INFORMACION / INFORMATION

PUBLIKIME TË TORSTEN VAN DER HEYDEN TË ENTOMOFAUNËS NË SHQIPËRI

PUBLICATION OF TORSTEN VAN DER HEYDEN ON ALBANIAN ENTOMOFAUNA

BOARD OF BULETINI I SHKENCAVE TË NATYRËS EXPRESSES THE GRATITUDE AND WORMEST THANKS TO PROF. TORSTEN VAN DER HEYDEN FOR HIS REMARKABLE CONTRIBUTION ON PUBLICATION OF INTERESTING RESULTS ON ALBANIAN ENTOMOLOGY. FOR A LONG TIME HE HAS PERSISTENTLY CONTINUED HIS RESEARCH WORK IN THE STUDY OF VARIOUS ASPECTS OF ALBANIAN ENTOMOFAUNA. HIS RESEARCH HAS BEEN ALWAYS A VALUABLE CONTRIBUTION AND A GOOD EXAMPLE FOR ALL RESEARCHERS OF ALBANIA IN THIS FIELD.

1-CONFIRMATION OF THE PRESENCE OF SOLENOSTHEDIUM BILUNATUM (LEFÈBVRE, 1827) (HEMIPTERA: HETEROPTERA: SCUTELLERIDAE) IN ALBANIA

TORSTEN VAN DER HEYDEN

2-PLANT BUGS (HEMIPTERA: HETEROPTERA: MIRIDAE) NEW IN ALBANIA AND KOSOVO

PARIDE DIOLI, TORSTEN VAN DER HEYDEN

JHT
J.Het.Turk,
Journal of the Heteroptera of Turkey
ISSN 2687 - 3249 (online edition)
November, 2021
Volume 3, Issue 2

Short Note

Confirmation of the presence of *Solenosthedium bilunatum* (Lefèbvre, 1827) (Hemiptera: Heteroptera: Scutelleridae) in Albania

Torsten van der Heyden

Immenweide 83, D-22523 Hamburg, Germany.
E-mail: tmvdh@web.de ORCID iD: 0000-0003-4138-7160

ABSTRACT: Reporting the second record of *Solenosthedium bilunatum* (Lefèbvre, 1827) in Albania, the presence of the species in the country is confirmed. Information on the known distribution of *S. bilunatum* in Europe is summarized.

KEYWORDS: *Solenosthedium bilunatum*, distribution, Albania.

To cite this article: van der Heyden, T., 2021, Confirmation of the presence of *Solenosthedium bilunatum* (Lefèbvre,1827) (Hemiptera: Heteroptera: Scutelleridae) in Albania, *J.Het.Turk.*, 3 (2):111-113
DOI:10.5281/zenodo.5717188
To link to this article: https://www.j-ht.org/wp-content/uploads/2021/11/V32-A4.pdf
Received: Oct 04, 2021; **Revised:** Oct 12,2021; **Accepted:** Oct 12, 2021; **Published online:** Nov 30, 2021

So far, *Solenosthedium bilunatum* (Lefèbvre, 1827) (Hemiptera: Heteroptera: Scutelleridae), a Mediterranean scutellerid belonging to the subfamily Elvisurinae, has been reported from the following European countries: Albania, Croatia (mainland, Korčula), Cyprus, France (mainland, Corsica), Greece, Italy (mainland, Sardinia, Sicily, Ustica), Malta, Portugal and Spain (mainland, Ibiza, Mallorca) (Misja, 1973; Josifov, 1986; Matocq & Pluot-Sigwalt, 2002; Göllner-Scheiding, 2006; Gogala, 2008; Aukema et al., 2013; Dusoulier et al., 2016; Škorput et al., 2019; van der Heyden, 2020).

The only known record of *S. bilunatum* from Albania so far, which was found in Kokome (Sarandë) on 31.10.1970, was reported by Misja (1973).

Now, the presence of *S. bilunatum* in Albania can be confirmed: On 29.09.2021, a nymph was photographed by Théalie Dhellemmes on *Paliurus spina-christi* Mill. (Rhamnaceae) near the city of Sarandë, located at the Ionian Sea (Fig. 1). The photograph was uploaded to the online database iNaturalist (under the pseudonym thealie) (2021).

