

Skógvatn - ForStreams

8. general meeting 3. of December 2009

Attending: Bjarni Diðrik Sigurðsson (chair), Helena Marta Stefánsdóttir (secretary), Jón S. Ólafsson, Edda Oddsdóttir, Gintare Medelyte, Hlynur Óskarsson.

Excused:

Brynhildur Bjarnadóttir, Hreinn Óskarsson, Franklín Georgsson, Nikolai Friberg, Gísli Már Gíslason, Berglind Orradóttir, Sigurður Guðjónsson, Guðmundur Halldórsson, Friðbjófur Árnason, Taru Lehtinen.

The meeting started 13:10

Agenda:

1. Opening and general discussion
2. Minutes from last meeting read and accepted.
3. Where are we at the end of 2009 and what is left to do?
4. Priority issues (to do now!)
- 5 Status report to UOOR. Who will write and when?
6. Application to UOOR for 2010
7. Other Issues

1. Opening and general discussion

- Bjarni and Helena were appointed as the meeting chair and secretary.
- Taru Lehtinen (ARI) has joined the project group. She will do the TOC/DOC analysis in January 2010. We welcome her to the group.
- Nikolai Friberg has moved back to Denmark. He now works at NERI - National Environmental Research Institute at Aarhus University. <http://www.dmu.dk/international/>. He is still a partner of the ForStreams project.
- Bjarni reminds everybody that we have dedicated ForStreams to the memory of Freysteinn Sigurðsson (*in memoriam*) and we should remember to say/write that in our acknowledgements when we publish papers or give talks from the program.
 - ➔ Suggested that Bjarni should send all participants a slide with Freysteinn's picture and short text about the project being dedicated to him – so they can put it at the end of their ppt shows when they give talks.
- Remember to send Bjarni e-mails containing information about all presentations that use data from ForStreams or mention the project in some way. This includes articles, book chapters, reports, newspaper items, oral presentations, posters, etc. Bjarni maintains a database where all these “products” from the project are listed.

2. Minutes of last meeting reviewed and accepted:

Minutes of the last meeting were formally accepted with the following note:

Due to unexpected cut in the UOOR funding in 2009 (drop from the expected 6.000 kISK to 2.500 kISK) major changes were made in the project timetable.

All available funding in 2009 was used for the salary of the two M.Sc. students and all subprojects and chemical analyses that could be delayed in 2009 were put on hold until 2010, which is why the timetable and the division of funds accepted in the March 2009 meeting were not followed.

A new application will be sent to UOOR for finishing these activities in 2010.

3. Where are we at the end of 2009 and what is left to do? (all)

STUDENTS:

Gintare's MS → Gintare finished all her laboratory analysis in October and is currently working with her data analysis and starting the writing phase of her thesis. She plans to finish her thesis in late February 2010 and defend it soon thereafter at UI.

The students are encouraged to use unpublished data from other participants within ForStreams in their theses, with the following restriction: "In the case that the data has not been previously published they should write a methodological description in their M&M chapter (with the help from the "owners" of that data) and clearly indicate there who's data this is. Where Helena has already done this Gintare can just make a simple description in her M&M chapter and then refer to Helena's thesis for more detailed description, and *vice versa* for Helena. Both should however clearly indicate who's data this is. They also are aware of the obligation that all participants have accepted in the Memorandum of Understanding; i.e. that when participants publish data from other sub-projects of ForStreams than their own, they are obligated to notify the "owner" of that data and offer him/her a co-authorship. This of course also applies when other participants make use of data collected and analysed by the students.

Helena's MS → Helena gave a seminar showing her main results on litter transport to streams and decomposition of litter in the streams.

She finished all her laboratory analysis in August and has now finished almost all data analysis and has currently written ca. 70% of her final thesis. She will finish her thesis in mid-January and defend it in mid February at AUI. Her opponent will be Hákon Aðalsteinsson.

She also showed new overview maps of the East and South study sites that other participants can use in their later publications from the project.

FIELDWORK:

Regular fieldtrips (Bjarni): The last regular fieldtrip to both East and South sites was in April/May 2009. All basic measurements were made and dataloggers were emptied. Only one “regular” fieldtrip left to remove all equipment. Planned in spring 2010 for East sites and Autumn 2010 for South sites.

