

Genus	Vol. 23(3): 441-448	Wrocław, 15 X 2012
-------	---------------------	--------------------

Salticidae from the Himalayas. The genus *Dexippus* THORELL, 1891 (Araneae: Salticidae)*

PIOTR JASTRZĘBSKI

Katedra Zoologii, Uniwersytet Przyrodniczo-Humanistyczny, Prusa 12, 08-110 Siedlce, Poland, e-mail: pjast@uph.edu.pl

ABSTRACT. One new species of the jumping spider genus *Dexippus* THORELL, 1891: *D. krystynae* sp. n. is described, diagnosed and illustrated from Nepal. *D. topali* PRÓSZYŃSKI, 1992 is reported for the first time from the Himalayas. A check-list of species of *Dexippus* is given.

Key words: arachnology, taxonomy, *Dexippus*, new species, jumping spiders, Salticidae, Nepal, Bhutan, Himalaya.

INTRODUCTION

The genus *Dexippus* was established by THORELL, 1891. The type species of this genus is *D. kleini* THORELL, 1891. At present the genus includes three nominal, well documented species, listed below (PLATNICK 2012, PRÓSZYŃSKI 1992, 2011, PENG & LI 2002), excluding the new species described in this paper. The genus is also recorded from the Himalaya region with *D. topali* PRÓSZYŃSKI, 1992 - India, West Bengal, Darjeeling Distr., 1200 m a.s.l. (PRÓSZYŃSKI 1992).

Alphabetical list of species of the genus *Dexippus* THORELL, 1891:

D. kleini THORELL, 1891: Sumatra,
D. krystynae sp. n.: Nepal (here),
D. taiwanensis PENG & LI, 2002: Taiwan,
D. topali PRÓSZYŃSKI, 1992: India (West Bengal) (PRÓSZYŃSKI 1992), Bhutan, Nepal (here).

*Results of the Himalaya Expeditions of J. Martens, No. 277 - For No. 276, see: J. Ornithology 153, 2012.

MATERIAL AND METHODS

Material for this study was provided by Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt a. M. (the collection of Prof. J. MARTENS, Mainz) (SMF) and Naturhistorisches Museum, Basel (the collection made by Dr W. WITTMER, Dr O. STEMMER, Dr C. BARONI-URBANI, Dr M. WÜRMLI) (NHMB).

The drawings were made using a grid system. Descriptions of colours pertain to wet specimens. Dissected epigynes were macerated in 10% KOH for 24 hrs. The photographs were made by means of Canon PowerShot A620 attached to a stereomicroscope Nikon SMZ800. Further adjustments of the images were made with Helicon Focus. The format of leg spination follows PLATNICK & SHADAB (1975). All measurements are in mm.

Abbreviations used: AEW - anterior eye width, AL - abdomen length, ALE - anterior lateral eyes, CL - cephalothorax length, CW - cephalothorax width, EFL - eye field length, m a.s.l. - meters above sea level, PEW - posterior eye width, PLE - posterior lateral eyes, PME - posterior medium eyes, mI - metatarsus of first legs, mII - metatarsus of second legs, tI - tibia of first legs, tII - tibia of second legs.

***Dexippus* THORELL, 1891**

Dexippus THORELL, 1891: 112.

DIAGNOSIS

Medium spiders. Cephalothorax high. Eye field quadrangle, occupied about 1/3 length of cephalothorax. PME small, in the midway between PLE and ALE, or closer PLE. Clypeus low. Abdomen elongated or oval. Spinnerets long. Legs of average length; formula: 1, 4, 3, 2, first - robust. Embolus more or less bent, runs parallel to the anterior border of the bulbus. Bulbus oval. Tibial apophysis elongated, apically bifurcated. Epigynum oval-shaped with strongly sclerotised surroundings of copulatory openings; the ones situated in its central part. Insemination ducts short. Spermathecae pear-like. Accessory glands close to copulatory openings, elongated.