ACKNOWLEDGEMENTS

I would like to thank Théalie Dhellemmes for allowing me to use her photo of *S. bilunatum* to illustrate this note.

REFERENCES

Aukema, B., Rieger, C., Rabitsch, W. (Eds.), 2013, *Catalogue of the Heteroptera of the Palaearctic Region*, Volume 6, Suppl. The Netherlands Entomological Society, Amsterdam, 629 pp.

Dhellemmes, T., 2021, *Solenosthedium bilunatum*. Photograph to be found on iNaturalist [Online database]. Available from:https://www.inaturalist.org/observations/97122009. (Accessed: 04.10.2021).

Dusoulier, F., Claerebout, S., Mroczo, C., 2016, Deux espèces nouvelles pour la faune de la France continentale: *Eyprepocnemis plorans* (Charpentier, 1825) et *Solenosthedium bilunatum* (Lefèbvre, 1827) (Orthoptera Acrididae et Hemiptera Scutelleridae), *L'Entomologiste*, 72 (2): 121-126.

Göllner-Scheiding, U., 2006, Family SCUTELLERIDAE Leach, 1815 - shield bugs, 190-227 pp. In: *Catalogue of the Heteroptera of the Palaearctic Region*, Volume 5, Pentatomomorpha II. (Eds. B. Aukema, C. Rieger). The Netherlands Entomological Society, Amsterdam, 550 pp.

Gogala, A., 2008, First record of *Solenosthedium bilunatum* (Lefebvre) (Heteroptera: Scutelleridae) for Croatia, *Entomologia Croatica*, 12 (1): 81-82.

Josifov, M., 1986, Verzeichnis der von der Balkanhalbinsel bekannten Heteropterenarten (Insecta, Heteroptera), *Faunistische Abhandlungen Staatliches Museum für Tierkunde Dresden*, 14 (6): 61-93.

Matocq, A., Pluot-Sigwalt, D., 2002, Notes sur *Solenosthedium bilunatum* (Lefebvre, 1827) (Heteroptera, Scutelleridae), *Bulletin mensuel de la Société linnéenne de Lyon*, 71 (7): 277-284.

Misja, K., 1973, Rezultate të studimit të gjysmëkrahëfortëve (Hemiptera) të vëndit tonë, *Buletin i Shkencave të Natyrës*, 1-2: 131-151.

Škorput, J., Novak Morić, A., Martinović, M., van der Heyden, T., Skejo, J., 2019, *Solenosthedium bilunatum* (Heteroptera: Scutelleridae) at the Adriatic Coast of Croatia, *Entomologie heute*, 31: 25-29.

van der Heyden, T., 2020, Records of *Solenosthedium bilunatum* (Lefèbvre, 1827) on the Italian island of Ustica and the Spanish island of Ibiza (Hemiptera: Heteroptera: Scutelleridae), *Arquivos Entomolóxicos*, 22: 289-291.

Figure 1. Nymph of *Solenosthedium bilunatum* (Lefèbvre, 1827), near Sarandë, Albania, 29.09.2021. (Photo: Théalie Dhellemmes).

J.Het.Turk., 3(2), Nov 2021 (eISSN 2687-3249)

HETeroptera POLONIAE
ACTA FAUNISTICA 16

Heteroptera Poloniae – Acta Faunistica
vol. 16: 3–6. Opole, 14 II 2022
ISSN 2083-201X
http://doi.org/10.5281/zenodo.6046989

Plant bugs (Hemiptera: Heteroptera: Miridae) new in Albania and Kosovo

PARIDE DIOLI[1], TORSTEN VAN DER HEYDEN[2]

[1] *Natural History Museum, Department of Entomology, Milan, Italy*; e-mail: paridedioli@virgilio.it;
[2] *Immenweide 83, D-22523 Hamburg, Germany*; e-mail: tmvdh@web.de

Abstract. This paper discusses five species of the family Miridae, recorded from Albania and Kosovo. *Closterotomus trivialis* (A. Costa, 1853), *Phytocoris* (*Phytocoris*) *tiliae tiliae* (Fabricius, 1777) and *Campyloneura virgula* (Herrich-Schaeffer, 1835) are new in Albania. *Closterotomus reuteri* (Horváth, 1882) and *Excentricus planicornis* (Herrich-Schaeffer, 1836) are new in Kosovo. Data on distribution and ecology are also provided about the mentioned species.

