

***Acyrthosiphon matilei* (Hemiptera, Aphididae) in the Cantabrian Mountains (Spain)**

***Acyrthosiphon matilei* (Hemiptera, Aphididae) en la cordillera Cantábrica (España)**

Acyrthosiphon matilei Remaudière & Leclant, 2000 is one of the six species of genus *Acyrthosiphon* Mordvilko, 1914 (Hem., Aphididae, Aphidiinae, Macrosiphini) monophagous on *Euphorbia* L. (Euphorbiaceae). At this moment *A. matilei* is known in several localities of France (*Alpes-Martimes* and *Haute-Corse* departments), Italy (Ventimiglia, in French border) and Croatia (Cavtat, close to Montenegro) living on *Euphorbia spinosa* L. (REMAUDIÈRE & LECLANT, 2000; BLACKMAN & EASTOP 2006 [2013]). These localities are placed in the Mediterranean phytogeographic Region.

A. matilei is also present in several localities of the Spanish Cantabrian Mountains placed in the Orocantabrian phytogeographic province of the Euro-Siberian region.

Specimens of *A. matilei* (with a total number of 284 apterous and 101 alate viviparous females) were caught on *Euphorbia flavidoma* subsp. *occidentalis* M. Láinz at: Urdón, hydroelectric power station (Cantabria province), 43°16'N, 4°38'W, 110 m [5-VII-1986, 12-VII-1987, 30-IX-1989, 8-X-1994, 25-I-1995], Castro-Cillórigo (Cantabria), 43°11'N, 4°36'W, 238 m [21-V-1989, 1-XI-1989], and San Isidro Pass, northern slope (Asturias province), 43°04'N, 5°23'W, 1520 m [16-VI-1993, 12-X-1994, 12-XI-1994, 10-XII-1994, 25-I-1995].

Both species hosts of *A. matilei*, *E. spinosa* and *E. flavidoma*, belong to the section *Helioscopia* of genus *Euphorbia*; they grow on similar substrates, although *E. spinosa* is xerophylous and *E. flavidoma* subsp. *occidentalis* prefers humid soils. They have a similar physiognomy, they are perennial, sufrutices, multibranched from the base and small leaves, and forming frequently dense cushion-like masses. The distribution area of *E. flavidoma* subsp. *occidentalis* (North Spain) contacts with the area of *E. flavidoma* subsp. *flavidoma*, which partly overlaps with the area of *E. spinosa* (BENEDÍ *et al.*, 1997; SMITH *et al.*, 1968; ZECCA *et al.*, 2011).

From the records of the species description, *A. matilei* shows a short altitudinal range (up to 800 m) and it is habitually anholocyclic, although

an oviparous female was caught, with summer small populations (REMAUDIÈRE & LECLANT, *op. cit.*). In Spain *A. matieli* exhibits a wide altitudinal range, from 110 to 1520 m, and it is anholocyclic with large wintering populations. In low altitude places snow is not frequent and the temperature permits the life of aphids; in high altitude places we have observed that aphids are kept alive between the branches and leaves of the host plant, under several centimeters of snow, showing a peculiar adaptation to a low temperatures.

ACKNOWLEDGMENTS

We acknowledge to F. Llamas García and E. Puente Garcia, botanists of our university, the identification of the host-plant and the overview of the botanical information provided in this paper. This research was founded by the Spanish Government (project number PB95-0235).

BIBLIOGRAPHY

BENEDÍ, C., J. MOLERO, J. SIMÓN & J. VICENS, 1997. 6. *Euphorbia*. In CASTROVIEJO, S. et al. (Eds.): *Flora Iberica. Plantas vasculares de la Península Ibérica e Islas Baleares. Vol. VIII Haloragnaceae-Euphorbiaceae:* 210-285. Real Jardín Botánico, C.S.I.C. Madrid. BLACKMAN, R.L. & V.F. EASTOP, 2006. *Aphids on the World's herbaceous plants and shrubs. Volume 1 Host Lists. Volume 2 The Aphids*. John Wiley & Sons, Ltd. Chichester (U. K.). 8+ 1024 pp. Actualized 2013: *Aphids on the World's plants. An online identification and informative guide*. <http://www.aphidsonworldsplants.info> [consulted September 2013]. REMAUDIÈRE, G. & F. LECLANT, 2000. Les espèces d'*Acyrtosiphon* vivant en Europe sur *Euphorbia* spp. [Hemiptera, Aphididae]. *Revue Française d'Entomologie (N.S.)*, 22 (4): 233-238. SMITH, A.R. & T.G. TUTIN, 1968. 7. *Euphorbia*. In TUTIN, T.G. et al. (Eds.): *Flora Europaea. Vol. 2 Rosaceae to Umbelliferae:* 213-226. Cambridge University Press. Cambridge. ZECCA, G., G. CASAZZA, L. MINUTO, M. LABRA & F. GRASSI, 2011. Allopatric divergence and secondary contacts in *Euphorbia spinosa* L: Influence of climatic changes on the split of the species. *Organisms Diversity & Evolution*, 11: 357-372.

Recibido: 24-09-13. Aceptado: 23-11-13.
ISSN: 0210-8984

Publicado online 23-12-2013

JUAN M. NIETO NAFRÍA AND M. PILAR MIER DURANTE

Departamento de Biodiversidad y Gestión Ambiental. Universidad de León. Leon (Spain). jmnien@unileon.es; mpmied@unileon.es.

Boln. Asoc. esp. Ent., 37 (3-4): 383-384, 2013