

**Minutes of the 3<sup>rd</sup> RECIPE progress meeting**

**held on Sunday 7<sup>th</sup> of June – Wednesday 10<sup>th</sup> of November 2004  
at Carentan (near Baupte), France**

Present:

Steve Chapman (MLURI) (Project Co-ordinator and Chair)

Harri Vasander (UNHEL); Mika Yli-Petäys (UNHEL); Anni Takko (UNHEL); Vincent Pheulgin (Univ. Neuchâtel); Viviane Froidevaux (LINECO); Daniel Epron (Univ. Nancy); Alexandre Buttler (UFC-CE, EPFL); Fatima Laggoun-Defarge (ISTO); Walter Rosselli (AR-WSL); Rebekka Artz (MLURI); Andy Siegenthaler (AR-WSL); Laure Comont (ISTO); André-Jean Francez (ECOBIO); Nathalie Josselin (ECOBIO); Guillaume Morillon (ECOBIO); Estelle Bortoluzzi (UFC-CE/LBE); Daniel Gilbert (UFC-LBE); Antonis Chatzinotas (UFZ); Andreas Gattinger (TUM-BO); Edward Mitchell (EPFL); Philippe Grosvernier (LINECO); Gerald Schwarz (MLURI); Clare Trinder (MLURI).

Date	Description	Action
Sunday (7 <sup>th</sup> )	21:00 Arrival at Carentan.  21:30 Domestic arrangements, informal get-together	
Monday (8 <sup>th</sup> )	RECIPE meeting (Manoir de Cantepie)  Welcome to Guillaume Morillon, Clare Trinder and Ed Mitchell (all attending for the first time)  Presentations - these were PowerPoint presentations on current status of progress by:	All PowerPoint presentations should be passed on to Rebekka who will compile

