

**A first Irish record of  
*Xysticus kochi* Thorell, 1872,  
collected in the late  
nineteenth-century**

A thorough re-examination of spiders held in the collection of the National Museum of Ireland, Natural History (NMINH) was carried out by the author in 2020-2021. The principal aims of this effort were to verify identifications of specimens and to extract unpublished records and data for inclusion in a dataset leading to the compilation of a Red List of Irish spiders. A small number of misidentifications were observed of species already known from Ireland, however when a jar of specimens of the very abundant Common Crab-spider (*Xysticus cristatus* (Clerck, 1757)) was examined, a single adult male specimen was re-identified as *Xysticus kochi*, Thorell, 1872, a species never previously noted from Ireland. The specimen was collected in 1893 and the species does not feature in any major summary lists or checklists (Carpenter 1898, Pack-Beresford 1909, Helsdingen 1996, Cawley 2009, Lavery 2018).

*Xysticus kochi*, Thorell, 1872 – New to Ireland

**CO. LOUTH:** Dundalk, 8 July 1893, 1♂,  
(1♂ submature?).

The specimen was in a jar with the container number NC:Zool.jar.3290 and the label '*Xysticus cristatus* (Clerck, 1757)'. The relevant tube contained three layers of specimens (typical for the period as a way of saving space and expense) and each was accompanied by a label. The label with *X. kochi* reads "Dundalk 8.7.93". A sub-adult male, possibly of the same species, was with the adult specimen. The data was written in pencil on a 9 x 5 mm white, paper label, quite typical for spider specimens preserved from the late nineteenth/early twentieth century. Specimens

in the two other layers were confirmed as *X. cristatus* and the labels gave the following details: “Coolmore Co. Donegal 4.8.93”, “Slieve Glah Cavan 10.10.93”. It is frequently the case that specimens collected in the same time period are preserved together in the spider collection so the label information substantiates the contention that ‘93’ on the *X. kochi* label refers to 1893. The jar in which the tube was found contained fifteen tubes in total and 35 ‘layers’ of specimens. All other specimens were of *X. cristatus* and all were from Irish locations. As such the specimen of *X. kochi* can be adjudged to be of Irish provenance. The specimen’s left palp is missing and probably was removed to ease (mis-)identification. This is more often done with Thomisidae than some other spider families due to the difficulty of manipulating the frequently short palp to view diagnostic features. The right palp was somewhat loose and I detached it and placed it in a microvial to ensure it would not go astray in a larger tube. The submature specimen closely resembled the adult but cannot safely be ascribed to *X. kochi*. The two specimens have been segregated to a new jar and given the registration number NMINH:2004.80.2 as part of the collections of the National Museum of Ireland – Natural History.

### Discussion

It is uncertain who collected the specimen. Carpenter, in his *List of the spiders of Ireland* (1898) loosely summarises the distribution of *X. cristatus* but does not note in detail every location at which it was found prior to 1898, stating that it is “generally distributed and very common, ranging from counties of Donegal and Antrim to Wexford and Cork”. The writing on the label is almost certainly in Carpenter’s hand – he started work as Assistant Naturalist at the Natural History Museum, Dublin in 1888.

It is common practice to consider a species not seen in Ireland in over 100 years to be extinct here, so is it warranted to add *X. kochi* to the current checklist? Despite a veritable renaissance in spider studies in recent decades, it is still the case that relatively little investigation has been carried out of the Irish spider fauna and new species are added regularly to the Irish checklist (see references in Cawley 2009, Lavery 2018). I have elsewhere argued against declaring a species extinct on the basis of an arbitrarily chosen time-period without more substantial grounds (Nolan 2020) and would argue equally that dismissing a historical record with reliable data attached is similarly unproductive. With respect to *X. kochi* the relevant question might be whether populations persist in Ireland and some consideration of the spider’s environmental

preferences might clarify this.

It occurs throughout Europe in a range of habitats, especially managed environments such as orchards, cereal and arable fields, ruderal situations and habitats with well-draining soils (Hänggi *et al.* 1995), and including built-up areas and gardens (even in north-western France) (Braud 2007). It is considered common in Czechia (Buchar and Růžicka 2002) and is one of the dominant species on pasture and arable lands in Poland and Hungary respectively (Szymkowiak and Woźny 1998, Nagy *et al.* 2010). Its abundance has even encouraged experiments to examine its effectiveness as a biocontrol agent in greenhouse situations (Nagy *et al.* 2010). As such, it is considered a common species across continental Europe but it does not extend to the far north and in Sweden is confined to the southernmost areas (Almquist 2005). It does occur with greater rarity further west in Europe. Thus, in Britain it is not common, with populations heavily concentrated in southern England where its habitat preferences strongly reflect a thermophilous nature, “warm, dry conditions ... open and sparsely vegetated habitats ... ruderal habitats, dunes, vegetated shingle, under-cliffs, old sand and chalk pits, south facing scarps, chalk and drier parts of grazing marsh grasslands” (Spider Recording Scheme 2021). The vast majority of specimens recorded from Britain were collected at soil level and from low vegetation (<20 cm). Given that many elements from this range of habitats occur in Ireland it seems reasonable to consider that the spider could still be resident here though uncommonly found and possibly very localised. Drier situations on Ireland’s east and south coasts, and xeric-tending habitats further inland such as insolated grasslands, scrubland and heath might prove to house populations.

