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The Lichenized Fungus Genus *Gyalolechia* (*Teloschistales*, *Ascomycota*) in Turkey

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Aim of the study: This study has been made to examine as phylogenetic relationships of some species belong to genus *Gyalolechia* Trevis., which widely spreaded in our country.

Material and Methods: Samples of lichens belonging to genus *Gyalolechia* were collected from different parts of Turkey.Total DNA was extracted from apothecia by using the DNeasy Plant Mini Kit (Qiagen) according to the manufacturer's instructions. PCR analysis was performed by using ITS (ITS1 and ITS4).ITS sequence results of lichen samples were analysed by using Clustal W option in the BioEdit program. The phylogenetic analysis of lichen samples belonging to genus *Gyalolechia* were performed by using the Maximum Likelihood method of the Mega 6 (Molecular Evolutionary Genetics Analysis) software program.

Results: *Gyalolechia* was recently established to accommodate a monophyletic group of crustose lichens of Teloschistaceae that were formerly placed in the large genus *Caloplaca*. Members of this genus usually have well developed thalli which are crustose, squamulose or lobate. In this study, numbers of samples belonging to this genus collected from Turkey. After morphological examinations; molecular analyses of ITS nrDNA were carried in the samples. This genus is represented by 25 species in Turkey and 6 of them are present in Turkey:*G. flavorubescens*, *G. flavovirescens*, *G. fulgida*, *G. juniperina*, *G. klementii* and *G. subbracteata*. In this presentation we will discuss the morphological and ecological characters of these species along with distributional data of the species in Turkey.

Keywords: Lichens, ITS nrDNA, biodiversity, Teloschistaceae, Anatolia, Turkey.