## SCIENTIFIC NOTES

# A SHORT NOTE ON FORMICIDAE FAUNA OF ASPAT (STROBILOS) BODRUM, MUĞLA, WESTERN TURKEY

## Ahu Üzüm\*, Nihat Aktaç\*\*, Tümel Tanju Kaya\* and Serdar Tezcan\*\*\*

- \* Department of Biology, Faculty of *Science*, *Ege* University, 35100 Bornova, Izmir, TURKEY. E-mail: afuuzum@gmail.com
- \*\* Department of Biology, Faculty of *Science, Trakya* University, Edirne, TURKEY. E-mail: nihataktac@gmail.com
- \*\*\*Department of Plant Protection, Faculty of Agriculture, Ege University, 35100 Bornova, Izmir, TURKEY. E-mail: serdar.tezcan@gmail.com

[Üzüm, A., Aktaç, N., Kaya, T. T. & Tezcan, S. 2017. A short note on Formicidae fauna of Aspat (Strobilos) Bodrum, Muğla, western Turkey. Munis Entomology & Zoology, 12 (2): 659-661]

The aim of this paper is to present new data on Formicidae fauna of Aspat, Bodrum, Muğla, Turkey. Studies have been conducted in Aspat (Strobilos) ancient city and its territorium (27°26'E and 37°02'N), Bodrum, Muğla, western Turkey, in 500 hectares of land in 2008. Material have been collected by beating, handpicking, bait trapping, pitfall trapping and sweep netting at two weeks' intervals (Tezcan et al., 2013). Material have been determined by second author.

#### RESULTS

At the end of this study, 95 specimens of 15 species belong to two subfamilies of Formicidae (Hymenoptera) have been recorded.

## Myrmicinae Lepeletier, 1835 Aphaenogaster simonellii Emery, 1894

**Material examined:** 06.VII.2008, pitfall trap, 1 ex., 01.VIII.2008, pitfall trap, 1 ex., 15.VIII.2008, pitfall trap, 1 ex., totally 3 specimens.

**Note:** This species previously reported from Muğla by Aktaç (1978).

## Messor structor (Latreille, 1798)

Material examined: 15.VIII.2008, pitfall trap, 1 ex., totally 1 specimen.

**Note:** This species previously reported from Muğla as *Messor barbarus* subsp. *varrialei* Emery, 1921 by Emery (1921).

## Messor concolor Santschi, 1927

Material examined: 29.III.2008, sweep net, 1 ex., totally 1 specimen.

**Note:** This species is newly recorded from Muğla province.

#### Messor oertzeni Forel, 1910

**Material examined:** 01.VIII.2008, pitfall trap, 2 exs., totally 2 specimens. **Note:** This species previously reported from Muğla by Emery (1921).

#### Crematogaster ionia Forel, 1911

Material examined: 19.VI.2008, bait trap, 10 exs., totally 10 specimens.

**Note:** This species is newly recorded from Muğla province.

## Formicinae Lepeletier, 1836 Camponotus aethiops (Latreille, 1798)

Material examined: 29.III.2008, sweep net, 1 ex., 10.V.2008, pitfall trap, 1 ex., totally 2 specimens.

**Note:** This species previously reported from Muğla as *Camponotus aethiops* var. *marginata* by Emery (1921) and as *Componotus aethiops* by Aktaç (1976).

Camponotus aegaeus Emery, 1915

**Material examined:** 19.VI.2008, bait trap, 1 ex., 15.VIII.2008, bait trap, 1 ex., 04.IX.2008, bait trap, 1 ex., totally 3 specimens.

**Note:** This species is newly recorded from Muğla province.

Camponotus piceus (Leach, 1825)

Material examined: 01.VIII.2008, pitfall trap, 1 ex., totally 1 specimen.

Note: This species is newly recorded from Muğla province.

Camponotus kiesenwetteri (Roger, 1859)

**Material examined:** 01.08.2008, beating tray, 1 ex., totally 1 specimen. **Note:** This species previously reported from Muğla by Aktac (1976).

Camponotus gestroi Emery, 1878

**Material examined:** 29.III.2008, beating tray, *leguminoseous* plants, 1 ex., 19.VI.2008, bait trap, 1 ex., totally 2 specimens.

**Note:** This species is newly recorded from Muğla province.

Camponotus boghossiani Forel, 1911

Material examined: 07.VI.2008, bait trap, 1 ex., totally 1 specimen.

Note: This species is newly recorded from Muğla province.

Camponotus samius Forel, 1889

**Material examined:** 07.VI.2008, bait trap, 3 exs., 19.VI.2008, bait trap, 4 exs., 06.VII.2008, bait trap, 4 exs., 25.IX.2008, bait trap, 7 exs., 29.XI.2008, bait trap, 1 ex., totally 19 specimens.

