

Contributions to the knowledge of Diptera in NW Spain – I

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Abstract

This is the first of a series of articles devoted to the study of Diptera of Galicia (Spain) and neighboring territories. The specimens were captured by members of the Asociación BIGA in Galicia and the determinations were made by the European dipterologists Kai Heller (Sciaridae) and Valery Korneyev (Tephritidae). 17 Sciaridae and 12 Tephritidae species were found. Six new Sciaridae species for Spain were found: *Bradysia longicubitalis* (Lengersdorf 1924), *Bradysia trispinifera* Mohrig & Krivosheina 1979, *Corynoptera blanda* (Winnertz 1867), *Corynoptera inundata* Fritz 1982, *Cratyna (Cratyna) ambigua* (Lengersdorf 1934) and *Trichosia edwardsi* (Lengersdorf 1930). All specimens are deposited in the Centro de Investigación e Información Ambiental - CINAM of Lourizán (Pontevedra, Spain).

Keywords: Diptera, Sciaridae, Tephritidae, Galicia, NW Spain, LOU-Arthr.

Resumen

Este es el primero de una serie de artículos dedicados al estudio de los Diptera de Galicia (España) y zonas limítrofes. Las capturas han sido realizadas por miembros de la Asociación BIGA y las determinaciones las han llevado a cabo los dipterólogos europeos Kai Heller (Sciaridae) y Valery Korneyev (Tephritidae). Se han determinado 17 especies de Sciaridae y 12 de Tephritidae. Se han hallado seis nuevas especies para España en Sciaridae: *Bradysia longicubitalis* (Lengersdorf 1924), *Bradysia trispinifera* Mohrig & Krivosheina 1979, *Corynoptera blanda* (Winnertz 1867), *Corynoptera inundata* Fritz 1982, *Cratyna (Cratyna) ambigua* (Lengersdorf 1934) y *Trichosia edwardsi* (Lengersdorf 1930). Todo el material se encuentra depositado en el Centro de Investigación e Información Ambiental - CINAM de Lourizán (Pontevedra, España).

Palabras clave: Diptera, Sciaridae, Tephritidae, Galicia, NO de España, LOU-Arthr.

INTRODUCTION

From the earliest works including Diptera information for Galicia in ALONSO (1820) and LÓPEZ (1866), to the modern monographies devoted to some families of this order in COBO (1988), COBO *et al.* (2004) or EIROA (1988), knowledge of Diptera in NW Spain is a task that requires additional efforts, not only to complete the distribution of known West Palearctic species to this territory, but also to discover endemisms and particular ecosystems of interest. With this first article (and the expected to come), the intention is to add a small contribution to the extensive work that must be made in order to achieve a checklist for this territory (map 1).

MATERIAL AND METHODS

The captures were made by members of the BIGA Association (Biodiversity in GALICIA, <http://www.big.org>) with sweeping net, with the corresponding authorizations of the local administration Consellería de Medio Ambiente e Desenvolvemento Sostible of the Xunta de Galicia (Spain), and transferred immediately to 70% Ethanol. Every fly was transferred to an Eppendorf tube with the corresponding labels and is deposited in the Arthropoda collection (acronym LOU-Arthr) of the Centro de Investigación e

Información Ambiental - CINAM of Lourizán (Pontevedra, Spain) of the Xunta de Galicia.

In the following sections the results are ordered by family and species name. Details of the collection data and location of specimens are provided under each species, including country, province, municipality, location, UTM coordinate (also in maps 2 and 3), altitude, habitat, date, *leg.* and the specimen or specimens number in the LOU-Arthr collection.

The specimens were determined by Kai Heller (Sciaridae) and Valery Korneyev (Tephritidae).

The nomenclature follows HELLER & MENZEL (2004), MENZEL & HELLER (2006) and MERZ & KORNEYEV (2004).

Several microphotographies of the specimens cited in this work will be available in the same Internet Web page where the corresponding Boletín BIGA 4 will be published: http://www.big.org/Boletin_BIGA/Boletin_BIGA4/index_uk.html

RESULTS IN SCIARIDAE

Bradysia alpicola (Winnertz 1867)

- Spain, A Coruña, Cariño, Punta Robaliceira, 29TNJ8543, 200 m, in serpentine cliff with *Ulex europaeus*, J.L. Camaño, J. Pino & R. Pino. 6-V-2007. LOU-Arthr 4853.

