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The fruit flies (Diptera, Tephritidae) of the Monegros region (Zaragoza, Spain), with the record of the host plant of *Rhagoletis zernyi* Hendel, 1927

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Abstract

An intensive survey of the Tephritidae of a *Juniperus thurifera* L. forest of the Monegros region (Zaragoza, Spain) was carried out between 1989 and 1993. In total 515 specimens belonging to 24 species and 12 genera were collected. *Terellia vectensis* (Collin, 1937) is newly recorded from Spain. The host plant of *Rhagoletis zernyi* Hendel, 1927 was discovered: the larvae live in the fruit of *Juniperus thurifera* L.

Key words: Diptera, Tephritidae, faunistic records, Los Monegros, Spain

Resumen

Un muestreo intensivo de la familia Tephritidae en un bosque de *Juniperus thurifera* L. en la comarca de Los Monegros (Zaragoza, España) ha tenido lugar entre los años 1989 a 1993, colectándose un total de 515 ejemplares pertenecientes a 24 especies y 12 géneros diferentes. Se cita por primera vez para España a *Terellia vectensis* (Collin, 1937) y se descubre la planta nutricia de *Rhagoletis zernyi* Hendel, 1927: las larvas viven en los gálbulos de *Juniperus thurifera* L.

Palabras clave: Diptera, Tephritidae, faunística, Los Monegros, España.

INTRODUCTION

The fruit flies (Tephritidae) are from the economic point of view one of the most important families of Diptera in the Mediterranean region. Some species, such as *Ceratitis capitata* (Wiedemann, 1824) and *Bactrocera oleae* (Gmelin, 1790), cause enormous damage in commercial fruit and olive plantations and therefore play a significant role in the economy of many countries (ROBINSON & HOOPER, 1989). Conversely, several species have been applied recently in programs of biological control against noxious weeds which had become established in new biogeographic regions (WHITE & ELSON-HARRIS, 1922).

Despite their importance, the fruit flies have so far received little attention in Spain. The lists of ENCOBET (1912a, b) are now out-of-date and should not be used for faunistic purposes. More recent and reliable lists were provided by HERING (1933) for the Albarracín region, by SÉGUY (1934a,b) for various parts of the country and by MIHALYI (1969) for Andalucía. Additional records are given by HENDEL (1927) and FOOTE (1984). On the other hand, the fruit flies of the Canary Islands have been studied in detail by MERZ (1992). In total, approximately 80 species have been recorded from mainland Spain.

The Monegros have one of the most distinctive ecosystems in the Iberian Peninsula, and so this paper's intention is twofold: first, to add to the knowledge of an insect group which is still imperfectly known in Spain, and to appreciate better a region of great scientific and natural value, whose high degree of biodiversity presently threatened in many ways (PEDROCCHI *et al.*, 1988).

STUDY AREA AND METHODS

The Monegros region lies in the central part of the Ebro valley, east of Zaragoza. The climate (Ochoa, 1982) is of the «arid continental» type, with temperatures which range yearly from -10 °C to more than 40 °C, low rainfall (200-400 mm) and frequent NW or SE winds with considerable desiccating potentials.

With such a climate, Los Monegros is one of the most desert-like areas in the Iberian peninsula, and its vegetation often resembles that of the North African steppes (Braun-Blanquet & Bolos, 1957). Juniper woods represent the climax, but man has reduced the surface covered by trees to such an extent that the only significant woods left are the approximately 2000 hectares of the «Retuerta de Pina», the area just East of Pina de Ebro (UTM grid reference 30TYL29). Even here, man's influence on the distribution of the original forest cover has been intense: all the flatter parts of the Retuerta have been cultivated, with cereals as the main crop, and only the hills retain the original vegetation.

The local juniper forest is a species-poor community characterised by the presence of *Juniperus thurifera* L., *Rhamnus lycioides* L., *Ephedra nebrodensis* Tineo ex Guss and *Asparagus acutifolius* L. Its main configurations are open forest steppe with scattered trees. The nature of the accompanying vegetation depends almost exclusively on soil and solar exposure, as there are no rivers, either permanent or seasonal, and altitudes differ only slightly from the mean value of 360 m; the main communities (Ochoa, 1982; Braun-Blanquet & Bolos, 1957) are steppe grasslands and dense dwarf scrub. Soils (Quirantes, 1978) are mostly gypsum, with some marl and clay.