<p>Mika Yli-Petays (for UNHEL)</p> <ul style="list-style-type: none"> <li>• Raised a query on modelling – who should be doing it?</li> <li>• Reported problem of frost heave at Finnish WP II site</li> <li>• Queried basis of correcting errors in data</li> </ul> <p>Rebekka Artz (for MLURI)</p> <ul style="list-style-type: none"> <li>• Need for standard units across partners</li> <li>• Reported uptake of CO<sub>2</sub> by bare peat (moisture effect?)</li> </ul> <p>André-Jean Francez (for ECOBIO)</p> <ul style="list-style-type: none"> <li>• Questioned use of CO<sub>2</sub>/CH<sub>4</sub> ratio as an index of recovery – poor data for this</li> <li>• Calculated microbial turnover indices for aerobic/anaerobic conditions</li> <li>• Estimated Fungi/Bacteria/Archaea using inhibitors</li> </ul> <p>Andreas Gattinger (for TUM-BO)</p> <ul style="list-style-type: none"> <li>• PLFAs and PLELs in progress but problems initially with analyser</li> <li>• Initial results indicate much higher levels of Archaea in Finnish samples</li> </ul> <p>Antonis Chatzinotas (for UFZ)</p> <ul style="list-style-type: none"> <li>• Currently doing “<i>in silico</i>” testing of Protista using ARDRA and t-RFLP</li> <li>• Clone identities coming out at 91-100% (closely related species should be at least 96-97%)</li> </ul> <p>Laure Comont (for ISTO)</p> <ul style="list-style-type: none"> <li>• Example of France (Baupte) samples</li> <li>• Regenerating peat very heterogenous (also seen in Scottish samples)</li> <li>• “old” peat has lower C/N and higher density; “young” peat is more heterogenous initially but later is more homogenous</li> <li>• High C/N in biomass is correlated with mucilage (suggests N-limitation?)</li> <li>• Arabinose and xylose markers for Cypraceae</li> </ul> <p>Andy Siegenthaler (for AR-WSL)</p> <ul style="list-style-type: none"> <li>• Vegetation assessed by point quadrats. Significant differences in vegetation cover: variation between locations &gt; variation between replicates</li> <li>• Dissolved gases: CH<sub>4</sub> at CH site ten times that at FR site</li> <li>• Reported on microbial communities – preliminary charts of relative group sizes</li> <li>• In oligotrophic situations there is a dominance of cyanobacteria and algae</li> <li>• Progress in WP III (litter in bags): early results for CO<sub>2</sub> emission show differences based</li> </ul>	<p>these and include them on the <a href="#">RECIPE website</a>.</p>
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	<p>upon plant species and water table depth</p> <p>Daniel Gilbert (for UFC-LBE)</p> <ul style="list-style-type: none"> <li>Performed extraction experiment for microbial groups: need 3-6 extractions for good recovery</li> </ul> <p>Ed Mitchell (for EPFL)</p> <ul style="list-style-type: none"> <li>Reported on “spatial autocorrelation”</li> </ul> <p>Estelle Bortolluzzi (for UFC-CE/LBE)</p> <ul style="list-style-type: none"> <li>At Russey there were good differences between sites: LAI changed over the season (density used for Sphagnum)</li> <li>Model equations were simulated using SigmaPlot to give NEE. Bare peat required a different model</li> <li>Vegetation measurements still to be done</li> <li>WP II gave some negative CO<sub>2</sub> fluxes (written to chamber construction company about this)</li> </ul> <p>Viviane Froidevaux</p> <ul style="list-style-type: none"> <li>Socio-economic report for CH: 1500 ha raised bog (1000 secondary, 500 intact), 0.13% of total Swiss territory. Compares with 18000 ha of fen.</li> <li>Most peat imports from Germany: exports peat products to Germany and Austria</li> </ul> <p>Daniel Epron (actually given on the 9<sup>th</sup>)</p> <ul style="list-style-type: none"> <li>Reported on using <sup>13</sup>C to trace C cycling in peat. Aim was to measure signal in CO<sub>2</sub> from three fractions (new peat, old peat and combined signal). New peat came out at -26.53, old peat at -24.01.</li> <li>Further incubations will measure CO<sub>2</sub> within profiles and a new series of experiments will be performed in spring/summer 2005</li> </ul> <p>Breakout groups</p> <p>Group S (socio-economics) – Discussed topics:</p> <ul style="list-style-type: none"> <li>Swiss team had finished and Vincent was to send a draft paper to Gerald</li> <li>Anni had also finished for Finland</li> <li>Germany were to employ a student who would finish in February</li> <li>Daniel may employ Anni to do further studies in France</li> <li>Ken Nkoworo was employed in Scotland and was due to complete write-up in November</li> </ul>	<p>(See Group S report)</p> <p>(See Group M report)</p>
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	<p>Group M (microbial and molecular microbial ecology) – Discussed topics:</p> <ul style="list-style-type: none"> <li>- Clone libraries developed for all sites</li> <li>- Data tables to be set up in Excel</li> <li>- WP I almost complete or will be soon</li> <li>- Second sampling for microbial communities including testates</li> <li>- Environmental data needs to be added to spreadsheet (i.e. basic set needs to be complete: pH, temperature, etc.)</li> <li>- Fatima to reduce amount of sugar analysis for FI (5 sites to 2, or add site with ‘new’ peat)</li> <li>- Debate on timing of WP II sampling – intermediate sampling or just final?</li> <li>- May/June for final sampling?</li> </ul> <p>Group G (gas exchange and diversity) – Discussed topics:</p> <ul style="list-style-type: none"> <li>- Frequency of measurement for vegetation point quadrats. Use point quadrat frame with 150 points and record hit on species</li> <li>- LAI: to count all leaves? May be up to 100 (Mika). Better to count 1 plant. Need leaf length (width needed for <i>Carex rostrata</i> or calculate a coefficient). For <i>Sphagna</i> – total number of capitula per collar.</li> <li>- Problem of CO<sub>2</sub> uptake – under what conditions?</li> <li>- WP III Where to do 13C analysis – at Nancy or submit to P. Steinmann?</li> </ul>	<p>Andreas to see to this</p> <p>Andreas to set up data format</p> <p>(See Group G report)</p>
<p>Tuesday (9<sup>th</sup>)</p>	<p>Morning: Visit to Baupte field site. Visit to the exploitation site with Mr Denis Le Gouix (head manager, Degussa Company).</p> <p>Afternoon: Continuation of group meetings and further discussion</p> <p>Discussion on time of sampling for WP II and WP III It was considered practical to only sample WP II once such the number of samples to be handled would not become excessive. Also it was important to sample in time for PhD students to complete their analysis and write-up before the end of their programs. This really came down to a single sampling in spring/early summer. One possibility discussed was to use a fixed number of degree-days such that sites could be sampled at equivalent physiological or growth states rather than at a fixed calendar date. However this data was not readily known for the various sites (though it could be calculated and would a useful parameter to record). The final consensus was to sample when the <i>E. vaginatum</i> was flowering as this would correspond to similar conditions across sites. This would likely to be in May/June and leave sufficient time for sample analysis.</p> <p>Consideration of potential publications emanating from RECIPE</p>	

