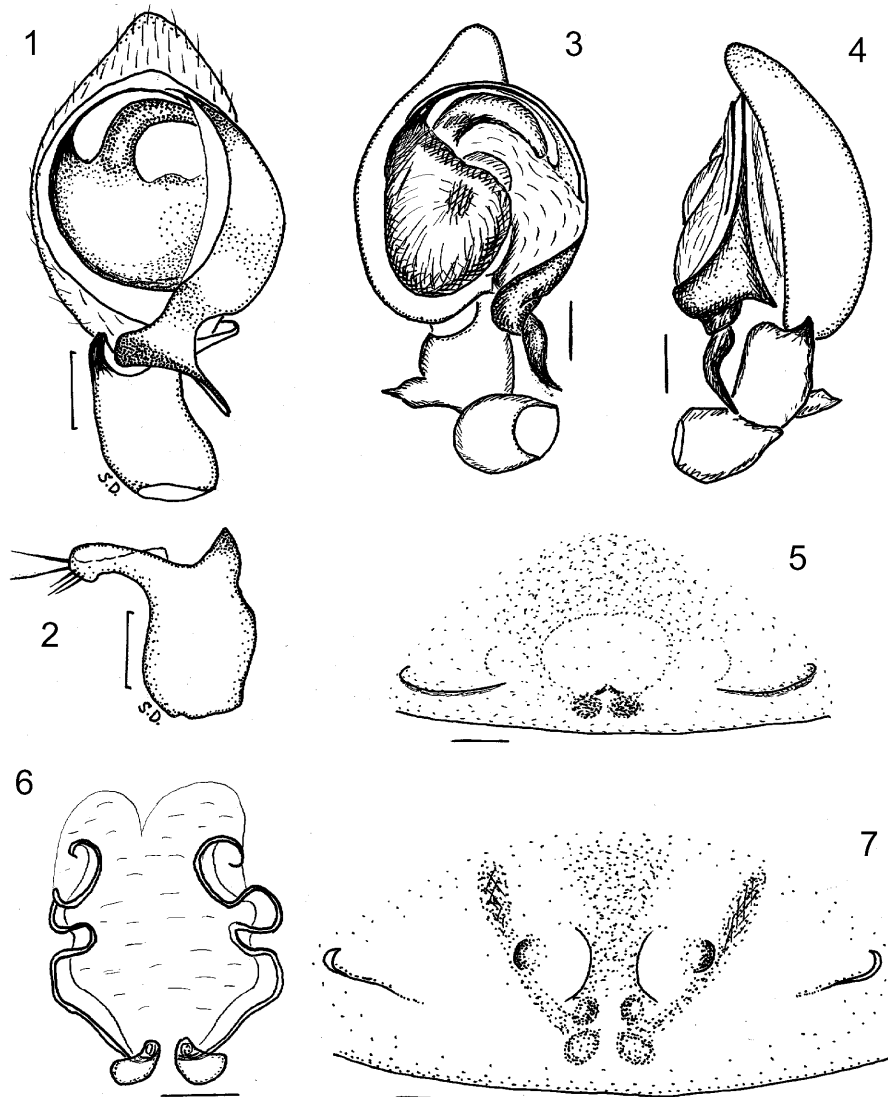
**Type material:** Holotype. 1 ♀ (ZMMU): Buryatia, environs of Ulan-Ude, grassland, 12 June 1996, S. Rudykh. Paratypes. 1 ♀ (IGEB), Irkutsk Area, Slyudyansky Distr., Baikalsk, birch forest, 14 June 1983, S. Didorenko; 1 ♀+(ZMMU), Buryatia, environs of Ulan-Ude, mixed forest, 11 October 1995, S. Rudykh; 1 ♀ (IGEB), Buryatia, Kurumkansky Distr., Dzherginsky Reserve, Dzhirga locality, mixed forest, 17 June 1995, S. Danilov.

