

# New and remarkable true hoppers (Hemiptera, Auchenorrhyncha) from Austria, with a special focus on Styria

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**Abstract:** Six species of plant- and leafhoppers (*Pochazia shantungensis*, *Bamboosella dimorpha*, *Gyponana mali*, *Jikradia olitoria*, *Tautoneura polymitusa*, *Zygina lunaris*) are reported from Austria for the first time, including one new subfamily (Coelidiinae) and two new tribes (Gyponini, Mukariini). Of these, only *Zygina lunaris* is native to Europe. In addition, data on locality expansions for five introduced species are presented.

**Zusammenfassung:** Neue und bemerkenswerte Zikaden (Hemiptera, Auchenorrhyncha) aus Österreich, mit besonderem Fokus auf die Steiermark. – Sechs Arten von Zikaden (*Pochazia shantungensis*, *Bamboosella dimorpha*, *Gyponana mali*, *Jikradia olitoria*, *Tautoneura polymitusa*, *Zygina lunaris*) werden erstmals für Österreich gemeldet, darunter eine neue Unterfamilie (Coelidiinae) und zwei neue Triben (Gyponini, Mukariini). Davon ist nur *Zygina lunaris* in Europa heimisch. Ergänzend werden Funde von Gebietserweiterungen für fünf weitere eingeschleppte Arten angeführt.

**Keywords:** Neozoa, invasive species, [iNaturalist](#), [naturbeobachtung.at](#), [observation.org](#).

**Schlüsselwörter:** Neozoa, invasive Arten, [iNaturalist](#), [naturbeobachtung.at](#), [observation.org](#).

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## 1. Introduction

In this paper, we publish newly found species and locality records for mainly introduced leafhoppers and planthoppers from Austria, with a special focus on Styria. All findings for this federal state date from the five years since the publication by Holzinger et al. (2020). For many of the species recorded from Styria, findings from other Austrian federal states are also available, therefore these data are also presented here. In addition, several introduced leafhoppers and planthoppers that were already known from Styria have expanded their distribution range, thus we also present these new records.

## 2. Material and Methods

Specimens of the species presented in this work were either collected by sweep net, suction sampler and/or light trap and are kept in the collections of the authors, or they were recorded on the Citizen Science platforms [inaturalist.org](#), [naturbeobachtung.at](#) and [observation.org](#). In the latter case, the species identifications are based on photos only, and thus, no verifiable voucher specimens are available.

## 3. Results

### 3.1. New records for Austria and/or Styria

#### Fulgoromorpha

##### *Pochazia shantungensis* (Chou & Lu, 1977)

Records from Austria were already published “indirectly” in a map in Schlitt et al. (2024), but without providing any additional information. These and additional data are now presented here:

**Styria:** 10.10.2024, Graz, Paulustor, on a house wall, 47.0758°N, 15.4410°E, 375 m a.s.l., 1 adult, [iNaturalist](#), A. Passath obs., G. Kunz det.

**Vorarlberg:** 04.08.2024, Höchst, 47.4622°N, 9.6536°E, 404 m a.s.l., 1 adult, [iNaturalist](#), J. Rousseau obs., E. Lind det.

**Vienna:** 22.10.2023, Simmering, Trinkhausstraße, found on a recently bought Kumquat tree, 48.1800°N, 16.4200°E, 158 m a.s.l., [naturbeobachtung.at](#), R. Zarl obs., G. Kunz det.; 25.06.2024, Währing, Hildebrandgasse, 48.2220°N, 16.3373°E, 212 m a.s.l., 1 nymph, [iNaturalist](#), M. Schäfer obs., G. Kunz det.

Native to China, this species can easily be distinguished from other Ricaniidae species recorded from Europe by the coloration of the fore wings (Bourgoin et al. 2020). However, new introductions of similar species from Asia (see Lee et al. 2024) can never be completely ruled out and dissections of the male genitalia of specimens recorded in Austria are still lacking. Nevertheless, this species got introduced in northern parts of Italy (Stroiński et al. 2022), from where several true hoppers easily managed to reach Austria (most likely) by passive transportation.

## Cicadomorpha

### *Bamboosella dimorpha* Sanna, Holzinger & Callot, 2025

This bamboo feeding Cicadellidae was described recently from southern Europe (Sanna et al. 2025), but probably originally stems from Asia. Specimens were collected in Vienna in 2021, and the species is expected to be found on bamboo stands in Styria and other federal states as well.

First record from Austria and Vienna: 25.09.2021, Botanical Garden of the University of Vienna, on bamboo, 48.1915°N, 16.3835°E, 192 m a.s.l., 1 adult & one nymph, [iNaturalist](#), G. Kunz leg. & det.

### *Erasmoneura vulnerata* (Fitch, 1851)

This species was so far only published for Austria from one locality in the Red List of Endangered Animals of Carinthia (Holzinger & Kunz 2023), but without providing the exact locality.

First records from Styria: 17.10.2023, Graz, Rankengasse, 47.0609°N, 15.4321°E, 344 m a.s.l., 1 adult, [iNaturalist](#), J. Gschiel obs., G. Kunz det.; 30.10.2024, 31.12.2024, Graz, Jakomini, 47.0610°N, 15.4441°E, 348 m a.s.l., 2 adults, [iNaturalist](#), E. Kern leg. & det.

Carinthia: 13.09.2022, Villach, city center, 46.6146°N, 13.8482°E, 500 m a.s.l., 1 ♂, [iNaturalist](#), R. van Klink leg. & det. (Holzinger & Kunz 2023); 03.03.2025, Klagenfurt am Wörthersee, 46.6272°N, 14.3384°E, 439 m a.s.l., 1 adult, [iNaturalist](#), B. Brudermann leg. & det.

This Typhlocybinae was recorded in Europe for the first time in northeastern Italy in 2004 (Duso et al. 2004), causing significant economic damage to grapevine yards. Since then, records from Slovenia (Seljak 2011) and Switzerland (Rizzoli et al. 2020) were published.

### *Gyponana mali* DeLong, 1942

First records from Austria and Styria: 11.07.2023, 17.07.2023, 09.08.2023, Graz, St. Veit, Plickweg 10, garden, 47.1150°N, 15.4065°E, 400 m a.s.l., 2 adults & 1 nymph, [iNaturalist](#), J. Pölt obs., G. Kunz & E. Kern det.

