



## CAFF IX, Abisko, Sweden 28 - 31 August 2002

# CAFF Flora Group Report

### GENERAL CONCLUSIONS AND RECOMMENDATIONS

The general conclusions and recommendations of the CAFF Flora Group follow. We request that issues raised herein be resolved at CAFF IX

**1. CAFF Flora Group Charter:** Minor modifications were made to the charter and the CFG approved the final revisions published in *Proceedings of the First International CAFF Flora Group Workshop* as CAFF Technical Report No. 10.

**Recommendation:** Adopt the CAFF Flora Group Charter with minor revisions offered by the CAFF Flora Group.

**Update:** We note Item 10 in the “Summary Report” of the CAFF Board Meeting, April 9-10, 2002, Akureyri, Iceland “The U.S. introduced the proceedings of the first CAFF Flora Group workshop held in March 2001, Uppsala, Sweden. There were several recommendations made, including a charter. The charter will have to be revised to reflect the discussions at this meeting. Since this has not been distributed before and there are several action items in it, it was suggested that this item be tabled at CAFF IX. Decision: All agree to defer discussion/approval fo action items until CAFF IX.” We look forward to the discussion/approval.

**2. Use of the Term “Flora”:** The term flora in the title “CAFF Flora Group” is broadly interpreted to include flora and vegetation. CFG distinguishes between flora, an enumeration and separate description of each of the various kinds of plants, from vegetation, the mosaic of plant communities over the landscape.

**Recommendation:** Accept the term flora as broadly interpreted in the name of the organization “CAFF Flora Group”, but distinguish between the terms flora and vegetation

in other uses.

**3. Arctic Climate Assessment (ACIA):** The relationship between the CFG and ACIA should avoid parallel processes within CAFF; coordination between the various subactivities should be the goal. CFG established contact with a lead author, Terry Callaghan, and will send copies of this report to him. How the CFG can contribute to the process is still open to discussion.

**Recommendation:** Continue the dialogue with ACIA. Lead: CFG.

**4. Definition of the Arctic for the CAFF Flora Group:** CFG accepts the Panarctic Flora Project map to delimit the Arctic. Thus, the polar tree line distinguishes the Arctic from the neighboring boreal zone, with the exception of the amphi-Beringian sector where additional criteria are necessary to determine the status of some areas. However, many species and vegetation types occurring in the Arctic do indeed occur south of the southern limit of the Arctic, particularly in adjacent mountains. Therefore, we take a pragmatic approach to treat conservation issues broadly and recognize the importance of adjacent areas. For the most part, the PAF map is congruent with the CAVM map.

**Recommendation:** CFG follows the PAF definition of Arctic, but extends the geographical consideration, when necessary, to include boreal mountains neighboring the Arctic.

**5. Circumpolar Arctic Vegetation Map Project (CAVM):** CFG recognizes the importance of the new circumpolar vegetation map to provide a common legend and language for the ecosystems of the Arctic. This map will show similarities and differences of physiognomically defined vegetation types on a circumpolar basis. It will be widely used by CPAN as well as in the fields of conservation, education, global change study, land-use planning, large-scale resource development, and vegetation science.

**Recommendation:** Encourage the distribution and use of the Circumpolar Arctic Vegetation Map, particularly by CPAN. Lead: Stephen Talbot, USA.

**Update:** The CAVM Team will review a final draft by the end of August 2002 and an external review will take place in September 2002. Publication of the final map is scheduled for the end of 2002.

The CAVM is to be published as a CAFF product and as such a proper designation is needed. Under the present system it fits most closely into the "CAFF Technical Report" series. An alternative category might be a "CAFF Map" series but at this time such a series does not exist.

**6. Panarctic Flora Project (PAF):** PAF shows a critical scientific attitude and demonstrates results with immediate applications to other projects, particularly those that are circumpolar in

scope, involved in arctic botany, and with a need for standardized taxonomies and nomenclature. Inasmuch as the participants in PAF all are curators or associated with active herbaria with major arctic collections, they have the knowledge and documentation of rare plants in the Arctic and thereby constitute a valuable resource to serve CAFF needs. The network of herbaria and their activities is therefore at least as important as the checklist in itself.

**Recommendation:** Encourage support by the CAFF National Representatives of PAF.

**Update:** Progress is being made in the final push to have the PAF checklist ready for hard copy publication (if a publisher can be found and the funds to accomplish that) and web presentation. The PAF team have all agreed that it will be completed by the end of 2002.

