

ESTIMATION OF GENTIC SIMILARITY WITHIN *PELLIA ENDIVIIFOLIA* COMPLEX

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Until the beginning of 20 century bryophytes concerned mainly their taxonomy, ecology and some aspects of genetics. Yet in 1977 it has been shown that it is possible to identify liverworts species of *Pellia* genus using peroxidase enzymes. In 1987 two enzymatic forms have been distinguished in *Pellia endiviifolia*, typical and water. Their distinctness has been confirmed by immunological methods. Latter investigations with the use of ISJ type DNA markers allowed for distinguishing a third molecular form of *P. endiviifolia*, characteristic to well-head habitats.

The aim of this study was to find an isoenzymatic marker distinguishing between the three forms of *P. endiviifolia* and estimation the degree of genetic similarity between molecular forms by DNA markers.

Analysis of 10 enzymes on starch gel has shown isoenzymatic markers unique for three forms of *P. endiviifolia*. they are: NAD-dependent malic dehydrogenase and shikimic acid dehydrogenase.

PCR reactions with RAPD and KatG starters have been conducted. Starters allowing for distinguishing the three forms of *P. endiviifolia* were KatG4, OPB6 and OPB14.

On the base of 106 KatG and RAPD markers Nei's genetic similarity between the three *P. endiviifolia* forms were estimated, which ranged from 0,58 to 0,82.