



HUNGARIAN ASPECTS OF THE EUROPEAN CHAROPHYTE ATLAS

Az európai csillárkaatlasz hazai vonatkozásai

Attila Mesterházy^{1*}, Balázs András Lukács² & János Csiky³

¹19500, Celldömölk, Hunyadi utca 55, Hungary; ²Centre for Ecological Research, Wetland Ecology Research Group, 4026 Debrecen, Bem tér 18/C, Hungary;

³Department of Ecology, Institute of Biology Faculty of Sciences, University of Pécs, 7624 Pécs, Ifjúság u. 6., Hungary; *E-mail: amesterhazy@gmail.com

The knowledge and study of the Charophyceae species has reached another milestone with the completion of the atlas of European stoneworts, a collaborative effort of European researchers. The atlas not only shows the distribution of all the species occurring in Europe, but also describes each taxon in detail and summarises the most recent results. The monograph contains 63 species, 23 of which occur in Hungary. The Hungarian Charophyceae flora is well known, thanks to the work of Nándor Filarszky (1858-1941) and to the field research of the last two decades. In addition to the critical revisings and databasing the Hungarian herbarium and field data the authors also have played a role in resolving long-standing taxonomic problems. The most mysterious species is *C. mucronata* described by Filarszky, which name is illegitimate, because *C. mucronata* A. Braun 1827 has priority. This Hungarian taxon has therefore been described under a new name (*C. filarszkyana* Romanov & Mesterházy). Unfortunately, the type specimen of this species has been lost, only a detailed drawing is known. The only known habitat has also disappeared, so its taxonomic status will probably never be resolved. *C. hungarica*, which also lived in thermal springs of Buda, was considered a dubious taxon. According to the most recent studies, it has also been synonymised in the atlas, as it is identical with *C. squamosa*, a southern European taxon. Some nomenclatural and taxonomic corrections concerning additional Hungarian taxa were also made in the monograph. On the basis of molecular and phylogenetic studies, the genus *Tolypella* was split into the genera *Tolypella* and *Sphaerochara*. The latter new name also applies to the two species found in Hungary (*S. intricata*, *S. prolifera*). In addition to the solved systematic problems, there are still open questions. Based on morphological characters, the taxon living in the swamps of Belső-Somogy, previously reported as *Nitella mucronata*, is identical with *N. brachyteles* described from Algeria. This taxon is currently listed as „doubtful” in the monograph and needs clarification. Also, the taxon found in the rice fields of Szarvas and reported in the monograph as *C. fibrosa* needs further investigation. On the basis of the information received, the authors have compiled a European Red List, which also includes some Hungarian species. One species extinct in the world flora (*C. filarszkyana*) occurred in Hungary, but the list also includes *C. tenuispina* (EN), *Lychnothamnus barbatus* (EN), *Sphaerochara prolifera* and *intricata* (VU), and *C. squamosa* (DD).