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Exephanes ischioxanthus (Gravenhorst, 1829) (Hymenoptera, Apocrita, Ichneumonidae), new species for Portugal

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Abstract: *Exephanes ischioxanthus* (Gravenhorst, 1829) (Hymenoptera: Ichneumonidae) is reported from Portugal for the first time, with a record from the northern region (Baião, Porto). The record, obtained in a small-scale agricultural mosaic, reinforces the species' occurrence in the westernmost region of continental Europe.
Key words: Hymenoptera, Apocrita, Ichneumonidae, Ichneumoninae, *Exephanes ischioxanthus*, first record, Portugal.

Resumen: *Exephanes ischioxanthus* (Gravenhorst, 1829) (Hymenoptera, Apocrita, Ichneumonidae), new species for Portugal. Se cita *Exephanes ischioxanthus* (Gravenhorst, 1829) (Hymenoptera: Ichneumonidae) por primera vez para Portugal, gracias a un registro de la región septentrional (Baião, Porto). Este registro, obtenido en un mosaico agrícola a pequeña escala, refuerza la presencia de la especie en el extremo occidental de Europa continental.
Palabras clave: Hymenoptera, Apocrita, Ichneumonidae, Ichneumoninae, *Exephanes ischioxanthus*, primera cita, Portugal.

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Introduction

Ichneumonidae is the largest family of the Hymenoptera with about 25,300 valid species described (van ACHTERBERG *et al.*, 2017). TOWNES (1969) estimated the global species richness of Ichneumonidae at roughly 60,000 species, a figure subsequently considered an underestimate, with only approximate revisions proposed afterwards and no systematic updates undertaken (MEIER *et al.*, 2024). Ichneumonidae larvae are parasitoids of the larvae of various insect orders, particularly Lepidoptera (caterpillars), and are also relatively common on other parasitic Hymenoptera (van ACHTERBERG *et al.*, 2017).

The ichneumonid *Exephanes ischioxanthus* (Gravenhorst, 1829) is reported here from Portugal for the first time, based on a female specimen photographed by the first author on 2 February 2020 (Fig. 1) in Baião, northern Portugal (41.18297, -8.01438; Porto district, Baião municipality). Two photos were uploaded to the online biodiversity platform iNaturalist.org (see here), where the identification was provided by Fons Verheyde (https://www.biodiversity4all.org/people/fonsv).

As in many members of the subfamily Ichneumoninae, *E. ischioxanthus* females (8.5–10 mm) are predominantly black, with the metasoma showing a medial red coloration and bearing white markings on the antennae, the scutellum, and the posterior of the metasoma. In contrast to most Ichneumoninae, the ovipositor projects further, and the apical portion of the metasoma is slightly elongated, with eight metasomal tergites clearly visible. Males (9–12 mm) differ in appearance, with yellow coloration on the face and centrally on the metasoma (PERKINS, 1960; HINZ & HORSTMANN, 2000).

According to HINZ & HORSTMANN (2000), *E. ischioxanthus* is a larval parasitoid of the noctuid moth *Mesoligia furuncula* (Denis & Schiffermüller, 1775) (Lepidoptera, Noctuidae). Oviposition

occurs into the larva, and, as in almost all Ichneumoninae, emergence occurs from the host's pupa (BROAD *et al.*, 2018). Both sexes can be found feeding on flowers and females have been observed swarming over low vegetation in warm, humid conditions shortly before storms (BROAD *et al.*, 2024). In studies of ichneumonids hibernating in caves, *E. ischioxanthus* has been recorded as a species occasionally using these hibernacula (VERHEYDE *et al.*, 2025). Occasional records also include more anthropogenic structures, such as old city walls, though these are less common. Unlike other ichneumonids which form large aggregations, *E. ischioxanthus* is usually represented by only a few specimens at any given site (VERHEYDE & QUICKE, 2022).

Exephanes ischioxanthus has a Western Palaearctic distribution that, apart from Portugal, hereby reported for the first time, comprises several European countries, including Belgium, Czech Republic, France, Germany, Luxembourg, the Netherlands, Poland, Slovakia, Slovenia, Spain and the United Kingdom (YU *et al.*, 2016). The westernmost known record in continental Europe is a preserved specimen from northwestern Spain, collected on 28 June 1915 and deposited in the Museo Nacional de Ciencias Naturales, Madrid (PARÍS *et al.*, 2020).

The specimen reported here was found in a small-scale agricultural mosaic with patches of spontaneous herbaceous vegetation near a small oak woodland. In addition to this record, the noctuid moth *M. furuncula*, which serves as a host has also been recorded at the same location by the first author. The sighting *of E. ischioxanthus* reported in this note is especially significant as it reinforces the species' occurrence in the westernmost region of continental Europe, showing that further work is needed to assess its complete distribution range.