This North American leafhopper of the subfamily Iassinae, tribe Gyponini, was recorded for the first time in Europe in 2015 in southern Switzerland on *Nerium oleander* and a



**Fig. 1:** *Pochazia shantungensis* photographed for the first time in Graz (photo: A. Passath).

**Abb. 1:** *Pochazia shantungensis* (Chinesische Breitflügelzikade) erstmals in Graz fotografiert (Foto: A. Passath).



**Fig. 2:** *Bamboosella dimorpha* from the Botanical Garden of the University of Vienna (photo: G. Kunz).

**Abb. 2:** *Bamboosella dimorpha* (Asiatische Bambuszirpe) vom Botanischen Garten der Universität Wien (Foto: G. Kunz).



**Fig. 3:** *Erasmoneura vulnerata* from Graz, 30.10.2024 (photo: E. Kern).

**Abb. 3:** *Erasmoneura vulnerata* (Nordamerikanische Blattzikade) aus Graz, 30.10.2024 (Foto: E. Kern).

month later in Northern Italy (Trivellone et al. 2021). The only findings in Austria originate from a single private garden. Adults and nymphs have only been seen in the year 2023.

***Jikradia olitoria*** (Say, 1830)

First records from Austria and Styria: 10.08.2020, 25.07.–17.10.2021, 01.08.–26.10.2022, 02.07.–14.10.2023, 12.06.–28.09.2024, Riegersburg, between the “Seebad” and Oberstang, from 46.9933°N, 15.9377°E to 46.9910°N, 15.9631°E, 300–350 m a.s.l., several ♂ & ♀ & nymphs, [iNaturalist](#), W. Preitler & G. Kunz leg., G. Kunz & E. Kern det.

This North American Coelidiinae was first published from Europe (Northern Italy) in 2014 (Nielson et al. 2014) and found in Corse in 2017 (Albre & Gibernau 2019) and France since 2020 ([iNaturalist](#)). It has managed to establish and extend its distribution around Riegersburg within the last years.

***Ribautiana debilis*** (Douglas, 1876)

This species was recently published for the first time for Austria from North Tyrol (Glatzhofer et al. 2025).

First records from Styria: 01.09.2021, Gschaid bei Birkfeld, 47.3522°N, 15.6993°E, 559 m a.s.l., 1 ♀, E. Huber leg. & det.; 15.06.2024, Graz, Andritz, 47.1167°N, 15.4190°E, 388 m a.s.l., 1 ♂, [iNaturalist](#), E. Kern leg. & det.; 29.09.2024, Graz, Karolinenweg, Großer Vincke-Steinbruch, 47.0856°N, 15.4007°E, 417 m a.s.l., 1 ♂, [iNaturalist](#), G. Kunz leg. & det.

Upper Austria: 03.06.2019, Feldkirchen/Donau, Trespenwiese Lands Haag, 48.3714°N, 14.0403°E, 350 m a.s.l., 1 ♂, L. Schlosser leg. & det.; 02.01.2024, Ebensee, 47.8208°N, 13.7795°E, 446 m a.s.l., 1 adult, [iNaturalist](#), E. Lind leg. & det.

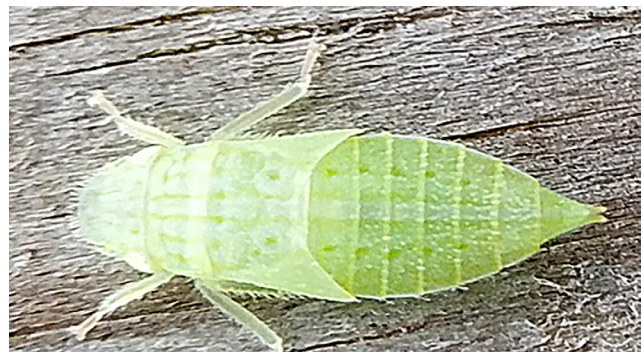
Vienna: 18.12.2023, Mauer, Kalksburger Grat, Himmelswiese, 48.1428°N, 16.2483°E, 328 m a.s.l., 1 ♀, [iNaturalist](#), C. Purtscher obs., G. Kunz det.; 21.11.2022, Brigittenau, near Nordbrücke, on *Rubus*, 48.2515°N, 16.3765°E, 158 m a.s.l., 1 adult, [iNaturalist](#), K. Zobel obs., K. Zobel & G. Kunz det.

Lower Austria: 26.10.2022, Mödling, Biotop Prießnitztal, 48.0705°N, 16.2799°E, 274 m a.s.l., 1 adult, [iNaturalist](#), C. Leeb obs., E. Kern & G. Kunz det.; 01.06.2023, Perchtoldsdorf, Perchtoldsdorfer Heide, Saugraben, 48.1283°N, 16.2472°E, 340 m a.s.l., 1 ♂, [iNaturalist](#), light trap, E. Kern leg., E. Kern & G. Kunz det.



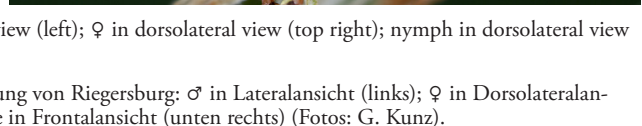
**Fig. 5:** *Jikradia olitoria* from the surroundings of Riegersburg: ♂ in lateral view (left); ♀ in dorsolateral view (top right); nymph in dorsolateral view (centre right); nymph in frontal view (bottom right) (photos: G. Kunz).

**Abb. 5:** *Jikradia olitoria* (Amerikanische Großaugenzikade) aus der Umgebung von Riegersburg: ♂ in Lateralansicht (links); ♀ in Dorsolateralansicht (oben rechts); Nymphe in Dorsolateralansicht (Mitte rechts); Nymphe in Frontalansicht (unten rechts) (Fotos: G. Kunz).



**Fig. 4:** *Gyponana mali* from Graz: adult from the 09.08.2023 (bottom); nymph from the 11.07.2023 (top) (photos: J. Pölt).

**Abb. 4:** *Gyponana mali* (Amerikanische Schmal Kopf-Lederzikade) aus Graz: adult vom 09.08.2023 (unten); Nymphe vom 11.07.2023 (oben) (Fotos: J. Pölt).



