

JAPANANUS HYALINUS (HEMIPTERA: CICADELLIDAE) – GENUS AND SPECIES NEW TO BRITAIN

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ABSTRACT

The Japanese Maple Leafhopper *Japananus hyalinus* (Osborn) is reported as new to Britain from Cambridge in eastern England (VC29). Specimens were photographed on three occasions in the vicinity of a preferred food plant, *Acer palmatum*, between August and October 2014. Further sightings in 2015 indicate that the species has bred successfully locally. Somewhat unusually, the discovery of a new British species was made via the circulation of the first photograph on social media. The species is native to Japan, but has been widely transported in cultivated *Acer* stocks and has been spreading across mainland Europe since the 1960s. Its arrival in the UK was therefore not unexpected.

INTRODUCTION

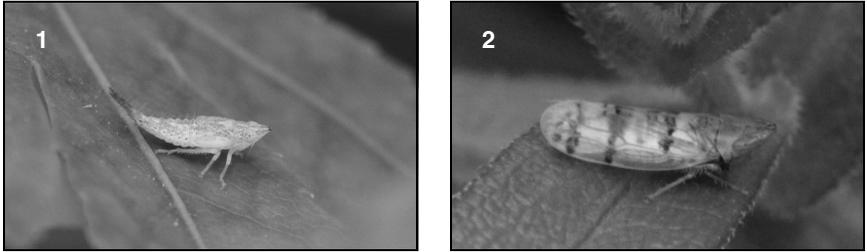
On 28th August 2014, a relatively large and distinctively marked leafhopper was photographed on a Michaelmas daisy (*Aster amellus*) plant in a garden in Cambridge (TL4658). Consulting the standard literature on Auchenorrhyncha in Britain (Le Quesne, 1965, 1969) failed to produce a positive identification. This was only provided when a photo posted on Flickr caught the attention of European Auchenorrhyncha expert Dr Herbert Nickel of the University of Göttingen, who recognised it as *Japananus hyalinus* (Osborn) and suggested that it was probably new to Britain (Figs 1 & 2; Plate 9, Fig. 4). Dr Alan Stewart of the UK Auchenorrhyncha Recording Scheme confirmed this as the first British record in the wild. Tuffen *et al.* (2014) do, however, report that two adults were intercepted in 1999 on *Acer palmatum* stock imported from South Korea. Subsequent enquiries revealed that this was at a nursery in Dorset (C. Malumphy, *in litt.*).

Further photographs were obtained on 22nd September and 19th October 2014 in the same area of the garden, which is underneath a long-established *A. palmatum* tree. It is not possible to determine whether these photographs show the same or different individuals.

In 2015, on 8th and 9th August, nymphs of the species were photographed on the same *A. palmatum* tree in Cambridge (Fig. 1) and later on the 9th a newly-emerged adult was observed. This confirms that the species has successfully managed to survive one winter in England and that it may, in time, become part of our resident fauna. The extent of the leafhopper's distribution in Cambridge has yet to be explored.

DESCRIPTION

The following description is taken from Biedermann & Niedringhaus (2009) and personal observation. The females are 5.2–5.4 mm long, the males smaller at 4.2–4.5 mm. The head is greenish yellow and the vertex strongly pointed. The forewings are almost transparent apart from the reddish veins, the males being less strongly marked than the females. In the resting position three prominent narrow beaded bands of purplish-brown colour run more or less straight across the wings, incorporating some portions of the veins, and some other cross-veins are also



Figs. 1–2. Nymph and adult of *Japananus hyalinus*, Cambridge 2014–15. Photos: K. Edkins.

thickened (Fig. 2; Plate 9, Fig. 4). The scutellum is yellow and usually has thin dark markings resembling a frowning face. Osborn (1900) gives full descriptions; Xing, Dai & Li (2008) and Biedermann & Niedringhaus (2009) give figures of the aedeagus.

The nymphs have a highly distinctive appearance, being sharply pointed at both the head end and the tip of the abdomen (Fig. 1). The overall body colour is pale yellow with darker markings, with a small dark spot on the vertex, and posterior abdominal segment and developing genitalia pale brown.

ECOLOGY AND DISTRIBUTION

In its Asian native range the host plants are *Acer japonicum* and *A. palmatum*. In other places it readily adapts to locally available *Acer* species, a fact which no doubt assists its rapid spread. In Europe the main food plant is field maple (*A. campestre*), and it has been recorded on Norway maple (*A. platanoides*), sycamore (*A. pseudoplatanus*), and other *Acer* species (Nickel, 2003). There is normally one generation per year (two in Italy), with the eggs over-wintering. The eggs are inserted into the nodes of young branches, making them very difficult to detect in dormant planting stock.