	<p>Participants gave a broad indication as to what papers they thought would be coming from their own work, either in preparation or in the near future.</p> <p>Estelle</p> <ul style="list-style-type: none"> <li>• a review for WP I (yet to decide on this)</li> </ul> <p>Laure</p> <ul style="list-style-type: none"> <li>• on sugar analysis (after completing in January)</li> <li>• write up data on sugar signatures?</li> </ul> <p>Andy</p> <ul style="list-style-type: none"> <li>• modelling/peepers</li> <li>• FISH in WP I</li> <li>• Communities (with D. Gilbert)</li> <li>• Methodologies (with D. Gilbert, in progress)</li> </ul> <p>Fatima</p> <ul style="list-style-type: none"> <li>• Results of 20001 sampling including testate amoebae</li> </ul> <p>Mika</p> <ul style="list-style-type: none"> <li>• Results from 50 year site (actually pre-RECIPE but Mika involved and relevant to present work)</li> <li>• WP I site comparing vegetation types and CO<sub>2</sub>/CH<sub>4</sub> emissions (two papers)</li> <li>• Total C budget for Finnish sites</li> </ul> <p>Rebekka</p> <ul style="list-style-type: none"> <li>• Fungal clone library for Scotland</li> <li>• Genetic diversity at all sites</li> <li>• Carbon flux data</li> <li>• Methods for CLPP as applied to peat</li> </ul> <p>Antonis</p> <ul style="list-style-type: none"> <li>• Fingerprinting for testate amoebae</li> <li>• Methodology for FISH probes</li> </ul> <p>Andreas</p> <ul style="list-style-type: none"> <li>• Methods for plant labelling</li> <li>• Methanotrophs (?)</li> </ul> <p>André-Jean</p> <ul style="list-style-type: none"> <li>• Microbial biomass data</li> <li>• Results of anaerobic/aerobic incubations on gaseous emissions and fungal/bacterial ratios</li> <li>• Results of Rotifer survey (?)</li> </ul> <p>Ed</p> <ul style="list-style-type: none"> <li>• Testate amoebae</li> </ul>	
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	<p>Gerald</p> <ul style="list-style-type: none"> <li>• Comparison of all countries</li> <li>• Several own country contributions (?)</li> <li>• Options for use of abandoned mires requires feed back from whole group)</li> </ul> <p>Other business:</p> <p>The minutes of the Hyytiälä meeting were accepted</p> <p>The new project officer for RECIPE was Mrs Piiia Tuomisto in place of Dr Martin Sharman.</p> <p>The next meeting was scheduled for 19/19 May 2005 in Munich, Germany.</p>	
<p>Wednesday (10<sup>th</sup>)</p>	<p>Participants disperse</p>	