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## Vegetation and Geobiocoenological Typology of the Soqotra Island

HANA HABROVA, ANTONIN BUCEK

*Mendel University in Brno, Faculty of Forestry and Wood Technology, Dept. of Forest Botany, Czech Republic*

### Abstract

During the years 2001–2004, complex field observations on more than 250 localities of Soqotra Island were made. As a result, a geobiocoenological typological system describing vegetation of the island has been produced. Five altitudinal vegetation zones, five trophic ranges and three inter-ranges (expressing soil conditions), five hydric ranges (expressing water condition in soil), 26 groups of geobiocoene types and within them (with respect to their actual condition of vegetation) 39 biotope types were delimited. Classification of biotopes is based on differences in physiognomy, structure and species composition of the vegetation component of present biocoenoses. Biotope types are divided according to differences in the species composition of dominant species, groups of geobiocoene (biotope) types are divided according to physiognomy and vertical structure of vegetation. Biotope types are usually named according to key species of plants in the Soqotra language and English.

The method of classification and names of biotope types make possible to complete other types or to use more detailed classification of subtypes. Types of biotopes with natural and seminatural conditions of the vegetation component of biocoenoses are most valuable from the viewpoint of preserving the biodiversity and their segments form the framework of ecological stability, a basis of the ecological network of Soqotra. Each of the biotope types is characterised not only by the intensity of anthropic effects, woody species composition and the canopy closure of the main crown level of trees but also by the geobiocoene type, number of classified plots, function importance, degree of threat, protection priority, distribution and spatial structure.

**Keywords:** Biotops, geobiocoenology, soqotra, vegetation