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Distribution of *Lacinius dentiger* (C. L. KOCH, 1847)
(*Arachnida: Opiliones*) in Poland

Rozmieszczenie *Lacinius dentiger* (C. L. KOCH, 1847)
(*Arachnida: Opiliones*) w Polsce

SUMMARY

Lacinius dentiger is rare in Poland, a Pannonian-Central-European species, reported only from 5 scattered localities. The paper provides the information on new sites of *L. dentiger*; thus completing the data on its distribution in the country. Based on the distribution analysis of *Lacinius dentiger* in Poland and Germany a hypothesis on disjunctivity of the localities situated in the Toruń-Eberswalde Ice-marginal Valley in relation to the main range of *L. dentiger* in Europe was created.

STRESZCZENIE

Lacinius dentiger jest rzadkim w Polsce gatunkiem pannońsko-środkowo-europejskim, który był wymieniany zaledwie z 5 rozproszonych stanowisk. W pracy przedstawiono informacje na temat nowych znalezisk *L. dentiger*; uzupełniających dane o rozmieszczeniu tego kosarza w kraju. W oparciu o analizę rozmieszczenia *Lacinius dentiger* w Polsce i Niemczech przedstawiono hipotezę o dysjunktywności stanowisk położonych w Pradolinie Toruńsko-Eberswaldzkiej w stosunku do głównego arealu *L. dentiger* w Europie.

Key words: *Lacinius dentiger*, *Opiliones*, distribution, Poland

INTRODUCTION

Lacinius dentiger (C. L. KOCH, 1847) is a thermophile Pannonian-Central-European species (Fig. 1). This characteristically coloured (Fig. 3a, b) and comparatively large harvestman (body

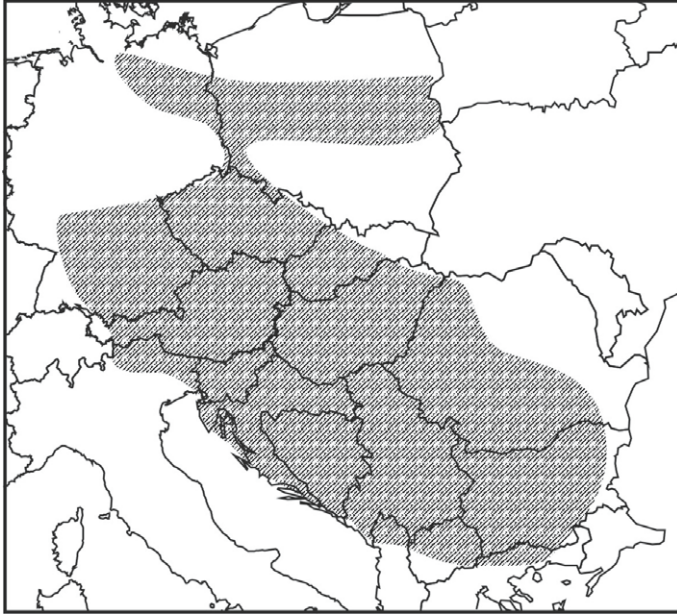


Fig. 1. Distribution of *Lacinius dentiger* (C. L. KOCH) in Europe

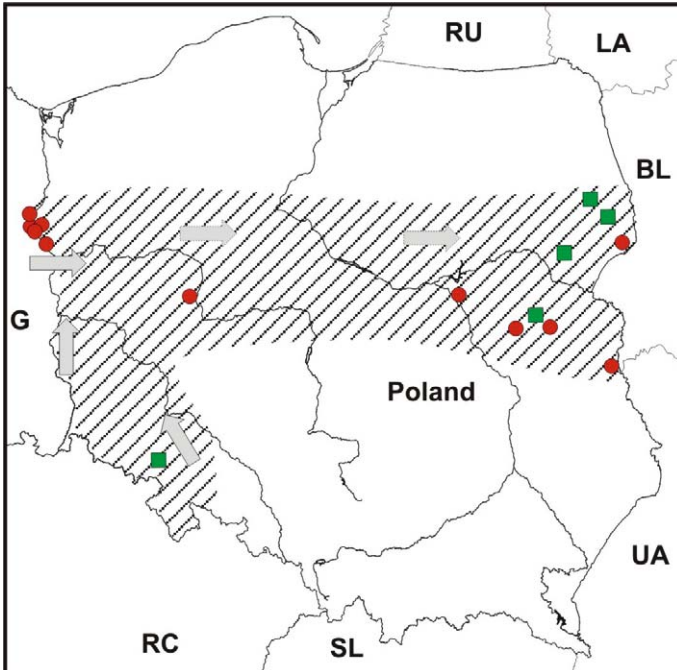


Fig. 2. Localities of *Lacinius dentiger* (C. L. KOCH) in Poland and hypothetical area of its occurrence: ■ – localities known from references; ● – new localities