**Description:** Female. Carapace 0.85-1.05 long, 0.7-0.8 wide. Abdomen 1.4-1.75 long, 0.9-1.2 wide. Abdomen light grey, anterior part of half of abdomen with an oblong dark stripe. Epigyne as in Figs 7-8.

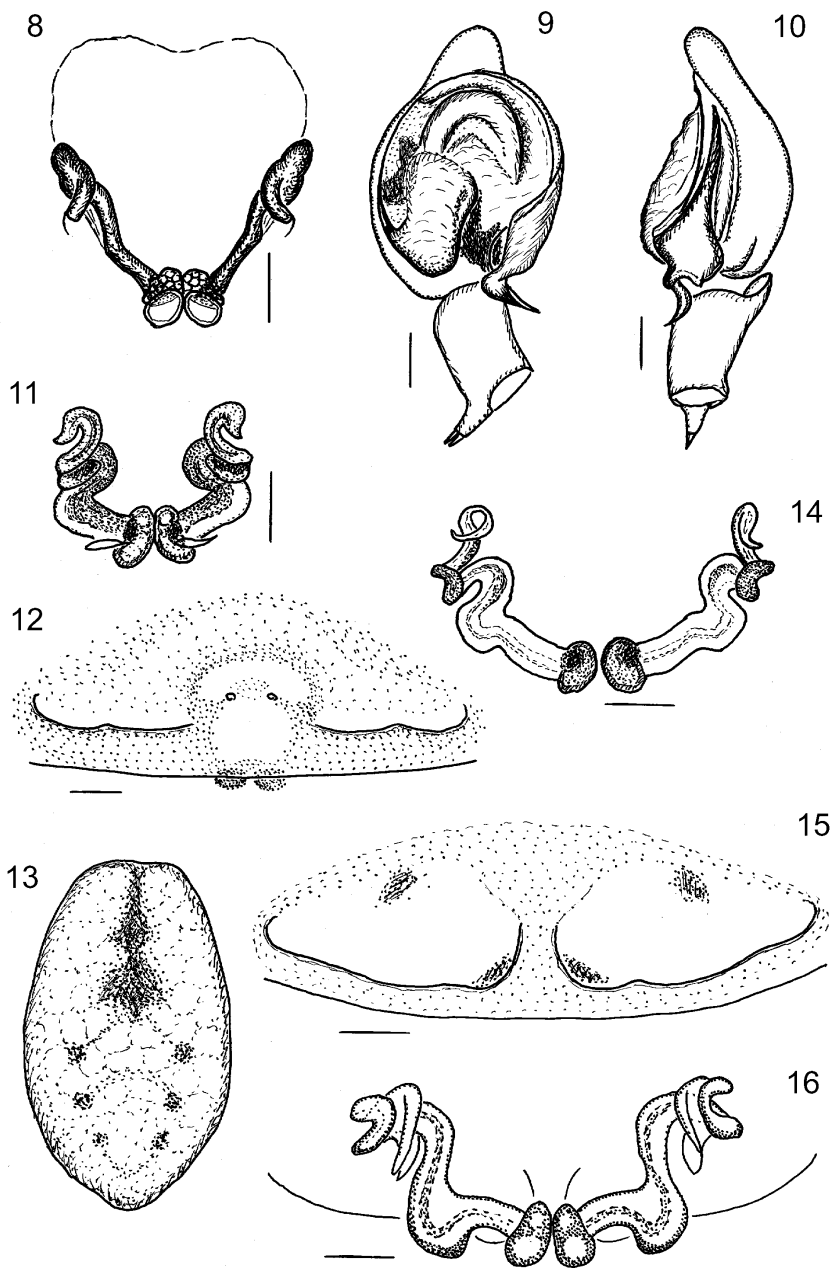
**Distribution:** Irkutsk Area, Buryatia (Russia).

