

İsa Gökler & Münir Öztürk

Liverworts of Turkish Thrace

Abstract

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In the portion of Thrace belonging to Turkey, 12 species of liverworts have so far been collected, 8 of which are reported here for the first time: *Lunularia cruciata*, *Metzgeria furcata*, *Plagiochila porelloides*, *Calypogeia arguta*, *Radula complanata*, *R. lindbergiana*, *Porella platyphylla*, and *Lejeunea cavifolia*.

Introduction

In the past 100 years, only 4 liverwort species had been reported from the Turkish, peninsular part of Thrace: *Conocephalum conicum* and *Marcanthia polymorpha* (Fritsch 1900), *Scapania compacta* (Henderson 1958), and *Frullania dilatata* (Walther 1967). All had been collected around İstanbul, each from a single locality. This paucity of data has prompted us to undertake a new investigation of the area.

Material and methods

The specimens were collected in different parts of Turkish Thrace (provinces of İstanbul, Kırklareli, and Tekirdağ), during the years 1992 and 1993, when a survey of localities with ecological conditions suitable for the growth of liverworts was undertaken. For determination, the publications of Arnell (1979), Watson (1981), and Gökler & Öztürk (1991) were used. The specimens are deposited in the herbarium of the Botany Department, Faculty of Science, of the Aegean University in Bornova-İzmir (EGE).

The study area and its climate

Turkish Thrace lies in the European part of Turkey, covering an area of 23,485 km², i.e. about 3 % of the total area of the country. It includes the provinces of Edirne, Kırklareli and Tekirdağ as a whole as well as 12 constituencies of the İstanbul province and 2 constituencies of the Çanakkale province (Fig. 1).

Climatic data are presented in Fig. 2. The mean annual rainfall of 7 stations averages 621 mm (Edirne: 609 mm; Lüleburgaz: 588 mm; Çorlu: 577 mm; Tekirdağ: 575 mm; Florya: 635 mm; Kumköy: 682 mm; Galipoli: 682 mm). The absolute minimum temperature is -22.2°C and -24.2°C in localities of the interior (Edirne and Lüleburgaz, respectively) but raises toward the coast (Çorlu: -16.9°C ; Tekirdağ: -13.5°C ; Florya: -10.4°C ; Kumköy: -9.8°C). The number of winter months with frost is 2 in Edirne and Lüleburgaz, 1 in Çorlu, and nil in the other stations. The summer drought period starts in July in Edirne and Lüleburgaz where it lasts until the first week of October; it lasts 3 months in Kumköy, 3.5 in Çorlu, 4 in Florya and Tekirdağ, and 4.5 in Galipoli.

Results

The liverwort specimens collected belong to 12 species, 4 thalloid and 8 leafy. Eight of them had not been collected before in this region: they are highlighted with an asterisk (*). The species are enumerated in the sequence of Grolle's (1983) system.

Conocephalum conicum (L.) Dumort.

Kırklareli: Demirköy, Velika around bridge environs, banks of dry river bed, 400 m, 14 Oct 1992, *Gökler* 515 (EGE N° 32620).

* *Lunularia cruciata* (L.) Lindb.

İstanbul: Belgrad Ormanı, Kurtkemerli, picnic spot, 150 m, 21 Nov 1993, *Gökler* 564A (EGE N° 36621).