The flies were collected by the junior author at regular intervals throughout the years 1989 to 1992, and sporadically in 1993. They were mostly collected by sweeping the vegetation, but many specimens were also taken with various traps. These traps include: Moericke trap, coloured dishes, Malaise traps, Wilkening traps (Wilkening *et al.*, 1981), light traps and pitfall traps baited with carrion. Few important specimens were also obtained by rearing them from infested plant material.

Reference specimens of all species are deposited in the senior author's collection, and of some species in that of the junior author.

LIST OF SPECIES

The nomenclature of the species follows Foote (1984), with the modifications proposed by White & Korneiev (1989) for *Urophora*, Korneiev (1985) for the Terelliini and Merz (1994) for some Tephritini.

The systematic arrangement follows White & Elson-Harris (1992) except for the Aciurinae, which are treated as separate subfamily.

Aciurinae

1. *Oxyaciura tibialis* (Robineau-Desvoidy, 1830)

Distribution: Whole Mediterranean area, Afghanistan

Host plants: *Lavandula* spp., *Rosmarinus officinalis* L.

Material: Moericke trap: 20.V.91, 1 ♂. Coloured dishes: 7.VI.91, 2 ♂♂. Malaise trap: 25.IV.91, 1 ♀. Sweeping: on *Thapsia villosa* L., 1.VI.91, 1 ♂. Total: 4 ♂♂, 1 ♀.

Tephritinae

Tribus **Myopitini**

2. *Urophora hispanica* Strobl, 1906

Distribution: Western Mediterranean area

Host plants: *Centaurea* spp.

Material: Sweeping: on *Carduo pycnocephali-Hordeetum leporini* Br.-Bl. (a road verge plant community) 26.VII.92, 12 ♂♂ 1 ♀; 22.VIII.92, 2 ♂♂; 20.IV.93, 8 ♂♂ 1 ♀; 22.V.93, 1 ♂. Reared: 2.VI.92, ex flower heads of *Centaurea calcitrapa* L. collected 29.IX.91, 3 ♂♂. Total: 26 ♂♂ 2 ♀♀.

3. *Urophora mauritanica* Macquart, 1851

Distribution: Mediterranean area

Host plants: *Carthamus* spp.

Material: Sweeping: on *Anacyclus clavatus*, 11.VI.92, 1 ♂; on *Carduus bourgeanus* Boiss. et Reut., 20.V.89, 2 ♂♂ 2 ♀♀; 20.V.91, 2 ♂♂ 1 ♀; on *Carthamus lanatus* L., 24.VI.90, 1 ♂; on *Onopordum nervosum* Boiss., 18.VI.89, 1 ♀; 26.V.91, 3 ♂♂ 1 ♀. Total: 9 ♂♂ 5 ♀♀.

4. *Urophora quadifasciata algerica* Hering, 1941

Distribution: Western Mediterranean region

Host plants: *Centaurea* spp.

Material: Sweeping: on *Salsola vermiculata* L., 23.VII.92, 1 ♂.

5. *Urophora* sp. (probably *solstitialis* (Linnaeus, 1758))

Material: Coloured dishes: 7.V.91, 1 ♂; 20.VI.91, 1 ♂. Total: 2 ♂♂.

Remarks: Within *Urophora* only ♀♀ can be positively identified. The two specimens on hand have a wing pattern similar to certain populations of *U. solstitialis*, but they may as well be slightly aberrant specimens of *U. mauritanica*.

6. *Urophora* sp. (*hispanica* Strobl, 1906 or *affinis* (Frauenfeld, 1857))

Material: Sweeping: on *Reseda lutea* L., 2.V.92, 2 ♂♂; on *Centaurea calcitrapa* L., 10.VIII.90, 1 ♂; on *Salsola vermiculata* L., 23.VII.92, 1 ♂. Total: 4 ♂♂.

Remarks: As only ♀♀ can be identified with security, the identification of the 4 ♂♂ remains doubtful.

Tribus **Oedaspidini**

7. *Oedaspis fissa* Loew, 1862

Distribution: Iberian Peninsula

Host plants: unknown, probably causing stem- or root-galls on *Artemisia*.

Material: Sweeping: on *Artemisia herba-alba* Asso, 10.IV.92, 1 ♂ 1 ♀; 20.IV.92, 1 ♂ 3 ♀♀. Total: 2 ♂♂ 4 ♀♀

Remarks: This very rare species is only known from several localities in Spain (MIHALYI, 1969).

