

Phylogenetic Relations of *Rhizoplaca* Zopf. from Anatolia Inferred from ITS Sequence Data

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Like many lichen-forming fungi, species of the genus *Rhizoplaca* have wide geographical distributions, but studies of their genetic variability are limited. The information about the ITS rDNA sequences of three species of *Rhizoplaca* from Anatolia was generated and aligned with other species from other countries and also with the data belonging to *Lecanora* species. The examined species were collected from the volcanic rocks of Mount Erciyes which is located in the middle of Anatolia (Turkey). The sequence data aligned with eight other samples of *Rhizoplaca* and six different species of *Lecanora* were obtained from GenBank. The results support the concept maintained by Arup and Grube (2000) that *Rhizoplaca* may not be a genus separate from *Lecanora*. According to the phylogenetic tree, *Rhizoplaca melanophthalma* from Turkey with two different samples of *R. melanophthalma* from Arizona (AF159929, AF159934) and a sample from Austria formed a group under the same branch. *R. peltata* and *R. chrysoleuca* samples from Anatolia located in two other branches of the tree formed sister groups with the samples of the same species from different countries. Although *R. peltata* remained on the same branch with other samples of the same species from other countries it was placed in a different branch within the group. When the three species from Anatolia were considered alone, it was noticed that *Rhizoplaca melanophthalma* and *Rhizoplaca peltata* are phylogenetically closer to each other than *Rhizoplaca chrysoleuca*; the morphological characteristics also support this result.

Key words: *Rhizoplaca*, Phylogeny, ITS