

Riparian and Rocky Vegetation of the Argözü Valley in Kibriscik, Bolu

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Aim of the study: The object of this study is to analyse the riparian and rocky vegetation of Argözü Valley in Kibriscik, Bolu (Turkey).

Material and Methods: The study area is situated on the southern slopes of Köroğlu Mountains and in Euxine province of Euro-Siberian Region. Volcanic with andesite characteristic rocks occur in the area. The climate of the region changes from less rainy Mediterranean to rainy Mediterranean type. Annual precipitation varies from 700 mm to 1200 mm depending on altitudinal zones and mean annual temperature is 11°C.

Results: As a result of classification and ordination, one riparian community and three rocky communities were defined. According to this definition following communities were proposed for riparian and rocky communities. For vegetation analysis, a total of 20 sample plots were taken from riparian vegetation and 65 sample plots were taken from rocky vegetation of the study area. Vegetation data were classified using TWINSpan (Hill, 1979) under JUICE software and indirect ordination analysis were applied to the data.

Class: *SALICI PURPUREAE-POPULETEA NIGRAE* (Rivas-Martínez & Cantó ex Rivas-Martínez, Bascónes, T.E. Díaz, Fernández-González & Loidi 1991)

Order: *POPULETALIA ALBAE* Br.-Bl. ex Tchou 1948

Alliance: *SALICION ALBAE* Soó 1930

Association 1: *Heracleo-Salicetum albae* ass. nova

Class: *DAPHNETO-FESTUCETEA* Quézel 1964

Order: *DAPHNO-FESTUCETALES* Quézel 1972

Alliance: *HYPERICO-VERBASCION*

Association 1: *Sileno-Daphnetum oleoidi* ass. nova

Upper Class: *QUERCO-FAGEA* Fukarek-Fabijanik 1968

Class: *ASPLENATEA TRICHOMANIS* (Br.-Bl. 1934) Oberd. 1977

Order: *SILENETALIA ODONTOPETALEA* Quézel 1973

Alliance: *SILENION ODONTOPETALEA* Quézel 1973

Association 2: *Centaureo-Sedetum confertiflorae* ass. nova

Association 3: *Saxifrago-Sedetum albae* ass. nova

Most of the endangered endemic taxa in the research area, distributes in all the rocky communities. For this reason especially rocky communities are very important. Moreover, some of rocky communities in the study area are located within the high mountain ecosystem. Therefore they are very sensitive and under pressure of activities such as grazing, nature walk, mountaineering. In order to minimize the damage in such sensitive ecosystems, these activities should be conducted in a reduced or controlled manner.

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