**Salzburg:** 18.10.2023, 02.04.2024, 24.10.2024, Salzburg, Nonntal, 47.7941°N, 13.0511°E, 428 m a.s.l., 11 adults, [iNaturalist](#), K. Zobel & G. Kunz det.

**North Tyrol:** 09.01.2023, Innsbruck, Hötting, 47.2667°N, 11.3725°E, 644 m a.s.l., 1 adult, [iNaturalist](#), M. Ljubisavljec obs., G. Kunz det.

**Vorarlberg:** 17.10.2023, 20.10.2023, 21.10.2023, 25.10.2023, 08.11.2023, 15.11.2023, 15.12.2023, 07.10.2024, Dornbirn, Ulrich-Ilg-Straße, 47.3950°N, 9.7249°E, 428 m a.s.l., ([observation.org](#)), 9 adults, R. Mäser obs., G. Kunz det.

*Ribautiana debilis* is a native European Typhlocybae feeding on *Rubus* sp. It is unclear why this species was never recorded in Austria until 2019, but is now found in several localities and federal states. A similar situation occurred in Germany after its first appearance in 1994. Within a very short time, it was found in numerous other parts of the country (Nickel 2003).

### *Tautoneura polymitusa* Oh & Jung, 2016

First records from Austria and **Styria:** 25.06.2024, Graz, Botanical Garden of the University of Graz, 47.0821°N, 15.4568°E, 377 m a.s.l., 1 ♀, [iNaturalist](#), G. Kunz leg. & det.

**Vienna:** 23.09.2021, Botanical Garden of the University of Vienna, swept from *Tilia* sp., 48.1915°N, 16.3835°E, 425 m a.s.l., 1 adult, [iNaturalist](#), G. Kunz leg. & det.; 26.09.2024, Stammersdorf, Alte Schanzen, 48.3152°N, 16.4155°E, 222 m a.s.l., 2 adults, [iNaturalist](#), E. Lind leg. & det.

This colourful Asian Typhlocybae appeared in Europe for the first time in Hungary in 2012 (Tóth et al. 2017) and is now widely distributed over Eastern, Central and Southwestern Europe (Seljak 2018; Grozdeva 2022; [inaturalist.org](#)).

### *Zygina lunaris* (Mulsant & Rey, 1855)

First records from Austria and **Styria:** 05.10.2021, Graz, Raaba, 47.0169°N, 15.5018°E, 345 m a.s.l., 1 adult, [iNaturalist](#), G. Kunz leg & det.; 28.08.2023, St. Peter, Walter-Goldschmidt-Gasse, 47.0500°N, 15.4748°E, 353 m a.s.l., 1 adult, [iNaturalist](#), A. Weihs leg., E. Kern & G. Kunz det.; 20.01.2024, Graz, Jakomini, 47.0511°N, 15.4419°E, 345 m a.s.l., 1 adult, [iNaturalist](#), T. Oswald leg., E. Kern det.; 29.04.2024, Graz, Andritz, 47.0997°N, 15.4133°E, 356 m a.s.l., 1 adult, [iNaturalist](#), E. Kern leg. & det.

**Lower Austria:** 11.10.2024, between Pfaffstätten and Gumpoldskirchen; 48.0310°N, 16.2555°E, 308 m a.s.l., 1 adult, [iNaturalist](#), E. Lind leg. & det.;

**Salzburg:** 24.10.2024, Salzburg, Festung Hohensalzburg, 47.7950°N, 13.0510°E, 433 m a.s.l., 1 adult, [iNaturalist](#), K. Zobel obs., H. Nickel det.

**North Tyrol:** 23.01.2024, Innsbruck, 47.2772°N, 11.4162°E, 573 m a.s.l., 1 adult, [iNaturalist](#), J. Bokelaar obs., H. Nickel det.

**Vienna:** 09.04.2023, Währing, Eduardgasse, 48.2223°N, 16.3417°E, 208 m a.s.l., 1 adult, [iNaturalist](#), L. Timaeus obs., E. Kern & G. Kunz det.; 09.04.2023, 22.11.2023, 24.01.2024, 29.01.2025, Brigittenau, Donaukanal near Anton-Kummerer-Park, 48.2360°N, 16.3623°E, 155 m a.s.l., 4 adults, [iNaturalist](#), K. Zobel obs., K. Zobel



**Fig. 6:** *Ribautiana debilis* from blackberry (*Rubus* sp.) (photo: K. Zobel).

**Abb. 6:** *Ribautiana debilis* (Brombeer-Blattzikade) von Brombeere (*Rubus* sp.) (Foto: K. Zobel).



**Fig. 7:** The first record of *Tautoneura polymitusa* from the Botanical Garden of the University of Vienna (photo: G. Kunz).

**Abb. 7:** Der Erstnachweis von *Tautoneura polymitusa* (Asiatische Ulmenblattzikade) aus dem Botanischen Garten der Universität Wien (Foto: G. Kunz).



**Fig. 8:** *Zygina lunaris* between Pfaffstätten and Gumpoldskirchen (photo: E. Lind).

**Abb. 8:** *Zygina lunaris* (Mond-Feuerzikade) zwischen Pfaffstätten and Gumpoldskirchen (Foto: E. Lind).

& G. Kunz det.; 03.01.2023, 27.03.2023, 08.02.2024, 16.02.2024, 15.03.2024, 18.03.2024, 20.03.2024, Althandgrund, Donaukanal, 48.2316°N, 16.3618°E, 164 m a.s.l., 12 adults, [iNaturalist](#), K. Zobel obs. & det.; 20.12.2024, Nussdorf, Donaukanal, 48.2522°N, 16.3716°E, 160 m a.s.l., 1 adult, [iNaturalist](#), K. Zobel obs. & det.; 24.02.2024, 26.02.2024, 29.02.2024, 19.03.2024, 21.12.2024, 31.12.2024, 02.01.2025, 24.01.2025, 26.01.2024, Kahlenberg, from 48.2747°N, 16.3517°E, to 48.250°N, 16.3475°E, 194–253 m a.s.l., 12 adults, [iNaturalist](#), K. Zobel obs. & det.; 15.03.2024, Josefstadt, 48.2088°N, 16.3452°E, 202 m a.s.l., 1 adult, [iNaturalist](#), B. Gollmann obs., H. Nickel det.; 05.01.2024, Lainzer Tiergarten near Hermesvilla, 48.1694°N, 16.2467°E, 288 m a.s.l., 1 adult, [iNaturalist](#), E. Lind leg. & det.