The species was first described as *Platymetopius hyalinus* by Osborn (1900) from specimens taken in Washington, D.C., with the stated suspicion that it was an introduced species in the USA. It was independently described, as *Platymetopius cinctus*, by Matsumura (1914) from Hokkaido, Honshu and Kyushu. Oman (1931) pointed out the synonymy of these two names, and at about the same time Ball (1931) designated *P. hyalinus* as the type species of a new genus *Japananus* Ball. Zahniser & Dietrich (2013) include the genus *Japananus* in the tribe Opsiini; it was formerly included in the Scaphytopiini.

Japananus hyalinus first reached Europe around 1961 and its subsequent spread on the European mainland is summarised by Walczak, Musik & Mokrzycka (2012). It has also been found in Australia (Fletcher & Knight, 1998). A Rapid Pest Risk Analysis by The Food & Environment Research Agency (Tuffen *et al.*, 2014) reported that the species has not been recorded as a virus or phytoplasma vector, although no specific studies have been done to assess its potential as a vector. The conclusion was that its impacts are likely to be small and that attempts to eradicate it were anyway unlikely to be unsuccessful.

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SHORT COMMUNICATIONS

Nocturnal activity of *Coleophora galbulipennella* Zeller (Lep.: Coleophoridae) at Dungeness, Kent. – On 2.vii.2015 I arrived at Kerton Road, Dungeness at 03.00h to begin my day's fieldwork, to find Colin Hart packing away his light-trap after a successful night's Lepidoptera recording. Species of note at his trap included Silver Barred *Deltote bankiana* (F.) and Rest-Harrow *Aplasta ononaria* (Fuessly). In conversation over a nice cup of tea I offered to show Colin the Dungeness micro-speciality *Coleophora galbulipennella* Zeller which I knew was present in large number literally yards from us, despite it being completely dark. Lying down on the shingle, by the roadside, using a torch we soon found lots of mature rosettes of Nottingham Catchfly *Silene nutans*, the moth's hostplant, showing typical whitening of the leaves where browsing larvae in their portable cases had fed earlier (Plate 10, Fig. 1). Tony soon espied several adult coleophorids actively walking over the hostplants and these were assumed to be *C. galbulipennella*. The moth is truly nocturnal as a return visit at 5.00h in early sunlight failed to reveal the presence of a

single adult moth in the immediate vicinity. The weather conditions had changed little. It is possible the moths had sought safety by resting under the abaxial surface of the leaves which lie fairly close to the ground, as these were not inspected, though it is equally plausible they could have been resting on non hostplants nearby. – JOHN BADMIN, Coppice Place, Selling, Kent ME13 9RP.

A new record of *Aradus aterrimus* (Fieber) (Hemiptera: Aradidae) in Kent. – On 7.iv.2015 whilst walking through Bysing Wood near Faversham (TQ9962) I noticed a flatbug sitting on the cut surface of a chestnut coppice stool. I do not normally take flatbugs, but as this one seemed a little unusual, I collected it for identification. Using pictures on the British Bugs website and the key in Land and Water Bugs of the British Isles (Southwood & Leston, 1959), I identified the specimen as *Aradus aterrimus*. A quick look in the data base of the Kent & Medway Biological Records Centre showed that there are relatively few records of this species from Kent and that it has been classified in the Kent Red Data Book (Waite, 2000) as Vulnerable in Kent, and Rare nationally (Kirby, 1992).

I took a quick photograph of the specimen and sent it to Kent's County Recorder for Heteroptera, Jonathan Barnard, for a second opinion, who agreed with my determination. To be on the safe side we sent the photo to Tristan Bantock and Joe Botting for their opinion, and the possibility of it being a closely related species, *A. angularis* (Sahlberg) could not be ruled out. The specimen was subsequently sent to Tristan for checking against reference material at the Natural History Museum and confirmed as a male *A. aterrimus*.

This represents the first British record since a single specimen was taken in West Sussex in 1977 (Jim Flanagan, pers comm) and the first for Kent since Masee found it in seven localities in the period 1934 to 1961 (Masee, 1962).

Aradus aterrimus is a woodland species mainly associated with Sweet Chestnut *Castanea sativa* (Mill.) coppice, where it is thought to feed on fungal growth amongst wood chippings. With the recent increase in the number of woodlands being managed for wood fuel and other wood products it is possible that this species will benefit and subsequently be found elsewhere. TONY WITTS, Kent & Medway Biological Records Centre, Brogdale Farm, Faversham, Kent ME13 8XZ, Tony.witts@kmbrc.org.uk

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PLATE 9. Fig. 1. Nymph (L) and adult (R) of *Essigella callifornica* (c. 2 mm) on *P. montezumae*. Fig. 2. *Myrmica* ant attending the aphid *Eulachnus rileyi* (c. 2.4 mm) on *Pinus montezumae*. Fig. 3. Parasitized mummy of *Essigella/Eulachnus* on *P. montezumae*. Photos copyright InfluentialPoints, all rights reserved. Fig. 4. Adult *Japanese hyalinus*, (c. 5 mm) Cambridge, 9.viii.2015. Photo: K. Edkins.