**ESTIMATION OF THE GLOBAL DIVERSITY OF MEGASPORACEAE**

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*Megasporaceae* (or *Aspicilia* s.l.) is a family in *Pertusariales* which is, in a contrast to *Ochrolechiaceae* and *Pertusariaceae*, characterized by a non-amyloid tholus, moniliform paraphyses in most representatives, and a lack of some secondary metabolites. The amount of species in *Megasporaceae* is ranged from 200 to almost 300 in the latest works (Wijayawardene et al., 2020). Since the first representative of *Megasporaceae* was described in the 1753, there were 1008 taxa of species, subspecies and form ranks described as *Aspicilia* s.l., *Lecanora* subgenus *Aspicilia* or ones that were temporarily moved to this genus until the clarification of their true systematic position. Of them, according to our estimations, 169 taxa are representatives of other families while 839 names formally or validly belong to *Megasporaceae*. Recent studies of the diversity and phylogeny of the family reduced many names to synonymy while at the same time gave rise to a discovery of new species and genera in *Megasporaceae*. We made an attempt to estimate an amount of validly described species of *Aspicilia* s.l. excluding subspecies, varieties and forms that resulted in 433 names. Of them, 313 currently belong to *Aspicilia* s.s., 38 – to *Circinaria*, 18 – to *Lobothallia*, 9 – to *Oxneriaria*,5 – to *Teuvoa*, 4 – to *Megaspora* and *Sagedia*, and 3 – to *Aspiciliella*. Thirty nine species of *Lecanora* have not been moved to *Megasporaceae*, but were attributed to the subgenus *Aspicilia* in the protologues. The following studies will decrease the number of *Aspicilia* s.s. by synonymization and by moving some taxa to other families or to other genera within *Megasporaceae*. This decline however will be compensated by changing of statuses of known taxa below the species level and by describing of new species. Thus we estimate the credible number of species in *Megasporaceae* in the range of 350–400.