

The Symposium 'Endangered Bryophytes in Europe Causes and Conservation' in Uppsala 24-28 September 1990

The Symposium comprised three days indoors at the Swedish University of Agricultural Sciences, Uppsala and one day on excursion.

It was attended by 70 participants from 17 European countries and also from U.S.A. and China. Particularly noteworthy was the presence of 18 bryologists from seven former "Eastern Block" countries.

In all, 33 papers were presented and there was also an exhibition of posters, some of which were illustrative of the talks. The papers were grouped together for the various sessions.

The first was the "Status and distribution of endangered bryophytes", covering the EEC position as well as the national picture in Finland, Czechoslovakia, East Germany and UK.

The second session was "Population biology of rare and decreasing bryophytes". This was followed by a short session of "Population genetics of rare and decreasing bryophytes" which was clearly of interest to those who have a good knowledge of the subject.

Of more general interest was the next session on "Bryophytes in a changing environment invasion and extinction", with examples from Sweden, Poland, Netherlands, Norway and U.S.S.R. Acidification was frequently mentioned as a change, usually for the worse, for bryophytes. It was pointed out that care is needed in using the term extinct; in some cases "extinct" species have been refound and the term "vanished" is considered more appropriate.

The final session was on "Conservation measures for the future". Timo Koponen completed this final session with a look at the situation in the world as a whole, and emphasised the generally serious position in temperate and meridionale regions (worse in Eastern Asia than in Europe or North America) and particularly in tropical regions.

It was clear from the papers and discussions that the same problems face most European countries - agricultural and forestry practice, industrial development and the indirect effects such as drainage and air or water pollution. Lack of knowledge of bryophyte distribution is a problem in some countries where there are perhaps only a few professional bryologists and few or no amateurs.

Many papers on threatened bryophytes were presented in the lectures, and posters called attention to species with limited ranges and strictly specialized habitat requirements. Several studies on the population dynamics and ecology of the bryophytes showed great advances in these fields of study.

Committees

At the Symposium two international **committees** were established to deal with the problems of endangered bryophytes and bryophyte conservation.

One was the 'global' committee the 'IAB Standing Committee for Endangered Bryophytes' for promoting the conservation of the bryophytes. This committee is an international agency, which reports regularly to the council of the International Association of Bryologists (IAB).

The second was the European committee: the European Committee for the Conservation of Bryophytes (ECCB). ECCB was established for several reasons. One was to encourage the compilation of a European Red List of bryophytes. Other important tasks were to put forward the preservation of endangered species in Europe as well as to suggest habitats and localities in urgent need of protection.

The goal was that at least one representative from each European country (with a deputy), would be included in the ECCB. The board of the committee was formed during the symposium and the following members agreed to work on the board for the period 1990--1992: Chairman: Edi Urmi (Switzerland); Vice Chairman: Rene Schumacker (Belgium); Secretary: Nick Hodgetts (Great Britain). Additional members: Jiri Vana (Czechoslovakia); Cecilia Sergio (Portugal); Tomas Hallingbäck (Sweden).

The work of the committee aims at preserving the European bryophyte species in reproductive populations in their natural environment. The committee is planning to compile and coordinate information on the status of rare, decreasing and endangered bryophytes in Europe; to promote, together with the Working Group of Mapping Bryophytes in Europe (WGMBE), further mapping of their European distribution and analyse the causes for their decrease. The information should be transferred to conservation authorities and be used for practical conservation measures.

Immediate tasks included:

- to compile an European Red List of Bryophytes
- to compile a list of European bryologists working on endangered bryophytes
- to initiate research on the status and ecology of endangered species or other species with rapidly declining populations
- to encourage more bryofloristic fieldwork in neglected parts of Europe
- to initiate meetings and symposia on Endangered Bryophytes supported by the ECCB and the IAB

The ECCB made its first achievement during the Uppsala Symposium in proposing a list of 26 selected European endangered bryophytes to be included in the Appendix I of the Berne Convention. This list was faxed immediately to the **Berne Convention** workshop meeting at Cambridge. The action was successful and for the first time at least some bryophyte species were included in the new list of "strictly protected flora species" supported by the Council of Europe, also known as Berne Convention, Appendix 1.

Finally the symposium in Uppsala had a one day of **excursion**. The first stop was at an old coniferous forest at Fiby Urskog, an area virtually untouched for 200 years at least. A visit was then made to a mixed forest at Lower Dalälven with some more or less virgin broad-leaved areas of *Quercus robur*, *Tilia cordata* and *Fraxinus excelsior* which are subject to annual inundation. The final visit was to a classic raised bog site at Ryggmossen, belonging to Uppsala University, which has been studied in great detail for many years. Here Prof. Hugo Sjörs explained the ecology of the bog on which over twenty species of *Sphagnum* occur including *balticum* and *majus*

Two **receptions** were held, one at Hammarby, Linnaeus' summer house a few mile from Uppsala, and one, with a dinner, in one of the old 'Nations' (students' meeting houses) in Uppsala University.

The large attendance (for a bryological meeting) indicated the considerable concern felt for bryophyte conservation.

Organizers

The Symposium was organized by the Swedish Committee for Conservation of Endangered Bryophytes and comprised Lena Gustafsson and Tomas Hallingbäck (Swedish University of Agricultural Sciences, Uppsala), Lars Söderström (University of Umeå), Lars Hedenäs (University of Stockholm) and Nils Cronberg (University of Lund).

Proceedings

There is no doubt that the Symposium was of great importance for bryology in Europe, and probably elsewhere in the world. Most of the papers were later on published in 1992 in a special issue of *Biological Conservation* volume 44.