

First record of *Scytodes thoracica* (Latreille, 1802) (Araneae: Scytodidae) in Lithuania and new data from Poland

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Abstract: This paper presents the first record of *Scytodes thoracica* in Lithuania and updates data on its localities in Poland. The collected data confirm its continued north-eastern expansion, with Lithuania now representing the species' range limit. The gathered materials also confirmed *S. thoracica*'s acclimatization to life in synanthropic environments, even outside of buildings. Citizen science and data obtained from other individuals were also utilized in this research.

Key words: expansion, synanthropic species, acclimatization, spitting spider, citizen science

INTRODUCTION

The family Scytodidae Blackwall, 1864 currently comprises 253 species grouped into 4 genera: *Dictis* L. Koch, 1872, *Scyloxes* Dunin, 1992, *Scytodes* Latreille, 1804, and *Stedocys* Ono, 1995. The most numerous genus in the family is *Scytodes*, which includes 229 species (WSC 2025). In Europe, 7 species occur, and three have been indicated as introduced (alien) species (*S. immaculata* L. Koch, 1875, *S. univittata* Simon, 1882, *S. fusca* Walckenaer, 1837) (Rozwałka & Czaja 2021, Nentwig et al. 2025, Szymkowiak et al. 2025). This family is characterized by a unique hunting method, catching prey by rapidly spitting silk and glue onto it (Dabelow 1958, Foelix 2011).

Scytodes thoracica (Latreille, 1802) (Fig. 1) is a spider with a cosmopolitan distribution, recorded in Europe, North Africa, Turkey, Iran, temperate Asia up to China, Korea, and Japan. It has also been introduced to North America, Argentina, South Africa, India, Australia, and New Zealand (WSC 2025). In Europe, for years we have observed a clear north-eastern expansion, with Poland, Denmark, and the European part of Russia forming the natural range limits (Nentwig et al. 2025). At these latitudes, it is associated with synanthropic environments, near human settlements, and is characterized by a nocturnal lifestyle (Dabelow 1958, Blick 1988, Król & Mąkol 2012, Rozwałka et al. 2013, 2016). So far in Poland, it is known from over twenty localities (Gierlasiński & Rutkowski 2025), with almost 90% of these records being reported after the year 2000 (Król & Mąkol 2012, Rozwałka et al. 2013, 2016, Rozwałka & Czaja 2021, Kupryjanowicz 2022, Gierlasiński et al. 2024).

This paper presents the first record of *Scytodes thoracica* in Lithuania, along with data that provide evidence of the species' further spread in Poland (Fig. 4), including occurrences outside of buildings (Figs 2, 3).



Figures 1–3. *Scytodes thoracica*: 1 – habitus (photo DMS), 2 – individual in the nest on the outer wall in Wrocław (photo M. Marciniak), 3 – individual in the nest on the outer wall in Siedlce (DMS).

MATERIAL AND METHODS

Distribution of *Scytodes thoracica* were obtained from various opportunistic sources collected by the authors during their own field observations. These records were supplemented with information provided by members of thematic groups on social media, collaborating observers, and photographic documentation from the public platform iNaturalist.org, which serves for sharing biodiversity information and documenting species occurrences. The location accuracy of most observations is limited to the street or nearest locality level due to the incomplete geographic information typically supplied by private contributors.

To create the distribution map of the species, the non-commercial software MapaUTM (Gierlański 2025) was used. Because this program is restricted to the borders of Poland, the coordinates of records from Lithuania were converted using the UTM (Universal Transverse Mercator) calculator available on the Lepidoptera Mundi platform (Jonko 2025). The final graphic layout of the map was prepared using MediBang Paint.

The abbreviations used below refer to the authors: Artur Szpalek – AS, Franciszek Mika – FM, Dominik M. Szymański – DMS, Dawid Szymański – DS, Hubert Szymański – HS.

RESULTS

The collected distribution data do not result from systematic monitoring of the species but represent a careful compilation of all available information gathered from various sources into a single dataset. All newly confirmed records of *Scytodes thoracica* are presented in Table 1 and 2. Their distribution is illustrated on the map (Fig. 4), which also includes historical records.

Table 1. Summary of new distribution data of *Scytodes thoracica*, including the first record from Lithuania and new localities in Poland. Data are divided into the authors' observations and private observers. Street names are indicated in bold. UTM – Universal Transverse Mercator.