8. *Ptiloedaspis tavaresiana* Bezzi, 1920

Distribution: Iberian Peninsula

Host plant: *Artemisia herba-alba* Asso

Material: Reared: 10.V.92, 1 ♂ and 15.V.92, 1 ♂, both specimens ex galls on *Artemisia herba-alba* collected IV.92.

Remarks: This is another rare species, which is only known from Spain.

Tribus **Tephritini**

9. *Acanthiophilus helianthi* (Rossi, 1790)

Distribution: Palaeartic- and Northern Afrotropical region

Host plants: various genera and species of the tribus Cardueae (*Centaurea, Carduus*).

Material: Sweeping: on *Centaurea calcitrapa* L., 25.VII.90, 2 ♂♂ 1 ♀; 10.VIII.90, 1 ♀; 10.VIII.92, 5 ♀♀; on *Onopordum nervosum* Boiss., 17.VI.90, 1 ♂; on *Triticum* sp., 20.VI.92, 1 ♂; on *Carduo pycnocephali-Hordeetum leporini* Br.-Bl., 26.VII.92, 1 ♀; 12.VIII.92, 1 ♂ 1 ♀; 22.VIII.92, 2 ♂♂. Total: 7 ♂♂ 9 ♀♀.

10. *Campiglossa producta* (Loew, 1844)

Distribution: Western Palaeartic region

Host plants: various genera of the subfamily Cichorioidea (*Crepis, Leontodon* and others)

Material: Coloured dishes: 28.VI.90, 1 ♀. Sweeping: on *Salsola vermiculata* L., 11.X.92, 1 ♀. Total: 2 ♀♀.

11. *Dioxyna bidentis* (Robineau-Desvoidy, 1830)

Distribution: Palaeartic region

Host plants: *Bidens* spp., *Tagetes* spp., *Zinnia* spp. and other ornamentals

Material: Moericke trap: 25.IV.91, 1 ♂.

12. *Ensina sonchi* (Linnaeus, 1767)

Distribution: Palaearctic–, Oriental– and Afrotropical region; introduced into the Neotropical region

Host plants: various genera and species of the subfamily Cichorioidea

Material: Moericke trap: 11.XI.90, 2 ♂♂; 7.I.91, 1 ♂; 9.II.91, 1 ♂ 2 ♀♀; 20.II.91, 5 ♂♂ 4 ♀♀; 20.X.91, 52 ♂♂ 50 ♀♀; 9.XI.91, 18 ♂♂ 14 ♀♀; 20.XI.91, 10 ♂♂ 17 ♀♀; 9.XII.91, 3 ♂♂ 1 ♀; 20.XII.91, 11 ♂♂ 13 ♀♀. Coloured dishes: 10.II.90, 1 ♂; 3.III.90, 1 ♂; 11.VII.90, 1 ♂; 27.VII.90, 1 ♂; 22.VIII.90, 1 ♀; 6.X.90, 2 ♂♂ 2 ♀♀; 14.X.90, 4 ♂♂ 3 ♀♀; 12.I.91, 1 ♀; 9.II.91, 4 ♂♂ 1 ♀; 20.II.91, 1 ♂; 20.VI.91, 1 ♀; 8.VII.91, 3 ♀♀; 9.X.91, 17 ♂♂ 22 ♀♀; 26.X.91, 13 ♂♂ 17 ♀♀; 10.XI.91, 3 ♂♂ 3 ♀♀; 9.XII.91, 2 ♂♂ 1 ♀; 25.XII.91, 2 ♂♂ 3 ♀♀. Malaise trap: 29.IX.90, 1 ♀; 30.IX.90, 1 ♀; 9.IV.91, 1 ♀. Light trap: 14.IX.90, 1 ♀. Sweeping: on *Centaurea calcitrapa* L., 22.VIII.90, 1 ♂; on *Eryngium campestre* L., 18.VII.91, 1 ♀; 28.VII.93, 3 ♂♂ 1 ♀; on *Gypsophila struthium* L., 12.X.89, 1 ♀; on *Pinus halepensis* Mill., 11.I.92, 1 ♂; on *Suaeda vera* J.F. Gmelin, 22.VIII.91, 1 ♂; 9.III.92, 1 ♀. Wilkening trap: 25.I.92, 2 ♀♀; 10.III.92, 1 ♀. Reared: emerged on 10.IX.93, 1 ♀, ex flower head Chondrilla juncea L. collected 6.IX.93. Total: 161 ♂♂ 171 ♀♀.

