

EVOLUTION OF GENETIC SIMILARITY OF LIVERWORTS *PELLIA EPIPHYLLA* (CORDA) AND *P. BOREALIS* (LORBEER)

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Until the beginning of 20 century, liverworts investigations concerned mainly their taxonomy and ecology. Yet in 1910 liverworts of genus *Pellia* have been described. In 1977 Krzakowa has for the first time employed isoenzymes as markers of Bryophyta diversity on interspecific and intraspecific diversity. Genetic-population research conducted on liverworts by electrophoresis has revealed their great genetic diversity. By means of electrophoresis many sibling species among Bryophyta have been found. One example of this is *P. epiphylla* having two enzymatic forms in Poland, *P. epiphylla* N and S

The aim of this work was estimating the degree of genetic similarity between two sibling species, *P. epiphylla*, n=9 and determining the origin of polyploid taxon *P. borealis*, n=18.

Material used in this study was gathered from various areas of Poland. *P. epiphylla* N was gathered from Galwica, *P. epiphylla* S from Olczyska and Boczan Valley in Tatras and *P. borealis* from Gdynia and Redykajny reserve in Olsztyn.

PCR reactions with KatG and ISJ starters have been conducted. Starters allowing for this distinguishing between *P. epiphylla* N from *P. epiphylla* S and *P. borealis* were KatG6, KatG9 and starters distinguishing between *P. epiphylla* N from *P. epiphylla* S and from *P. borealis* were ISJ, KatG5 and KatG8. The greatest number of specific bands was found between *P. epiphylla* N and *P. borealis*, 19 specific bands were found.

By means of KatG and ISJ markers, Nei's genetic similarity between two sibling species *P. epiphylla* and *P. borealis* has been determined and was contained within the range of 0,52 to 0,65.