Key words: Hemiptera, Heteroptera, Miridae, Balkan Peninsula, Albania, Kosovo.

Introduction

The faunistic studies of Heteroptera from Albania began with a paper by Horváth (1916) in which 226 species were listed on material collected by Apfelbeck. A subsequent work (Csiki 1940) added another 30 species. After the Second World War, Mancini (1953) published a newly updated list after studying the Albanian material of the Vienna Museum and that collected by the Italian entomologists Felice Capra and Livio Tamanini in 1941. Mancini (op. cit.) added 131 species not yet known. In 1961, a scientific expedition was carried out by the "Deutsches Entomologisches Institut" (Josifov 1970), which added 64 species new for this country, bringing to a total of 505 taxa. Misja (1973) wrote a new checklist with many misidentifications.

In July 1993, the staff and collaborators of the Museum of Natural History of Morbegno (Italy) participated in a scientific and mountaineering expedition in the territory of the Republic of Albania (Dioli 1993). The collected specimens, over 500, were gradually studied as species new for that region. New photographic images on naturalistic and social forums were also recently reported by van der Heyden's several papers (Lupoli et al. 2020, 2021; van der Heyden 2017a, 2017b, 2017c, 2017d, 2017e, 2017f, 2018a, 2018b, 2018c, 2019; van der Heyden & Dioli 2019). Also, some ecological notes were presented (Halimi et al. 2010).

The history of studies of the Heteroptera from Kosovo is quite different due to the recent separation from Yugoslavia. The checklist of the former State was provided in two books (Protić 1998, 2001). Finally, a recent paper lists six species new for Kosovo (Baymak & Kıyak 2019).

The present contribution continues the study of the hemipterological fauna of this region, adding five species of Miridae; three are new for Albania and two for Kosovo.

Material and methods

The specimens were caught by sweep-netting the herbaceous vegetation by the first author or photographed by A. Golemaj (Albania) and B. Fetiu (Kosovo). They were identified by the first author with Wagner's books (1970/71) and compared with his collection and the collections of the Natural History Museum of Milan (Italy). Bibliographical research and assembling paper were made by the second author. The taxonomic status of the family follows Aukema & Rieger (1999). When not otherwise specified, general distribution follows the Catalogue of the Palaearctic Region (Aukema & Rieger 1999) and its supplement (Aukema et al. 2013).

Results and discussion

Campyloneura virgula (Herrich-Schaeffer, 1835)

Material examined. ALBANIA: Vuno env., Jala beach, VII.1993, 1 spec., leg. P.Dioli (Coll. Dioli) (Fig. 1).

Distribution. Europe: Andorra, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Liechtenstein, Luxembourg, Malta, Montenegro, Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine. North Africa: Algeria, Azores, Tunisia. Asia: Armenia, Azerbaijan, Georgia, Israel (doubtful), Asian Turkey. Extralimital: North America (introduced) (Aukema & Rieger 1999; Aukema et al. 2013).

Remarks: This zoophytophagous and parthenogenetic species is new in Albania. Locally widespread, but uncommon; generally found on ash, linden, oak, alder, and beech. Nymphs are observed in June and July, adults from July onwards and in winter (Wagner 1970/71).

Fig. 1. *Campyloneura virgula* (photo: P. Dioli).

Closterotomus reuteri (Horváth, 1882)

Material examined. KOSOVO: Pristina, 2.V.2019, 1 spec., foto B. Fetiu (Fig. 2).

Distribution. Europe: Bulgaria, North Macedonia, Serbia. Asia: Asian Turkey (Aukema & Rieger 1999; Aukema et al. 2013).

Remarks: The species is new in the region of Kosovo and the second record in former Yugoslavia: Belgrade (Protìć 1998). *Ligustrum vulgaris* L. is the only known host plant (Wagner 1970/71).

Fig. 2. *Closterotomus reuteri* (photo: B. Fetiu).

