PARNASSIANA ARCHIVES 7: 25-29 2019

ON THE PSOCOPTERA FAUNA OF AMOULIANI ISLAND (CHALKIDIKI, GREECE)

Dilian Georgiev*, Veselina Ivanova**

*Department of Ecology and Environmental Conservation, University of Plovdiv, Tzar Assen Str. 24, BG-4000 Plovdiv, Bulgaria, email: diliangeorgiev@abv.bg
** Professional High School "Atanas Damyanov", Osvobozhdenie Str. 2, Nikolaevo, Bulgaria, email: v.ivanova@mail.bg

Published online: September 16, 2019

Abstract

The study was carried out during a short vacation, between 24.7.2019 and 27.7.2019 on Ammouliani Island (Chalkidiki Peninsula, Greece). The survey revealed a total of 9 species of Psocoptera on the island and the very first data on this insect group on the whole Chalkidiki. Further research is needed to clear the actual diversity of the Psocoptera of this area.

Keywords: barkfly, Chalkidiki, mediterranean, fauna, diversity.

Introduction

Amouliani/Ammouliani (Αμουλιανή/ Αμμουλιανή) is a small inhabited island in the northeast part of the gulf of Agion Oros/Kolpos Agiou Orous in the northwestern Thrakian Sea, which is part of the Aegean Sea. It is located in close proximity to the nearby mainland, 2.5-3.2 km west of the eastern projection of Chalkidiki/Halkidiki Peninsula, Agion Oros. It stretches about 6 x 3.5 km, covering a total area of c. 12 km^2 (Plougarlis & Tranos 2014). The highest elevation is 70 m a. s. l. The Psocoptera of this island (and the whole Chalkidiki) were never studied before (Lienhard 1998). In this short paper we provide the very first data on the barkly fauna of Amouliani Island.

Material and Methods

The study was carried out during a short vacation, between 24.7.2019 and 27.7.2019 on Ammouliani Island (Tab. 1, Fig. 1, 2). The barkflies were collected by following methods: 1. Sieving with 1 mm mesh width sieve of detritus or crushed tree bark particles above white plastic container; 2. Beating the vegetation above white plastic container; 3. Sweep netting of vegetation. Specimens were then stored in ethanol and after processing, deposited in the collection of the first author. After identification they were preserved in 96% ethanol. All specimens were determined by D. Georgiev. Species identifications are based on Lienhard (1998), taxonomical order and nomenclature follows Lienhard & Smithers (2002). As a supporting source, Saville (2008) was also used.

ISSN (print-edition) : 2241-7834
ISSN (on-line edition) : 2241-7842

Table 1. Localities on Amouliani where samples were taken (altitude in m a.s.l.)

No	Date	Locality	Coordinates	Alt.
1.	07.24.2019	N of hotel Liani Ammos, various bush vegetation	N 40˚19′19.9″ E 23˚ 55′15.5″	13
2.	07.24.2019	S of Megali Ammos tavern, *Olea europaea* plantation	N40˚18′39.6″ E 23˚ 56′46.8″	0
3.	07.24.2019	Between Ammouliani vill. and Karagatsi Beach, *Olea europaea* plantation	N40˚20′00.2″ E 23˚ 54′35.4″	57
4.	07.25.2019	S bank of the lagoon, tall grass near a dirt road.	N40˚19′08.7″ E 23˚ 55′08.6″	0
5.	07.26.2019	Near the largest eastern beach, small *Pinus halepensis* plantation	N40˚19′19.5″ E23˚ 55′18.2″	0
6.	07.27.2019	E bank of the lagoon	N40˚19′16.3″ E 23˚ 55′11.4″	0
7.	07.27.2019	Broad leaf forest near Karagatsi Beach	N40˚19′42.3″ E 23˚ 53′50.6″	9

Fig. 1. Location map of the investigated area and position of the localities surveyed on Amouliani Island (locality numbers correspond with those in Material and Methods).

