

Similarities of Lichen biodiversity in Erciyes Mountain (Kayseri, Turkey) and James Ross Island (Antarctica)

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Aim of the study: After collecting lichens from the alpine and subalpine zones of Erciyes Mountain located in Central Anatolia and James Ross Island located in the eastern coasts of Antarctic Peninsula; similarities in species level in lichen biodiversity are observed and this is here discussed.

Material and Methods: The lichen specimens on soil, mosses and volcanic rocks were collected from the subalpine and alpine zones of Erciyes Mountain between 2002-2005 and also they are collected from similar habitats in James Ross Island located in the eastern coasts of Antarctic Peninsula. The morphology of lichens were studied under dissecting binocular microscope. The anatomy of the thallus and apothecia were studied under compound microscope. The asci and ascospores were observed from the sections when sections were mounted in water and shapes, sizes were recorded. Chemistry of the specimens includes spot tests.

Results and Discussion: In the alpine and subalpine zones of volcanic Erciyes Mountain (summit 3917 m); as a result of orographic and harsh climatic conditions; there is a sparse vegetation cover in many areas when compared with more lower altitudes. Climatic conditions in Antarctica is also very harsh; and the volcanic structure of the rocks are also similar with Erciyes Mountain; because of this it is very logic to compare the biodiversity of Antarctica with the environments in the alpine and nival zones of Erciyes Mountain located in Erciyes Mountain. From the first observations; I reported here that 24 taxa are present both in James Ross Island (Antarctica) and Erciyes Mountain (Turkey): *Acarospora badiofusca*, *Bellemerea alpina*, *Caloplaca cerina*, *C. saxicola*, *C. stillicidiorum*, *Candelariella aurella*, *C. vitellina*, *Cladonia pyxidata*, *Collema tenax*, *Lecanora crenulata*, *L. dispersa*, *L. polytropa*, *Lecidea atrobrunnea*, *L. lapicida*, *L. patavina*, *L. stigmatae*, *Megaspore verrucosa*, *Peltigera rufescens*, *Physconia muscigena*, *Rhizocarpon geminatum*, *Rhizoplaca melanophthalma*, *Tephromela atra*, *Umbilicaria decussata* and *Xanthoria elegans*. These species are mostly common in higher altitudes in temperate regions of the World although they are present in much lower altitudes in the polar regions.

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