- Spain, Lugo, Pantón, San Fiz de Cangas, 29TPH1203, 560 m, in fields, 3-VII-2007, J.L. Camaño. LOU-Arthr 9506, 9572.

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Map 1. Location of Galicia in the Iberian Peninsula

- Spain, Pontevedra, Pontearreas, Devesa, 29TNG4067, 60 m, in deciduous forest in riverbank, 10-IV-2007, *J.L. Camaño*. LOU-Arthr 7562.

Bradysia longicubitalis (Lengersdorf 1924)

- Spain, Pontevedra, A Lama, Xesta, 29TNG5293, 710 m, in *Quercus robur* forest, 7-IX-2007, *J.L. Camaño*. LOU-Arthr 6506.

New to Spain. Recorded from Austria, England, Czech Republic, Finland, Germany, Hungary and Latvia, HELLER & MENZEL (2004).

Bradysia nitidicollis (Meigen 1818)

- Spain, Lugo, Cervantes, Vilarello mountain, 29TPH7244, 1000 m, in old deciduous mixed forest, 29-VII-2007, *J.L. Camaño*. LOU-Arthr 15311, 15324, 15328.

- Spain, Ourense, Montederramo, near Montederramo, 29TPG2481, 900 m, in *Betula alba* forest near riverbank, 5-X-2007, *J.L. Camaño*. LOU-Arthr 12248.

- Spain, Ourense, Lobios, Regada, 29TNG7737, 680 m, in heathland with *Pterospartum tridentatum*, 4-V-2008, *J.L. Camaño*. LOU-Arthr 14406.

- Spain, Ourense, Pobra de Trives, Ponte Bibei, 29TPG 4788, 300 m, in deciduous forest near riverbank, 5-IV-2008, *J.L. Camaño*. LOU-Arthr 14093.

Bradysia pectoralis (Stæger 1840)

- Spain, Ourense, Lobios, Regada, 29TNG7337, 680 m, in heathland, 4-V-2008, *J.L. Camaño*. LOU-Arthr 14422.

- Spain, Ourense, Manzaneda, A Madroa, 29TPG4884, 580 m, in *Quercus petraea* forest near riverbank, 5-IV-2008, *J.L. Camaño*. LOU-Arthr 14048.

Bradysia placida (Winnertz 1867)

- Spain, Lugo, Cervantes, Vilarello mountain, 29TPH7244, 1000 m, in old deciduous mixed forest, 29-VII-2007, *J.L. Camaño*. LOU-Arthr 15302, 15306, 15310, 15318, 15322, 15323, 15325, 15326.

- Spain, Ourense, Manzaneda, A Madroa, 29TPG4884, 580 m, in *Quercus petraea* forest near riverbank, 5-IV-2008, *J.L. Camaño*. LOU-Arthr 14074.

- Spain, Lugo, Pantón, Fiz de Cangas, 29TPH1203, 560 m, in fields, 3-VII-2007, *J.L. Camaño*. LOU-Arthr 9617.

Bradysia trispinifera Mohrig & Krivosheina 1979

- Spain, Pontevedra, A Lama, Xesta, 29TNG5293, 710 m, in *Quercus robur* forest, 7-IX-2007, *J.L. Camaño*. LOU-Arthr 6602.

New to Spain. Recorded from Czech Republic, Germany, Hungary and Switzerland, HELLER & MENZEL (2004).

Bradysia trivittata (Stæger 1840)

- Spain, Pontevedra, A Lama, Xesta, 29TNG5293, 710 m, in *Quercus robur* forest, 7-IX-2007, *J.L. Camaño*. LOU-Arthr 6551.

Bradysia vagans (Winnertz 1868)

- Spain, Lugo, Cervantes, Vilarello mountain, 29TPH7244, 1000 m, in old deciduous mixed forest, 25-VII-2008, *J.L. Camaño*. LOU-Arthr 15327.

- Spain, Pontevedra, Tui, Bouzabalada, 29TNG2852, 50 m, in fields near riverbank, 23-IV-2007, *J.L. Camaño*. LOU-Arthr 4421, 4518.

Corynoptera blanda (Winnertz 1867)

- Spain, Lugo, Cervantes, Vilarello mountain, 29TPH7244, 1000 m, in old deciduous mixed forest, 29-VII-2007, *J.L. Camaño*. LOU-Arthr 15304.

New to Spain. Recorded from Austria, Britain, Bulgaria, Czech Republic, Denmark, Finland, Germany, Ireland, Italy, Sweden and The Netherlands, HELLER & MENZEL (2004).

