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FIRST RECORD OF *ACIZZIA JAMATONICA* (KUWAYAMA, 1908) (HEMIPTERA: PSYLLOIDEA) FOR THE IBERIAN PENINSULA

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Abstract: The Asian species *Acizzia jamatonica* (Kuwayama) (Hemiptera: Sternorrhyncha: Psylloidea) is reported for the first time from the Iberian Peninsula. The species develops on "Persian Silk Tree", *Albizia julibrissin* Durazzini, an exotic tree, and has been detected as a pest of this plant in Jerez de la Frontera, Cádiz (Southwenstern Spain). This is the second species of *Acizzia* to be found in the Iberian Peninsula.
Key words: *Acizzia jamatonica*, Psyllidae, *Albizia julibrissin*, pest, Iberian Peninsula.

Primera cita de *Acizzia jamatonica* (Kuwayama, 1908) (Hemiptera: Psylloidea) en la Península Ibérica
Resumen: Se cita por primera vez en la Península Ibérica la especie asiática *Acizzia jamatonica* (Kuwayama) (Hemiptera: Sternorrhyncha: Psylloidea). Esta especie se desarrolla en la acacia de costantinopla, *Albizzia julibrissin* Durazzini, habiéndose detectado como una plaga incipiente de este árbol exótico en la ciudad de Jerez de la Frontera, Cádiz (Suroeste de España). Es la secunda especie de este género que se registra en la Península Ibérica.
Palabras clave: *Acizzia jamatonica*, Psyllidae, *Albizia julibrissin*, plaga, Península Ibérica.

Acizzia jamatonica (Kuwayama, 1908) is a psyllid originating from southern and eastern Asia recently introduced into North America (Ulyshen & Miller, 2007) and Europe, being placed on the European and Mediterranean Plant Protection Organisation (EPPO) Alert List. Like most psyllids it is highly host specific (Palmer & Witt, 2006) and develops exclusively on *Albizia* species, mainly on *A. julibrissin* Durazzini (Alma *et al*., 2002; EPPO Reporting Service, 2002). This tree, known also as "Persian Silk tree" in English and "Acacia de Constantinopla" in Spanish, is a legume belonging to the subfamily Mimosoideae native to southern and eastern Asia, from Iran east to China and Korea and introduced into Europe in the mid eighteenth century as an ornamental (Cothran, 2003). This tree has been quite scarce in urban areas of Spain and Portugal until recently, when many plants have been imported from Italian nurseries (A. García, pers. comm.).

Acizzia jamatonica has been accidentally introduced into Europe in recent years becoming a pest. It was first recorded in Italy in 2001 (Alma *et al*., 2002; EPPO Reporting Service, 2002), and in 2002 it had already colonized most of Northern Italy (Zandigiacomo *et al*., 2002), reaching also southern Switzerland (Servizio fitosanitario cantonale, 2003a,b; Seziona dell' agricoltura, 2003) and the south-west of Slovenia and Croatia (Seljak *et al*., 2004). In 2003 the species was intercepted once in the United Kingdom on *A. julibrissin* in containers originating from Italy (EPPO Reporting Service, 2004). Its presence in France was first reported in July 2004 (Chapin & Cocquempot, 2005) in the city of Avignon and later in other departments in the South of France (EPPO Reporting Service, 2006). Finally, it was detected in Hungary in 2006 (Rédei & Pénzes, 2006).

In September 2008, the Jerez de la Frontera´s Parks Department (36°41´10 N, 6°09´17 W, Cádiz province, Spain) noticed several groups of *A. julibrissin* heavily infested with an unknown psyllid species and sent samples for identification to Zoobotánico Jerez. The insects were causing considerable damage to the trees with many leaves yellowed and wilted. The pavement and cars under the infested trees were covered in honeydew secreted by the psyllids. Specimens were identified as *A. jamatonica*. Voucher specimens are deposited in the Naturhistorisches Museum, Basel, Switzerland and in Zoobotánico Jerez and contain nymphs, adults and associated predacious Heteroptera.