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References

BROAD, G.R., NATURAL HISTORY MUSEUM GENOME ACQUISITION LAB, DARWIN TREE OF LIFE BARCODING COLLECTIVE, WELLCOME SANGER INSTITUTE TREE OF LIFE MANAGEMENT, SAMPLES AND LABORATORY TEAM, WELLCOME SANGER INSTITUTE SCIENTIFIC OPERATIONS: SEQUENCING OPERATIONS, WELLCOME SANGER INSTITUTE TREE OF LIFE CORE INFORMATICS TEAM, TREE OF LIFE CORE INFORMATICS COLLECTIVE & DARWIN TREE OF LIFE CONSORTIUM. 2024. The genome sequence of an ichneumonid wasp, Exephanes ischioxanthus (Gravenhorst, 1829). *Wellcome Open Research*, **9**: 8. Available at: https://doi.org/10.12688/wellcomeopenres.20498.1.

BROAD, G.R., SHAW, M.R. & FITTON, M.G. 2018. Ichneumonid Wasps (Hymenoptera: Ichneumonidae): their classification and biology. *Handbooks for the Identification of British Insects*, **7**(12). Royal Entomological Society, London. 424 pp.

HINZ, R. & HORSTMANN, K. 2000. Die westpaläarktischen Arten von *Exephanes* Wesmael (Insecta, Hymenoptera, Ichneumonidae, Ichneumoninae). *Spixiana*, **23**: 15–32.

MEIER, N., GORDON, M., VAN NOORT, S., REYNOLDS, T., RINDOS, M., DI GIOVANNI, F., BROAD, G.R., SPASOJEVIC, T., BENNETT, A., DAL POS, D. & KLOPFSTEIN, S. 2024. Species richness estimation of the Afrotropical Darwin wasps (Hymenoptera, Ichneumonidae). *PLoS ONE*, **19**(7): e0307404. Available at: https://doi.org/10.1371/journal.pone.0307404.

PARÍS, M., BLAY, A. & ALONSO ZARAZAGA, M.Á. 2020. Museo Nacional de Ciencias Naturales, Entomología [Occurrence dataset]. Museo Nacional de Ciencias Naturales (CSIC). https://doi.org/10.15468/pqfubx (accessed via GBIF.org on 2026 02 09).

PERKINS, J.F. 1960. Hymenoptera: Ichneumonoidea: Ichneumonidae, subfamilies Ichneumoninae II, Alomyinae, Agriotypinae and Lycorininae. *Handbooks for the Identification of British Insects*, **VII**(2aii). Royal Entomological Society of London, London. pp. 117–213.

TOWNES, H. 1969. The Genera of Ichneumonidae, Part 1. *Memoirs of the American Entomological Institute*, **11**: 1–300.

VAN ACHTERBERG, K., TAEGER, A., BLANK, S.M., ZWAKHALS, K., VIITASAARI, M., YU, D.S.K. & DE JONG, Y. 2017. Fauna Europaea: Hymenoptera – Symphyta & Ichneumonoidea. *Biodiversity Data Journal*, **5**: e14650. Available at: https://doi.org/10.3897/BDJ.5.e14650.

VERHEYDE, F. & QUICKE, D.L.J. 2022. Review of adult diapause in ichneumonid wasps (Hymenoptera, Ichneumonidae). *Journal of Hymenoptera Research*, **91**: 185–208. Available at: https://doi.org/10.3897/jhr.91.83618.

VERHEYDE, F., DE KETELAERE, A., ØRSNES, G., PÉNIGOT, W., STOREY, M., ÖSTERBLAD, I., CAMERON, A., ENGAN, G., FIALA, M., LUTZ, J., PARKHOMENKO, M., GOKHMAN, V., DEKONINCK, W., COOLEMANN, S. & MEES, J. 2025. First comprehensive catalogue of hibernating Darwin wasps in the Western Palaearctic (Hymenoptera, Ichneumonidae). *Biodiversity Data Journal*, **13**: e176441. Available at: https://doi.org/10.3897/BDJ.13.e176441.

YU, D.S., VAN ACHTERBERG, C. & HORSTMANN, K. 2016. *Taxapad 2016, Ichneumonoidea 2015. Database on flash-drive*. Ottawa, Ontario, Canada. Available at: www.taxapad.com

Fig. 1.- Specimen of *Exephanes ischioxanthus* (Gravenhorst, 1829) from Baião (Porto, Portugal). Photo: Daniel Ferreira.