

The third annual meeting of the Tundra – Taiga working group

The meeting took place on the 5th of October 2002 in Anchorage, Alaska. The meeting was started at 9 am at the Hotel Captain Cook, in the Library meeting room. In attendance were: Terry Callaghan, Chair of the group, Annika Hofgaard, Serge Payette, Oddvar Skre, and Bjartmar Sveinbjörnsson.

Bjartmar Sveinbjörnsson was appointed to prepare the minutes of the meeting and Annika Hofgaard and Serge Payette agreed to audit them.

The 2001 Quebec City meeting minutes were approved.

Ben Werkman, the group's secretary has resigned. His research funding has ended making it impossible for him to continue. It was agreed that on behalf of the group a letter of thanks, for work well done, should be sent to him. **ACTION:** TVC

Because of the resignation of the secretary, the election of officers before the annual meeting did not take place as scheduled. The need for election was discussed and a poll was conducted of the willingness of those present to serve as officers.

Terry Callaghan wishes to step down as Chair and not serve as officer for health reasons but expressed willingness to serve as Committee member.

Annika Hofgaard is willing to serve as Committee Secretary.

Serge Payette is not willing to serve either as secretary or as Chair.

Oddvar Skre is willing to serve as Secretary.

Bjartmar Sveinbjörnsson is willing to serve either as Chair or Secretary.

Terry Callaghan reported that other committee members not present at the meeting, i.e. Tatiana Vlassova, Gareth Rees, Robert Crawford, and Matti Eronen all have indicated that they are willing to continue as members and send their apologies for not attending the meeting. It was decided to ask the committee members not present if they wished to serve as officers and then to conduct an election through the IASC Secretary Odd Rogne. **ACTION:** TVC.

Logistics were discussed and Terry described the optimal way of dealing with reimbursement from IASC.

An Ambio Special Report organized and partly written by the Committee members was announced and copies shown. The members were enthusiastic about the high quality of the report.

Oddvar Skre reported from an Arctic Timberline meeting he attended in Rovaniemi during the year. The output from the meeting will be a book on the sustainable use of transitional forests. It should be ready for a meeting in Sariserki but recommendations are not finished and the Committee should get these recommendations when they are available to include in the Committee's considerations. Another related meeting has taken

place in Kautokeino: Arctic Climate Impact Assessment. Annika Hofgaard and Oddvar Skre attended the meeting.

Young researcher funding was discussed: IASC has about \$2000 for an outstanding young researcher to help with the work of the committee. Gareth Rees has had a Russian young researcher, Mikhail Zimin, help with satellite imagery and a short report on the work was attached to the Quebec meeting report during the year. Considerations of further development of the effort was discussed and it was concluded that priority should be placed on

- a. development of more user-friendly access to the satellite imagery
- b. cover of other tundra-taiga interface areas
- c. cover of the entire circumpolar area

Bjartmar Sveinbjörnsson reported on having a graduate student from Körner's lab in Basel, Switzerland as an intern and wondered about funding of such endeavors. Terry Callaghan pointed out the need for truly international rather than bi-national visits. Thus a student visiting many sites doing the same things at each might qualify.

Oddvar Skre indicated the importance of ground observation of parameters and Terry Callaghan stated that such work was more related to future research than to student visits.

It was recommended that the funding for a young researcher's visit should be advertised and the best proposal chosen. **ACTION:** TVC

Terry Callaghan announced that a proposal had been submitted to AMAP (Arctic Monitoring and Assessment Programme) for a digital camera network. It had become apparent that several groups/organizations had come to the same conclusions re. The needs for such monitoring, i.e. SCANNET for winter snow impact, a Danish group working in Zachenberg, Greenland for landscape monitoring, and UNIS on Svalbard. Committee member Tatiana Vlassova has generated interest in the network from RAIPON (Russian Arctic Indigenous Peoples of the North) who are also now involved in the application. The cameras will make daily pictures and software is being developed. A multi-spectral camera for phenology observation/quantification is also being investigated. The names of Martin Rasch, Jorgen Hinkler and Neil Bayfield were mentioned in terms of hardware, software and other methodological development. We will wait for response from AMAP but there would be 2 cameras per site and a training course would be offered.

For the planning of the next large open meeting the following themes were listed:

1. Reconciling model predictions of treeline movements with process understanding (with climate change implicit).
2. Reconciling remotely sensed data with ground observations.
3. Determining past and current changes in treeline.
4. How are key treeline species (e.g. white and black spruce) changing their performance, population genetics and distribution?

5. Reconciling biodiversity and ecosystem processes in the tundra-taiga interface, i.e. will new areas of transition zone forests be different in structure?
6. Reconciling feedbacks from changing forest cover to atmosphere – conflicts between increasing carbon sequestration and decreasing albedo – snow and water discharge
7. How can land-use predictions be built into Global Digital Vegetation Models to predict treeline changes?
8. Effects of herbivores, pests and pathogens on treeline forests.

The place, funding sources, and timing of such a meeting was discussed. It was decided that Alaska in spring of 2004 would be a good place and time to have such a meeting. Bjartmar Sveinbjörnsson offered to talk to NSF- Polar Programs for funding; other sources mentioned included IASC and the European Union. Funding of about 9 Keynote speakers of which perhaps 6 could be from outside the US of about \$10-15K was discussed, about \$10K for graduate student support and about \$15K for Russian attendants would be needed. IASC could be asked to contribute \$10-15K but most of the money must come from other sources.

Regarding new research projects, the European Committee members will inform if there is an EU treeline initiative coming out of the Framework VI from the EU commission. There will be a call for tenders in November. If this falls through then the Committee will focus on developing/strengthening networks for treeline research.

Regarding other proposals in the works, Bjartmar Sveinbjörnsson reported that he and Andrea Lloyd have begun discussion on a multi-disciplinary treeline research project to be carried out in Alaska. Annika Hofgaard and Gareth Rees have submitted a proposal to the Research Council of Norway. Annika Hofgaard, Oddvar Skre and Terry Callaghan are in the preliminary stages of formulating a proposal to the EU.

It was pointed out that it was important and opportune to refer to our guidelines in Ambio and that we should write into the grant proposals funds for exchange/collaboration. A proposal should perhaps be written specifically for research in Russia. Circum-arctic paludification should receive interest in proposal writing. Perhaps IASC can be approached for collaborative funding.

Terry Callaghan will talk to Pat Webber, the new Chair of IASC, about possibilities for circum-arctic funding. **ACTION:** TVC

Oddvar Skre will supply recommendations from the Nordic Council of Ministers for Terry Callaghan. **ACTION:** Oddvar Skre.

The next annual Tundra-Taiga working group meeting will be held in Tromsø in the autumn 2003 and hosted by Annika Hofgaard.

Prepared by: Bjartmar Sveinbjörnsson
Audited by: Annika Hofgaard