Corynoptera inundata Fritz 1982

- Spain, Pontevedra, Tomiño, Os Escampados, 29TNG 2851, 15 m, in fields near riverbank, 3-VI-2007, *J.L. Camaño*. LOU-Arthr 4992.

New to Spain. Recorded from Austria, Bulgaria, Czech Republic, Finland, Germany, Italy, Sweden, Switzerland and Ukraine, HELLER & MENZEL (2004).

Cratyna (Cratyna) ambigua (Lengersdorf 1934)

- Spain, Lugo, Palas de Rei, San Pedro de Meixide, 29TNH 8848, 420 m, in *Quercus robur* forest, 10-III-2007, *J.L. Camaño*. LOU-Arthr 13611.

New to Spain. Recorded from Austria, Bulgaria, Czech Republic, Finland, France, Germany, Greece, Italy, Luxembourg, Slovakia, Sweden, Switzerland, The Netherlands and Ukraine, HELLER & MENZEL (2004).

Cratyna (Spathobdella) nobilis (Winnertz 1867)

- Spain, Ourense, Chandrexa de Queixa, Taboazas, 29TPG 2876, 940 m, in heathland, 5-X-2007, *J.L. Camaño*. LOU-Arthr 8409.

- Spain, Ourense, Lobios, Regada, 29TNG7737, 680 m, in heathland, 4-V-2008, *J.L. Camaño*. LOU-Arthr 14414.

Lycoriella (Lycoriella) lundstromi (Frey 1948)

- Spain, Lugo, Cervantes, Vilarello mountain, 29TPH7244, 1000 m, in old deciduous mixed forest, 25-VII-2008, *J.L. Camaño*. LOU-Arthr 15317

Phytosciara (Dolichosciara) flavipes (Meigen 1804)

- Spain, Lugo, Cervantes, Vilarello mountain, 29TPH7244, 1000 m, in old deciduous mixed forest, 25-VII-2008, *J.L. Camaño*. LOU-Arthr 15309.

- Spain, Lugo, Palas de Rei, San Pedro de Meixide, 29TNH 8848, 420 m, in *Quercus robur* forest near riverbank, 10-III-2007, *J.L. Camaño*. LOU-Arthr 13607.

- Spain, Lugo, Pantón, San Fiz de Cangas, 29TPH1203, 560 m, in fields, 3-VII-2007, *J.L. Camaño*. LOU-Arthr 9522, 9626.

- Spain, Pontevedra, A Lama, Xesta, 29TNG5293, 710 m, in *Quercus robur* forest, 7-IX-2007, *J.L. Camaño*. LOU-Arthr 6556, 6601, 6653.

- Spain, Pontevedra, Pontearreas, A Cañota, 29TNG4067, 30 m, in *Alnus glutinosa* forest over riverbank, 25-II-2007, *J.L. Camaño*. LOU-Arthr 5160, 5166, 5176, 5179.
- Spain, Pontevedra, Rodeiro, Cabanas, 29TNH8627, 600 m, in deciduous forest over riverbank, 25-VII-2007, *J.L. Camaño*. LOU-Arthr 6884.
- Spain, Pontevedra, Tui, Caldelas de Tui, 29TNG3556, 20 m, in fields near riverbank, 16-V-2008, *J.L. Camaño*. LOU-Arthr 15064, 15125, 15153.

Scaptosciara (Scatopsiara) atomaria (Zetterstedt 1851)

- Spain, Ourense, Manzaneda, Cabeza de Manzaneda, 29TPG4079, 1780 m, in the top of the mountain with small grass, 6-X-2007, *J.L. Camaño*. LOU-Arthr 8613.
- Spain, Ourense, Rubiá, Cobas, 29TPH7804, 440 m, in grassland over limestone, 12-X-2007, *J.L. Camaño*. LOU-Arthr 8631.

Schwenckfeldina carbonaria (Meigen 1830)

- Spain, Ourense, Montederramo, near Montederramo, 29TPG2481, 900 m, in *Betula alba* forest near riverbank, 5-X-2007, *J.L. Camaño*. LOU-Arthr 12412.
- Spain, Pontevedra, Tui, Bouzabalada, 29TPG2852, 30 m, in fields near riverbank, 23-IV-2007, *J.L. Camaño*. LOU-Arthr 4405.

