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First record of *Odiellus spinosus* (Bosc, 1792) *(Arachnida: Opiliones)* in Poland

Pierwsze w Polsce stanowisko *Odiellus spinosus* (Bosc, 1792) *(Arachnida: Opiliones)*

SUMMARY

In Central and Western Europe in the last decades of the 20th century and at the beginning of the 21st century a few expansive species were reported among harvestmen (*Opiliones*). One of them is also *Odiellus spinosus*. This Western-Mediterranean-Subatlantic species even at the end of 1970's was recorded from northern Croatia to Spain and from Portugal through France, Benelux to southern England. In Germany it was recorded from few localities in south-western part of the country. Since 1970's *O. spinosus* has greatly expanded its area of occurrence to the east and to the north. Currently it is noted also from a number of localities in the vicinity of Berlin, in the middle course of the Odra river; it even reaches the Baltic coast.

The study contains information on the first locality of *Odiellus spinosus* in Poland, namely in the Warta river valley near Mosina. The locality is now the easternmost record of the species occurrence in Central Europe. The closest known localities of *O. spinosus* are located along the middle course of the Odra, i.e. about 150 km west of the reported locality. However, it may be safely assumed that the species should occur at least along the middle course of the Odra and along the lower Warta. In the light of the presented data it is probable that *O. spinosus* might occur in the western Czech Republic, where it has not been reported as yet.

STRESZCZENIE

W Europie Środkowej i Zachodniej w ostatnich dekadach XX wieku i na początku XXI wieku, wśród kosarzy (*Opiliones*), odnotowano kilka gatunków ekspansywnych. Jednym z takich

gatunków jest także *Odiellus spinosus*. Ten zachodnio-śródziemnomorsko-subatlantycki gatunek jeszcze pod koniec lat 70. XX wieku wymieniany był od północnej Chorwacji po Hiszpanię i od Portugalii poprzez Francję, kraje Beneluxu po południową Anglię. W Niemczech podawany był tylko z nielicznych stanowisk w południowo-zachodniej części kraju. Od lat 70. XX wieku *O. spinosus* znacznie poszerzył areał swojego występowania w kierunku wschodnim i północnym. Aktualnie znany jest także z szeregu stanowisk w okolicach Berlina, nad środkową Odrą, sięga nawet po wybrzeże Bałtyku.

W publikacji zamieszczono informacje o pierwszym stanowisku *Odiellus spinosus* na terenie Polski, w Dolinie Warty koło Mosiny. Stanowisko to jest obecnie najdalej na wschód wysuniętym miejscem występowania tego gatunku w Środkowej Europie. Najbliższe znane stanowiska *O. spinosus* położone są po stronie niemieckiej wzdłuż środkowej Odry, czyli około 150 km na zachód od stwierdzonej lokalizacji. Niemniej z dużym prawdopodobieństwem można założyć, że ten gatunek powinien występować przynajmniej wzdłuż środkowego biegu Odry i nad dolną Wartą. W świetle prezentowanych danych prawdopodobne wydaje się także występowanie *O. spinosus* w zachodnich Czechach, skąd – jak dotąd – ten gatunek także nie był podawany.

Key words: *Odiellus spinosus*, *Opiliones*, Poland, distribution

INTRODUCTION

In the last decades of the 20th century several expansive species were found in Central and Western Europe among harvestmen (*Opiliones*), (e.g. *Opilio canestrini* (Thorell, 1976), *Leiobunum limbatum* L. Koch 1861, *Leiobunum* sp. *Nelima sempronii* Szalay, 1951 (compare Bliss 1990, Martens 1978, Staręga 2004, Staudt 2007, Wijnhoven 2005, Wijnhoven et al. 2007). One of these expansive species is also *Odiellus spinosus* (Bosc, 1792). This Western-Mediterranean-Subatlantic species even at the end of 1970's was reported as ranging from northern Croatia to Spain and from Portugal through France, Benelux countries to southern England (Martens 1978: fig. 630, Sankey 1988: map. 13). In Germany it was recorded only from few localities in the south-western part of the country (see Martens 1978). Since 1970's *O. spinosus* has greatly expanded its area of occurrence to the east and to the north. Currently it is also known from a number of localities in the area of Berlin, along the middle Odra, it even reaches the Baltic coast (Staudt 2007). Previously *O. spinosus* had not been recorded from Poland (Staręga 1976, Blick & Komposch 2004), however, in a recently created list of domestic harvestmen (Staręga 2000) a suggestion appeared that this expansive species might appear in the western part of the country.

