

## Some spiders (Araneae) new to the Hungarian fauna, including three genera and one family

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**Abstract.** We report the occurrence of new species of spiders to Hungary: *Acantholycosa lignaria* (Clerck, 1758), *Episinus maculipes* Cavanna, 1876, *Oecobius maculatus* Simon, 1870 and *Pandava laminata* (Thorell, 1878). We also report *Clubiona neglecta* O. P.-Cambridge, 1862 (previously only mentioned in a table in a Hungarian-language dissertation). The genus *Acantholycosa* (Dahl, 1908) was hitherto unknown in Hungary, yet expected to occur. The family Oecobiidae Blackwall, 1862 is new to the Hungarian fauna. The Southeast-Asian neozoon *Pandava laminata* is also recorded as new to Hungary. All further species found to be new to the Hungarian fauna or described in Hungary after the most recent publication of a Hungarian spider checklist are briefly mentioned.

**Keywords.** Araneae, faunistics, neozoon, rare species.

### INTRODUCTION

Hungarian spider faunistics dates back to the 1860s, when Ottó Herman first published on the spider fauna of the Hungarian Kingdom. Later Chyzer & Kulczynski (1891, 1894, 1897) enumerated the spiders of the Hungarian Kingdom at the end of the 1800s. In the middle of the 20<sup>th</sup> century, Loksa published two volumes in the series Fauna Hungariae on Hungarian spiders; however the third and final volume was never published. Loksa also included information about spiders not yet found but expected to occur in Hungary, among others, about *Acantholycosa lignaria*, which he classified as a possible glacial relict (Loksa, 1969, 1972). (For a complete list of pre-1990s Hungarian arachnid literature, see Szinetár & Samu, 1995.)

The most recent checklist of the Hungarian spider fauna was published in 1999 (Samu & Szinetár) and includes some 725 species and also mentioned probable occurrences of further species from some difficult species groups (that have been partially confirmed since). In 2003, a checklist of the salticid spiders of Hungary was published, which included 4 species new to the fauna (Szüts *et al.* 2003). Since then, the checklist has not been updated, although several new species

have since been described from Hungary and new additions to the fauna have been reported. The new species that were described are *Parasyrisca arrabonica* Szinetár & Eichardt, 2009, *Pelecopsis loksai* Szinetár & Samu, 2003, and *Trebacosa europaea* Szinetár & Kancsal, 2007. Species reported as new to Hungary since publication of the 1999 checklist include *Alopecosa psammophila* Buchar, 2001 (Szinetár *et al.* 2005); *Araeoncus crassiceps* (Westring, 1861) in Dudás & Varga 2002; *Bathypantes parvulus* (Westring, 1851) in Samu 2007; *Chrysso nordica* (Chamberlin & Ivie, 1947) in Szinetár *et al.* 2004; *Clubiona neglecta* O. P.-Cambridge, 1862 (Samu 2007); *Cnephalocotes obscurus* (Blackwall, 1834) in Szita *et al.* 2002; *Entelecara omissa* O. P.-Cambridge, 1902 (Kancsal *et al.* 2010); *Gongylidiellum latebricola* (O.P. - Cambridge, 1871) in Kovács & Szinetár 2004; *Gongylidiellum vivum* (O. P.-Cambridge, 1875) in Szita *et al.* 2002; *Holocnemus pluchei* (Scopoli, 1763) in Kovács *et al.* 2006; *Larinia bonneti* Spassky, 1939 and *Larinia jeskovi* Marusik, 1986 (Szinetár & Eichardt 2004); *Megalepthyphantes pseudocollinus* Saaristo, 1997 (Saaristo 1997); *Micrargus subaequalis* (Westring, 1851) in Kancsal *et al.* 2010; *Palliduphantes allutacius* (Simon 1884) and *Panamomops affinis* (Miller & Kratochvíl, 1939) in Kovács & Szinetár 2004; *Pardosa maisa* Hippa & Mannila, 1982 (Szinetár