**Note:** This species previously reported from Muğla by Aktaç (1976).

## Camponotus sanctus Forel, 1904

**Material examined:** 10.V.2008, pitfall trap, 1 ex., 19.VI.2008, bait trap, 3 exs., 07.VI.2008, bait trap, 3 exs., 19.VI.2008, bait trap, 2 exs., 01.VIII.2008, pitfall trap, 1 ex., 25.IX.2008, bait trap, 1 ex., totally 11 specimens.

**Note:** This species previously reported from Muğla as *Camponotus compressus* subsp. *sanctus* by Aktaç (1976).

### Camponotus baldaccii Emery, 1908

**Material examined:** 26.IV.2008, bait trap, 1 ex., 26.IV.2008, sweep net, 1 ex., 10.V.2008, bait trap, 1 ex., 24.V.2008, pitfall trap, 1 ex., 07.VI.2008, bait trap, 4 exs., 07.VI.2008, bait trap, 4 exs., 19.VI.2008, bait trap, 14 exs., 06.VII.2008, pitfall trap, 1 ex., 01.VIII.2008, pitfall trap, 1 ex., 15.VIII.2008, pitfall trap, 2 exs., 04.IX.2008, bait trap, 1 ex., totally 31 specimens.

**Note:** This species previously reported from Muğla as *Camponotus silvaticus* subsp. *baldaccii* by Aktaç (1976, 1978).

Cataglyphis nodus (Brullé, 1832)

**Material examined:** 10.V.2008, pitfall trap, 1 ex., 24.V.2008, pitfall trap, 2 exs., 19.VI.2008, bait trap, 2 exs., 06.VII.2008, pitfall trap, 2 exs., totally 7 specimens. **Note:** This species previously reported from Muğla by Aktac (1976).

#### DISCUSSION

As a result of this study, 15 species were identified. Among them *C. baldaccii* (31 specimens), *C. samius* (19 specimens), *C. sanctus* (11 specimens) and *C. ionia* (10 specimens) were the most abundant species.

Species of *C. aegaeus*, *C. piceus*, *C. gestroi*, *C. boghossiani*, *M. concolor* and *C. ionia* were recorded for the first time from Muğla province of Turkey.

70 samples (8 species) were collected by bait traps, 20 samples (8 species) were by pitfall traps, 3 were (3 species) by sweep net and 2 were (2 species) by beating tray.

52 samples (8 species) were collected in june, 12 samples (8 species) were in august, 10 samples (4 species) were in september, 8 samples (4 species) were in july, 7 samples (4 species) were in may, 3 samples (3 species) were in march, 2 samples (1 species) were in april and 1 sample (1 species) were in november.

According to the proposal of Taglianti et al. (1999), - a chorotype classification of the Near East Fauna, in the framework of the western Palearctic Region -, the largest number of the species (*Crematogaster ionia, Camponotus aegeus, C. kiesenwetteri, C. gestroi, C. boghossiani, C. samius, C. baldaccii* are belongs to "Balcanian – Anatolian" chorotype. The other chorotypes each are represented by two species. Of these *Camponotus aethiops, C. piceus* are "Turanian – Mediterranean – European", *Messor structor, Camponotus sanctus* are "Mediterranean", *Messor concolor, Cataglyphis nodus* are "East Mediterranean" and *A simonellii, Messor oertzeni* are "Balcanian".

#### ACKNOWLEDGEMENTS

The authors would like to thank Dr. Nilay Gülperçin, Rukiye Tanyeri and Başak Şahin for field studies. Financial support for this project was provided by the Scientific and Technological Research Council of Turkey (TÜBİTAK), Grant 107K234.

#### LITERATURE CITED

- Aktaç, N. 1976. Studies on the myrmecofauna of Turkey I. Ants of Siirt, Bodrum and Trabzon. İstanbul Üniversitesi Fen Fakültesi Mecmuası, Seri B., 41: 115–135.
- Aktaç, N. 1978. Karıncaların yuva sayılarında saptanan mevsimsel değişiklikler. Acta Biologica-Biyoloji Dergisi, 1–4: 53–65.
- Emery, C. 1921. Formiche raccolte a Budrum (Anatolia) da Raffaele Varriale, Cap. medico nella R. Marina. Annali del Museo Civico di Storia Naturale di Genova, 9: 208–218.
- Taglianti, V, Audisio, A., Biondi, P. A., Bologna M. A., Carpaneto, G. M., De Biase, A., Fattorini, E., Sindaco, R., Venchi, A. & Zapparoli, M. 1999. A proposal for a chorotype classification of the Near East fauna, in the framework of the Western Palearctic region. Biogeographia, 20: 31-59.
- Tezcan, S., Gülperçin, N. & Fent, M. 2013. Aspat (Strobilos) antik kenti ve çevresindeki (Bodrum, Muğla) tarım teraslarının Scutelleridae, Cydnidae ve Pentatomidae (Hemiptera: Pentatomoidea) faunası üzerinde bir analiz. Türkiye Entomoloji Dergisi, 37 (2): 249-259.