The study contains information on the first locality of *O. spinosus* on the territory of Poland.

MATERIAL

1♀: 2.12.2008: the Warta valley; post-farming pine planting surrounding a pond left after sand collection (aged about 50 years), UTM: XT 28 (N 52°12'55.7"; E 16°54'22.3": leg. P. Sienkiewicz, det. et coll. R. Rozwałka.

Diagnosis: A large, well-built harvestman, body length (7.5–11.5 mm) with thick, considerably short legs, general body build resembling the representatives of the *Lacinius* genus. The feature that differentiates the representatives of both genera, apart from body size, is the arming of femurs on legs I–IV. *Odiellus* representatives have femurs covered only with lines of spines, while in the *Lacinius* genus they are thorn lines (Martens 1978). Table 1 presents a breakdown of diagnostic features for *O. spinosus* females and species of *Lacinius* genus occurring in Poland.

Table 1. Breakdown of diagnostic features of *Odiellus spinosus* (measurements on the basis of specimen collected) and representatives of the *Lacinius* genus. All measurements in millimeters

	Odiellus spinosus (♀)	*Lacinius* spp. (♀)
Body length // body width	10.1 // 5.8	*L. ephippiatus*: 4.6–6.7 // 2.1–2.8* *L. dentiger*: 7.2–9.2 // ?# *L. horidus*: 4.4–7.3 // 2.5–3.0*
Number and shape of thorns on the front edge of cephalopthorax	3 very thick, front-leaning thorns (Fig. 1a)	3 long bodkin-like front-leaning thorns (*L. dentiger*, *L. horridus*) or 3 quite small, upright thorns (*L. ephippiatus*)
Ocular tubercule	flattened, with 4 pairs of low blunt thorns on ocular rings	raised, with 4–5 pairs of sharp long thorns (*L. dentiger*, *L. horridus*) or 4–5 pairs of low blunt thorns on ocular rings (*L. ephippiatus*)
Pattern on dorsal side	light brown saddle with brown (to black-brown) edges, reaching tergit V of the thorax. Rear edge of the saddle always highlighted with a clear light (white, whitish) line (Fig. 1a)	brown-grey saddle with darker (dark brown) edges (*L. horridus*) or evenly dark brown reaching tergit V of the thorax (*L. dentiger*, *L. ephippiatus*). No light line marking the end of the saddle
Length of pedipalps // length of $Fe_{Pedipalps}$	5.1 // 1.66	*L. dentiger*: ?# // ?# *L. ephippiatus*: 2.84–4.08 // 0.71–1.06* *L. horridus*: 3.90–4.43 // 0.88–1.06*
Arming of femur pedialps	heavily armed with a number of thorns (th) on the ventrolateral side (Fig. 1b)	heavily armed with a number of thorns on the ventrolateral side (*L. dentiger, L. horridus*) or poorly armed with small thorns and spines on the ventrolateral side (*L. ephippiatus*)
Femur of walking legs	five-angular with alongside lines of spines on edges	five-angular, with alongside lines of thorns or spines on edges
Length of Fe-II	5.33	*L. dentiger*: 9.5** *L. ephippiatus*: 2.84–5.85* *L. horridus*: 6.0–6.56*
Habitat // phenology	dry pine forests, dune habitats, stone swards, urban parks and gardens, sometimes agrocenoses (uncultivated land, cultivated fields) // kVIII–kXII**	*L. dentiger*: dry pine forests, young forests, uncultivated land, often in antropogenic habitats (light parks, gardens and plots of greenery) // pVIII–pXII** *L. ephippiatus*: wet to medium dry forests and shrubberies // (kVI–kX)* *L. horridus*: dry and light pine forests, dunes and warm swards, dry uncultivated land // pIX–pXII*
Number of ovipositor segment // length of ovipositor	38 // 5.0	*L. dentiger*: ?# // ?# *L. ephippiatus*: ca 21–30 // 2.6–3.0* *L. horridus*: ca 20 // 2.2*
Receptaculum seminis	Similar locality and build, consisting of strongly sclerotised, oblong base pocket and a tiny, scale-like or sac-like additional pocket (Fig. 1c, d).	