This is another native European species that has expanded its range in recent years. It was formerly restricted to southwestern Europe (see Ribaut 1936), but has been expanding its range significantly eastwards since the early 2000s (e.g. Lauterer & Malenovsky 1995, Nickel 2010, den Bieman & de Haas 2018) and has now reached Poland (Swierczewski & Stroinski 2011) and Austria.

### 3.2. Alien Auchenorrhyncha species with range expansions in Styria and other federal states

#### Fulgoromorpha

##### *Acanalonia conica* (Say, 1830)

After several findings in Graz, Styria and one in Klagenfurt, Carinthia (Holzinger et al. 2020a), this species appeared in the following noticeable localities:

**Styria:** 29.09.2021, Leibnitz, railway station, 46.7812°N, 15.5469°E, 273 m a.s.l., 1 adult, [iNaturalist](#), A. Tschërko, obs., G. Kunz det.; 28.07.2022, Leibnitz, 46.7900°N, 15.5549°E, 273 m a.s.l., 1 adult, [iNaturalist](#), R. Sunko obs., G. Kunz det.; 21.08.2022, Leibnitz, 46.7905°N, 15.5401°E, 275 m a.s.l., 1 adult found dead, [iNaturalist](#), K. Strohmriegl obs. & det.; 01.08.2024, 10.08.2024, 22.09.2024, Leibnitz, 46.7841°N, 15.5634°E, 271 m a.s.l., 4 adults, [iNaturalist](#), C. Rakovic obs., G. Kunz det.; 27.07.2024, Leibnitz, 46.7713°N, 15.5571°E, 270 m a.s.l., 1 adult, [iNaturalist](#), W. Stani obs. & det.; 13.09.2024, Vogau, 46.7428°N, 15.6049°E, 257 m a.s.l., 1 adult, [iNaturalist](#), J. Brandner, obs., E. Lind det.; 24.07.2024, Setzberg, 47.0376°N, 15.8300°E, 420 m a.s.l., 1 adult, [iNaturalist](#), J. Färber-Hallama obs., G. Kunz det.

**Lower Austria:** 14.08.2021, Laxenburg, Gustav Schütt-Gasse, on light trap, 48.071157°N, 16.358623°E, 176 m a.s.l., 2 adults, [iNaturalist](#), E. Gaget obs., G. Kunz det.; 19.07.2024, Tulln an der Donau, 48.3274°N, 16.0367°E, 180 m a.s.l., 1 adult, [iNaturalist](#), K. Weber obs., G. Kunz det.; Haschendorf, 47.8896°N, 16.3425°E, 229 m a.s.l., 1 adult, [naturbeobachtung.at](#), C. Hübner obs., G. Kunz det.

**Vienna:** 28.08.2021, Hernals, Alseile, 48.2310°N, 16.2961°E, 237 m a.s.l., 1 adult, [iNaturalist](#), D. Fuchs obs., G. Kunz det.; 14.08.2023, Penzing, Bahnhofstraße, 48.1991°N, 16.2631°E, 201 m a.s.l., 1 adult, [iNaturalist](#),

J. Malik obs., L. Timaeus & G. Kunz det.; 15.08.2024, Döbling, Guneschgasse, 48.2364°N, 16.3555°E, 166 m a.s.l., 1 adult, [iNaturalist](#), M. Aubry obs., G. Kunz det.; 28.08.2024, Stadtpark, 48.2036°N, 16.3803°E, 167 m a.s.l., 1 adult, [iNaturalist](#), M. Helm obs., G. Kunz det.

##### *Metcalfa pruinosa* (Say, 1830)

This Flatidae species was known only from Graz and Vienna for a long time since its first records (Holzinger et al. 1996; Kahrer & Moosbeckhofer 2003) and has now extended its distribution to southern and eastern parts of Austria from Carinthia to the south of Styria, the northeast of Burgenland (Illmitz, Tadtén, Andau, Lange Lacke, Schützen...), and trespassing Viennas borders in all directions, reaching Drösing and Gänserndorf in the northeast, Immendorf in the north, Bruck/Leitha in the southeast and Melk in the west of Lower Austria ([iNaturalist](#)).

#### Cicadomorpha

##### *Graphocephala fennahi* Young, 1977

Since Laister (2008), Holzinger (2009) and Hiermann & Friebe (2021), several new findings in different federal states were documented – mainly on Citizen Science platforms – of this North American species that primarily feeds on *Rhododendron*. However, no findings are yet reported from North & East Tyrol or from Burgenland.

**Styria:** This species has strongly expanded its range in Styria from Zeltweg in the northwest over Weiz to Hartberg in the east and Deutschlandsberg and Leibnitz in the south. To date (25.03.2025), 82 observations are documented in the federal state just on [iNaturalist](#).

