Turkish Journal of Botany

Turkish Journal

of

Botany

Keywords
Authors

bot@tubitak.gov.tr

Scientific Journals Home Page

Nitrogen Mineralisation in the Soils of Alpine Mat Communities: An Incubation Experiment under Laboratory Conditions

Gürcan GÜLERYÜZ[1], Serap KIRMIZI[2], Hülya ARSLAN[1]

[1]Uludağ University, Faculty of Arts and Science, Department of Biology, Görükle 16059 Bursa - TURKEY

[2]Uludağ University, Gemlik Asım Kocabıyık Graduate Vocational School, Gemlik, 16600 Bursa - TURKEY

Abstract: Plantago holosteum Scop. and P. atrata Hoppe plant communities contribute to the vegetation mosaic in the humid places on different substrata in the sub-alpine and alpine belts of Uludağ Mountain, Bursa, Turkey. Nitrogen mineralisation in the soils of these 2 mat communities was investigated under controlled conditions (60% WHC, 20 °C). Different N mineralisation rates in the soils of the communities were found. This difference was clearer in the upper layer (0-5 cm) of soil, in which the organic matter accumulation was high. We found that nitrification occurred in the soils of both communities, but it was dominant in the soils of the P. atrata Hoppe mat community. Our results support the general opinion that plant diversity and composition exert control over N cycling, affecting inorganic N in soils.

Key Words: Mat community, grassland, N mineralisation, nitrification, alpine

---

Turk. J. Bot., **31**, (2007), 277-286.
Full text: pdf
Other articles published in the same issue: Turk. J. Bot.,vol.31,iss.4.