* data according to Staręga (1976); ** data according to Martens (1978); ?# Martens (1978) does not provide data

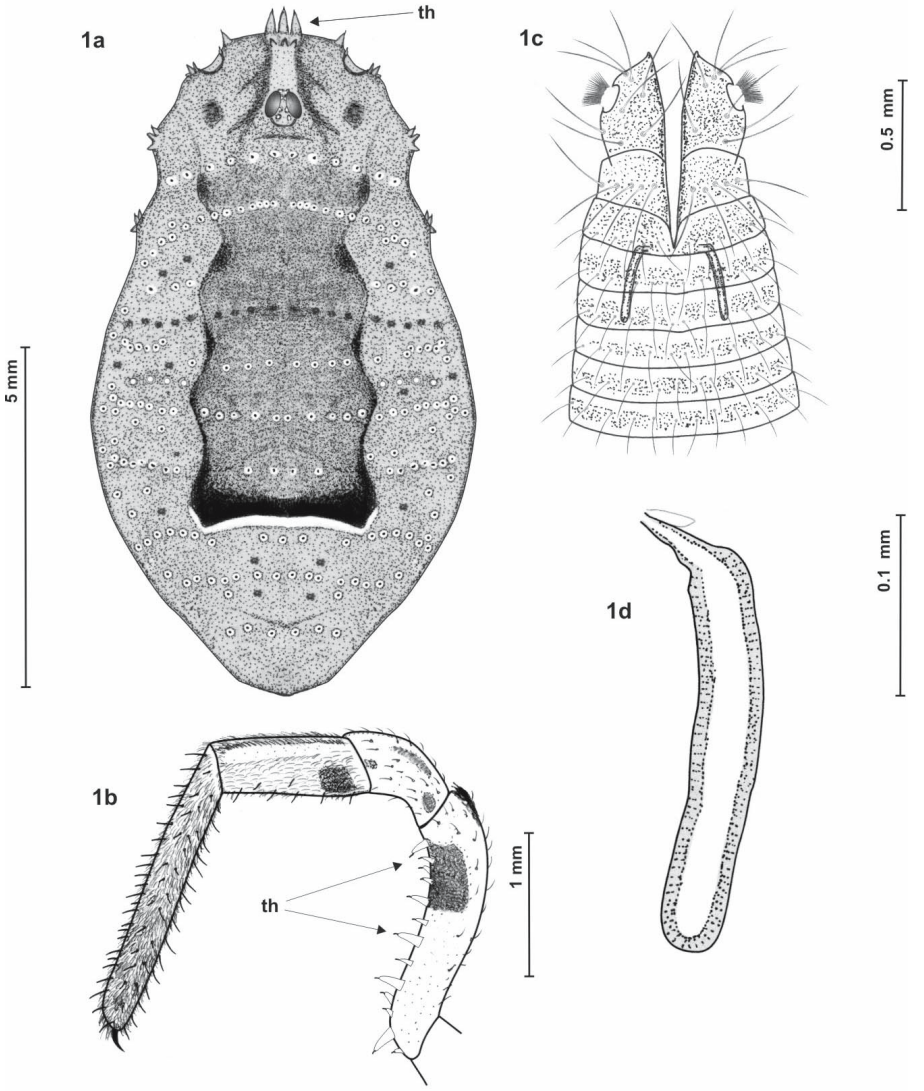

Fig. 1. *Odiellus spinosus* (Bosc): 1a – female, total view; 1b – pedipalp, lateral view; 1c – apical part of ovipositor; 1d – *receptaculum seminis*, th – thorns