Fish and gut contents (Siggi/Gisli/Friddi) → This activity was put on hold in 2009. There is still need to survey all study-streams containing fish in eastern Iceland – planned in spring 2010. Some fishes will be removed for stomach content analysis, that will be done at Veiðimálastofnun. Bjarni’s suggestion: An effort should be made to sample trout (urriði) in at least 3 (5?) streams of each vegetation type (for stomach analysis), even if some have not been included in the project. This will yield a possibility to include the fish compartment in statistical analysis, etc.

Harvest and terrestrial NPP (Edda/Brynhildur) → East sites finished – South sites remain. This activity was put on hold in 2009. They will do their measurements in S-Iceland in late August 2010. Same protocol as was used in E-Iceland.

Litter traps and litterfall (Edda/Helena) → This field effort has been finished. Will be removed in spring 2010 in East and have already been removed in the South.

Water level and T_{water} monitoring (Berglind/Bjarni) → Data last collected in spring 2009. They are still operating but unclear if the waterlevel data are usable because of sedimentation in the wells, especially in the East. Last data will be collected in spring 2010 in the East and Autumn 2010 in the South.

Chlorophyll measurements (Jon) → Was sampled in spring 2009. All analysis is done.

Bedload measurements (Jon) → Last sample in April/May 2009. Just have left to collect all the data together into one file. Jón will do that.

Water samples (Bjarni) → Was stopped at the end of last year (2008). All chemical analyses finished, except the DOC/TOC analyses. Taru is going to measure DOC and TOC in January 2010.

Water quality (Guðmundur/Franklín) → This activity was put on hold in 2009. Planned to take samples from soilwater wells in S-Iceland two years after they were put in. Find a way to get samples from the ground water wells without collecting from the water surface. Planned to take samples at snowmelt 2010, spring 2010, early summer 2010 and autumn 2010,. Only 7 samples each time (n=4, 3).

DATA ANALYSIS AND LABORATORY WORK:

Fish stomach contents (Siggi) This activity was put on hold in 2009 and sampling in the East is planned in 2010 (see earlier) – Veiðimálastofnun will have someone do that this summer/autumn 2010; we need funding to finish this analysis (technician).

Water chemistry (Bjarni) → All water samples have been measured for elemental analysis (Ca, Mg, K, Na, P, S, Si, Fe, Mn, Cu, Zn, Al, Cl; IPC analyser) and some compounds (NO₃, NH₄, TotN, TotP i síuðum sýnum (bara gert á hluta sýna), PO₄, TotP,

TotP í síuðum sýnum (bara gert á hluta sýna), at Efnagreiningar Keldnaholt (the 500 ml bottles). What still remains is TOC, POC, DOC, IC (200 ml bottles). Taru will do this work in early 2010.

TSS/FPOM (Jon) → These samples (1 liter bottles) in freezer at AUI. Delayed; Bryndís might be able to do this while she is working at the lab. Jón will take care that this will be done.

Terrestrial biomass, carbon stocks and NPP (Brynhildur/Bjarni) → All samples from East Iceland analysed at Mógilsá (Edda/Kjartan) and Brynhildur and Bjarni finished the first part of the analysis for all study sites in East Iceland. So biomass stock in trees, ground vegetation and litter are now known for the lowest 400 m in each catchment.

Soil chemistry (Bjarni) → This activity was put on hold in 2009. Samples from East Iceland are at Mógilsá, but South will be sampled in August 2010. Samples will be sent to analysis to Ýmir soil lab in 2010.

During summer of 2009 Berglind and Páll Kolka dug soil profiles at one site in each catchment type in both East and South side. They took both soil samples and bulk density samples that pending. At least bulk density will be measured at Ýmir in 2010.

Chlorophyll (Jon) → All measurements and data analysis has been finished and Gintare uses this data in her thesis.

Note from Bjarni: Sediment composition (stones) has to be used to convert this data to g chlorophyll/m² of stream. Participants should also think about how chlorophyll/m² stream (area base) can be converted to chlorophyll/m stream (length base) which is the parameter we have in our GIS maps from each catchment and we should use to scale point measurements to catchment scale.

What about the final step of converting chlorophyll content to annual production (kg/m² year or kg/m year)? This is what we need and was said in the original application that would be done. How to do that? This is really what we need to compare with the terrestrial fluxes aboveground=litter (Helena has already calculated this flux in her thesis) and belowground (Berglind's side project will give an estimate for that flux).

Discharge from point measurements (Jon) → Jon will analyse these data soon. It is needed both by Gintare and Helena. It is also needed by Berglind (see next).

