

FIRST RECORDS OF *ACIZZIA JAMATONICA* (KUWAYAMA) AND *GLYCASPIS BRIMBLECOMBEI* MOORE, (HEMIPTERA: PSYLLIDAE, APHALARIDAE) IN MONTENEGRO

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Abstract

Albizia psyllid, *Acizzia jamatonica* (Kuwayama), and red gum lerp psyllid, *Glycaspis brimblecombei* Moore, were found in Montenegro for the first time during 2009 and 2012 respectively. *Acizzia jamatonica* is native to East Asia, and has spread rapidly in Europe since it was first reported from Italy in 2002. It was first collected from *Albizzia julibrissin* in Podgorica, September 2009, and subsequently from *Albizzia* sp. and *A. julibrissin* in Herceg Novi, October 2010, and June and October 2012, and from *A. julibrissin* in Kotor, October 2012. *Glycaspis brimblecombei* is native to Australia, and has been rapidly spreading in Europe since it was first reported from Portugal and Spain in 2007. It was collected on *Eucalyptus camaldulensis* in Bar, October 2012. Both species of psyllid have the potential to damage amenity trees in urban environments and in commercial plant nurseries.

KEY WORDS: alien jumping plant-lice, *Eucalyptus*, *Albizzia*, Montenegro

Introduction

Since the 1970s, four alien species of jumping plant-lice (Hemiptera: Psyllidae: Acizzinae) [*Acizzia acaciaebaileyanae* (Froggatt), *A. hollisi* Burckhardt, *A. jamatonica* (Kuwayama) and *A. uncatoides* (Ferris & Klyver)] have been reported in Europe, feeding on mimosoid legumes, particularly *Acacia* and *Albizzia* (Fabaceae) (HODKINSON & HOLLIS, 1987; MIFSUD *et al.*, 2010). Similarly, since 2002, four alien species of Aphalaridae: Spondyliaspinae (*Blastopsylla occidentalis* Taylor, *Ctenarytaina peregrina* Hodkinson,

C. spatulata Taylor and *Glycaspis brimblecombei* (Moore) have been reported from Europe, feeding on eucalypts (MIFSUD *et al.*, 2010; BURCKHARDT & OVRARD, 2012). A fifth alien eucalypt-feeding species, *Ctenarytaina eucalypti* (Maskell), was first reported in Europe during the 1920s (LAING, 1922). Only one of these species, *A. uncatoides*, has previously been reported from Montenegro (LAUTERER, 1993). The purpose of this communication is to report the presence of two alien jumping plant-lice breeding in Montenegro for the first time.

Material and Methods

The National Plant Protection Organisation (NPPO) of Montenegro conducts regular surveys for the presence of regulated or other alien plant pests. The presence of two suspect alien psyllids was brought to the attention of the first author in October 2012 during an EU funded Twinning Project aimed at strengthening the administration capacity of the Phytosanitary Directorate of Montenegro. Samples of immature and adult psyllids were collected into 70% ethanol, slide-mounted following standard published methods (MALUMPHY, 2005), and identified at The Food and Environment Research Agency (FERA), UK. Detailed morphological descriptions of *A. jamatonica* are provided by BURCKHARDT & MÜHLETHALER (2003) and WHEELER & HOEBEKE (2009), and of *G. brimblecombei* by MOORE (1964), HALBERT *et al.* (2001) and OLIVARES *et al.* (2004). Slide-mounted specimens have been deposited at FERA.

Results and Discussion

Two alien species of jumping plant-lice are recorded here for the first time from Montenegro. Collectors' abbreviations: CM = C. Malumphy; MR = M. Raičević; SH = S. Hrnčić; SR = S. Radonjić; TP = T. Perović.

Acizzia jamatonica (Kuwayama) – Albizia psyllid (Fig. 1)

Material examined: Herceg Novi Municipality, Herceg Novi, all developmental stages found on mature *Albizia julibrissin*, x.2010, leg. SH, 2.x.2012, leg. SH, CM and MR and, in a separate part of the city, adults on *Albizia* sp., vi.2012, leg. SH, SR and MR; Kotor Municipality, Kotor, on semi-mature *A. julibrissin*, 2.x.2012, leg. SH, CM and MR; Podgorica Municipality, Podgorica, commercial plant nursery, all developmental stages found on mature *Albizia julibrissin*, ix.2009, leg. SH, SR and MR.

Glycaspis brimblecombei Moore – Red gum lerp psyllid (Fig. 2)

Material examined: Bar Municipality, Bar, residential area, abundant lerps (protective covers for the nymphs) on *Eucalyptus camaldulensis*, 1.x.2012, leg. TP.

