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ROBERT ROZWĄŁKA*; JADWIGA STACHOWICZ**

*Department of Zoology, Maria Curie-Skłodowska University, Akademicka 19
20-033 Lublin, Poland; e-mail: arachnologia@wp.pl

**Department of Chemistry, University of Life Sciences in Lublin, Akademicka 13
20-950 Lublin, Poland; e-mail: jadviga.stachowicz@up.lublin.pl

Holocnemus pluchei (SCOPOLI, 1763) – new for Poland
introduced species of pholcid spider (*Araneae: Pholcidae*)

Holocnemus pluchei (SCOPOLI, 1763) – nowy w Polsce introdukowany gatunek pająka
(*Araneae: Pholcidae*)

SUMMARY

Holocnemus pluchei (SCOPOLI, 1763) represents the family *Pholcidae*. Its native land is the Mediterranean region. By the end of the 20th and beginning of the 21st century this spider was introduced to West Europe where it was noted mostly in glasshouses, botanic gardens and other similar synanthropic habitats. In the presented paper the authors supplied the information about the first findings of *Holocnemus pluchei* on the Polish territory, which was in a large building-garden shopping center in Lublin.

STRESZCZENIE

Holocnemus pluchei (SCOPOLI, 1763) jest przedstawicielem rodziny *Pholcidae*, którego ojczyzną jest region śródziemnomorski. Pod koniec XX i na początku XXI wieku ten pająk został introdukowany do Zachodniej Europy, gdzie odnotowano jego występowanie głównie w szklarniach, ogrodach botanicznych itp. biotopach synantropijnych. W prezentowanej pracy autorzy zamieścili informację na temat pierwszego stanowiska *H. pluchei* na terenie Polski, które stwierdzono w dużym centrum ogrodnictwo-budowlanym w Lublinie.

Key words: *Holocnemus pluchei*, Poland, first record, introduced species

Considering the size, body shape and lifestyle, representatives of the genus *Holocnemus* SIMON, 1873 recall species of the genus *Pholcus* WALCKENAER, 1805, that is commonly found in synanthropic habitats (Bellman 2006, Nentwig et al. 2003). Among the three species within the genus (Platnick

2009), two have relatively small range: *Holocnemus hispanicus* WIEHLE, 1933 occurs exclusively on the Iberian Peninsula, while *H. caudatus* (Dufour, 1820) is reported from the Iberian Peninsula and Sicily (Cardoso 2000, Melic 2001, Platnick 2009). The third species – *H. plucheii* (SCOPOLI, 1763) – is common throughout the Mediterranean area and Asia Minor (Brignoli 1971, Platnick 2009). As a synanthropic species, it is also reported from a large number of Middle and Western European countries (e.g. Daws 2005, Jäger 1995, 2000, van Keer, van Keer 2004, 2005, Komposch 2002, Kovács et al. 2006, Šefirova Laštuvka 2005, Staudt 2007, Taylor 2006), as well as South (Laborda, Simó 2008) and North America (Jakob 1994, Sedey, Jakob 1998, Laborda, Simó 2008). Above works chronology, the majority of which was published after 2000, indicates that *H. plucheii* is a relatively new and expansive element in araneofauna of Middle and Western Europe. Recent expansion of *H. plucheii* can be also confirmed by its absence in keys for Middle and Western European araneofauna from the end of the 20th century (e.g. Locket, Millidge 1951, Miller 1971, Roberts 1985, 1995, Wiehle 1953).

On warm climate areas (e.g. Mediterranean countries, California), *H. plucheii* is found in natural habitats – on bush branches, rocks, under large stones, and in the entrance to caves. It can be also found in anthropogenic biotopes, e.g. vineyards, stone-pits, and synanthropically – on building walls (Bellman 2006, Hajer, Řeháková 2003, Kovács et al. 2006, Lazarov 2007, Sedey, Jakob 1998). In Middle and Western Europe, this introduced species occurs mainly in greenhouses, botanical gardens, large shopping centers, and within houses (Bellman 2006, Daws 2005, Hajer, Řeháková 2003, Jäger 2000, van Keer, van Keer 2004, 2005, Kovács et al. 2006, Taylor 2006).