**Etymology:** The new species is named after the Russian arachnologist Pyotr Dunin.

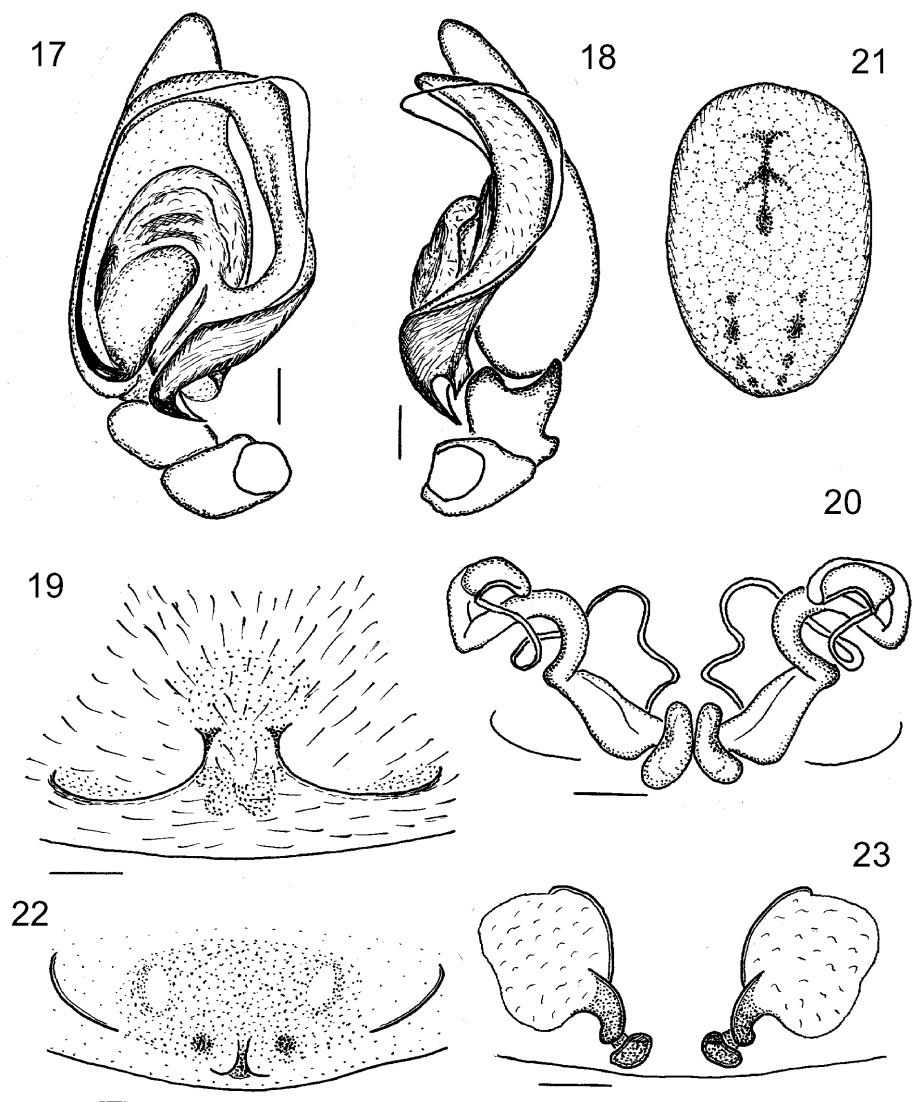
**Diagnosis:** The species is close, judging by the internal structure of its epigyne, to *D. uvs* MARUSIK ET KOPONEN, 1998, but differs by the shape and sclerotisation of its epigyne openings.



Figs 1-7. 1-2 *Argenna prominula* TULLGREN: (1) male palp, ventral view, (2) tibia of male palp, dorsal view; 3-4 *Dictyna alaskae* CHAMBERLIN ET IVIE: male palp, ventral (3) and lateral (4) view; 5-6 *Dictyna dahurica* sp.nov.: epigyne, ventral (5) and dorsal (6) view; 7 *Dictyna dunini* sp.nov.: epigyne, ventral view. Scale lines=0.1 mm.