Closterotomus trivialis (A. Costa, 1853)

Material examined. ALBANIA: Valona, Rruga David Selenica, (Lat: 40.459878 Lon: 19.486258), 9.V.2017, 1 f., foto A. Golemaj; ibidem, Rruga Beqir, (Lat: 40.456872 Lon: 19.502312), 8.VI.2017, 1 f., foto A. Golemaj; ibidem, Rruga Petro Marko, (Lat: 40.428317 Long: 19.493222), 27.IV.2019, 1 f., foto A. Golemaj.

Distribution. Europe: Bulgaria, Corsica, Crete, Croatia, France, Germany, Great Britain, Greece, Ireland, Italy, Malta, Montenegro, Netherlands, North Macedonia, Portugal, Serbia, Spain. North Africa: Algeria, Morocco, Tunisia. Asia: Cyprus, Turkey (Aukema & Rieger 1999; Aukema et al. 2013).

Remarks: The species is new in Albania. The coloring is highly variable (Figs. 3-4). The livery of *C. trivialis* partially differs in the two sexes and, above all, varies during the insect imaginal life; these variations consist in a progressive passage towards darker shades that become more accentuated in the male. This change is also accompanied by a darker color of the corium which changes from yellowish to red (Wagner 1970/71).

It has been repeatedly reported on different plants (Barbagallo 1970): the olive tree (*Olea europea* L.), medical herb (*Medicago sativa* L.), peach tree (*Prunus persica* (L.), on citrus fruits (*Citrus* spp.) such as orange, mandarin, and clementine; only exceptionally on the lemon tree. Another arboreal fruit host plant is the apricot (*Prunus armeniaca* L.). This can also be found on *Pittosporum tobira* (Ait.) abundantly. According to this author, the herbaceous plant favored by the insect, especially during the preimaginal development, is nettle (*Urtica urens* L. and *U. membranacea* Poir. = *caudata* Vahl.); also, it has frequently been found on *Parietaria officinalis* L. and more rarely (although sometimes in a considerable number of adult specimens) on the following plants: *Calycotome spinosa* Lk., *Genista* sp., *Phaseolus vulgaris* L., *Ferula communis* L., *Brassica* spp., *Malva silvestris* L., *Chysanthemum coronarium* L., *Hordeum murinum* L., *Bromus sterilis* L., *Papaver rhoeas* L.

Fig. 3. *Closterotomus trivialis*, male (photo: A. Golemaj).

Fig. 4. *Closterotomus trivialis*, female (photo: A. Golemaj).

Excentricus planicornis (Herrich-Schaeffer, 1836)

Material examined. KOSOVO: Pristina, Rruga Fadil Hoxha, (Lat: 42.665523 Lon: 21.180704), 17.VI.2019, 1 spec., foto B. Fetiu (Figs. 5-6).

Distribution. Europe: Belarus, Bulgaria, Czech Republic, France, Germany, Italy, Russia (European part), Serbia, Slovakia, Spain, Switzerland, Ukraine. North Africa: Morocco. Asia: Armenia, Azerbaijan, China, Georgia, Iran, Kazakhstan, Mongolia, Russia (East and the Far East), Turkey (Aukema & Rieger 1999; Aukema et al. 2013).

Remarks: The species is new in the region of Kosovo. In Serbia, it was recorded only in two localities near Belgrade: Barajevo and Mala Mostanica (Protić 2004). The new record is the southernmost of its distribution area. The species lives on *Cytisus radiatus* Scop., but was also found on *Rosa* sp. The adults were found in July, wintering as eggs (Wagner 1970/1971).

Fig. 5. *Excentricus planicornis*, total habitus in dorsal view (photo: B. Fetiu).

Fig. 6. *Excentricus planicornis*, anterior body part in dorsal view (photo: B. Fetiu).

Phytocoris* (*Phytocoris*) *tiliae tiliae (Fabricius, 1777)

Material examined. ALBANIA: Teth, m 900, VII.1993, 1 spec., leg. P.Dioli (Coll. Dioli) (Fig. 7).