13. *Tephritis formosa* (Loew, 1844)

Distribution: Western Palaeartic region

Host plants: *Sonchus* spp.

Material: Coloured dishes: 7.VI.91, 1 ♂. Sweeping: on *Tamarix canariensis* Willd., 9.VI.91, 1 ♀; on *Ephedra nebrodensis* Tineo ex Guss., 28.XI.92, 1 ♀; 12.XII.92, 1 ♀. Total: 1 ♂ 3 ♀♀.

14. *Tephritis matricariae* (Loew, 1844)

Distribution: Southern parts of Western Palaearctic region

Host plants: *Crepis taraxacifolia, C. foetida* and *C. rubra*

Material: Moericke trap: 9.III.91, 1 ♂; 25.III.91, 1 ♂. Sweeping: on *Artemisia herba-alba* Asso, 9.II.92, 1 ♀; on *Atriplex halimus* L., 20.XII.92, 1 ♂; on *Diplotaxis erucoides* (L.) DC, 20.XII.92, 1 ♂ 2 ♀♀; on *Ephedra nebrodensis* Tineo ex Guss., 9.II.92, 1 ♀; 25.II.92, 1 ♀; 12.XII.92, 1 ♀; on *Juniperus phoenicea* L., 22.II.92, 1 ♂ 1 ♀; 28.XI.92, 1 ♀; on *Pinus halepensis* Mill., 9.II.92, 1 ♂; on *Quercus coccifera* L., 5.XII.92, 1 ♀; on *Tamarix canariensis* Willd., 15.VI.91, 1 ♂. Total: 7 ♂♂ 9 ♀♀.

15. *Tephritis postica* (Loew, 1844)

Distribution: Eastern and southern parts of Western Palaearctic region, east to central Asia

Host plants: *Onopordum* spp.

Material: Light trap: 18.VII.89, 1 ♂. Sweeping: on *Carduus bourgeanus* Boiss. et Reut., 20.V.89, 2 ♂♂; 20.V.91, 1 ♂; on *Rosmarinus officinalis* L., 30.V.89, 1 ♂; on *Onopordum corymbosum* Willk., 20.IV.93, 1 ♀; on *Onopordum nervosum* Boiss., 26.V.9[illegible] ♂♂ 2 ♀♀; 6.VII.91, 1 ♂ 3 ♀♀. Wilkening trap: 13.VIII.93, 1 ♀. Total: 11 ♂♂ 8 ♀♀.

16. *Tephritis praecox* (Loew, 1844)

Distribution: Southern parts of Western Palaearctic region

Host plant: *Calendula arvensis* L.

Material: Moericke trap: 9.III.91, 1 ♂; 20.XII.91, 1 ♀. Coloured dishes: 20.II.91, 2 ♂♂; 9.IV.91, 1 ♂ 3 ♀♀; 7.VI.91, 1 ♂ 1 ♀. Sweeping: on *Artemisia herba-alba* Asso, 5.XII.92, 1 ♂; 20.XII.92, 1 ♀; on *Carduus bourgeanus* Boiss. et Reut., 20.V.91, 1 ♂ 2 ♀♀; on *Gypsophila struthium* L., 23.VIII.89, 1 ♂; on *Onopordum corymbosum* Willk., 20.IV.93, 1 ♀; on *Rosmarinus officinalis* L., 5.XII.92, 1 ♀. Total: 8 ♂♂ 10 ♀♀.

17. *Tephritis pulchra* (Loew, 1844)

Distribution: Eastern and southern parts of Western Palaearctic region

Host plant: *Scorzonera laciniata* L.

Material: Moericke trap: 20.V.91, 1 ♂. Coloured dishes: 14.IV.90, 1 ♀; 9.III.91, 1 ♂; 25.III.91, 1 ♂ 1 ♀; 9.IV.91, 1 ♂ 3 ♀♀; 7.V.91, 1 ♀. Light trap: 10.VI.93, 1 ♂. Sweeping: on the *Agropyro-Lygeion*, 10.III.92, 1 ♂; 10.IV.92, 1 ♂; on *Juniperus phoenicea* L., 5.XII.92, 1 ♂; on *Onopordum corymbosum* Willk., 14.IV.90, 1 ♀; on *Osyris alba* L., 25.II.92, 1 ♀; on *Reseda lutea* L., 9.VI.91, 1 ♂; on *Salsola vermiculata* L., 19.I.92, 1 ♂; 9.III.92, 1 ♀; on *Suaeda vera* J.F. Gmelin, 19.I.92, 1 ♀; on *Tamarix canariensis* Willd., 9.VI.91, 3 ♂♂ 2 ♀♀; 15.VI.91, 1 ♀. Total: 13 ♂♂ 13 ♀♀.