length ♂: 4.5–6.6 mm; ♀: 7.2–9.2 mm) most frequently occurs on near-ground parts of tree trunks, rocks and walls or on the ground in warm, open biotopes and light forests (Martens 1978; Baumann 1997; Komposch 1997). It was also reported from caves in Romania (Avram, Dumitrescu 1969), Bosnia and Slovenia (Nowak 2005a, b), but as an incidental species (trogloxen). In Poland *L. dentiger* has been reported only from five localities so far. The first information was published by Sanocka (1983), who found some specimens in the vicinity of the Pałecznicza river gorge near Książ (the Wałbrzych Foothills). The information on the remaining four localities, situated in central-eastern Poland, was quoted by Starega (2004) (Fig. 2). On the red list of threatened species in Poland (Starega et al. 2002) *L. dentiger* was included in the endangered species group (VU). This study presents a number of new localities for this species found by the authors in the country.

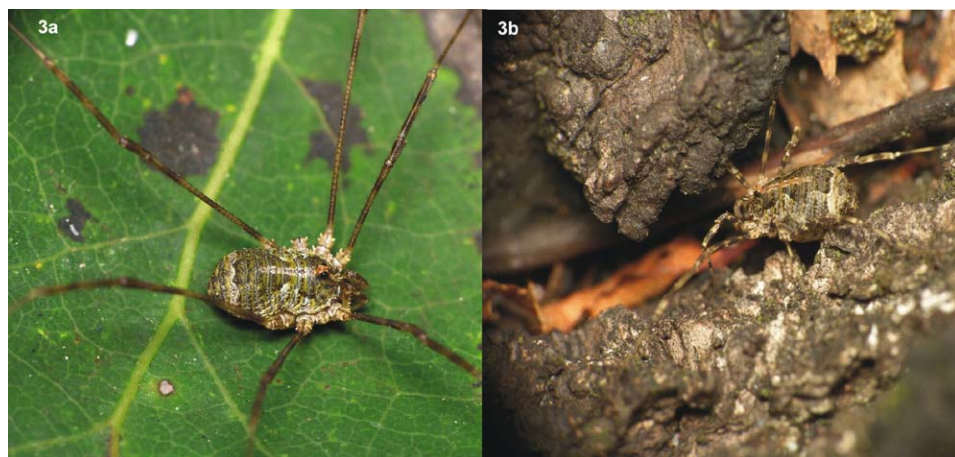


Fig. 3. Male (3a) and female (3b) of *Lacinius dentiger* (C. L. KOCH) (Phot. D. Majger).

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RESULTS

During studies on the distribution of *Lacinius dentiger* in Poland conducted in recent years a number of new localities have been found. Those findings have somewhat changed the previous opinion on its distribution in Europe and routes of its migration to localities in Poland, which had been considered to be typically anthropogenic before.

New localities of *Lacinius dentiger*:

- the Warta valley near Mosina, Poznań district [UTM: XT 28], about 50-year-old light pine forest (*Leucobryo-Pinetum*), Barber's traps, leg. P. Sienkiewicz, det. R. Rozwałka: 3♂;12♀ – 2.11.-2.12.2008;