Annual water budget (Berglind/Jón) → Bjarni will compile waterlevel data – and Berglind and Jón will make a runoff-key as soon as Jon has analysed the discharge data (before spring 2010). Then Berglind will see if we have enough discharge point measurements for such key; if not, we could make extra measurements summer/autumn 2010 before we dismantle the stations in East and South.

T_{water} monitoring (Bjarni) → Helena started to compile the T_{water} data from the East sites this summer, but it is not quite finished and the South sites are not dealt with. Bjarni will finish to compile, gap-fill and quality check T_{water} database as soon as possible. This database is needed by Helena and Gintare.

Jón comments that it would be helpful to have discussion within the whole group which temperature parameters would be most helpful; Day-degrees, Mean Annual T_{water}, Mean Monthly T_{water}, T_{water} fluctuations, etc.

Driftnets (CPOM) (Jón) → This activity was put on hold in 2009, but samples are in freezer at AUI and Veiðimál. This data not needed by the MS students, but is needed for the whole project. This will be part of the project plan for 2010; we need funding to finish this analysis (technician).

Litter transport (Edda/Helena) → Litter transport samples from July-October 2008 (ca. 90% of the annual total) were analysed by Helena and reported in her thesis, but samples from May-July 2008 and October 2008 – May 2009 remain to get the total annual litter transport (much smaller samples). This will be part of the project plan for 2010; we need funding to finish this analysis (technician).

Litter fall in forests (Edda/Helena) → Litterfall in autumn 2008 was analysed by Mógilsá, but some samples remain to get total annual litter fall (dates?). This will be part of the project plan for 2010; we need funding to finish this analysis (technician).

4. Priority issues (to do now!)

Jón has to finish the discharge data-analysis so the MS students can use it.

Bjarni has to finish compiling the Twater database so the MS students can use it.

MS students finish their theses.

TSS/FPOM measurements have to get done soon because of limited freezer space!

TOC/DOC/IC analyses have to get done soon for planned seminars in February/March.

5. Ársskýrsala til UOOR fyrir 2009 - hverjir skrifa/hvenær...

Bjarni and Jón are going to do that before 10. January 2010 and send to the ForStreams Steering Group before submitting to UOOR at Jan 15, 2010.

6. Application to UOOR for 2010

UOOR will have a new call after new year (late January 2010?). The ForStreams Steering Group and the project coordinator will prepare the application.

7. Other Issues

a) Belowground transport - A side study of Berglind Orradottir funded by Orkusjóður Landsvirkjunar.

Berglind installed six suction cups (with Helena) and three zero-tension lysimeters (with Páll Kolka) in each of five sites in South and East Iceland (SS1 and SB1 and AB2, AG3 and AS2); one site of each catchment type. One sample has already been taken from all cups and lysimeters and sent to analysis. More samples will be taken until next summer. Berglind/Bjarni will send a status report for this project to Landsvirkjun in December 2009.

We already have estimates for aboveground OM transport (Helena's M.Sc. thesis); the chlorophyll measurements can give an estimate for primary production in the streams and this side study will yield an estimate of belowground OM transport.

b) Upcoming conferences where data from ForStreams can be introduced:

- Fræðaðing landbúnaðarins (18-19 February) – It looks like there will be a workshop focusing on “terrestrial-aquatic issues” where ForStreams fits very well. Bjarni and Helena both already sent in “ForStreams” titles to Fræðaðing.
- Fræðafundur skógræktar (24-25 March? Stykkishólmur). This will be a good venue to give talks from the ForStreams project; Bjarni will notify when we should send in titles.
- Bjarni/Hlynur will organize a Nordic NordFlux conference at Hella/Gunarsholt in September 2010. Host project would be ForStreams and CarboBirch, which both are funded by UOOR. Bjarni will notify when we should send in titles for talks/posters.
- Jón will be organizing a session in the famous ALO.ORG conference í Santa Fe, USA, in early June 2010. Hlynur will also attend it. We should send in a poster from ForStreams to introduce the project.

c) COST issues (Jón S./Edda)

ForStreams is part of one European COST project, ForMan, and Jón and Edda are part of its Management Committee. Next conference will be in Turkey in 24th-26th of March 2010. It was decided to try to get funding to send the MS students and Berglind to this conference to present some of their results and ForStream. Jón/Edda will send in their names (and their presentation titles) as soon as the registration has been open. COST funds certain number of participants and “first come –first get” decides who gets travel funding....

d) Other other issues...

- Edda will defend her PhD at UI in spring 2010. Her opponents will be prof. Gange and Gísli Már.

The 8th general ForStreams meeting was closed at 16:20