Figs 8-16. 8 *Dictyna dunini* sp.nov.: epigyne, dorsal view; 9-13 *Dictyna paramajor* sp.nov.: male palp, ventral (9) and lateral (10) view, epigyne, dorsal (11) and ventral (12) view, (13) male abdomen, dorsal view; 14 *Dictyna major* MENGE: epigyne, dorsal view; 15-16 *Dictyna schmidtii* sensu LETHINEN: epigyne, ventral (15) and dorsal (16) view. Scale lines=0.1 mm.



Figs 17-23. 17-20 *Dictyna shilenkovi* sp.nov: male palp, ventral (17) and lateral (18) view, epigyne, ventral (19) and dorsal (20) view; 21-23 *Emblyna mongolica* MARUSIK ET KOPONEN: (21) female abdomen, dorsal view, epigyne, ventral (22) and dorsal (23) view. Scale lines=0.1 mm.

### ***Dictyna paramajor* sp.nov. (Figs 9-13)**

**Type locality:** Russia, Krasnoyarsk Prov., Ermakovsky Distr., Kulumys Ridge, larch forest.

**Type material:** Holotype. 1 ♀ (ZMMU): Krasnoyarsk Prov., Ermakovsky Distr., Kulumys Ridge, larch forest, 18 July 1985, coll. ?. Paratypes. 1 ♂, 1 ♀ (ZMMU): same data as holotype.

**Comparative material:** *Dictyna major* MENGE, 1869, 1 ♀ (IGEB): Buryatia, Ulan-Ude, 12 July 1984, S. Danilov.

**Description:** Female. Carapace 1.4 long, 1.0 wide, dark brown. Abdomen 2.75 long, 2.25 wide, grey with pattern as in Fig. 13. Legs uniformly yellow. Epigyne as in Figs 11-12. Male. Carapace 1.3 long, 0.85 wide. Abdomen 1.55 long, 1.05 wide. Male coloured as female. Palp as in Figs 9-10.

**Distribution:** Krasnoyarsk Prov. (Russia).

**Etymology:** The species name means very close similarity to *D. major* MENGE.

**Diagnosis:** The new species, judging by the general appearance and structure of the palp and epigyne is quite similar to *D. major* (Fig. 14). *D. paramajor* sp. nov. can be separated by its smaller size, the internal structure of epigyne (Fig. 11) and more proximal direction of the apex of the conductor (Figs 9-10).

### ***Dictyna schmidti* sensu LEHTINEN, 1967 ( Figs 15-16)**

**Material examined:** 1 ♀ (IGEB) Krasnoyarsk Prov., Ermakovsky Distr., Kulumys Ridge, larch forest, coll. ?; 1 ♀ (IGEB), Buryatia, Kurumkansky Distr., Kovyli River, dwarf birch overgrowth, 6 July 1996, V. Buyantuev.

**Distribution:** Transpalaeartic boreal range.

### ***Dictyna shilenkovi* sp.nov. (Figs 17-20)**

Type locality: Russia, Irkutsk Area, Baikalsk, mixed forest.

Type material: Holotype. 1 ♂ (ZMMU): Irkutsk Area, Baikalsk, mixed forest, 22 June 1977, V. Shilenkov. Paratypes. 2 ♀♀ (ZMMU): same data as holotype; 2 ♀♀ (IGEB): same locality, 25 June 1980, S. Danilov; 1 ♀ (IGEB): Buryatia, 30 km W of Ulan-Ude, mixed forest, 18 July 1992, S. Danilov; 1 ♀ (IGEB): Buryatia, Kabansky Distr., Boyarsk, grassland, 25 July 1993, S. Danilov; 1 ♀ (IGEB): Buryatia, environs of Ulan-Ude, Utochkina Pad', birch and willow overgrowth, 2 June 1994, S. Danilov; 1 ♀ (IGEB): Buryatia, Kurumkansky Distr., Umkhei, mixed forest, 31 May 1997, S. Danilov.