- the area of Wrzosowiska Cedyńskie reserve, Gryfin district [UTM: VU 45], xerothermic sward (*Festuco-Stipion*), Barber's traps, leg. P. Sienkiewicz, det. R. Rozwałka: 1 juv. – 1.08.–1.09.2009; 1♀ – 1.09.–6.10.2009; 3♂; 11♀ – 6.10.–2.11.2009;
- the area of Wrzosowiska Cedyńskie reserve, Gryfin district [UTM: VU 45], moor (*Pohlio-Callunetum*), Barber's traps, leg. P. Sienkiewicz, det. R. Rozwałka: 5 juv. – 1.06.–7.07.2009; 4 juv. – 7.07.–1.08.2009; 2 juv. – 1.08.–1.09.2009; 2♂; 9♀ – 6.10.–2.11.2009;
- Stary Kostrzynek, Gryfin district [UTM: VU 45], xerothermic sward (*Festuco-Stipion*), Barber's traps, leg. P. Sienkiewicz, det. R. Rozwałka: 1♂ – 6.10.–2.11.2009;
- Raduń, Gryfin district [UTM: VU 47], xerothermic sward (*Cirsio-Brachypodium pinnati*), Barber's traps, leg. P. Sienkiewicz, det. R. Rozwałka: 1♀ – 6.10.–2.11.2009;
- Gozdowice, Gryfin district [UTM: VU 54], xerothermic sward (*Festuco-Stipion*), Barber's traps, leg. P. Sienkiewicz, det. R. Rozwałka: 1♀ – 6.10.–2.11.2009;
- Owczary, Słubice district [UTM: VU 71], xerothermic sward (*Cirsio-Brachypodium pinnati*), Barber's traps, leg. P. Sienkiewicz, det. R. Rozwałka: 1♀ – 1.08.–1.09.2009;
- Trzcianka, Garwolin district [UTM: EC 34], house wall on the forest side, leg. M. Kołodziejczyk, det. W. Staręga: 1 juv. – 20.07.2006; 1♀ – 28.09.2006;
- Stara Wieś, Węgrów district [UTM: ED 61], house wall on the pine forest side, leg. et det. W. Staręga: 1 juv. – 20.07.2005;
- Warsaw-Rembertów, downtown park [UTM: EC 09], photographic documentation D. Majgier, det. R. Rozwałka: 1♀ – 27.06.2006;
- Lipiny, Hajnówka district [UTM: FD 74], mixed forest: 1♂ – 19.09.2006; photographic documentation D. Majgier, det. W. Staręga;
- Dobropol, Włodawa district [UTM FC 71], dry oak forest on the right side of road Lublin – Włodawa, around 500 meters from crossroad of Adampol: 1♂ – 9.09.2010; leg. et det. R. Rozwałka;
- Sawki, Międzyrzec Podlaski district [UTM FC 16], mosaic dry pine forest (*Cladonio-Pinetum*, *Vaccinio myrtilli-Pinetum*, *Leucobryo-Pinetum*), on the bark of birch: 5♂; 4♀ – 16.09.2010, leg. et det. R. Rozwałka;
- Sawki, Międzyrzec Podlaski district [UTM FC 16], on the wall of wayside chapel: 1♂ – 16.09.2010, leg. et det. R. Rozwałka.

DISCUSSION

On the one hand, the references so far (Staręga 2004) have allowed to assume that the localities of *Lacinius dentiger* in central-European Poland are of anthropogenic origin. On the other hand, Sanocka (1983) did not provide further

information on the locality or a biotope in which she had found the species. However, it cannot be excluded that Sanocka's location (1983) near Wałbrzych is contained within the natural area of *L. dentiger*. While analysing the general distribution of *L. dentiger* in Europe Martens (1978) suggested that the harvestman could occur in southern Silesia or the Sudeten Foothills. Considering the above, the newly-discovered localities of *L. dentiger* in the Odra and Warta valleys seem interesting (Fig. 2). There the species was found in natural biotopes. Due to their location they are not likely to be a result of anthropogenic bringing. Perhaps they are natural in character and were caused by spontaneous migration along the Odra and maybe Nysa Łużycka River or are the relicts of historical, much larger area of occurrence. The analysis of *L. dentiger* distribution in Germany (Staudt 2010) and in Poland (Figs. 1, 2) suggests that the area inhabited by the species might be divided into two separate sub-areas, one being a compact area covering southern Germany (Martens 1978), the Czech Republic and Slovakia (Šilhavý 1956; Klimeš 2000), Austria (Martens 1978; Komposch 1993), Hungary (Komposch 2004), Slovenia (Hadži 1973; Novak 2005a), Croatia (Novak 2004), Bosnia and Herzegovina (Hadži 1973; Novak 2005b), Romania (Avram, Dumitrescu 1969; Babalean 2004), Bulgaria (Starega 1976), Montenegro (Hadži 1973) to northern Greece and northern Italy (Martens 1978). The other sub-area would cover a latitudinal belt of Toruń-Eberswalde Ice-marginal Valley (Figs 1, 2). This hypothesis is all the more likely that the knowledge of German fauna is comparatively complete and it is difficult to expect such a large, characteristic and easily recognizable species of harvestman to be missed in the major part of Turing, Saxony-Anhalt or Saxony (Staudt 2010). Also the data from Poland, even though much less complete, indicate that *L. dentiger* is distributed mainly along the Toruń-Eberswalde Ice-marginal Valley and the lower Bug (Fig. 2).

There is only one locality east of the Polish border: Shavanova (2004) reported the species from Minsk (Byelorussia). This information must be, however, treated as doubtful, because her determinations were in most cases clearly false (e.g. *Paroligolophus agrestis*, *Odiellus troguloides* or *Platybunus bucephalus*) and the two essential (though older) papers on the fauna of the western part of the former USSR (Starega 1978, Čevrizov 1979) disregard the species.

