

"Peat organic matter (OM) quality and water chemistry"

Participants :

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1- Apart from the Finnish, Scottish bogs and the peatland of Baupré in Normandy, it was decided to re-sample the 2 bogs from the Jura (Le Russey and La Chauv d'Abel). The sampling of Oct. 2001 will be considered then as replicates.

2- For each subsample, granulometric separation (by wet sieving) will be carried out to obtain 2 grain size fractions (probably $> 150\mu\text{m}$ and $< 150\mu\text{m}$). Some tests will be done just after this meeting.

3- Molecular analyses (especially sugar analyses) will be performed on bulk peat and fined-grained fraction ($< 150\mu\text{m}$):

- in the fined-grained fraction, specific markers of OM degradation will be particularly determined through sugar analyses;
- in specific levels, lignin analyses will be performed in the coarse-grained fraction in order to specify OM sources when these would concern vascular plants.

4- Peat subsamples of the 2 grain-size fractions from different depths will be sent to Daniel Epron for isotopic analyses. Aim: compare ^{13}C natural abundance of these samples with that of atmospheric emission to assess the proportion of old and young carbon in C emissions (cf. his progress report presentation).

5- Pore water sampling by peepers and chemistry measurements were discussed with Philipp Steinmann. The sampling by peepers will be coordinated by himself. The problem of using peepers in the unsaturated peat top layer was discussed.

The possibility to reduce the number of depths / peat profile has been discussed. We suggested to reduce it from initially 5 to 3. We proposed depths:

n° 4 (5-10cm),

n° 6 (22.5-27.5cm) and

n° 8 (42.5-47.5cm)

(cf. core slicing doc).

The sampling and measurement frequencies have also been discussed:

seasonal or monthly controls ? or only twice a year ? The total number of samples is then not fixed at all. It would be 5 bogs x (2 to 6) situations x 3 ? depths x (2 or 4 or 12) campaigns.

Measurements :

- DOC and cations / anions measurements will be coordinated by André-Jean (possibly with ISTO for specific measurements).

- Philipp has some contacts in Physics Institute of Bern (Switzerland) regarding isotopic analyses of CH_4 . D. Epron will be contacted for isotopic analyses of CO_2 . Have these analyses been budgeted ?

6- Some tests will be performed to compare protocol used by Geneviève Chiapuso for extraction of total phenols and the one used in ISTO for lignin extraction.