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& Guitprecht, 2001); *Pardosa vittata* (Keyserling, 1863) in Kancsal *et al.* 2007; *Sintula corniger* (Blackwall, 1856) in Kovács *et al.* 2009; *Segestria florentina* (Rossi, 1790) in Kovács & Szinetár, 2005; *Spermophora senoculata* (Dugès, 1836) in Szinetár *et al.* 1999; *Syanageles subcingulatus* (Simon, 1878) in Szita *et al.* 2002; *Zora armillata* Simon, 1878 in Szita *et al.* 2002 and *Zora parallela* Simon, 1878 (Kovács *et al.* 2009). The presence of *Bathyphantes parvulus* and *Clubiona neglecta* in Hungary, although previously included in table in a Hungarian-language dissertation (Samu 2007), has not been noted in any checklist or other publication.

Here we present further four species new to the Hungarian fauna, and for the record, we also report on *Clubiona neglecta*.

## MATERIALS AND METHODS

During several field trips conducted by the authors in Hungary in 2009 and thereafter spider specimens were collected by hand and sweep net photographed, then stored in 75% ethanol for further studies. Identification was made under binocular stereo microscopes (BTC STM-3C). Genitalia were dissected from the specimens and studied either under a binocular stereo microscope or under an optical biological microscope (Coic XSZ-G).

Some epigynes were cleared with lactic acid. Specimens are maintained in the collections of the authors and partly in the collection of the Department of Evolutionary Zoology and Human Biology, University of Debrecen. Drawings of genitalia were made after actual specimens. Name combinations reflect current nomenclature and synonymies in accordance with Platnick (2012).

## LIST OF SPECIES RECORDED

### Lycosidae

#### *Acantholycosa lignaria* (Clerck, 1758)

(Figures 1 a–b, 2 a–d)

*Material.* Bükk Mts., Kis-mező, elev. approx. 750 m, (48°4'51"N, 20°30'36"E), dry meadow by

forest, leg. W. P. Pfliegler & G. Somlai, 9. May 2009, 1 female. Bükk Mts., Jávorkút, elev. approx. 660 m, (48° 5' 51"N, 20° 32' 1"E), beech forest, around lumber, leg. A. Grabolle & W. P. Pfliegler, 16. May 2009, 2 males.

*Description.* Prosoma black, with bright greyish median stripes, legs are dark brown with grey spots and stripes. Opisthosoma almost black (somewhat darker in females), with yellowish-grey hairs. Tibia I with a row of 4 spines laterally. The specimens dark brown in alcohol.

*Measurements.* Body length of female 9.1 mm, prosoma 4.1 mm; male (n=2) body length 6.8–6.9 mm, prosoma 3.3–3.4 mm.

*Remarks.* Easily recognisable species that often inhabits lumber piles in mountain forests. Several specimens sighted at both collection sites. Loksa (1972) mentioned this species as one which may occur in Hungary. The body length of male is given as 6.5 mm and that of female is 8 mm in Nentwig *et al.* (2011).