Distribution. Europe: Andorra, Austria, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Great Britain, Germany, Greece, Hungary, Ireland, Italy, Latvia, Liechtenstein, Luxembourg, Moldavia, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine. North Africa: Algeria, Morocco. Asia: Armenia, Azerbaijan, Georgia, Turkey. North America: introduced (Aukema & Rieger 1999; Aukema et al. 2013).

Remarks: This zoophytophagous species is new in Albania. It lives on several plants like *Tilia*, *Quercus*, *Sorbus,* and *Populus*. Adults are found from June to September, and the species overwinters as eggs (Wagner 1970/71).

Fig. 7. *Phytocoris (Phytocoris) tiliae tiliae* (photo: P. Dioli).

Acknowledgements

We thank Aleksander Golemaj and Besnik Fetiu for their intense collaboration in the research of true bugs; furthermore, our profound thanks go to our colleagues Ljljana Protiç (Belgrade) and Barış Çerçi (Istanbul) for useful communication and confirmation of *C. reuteri*. We are also grateful to the anonymous reviewers for their valuable suggestions and the manuscript revision.

References

Assmann A. 1854. Hemiptera. Verzeichnis der bisher in Schlesien aufgefunden wanzenartigen Insekten. *Zeitschrift für Entomologie* **8**: 1–106.

Aukema B., Rieger Ch. (eds.). 1999. *Catalogue of the Heteroptera of the Palaearctic Region. Volume 3. Cimicomorpha II.* The Netherlands Entomological Society, Amsterdam, 577 pp.

Aukema B., Rieger Ch., Rabitsch W. (eds.). 2013. *Catalogue of the Heteroptera of the Palaearctic Region. Volume 6. Supplement*. The Netherlands Entomological Society, Amsterdam, 629 pp.

Barbagallo S. 1970. Contributo alla conoscenza del *Calocoris (Closterotomus) trivialis* (Costa) (*Rhynchota-Heteroptera, Miridae*). Morfologia dell'adulto e biologia. *Entomologica* **6**: 1–104.

Baymak D., Kıyak S. 2019. Six new records for the Heteroptera (Hemiptera) fauna of Kosovo, *Journal of the Heteroptera of Turkey* **1**: 20–24.

Csiki E. 1940. Hemipteren. [in:] Csiki, E. (ed.). Allattani Kutatàsai Albánia-Bán. *Explorationes Zoologicae ab E. Csiki in Albania Paractae* **1**: 289–315.

Dioli P. 1993. Spedizione alpinistico-scientifica "Progetto Alpi Albanesi 1993". I. *Ischnonyctes barbarus* (Lucas, 1849) nuovo per i Balcani (*Insecta, Heteroptera, Reduviidae*) e osservazioni sui *Metapterini* Stal, 1874 europei. *Il Naturalista Valtellinese - Atti del Museo civico di Storia naturale di Morbegno* **4**: 17–24.

Halimi E., Paparisto A., Misja K. 2010. Some systematics and ecological data for true bugs (Hemiptera) in some habitats in Albania. *Natura Montenegrina* **9**: 469–479.

Horváth G. 1916. Albánia Hemiptera-Faunája. [Fauna Hemipterorum Albaniae]. *Annales historico-naturales Musei Nationalis Hungarici* **14**: 1–16.

Josifov M. 1970. Ergebnisse der Albanien-Expedition 1961 des Deutschen Entomologischen Institutes. 82. Beitrag. Heteroptera. *Beiträge zur Entomologie* **20**: 825–956.

Josifov M., Simov N. 2006. *Endemism among the Heteroptera on the Balkan Peninsula*. [in:] Rabitsch W. (ed.). Hug the bug. For love of true bugs. Festschrift zum 70. Geburtstag von Ernst Heiss. *Denisia* **19**: 879–898.

Lupoli R., van der Heyden T., Dioli P. 2020. *Erthesina* Spinola, 1837 – a new alien genus for Europe found in Albania (Hemiptera: Pentatomidae). *Heteroptera Poloniae – Acta Faunistica* **14**: 121–123.

Lupoli R., van der Heyden T., Dioli P. 2021. Confirmation of *Erthesina fullo* (Thunberg, 1783) (Hemiptera: Pentatomidae) in Albania and its host plants. *Heteroptera Poloniae – Acta Faunistica* **15**: 101–102.