REFERENCES

- Avram S., Dumitrescu D. 1969. Contribuții la cunoașterea răspândirii geografice și a ecologiei opilionidelor cavernicole, endogee și epigee, din România. Lucr. Instit. Speol. E. Racoviță, 8, 99–145.
- Babalean A. F. 2004. On the opilionid fauna (*Arachnida*, *Opiliones*) from the SW part of Romania. Acta Zool. Univ. Comenianae, 46, 79–86.
- Baumann T. 1997. Die epigäische Weberknechtfauna (*Arachnida*: *Opiliones*) des Sandgebietes bei Haid (Landkreis Forchheim). Abh. Naturw. Ver. Würzburg, 37/38, 3–19.

- Čevrizov B. P. 1979. Kratkij opredelitel' senokoscev (*Opiliones*) Evropejskoj časti SSSR. Trudy zool. Inst., 85, 4–27.
- Hadži J. 1973. *Opilionidea*. Catalogus faunae Jugoslaviae. III/4. Ljubljana, 23 pp.
- Klimeš L. 2000. Checklist of harvestmen (*Opiliones*) of Czechia and Slovakia. Ekológia, 19, Suppl., 3, 125–128.
- Komposch C. 1997. Zur Weberknechtfauna (*Arachnida*, *Opiliones*) ausgewählter Sandtrockenrasen und Zwergstrauchheiden im Elb-Havel-Winkel (Sachsen-Anhalt). Untere Havel Naturkd. Ber., 6/7, 84–86.
- Komposch Ch. 1993. Neue synanthrope Arachniden für Kärnten und die Steiermark (*Arachnida: Opiliones, Araneae*). Carinthia II, 183/103, 803–814.
- Komposch Ch. 2004. The harvestman fauna of Hungary (*Arachnida, Opiliones*). [In:] F. Samu, Cs. Szinetár (Eds) Proceedings of the 20th European Colloquium of Arachnology, Szombathely 22–26 July 2002, 227–242.
- Martens J. 1978. Weberknechte, *Opiliones*. Die Tierwelt Deutschlands, 64. Jena, 464 pp.
- Novak T. 2004. An overview of harvestmen (*Arachnida: Opiliones*) in Croatia. Natura Croatica, 13, 231–296.
- Novak T. 2005a. Terrestrial fauna from cavities in northern and central Slovenia, and a review of systematically ecologically investigated cavities. Acta Carsologica, 34/1, 169–210.
- Novak T. 2005b. An overview of harvestmen (*Arachnida: Opiliones*) in Bosnia and Herzegovina. Natura Croatica, 14, 301–350.
- Sanocka E. 1983. Kosarze (*Opiliones*) strefy przełomów pod Książem (woj. wałbrzyskie). [In:] E. Głowacka-Migula, M. Skowerska, W. Wojciechowski (Eds) Postępy zoologii (Materiały informacyjne na XIII Zjazd Polskiego Towarzystwa Zoologicznego. Katowice, wrzesień 1983, Wyd. Uniw. Śląsk., 124 pp.
- Shavanova T. M. 2004. Species composition of the harvestmen (*Arachnida: Opiliones*) in biocoenoses of the vicinities of Minsk (Belarus): [In:] D.V., Logunov, D. Penney (Eds) Proceedings of 21st European Colloquium of Arachnology St. Petersburg, Russia 4–9 August 2003, Arthropoda Selecta, Special Issue No. 1, 293–295.
- Šilhavý V. 1956. Sekáči (Harvestmen – *Opilionidea*). Fauna ČSR, 7. Praha, 272 pp., 10 pl.
- Staręga W. 1976. Die Weberknechte (*Opiliones*, excl. *Sironidae*) Bulgariens. Annales Zoologici, 33, 287–433.
- Staręga W. 1978. Katalog der Weberknechte (*Opiliones*) der Sowjet-Union. Fragm. faun. 23, 197–241.
- Staręga W. 2004. Interessante Weberknechtfunde aus Polen (*Arachnida: Opiliones*). Arachnol. Mitt., 27, 78–88.
- Staręga W., Błaszak Cz., Rafalski J. 2002. *Arachnida* – Pajęczaki. [In:] Z. Głowaciński (Eds) – Czerwona lista zwierząt ginących i zagrożonych w Polsce, IOP PAN Kraków, 133–140.
- Staudt A. 2010. Nachweiskarten der Spinnen Deutschlands. Stand: 27.03.2010. Internet: <http://www.spiderling.de/arages/Verbreitungskarten/Karte1.php?Art=1046>.