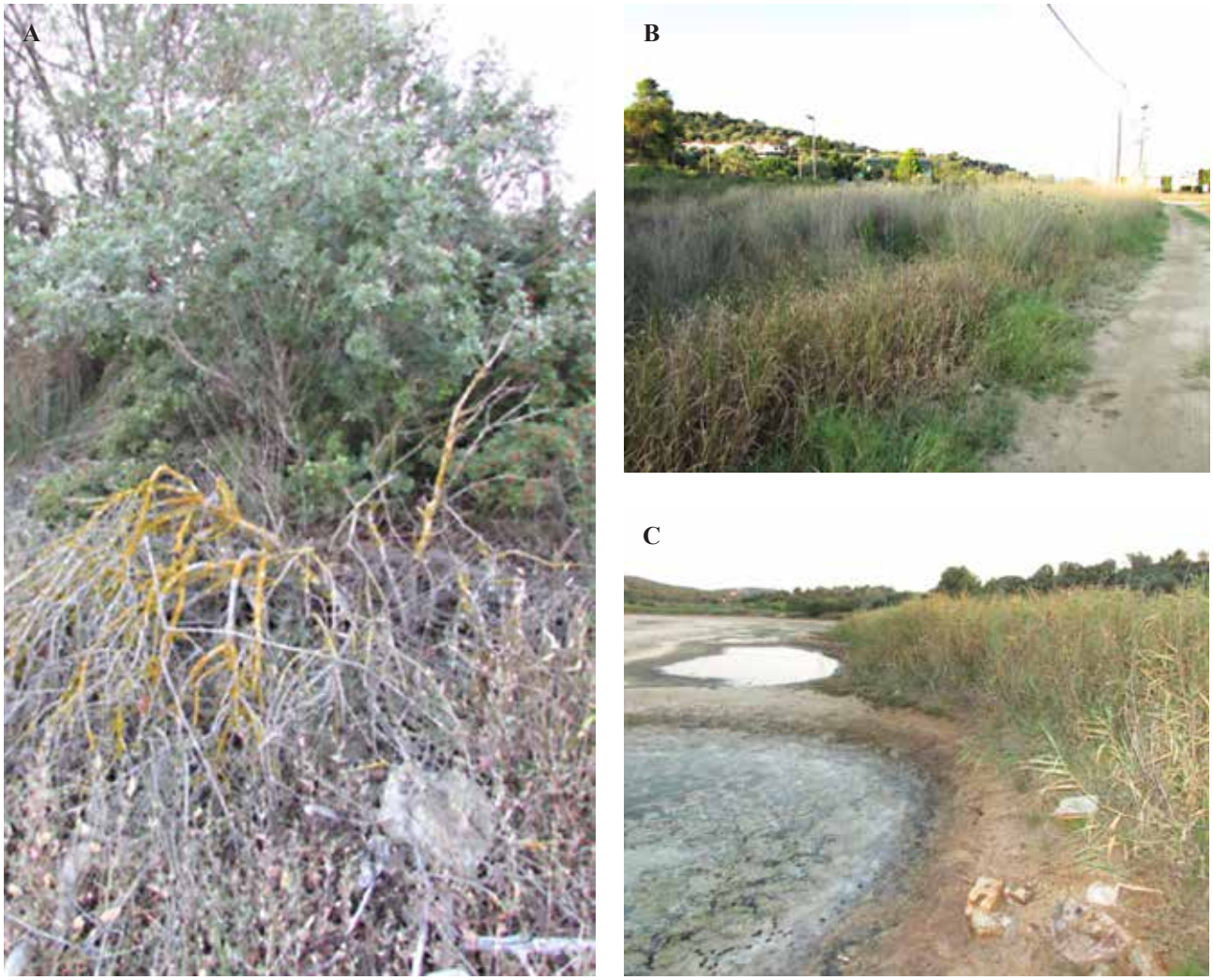

Fig. 2. Habitat types of some of the localities surveyed: A - E bank of the lagoon, locality of *L. priesneri*, *T. dalii*, *C. quesfalica* (nr. 6), B - S bank of the lagoon, tall grass near a dirt road, locality of *S. caboverdensis* (nr. 4), C - same locality (nr. 6), habitat of *S. caboverdensis*.