Mancini C. 1953. Contributo alla conoscenza degli Emitteri Eterotteri dell'Albania. *Annalen des Naturhistorischen Museums in Wien* **59**: 176–196.

Misja K. 1973. Rezultate të studimit të gjysmëkrahëfortëve (Hemiptera) të vëndit tonë. *Buletin i Shkencave të Natyrës* **1-2**: 131–151.

Protić Lj. 1998. Catalogue of the Heteroptera fauna of Yugoslav countries. Part one. *Prirodnjački Muzej u Beogradu* (*Special issue*) **38**: 1–215.

Protić Lj. 2001. Catalogue of the Heteroptera fauna of Yugoslav countries. Part two. *Prirodnjački Muzej u Beogradu* (*Special issue*) **39**: 1–271.

Protić Lj. 2004. New Miridae in the Heteroptera fauna of Serbia. *Acta entomologica serbica* **7** [2002]: 11–15.

van der Heyden T. 2017a. Notes on *Plinachtus imitator* (Reuter, 1891), including the first records for Albania (Hemiptera: Heteroptera: Coreidae: Coreinae: Gonocerini). *BV news Publicaciones Científicas* **6** (77): 68–73.

van der Heyden T. 2017b. The first record of *Thaumastocoris peregrinus* Carpintero & Dellapé, 2006 (Hemiptera: Heteroptera: Thaumastocoridae) for Albania. *Revista gaditana de Entomología* **8** (1): 133–135.

van der Heyden T. 2017c. First records of *Zelus renardii* (Kolenati, 1856) (Hemiptera: Heteroptera: Reduviidae: Harpactorinae) for Albania. *Arquivos Entomolóxicos* **18**: 49–50.

van der Heyden T. 2017d First records of *Lygaeus creticus* Lucas, 1854 (Hemiptera: Heteroptera: Lygaeidae: Lygaeinae) for Albania and France. *Arquivos Entomolóxicos* **18**: 65–66.

van der Heyden T. 2017e. First records of *Gonocerus insidiator* (Fabricius, 1787) (Hemiptera: Heteroptera: Coreidae: Coreinae: Gonocerini) for Albania. *Arquivos Entomolóxicos* **18**: 131–132.

van der Heyden T. 2017f. First record of *Trygonotylus* [sic!] *caelestialium* (Kirkaldy, 1902) (Hemiptera: Heteroptera: Miridae: Mirinae: Stenodemini) for Albania. *Arquivos Entomolóxicos* **18**: 231–232.

van der Heyden T. 2018a. First record of *Aphanus rolandri* (Linnaeus, 1758) in Albania (Hemiptera: Heteroptera: Rhyparochromidae: Rhyparochrominae: Gonianotini). *Heteropteron* **51**: 32–33.

van der Heyden T. 2018b. First record of *Leptoglossus occidentalis* Heidemann (Heteroptera: Coreidae: Coreinae: Anisoscelini) in Albania. *Revista Chilena de Entomología* **44**: 355–356.

van der Heyden T. 2018c. New data on the distribution of *Leptoglossus occidentalis* Heidemann (Heteroptera: Coreidae: Coreinae: Anisoscelini), including the first record of the species in Georgia. *Revista Chilena de Entomología* **44**: 433–435.

van der Heyden T. 2019. First records of *Dryadocoris apicalis* (Herrich-Schäffer) (Heteroptera: Pentatomidae: Pentatominae: Antestiini) for Albania. *Revista Chilena de Entomología* **45**: 331–333.

van der Heyden T., Dioli P. 2019. First records of *Lygaeus simulans* Deckert, 1985 for Albania (Hemiptera: Heteroptera: Lygaeidae: Lygaeinae). *Natural History Sciences* (formerly *Atti della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale in Milano*) **6**: 33–36.

Wagner E. 1970/71. Die Miridae Hahn, 1831, des Mittelmeerraumes und der Makaronesischen Inseln (Hemiptera, Heteroptera). Teil 1. *Entomologische Abhandlungen des Staatlichen Museums für Tierkunde Dresden* (*Supplement*) **37**: 1–484.

Received: 9 October 2021
Accepted): 31 January 2022