### Clubionidae

#### *Clubiona neglecta* O. P.-Cambridge, 1862

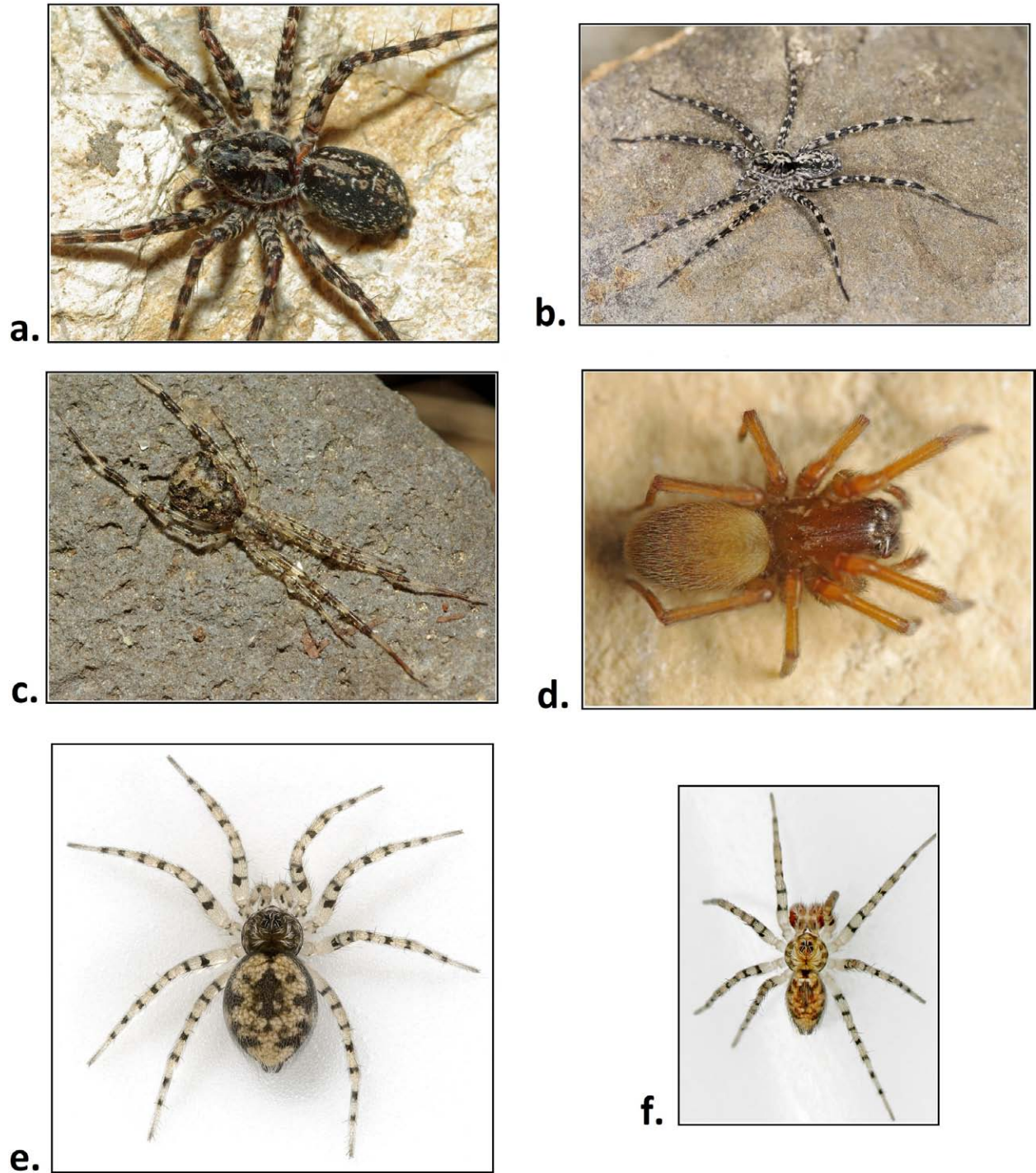
(Figures 2 e–f)

*Material.* Bükk Mountains, Bükkszentkereszt, elev. approx. 570 m, (48°04'16"N 20°37'40"E), meadow near forest, coll. A. Grabolle, 16 May 2009 - 1 male.

*Description.* Prosoma reddish yellow, the chelicerae darker and about half the length of the prosoma. Opisthosoma reddish grey, with white hairs. Embolus of the pedipalp possesses long, conspicuously curving tip. The tegulum, embolus and chelicerae clearly match the drawings by Merrett (2001).

*Measurements.* Body length of male: 4.2 mm, prosoma: 2.1 mm.

