The lichen genus *Peltigera* Willd. (Peltigerinae, lichenized Ascomycota), with more than 50 species worldwide, presents a wide range of morphological and chemical variation at both intra- and interspecific level. According to Miadlikowska & Lutzoni (2000), notwithstanding the high number of studies concerning this taxon, it is still poorly understood in comparison to other macrolichens.


The aim of this paper was to check the phylogenetic relationships among *P. elisabethae* and *P. horizontalis*, and to verify the relationships of these two species with other species of the genus *Peltigera* using Internal Transcribed Spacers as molecular markers. We used both parsimony and neighbor-joining methods for the phylogenetic analysis with PAUP* 4.0 (Swofford, 1998).

Since the ITS was very variable, the alignment of the ITS sequences of species of the genus *Peltigera* with sequences of other close genera (*Lobaria* and *Nephroma*) was very difficult. A two steps analysis was necessary: at first we analyzed *Peltigera* with *Lobaria* and *Nephroma* excluding the uncertain positions to assess the most basal species of *Peltigera* among those analyzed.
This species was *P. didactyla*. A second analysis used *P. didactyla* as outgroup for the rest of the genus. Three groups of *Peltigera* were found on the basis of the ITS sequences. *Peltigera horizontalis* and *P. elisabethae* clustered together with 100% bootstrap confirming their strict phylogenetic relationship. They are the sister group of a cluster including *P. phyllidiosa*, *P. neckeri* and *P. collina*.

**Literature cited**