**7. CAFF Flora Group (CFG):** Financial support is central to work on arctic plants. It is understood that CAFF is not a granting agency, but to the extent its endorsement of projects is desirable, the CFG wants to see that sort of influence applied. The CFG can assume the role of broker on behalf of projects and use CAFF to gain support. But, it has become clear that there are funding issues related to the travel of CAFF Flora Group members to CFG workshops that will be held every two years. For the CFG to function, there must be funding dedicated by each national representative to support travel for him/her or his/her designee to CFG meetings. This minimum of support must be met.

**Recommendation:** The role of the CFG will be that of broker on behalf of projects and to obtain CAFF support. There must be sufficient funding to support travel to CFG meetings. Lead: Stephen Talbot, USA.

**Update:** We note with interest the statement made at the CAFF Board Meeting, April 9 - 10, 2002, Akureyri, Iceland in reference to a letter of support for the ringed seal monitoring network – “All agreed that providing such letters of support is an important function of CAFF.”

**8. Monitoring of “Local Floras”:** The approach for monitoring of local floras used in Russia is of interest to CFG. It was concluded that the approach should be described in detail.

**Recommendation:** Boris Yurtsev, Komarov Botanical Institute, will write a detailed instruction and method for monitoring local floras. The CAFF Flora Group will evaluate the approach for possible use on a circumpolar basis. Lead: Boris Yurtsev, Russia, and David Murray, USA.

**Update:** Boris Yurtsev is to complete the report by 4 August 2002 for later review by David Murray.

**9. Monitoring of Rare Species:** Long-term monitoring of rare species was endorsed.

**Recommendation:** PAF serve as lead group for long-term monitoring of rare species.  
Lead: PAF.

10. **Checklists of Lichens and Bryophytes:** CFG recognizes the importance of bryophytes and lichens as major ecological components of arctic flora and vegetation. They account for a large portion of both its biomass and diversity. It was concluded that proposed projects for bryophytes and lichens could be accomplished by reviving the cryptogamic component of the original Panarctic Flora Project (PAF).

**Recommendation:** We recommend an initiative, encouraged by the CAFF National Representatives, to begin work on a checklist of lichens and bryophytes of the Arctic. Specialists should be contacted and two separate groups of taxonomic specialists in the fields of bryology and lichenology should be established. These checklists are an essential first step prior to assessment of rare taxa. Lead: Hördur Kristinsson, Iceland.

**Update:** Hördur Kristinsson will work on this initiative during the winter 2002-2003. Arve Elvebakk reports that Vagn Alstrup is planning a book on arctic microlichens, and Øvstedal is working intensely on the Svalbard lichen flora, which will be important for the lichen PAF. Focus might be placed on the lack of expertise at present of scientists involved in arctic bryology PAF today.

Boris Yurtsev suggested M.P.Andreyev (lichenology) and O.M.Afonoina (bryology), both from Komarov Botanical Institute.

11. **Revised Atlas of Rare Vascular Plants of the Arctic:** As the Panarctic Flora Project (PAF) checklist nears completion, new information is becoming available on the distribution and identification of rare vascular plants in the Arctic. It was concluded that a second edition of CAFF Technical Report No. 3 *Atlas of Rare Vascular Plants of the Arctic* be prepared that enlarges and revises the original. The new edition would include not only species of rare arctic endemics, but also rare boreal and alpine species that make incursions into the Arctic.

**Recommendation:** A second edition of CAFF Technical Report No. 3 *Atlas of Rare Endemic Vascular Plants of the Arctic* be prepared that enlarges and revises the first edition. Lead: Panarctic Flora Project (PAF) and the Chairman, CAFF Flora Group.

12. **Circumpolar Protected Areas Network (CPAN):** Flora and vegetation should be considered when making selections of new protected areas.

**Recommendation:** In planning areas for CPAN, the flora and vegetation should be considered in selecting areas for protection. Components to be considered should include, but not be limited to (1) special habitats such as hot springs and sand dune areas (western Victoria Island); (2) areas where significant disjuncts or extrazonal species

occur; (3) areas with rare or endemic plants; and (4) areas with good examples of common plant communities as well as rare plant communities. Lead: Susan Aiken, Canada, and PAF.

**Update:** Stephen Talbot participated the CPAN Standing Committee Meeting, February 11-13, 2002, Anchorage, Alaska. Susan Aiken re-emphasized that areas selected for the Protected Areas Network, should take into consideration, areas of botanical significance, more than has been done in the past

13. **Education of Next Generation of Botanists:** There is a growing lack of competence in arctic botany as senior scientists age and leave the field. It is essential that young people become involved in arctic botany.

**Recommendation:** A plan should be developed to interest students our work and train of the cadre of specialists who will in time replace us. We must facilitate student exchange among participating countries. Lead: Bengt Jonsell, Sweden.