Lithuania			
City	UTM	Collecting data	Locality
Kaunas	FF88	1♂ – 20 May 2025, leg. AS & FM	Radvilų Dvaro St. , inside a dormitory
Poland			
City	UTM	Specimen data	Exact location
Bydgoszcz	CD09	several exx. – 20 Jan 2024, leg. HS	Fabryczna St. , under plastic and wooden terrace boards
Choroń	CB71	1 juv. – Mar 2025, 1 juv. – Apr 2025, 1 juv. – May 2025, 2 juv. – 13 May 2025, several exx. – Jun 2025, 1♀ – 14 Jun 2025, leg. Aleksandra Gurbala	Wolności St. , basement; wood storage; garage; purchased terrarium cork; backyard wood storage and inside the house; backyard terrace
Gdańsk	CF42	1 ex. – 9 Oct 2025, leg. Marek Biegański	Na Ostrowiu St. , inside a building
Gorzów Wielkopolski	WU14	1 ex. – 7 Jun 2025, leg. Magdalena & Marek Biegańscy	Spółdzielców St. , inside an apartment on the fourth floor
Kalisz	BC94	1♀ – 18 Sept 2024, leg. Agnieszka Golańska	Szymanowskiego St. , inside a building
Kostrzyn nad Odrą	VU72	1♀, 1 juv. – 16 Sept 2023, leg. HS	A. Mickiewicza St. , external wall of a brick residential building
Kraków	DA24	1 ex. – 16 Jul 2025, leg. Przemysław Niemiec	Kopernika St. , inside a building
Międzyrzecz	WU31	1♀ – 10 Jul 2024, leg. DS, DMS	Wesoła St. , external, shaded building wall
Mikorzyn	CD10	1♀ – Jun 2021, 1♀ – Oct 2021, 1♀ – 25 Jul 2024, leg. DS	Mikorzyn. , inside a building
Płock	DD12	A small colony of spiders – 16 Dec 2023, leg. HS	Wyszogrodzka St. , under terrace boards and bags of gardening soil
Pudliszki	XT33	1 juv. – 18 Jan 2025, leg. Anna Michalska	Krobska St. , inside a building
Siedlce	EC88	1♀, 2♂♂, 1 juv. – 12 Jul 2025; leg. DS, DMS, HS, Michał Marciniak	J. Piłsudskiego St. and Katedralna St. , on external building walls in the evening hours
Skwierzyna	WU32	1♀ – 15 Sept 2023, leg. HS	2 Lutego St. , external wall of a brick building
Sopot	CF43	1 ex. – 5 Aug 2024, 1 ex. – 12 Dec 2024, 1 ex. – 18 Apr 2025, 1 ex. – 21 Jul 2025; leg. Joanna Romaszko	intersection of Grunwaldzka St. and 3 Maja St. , inside buildings
Szczecin	VV62	1 ex. – 15 Jul 2025, leg. Joanna Kotynia	Santocka St. , inside a room
Toruń	CD47	1 ex. – 07 Sept 2023, leg. HS	Jana III Sobieskiego St. , crumbling facade of a backyard wall
Ustowo near Szczecin	VV61	1♀ – 29 Oct 2022, leg. HS	Ustowska St. , external wall of a residential building in spaces between bricks

Warszawa	EC08	several exx. – 23 Mar 2024, leg. HS	Puławska St. , under plastic and wooden terrace boards and under shelves with gardening assortment
	DC99	1 ex. – 23 Jul 2025, leg. Maria Giejda, 1 ex. – 25 Jun 2025, leg. J. Badziukiewicz	Tucholska St. , inside a second-floor room of a building, in the bathroom, in the bathtub Przasnyska St. , on a desk in an apartment
Włocławek	CD63	a small colony of spiders – 20 Jun 2021, leg. HS	Smocza St. , on walls and in wall crevices within a production plant
Wrocław	XS46	1 ex. – 22 Jun 2025, leg. Michał Marciniak, 1 ex. – 10 Oct 2025 leg. Marta Matras	Prusa St. , nest on the wall at the entrance to the apartment block Lubuska St. , in the bathtub, inside a building

Table 2. Summary of new distribution data of *Scytodes thoracica* in Poland. Data is based on observations from the iNaturalist.org. UTM – Universal Transverse Mercator.