**Carinthia:** 14.08.2009, Annabichl, Zentralfriedhof, on *Rhododendron* sp. 46.6518°N, 14.3172°E, 452 m a.s.l., 1 adult, G. Kunz & J. Kahapka leg., G. Kunz det. (published without any details in Kunz et al. 2011); 14.08.2009, St. Georgen am Sandhof, 46.6546°N, 14.3311°E, 480 m a.s.l., 1 adult, G. Kunz & J. Kahapka leg., G. Kunz det.; 02.08.2016, Villach, Spitzeckweg 11, 46.6279°N, 13.8390°E, 537 m a.s.l., 1 adult, C. Holzschuh leg., G. Kunz det.; 17.08.2019, Millstätter See, Dellach, 46.7899°N, 13.6111°E, 606 m a.s.l., 1 adult, [iNaturalist](#), E. Weutz leg. & det.; 01.08.2020, 12.08.2020, 13.08.2020, Feldkirchen in Kärnten, St. Ruprecht, 46.7277°N, 14.1105°E, 627 m a.s.l., 1 adult, [iNaturalist](#), A. Virgolini obs., G. Kunz det.; 06.08.2020, 27.09.2020, Klagenfurt, Berthavon-Suttner-Gasse, 46.6272°N, 14.3384°E, 439 m a.s.l., 1 adult, [iNaturalist](#), B. Bruderermann obs. & det.; 26.08.2024, east of Klagenfurt Airport, 46.6486°N, 14.3330°E, 469 m a.s.l., 1 adult, [iNaturalist](#), B. Bruderermann obs. & det.; 12.08.2021, Oberdorf, 46.6530°N, 13.9989°E, 820 m a.s.l., 1 adult, [iNaturalist](#), I. Schlick-Steiner & J. Schlick-Steiner leg. & det.; 08.10.2022, Techelsberg am Wörther See, Rennweg, 46.6532°N, 14.1296°E, 600 m a.s.l., 1 adult, [iNaturalist](#), A. Leiningner obs., G. Kunz det.; 08.08.2024, Steindorf am Ossiacher See, 46.6995°N, 14.0240°E, 508 m a.s.l., 1 adult, [iNaturalist](#), J. Maynollo obs., E. Kern det.; 22.07.2024, St. Ulrich, 46.6100°N, 13.9167°E, 490 m a.s.l., 1 adult, [iNaturalist](#), R. Rulofs obs., G. Kunz det.

**Lower Austria:** 12.12.2020, Breitenfurt, 48.129274°N, 16.177063°E, 323 m a.s.l., 1 adult, [naturbeobachtung.at](https://naturbeobachtung.at), M. Sabor obs., G. Kunz det.

**Salzburg:** 18.08.2013, Kommunalfriedhof, 47.7783°N, 13.0475°E, 431 m a.s.l., 1 adult, G. Kunz & T. Würzinger leg., G. Kunz det.; 24.08.2019, Hallein, Vigaun, Heiltherme Bad Vigaun, 47.6716°N, 13.1334°E, 460 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), R. Kunz leg., G. Kunz det.; 18.09.2021, Gneis, 47.7752°N, 13.0397°E, 434 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), „jokoening“ obs., G. Kunz det.; 29.06.2024, Salzburg, 47.8187°N, 13.0262°E, 417 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), „v\_nebenfuhr“ obs., G. Kunz det.; 19.07.2024, Botanischer Garten, 47.7864°N, 13.0595°E, 424 m a.s.l., 1 adult, [observation.org](https://observation.org), P. Kaufmann & C. Fritz obs. & det.

**Upper Austria:** 06.07.2011, Zaubertal, 48.2990°N, 14.2553°E, 333 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), G. Kunz leg. & det.; 15.08.2022, Taufkirchen an der Pram, 48.4141°N, 13.5344°E, 356 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), „wienerwald“ obs., G. Kunz det.; 04.09.2023, Traun, 48.2310°N, 14.2278°E, 282 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), G. S. Haindrich obs., G. Kunz det.; 07.07.2019, Thalheim bei Wels, 48.1455°N, 14.0317°E, 377 m a.s.l., 1 adult, [naturbeobachtung.at](https://naturbeobachtung.at), R. Rechberger obs., G. Kunz det.; Linz, 48.3557°N, 14.3346°E, 481 m a.s.l., 1 adult, [naturbeobachtung.at](https://naturbeobachtung.at), G. Anderhuber obs., G. Kunz det.; 05.07.2024, Traiskirchen im Innkreis, 48.2845°N, 13.6093°E, 405 m a.s.l., 1 adult, [observation.org](https://observation.org), H. Dick obs., G. Kunz det.

**Vienna:** This species was so far only published from Vienna in Sergel (1987). Further findings: 24.09.2021, Botanical Garden of the University of Vienna, 48.1893°N, 16.3828°E, 196 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), G. Kunz leg. & det.; 08.09.2020, Ober St Veit, 48.1740°N, 16.2584°E, 298 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), D. Lehner obs., E. Kern det.; 25.07.2022, Hietzing, Rosenberg, 48.159267°N, 16.286343°E, 260 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), C. Purtscher obs., G. Kunz det.; 01.07.2023, Währinger Park, 48.2321°N, 16.3482°E, 189 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), L. Timaeus leg. & det.; 03.07.2024, Pötzleinsdorfer Schlosspark, 48.2420°N, 16.3045°E, 274 m a.s.l., 1 adult & 1 nymph, [iNaturalist](https://iNaturalist.com), E. Lind leg. & det.

**Vorarlberg:** Recent findings from the 30.08.2024 will be published in a separate paper on the collecting results in the framework of the 30th Central European Auchenorrhyncha meeting. Further records: 15.07.2024, Ludesch, 47.1935°N, 9.7883°E, 560 m a.s.l., 1 adult, [observation.org](https://observation.org), „Jurgen60“ obs., G. Kunz det.; 03.09.2024, Kennelbach, 47.4786°N, 9.7626°E, 425 m a.s.l., 1 adult, [observation.org](https://observation.org), G. Friebe obs. & det.; 07.09.2024, Feldkirch, 47.2341°N, 9.5984°E, 458 m a.s.l., 2 adults, [observation.org](https://observation.org), G. Friebe obs. & det.

### *Hishimonus hamatus* Kuoh, 1976

This species was reported for Austria only from one locality in the south of Graz (Holzinger et al. 2020). It has now expanded its range in Styria and was also found in other federal states.