A. jamatonica is a phloem-feeding insect that forms dense colonies on the leaves and stems of the shoot tips. All life stages can be found together. The eggs (fig.1a) are appro-ximately 0.3 mm long, light orange and oval with the apical end narrower and more pointed than the basal end. They are laid singularly or in groups on the buds and undersides of the foliage. The 1st instar nymphs are 0.30–0.35 mm long and generally light orange colored with reddish eyes (fig. 1b). The last (5th) instar nymphs are 1.30–1.45 mm long, and light orange or greenish, with lateral patches of the head and wing pads dark brown, the caudal plate of abdomen is light brown with long marginal capitate setae. The dorsal surface of the thorax and abdomen has paired brown spots and transverse bands (Fig. 1c). The adult insects are 1.3–1.9 mm long and exhibit a wide colour variation ranging from green or yellow to dark brown. The abdomen is green to greenish-orange or orange-brown with transverse greyish bands. The fore wings are hyaline with indistinct brown or grey patches (Fig. 1d).

The life cycle of *A. jamatonica* includes numerous overlapping generations. The psyllid overwinters in the adult stage. Leaves, flowers, pods and young shoots can be completely colonized by nymphs and adults, leading to leaf yellowing and defoliation. Large amounts of honeydew are produced which can become a nuisance in urban environments. The control of this pest is likely to be difficult in

practice because its host is used as an ornamental tree in the urban environment where only a limited number of active substances are authorized and several applications of insecticides would be necessary to control the overlapping generations. As natural enemies we have detected the anthocorid *Anthocoris nemoralis* (Fabricius, 1794) and the coccinellid *Scymnus* sp., but their impact on the pest is very low.

As *A. jamatonica* is monophagous, it is unlikely to pose a risk to native plant species. However, with respect to the economic and aesthetic values of *A. julibrissin* in the area *A. jamatonica* might be viewed by many as a harmful pest species (EPPO Reporting Service, 2004). The arrival of this pest probably will restrain the increasing use of *A. julibrissin* as an ornamental tree in the Iberian Peninsula, as has been observed in other European countries (Alma *et al*., 2002) but further investigations are needed to better predict the potential biological, economic, and aesthetic impacts of this recent arrival.

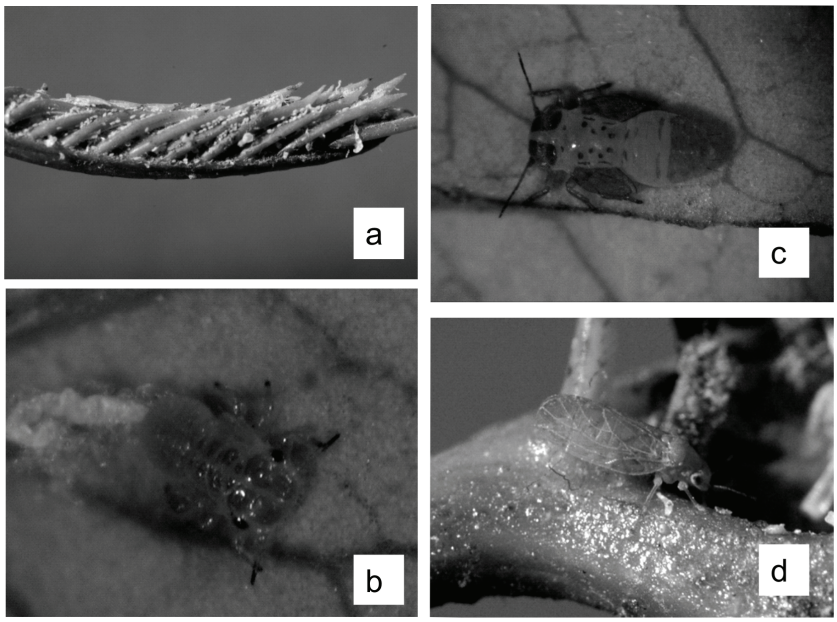

Fig. 1. Eggs (**a**) of *A. jamatonica* on *A. julibrissin* buds, 1st instar nymph (**b**) and 5ht instar nymph (**c**) and adult (**d**).

A. jamatonica is one of four *Acizzia* species known from Europe and the second *Acizzia* species recorded from the Iberian Peninsula. *A uncatoides* (Ferris & Klyver) was previously known from Portugal (Hodkinson & Hollis, 1987) and the Canary Islands (Percy, 2003), and other European countries. Other exotic species recorded from Europe are *A. acaciaebaileyanae* (Froggatt) first reported in 1985 from Italy on *Acacia* spp. (Rapisarda, 1985) and *A. hollisi* Burckhardt, first reported from Italy in 1989 on *Acacia* spp. (Conci & Tamanini, 1989).

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