RELATIONSHIPS

The taxonomic position of the genus *Dexippus* is uncertain. THORELL (1891) pointed out that the genus *Dexippus* is similar to genera *Marptusa* (currently *Marpissa* C.L. KOCH, 1846), *Acompse* (currently *Bavia* SIMON, 1877), *Tapinattus* (currently *Mene-merus* SIMON, 1868) and *Bavia*. Later, SIMON (1901) has already placed *Dexippus* into the group Marpisseae as *incertae sedis*. Subsequently PETRUNKEVITCH (1928) put it into sub-family Marpissinae without the *incertae sedis* status. PRÓSZYŃSKI (1976), basing on the genital characters, located the genus *Dexippus* into subfamily Heliophaninae, which seems to be most accurate.

***Dexippus krystynae* sp. n.**

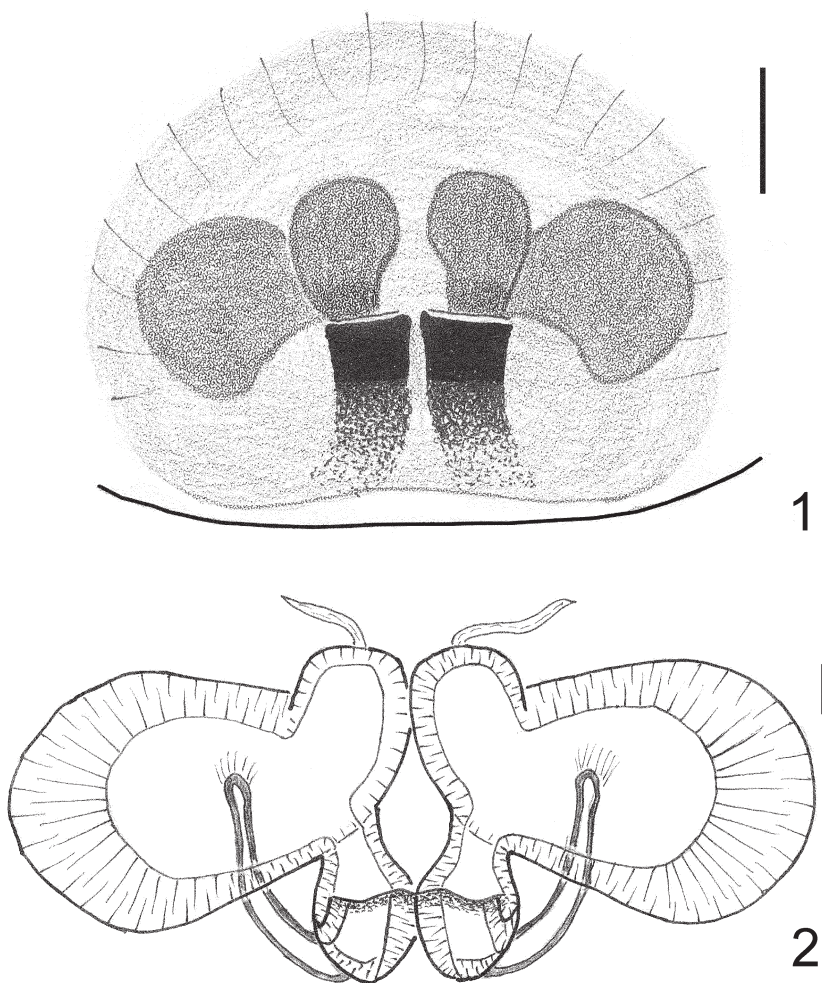
(Figs 1-2, 5-7)

ETYMOLOGY

Named after my mother, whose first name is Krystyna.

DIAGNOSIS

This new species can be distinguished by U-shaped insemination ducts (in *D. topali* almost straight) and a lack of flat posterior bell shaped structure covering copulatory opening.