**Styria:** 06.10.2021, Graz-Umgebung, Grambach, nursery garden, on *Buddleja* sp., 47.0176°N, 15.5019°E, 350 m a.s.l., 2 nymphs, [iNaturalist](https://iNaturalist.com), G. Kunz leg. & det.; 19.10.2023, 24.06.2024, 15.10.2024, Graz, Botanical Garden of the University of Graz, 47.0820°N, 15.4567°E,

376 m a.s.l., 3 adults, [iNaturalist](https://iNaturalist.com), L. Pichler, E. Kern & Gernot Kunz leg., E. Kern & G. Kunz det.; 25.11.2023, Graz, Sankt-Peter cemetery, 47.0651°N, 15.4641°E, 363 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), M. Sperl obs., H. Nickel det.; 02.08.2024, Graz, Webling, 47.0452°N, 15.4054°E, 357 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), M. Meixneralter obs., G. Kunz det.; 03.08.2024, Graz, Liebenau, Stanglmühlstraße, 47.0317°N, 15.4634°E, 341 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), V. Staudinger obs., E. Lind & E. Kern det.; 23.–24.08.2024, Graz, Gösting, Karolinenweg, Großer Vincke-Steinbruch, 47.0856°N, 15.4007°E, 417 m a.s.l., 5 adults, [iNaturalist](https://iNaturalist.com), G. Kunz leg. & det.; 08.09.2024, Leibnitz, Leutschach an der Weinstraße, Glanz 74 (Biohof Gunczy), Lichtfang, 1 ♂, [iNaturalist](https://iNaturalist.com), G. Kunz leg. & det.; 08.10.2024, Graz, Mariatrost, nahe Volksschule Mariagrün, 47.0903°N, 15.4536°E, 426 m, 1 adult, [iNaturalist](https://iNaturalist.com), „lucroh“ obs., G. Kunz det.; 05.11.2024, Graz, St. Peter, Einödhofweg, 47.0587°N, 15.4966°E, 403 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), A. Weihs obs., E. Kern det.

**Burgenland:** 10.08.2024, Frauenkirchen, 47.8440°N, 16.9186°E, 126 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), H. Gross obs., G. Kunz det.

**Lower Austria:** 02.07.2023, Perchtoldsdorf, Perchtoldsdorfer Heide, Saugraben, light trap, 48.1284°N, 16.2471°E, 340 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), E. Kern leg., G. Kunz det.; 22.06.2023, Brunn am Gebirge, theme park, 1 adult, [iNaturalist](https://iNaturalist.com), G. Kunz leg. & det.; 21.08.2023, 25.12.2023, 20.06.2024, Mödling, 48.0832°N, 16.2830°E, 225 m a.s.l., 3 adults, [iNaturalist](https://iNaturalist.com), „cecily234“ obs., G. Kunz det.; 04.07.2024, Perchtoldsdorf, Perchtoldsdorfer Heide, 48.1269°N, 16.2475°E, 366 m a.s.l., 2 adults, [iNaturalist](https://iNaturalist.com), M. Knapp obs., E. Kern & G. Kunz det.; 14.08.2024, 20.07.2024, 28.–29.08.2024, east of Baden bei Wien, Leesdorf, 48.0044°N, 16.2715°E, 214 m a.s.l., 5 adults, [iNaturalist](https://iNaturalist.com), M.A. Prinz obs., G. Kunz det.; 23.08.2024, Velm, 48.0468°N, 16.4539°E, 180 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), O. Drescher obs., E. Lind det.; 13.07.2024, 03.08.2024, Tattendorf, 47.9590°N, 16.2994°E, 227 m a.s.l., 4 adults, [naturbeobachtung.at](https://naturbeobachtung.at), „Karl M.“ obs., G. Kunz det.; 24.08.2024, east of Neurißhof, Piestingau, 47.9378°N, 16.3527°E, 216 m a.s.l., 1 adult, [naturbeobachtung.at](https://naturbeobachtung.at), „Karl M.“ obs., G. Kunz det.; 27.08.2024, Tattendorf, 47.9569°N, 16.3094°E, 225 m a.s.l., 1 adult, [naturbeobachtung.at](https://naturbeobachtung.at), „Karl M.“ obs., G. Kunz det.; 01.09.2024, Tattendorf, 47.9502°N, 16.3001°E, 230 m a.s.l., 2 adults, [naturbeobachtung.at](https://naturbeobachtung.at), „Karl M.“ obs., G. Kunz det.; 09.07.2024, 14.09.2024, 23.09.2024, Tattendorf, 47.9482°N, 16.3112°E, 227 m a.s.l., 4 adults, [naturbeobachtung.at](https://naturbeobachtung.at), „Karl M.“ obs., G. Kunz det.

**Vienna:** 29.06.2023, former marshalling yard (Verschiebebahnhof) Breitenlee, 48.2634°N, 16.4921°E, 165 m a.s.l., 1 ♂, [iNaturalist](https://iNaturalist.com), E. Lind leg. & det.; 08.09.2023, between Simmering and Kaiserebersdorf, 48.1541°N, 16.4281°E, 175 m a.s.l., 1 adult, [iNaturalist](https://iNaturalist.com), C. Purtscher obs., G. Kunz det.; several other findings covering almost all parts of Vienna ([iNaturalist](https://iNaturalist.com)).

### *Synophropsis lauri* (Horváth, 1897)

Findings of this polyphagous Deltocephalinae, formerly restricted to southern Europe, have so far only been published from North Tyrol and Styria (Holzinger et al. 2020b).

**Styria:** 17.05.2020, Graz, Jakomini, 47.0632°N, 15.4436°E, 351 m a.s.l., 1 adult, A. Majcen obs., G. Kunz det.; 26.10.2022, Pöllau bei Hartberg, 47.3016°N, 15.8305°E, 434 m a.s.l., 1 adult, *iNaturalist*, L. Prinz obs., G. Kunz & E. Kern det.; 20.08.2024, Anger bei Weiz, 47.2785°N, 15.6953°E, 492 m a.s.l., 1 adult, *iNaturalist*, E. Holzer leg., G. Kunz det.

**Burgenland:** 12.08.2024, Eisenstadt, 47.8454°N, 16.5247°E, 178 m a.s.l., 1 adult, *iNaturalist*, S. Aminger obs., G. Kunz & E. Kern det.

**East Tyrol:** 09.06.2024, Lienz, 46.8334°N, 12.7634°E, 682 m a.s.l., 1 adult, *observation.org*, “Upepops” obs., G. Kunz det.

**Lower Austria:** 28.08.2021, Laxenburg, 48.0700°N, 16.3602°E, 176 m a.s.l., 1 adult, *iNaturalist*, E. Gaget obs., E. Kern det.; 08.10.2024, Tattendorf, 47.9590°N, 16.2994°E, 227 m a.s.l., 1 adult, *naturbeobachtung.at*, „Karl M.“ obs., G. Kunz det.