Holocnemus plucheii has not been reported from Poland up-to-date (Blick et al. 2004), and the closest known localization of its stands is Berlin (Kielhorn 2009) and Prague (Hajer, Řeháková 2003).

MATERIAL

1 sub♂: 23.09.2009: garden part of the building-garden centre “Obi” Lublin, Chemiczna 2; leg. et coll. R. Rozwálka.

Table 1 presents a list of traits making possible to distinguish *Holocnemus plucheii* (SCOPOLI) from species of the *Pholcus* genus that commonly occur under synanthropic habitats.

DISCUSSION

Further search in the site of *Holocnemus plucheii* did not reveal any other representatives of the species. Probably, the collected *H. plucheii* specimens incidentally dragged to Lublin (Poland) along with the potted plants or garden accessories transport from Western Europe. At present, there are no grounds to conclude that the species is a constant component of Polish araneofauna. However, the fact of *H. plucheii* occurrence in Poland is worth mentioning, because it can be assumed that this expansive species of synanthropic spider may be in the nearest future permanently naturalized in Poland. More and more abundant information on the species stands in Western and Middle Europe speaks for accepting such hypothesis (Daws 2005, Hajer, Řeháková 2003, Jäger 1995, 2000, van Keer, van Keer 2004, 2005, Komposch 2002, Kovács et al. 2006, TAYLOR 2006), namely well illustrated chronology of the species spreading within Germany (Staudt 2007). Expansion of *Uloborus plumipes* in Poland

Table 1. Comparison of morphologic traits at *Holocnemus pluchei* and species of the genus *Pholcus*

		<i>Holocnemus pluchei</i>	<i>Pholcus</i> spp.
Cephalothorax		with no apparent colour pattern (Fig. 1a)	with apparent grey-black pattern (comp. Heimer, Nentwig 1991: Figs. 81.5, 82.5)
Stridulative organs		well-shaped, present in both sexes (and sub-adult specimens) cover all lateral areas of chelicers (Fig. 1c)	absent (Huber B. 1995)
Sternum		grey-black with light spots marking the hair bottoms	single-coloured, light (<i>P. phalangoides</i>), or grey-black with 4 pairs of circular bright spots (<i>P. opilionoides</i>) at muscle attachment sites
Gnathocoxae		grey-black recalling sternum	gnathocoxae light, recalling cephalothorax
Abdomen	dorsal	beige with brown, white-framed pattern at the front and several dark spots at the back part (Fig. 1a)	uniform grey to grey-skin with no pattern
	lateral	lateral areas with white and dark spots on beige background that sometimes form oblique lines	as above
	ventral	with black (grey-black), white-framed, oblong band till spinneret	as above (sometimes with small dark-grey spot between book lungs)
Spinneret		grey-black	the same colour as abdomen, light
Legs		thighs with numerous brown (brown-grey) +/- rectangular spots, patellas apparently darker than thighs and shins. Subapical parts of thighs and shins with apparent grey-black stripes and whitish ends (Fig. 1c)	single-coloured thighs, skin to skin-brown, with no small spots, subapical and apical parts of thighs and shins with hardly marked dark stripe and lighter apical part, darker patellas

also provides with comparative reasons indicating the possibility of *H. pluchei* durable acclimatization (LUCAS). Information on collecting a single specimen in a flower-shop in Białystok was reported in 2002 (Kupryjanowicz, Stankiewicz 2002). At present, *U. plumipes* forms constantly reproducing populations in large garden centers of most of Polish cities as well as several centers involved in potted plants production (Rozwałka 2007a, and Rozwałka, unpublished material). Furthermore, finding the *Holocnemus pluchei* in Poland indicates another trend observed in European araneofauna. Recently, due to a rapid development of international and intercontinental transport, a number of new introduced spider