Trichosia edwardsi (Legendsdorf 1930)

- Spain, Ourense, A Pobra de Trives, Ponte Bibei, 29TPG 4788, 300 m, in deciduous forest near riverbank, 5-IV-2008, *J.L. Camaño*. LOU-Arthr 14143.

New to Spain. *Trichosia edwardsi* (Legendsdorf 1930) was separated from *Trichosia (Trichosia) morio* (Fabricius 1794) recently by MENZEL & HELLER (2006). Recorded from Germany, Sweden, Finland, Czech Republic, Britain, Hungary, The Netherlands, Norway, Russia, Switzerland, Slovakia, Turkey and Ukraine (Kai Heller personal communication).

RESULTS IN TEPHRITIDAE

Anomoia purmunda (Harris 1780)

- Spain, Lugo, Cervantes, Vilarello mountain, 29TPH7244, 1000 m, in old mixed deciduous forest, 29-VII-2007, *J.L. Camaño*. LOU-Arthr 6059.
- Spain, Ourense, Verín, Feces de Cima, 29TPG3435, 450 m, in fields bordered with *Populus sp.* and *Quercus ilex*, 28-VIII-2008, *J. Pino, R. Pino & F.J. Silva*. LOU-Arthr 16370, 16371.

Campiglossa producta (Loew 1844)

- Spain, Pontevedra, Agolada, O Marquesado, 29TNH 7243, 260 m, in fields, 25-VII-2007, *J.L. Camaño*. LOU-Arthr 7658.

Chaetorellia acrolophi White & Marquardt 1989

- Spain, Ourense, Viana do Bolo, Taboaza de Hedroso, 29TPG5876, 1080 m, in heathland with *Pterospartum tridentatum*, 20-VI-2008, *J.L. Camaño*. LOU-Arthr 15731.

Chaetorellia jaceae (Robineau-Desvoidy 1830)

- Spain, Pontevedra, Agolada, O Marquesado, 29TNH 7243, 260 m, in fields, 25-VII-2007, *J.L. Camaño*. LOU-Arthr 7629, 7669.

Dioxyna bidentis (Robineau-Desvoidy 1830)

- Spain, Pontevedra, Cangas, Balea, 29TPG1777, 10 m, in edge of lagoon near sea shore, 26-VIII-2007, *J.L. Camaño*.

LOU-Arthr 7152.

- Spain, Pontevedra, Goián, near Goián, 29TNG2042, 30 m, in fields near riverbank, 11-X-2008, *J.L. Camaño*. LOU-Arthr 16118, 16141, 16174.

Ensina sonchi (Linnaeus 1767)

- Spain, Lugo, Becerreá, A Borquería, 29TPH5347, 430 m, in fields near riverbank, 28-VII-2007, *J.L. Camaño*. LOU-Arthr 5965.
- Spain, Lugo, Cervantes, Vilarello mountain, 29TPH7244, 1000 m, in old mixed deciduous forest, 29-VII-2007, *J.L. Camaño*. LOU-Arthr 6043, 6140, 6157.
- Spain, Pontevedra, Vigo, Lagoas, 29TNG2869, 400 m, in heathland, 20-VII-2007, *J.L. Camaño*. LOU-Arthr 12705.

Euleia heraclei (Linnaeus 1758)

- Spain, Ourense, Lobios, Sernilla, 29TNG8737, 1120 m, in heathland, 4-V-2008, *J.L. Camaño*. LOU-Arthr 14563.
- Spain, Ourense, Quiroga, San Martiño, 29TPG5994, 300 m, in fields near riverbank, 12-X-2007, *J.L. Camaño*. LOU-Arthr 8295.

Orellia falcata (Scopoli 1763)

- Spain, Ourense, Viana do Bolo, Pradorramisquedo, 29TPG6868, 1130 m, in *Tragopogon dubius*, 15-VI-2008, *J.L. Camaño, J. Pino, R. Pino & F.J. Silva*. LOU-Arthr 15655, 15656, 15657, 15658.

Philophylla caesio (Harris 1780)

- Spain, Lugo, Pantón, San Fiz de Cangas, 29TPH1203, 560 m, in fields, 3-VII-2007, *J.L. Camaño*. LOU-Arthr 9551.