14. **Second International Workshop on the Classification of Arctic Vegetation:** Ten years have passed since the First International Workshop on the Classification of Arctic Vegetation was held. With a wealth of new information available, the time is right for a Second Workshop to be held in the year 2003 in Kangerlussuaq, Greenland, with formal papers and a field practicum (as a course for credit). Funding will be sought to support student participation.

**Recommendation:** Endorsement by CAFF National Representatives of the proposed Second International Workshop on the Classification of Arctic Vegetation. Lead: Fred Daniels, Germany, and Stephen Talbot, USA.

**Update:** The proposed date for the workshop is now 2004 in Kangerlussuaq (Søndre Strømfjord), Greenland. Dr. Fred Daniels is actively seeking funding from his university and other potential funding sources. A proposal will be developed on how to prepare and organize the workshop. An organizing committee is planned and a list of invited speakers will be prepared. While in Kangerlussuaq last year Dr. Daniels checked on facilities and excursion sites and spoke with leading people.

15. **International Tundra Experiment (ITEX):** The representatives recognize the importance of the ITEX studies in monitoring global change. Protected areas could be of great value as potential ITEX sites because many are undisturbed and possess the infrastructure to assist researchers and provide locally interested individuals or groups.

**Recommendation:** Seek ways to harness the resources in terms of infrastructure, personnel, and access to undisturbed tundra sites within protected areas. Lead: CFG.

**Update:** The U.S. Fish and Wildlife Service has encouraged the use of ITEX methods during biological reviews of two national wildlife refuges, Togiak and Selawik NWR

Both refuges are interested in allowing the use of their facilities by potential ITEX scientists and these refuges are seeking ways to become ITEX sites. ITEX plot methodology was used on Alaska Peninsula/Becharof NWR to monitor plant community changes in caribou exclosures versus unprotected range.

Professor Philp Wookey, Chair, ITEX Steering Committee, offered his assistance and that of the ITEX community in helping with the initiative.

**16. Greenlandic Involvement in Botany:** CFG agrees on the importance of botany in Greenland. Engagement of the Greenlandic community in the study of Greenland's plants, from both research botanists and policy makers, is essential.

**Recommendation:** Encourage development of botanical expertise for Greenland. CFG offers to assist.

**Update:** Dr. Bente Jessen Graae, Scientific Directory, Arctic Station, 3953 Qeqertarsuaq, Greenland, contacted the CFG; she is a Danish botanist working for a 3-4 year period in Greenland. She is working on seed dispersion and colonization processes of arctic plants. This is a welcome movement that is to be encouraged. PAF would benefit for a similar movement in the area of arctic plant taxonomy.

**17. Cooperation Between the CAFF Flora Group and Other Conservation Groups:**

Although CFG brings a unique perspective by specializing on the botanical aspects of the circumpolar Arctic, there are other groups that share some of the CFG's interests. Examples include the World Wide Fund for Nature (WWF), Fauna and Flora International (FFI), and the International Mire Conservation Group (IMCG). As stated in the CFG Charter, our goals are "To promote, encourage, and co-ordinate internationally the conservation of biodiversity of arctic flora and vegetation and their habitats and research activities in this field; and to enhance the exchange of information relating to arctic flora and vegetation and factors affecting them." Communication is essential to develop partnerships and to avoid replication of effort.

**Recommendation:** With the help of WWF and IMCG, and other organizations and parties, establish more effective communication by setting up a CFG web site within the CAFF web site and submit articles to journals such as *Plant Talk* to disseminate information about the goals and objectives of the CFG. Lead: CAFF Flora Group.

**Update:** Contact was established with Dr. Hugh Synge, Editor and Senior Consultant of the journal *Plant Talk*, National Tropical Botanical Garden, 10 Princeton Court, 55 Felsham Road, Putney, London SW15 1AZ UK. They were "delighted to receive CAFF Technical Report No. 10 and hear that the CFG may be able to contribute further items to *Plant Talk*." They have drafted a small item on the CFG for inclusion in *Plant Talk*.

A thoughtful review by John Akerod of the *Atlas of Rare Endemic Vascular Plants of the*

*Arctic* (CAFF Technical Report No. 3) appeared in *Plant Talk* 27: 43.

The 2001-2002 Award of Excellence for the technical report *Atlas of Rare Endemic Plants of the Arctic* from Society of Technical Communication, Houston, Texas given in Houston Texas on 1 February 2002.

At the request of the IUCN, CFG provided information on botanical specialists of Chukotka Peninsula flora and vegetation.