

Short scientific note

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First record of *Formica pratensis* in a reedbed along the Nestos River near Xanthi, Greece (Hymenoptera: Formicidae)

Angelos TSIKAS^{1,*}, Paraskevi KARANIKOLA¹

¹ Department of Forestry and Management of the Environment and Natural Resources, Laboratory of Forest Protection, Democritus University of Thrace, School of Agricultural and Forestry Sciences, Ath. Pantazidou 193, 68 200, Orestiada, Greece - atsikas@fmenr.duth.gr; ORCID: <https://orcid.org/0000-0001-9754-5135>; pkaranik@fmenr.duth.gr; ORCID: <https://orcid.org/0000-0001-8370-5126>

* Corresponding author

Abstract

The ant *Formica pratensis* Retzius, 1783 (Hymenoptera, Formicidae) is reported from a locality in Dasochori (Xanthi, Greece). Foraging workers were manually collected from the top of the mound. This observation represents the lowest altitude record in Greece and the first in a reedbed. Additionally, the mutualism with the aphid *Aphis urticata* Gmelin, 1790 has been observed.

Key words: *Formica pratensis*, new record, reedbed, mutualism, *Aphis urticata*, Greece, Nestos Basin.

Introduction

The black backed meadow ant, A.K.A. European Red Wood Ant *Formica pratensis* is a South-Palearctic species. It is included into the red wood ants (*Formica rufa* group) although in fact it is a polytope of dry habitats: open places in forests, steppes, meadows and pastures (Czechowski et al. 2002). However, it can be found also in wet heathlands at very low nest densities (Maes et al. 2003). In Greece, a few records come from open rocky mountain pastures or borders between pastures and coniferous forests (Borowiec & Salata 2018, 2022; Borowiec et al. 2024), but it has also been found in a meadow and in a field path with trees in a rural area near Nestos River at low altitudes (20 – 100 m) (Bračko et al. 2016). In this paper, the species *F. pratensis* is recorded for the first time in a reedbed in Greece.

Materials and Methods

On 23 April 2023, during ordinary hand-collecting samplings in the abandoned radio station “Voice of America” near Dasochori, Xanthi, several workers of *Formica* were found tending *Aphis urticata* Gmelin, 1790 aphids on nettle leaves (Fig. 1). By closer investigation, we located

a shaded reed-made mound under a nettle bush in a gap among reeds. Local vegetation included mostly dense reed with scarce nettle bushes in the micro gaps. Some individuals were taken manually for proper investigation and deposited in the Laboratory of Forest Protection, Department of Forestry and Management of Environment and Natural Resources of the Faculty of Agriculture and Forestry, Democritus University of Thrace, Greece. The species were identified using the key provided by Seifert (2021).

Results

Material examined: **GREECE:** Voice of America, Dasochori/Xanthi, 40.886N, 24.817E, 5 m, 23 Apr 2023, A. Tsikas & P. Karanikola leg., 10 ♀

Discussion

Despite *Formica pratensis* shows a remarkable distribution range, in Greece it is under-recorded and considered mostly as a high-altitude species (Borowiec et al. 2024). This new data represents the lowest elevation record of *F. pratensis*, and, to our knowledge, the first in a reedbed.

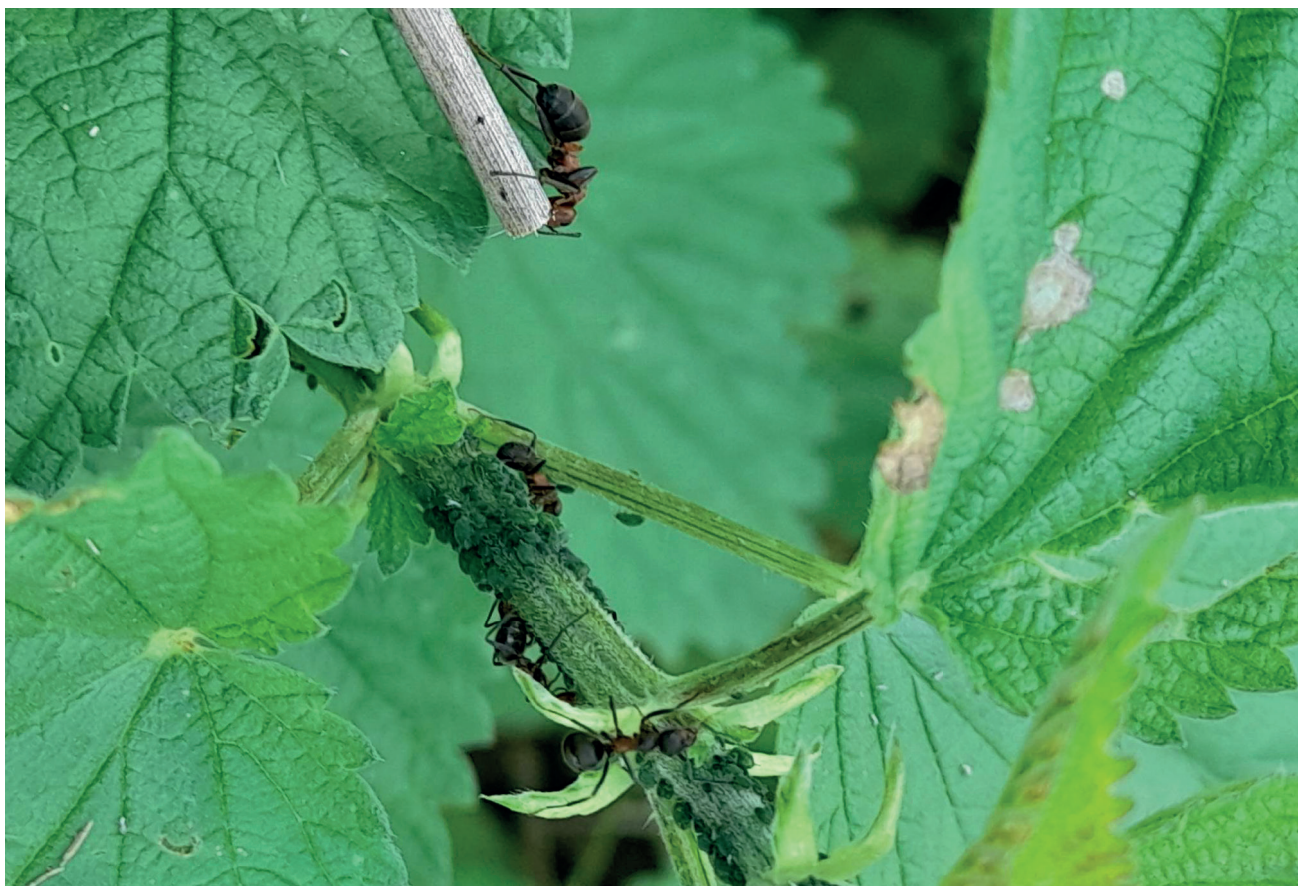


Fig. 1 – *Formica pratensis* workers tending nettle aphids.

The presence of *F. pratensis* in both high altitude and low altitude, and both dry and wet habitats indicates that its actual distribution may be much wider than the currently known in Greece.

Another interesting aspect of our record is also the observed mutualism with *Aphis urticata*, a known mutualist of other ant species, (e.g., *Lasius niger*). Other known associated organisms, like the green-underside blue butterfly *Glaucopsyche alexis* – a known mutualist of *Formica pratensis* – may be common in Nestos Delta, but *A. urticata* is not known as a mutualist of *F. pratensis* (Žikić et al. 2022), and therefore their mutualistic association should be further studied.

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