**Vienna:** 03.10.2022, Kahlenbergerdorf, Jungherrnsteig, 48.2729°N, 16.3536°E, 197 m a.s.l., 1 nymph, *iNaturalist*, K. Zobel obs., G. Kunz det.; 15.08.2024, 09.10.2024, Josefstadt, Lange Gasse, 48.2141°N, 16.3506°E, 189 m a.s.l., 1 nymph & 1 adult, *iNaturalist*, “cappycollins” obs., H. Nickel & G. Kunz det.

### *Trifida bilobata* Ohara, 2014

This bamboo-feeding Typhlocybae has recently been published as a new record for Europe in Poggi et al. (2024), including one record from Graz, Styria. Here is another record from eastern Styria:

**Styria:** 22.07.2024, 29.08.2024, Stubenberg am See, Tierwelt Herberstein, on bamboo, 47.2174°N, 15.8115°E, 477 m a.s.l., 19 adults, *iNaturalist*, G. Kunz leg. & det.

## 4. Discussion

The number of leafhoppers and planthoppers introduced to Austria and Europe (see D’Urso et al. 2019 and Holzinger et al. 2020) is drastically increasing. Within the last five years, ten new alien species have been discovered in Austria. Some species were already expected, others were completely unexpected, such as *Pediopsoidea sharmai* (de Haas et al. 2024). Around 20–25 further species already introduced into Europe can be expected to appear in Austria within the next decades. The species presented in this paper were found thanks to several biodiversity projects, excursions and the Citizen Science databases *iNaturalist*, *observation.org* and *naturbeobachtung.at*, which have significantly increased in popularity in recent years and have become an important source for species records and especially of alien taxa.

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**Fig. 9:** *Graphocephala fennabi* from the Pötzleinsdorfer Schlosspark (photo: E. Lind).

**Abb. 9:** *Graphocephala fennabi* (Rhododendronzikade) vom Pötzleinsdorfer Schlosspark (Foto: E. Lind).



**Fig. 10:** The nymph of *Hishimonus hamatus* (top) can easily be confused with the nymph of *Orientus ishidae* (bottom) (photos G. Kunz).

**Abb. 10:** Die Nympe von *Hishimonus hamatus* (Asiatische Ligusterzirpe) (oben) kann leicht mit der Nympe von *Orientus ishidae* (Orientzirpe) (unten) verwechselt werden (Fotos G. Kunz).



