Outdoor records of Erigone dentosa on Texel and further records of Steatoda nobilis (Araneae: Linyphiidae, Theridiidae) in the Netherlands

Stephan Lauterbach



doi: 10.30963/aramit7010

Abstract. In July 2024, four males of the North American dwarf spider species Erigone dentosa O. Pickard-Cambridge, 1894 were found on the Texel seashore near the ferry port. Furthermore, new records of the neozoic species Steatoda nobilis (Thorell, 1875) for the Netherlands are presented, including a record far from urban areas from a shed used as a bird observatory in Goedereede.

Keywords: Alien species, false widow, faunistics, invasive, seashore

Zusammenfassung. Freilandfunde von Erigone dentosa auf Texel sowie weitere Funde von Steatoda nobilis (Araneae: Linyphiidae, Theridiidae) in den Niederlanden. Im Juli des Jahres 2024 wurden vier Männchen der nordamerikanischen Zwergspinnenart Erigone dentosa O. Pickard-Cambridge, 1894 am Meeresufer von Texel am Fährhafen gefunden. Des Weiteren werden neue Funde der neozoischen Art Steatoda nobilis (Thorell, 1875) für die Niederlande präsentiert, inklusive eines Fundes abseits des Siedlungsgebietes in einer Vogelbeobachtungshütte in Goedereede.

Ports, coastal constructions and harbour cities are typical entry points for alien species that are inadvertently introduced by global trade (Hulme 2021). Spiders are no exception, with many alien species transported in containers and ships to areas far away from their original distribution (Nentwig 2015). In this short note I present records of two alien species, Erigone dentosa O. Pickard-Cambridge, 1894 and Steatoda nobilis (Thorell, 1875) from the Netherlands, which mark important records of these two species for the country.

Methods and identification

On the Dutch North Sea island of Texel, on 29. Jun. 2024, at the ferry port to Den Helder, I observed a high level of activity of dwarf spiders just above the waterline between and on algae. The four specimens collected at random due to the unusual location were all found to be males of Erigone dentosa O. Pickard-Cambridge, 1894. Further, on 25. Oct. 2024, the author discovered two conspicuous silken retreats at a bird observatory south of Goedereede at the Koudenhoek nature reserve. An adult female was collected and identified via microscope as Steatoda nobilis (Thorell, 1875). All specimens presented here were found incidentally by the author during avifaunistic excursions in the Netherlands. Identification was carried out according to Nentwig et al. (2025). The specimens preserved in 70% ethanol are housed in the author's collection. Drawings and photographs were made using an Olympus SZH with a drawing attachment.

The distribution map, scale and legend were created in SimpleMappr (Shorthouse 2010) and compiled in Adobe Photoshop.

Results

Erigone dentosa O. Pickard-Cambridge, 1894 (Fig. 1) Material. NETHERLANDS, North Holland, Texel, ferry port to Den Helder, 53.00269°N, 4.78039°E, 0 m ASL, 29. Jun. 2024, 4 ठैठै.

Stephan LAUTERBACH, Berliner Straße 185, 45144 Essen, Germany: E-Mail: stephan lauterbach@web.de

Academic editor: Tobias Bauer

Morphology. The high variability of the spines and apophyses on the pedipalpal tibia and patella, already discussed and photographed by Déjean & Verhoogt (2022) and Tamajón et al. (2021), was also observed in the specimens found on Texel (Fig. 4). In addition, the length-to-width ratio of the distal patellar apophysis also varied (see also Fig. 4). In only one of the four specimens (Fig. 4a) did both pedipalps have the same number of spines and ratios.

Comment. In the past twelve years, this alien species has been recorded in twelve European countries (Nentwig et al. 2025). The first record of the species in the Netherlands was made by Noordijk & Boer (2021) with a single male, in the outdoor area of a garden centre in Zuid-Scharwoude. Similar circumstances apply to the discovery of the species by Unruh (2020) in Zeitz (Saxony-Anhalt), Germany. This originally North American species is now considered cosmopolitan due to multiple introductions and establishment in countries on all continents (Tamajón et al. 2021).

Steatoda nobilis (Thorell, 1875) (Fig. 2)

Material. NETHERLANDS, Zealand, Goedereede, Koudenhoek, Koedijk / bird observatory, 51.81207°N, 3.96817°E, -3 m ASL, 25. Oct. 2024, 1 \(\bar{2} \); Stellendam, Meester Snijderweg 1,51.82633°N, 4.02838°E, 2 m ASL, 26. Oct. 2024, 1 d.