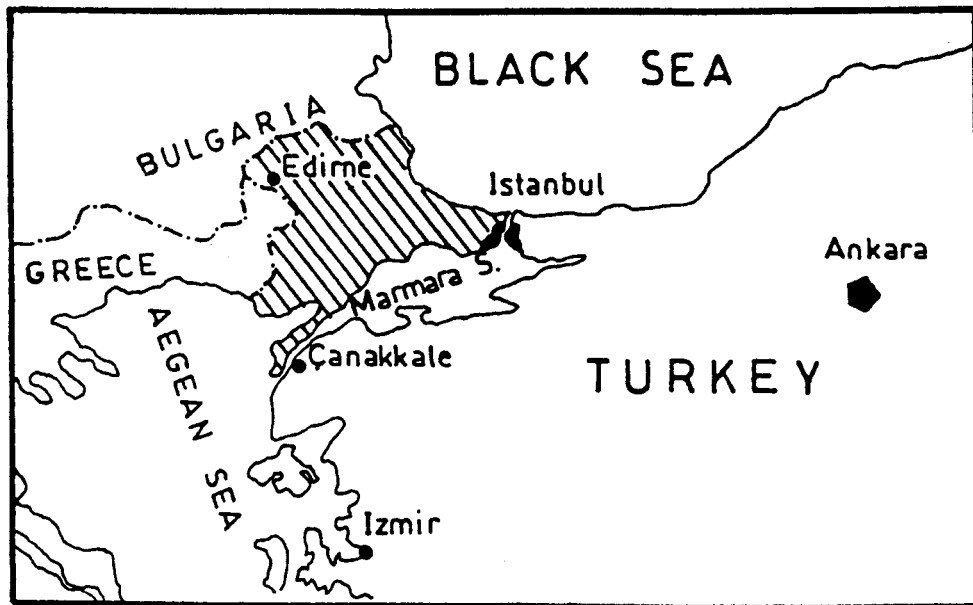


Fig. 1. Map showing the geographical position of Turkish Thrace.

Marchantia polymorpha L.

İstanbul: Sarıyer, around Ayvat Bendi, 230 m, 21 Nov 1992, *Gökler* 565A (EGE N° 32622).

* *Metzgeria furcata* (L.) Dumort.

Kırklareli: İğneada, Bulankdere, 50 m, 15 Oct 1992, *Gökler* 543 (EGE N° 32623). – İstanbul: Sarıyer, around Ayvat Bendi, 250 m, 21 Nov 1992, *Gökler* 566 (EGE N° 32624).

* *Plagiochila porelloides* (L.) Dumort.

Kırklareli: Demirköy, around Velika bridge, river bank, 400 m, 14 Oct 1992, *Gökler* 516 (EGE N° 32625). – İstanbul: Belgrad Forest, Küçükçekmece, roadside, 150 m, 21 Nov 1992, *Gökler* 568 (EGE N° 32626).