iNaturalist observations			
City	UTM	Date	Observation link
Brzesko	DA73	12 Sept 2024	https://www.inaturalist.org/observations/241246965
Chociszewo	WT59	25 Jun 2024	https://www.inaturalist.org/observations/225107515
Krakow	DA24	25 Apr 2022 20 Sept 2022	https://www.inaturalist.org/observations/112837697 https://www.inaturalist.org/observations/135761309
Lublin	FB07	18 Jun 2021	https://www.inaturalist.org/observations/83540837
Łódź	CC93	02 May 2024 09 Sept 2024	https://www.inaturalist.org/observations/212835547 https://www.inaturalist.org/observations/240789417
Maszewo	WV02	06 May 2024	https://www.inaturalist.org/observations/217135894
Moryń	VU55	06 Sept 2024	https://www.inaturalist.org/observations/240190139
Nowa Sól-Zatorze	WT43	13 Sept 2023	https://www.inaturalist.org/observations/183131897
Poznań	XU20	09 Sept 2024 07 Apr 2025 20 Apr 2025	https://www.inaturalist.org/observations/240733865 https://www.inaturalist.org/observations/269112772 https://www.inaturalist.org/observations/271794198
Poznań	XU30	21 Apr 2021 26 Jul 2024 26 Mar 2025	https://www.inaturalist.org/observations/74722012 https://www.inaturalist.org/observations/231865258 https://www.inaturalist.org/observations/267076467
Poznań-Winogrody	XU31	09 May 2024	https://www.inaturalist.org/observations/214671756
Toruń-Bydgoskie Przedmieście	CD37	27 May 2023 14 Jun 2023 30 Apr 2024 26 Mar 2025	https://www.inaturalist.org/observations/164688442 https://www.inaturalist.org/observations/167549335 https://www.inaturalist.org/observations/286776663 https://www.inaturalist.org/observations/212179563
Warszawa-Śródmieście	EC08	06 Jul 2024	https://www.inaturalist.org/observations/227393306
Warszawa-Wola	DC98	20 Jul 2022	https://www.inaturalist.org/observations/132800146

Wawrów	WU14	21 Mar 2025	https://www.inaturalist.org/observations/266237692
Wrocław-Gajowice	XS46	22 Oct 2023	https://www.inaturalist.org/observations/188523690
Wrocław-Krzyki	XS35	27 Feb 2023	https://www.inaturalist.org/observations/149821960
Zielona Góra	WT35	8 Feb 2021 22 Apr 2021 31 May 2022 28 Jun 2022 15 Oct 2022 5 Nov 2022 5 Nov 2022 6 Apr 2023 13 May 2023 13 Jun 2024 21 May 2025	https://www.inaturalist.org/observations/197227081 https://www.inaturalist.org/observations/197227279 https://www.inaturalist.org/observations/119607272 https://www.inaturalist.org/observations/123853300 https://www.inaturalist.org/observations/138954599 https://www.inaturalist.org/observations/144729670 https://www.inaturalist.org/observations/141148338 https://www.inaturalist.org/observations/153661864 https://www.inaturalist.org/observations/161564558 https://www.inaturalist.org/observations/222506521 https://www.inaturalist.org/observations/280471344

DISCUSSION

This work gathered additional Polish localities of *Scytodes thoracica*, illustrating its continuous north-eastern expansion. Initially, this species was found indoors, but it now forms a part of the synanthropic ecosystem of cities (Król & Mąkol 2012, Rozwałka et al. 2013, 2016, Gierlasiński & Rutkowski 2025). Similar dependencies have been observed in other Southern European species spreading in Poland (Szymański et al. 2023, Bałuszyński et al. 2024). The new data also confirms the existence of stable populations in various locations (e.g., Poznań, Wrocław, Warsaw, Zielona Góra), as evidenced by subsequent, systematically appearing observations. The presence of *S. thoracica* has also been confirmed for the Zachodnio-pomorskie, Kujawsko-Pomorskie, and Śląskie provinces (data provided by Bertkau 1880 and Wiehle 1953 do not specify concrete locations).

This work also confirmed the occurrence of *S. thoracica* in Lithuania. The closest known Polish locality is in Białystok (Kupryjanowicz 2022), which is over 200 km in a straight line from the Lithuanian record (Fig.4). This also marks the first representative of the family Scytodidae in Lithuania, bringing the total number of spider families in the country to 32.