Comment. One adult female was found in a shed used as a bird observatory far from urban areas (Fig. 3). Bink (2014) dealt for the first time with the occurrence of this species in the Netherlands. Further records from this country are listed in van Helsdingen (2025) and Bauer et al. (2019). There appears to be very little faunistic research on the species in the Netherlands, however, data from the GBIF biodiversity portal (GBIF 2025) suggest that the species is widespread, established, and not uncommon in the Netherlands (Fig. 4). A detailed treatment of this species including its distribution in Europe, can be found in Bauer et al. (2019).

Discussion

Finding dwarf spiders by the seashore, even species that are not necessarily hygrophilous or halotolerant, is not unusual (Szymkowiak et al. 2007). Many species arrive accidentally at such sites from neighbouring habitats such as salt marshes and dune landscapes through ballooning used for dispersal.

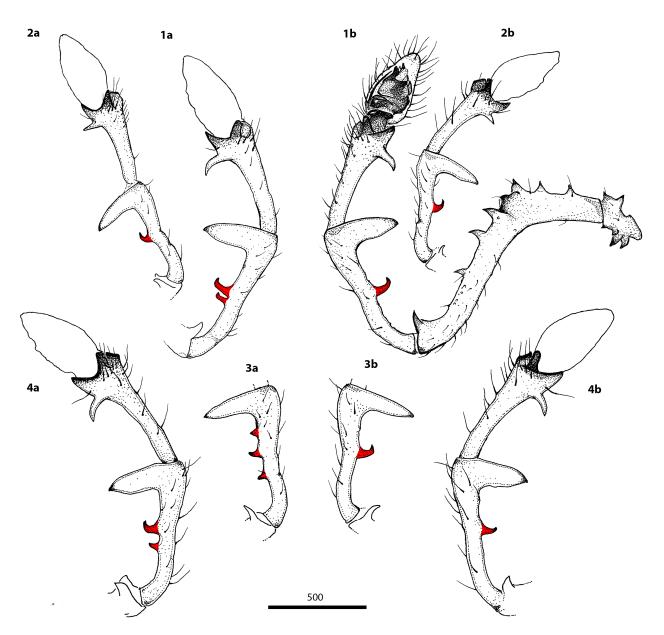


Fig. 1: Pedipalps of Erigone dentosa &, Texel (Netherlands). Numbers 1-4 represent individuals. a. right pedipalps; b. left pedipalps. Spination on patellae highlighted in red. Scale in um

In the case of E. dentosa, however, this concerns a species that has obviously experienced a large increase in distribution in recent years, likely through both multiple introductions and independent dispersal, but has so far mainly been found in synanthropic circumstances such as garden centres. (Neozoic) linyphiid spiders in Europe repeatedly demonstrated enormous potential for dispersal, as current cases of rapidly spreading species show (Růžička 1995, Narimanov et al. 2022, Bach et al. 2023). An observed association of alien E. dentosa with large bodies of water (Tamajón et al. 2021) is also worth mentioning at this point. The site is about 6 km from the nearest towns and garden centres in both northern and southern directions, and the North Sea would have to be crossed to reach the garden centre in Den Helder. The ferry port to Den Helder, where the species was found, paves the way for a possible dispersal onto the mainland. An accidental drift, but also active distribution, from one of these locations is therefore conceivable.

The same applies to the discovery of S. nobilis in Goedereede, although this discovery was made in a man-made structure, outside the settlement area. Here, the accidental dispersal of individuals from a domestic population is more likely than on Texel. The walls of the observatory are made entirely of wood. Judging by the condition of the material, it was not constructed this year. It is conceivable that individual animals were transported to this location by the building material, as well as travelling as stowaways in the luggage of visitors to the observatory. This find does not represent a true outdoor record as the species inhabited an artificial structure, however, the site is located about 700 metres from the next settlement area. Overall, S. nobilis is known to inhabit artificial structures in the landscape, such as fences, traffic signs or bus stops (Bauer et al. 2019). Additionally, findings in seminatural habitats from Great Britain are discussed in Bauer et al. (2019). The further discovery of an adult male (Fig. 2) and a juvenile of S. nobilis about 4.5 km northwest of the first site,



Fig. 2: *Steatoda nobilis &*, 26. Oct. 2024, NL Stellendam. Scale in μm



Fig. 4: New records and GBIF Data on the distribution of *S. nobilis* in the Netherlands



Fig. 3: Habitat and retreat of *S. nobilis* \$\, Goedereede, Koudenhoek. Red circle marks position of retreats. **a.** shed used as bird observatory; **b**. retreats of *S. nobilis*. Images taken 25. Oct. 2024

on the northern wall of Meester Snijderweg 1 in Stellendam, confirms the presence of the species in this area.

