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***STEATODA TRIANGULOSA* (WALCKENAER, 1802)  
(ARANEAE: THERIDIIDAE) IN POLAND**

**Abstract**

In Lublin City two localities of *Steatoda triangulosa* were detected. This expansive, synanthropic spider has not been recorded previously in Poland. Observations indicate that the specimens came from small but the indigenous populations, found in one of large garden-shopping centers in Lublin.

**Keywords:** Araneae, synanthropic spider, *Steatoda triangulosa*

*Steatoda triangulosa* (Walckenaer 1802) is the smallest (body length 3.5 to 5.0 mm) Central European species of the genus *Steatoda* Sundevall, which is easy to distinguish by the characteristic coloration of abdomen (Fig. 1a) and by the construction of the reproductive apparatus (Fig. 1b), (Wiehle 1937, Nentwig et al. 2003). Probably the original area of this species, includes the Mediterranean countries, but due to synanthropisation *S. triangulosa* coverage is now almost cosmopolitan (Levi 1967, Levy Amitai 1982, Paquin et al. 2008, Platnick 2011). In Southern Europe *S. triangulosa* occurs most frequently in natural biotopes – under stones in open and warm habitats (Nentwig et al. 2003, Bellman 2006) and sometimes also in the initial parts of caves (Ribera et al. 2003). In Western and Central Europe, this spider is relatively rare inhabitant of warm, permanently heated rooms (Wiehle 1937, Braun 1956, Roberts 1995, Bellman 2006). There was no localities of *S. triangulosa* on the territory of Poland (Blick et al. 2004) and

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the nearest known locations were about 60–80 km away from the Polish border (Gajdoš et al. 1999, Buchar & Růžička 2002, Kielhorn 2007, Staudt 2011).

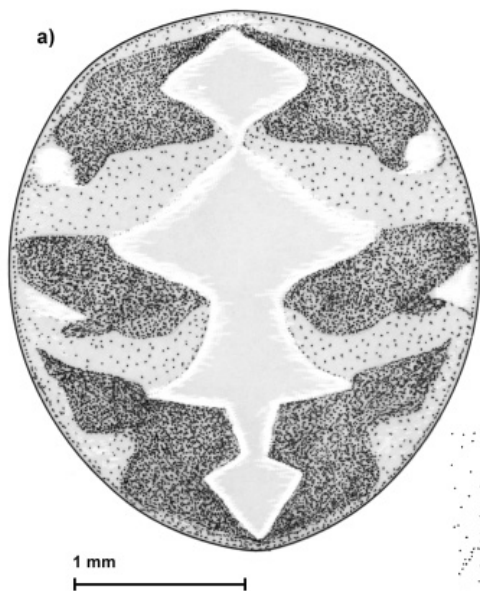


Figure 1a. *Steatoda triangulosa* (WALCKENAER), dorsal view of female abdomen.

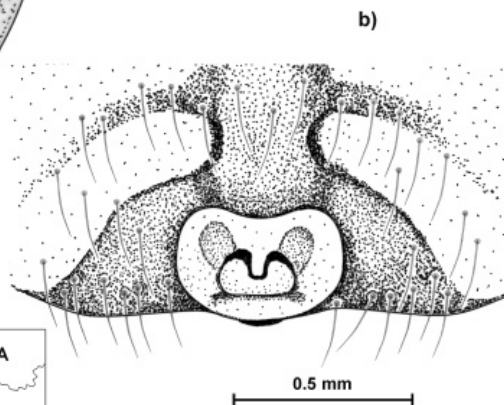


Figure 1b. *Steatoda triangulosa* (WALCKENAER) - epigynum.



Figure 1c. *Steatoda triangulosa* (WALCKENAER) - localities in Poland.

In 2009 and 2010 8 specimens of *S. triangulosa* (Table 1) were found in two large garden centers in Lublin (South-Eastern Poland) (Fig. 1c). Besides those specimens several other individuals and an empty cocoon (which probably also belongs to this species) were observed. It were out of reach so its not in collected material. The places of occurrence and the circumstances of observations and catching of specimens of *S. triangulosa* shows that on both localities the species is autochthonic and it generated small and steady populations.

Table 1. Localities and numbers of *Steatoda triangulosa* specimens caught in Lublin

Stand	Number of specimens and collection data	Location
Building-Garden Market "Obi" Lublin, Zwycięska 1 street; 51°14'10"N, 22°29'45"E [UTM FB 07]	2 juv. – 29.08.2009	under pallets with the soil for flowers
	1 juv. – 11.10.2009	between the bags of soil for flowers
	1 juv. – 11.10.2009	among small gardening tools
	2 juv. <sup>1</sup> – 24.11.2009	between the bags of soil for flowers
Building-Garden Market "Obi" Lublin, Chemiczna 2 street, 51°14'17"N, 22°35'44"E; [UTM FB 17]	1 juv. – 27.09.2009	between the pots with flowers
	1 juv. – 13.11.2010	between the pots with flowers

It is impossible to find out from which country *S. triangulosa* was introduced to Lublin and Poland. Most likely, this species has been dragged with potted plants, gardening equipment or wrappings from Western Europe (Netherlands, Germany). The introduction of *S. triangulosa* in both studied localities has to be done relatively not so far ago because regularly observations showed no presents of the spider in previous study periods (R. Rozwałka unpublished data). The results of observation suggest that *S. triangulosa* on Polish territory is probably much more widespread. Presented two localities in Lublin in gardening stores belongs the large network with number of hypermarket stores throughout the country. There is high probability that *S. triangulosa* may also occurs in other similar garden centers in major Polish cities. The hypothesis of widespread occurrence of *S. triangulosa* in Poland can be confirmed by the observations of *Uloborus plumipes* Lucas. Originally this spider species was

<sup>1</sup> The specimens raised to two adult females which was used to graphic documentation (Fig. 1–2).

only occasionally imported to Poland with decorative flowers from Western Europe (Stankiewicz, Kupryjanowicz 2002). In the past few years it spread in large centers and horticultural farms, and it is now an integral part of the Polish araneofauna (Rozwalka 2007). Nentwig, Kobelt (2008) indicate a rapid process of intensification and globalization of synanthropic araneofauna. The result of this is increasing number of new synanthropic spider species or enlarges of its areas.

Noted localities of *S. triangulosa* were only in the large garden centers. However, it is possible that this spider species will spread with the purchased equipment, potted plants and gardening (or packaging) and in the near future it might live also in residential buildings. Because of the high thermal requirements and as the consequent lack of winter hibernations in natural conditions, penetration of *Steatoda triangulosa* to natural habitats in Poland seems to be impossible.

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