18. *Tephritis separata* Rondani, 1870

Distribution: Eastern and southern parts of Western Palaearctic region

Host plant: *Picris hieracioides* L.

Material: Moericke trap: 20.XI.91, 1 ♂. Sweeping: on *Juniperus thurifera* L., 11.I.92, 1 ♂ 1 ♀. Total: 2 ♂♂ 1 ♀.

19. *Trupanea amoena* (Frauenfeld, 1857)

Distribution: Palaearctic region

Host plants: various composites

Material: Sweeping: on *Carduo pycnocephali-Hordeetum leporini* Br.-Bl., 26.VII.92, 1 ♀; 22.VIII.92, 1 ♂; on *Centaurea calcitrapa* L., 22.VIII.90, 1 ♂. Total: 2 ♂♂ 1 ♀.

20. *Trupanea stellata* (Fuessly, 1775)

Distribution: Palaearctic region

Host plants: various composites

Material: Sweeping: on *Carduo pycnocephali-Hordeetum leporini* Br.-Bl., 26.VII.92, 1 ♂; on *Onopordum nervosum* Boiss., 14.VI.92, 1 ♂; on *Salsola kali* L., 12.VIII.92, 1 ♂; on *Salsola vermiculata* L., 23.VII.92, 3 ♂♂ 1 ♀; on *Suaeda vera* J.F. Gmelin, 21.V.93, 1 ♂; on *Triticum* sp., 2.V.92, 1 ♀; 20.VI.92, 1 ♀. Total: 7 ♂♂ 3 ♀♀.

Tribus **Terelliini**

21. *Terellia luteola* (Wiedemann, 1830)

Distribution: Mediterranean region

Host plants: *Carthamus* spp.

Material: Coloured dishes: 27.VII.90, 1 ♂. Sweeping: on *Centaurea calcitrapa* L., 25.VII.90, 1 ♂; 10.VIII.92, 2 ♂♂ 2 ♀♀; on *Eryngium campestre* L., 18.VII.91, 1 ♂ 1 ♀; on *Onopordum nervosum* Boiss., 6.VII.90, 1 ♀. Total: 5 ♂♂ 4 ♀♀.

Remark: This species was recently separated from *T. colon* (Meigen, 1826) by WHITE *et al.*, (1990).

22. *Terellia serratulae* (Linnaeus, 1758)

Distribution: Western Palaertic region, east to Central Asia

Host plants: *Carduus* spp., *Cirsium* spp.

Material: Sweeping: on *Onopordum nervosum* Boiss., 6.VII.91, 1 ♂; 25.VI.93, 1 ♂♂. Total: 2 ♂♂.

23. *Terellia vectensis* (Collin, 1937)

Distribution: Locally throughout Western Palaearctic region

Host plants: *Serratula tinctoria* L. and probably *Mantisalca* sp.

Material: Light trap: 25.V.93, 1 ♂. Sweeping: on *Carduo pycnocephali-Hordeetum leporini* Br.-Bl., 26.VII.92, 2 ♂♂ 3 ♀♀; on *Onopordum corymbosum* Willk., 6.VI.93, 1 ♂; on *Reseda lutea* L., 2.V.92, 1 ♂. Total: 5 ♂♂ 3 ♀♀.

Remark: This is the first record of this species from Spain.

Trypetinae

24. *Rhagoletis zernyi* Hendel, 1927

Distribution: Northern Spain

Host plant: *Juniperus thurifera* L. (new record)

Material: Coloured dishes: 6.X.90, 1 ♂; 9.IX.91, 1 ♂. Malaise trap: 17.X.90, 1 ♂. Moericke trap: 17.X.90, 1 ♀. Pitfall trap with salt water and carrion: 29.VII.91, 1 ♀; 10.X.91, 1 ♀; 28.VIII.92, 1 ♂ 1 ♀. Wilkening trap:13.VIII.92, 1 ♂ 4 ♀; 10.IX.92, 1 ♂. Reared: 13.VIII.93, 1 ♂ and 2.X.93, 1 ♂, ex fruit of *Juniperus thurifera* L. collected on 14.X.92. Total: 9 ♂♂ 7 ♀♀.