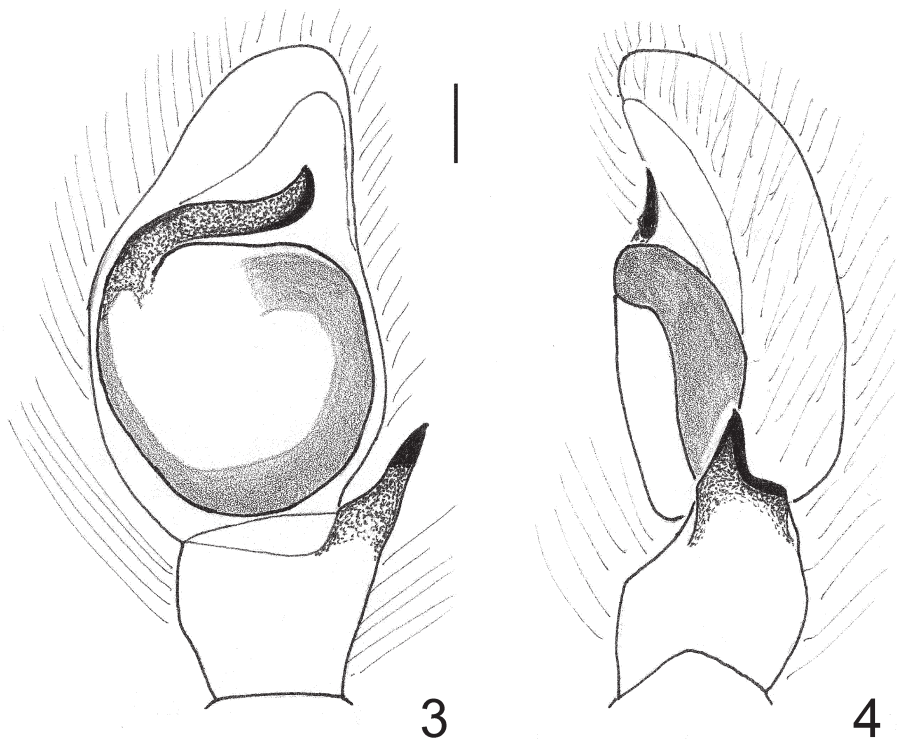


1-2. *Dexippus krystynae* sp. n.: 1. epigynum, ventral view; 2. internal genitalia, ventral view. Scale 0.2 mm

Description

Male unknown.

Female. Surroundings of eyes dark brown with black posterior area. Eye field brown. The rest of cephalothorax dark brown. On the thoracic part V-shaped a light brown pattern present. Abdomen grey, with fawn-coloured dots forming diagonal belts. In the distal part of abdomen herring-bone, fawn-coloured pattern (Fig. 5). Spinnerets light grey. Clypeus brown with row of dense white hairs. Chelicerae brown. Maxillae and labium brown, its tips white (Fig. 6). Sternum yellow. Venter grey with pale dots. Palps light brown (Fig 6). Epigynum oval (Figs 1, 7). Surroundings of copulatory openings strongly sclerotised, the ones placed in central part of epigynum. Insemination ducts wide, short, U-shaped. Spermathecae pear-shaped, its walls thick (Fig. 2). Accessory glands elongated, very distinct. Legs: I - brown; remaining - light brown; all - with dirty borders and brown bristles. Scopula absent. Spines formula: tI: p1-1-1 r1-1-1; mI: p1-1 r1-1-1; tII: p1-1-1 r1-1-1; mII: p1-1 r1-1. Measurements: CL 2.44, CW 1.80, EFL 0.80, AEW 1.68, PEW 1.44, AL 2.80.



3-4. *D. topali* PRÓSZYŃSKI, 1992: 3. palpal organ, ventral view; 4. the same, lateral view. Scales: 0.2 mm



5, 6. *Dexippus krystynae* sp. n.: 5 – dorsal view; 6 – chelicerae, endites and palps



7. *Dexippus krystynae* sp. n., epigynum; 8. *Dexippus topali* PRÓSZYŃSKI, 1992: 8 – dorsal view

MATERIAL

Holotype, female, Nepal: Taplejung Distr., Kabeli Khola, Yamputin, Kulturland/Mischwald/*Bambus*, 1650-1800 m, 3.-4.09.1983, coll. MARTENS & DAAMS (SMF). Paratype: 1 female, same data.