*Remarks.* This species is widely distributed in Europe and was thought to occur in Hungary as well. Following the recent description of its sister species, *Clubiona pseudoneglecta* Wunderlich,



**Figure 1.** Photos of the species. a = *Acantholycosa lignaria* female, b = male. c = *Episinus maculipes* female. d = *Pandava laminata* female. e = *Oecobius maculatus* female, f = male

1994, Samu & Szinetár (1999) removed *C. neglecta* from their checklist, stating that all previous records of *C. neglecta* in Hungary proved to be *C. pseudoneglecta* (as described in detail by Mikhailov & Szinetár, 1997). Since then, no other faunistic data has been published on *C. neglecta*, however Samu (2007) mentioned the catch of 10 specimens in a table in his appendix but without providing any site collection data. The characteristic differences between *C. neglecta* and *C. pseudoneglecta* were reviewed in Merrett (2001), whose drawings are also available in Nentwig *et al.* (2011).

### Theridiidae

#### *Episinus maculipes* Cavanna, 1876

(Figures 1 c, 2 g–h)

*Material.* Badacsony Mt., near Badacsonytomaj, Klastrom-kút, elev. approx. 280 m, (46°48'22.3"N, 17°29'59.9"E), deciduous forest, under stone, leg. W. P. Pfliegler, 7. July 2009, 1 female.

*Description:* Prosoma yellowish-white, almost circular in shape, with distinct brownish median stripes reaching chelicerae. The region around the eyes is distinctly protruding and also brown. Sternum is blackish, with bright median stripe. The legs are yellowish-white, annulated with brown. Specimen displays a rather dark abdomen with yellowish median markings. Opisthosoma is greyish in alcohol.

*Measurements.* Body length of female: 5 mm, prosoma: 2 mm.

*Remarks.* *E. maculipens* is said to be a rather southern species, this spider has been reported from Austria, Slovenia, Croatia and Ukraine. According to Nentwig *et al.* (2011) the opisthosoma is usually whitish with a dark brown pattern, most distinct posteriorly. Ventrally dark pattern can only be found in the range of spinneret glands and epigaster. Body length of male is given as 3.9–4.3 mm, body length of female 4.3–5.6 mm.

### Oecobiidae

#### *Oecobius maculatus* Simon, 1870

(Figures 1 e–f, 2 j–k.)

*Material.* Budapest, Várhegy (Castle hill), elev. approx. 200 m, (47°30'11"N, 19°1'59"E), 28. May 2009, on parapet wall, leg. K. Pfeiffer & A. Grabolle, 1 male, 3 females.