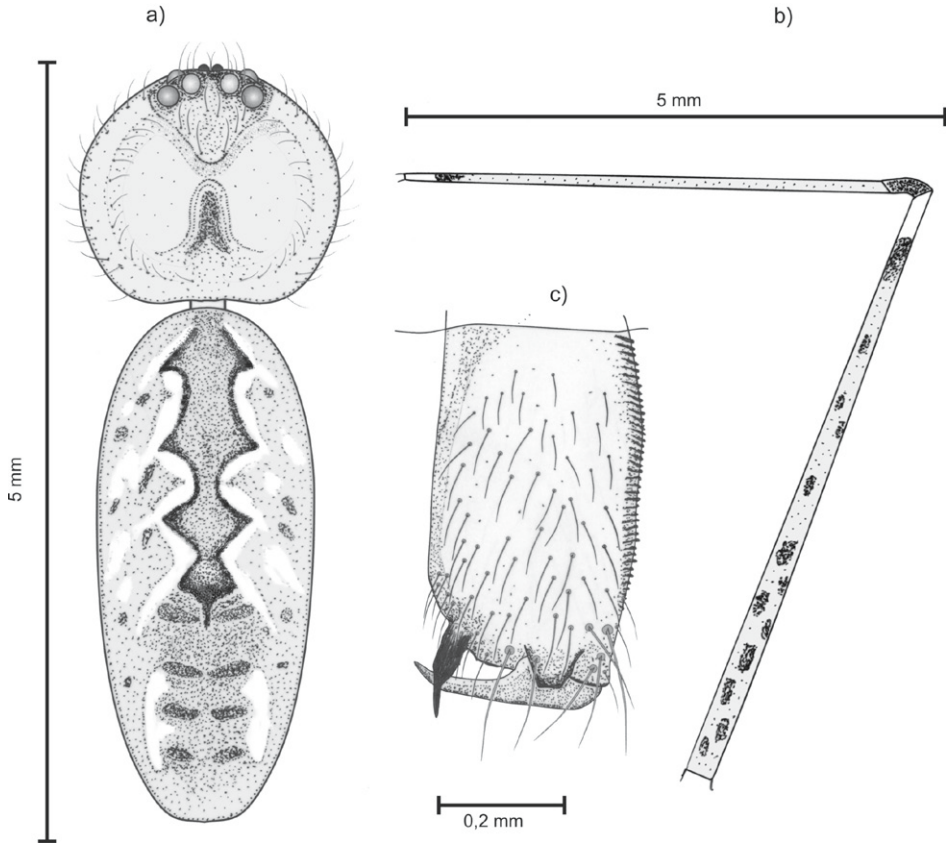


Fig. 1. *Holocnemus pluchei* (SCOPOLI, 1763): a) total view; b) femur, patella and metatarsus of second legs; c) chelicerae – frontal view

species has considerably increased (Kobelt, Nentwig 2008). This phenomenon is much better diagnosed in Western Europe, where a larger number of imported and new introduced spider species (comp. Blick et al. 2004, van Keer, van Keer 2004, 2005, Kobelt, Nentwig 2008) than in Poland, has been observed. However, recently edited publications (e.g. Kupryjanowicz, Stankiewicz 2002, Rozwałka 2007a,b, 2009, Rozwałka, Bielak-Bielecki 2007, Rozwałka, Wesołowska 2008, Tomasiewicz, Wesołowska 2006) apparently indicate that the population of new introduced spider species increases, or incidentally found species becomes a constant component of Polish araneofauna. Probably, due to “globalization of synanthropic araneofauna”, a further increase of new introduced spider species with its species composition making similar to that in Western Europe, should be expected in Poland.

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