عنوان مقاله:

Isoenzyme Investigation and Morphometrics Study of Neckera complanata and Neckera crispa

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خلاصه مقاله:

Bryophytes are small, non-vascular, and non-flowering plants. Neckera complanata (Hedw.) Huebener and Neckera crispa Hedew.are one of the most prominent species in the Hyrcanian wetland found in glossy pale or yellowish-green patches. There is no evidence for morphometry and isoenzymes biochemical markers (Peroxidase/Superoxide dismutase) works on this genus in Iran. The purpose of this study is to investigate the differences and similarities among Neckera complanata and Neckera crispa moss populations in the north of Iran using morphometry and isoenzymes biochemical markers (Peroxidase / Superoxide dismutase). For this purpose, ۱۸ populations from three provinces including Golestan, Mazandaran, and Guilan were collected at the same altitudes in autumn ۲۰۱۷. The results of morphometry were shown leaf length and leaf apex width/length were the most effective traits for the separation of populations. The results of the morphometry method and the results of isozyme banding patterns were the same, although very minor differences were observed. The largest diversity of Shannon (Ĥ) belongs to the population of Neckera crispa from Hezarjarib while other populations have low genetic diversity. Because of the destruction of many habitats in the northern provinces of Iran and the increase in pollution in these areas, it can be said as a general result that perhaps the reason for low genetic diversity in Neckera complanata and Neckera crispa populations is the gradual extinction of these two species.

کلمات کلیدی:

Mosses, Neckera, Peroxidase, Superoxide dismutase, Numerical Taxonomy