The albizia-feeding psyllid *A. jamatonica* is native to East Asia but has increased its geographical distribution rapidly during the last decade becoming established in Europe and North America. Breeding populations were first detected in Europe in Italy (ZANDIGIACOMO *et al.*, 2002), and subsequently in Slovenia (SELJAK, 2003), Croatia (SELJAK *et al.*, 2004), Switzerland (KENIS, 2005), France (including Corsica) (CHAPIN & COCQUEMPOT, 2005), Hungary (REDEI & PENZES, 2006), Bulgaria (VÉTEK & RÉDEI, 2009), Serbia (VÉTEK *et al.*, 2009), Spain (SÁNCHEZ & BURCKHARDT, 2009), Greece and Slovakia (LAUTERER *et al.*, 2011). Since 2006, this species has also been spreading in south-eastern United States (WHEELER & HOEBEKE, 2009).

The eucalypt-feeding psyllid *G. brimblecombei* is native to Australia but has increased its geographical distribution rapidly during the last two decades becoming established in North and South America, and Europe. Breeding populations were first detected outside Australia in the USA in 1998 and subsequently in Mexico, 2000, Hawaii, 2001, Chile, 2002, Brazil, 2003, Mauritius, 2004, Argentina, 2005, Ecuador 2007, Portugal and Spain, 2007, Peru and Venezuela, 2008 (VALENTE & HODKINSON, 2009; QUEIROZ *et al.*, 2012), MOROCCO, 2009 (MAATOOUF & LUMARET, 2012), Canary Islands (MALUMPHY, 2010), Italy (LAUDONIA & GARONNA, 2010), and France (EPPO, 2012). The record here represents its most easterly point of distribution in the Mediterranean.

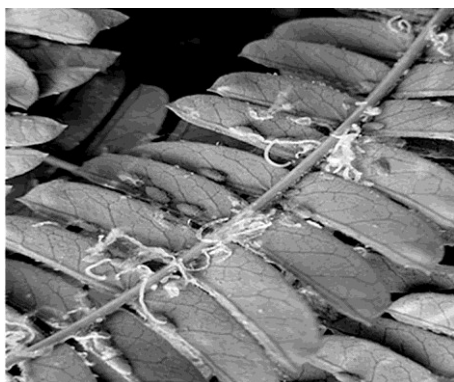


Figure 1. *Acizzia jamatonica* nymphs excreting spirals of honeydew contained in tubes of white wax on *Albizia julibrissin*.



Figure 2. *Glycaspis brimblecombei* lerps (protective wax covers for the nymphs) on *Eucalyptus camaldulensis*.

Both *A. jamatonica* and *G. brimblecombei* are multivoltine and the climatic conditions in the coastal regions of Montenegro are likely to permit the psyllids to breed through most of the year (they were actively feeding, and all developmental stages were observed, during October 2012) (QUEIROZ *et al.*, 2012). *Albizia* and *Eucalyptus* are relatively common and widely grown in Montenegro and it is highly probable that both psyllids will be found to be more widespread in the country, at least in the coastal region. Both jumping plant-lice species are recorded as plant pests, coating the foliage of their host with honeydew, causing a reduction of photosynthetic area, desiccation, premature leaf fall, dieback, and consequently a reduction in plant growth. Successive defoliations may cause mortality, at least of young plants. Therefore, both *A. jamatonica* and *G. brimblecombei* have the potential to damage amenity trees in urban environments and in commercial plant nurseries in Montenegro.

Undoubtedly the free movement of *Acacia*, *Albizia* and *Eucalyptus* plants within Europe, and the difficulties of detecting psyllid eggs prior to export means that there is a continual risk of other alien psyllids being introduced into Montenegro through trade.

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ПРВИ НАЛАЗ ЛИСНИХ БУВА *ACIZZIA JAMATONICA* KUWAYAMA
И *GLYCASPIS BRIMBLECOMBEI* MOORE
(HEMIPTERA: PSYLLIDAE, APHALARIDAE) У ЦРНОЈ ГОРИ

КРИС МАЛУМФИ, ТАТЈАНА ПЕРОВИЋ, СЊЕЖАНА ХРЊИЋ,
САЊА РАДОЊИЋ И МИЛОРАД РАИЧЕВИЋ

Извод

Лисне буве *Acizzia jamatonica* Kuwayama и *Glycaspis brimblecombei* Moore нађене су први пут у Црној Гори 2009. и 2012. године.

Acizzia jamatonica је пореклом из источне Азије, а након првог налаза у Италији 2002. године, брзо се проширила по Европи. Први пут је нађена у Подгорици на *Albizia julibrissin* у септембру 2009., а након тога у Херцег Новом на *Albizia* sp. и *A. julibrissin* у октобру 2010. и јуну и октобру 2012. и на *A. julibrissin* у Котору у октобру 2012.

Glycaspis brimblecombei је пореклом из Аустралије и након првог налаза у Португалији и Шпанији 2007. године, брзо се проширила по Европи. Први пут је нађена у Бару на *Eucalyptus camaldulensis* у октобру 2012.

Обе врсте лисних бува представљају потенцијалну опасност за украсне биљке у урбаним срединама и расадницима украсних биљака.

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