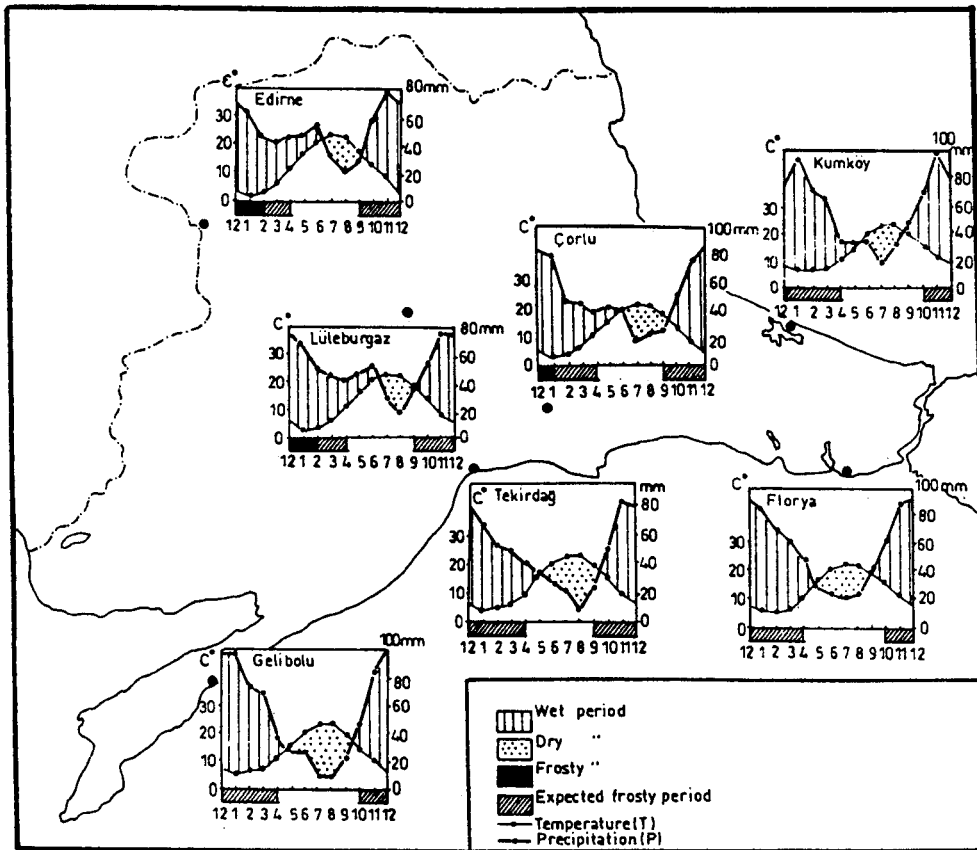


Fig. 2. Climatic diagrams of seven stations in Turkish Thrace.

***Scapania compacta* (Roth) Dumort.**

İstanbul: Bahçeköy, around the Forestry Faculty, 50 m, 21 Nov 1992, *Gökler 560A* (EGE N° 32627).

*** *Calypogeia arguta* Nees & Mont.**

İstanbul: Sarıyer, around Ayvat Bendi, 250 m, 21 Nov 1992, *Gökler 567* (EGE N° 32628).

*** *Radula complanata* (L.) Dumort.**

Kırklareli: İğneada, Bulanıkdere, 50 m, 15 Oct 1992, *Gökler 544* (EGE N° 32629). – İstanbul: Belgrad Forest, Küçükçekmece, roadside, 150 m, 21 Nov 1992, *Gökler 570* (EGE N° 32630). – Tekirdağ: Çorlu city boundary, river bank, on trees, 150 m, 23 Dec 1992, *Gökler 578* (EGE N° 32631).

*** *R. lindbergiana* Gottsche & Hartm.**

Kırklareli: İğneada, Bulanıkdere, 50 m, 15 Oct 1992, *Gökler 544* (EGE N° 32629). – İstanbul: Belgrad Forest, Kurtkemerli picnic spot, 150 m, 21 Nov 1993, *Gökler 564A* (EGE N° 32621).

*** *Porella platyphylla* (L.) Pfeiff.**

Kırklareli: Between Demirköy and Sivrililer, river banks, 400 m, 15 Oct 1992, *Gökler 532A* (EGE N° 32634). – İstanbul: Sarıyer-Küçükçekmece, roadside, 150 m, 21 Nov 1993, *Gökler 570* (EGE N° 32635).

***Frullania dilatata* (L.) Dumort.**

Kırklareli: İğneada, Bulanıkdere, 50 m, 15 Oct 1992, *Gökler 549* (EGE N° 32636). – İstanbul: Sarıyer, around Ayvat Bendi, 250 m, 21 Nov 1992, *Gökler 565* (EGE N° 32637).

*** *Lejeunea cavifolia* (Ehrh.) Lindb.**

Kırklareli: İğneada, Bulanıkdere, 50 m, 15 Oct 1992, *Gökler 543* (EGE N° 32638). – İstanbul: Belgrad Forest, Kurtkemerli picnic spot, 150 m, 21 Nov 1993, *Gökler 559* (EGE N° 32639).

Acknowledgements

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Addresses of the authors:

I. Gökler, Biology Unit, Buca Education Faculty, Dokuz Eylül University, 35150 Buca, Izmir, Turkey.

M. Öztürk, Botany Department, Science Faculty, Ege University, 35100 Bornova, Izmir, Turkey.