Acknowledgements

I would like to thank Gregor Imbusch for his help in creating the distribution map and for his general assistance in preparing this manuscript. Thanks also go to the reviewers and editors of this manuscript.

References

Bach A, Zäpernick F & Stratemann L 2023 The first record of *Diplocephalus graecus* (Araneae: Linyphiidae) in Germany with comments on its range expansion. – Arachnologische Mitteilungen 65: 13-17 – doi: 10.30963/aramit6504

Bauer T, Feldmeier S, Krehenwinkel H, Wieczorrek C, Reiser N & Breitling R 2019 *Steatoda nobilis*, a false widow on the rise: A synthesis of past and current distribution trends. – Neobiota 42: 19-43 – doi: 10.3897/neobiota.42.31582

- Bink J 2014 *Parasteatoda tabulata* Levi, 1980 (Araneae, Theridiidae) voor het eerst waargenomen in Nederland. Nieuwsbrief Spined 34: 12-15
- Coşar I, Danışman T & Birer E 2024 Discovery of the alien spider *Erigone dentosa* O. Pickard-Cambridge, 1894 (Araneae: Linyphiidae) in Türkiye. – Serket 20: 106-110
- Déjean S & K Verhoogt 2022 Découverte en Occitanie d'*Erigone dentosa* O. Pickard-Cambridge, 1894 (Araneae, Linyphiidae), espèce américaine arrivée en France. Revue arachnologique, série 2: 8-12
- GBIF 2025 GBIF Occurrence Download https://doi.org/10.15468/dl.3pzsuc Internet: www.gbif.org (10. Sep. 2025)
- van Helsdingen P 2025 Catalogus van de Nederlandse spinnen. Version 2025.3. – Internet: https://kenniscentruminsecten.nl/wp-content/uploads/2025/09/Spinnencatalogus_2025.3.pdf (14. Dec. 2025)
- Hulme PE 2021 Unwelcome exchange: International trade as a direct and indirect driver of biological invasions worldwide. One Earth 4: 666-679 doi: 10.1016/j.oneear.2021.04.015
- Narimanov N, Bauer T, Bonte D, Fahse L, & Entling MH 2022 Accelerated invasion through the evolution of dispersal behaviour. – Global Ecology and Biogeography 31: 2423-2436 – doi: 10.1111/geb.13599

- Nentwig W 2015 Introduction, establishment rate, pathways and impact of spiders alien to Europe. Biological Invasions 17: 2757-2778 doi: 10.1007/s10530-015-0912-5
- Nentwig W, Blick T, Bosmans R, Hänggi A & Kropf C 2025 Spiders of Europe. Version 3.2025. Internet: https://www.araneae.nmbe.ch (26. Mar. 2025) doi: 10.24436/1
- Noordijk J & Boer P 2021 Eerste Vondst van de exotische Hangmatspin *Erigone dentosa* (Araneae: Linyphiidae). – Nederlandse Faunistische Mededelingen 57: 107-108
- Růžička V 1995 The spreading of Ostearius melanopygius (Araneae: Linyphiidae) through central Europe. – European Journal of Entomology 92: 723-726
- Shorthouse DP 2010 SimpleMappr, an online tool to produce publication-quality point maps. Internet: https://www.simplemappr.net
- Szymkowiak P, Górski G & Bajerlein D 2007 Passive dispersal in arachnids. Biological Letters 44: 75-101
- Tamajón R, Sánchez I, Pertegal C & Rodríguez G 2021 Primeros registros de *Erigone dentosa* O. Pickard-Cambridge, 1894 (Araneae: Linyphiidae) en el sur de la Península Ibérica. – Revista de la Sociedad Gaditana de Historia Natural 15: 39-42
- Unruh M 2020 Die Zwergspinne *Erigone dentosa* (Araneae: Linyphiidae) neu für Deutschland. Arachnologische Mitteilungen 60: 63-67 doi: 10.30963/aramit6012