It is worth mentioning that while the diagnostic factors of the male are very distinct – so much so as to make one wonder how the mis-identification occurred – the female epigynal structures can be very similar to those of *X. cristatus* (Roberts 1895) so specimens of *X. cristatus* from drier situations might merit close comparison with a range of diagnostic illustrations of *X. kochi*.

A small number of misidentifications of notably uncommon or rare species were noted during the inventory project and will be published on another occasion. *X. kochi* is yet another spider species to have its Irish status established on the basis of specimens found in the NMINH collections, others including *Maro minutus* (O.P.-Cambridge, 1906) and *Mioxena blanda* (Simon, 1884) (Nolan 2000, 2004), demonstrating yet again the importance of museum collections as a reservoir of information on Ireland’s invertebrate fauna.

**Acknowledgements:** Thanks to Nigel Monaghan, Keeper at the National Museum of Ireland – Natural History, for funding the re-examination of the Irish spider collection and to Martin Cawley for confirming the identification of the specimen and reading this note in an earlier draft.

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- Almquist, S. (2006) Swedish Araneae, part 2, families Dictynidae to Salticidae. *Insect Systematics and Evolution Supplement* **63**: 285-603.
- Braud, S. (2007) Les araignées de Maine-et-Loire; inventaire et cartographie. *Bulletin de synthèse de l'association Mauges Nature, Cholet* **7**.
- Buchar, J. and Růžička, V. (2002) *Catalogue of the spiders of the Czech Republic*. Edited by Peter Merrett. Peres, Prague.
- Carpenter, G. H. (1898) A list of the Spiders of Ireland. *Proceedings of the Royal Irish Academy* **5**: 128-210.
- Cawley, M. (2009) A summary of new Irish county records for spiders (Araneae). *Bulletin of the Irish Biogeographical Society* **33**: 184-221.
- Hänggi, A., Stöckli, E. and Nentwig, W. (1995) *Lebensräume Mitteleuropäischer Spinnen. Habitats of Central European spiders*. *Miscellanea Faunistica Helvetia* **4**: 1-460. Centre Suisse de cartographie de la faune.
- Helsdingen, P.J. van (1996) *The county distribution of Irish spiders, incorporating a revised catalogue of the species*. Irish Naturalists' Journal, Belfast.
- Lavery, A. (2019) A revised checklist of the spiders of Great Britain and Ireland. *Arachnology* **18**: 196-212.
- Nagy, A., Bán, G., Tóth, F., Zrubecz, P. and Szemerády, K. (2010) Technological questions during the use of *Xysticus kochi* against *Frankliniella occidentalis* in greenhouse pepper. *Acta Phytopathologica et Entomologica Hungarica* **45**: 125-134.
- Nolan, M. (2000) A provisional list of spiders (ARANEAE) from Lesley Gibson's survey (1979-1982) of Carnsore Point, Co. Wexford, including one species new to Ireland *Maro minutus* (O.P.-Cambridge, 1906) (LINYPHIIDAE). *Bulletin of the Irish biogeographical Society* **24**: 159-67.
- Nolan, M. (2008) First records of three spider species in Ireland (Araneae): *Glyphesis cottonae* (La Touche), *Mioxena blanda* (Simon) (Linyphiidae) and *Segestria florentina* (Rossi) (Segestriidae). *Bulletin of the Irish biogeographical Society* **32**: 132-141.
- Nolan, M. (2020) Notes on 'Irish' spiders (Arachnida): *Atypus affinis* Eichwald (Atypidae) and *Entelecara errata* O. P.-Cambridge (Linyphiidae) removed from the Irish list; *Cryptachaea blattea* (Urquhart) (Theridiidae) new to Ireland. *Bulletin of the Irish Biogeographical Society* **44**: 189-204.
- Pack-Beresford, D.R. (1909) A supplementary list of the spiders of Ireland. *Proceedings of the Royal Irish Academy* **27B**: 87-118.
- Roberts, M. J. (1985) *The spiders of Great Britain and Ireland*. I. Harley Books, Colchester.
- Spider Recording Scheme (2021) *Summary for Xysticus kochi* (Araneae), *The British Spider Recording Scheme*. Online at: <http://srs.britishspiders.org.uk/portal.php/pl/Summary/s/Xysticus+kochi> Accessed 16 March 2021
- Szymkowiak, P. and Woźny, M. (1998) Dominance structure and seasonal changes in the abundance of dominant epigeic spiders in pastures of northern Greater Poland. In: Selden, P.A. (ed.) *Proceedings of the 17th European Colloquium of Arachnology, Edinburgh 1997*: 267-72. British Arachnological Society, Burnham Beeches, Bucks.



# THE IRISH NATURALISTS' JOURNAL

c/o National Museums Northern Ireland, Cultra, Holywood, Co. Down BT18 0EU

UK Company No. NI 027133 Charity Ref. XO 887/91

[www.irishnaturalistsjournal.org](http://www.irishnaturalistsjournal.org)

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This article should be cited as:

Nolan, M. (2021) A first Irish record of *Xysticus kochi* Thorell, 1872, collected in the late nineteenth-century. *Irish Naturalists' Journal* **38**: 49-51.

Published: 12 December 2021