**Fig. 11:** *Trifida bilobata* female laying eggs in the tissue of a bamboo leaf (photo: G. Kunz).

**Abb. 11:** *Trifida bilobata* (Asiatische Bambus-Blattzikade) bei der Eiablage in ein Bambusblatt (Foto: G. Kunz).

## References

- Albre J. & Gibernau M. 2019: Diversity and temporal variations of the Hemiptera Auchenorrhyncha fauna in the Ajaccio region (France, Corsica). – *Annales de la Société Entomologique de France* 55(6): 497–508.
- Bourgoin T., Gros P. & Stroiński A. 2020: *Pochazia shantungensis* (Chou & Lu, 1977), an important Asiatic invasive pest on fruit trees, first time reported from France (Hemiptera, Fulgoromorpha, Ricaniidae). – *Bulletin de la Société entomologique de France*, 125(3): 271–272. [https://doi.org/10.32475/bsef\\_2150](https://doi.org/10.32475/bsef_2150)
- D'Urso V., Sánchez I. & Bella S. 2019: *Chloropelix canariensis* Lindberg and *Balclutha brevis* Lindberg (Auchenorrhyncha, Cicadellidae) two new leafhoppers to continental Europe, with a review of the alien Auchenorrhyncha species established in the continent. – *Phytoparasitica* 47: 163–178.
- De Haas M.C., Den Bieman C.F.M., Viraktamath C.A., Lind E., Kunz G. & Holzinger W.E. 2024: The Indian leafhopper *Pediopsoidea sharmai* discovered in Europe (Auchenorrhyncha: Cicadellidae: Eurymelinae: Macropsini). – *Entomologische Berichten* 84(6): 235–241.
- Den Bieman C.F.M. & de Haas M. 2018: Vier nieuwe dwergcicaden voor Nederland (Homoptera: Cicadomorpha: Cicadellidae). – *Entomologische Berichten* 78(3): 102–106.
- Duso C., Zanettin G., Gherardo P., Pasqualotto G., Raniero D., Rossetto F., Tirello P. & Pozzebon, A. 2020: Colonization Patterns, Phenology and Seasonal Abundance of the Nearctic Leafhopper *Erasmoneura vulnerata* (Fitch), a New Pest in European Vineyards. – *Insects* 11(11): 731.
- Glatzhofer E., Huber E., Bodner M., Borovsky R., Burgsteiner R., De Cesne M., Degasperis G., Doppelhofer E., Eckelt A., Fial N., Fischer J.-F., Friess T., Fröhlich D., Goušet V., Greilberger A., Gratzert T., Gunczy J., De Haas M., Heimbürg H., Heufelder A., Holzer E., Jordan Reisinger J., Kaiser J., Kahlen M., Kohler F., Kunz G., Lind E., Linhart J., Linzbauer D., Malenovský I., Maynollo S., Niedringhaus R., Oswald T., Paill W., Ploner S., Raab M., Rosian F., Schäffer S., Schattanek-Wiesmair B., Schattanek-Wiesmair P., Schoder S., Schrettle H., Schütz A., Stahrmüller M., Szucsich N., Timaeus L., Volkmer J., Walter-Minauf N., Witzmann M., Zechmeister T. & Messner S. 2025: Bericht über das zehnte ÖEG-Insektencamp: Die faunistische Vielfalt der Nördlichen Kalkalpen (Naturpark Karwendel, Tirol). – *Entomologica Austriaca* 32: 69–147.
- Grozdeva S. 2022: The cicada *Tautoneura polymitusa* (Oh & Jug, 2016) (Hemiptera: Cicadellidae) – new adventive species for the fauna of the Republic of Moldova. – *Buletinul AȘM Științele vieții* 2(346): 54–57.
- Hiermann U. & Friebe J.G. 2021: Notizen zu gebietsfremden Zikadenarten in Vorarlberg und im Fürstentum Liechtenstein (Hemiptera: Auchenorrhyncha: Cicadomorpha). – *inatura – Forschung online* 92: 4 pp.
- Holzinger W.E. 2009: Rote Liste der Zikaden (Hemiptera: Auchenorrhyncha) Österreichs. – In: Rote Listen gefährdeter Tiere Österreichs. – Grüne Reihe des Lebensministeriums, Band 14/3: 41–317.
- Holzinger W.E., Huber E., Schlosser L. & Kunz G. 2020a: *Acanalonia conica* (Say, 1830) and three other true hopper species new for Austria (Hemiptera: Auchenorrhyncha). – *Cicadina* 19: 9–19.
- Holzinger W.E., Huber E., Bauer H., Becker J., Buggelsheim B., Burggraber N., Gartler L., Gorfer B., Gröbl M., Gunczy L.W., Körner A., Lehner J., Loreth A., Messner S., Papenberg E., Ploner S., Skorjanč J., Szemens F., Weissacher C., Westerglerling T.E.H. & Kunz G. 2020b: Zur Zikadenfauna des Grazer Stadtparks (Steiermark, Österreich) (Hemiptera: Auchenorrhyncha). – *Cicadina* 19: 21–31.
- Holzinger W.E., Jantscher E. & Remane R. 1996: Erstnachweise von Zikaden aus Österreich mit Bemerkungen zu weiteren Arten. – *Linzer Biologische Beiträge* 28(2): 1149–1152.
- Holzinger W.E. & Kunz G. 2023: Zikaden (Insecta: Auchenorrhyncha). – In: Komposch C. (Red.): Rote Liste gefährdeter Tiere Kärntens. – Naturwissenschaftlicher Verein für Kärnten, Klagenfurt: 673–695.
- Kahrer A. & Moosbeckhofer R. 2003: Ein neuer Schädling – *Metacalfa pruinosa* – in Österreich eingeschleppt. – *Bienenwatter* 10: 16–19.
- Laister G. 2008: Erster Nachweis der Rhododendronzikade (*Graphocephala fennahi*) für Oberösterreich. – *ÖKO L* 30/3: 19–20.
- Lauterer P. & Malenovský I. 1995: Eine neue Art der Kleinzikaden (Homoptera Cicadellidae Typhlocybinae) auf dem Gebiet der Bundesrepublik Deutschland. – *Marburger entomologische Publikationen* 2(9): 76–77.
- Lee H., Lee G.-S., Li Y. & Lee W. 2024: Resolving taxonomic confusion of *Pochazia shantungensis* (Hemiptera: Fulgoromorpha: Ricaniidae) from South Korea, with one new species. – *Journal of Asia-Pacific Entomology* 27(2): 1–10.
- Nickel H. 2010: First addendum to the Leafhoppers and Planthoppers of Germany (Hemiptera: Auchenorrhyncha). – *Cicadina* 11: 107–122.
- Nielson M.W., Zack R.S., Poggi F. & Nickel H. 2014: New leafhopper species of *Jikradia* from Mesoamerica with new records, revised key to species, distribution, origin, and checklist (Hemiptera: Cicadellidae: Coelidiinae: Teruliini) – *Revista Biologica Tropical* 62(4): 1375–1383.
- Poggi F., Sanna F., Casiraghi A., Šćiban M. & Kunz G. 2024: First record from Europe of the Asian bamboo-feeding leafhopper *Trifida bilobata* Ohara, 2014 (Hemiptera: Cicadellidae: Typhlocybinae). – *Zootaxa* 5433(1): 144–150.
- Ribaut H. 1936: Homoptères Auchenorrhynques I. (Typhlocybidae). – *Faune de France* 31, 230 pp.
- Rizzoli A., Battelli R., Conedera M. & Jermini M. 2020: First record of *Erasmoneura vulnerata* Fitch, 1851 (Hemiptera, Cicadellidae, Typhlocybinae) in Switzerland. – *Alpine Entomology* 4: 151–156.
- Sanna F., Holzinger W.E., Francesca C., Callot H. & Webb M.D. 2025: A new leafhopper genus and species on bamboo, described from Europe (Hemiptera, Cicadellidae, Deltocephalinae, Mukariini), with remarkable seasonal dimorphism. – *Zootaxa* 5588(2): 323–338.
- Schlitt B.P., Koczor S. & Orosz A. 2024: First record of a polyphagous Ricaniid pest, *Pochazia shantungensis* (Chou & Lu, 1977) from the Carpathian Basin (Hemiptera: Fulgoromorpha: Ricaniidae). – *Acta Phytopathologica et Entomologica Hungarica* 59(2): 187–196.
- Seljak G. 2011: First record of the Nearctic leafhopper *Erasmoneura vulnerata* (Fitch, 1851) (Hemiptera, Cicadomorpha: Cicadellidae) in Slovenia. – *Acta Entomologica Slovenica* 19(1): 37–42.
- Seljak G. 2018: Notable new findings of Auchenorrhyncha (Hemiptera) in Slovenia – *Acta Entomologica Slovenica* 26(2): 181–194.
- Sergel R. 1987: Area expansion of the imported Nearctic cicadelline leafhopper *Graphocephala fennahi* Young 1977 in Western Europe (Homoptera: Auchenorrhyncha). – *Articulata* 3: 21–22.
- Stroiński A., Balderi M., Marraccini D. & Mazza G. 2022: First records of *Pochazia shantungensis* (Chou & Lu, 1977) (Hemiptera: Fulgoromorpha: Ricaniidae) in Italy. – *Zootaxa* 5188(3): 275–282.
- Swierczewski D. & Stroiński A. 2011: Planthoppers and leafhoppers of the Przedborski Landscape Park (Hemiptera: Fulgoromorpha et Cicadomorpha). – *Polish Journal of Entomology* 80: 277–290.
- Tóth M., Orosz A. & Rédei D. 2017: Another alien on the horizon? First European record of *Tautoneura polymitusa*, an East Asian leafhopper (Hemiptera: Auchenorrhyncha: Cicadellidae) – *Zootaxa* 4311(1): 137–144.
- Trivellone V., Forte V., Filippin L. & Dietrich C.H. 2021: First records of the North American leafhopper *Gyponana mali* (Hemiptera: Cicadellidae) invading urban gardens and agroecosystems in Europe. – *Acta Entomologica Musei Nationalis Pragae* 61(1): 213–219.

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