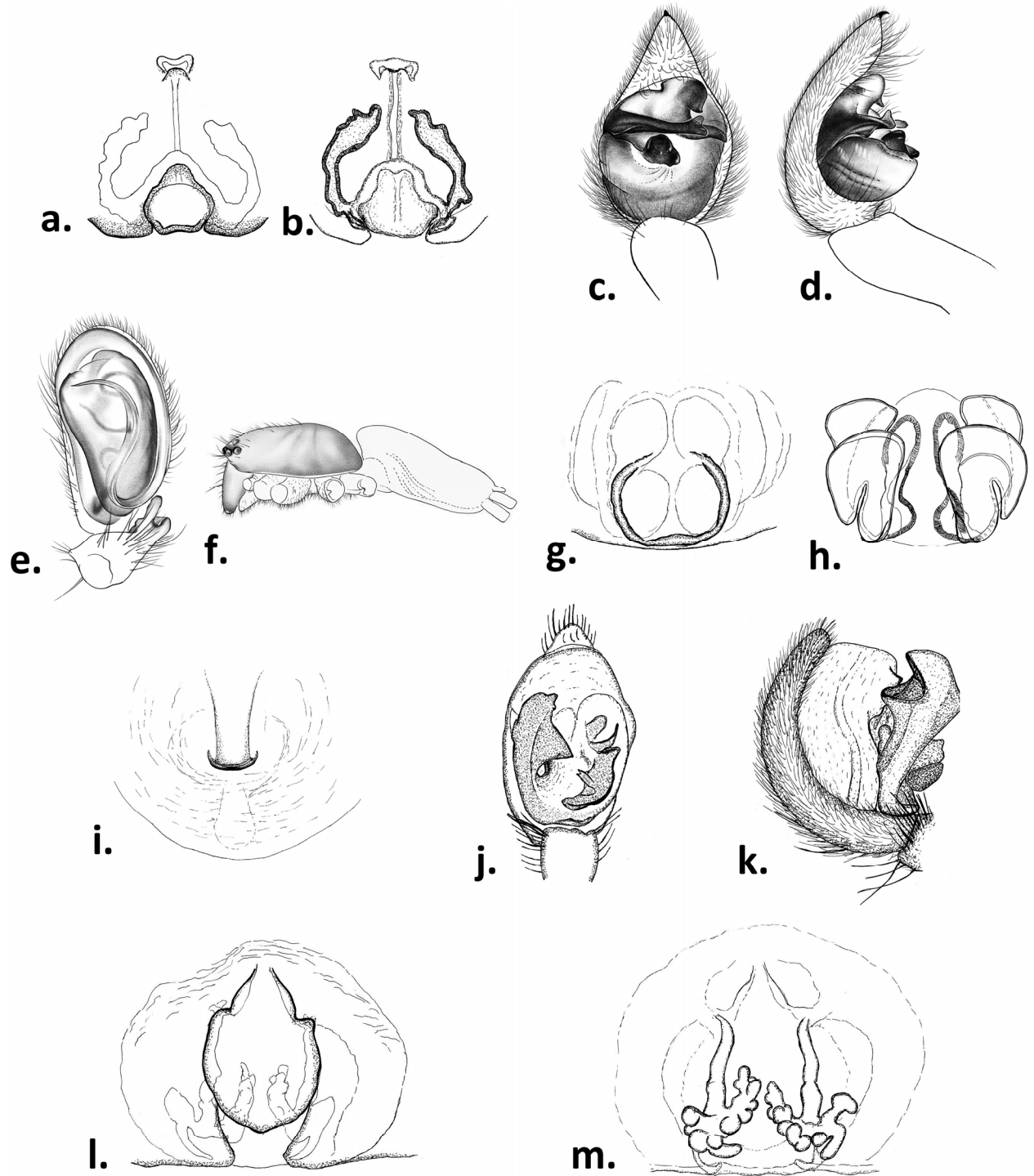
*Description. Male.* Visible region of carapace subcircular, clypeus gently protruding, orange-brown with dusky regions, three paired submarginal darker maculations overlaid with clusters of pale plumose setae; dark marginal line likewise overlaid with plumose setae. Eye region dark, with single prominent medial dorsal spine. Sternum bluntly pointed behind, pale milky-yellow, glabrous, margin darker with several small spines peripherally. Legs pale yellow (almost colourless alive) dark brown maculations pairwise laterally. Opisthosoma elongate oval, tapering to rear, dusky yellow with white flecks except in cardiac region, irregular paired brown maculations clothed in long setae.

*Female.* Similar to male. Epigyne very lightly sclerotised.

*Measurements. Male.* Prosoma 0.7 mm long body length 1.6 mm. *Female* (n=2). Prosoma 0.7–0.8 mm long body length 2.0–2.3 mm.

*Remarks.* A southern European oecobiid species found throughout the Mediterranean region, as well as in Switzerland and Austria (Nentwig *et al.*, 2011; Thaler & Noflatscher, 1990). Several specimens, including juveniles, were sighted at the collection site beneath the stone coping of the parapet wall, suggesting an established population. However this has to be confirmed by further collection data.