Remarks: This very rare species was known so far only from the Holotype ♂ from Albarracín in Aragón (HENDEL, 1927). Here the host plant of *R. zernyi* is recorded for the first time.

DISCUSSION

Despite the relatively poor vegetation of the Monegros region, and despite the unspecific search methods, a remarkable 24 species of Tephritidae were collected during four years of investigation. Most of these species have a rather wide distribution in the Mediterranean region and occur wherever the suitable host plants occur. However, three species are known so far only from the Iberian Peninsula and may be regarded as endemic. These three represent 75 % of all endemic fruit fly species from Spain, because only *Dithryca guttulosa* (Loew, 1869) was not found during the study.

This high endemism highlights the extreme ecological value of the Monegros region. This is especially the case for *Rhagoletis zernyi*, which is entirely dependent on large populations of its host plant, *Juniperus thurifera*. As this plant community continues to disappear, the survival of this remarkable species becomes even more endangered.

The other two endemic species, *Oedaspis fissa* and *Ptiloedaspis tavaresiana*, are both very rarely represented in collections. All European Oedaspidini with known biology cause stem-galls on *Artemisia*. It is well known, that the species of this tribe are only rarely collected, because the adults have vestigial mouthparts and probably do not feed. Therefore their life as adult is very short (FREIDBERG & KUGLER, 1989). In this respect it is noteworthy that not less than 6 specimens of *Oe. fissa* were collected, which indicates a good population of this endangered species for the Monegros region.

Another species to which our attention should be drawn is *Terellia vectensis*. Although it has a rather wide distribution (MERZ, 1994), it is very seldom found, even at localities with good populations of its host plants, *Serratula* spp. One main reason for its rarity may be explained by the management of potential habitats. According to the field experience of the first author the fly emerges in spring and deposits the eggs in early summer. The larvae rest inside the host plant throughout the vegetation period and even pupariation takes place in the flower head. Therefore, cutting the vegetation has a strong negative influence on the survival of *T. vectensis*. Only grazed meadows allow the species to build up good populations.

SUMARIO

La familia *Tephritidae*, con aproximadamente 80 especies citadas en todo el territorio nacional, ha recibido en España muy poca atención a pesar de la importancia económica de los daños producidos por estos dípteros en frutas comerciales y el olivar.

El presente trabajo recoge los resultados obtenidos tras el inventario de la biocenosis asociada a las comunidades de *Juniperus thurifera* L. de la comarca de Los Monegros, que se ha llevado a cabo desde el año 1989 hasta 1994, con el fin de evaluar sus valores ecológicos. Para ello se ha elegido el paraje conocido como «Retuerta de Pina» (Pina de Ebro, Zaragoza) habiéndose colectado un total de 24 especies pertenecientes a 12 géneros.

La zoocorología de las especies citadas en Los Monegros es la siguiente: una especie, *Ensina sonchi*, tiene carácter prácticamente cosmopolita; tres especies, *Acanthiophilus helianthi, Trupanea amoena* y *Dioxyna bidentis*, se distribuyen por todo el Paleártico; 10 especies, *Campiglossa producta, Tephritis formosa, T. matricariae, T. postica, T. praecox, T. pulchra, T. separata, Trupanea stellata, Terellia serratulae* y *T. vectensis*, están distribudas por el Paleártico occidental; tres especies, *Oxyaciura tibialis, Urophora mauritanica* y *Terellia luteola*, tienen carácter circummeditarráneo; dos especies, *Urophora hispanica* y *U. quadifasciata algerica*, se distribuyen por el Mediterráneo occidental y tres especies, *Oedaspis fissa, Ptiloedaspis tavaresiana* y *Rhagoletis zernyi*, son endémicas, hasta donde se conoce, de la Península Ibérica.

La mayor parte de las especies tienen una amplia área de distribución en la región mediterránea estando ligada a la de sus plantas huésped. No obstante, los tres endemismos suponen el 75 % de los miembros de esta familia exclusivos de la Península, lo que realza el valor ecológico de la comarca de Los Monegros.

De *R. zernyi* se conocía sólo del Holotipo ♂ colectado en Albarracín (Teruel). Se han obtenido ejemplares emergiendo de gálbulos de *J. thurifera*, por lo que se cita a esta especie como planta huésped. Igualmente, se cita por primera vez para España la especie *Terellia vectensis*.

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