CONCLUSIONS

The presented locality of *Odiellus spinosus* in the vicinity of Poznań is now the easternmost spot of its occurrence in Central Europe. The closest known localities of *O. spinosus* are located along the middle course of the Odra (Bliss 1983, Moritz 1973, Staudt 2007), i.e. about 150 km west to the recorded locality.

All the same, it can be quite safely assumed that the species should occur at least along the middle course of the Odra and by the lower Warta (Fig. 2). Unfortunately, western Poland is almost unstudied in terms of opilionofauna, and the few very limited studies of this invertebrate group date back to the first half of the 20th century (Staręga 1976). Hence probably such a late recording of the species in Poland. In the light of the presented data also the occurrence of *O. spinosus* in the western Czech Republic seems probable (Fig. 2), where the species has not yet been reported, either (Bezděčka 2009, Klimeš 2000).

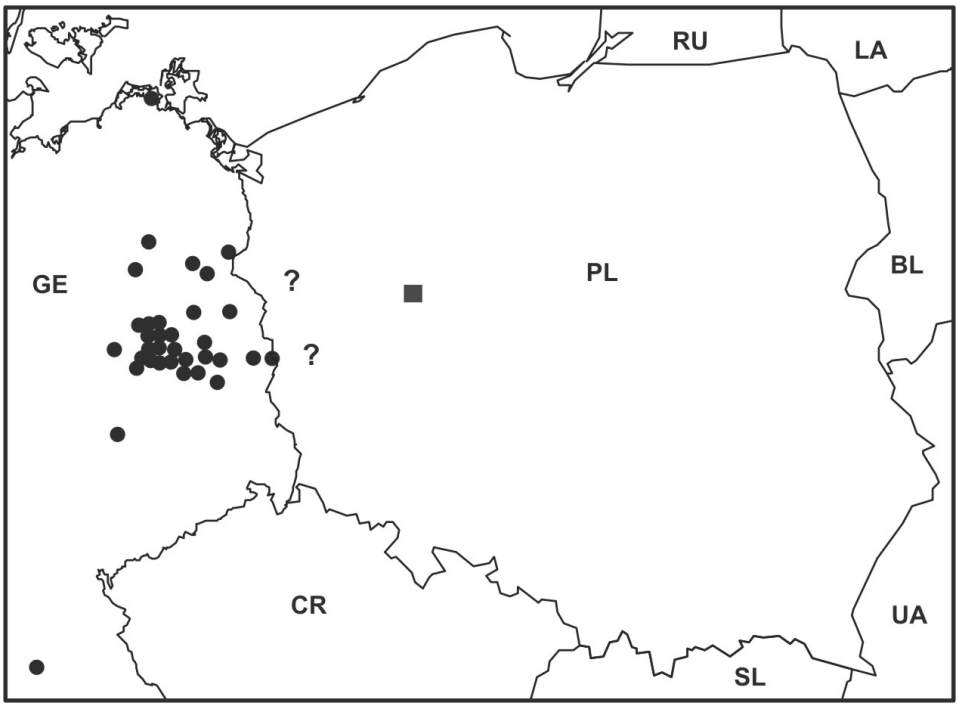

Fig. 2. Distribution of *Odiellus spinosus* (Bosc) in the eastern part of Germany (based on Staudt 2007) and Poland

● – locality of Germany

■ – locality of Poland

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