**Description:** Male. Carapace 1.25 long, 1.0 wide, dark brown. Abdomen 1.35, 1.1 wide, light yellow with pattern: grey median band in frontal part and 4 separated bands. Legs yellow. Palp as in Figs 17-18. Female. Carapace 1.4-1.8 long, 1.3-1.4 wide. Abdomen 2.25-3.05 long, 1.55-2.3 wide. Coloration and abdomen pattern as in male. Epigyne as in Figs 19-20.

**Distribution:** Irkutsk Area, Buryatia (Russia).

**Etymology:** The new species is named after Viktor G. Shilenkov, an entomologist at Irkutsk University and collector of the type material.

**Diagnosis:** The structure of the male palp and epigyne demonstrate that this new species belongs to the '*major*' group, but from it can be distinguished the very similar *D. schmidti*

sensu LEHTINEN by the shape of the conductor (Figs 17-18), as well as by the structure of the epigyne (Fig. 20).

### ***Dictyna absunurica* MARUSIK ET KOPONEN, 1998**

**Material examined:** 2 ♀♀ (IGEB): Buryatia, Zaigrayevsky Distr., Bryanka River, willow overgrowth, 21 June 1993, S. Danilov; 1 ♂ (IGEB): same locality, 9 July 1995, S. Danilov.

**Distribution:** Tuva, Buryatia (Russia).

### ***Emblyna mongolica* MARUSIK ET KOPONEN, 1998 (Figs 21-23)**

*Emblyna mongolica* MARUSIK ET KOPONEN, 1998: 80, figs 6-9.

**Material examined:** 1 ♀ (IGEB): Buryatia, Ivolginsky Distr., Topkhar locality, steppe, 19 May 1998, S. Rudykh; 1 ♀ (IGEB): Chita Area, Ononsky Distr., Kubukhay Vill., pine forest, 26 June 1984, S. Danilov; 2 ♂♂, 4 ♀♀ (IGEB): Chita Area, Ononsky Distr., Dahurian Reserve, Zun-Torei Lake, Ostoshi locality, steppe, 29 May–5 June 1999, S. Danilov.

**Description:** Female. Carapace 0.8 long, 0.75 wide, dark brown. Abdomen 2.0 long, 1.45 wide, light grey with pattern as in Fig. 21. Epigyne as in Figs 22-23. Legs yellow with dark rings on apical parts of the segments, femora and tibia with rings on the middle parts. Male. See MARUSIK, KOPONEN (1998).

**Distribution:** Tuva, Buryatia and Chita Area (Russia) and Mongolia.

**Diagnosis:** *E. mongolica* most close to *E. wangi* (SONG ET ZHOU, 1986). Epigynes of these species differ considerably in the form of the receptaculum; *E. mongolica* has a semicircular but *E. wangi* an oblong and curved receptaculum.

**Remark:** Only the male of *E. mongolica* has been known from the Tuva and Chita Area (Russia) and from Mongolia (MARUSIK, KOPONEN, 1998).

### ***Emblyna wangi* (SONG ET ZHOU, 1986) comb.nov.**

*Dictyna wangi* SONG ET ZHOU, 1986: 261, figs 1-4.

*Emblyna logunovi* MARUSIK ET KOPONEN, 1998: 83, figs 12-17, syn.nov.

**Distribution:** Russia (Tuva), Mongolia, China (Xinjiang Uygur Autonomous Region).

**Remark:** MARUSIK, KOPONEN (1998) have described *E. logunovi* from Tuva (Russia), but comparison of its figures with those of *D. wangi* described by SONG, ZHOU (1986) from China undoubtedly shows their conspecificity. Thus, *E. logunovi* is a junior synonym of *D. wangi*, but the latter name must be transferred to genus *Emblyna*.

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