***Dexippus topali* PRÓSZYŃSKI, 1992**

(Figs 3-4, 8-9)

Dexippus topali PRÓSZYŃSKI, 1992: 170.

DIAGNOSIS

This species can be distinguished from the related *D. kleini* by thicker and more straight embolus. Tibial apophysis shorter, the dorsal ramus not developed (compare with figures in PRÓSZYŃSKI, 1992).

DESCRIPTION

Male. Cephalothorax pale yellow, with dirty coating; laterally and distally darker. Surroundings of eyes median and distal dark. Abdomen grey with yellow dots and stains (Fig 8). Spinnerets grey. Clypeus pale yellow with dirty coating. Chelicerae or-



9. *Dexippus topali* PRÓSZYŃSKI, 1992: male pedipalp, ventral view

ange. Maxillae and labium orange, tips white. Sternum pale yellow. Venter white with small, grey stains. Pedipalps fawn-coloured with dirty coating. Bulbus oval. Embolus belt-shaped, weakly sclerotised, flattened, with sharp tip, placed dorso-laterally. Tibial apophysis wide basally, pointed, the dorsal ramus not developed (Figs 3, 4, 9). Legs fawn-coloured, with dirty coating, covered with small, dark hairs and spines. Scopula absent. Spines formula: tI: p1-1-1 r1-1-1; mI: p1-1 r1-1; tII: p1-1-1 r1-1-1; mII: p1-1 r1-1. Measurements: CL 2.24, CW 1.80, EFL 0.96, AEW 1.68, PEW 1.64, AL 2.36.

Material: Bhutan: 1 male, Phuntsholing, 200-400 m, 6.05.1972.; 2 males, Phuntsholing, 200-400 m, 21.04.1972.; 2 males 87 km von Phuntsholing, 1700 m, 22.05.1972. coll. WITTMER, STEMMLER, BARONI-URBANI & WÜRMLI (NHMB); Nepal: 1 male Sankhua Sabha Distr., Arun Valley bottom betw. Hedangna and Num, subtropical forest, 950-1000 m, 6.-8.06. 1988, coll. MARTENS & SCHAWALLER (SMF).

ACKNOWLEDGMENTS

Prof. Jochen MARTENS (Mainz), Dr W. WITTMER, Dr O. STEMMLER, Dr C. BARONI-URBANI, Dr M. WÜRMLI (Basel) provided specimens for study.

REFERENCES

- PENG, X. J. & LI, S. Q., 2002. Four new and two newly recorded species of Taiwanese jumping spiders (Araneae: Salticidae) deposited in the United States. *Zoological Studies*, **41**: 337-345.
- PETRUNKOVITCH, A., 1928. *Systema Araneorum*. Trans. Conn. Acad. Arts Sci. 29: 1-270.
- PLATNICK, N. I. 2012. The world spider catalog, version 12.5. American Museum of Natural History, online at <http://research.amnh.org/iz/spiders/catalog>. DOI: 10.5531/db.iz.0001.
- PLATNICK, N.I. & SHADAB, M.U., 1975. A revision of the spider genus *Gnaphosa* (Araneae: Gnaphosidae) in America. *Bull. Amer. Mus. Nat. Hist.*, **155**:1-66.
- PRÓSZYŃSKI, J., 1976. Studium systematyczno-zoogeograficzne nad rodziną Salticidae (Aranei) regionów Pałarktycznego i Nearktycznego. *Rozprawy WSP*, Siedlce, 260pp.
- PRÓSZYŃSKI, J., 1992. Salticidae (Araneae) of India in the collection of the Hungarian National Natural History Museum in Budapest. *Ann. zool.*, **44**: 165-277.
- PRÓSZYŃSKI, J., 2011. Monograph of the Salticidae (Araneae) of the World. <http://www.miiz.waw.pl/salticid/main.htm>. (version October 2nd, 2011).
- SIMON, E., 1901. *Histoire naturelle des araignées*. Paris, **2**: 381-668.
- THORELL, T., 1891. Spindlar från Nikobarerna och andra delar af södra Asien. *Kongl. Svenska. Vet.-Acad. Handl.*, **24**(2): 1-149.