ANNALS OF THE UPPER SILESIAN MUSEUM IN BYTOM ENTOMOLOGY

Vol. **32 (online 006)**: 1–4

ISSN 0867-1966, eISSN 2544-039X (online)

Bytom, 30.10.2023

Arsalan Khalili-Moghadam¹, Sebastian Salata², Lech Borowiec^{2,3}

Emeryopone loebli (BARONI URBANI, 1975) (Hymenoptera: Formicidae) – an ant species new to the fauna of Iran

https://doi.org/10.5281/zenodo.10053142

¹ Plant Protection Department, Agricultural College, Shahrekord University, Shahrekord, Shahrekord, Iran, e-mail: arsalan.khalili@gmail.com, ORCID: 0000-0002-5806-1207

² Myrmecological Laboratory, Department of Biodiversity and Evolutionary Taxonomy, University of Wroclaw, Przybyszewskiego 65, 51–148 Wroclaw, Poland, e-mail: sebastian.salata@uwr.edu.pl, ORCID: 0000-0003-0811-2309

³ e-mail: borowieclech@gmail.com, ORCID: 0000-0001-5668-6855

Abstract: *Emeryopone loebli* (BARONI URBANI, 1975) collected in Chaharmahal Va Bakhtiari Province is recorded from Iran. The new discovery is the third documented record of this species.

Key words: ants, central-western Iran, new country records, faunistics.

INTRODUCTION

The ant fauna of Iran is poorly known. The checklist of ants of this country (PAKNIA et al. 2008) recorded 110 species belonging to 26 genera and undoubtedly stimulated further faunistic research. Currently, approximately 320 ant species and subspecies are known from the country (Guénard et al. 2017), but some of the literature records seem unreliable. Studies on the biodiversity of Iranian ants are mainly hampered by the lack of modern keys to identifying ants from the Middle East and taxonomic challenges associated with many ant genera. As a result, some species that, in the light of recent discoveries, certainly do not occur in this country are listed in some faunistic inventories of Iranian ants. On the other hand, recent taxonomic studies revealed hidden and undescribed biodiversity of such genera as Cataglyphis Foerster, 1850 and Camponotus Mayr, 1861 confirming the high biodiversity of Iranian ants (RADCHENKO & PAKNIA 2010, KIRAN et al. 2013, KHALILI-MOGHADAM et al. 2021, 2023, SALATA et al. 2020, 2021). Thus, the exact number of taxa occurring in Iran is still unknown and is expected to increase with upcoming faunistic surveys and taxonomic revisions.

The inventory of the material collected recently in south-western Iranian Provinces revealed the presence of *Emeryopone loebli* (BARONI URBANI, 1975) in Iran.

MATERIAL AND METHODS

The main method, applied at all sites, was direct sampling (hand collecting). Ant specimens were searched for on the ground, in leaf litter, under stones, in dead wood, on tree trunks and twigs. Nests were searched in rock cracks and on cracked rocks using a chisel. The collected specimen was preserved in 75% ethanol. Distribution in Iran refers to PAKNIA et al. (2008) and KHALILI-MOGHADAM et al. (2019). Images of the specimen were taken using a Nikon SMZ 1500 stereomicroscope, Nikon D5200 photo camera, and Helicon Focus software. Geographical coordinates are given in a decimal system. Material is deposited in the Myrmecological Laboratory, Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Poland (DBET). The specimen was determined based on the original description of the species (BARONI URBANI 1975) and available photographs of the type specimen (ANTWEB, CASENT0911131, CASENT0915184).

RESULTS

Emeryopone loebli (Baroni Urbani, 1975) (Figs. 1–3)

New locality: 1 worker collected in oak forest, Iran, Chaharmahal Va Bakhtiari, Koohrang, Cheri, 1645 m, 32.15373/50.1183, 22 IV 2021, leg. A. Khalili-Moghadam.

Comments: Emeryopone loebli is a member of the subfamily Ponerinae and was described as Belonopelta loebli from Israel (Galilea) based on four workers collected in an arid area overgrown with Eucalyptus tree and Opuntia sp. (BARONI URBANI 1975). Subsequently, it was recorded from Saudi Arabia (Al Qatif), based on one worker collected in soil litter under a date palm (Collingwood 1985). The Iranian record is only the third known for this species. In Iran, this species was collected in oak rotting wood under an Oak tree from the western slope of the Zagros Mountain (Cheri peak), overgrown mostly with thermophilous oak forest.

REFERENCES

AntWeb. Version 8.97. California Academy of Science, online at https://www.antweb.org. Accessed 16 October 2023.

BARONI URBANI C. 1975. Contributo alla conoscenza dei generi *Belonopelta* MAYR, e *Leiopelta* gen. n. (Hymenoptera: Formicidae). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 48: 295–310.

COLLINGWOOD C.A. 1985. Hymenoptera: Fam. Formicidae of Saudi Arabia. Fauna of Saudi Arabia 7: 230-302.

GUÉNARD B., WEISER M., GOMEZ K., NARULA N., ECONOMO E.P. (2017) The Global Ant Biodiversity Informatics (GABI) database: a synthesis of ant species geographic distributions. *Myrmecological News* 24: 83–89.

KHALILI-MOGHADAM A., SALATA S., BOROWIEC L. 2021. Three new species of *Cataglyphis* Foerster, 1850 (Hymenoptera, Formicidae) from Iran. *ZooKeys*, 1009: 1–28.

KHALILI-MOGHADAM A., SALATA S., BOROWIEC L. 2023. Two new species of ants of the genus *Cataglyphis* FOERSTER, 1850 (Hymenoptera: Formicidae) from Iran. *Zoology in the Middle East* 69 (3): 270–281.

KIRAN K., ALIPANAH H., PAKNIA O. 2013. A new species of the ant genus *Aphaenogaster* MAYR (Hymenoptera: Formicidae) from Iran. *Asian Myrmecology* 5: 45–51.

PAKNIA O., RADCHENKO A., PFEIFFER M., 2008. A preliminary checklist of the ants (Hymenoptera: Formicidae) of Iran. *Myrmecological News* 11: 151–159.

RADCHENKO A., PAKNIA O. 2010. Two new species of the genus *Cataglyphis* FOERSTER, 1850 (Hymenoptera: Formicidae) from Iran. *Annales Zoologici* (Warsaw) 60: 69–76.

SALATA S., KHALILI-MOGHADAM A., BOROWIEC L. 2020. Review of the *Camponotus samius* complex (Hymenoptera: Formicidae) in the Turano-Balkan region, with the description of a new species from Iran. *Zootaxa* 4763(4): 545–562.

SALATA S., KIYANI H., MINAEI K., BOROWIEC L. 2021. Taxonomic review of the *Cataglyphis livida* complex (Hymenoptera, Formicidae), with a description of a new species from Iran. *ZooKeys* 1010: 117–131.



Figs. 1–2. *Emeryopone loebli* (Baroni Urbani), worker dorsal (1), worker lateral (2) (scale bar = 1 mm). Photo by L. Borowiec.



Fig. 3. *Emeryopone loebli* (BARONI URBANI), worker head (scale bar = 0.5 mm). Photo by L. Borowiec.