Results

Our survey revealed a total of 9 species of Psocoptera on the Amouliani Island, as follows:

Trogiidae

***Cerobasis guestfalica* (Kolbe, 1880)**

Material examined: locality nr. 2, 1♀, collected by beating the vegetation, from dry brunches on *Olea europaea*; locality nr. 3, 1♀, collected by beating the vegetation, from a mixture of bushes, mainly *Quercus coccifera*, *Olea europaea* and *Pistacia* sp.; locality nr. 6, 1♀, collected by beating the vegetation, from dry brunches covered densely with lichens.

***Lepinotus reticulatus* Enderlein, 1905**

Material examined: locality nr. 2, 1♀, collected by sieving, from detritus consisted mainly of brunches of *Olea europaea*.

Liposcelididae

***Liposcelis arenicola* Günther, 1974**

Material examined: locality nr. 3, 1♀, collected by sieving of detritus of dry grass and *Olea europaea* leafs.

***Liposcelis decolor* (Pearman, 1925)**

Material examined: locality nr. 5, 2♀, collected by sieving of detritus and needles below *Pinus halepensis*; locality nr. 2, 1♂, collected by sieving, from detritus consisted mainly of brunches of *Olea europaea*

***Liposcelis priesneri* Enderlein, 1925**

Material examined: locality nr. 3, 1♂, collected by sieving of detritus of dry grass and *Olea europaea* leafs; locality nr. 5, 1♀, collected by sieving of detritus and needles below *Pinus halepensis*; locality nr. 6, 1♀, collected by beating the vegetation, from dry brunches covered densely with lichens.

***Liposcelis pearmani* Lienhard, 1990**

Material examined: locality nr. 2, 1♀, collected by beating the vegetation, from dry brunches on *Olea europaea*.

Caeciliusidae

***Stenocaecilius caboverdensis* (Meinander, 1966)**

Material examined: locality nr. 4, 2♀, collected by sweep netting, from all grass vegetation; locality nr. 6, 1♂, collected by sweep netting, from *Phragmites australis*.

Stenopsocidae

***Graphopsocus cruciatus* (Linnaeus, 1768)**

Material examined: locality nr. 7, 1♀, collected by sweep netting, from *Ulmus* sp.

Trichopsocidae

***Trichopsocus dalii* (McLachlan, 1867)**

Material examined: locality nr. 1, 1♀, collected by beating the vegetation, from *Pyrus* sp.; locality nr. 6, 1♂, collected by sweep netting, from *Pistacia* sp.

Even our short case study showed poor species diversity of the Psocoptera, further research is needed to clear the actual list of these insects this island. Some widely distributed species could be expected there, especially in a less dry season as spring and winter.

Acknowledgements

We would like to thank Dr. Nico Schneider for reviewing the manuscript of this paper.

Literature

Lienhard, C. 1998. Psocoptères euro-méditerranéens. - Faune de France: Volume 83, Paris.

Lienhard, C. & Smithers, C. N. 2002. Psocoptera (Insecta). World Catalogue and Bibliography. - Muséum d′histoire naturelle, Genève.

Plougarlis, A. & Tranos, M. 2014. Geology of Ammouliani Island (Northern Greece) - implications for the tectono-magmatic evolution of the Serbo-Macedonian Massif. - Journal of Maps 11(4): 552-560.

Saville, B. 2008. National Barkfly Recording Scheme (Britain and Ireland). Available from: https://www.brc.ac.uk [accessed 5 August 2019].