Paris Peatland Meeting Programme 15.10.2021

PEATLANDS AND CLIMATE CHANGE: EXPERIMENTAL, MONITORING AND PALAEOCLIMATIC PERSPECTIVES

Introduction

Northern hemisphere peatlands are substantial carbon stores. However, recent climate change and increasing human impacts (e.g., drainage and atmospheric nutrient deposition) may trigger the emission of their stored carbon into the atmosphere. Biodiversity losses are also an important consequence of those changes. Global change experiments are often conducted to improve our understanding of the potential responses of various ecosystems to global warming and drought. Most of the experiments carried out in peatlands are focused on carbon balance and nitrogen deposition. Nevertheless, it is still unclear how fast peatlands respond to temperature changes and water-table lowering in the continental climate setting. The meeting will deepen cooperation between French and Polish partners in combining short-term and long-term approaches to climate change studies with a focus on the peatland biodiversity and carbon sink.

The main purpose of the meeting is the exchange and transfer of knowledge between well-established research groups in Poland and France with a focus on relations between peatlands and the climate crisis. A clear benefit is the exchange of experience about the field and statistical methods to more efficiently use the natural archives and plan experimental designs. The teams from Poland and France are going to discuss future cooperation within the climate change ecology of peatlands as well as their conservation strategies. They will focus on global warming, peatland carbon sink and loss of biodiversity. The meeting will be devoted to discussing our ongoing and former projects located in Europe and Siberia as well as we will make plans for future cooperation.

Programme

Morning session (20 min each talk)

Mariusz Lamentowicz (UAM) - Introduction - Peatlands and climate changes.

Sebastien Gogo (Institut des Sciences de la Terre d'Orléans (ISTO)
- National d’Observation Tourbières (SNO Tourbières)

Vincent Jassey (CNRS) - Response of microbial communities to climate change

Anna Sytiuk (CNRS) - Predicting the structure and functions of peatland microbial communities from Sphagnum phylogeny, anatomical and morphological traits and metabolites

Samuel Hammard (CNRS) - Contribution of microbial photosynthesis to peatland carbon uptake along a latitudinal gradient

Afternoon session (15 min each talk)

Bogdan Chojnicki (UPP) - Carbon fluxes from peatlands

Katarzyna Marcisz (UAM) - Disturbances recorded in peatlands - paleohydrology and paleofire perspective

Piotr Kołaczek (UAM) - Peatland palaeoecology of the Carpathians

Michał Słowiński (PAN) - Peatlands and forest management in N Poland

Mariusz Lamentowicz ((UAM) - Integrating different approaches to studying peatlands

Group discussions

Integrating monitoring, palaeoecology and experiments