Terellia tussilaginis (Fabricius 1775)

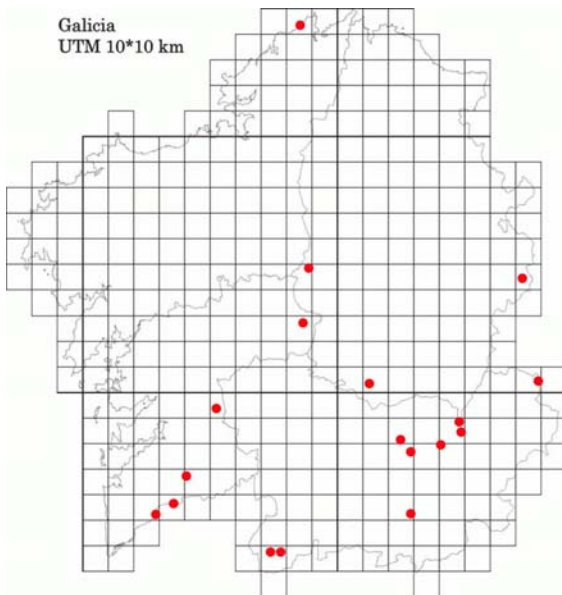
- Spain, Lugo, Cervantes, Vilarello mountain, 29TPH7244, 1000 m, in old mixed deciduous forest, 29-VII-2007, *J.L. Camaño*. LOU-Arthr 6027, 6071, 6077, 6081, 6084, 6079, 6091, 6092, 6096, 6121, 6123, 6139, 6161, 6178, 15416.

Tephritis praecox (Loew 1844)

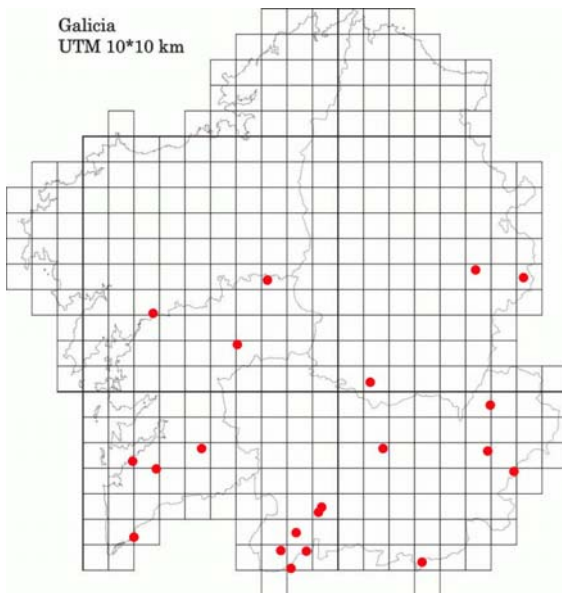
- Spain, Ourense, Lobios, Regada, 29TNG7737, 680 m, in heathland, 4-V-2008, *J.L. Camaño*. LOU-Arthr 14438.
- Spain, Ourense, Porqueira, Ponte Liñares, 29TNG9252, 620 m, in fields near riverbank, 17-V-2007, *J.L. Camaño*. LOU-Arthr 12470.
- Spain, Ourense, Porqueira, Veiga, 29TNG9354, 620 m, in fields near riverbank, 17-V-2007, *J.L. Camaño*. LOU-Arthr 13309.

Tephritis vespertina (Loew 1844)

- Spain, A Coruña, Padrón, Alfoz, 29TNH2730, 20 m, in riverbank, 27-IV-2008, *J.L. Camaño*. LOU-Arthr 14359.
- Spain, Ourense, Lobios, Alvite, 29TNG8130, 790 m, in heathland, 4-V-2008, *J.L. Camaño*. LOU-Arthr 14619.
- Spain, Ourense, Lobios, Prados, 29TNG8344, 700 m, in riverbank with *Alnus glutinosa* forest, 4-V-2008, *J.L. Camaño*. LOU-Arthr 14474.
- Spain, Pontevedra, Cangas, Rodeira, 29TNG1972, 20 m, in farm near sea shore with apple trees, 20-VIII-2007, *J.L. Camaño*. LOU-Arthr 5880.
- Spain, Pontevedra, Forcarei, Serra do Candán, 29TNH 6018, 870 m, in heathland, 5-VI-2007, *J.L. Camaño*. LOU-Arthr 7317.
- Spain, Pontevedra, Mondariz, Foxaco, 29TNG4677, 75 m, in riverbank forest, 6-IV-2007, *J.L. Camaño*. LOU-Arthr 7445.



Map 2. Location of Sciariidae specimens



Map 3. Location of Tephritidae specimens.

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