

## SHORT NOTE

# Spider species new to the fauna of Latvia and new localities for *Gnaphosa lapponum* and *G. nigerrima* (Araneae: Gnaphosidae)

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Three new spider species for Latvian fauna were found in the mire habitats at Orlova Bog, Lake Motrine Bog, Dunika Bog and Gulbīši Bog. Nature reserves Dunika, Orlova (= Ērgļu) Bog and Motrine Lake are NATURA 2000 sites (Anonymous 2015). Orlova Bog is designated as NATURA 2000 site due its value as stop-over and breeding site for birds, Motrine Lake bog have calcareous fen and transition mire habitats. Gulbīši Bog has been used for peat harvesting about 100 years ago (unpublished data), therefore it is surrounded by former open areas now overgrown by low-productivity Scots pine *Pinus sylvestris* stands, the open high-bog area in Gulbīši Bog is therefore severely reduced in comparison to initial wild conditions of this bog.

Orlova Bog is situated in Balvi municipality, Vectilžas and Lazdulejas district (57°02'08"N; 27°24'22"E), Lake Motrine Bog – Baltinava municipality (56°52'00"N; 27°36'00"E), Gulbīši Bog – Gulbene municipality, Stradu district (57°10'26"N; 26°50'33"E). Particularly protected nature territory Dunika is situated in Rucava municipality, Dunika district (56°16'31"N; 21°22'43"E). In Orlova, Gulbīši and Dunika bogs spiders were collected at peat bog, in Motrine Lake Bog at transitional mire habitat.

The spiders were collected by pitfall traps – plastic jars (height – 10 cm, diameter – 9.5 cm), filled with salt solution (1:4), opening placed at the ground level. In each bog five pitfall traps were placed (in one transect, about 10 m between traps). At each species the time of its collection are indicated.

The species were identified by the use of identification keys (Almquist 2005, 2006; Robert 1995; Nentwig et al. 2015). The spider systematic follows World Spider Catalogue, version 15.0 (World spider catalog 2015).

Four specimens of *Araeoncus crassiceps* (WESTRING, 1861) (Linyphiidae) were collected in transition bog at Lake Motrine Bog (29.05-23.06.2014: 2♀, 2♂). Previously this species was found in Estonia (Helsdingen 2014) in fens (Vilbaste 1980). This species is mentioned as mostly captured species at ombrotrophic bogs (Schikora 2003).

Ten specimens of *Pardosa atrata* (THORELL, 1873) (Lycosidae) was collected in Orlova Bog (9.05-29.05.2014: 3♀, 1♂; 29.05-23.06.2014: 6♀, 1♂). Species is found in Estonia, Russia, but not in Lithuania (Helsdingen 2014). In Estonia it was found by Vilbaste (1980) in bog with pine forest and natural ponds. *P. atrata* is preferring bog habitats (Almquist 2005). In Finland it

is mentioned as typical species in palsa and coastal hemiarctic bogs (Koponen 2002a).

Six specimens of *Arctosa alpigena lamperti* DAHL, 1908 was found in Orlova Bog (29.05-23.06.2014: 1♀), Gulbīši Bog (11.05-29.05.2014: 1♀ 2♂; 29.05-22.06.2014: 1♂) and Dunika Bog (15.05.-07.06.2014, 1♀). According to van Helsdingen (2014) species was found in Lithuania. This species mostly prefer *Sphagnum* bogs (Almquist 2005).

*Gnaphosa lapponum* (L. KOCH, 1866) and *G. nigerrima* L. KOCH, 1877 previously were found in calcareous fens of Lake Engure Nature park and Apšuciems Bog (Štokmane, unpublished data). In this study specimen of *G. lapponum* were collected in Orlova Bog (9.05-29.05.2014: 1♂; 29.05-23.06.2014: 2♀, 1♂) and Gulbīši Bog (11.05-29.05.2014: 1♀). According to van Helsdingen (2014) species was found in Lithuania, but not in Estonia. In Finland it was found in bog habitats (Koponen 2002a, 2002b), in other countries of Europe it is also found in heathlands (Nentwig et al. 2015). Thirteen specimens of *G. nigerrima* were collected in Orlova Bog (9.05-29.05.2014: 1♂; 29.05-25.06.2014: 3♀, 6♂) and in Gulbīši Bog (29.05-22.06.2014: 1♀, 2♂). *G. nigerrima* is characteristic for wetland habitats (Nentwig et al. 2015), for both peat bogs and fens (Almquist 2006). It is found in Lithuania (Biteniekyte, Relys 2011; Helsdingen 2014) both in open and pine bogs (Relys, Dapkus 2002)

These species are not newcomers, but most likely discovered due to research efforts. More studies are required to reveal the distribution range of these and other species of bog spiders in the territory of Latvia.

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