



Description of *Harpactea sadistica* n. sp. (Araneae: Dysderidae) — a haplogyne spider with reduced female genitalia

MILAN ŘEZÁČ

Crop Research Institute, Department of Entomology, Drnovská 507, CZ-161 06 Prague 6-Ruzyně, Czech Republic.
E-mail: rezac@vurv.cz

Spiders of the genus *Harpactea* (Araneae: Dysderidae) are non-web building predators that forage on the ground and on tree trunks at night. During the day, they hide in silk retreats under stones or wood, in leaf litter or under tree bark. They occur mainly in xerothermic forests (see Deeleman-Reinhold 1993). *Harpactea* is the second most speciose dysderid genus (after *Dysdera*), with 149 described and valid species (Platnick 2007). Interestingly, almost all species appear to be endemics that are narrowly restricted to parts of the Mediterranean, with only some representatives also found in adjacent areas (Platnick 2007). The contributions to the *Harpactea* fauna of the Middle East were made by Denis (1955), who described the two new species from Lebanon (*Harpactea rugichelis* Denis, 1955 and *H. straba* Denis, 1955), and by Brignoli (1978), who described the species *Harpactea herodis* Brignoli, 1978 from Israel.

Diagnostic characters of *Harpactea* are the body size, colour of prosoma, leg spination and the shape of the copulatory organs (Alicata 1966, Chatzaki & Arnedo 2006, Deeleman-Reinhold 1993). The male copulatory organ of *Harpactea*, the bulbus, is composed of one or two segments connected by a membrane, the hematodocha. The proximal part, the tegulum, is large, smooth and simple, while the distal part is complex and usually composed of two elements: a complex apophysis (conductor) and the tubuliform embolus. *Harpactea* females possess no external copulatory organ. Their copulatory organ, the vulva, is positioned within the opisthosoma. It is relatively complex, holding two types of ‘cul-de-sac’ sperm storage organs. The epigastric furrow is delimited by a sclerotised anterior arc and a posterior transversal bar (see Chatzaki & Arnedo 2006 for figures of *Harpactea* vulvae with these particular structures marked). The anterior arc bears a heavily sclerotised rod-shaped spermatheca, which is usually anteriorly equipped with a sclerotised keel-like projection. This sclerotised anchor-shaped anterior part of the vulva, especially the keel-like projection, also functions as an apodeme for the insertion of muscles associated with the opening of the epigastric furrow. Posterior to the transversal bar, there is a spherical membranous spermatheca called the posterior diverticle. Both sperm storage organs, the spermatheca and the posterior diverticle, are apparently reduced in the species described in the present paper.

Materials and methods. Nomenclature of the copulatory organ structures was adopted from Chatzaki and Arnedo (2006). To investigate the morphology of male copulatory organs, these were separated, dried at room temperature, mounted on a stub, sputter-coated and examined using a scanning electron microscope (JEOL 6380LV). The female genitalia of alcohol preserved specimens were dissected, cleaned using 5% KOH and observed under a light microscope (Olympus BX 51).

Material is deposited in the Hebrew University of Jerusalem, the University of Haifa (both in Israel) and the Crop Research Institute in Prague (Czech Republic).

Harpactea sadistica n. sp.

Figs 1–3

Type material. Holotype. 1♂, **Israel: Judean foothills:** Adulam Nature Reserve, village Nehusha near Jerusalem, Israeli mapping grid 144/116 (March 22 2002, pitfall trap, Y. Mandelik leg., coll. Hebrew University of Jerusalem).

Paratypes. Same location (1♂ January 18 2002, 1♂ March 22 2002, Y. Mandelik leg., coll. Hebrew University of Jerusalem; 10♂ April 2003, U. Columbus & T. Levanony leg., coll. University of Haifa; 7♂4♀ March 3–7 2004, Y. Lubin *et al.* leg.; 1♀ April 4 2004, 20♂24♀ March 13 & 18 2007, M. Řezáč, S. Henriquez & S. Pekár leg.; coll. Crop Research Institute in Prague).