



Ecology and life strategies of epiphytic bryophyte communities from the Arcto-Tertiary relict forests of the Black and Caspian Sea areas

Harald Kürschner¹, Mesut Kırmacı², Adnan Erdağ², Ketevan Batsatsashvili³ and Gerald Parolly⁴

¹ Freie Universität Berlin, Institut für Biologie, Systematische Botanik und Pflanzegeographie, Altensteinstr. 6, D-14195 Berlin, Germany

² Adnan Menderes Üniversitesi, Fen Edebiyat Fakültesi, Biyoloji Bölümü, 09010 Kepez-Aydin, Turkey

³ National Botanical Garden of Georgia, Ilia State University, 1 Botanikuri st., 0105 Tbilisi, Georgia

⁴ Freie Universität Berlin, Botanischer Garten und Botanisches Museum Berlin-Dahlem, Königin-Luise Str. 6–8, D-14195 Berlin, Germany

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Abstract: The Euxine-Caucasian-Hyrcanian floristic region is an outstanding forest refuge area, formerly densely covered by broad-leaved deciduous and mixed evergreen lowland and montane forests. Besides numerous relict species of Arcto-Tertiary and Indo-Malesian origin, a lush and dense epiphytic bryophyte flora can be observed, whose development is favoured by the humid to perhumid climate conditions. A first phytosociological analysis of this epiphytic bryophyte vegetation reveals two distinct zonal communities new to science, viz. the *Palamocladio euchloronis-Leucodontetum immersi* (lowland forests) and the *Pseudoleskeello nervosae-Leucodontetum immersi* (mountain forests), both harbouring Southwest Asian endemics, such as *Forsstroemia remotifolia*, *Leucodon immersus* and *Palamocladium euchloron*. Dependent on the site ecology, species assemblages and geographical range, one subassociation and a geographical variant can be further distinguished within the *Palamocladio euchloronis-Leucodontetum immersi*, while the more uniform *Pseudoleskeello nervosae-Leucodontetum immersi* comprises a geographical variant and an ecological variant, only. A life form and life strategy analysis of the communities confirms the common adaptive trends outlined for epiphytic bryophytes already in earlier studies.

Key words: Adaptive traits, Azerbaijan, bryophytes, functional types, Georgia, Iran, life forms, life strategies, Turkey.