It can be an introduced species in Budapest. Its presence on the fortification wall of Castle Hill, a well-visited tourist destination also suggests a synanthropic aspect. According to Wunderlich (1994), the epigyne has a short, indistinct scapus, the male pedipalp is distinguished by a substantial



**Figures 2.** Drawings of genital organs of the species. a = *Acantholycosa lignaria* epigyne, b = vulva, c = left pedipalp ventrally, d = left pedipalp prolaterally. e = *Clubiona neglecta* left pedipalp ventrally, f = body laterally. g = *Episinus maculipes* epigyne, h = vulva. i = *Oecobius maculatus* epigyne, j = left pedipalp ventrally, k = left pedipalp prolaterally. l = *Pandava laminata* epigyne, m = vulva

radix apophysis with a large notch distally. We observed that the genital structures of the specimens collected in Hungary closely resemble the drawings presented by Wunderlich (1994). The drawings of Baum (1974) show an epigyne quite different from those of our specimens and also the drawings of Wunderlich.

There is a very rarely used vernacular Hungarian name for the family Oecobiidae: *lemezes-hálós pókok*.

### Titanoecidae

#### *Pandava laminata* (Thorell, 1878)

(Figures 2 l–m)

*Material.* Debrecen, elev. approx. 120 m, (47°32'26"N 021°37'09"E), 28. May 2009, in house, in pot of a commercially obtained *Phalaenopsis* orchid, leg. W. P. Pfliegler & T. Torda, 1 female.

*Description.* Prosoma and chelicerae dark brown, opisthosoma dorsally creamy yellowish brown, ventrally somewhat darker. Prosoma bears a median row of thick erect hairs. Opisthosoma without any spots or markings. Legs and pedipalp yellowish brown, sternum and coxae darker. A black ring around spinnerets and cribellum present.

*Measurements.* Body length of female 5.3 mm, prosoma 2.6 mm.

*Remarks.* This spider species is easily distinguished from the other titanoecid spiders in Europe by the lack of any spots on the opisthosoma and a visible ring around the spinnerets. A detailed diagnosis and description of the species is given by Jäger (2008) who documented the occurrence of the species in Europe for the first time from the Cologne Zoo in Germany. He noted that the occurrence of the species in civilian buildings is unlikely because of the low humidity in homes. However, the specimen reported here was found in a pot of a common ornamental orchid (*Phalaenopsis* sp.) obtained from a shop in the city of

Debrecen. It remained alive for about 3 months in this location, producing webs that were regularly removed until the spider itself was noted and then collected. Pots of these orchids contain humidity holes big enough for these spiders and seem suitable for surviving a species not adapted to low humidity. The trade of such plants may help these animals in dispersal thus *Pandava laminata* probably occurs in other greenhouses and nurseries as well.

### DISCUSSION

Four species are reported for the first time and *Clubiona neglecta* is reported officially for the first time as present in the Hungarian fauna. Of these species, one represents a new family for Hungary (Oecobiidae) and is probably an introduced species (additional Budapest records of the species from areas not frequented by tourists might help to clarify this observation). The lycosid species *Acantholycosa lignaria* was only found at two locations by the authors, and thus may be rather scarce, even within the Bükk region. Further excursions into its habitat in Jávorkút by the first author in 2010 and in 2011 yielded no other specimens. We recommend that this species receive further attention with respect to its presence in Hungary, it may be even plausible to include it in the Hungarian list of protected species. A vernacular Hungarian name is proposed for this spider: *sávós hegyifarkaspók* (striped mountain wolf spider). The Southeast Asian species *Pandava laminata* is a neozoon. As it was found in a home, in the pot of a commercially obtainable plant, it is speculated that this species may have a wider occurrence in Europe than is presently known.

Colour photographs (of live specimens and genitalia) of all collected species are available on the website 'Wiki des Spinnen-Forums' (<http://wiki.spinnen-forum.de/index.php?title=Hauptseite>) or directly from the authors.

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