Scytodes thoracica is a distinctive species, easily recognizable (even from photographs alone). This characteristic allows for the inclusion of citizen science in research to monitor its expansion and distribution. This approach has been successfully used in the past for species such as *Mantis religiosa* (Linnaeus, 1758) and *Argiope bruennichi* (Scopoli, 1772) (Żurawlew et al. 2022, Szymański & Szymański 2024).

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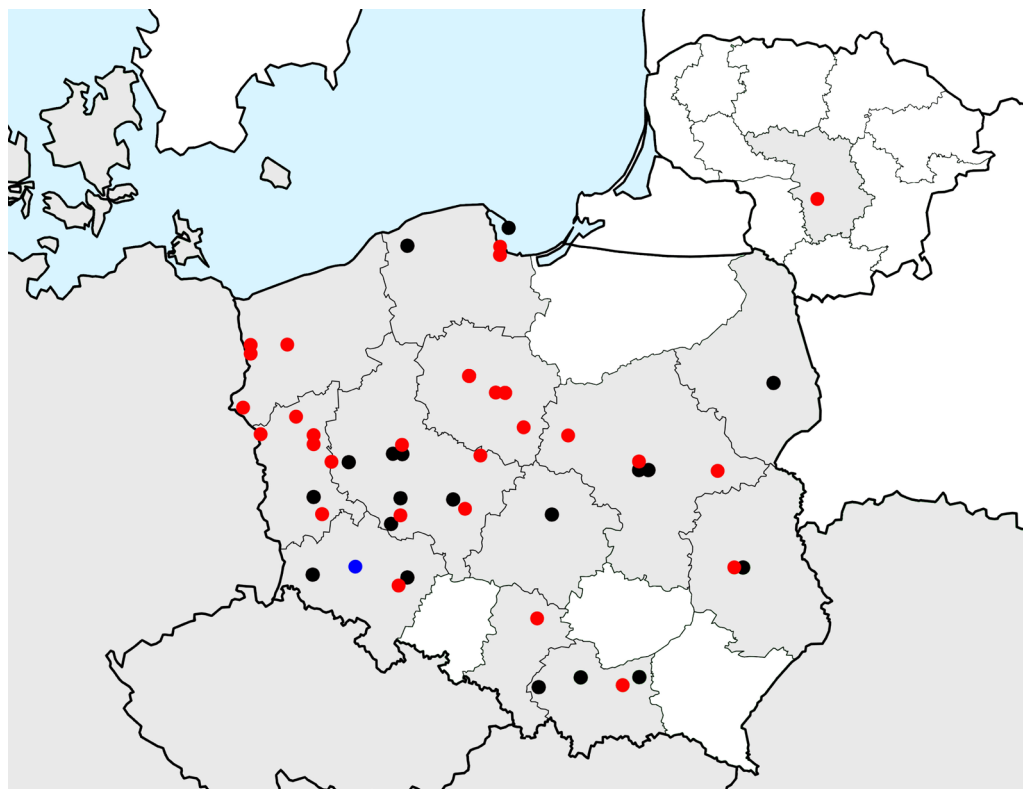


Figure 4. Distribution of *Scytodes thoracica* in Europe; blue circles – records from the literature before 2000; black circles – records from the literature after 2000; red circles – new records; countries where *S. thoracica* occurs are colored gray.

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STRESZCZENIE

Pierwsze stwierdzenie *Scytodes thoracica* (Latreille, 1802) (Araneae: Scytodidae) na Litwie i nowe dane z Polski

W artykule zaprezentowano pierwsze stanowisko roznoszącego *Scytodes thoracica* na Litwie oraz zaprezentowano dane na temat nowych stanowisk tego gatunku w Polsce. Uzyskane materiały potwierdziły dalszą ekspansję badanego pająka w kierunku północno-wschodnim, a Litwa obecnie stanowi granicę zasięgu *S. thoracica*. Potwierdzono także występowanie gatunku na obszarze kolejnych województw: zachodnio-pomorskiego, kujawsko-pomorskiego i śląskiego. Zebrane dane potwierdziły także aklimatyzację *S. thoracica* do życia w środowiskach synantropijnych także poza wnętrzem budynków.

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