

## Rare species in Mardin province of Türkiye: *Strongylocoris cicadifrons* A. Costa, 1853 (Heteroptera: Miridae) and it's new host plant record: *Campanula postii* (Boiss.)

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**ABSTRACT:** In this study *Strongylocoris cicadifrons* A. Costa, 1853 (Heteroptera: Miridae) was recorded for the first time in South Eastern Anatolia Province of the Türkiye. In addition, this study revealed that the host plant of the species was *Campanula postii* Boiss. (Campanulaceae) for the first time.

**KEYWORDS:** Mardin, *Strongylocoris cicadifrons*, *Campanula postii*, new host plant.

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### INTRODUCTION

In recent years, some studies have been carried out to determine the Heteroptera (Hemiptera) Fauna of the Southeastern Anatolia Region (Önder et al., 2006; Bolu et al., 2006; Matocq et al., 2014; Dursun & Fent, 2015; Çerçi et al., 2020; Özgen et al., 2020; Özgen et al., 2021; Çerçi et al., 2021; Sabuncu et al., 2021). In these

studies, details about the host plants of the species were generally not mentioned. Especially the wide food chains of Miridae Hahn, 1831 family species make it valuable to reveal the host preferences of these species. It is known that *Campanula postii*, which was given as a host plant in the study, is an important flower source generally for pollinator



bees (Pinheiro et al., 2015). In this study, a new host plant of *Strongylocoris cicadifrons* was given with a new locality record.

## MATERIAL AND METHODS

The material was found in Mardin province in Turkey (Fig. 1). *S. cicadifrons* specimens were collected from Mardin Province during fieldwork in 2021. The specimens were captured individually shifter method during the spring period.

## RESULTS AND DISCUSSION

*Strongylocoris cicadifrons* A. Costa, 1853

**Material examined:** Mardin, Artuklu, Zinnar village, 05.V. 2021., 28 exs, leg. M. Geçit, det. P. Dioli. (Collection of Fırat University, Faculty of Engineering, Bioengineering Department).

**Distribution in Palaearctic: Europe:** Bulgaria, Crete, France, Greece, Italy, Portugal, Spain. **North Africa:** Algeria, Morocco. **Asia:** Asian Türkiye, Israel (Aukema, 2020).

**Distribution in Turkey:** Antalya, İzmir, Kilis, Mersin. (Önder et al., 2006).

**Note:** Rare, Phytophagous (Önder et al., 2006).

In previous years, the specimens collected on *Quercus* spp. in mediterranean area (Gesse et al., 2014). Until now, no host record has been given in annual plants of this species. In this study, it was observed that the pest was abundant and mating activity took place on the *Campanula postii*. There are studies showing that some species of Miridae family, especially some *Orthocephalus* and *Strongylocoris* genera specimens, are found on *Campanula* spp. (Tatarnic and Cassis, 2012; Mateos et al., 2018). However, there is no single annual plant record for this species in terms of host plant in our country. Detailed studies on the host plant species given in this study should be carried out, and more detailed studies on the nutritional relations of the species should be done in the coming years.

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## REFERENCES

- Bolu, H., Özgen, İ. & Fent, M., 2006, The investigations on almond Pentatomidae (Heteroptera) fauna in Diyarbakır, Elazığ and Mardin Province, *Yüzüncü Yıl Üniversitesi Ziraat Fakültesi Tarım Bilimleri Dergisi*, 16(1): 25-28.
- Çerçi, B., Tezcan, S. & Özgen, İ., 2020, Review of *Reuteria* Puton, 1875 (Heteroptera: Miridae) species present in Lodos Entomological Museum, Turkey (LEMT). *Zootaxa*, 4878(1):159-168.
- Çerçi, B., Özgen, İ. & S. Tezcan, 2021, Description of a new *Phytocoris* (*Compsocorocoris*) species (Heteroptera: Miridae) from South-eastern Anatolia with a checklist of the *Phytocoris* species of Turkey. *Zoology in the Middle East*, 67(4): 321-331.
- Dursun, A. & Fent, M. 2015, Notes on some little known species of Heteroptera from Turkey with new records for the fauna of Europe and the Turkish Thrace. *North-Western Journal of Zoology*, 11(1): 92-96.
- Gesse, F., Getino, T.M. & M. Goula, 2014, Biodiversity analysis of true bug assemblages (Hemiptera, Heteroptera) in four habitats in the Garraf Natural Park (Barcelona, Spain). *Journal of Insect Science*, 14(1): 283.
- Mateos, E., Golula, M., Sauras, T. & Santos, X., 2018, Habitat structure and host plant specialization drive taxonomic and functional composition of Heteroptera in postfire successional habitats. *Turk J Zool*, 42: 449-463.
- Matocq, A., Pluot-Sigwalt, D., Özgen, İ., 2014, Terrestrial Hemiptera (Heteroptera) collected in South-East Anatolia (Diyarbakır, Mardin and Elazığ provinces) (Turkey): second list, *Munis Entomology and Zoology*, 9: 884-930.
- Pinheiro, P. M., Ayasse, M. & Dötter., S., 2015, Visual and olfactory floral cues of *Campanula* (Campanulaceae) and their significance for host recognition by an

- oligolectic bee pollinator. *PLOS ONE*, 10(6): 1-20.
- Sabuncu, Y., Mamay, M. & Özgen, İ., 2021, Overwintering insect (Arthropoda: Insecta) biodiversity in pistachio orchards of the Middle Euphrates Valley, Turkey. *Harran Tarım ve Gıda Bilimleri Derg.*, 25(2): 185-192.
- Tatarnic, N.J. & Cassis, G., 2012, The Halticini of the world (Insecta: Heteroptera: Miridae: Orthotylinae): generic reclassification, phylogeny, and host plant associations. *Zoological Journal of the Linnean Society*, 164: 558-658.
- Önder, F., Karsavuran, Y., Tezcan, S. & Fent, M., 2014, *Türkiye Heteroptera (Insecta) Kataloğu*. Ege Üniversitesi Ziraat Fakültesi Yayınları. 164 s.
- Özgen, İ., Geçit, M. & Dioli, P., 2020, Some Faunistic Records of Heteroptera (Hemiptera) in Mardin(Turkey) with an Endemic Species. *J. Het. Turk.*, 2(1): 66-68.
- Özgen, İ., Dioli, P., Koç, İ. & Topdemir, A., 2021, Some Heteroptera (Hemiptera) species that are potential natural enemies of *Cimex quadrimaculata* (Müller, 1766) (Hymenoptera: Cimbicidae). *J.Het.Turk.*, 3 (2): 151-156.



**Figure 1.** *Strongylocoris cicadifrons* A. Costa, 1853 and host plant (*Campanula postii* Boiss.). (Photo: Musa Geçit).