### Ylva Sjöberg Associate Professor, lead of UArctic Thematic Network on Permafrost University of Copenhagen

#### **<u>1. Describe your academic expertise, with special focus on your expertise in permafrost:</u>**

I have been doing research related to permafrost for more than 10 years and published several papers on topics related to permafrost. My expertise is mainly regarding hydrology in permafrost environments, including the impact of hydrology on ground heat transfer and the impact of permafrost on groundwater and surface water flow and quality. I have been working in peatlands in the sporadic permafrost zone, forest and tundra environments in the discontinuous and continuous permafrost zones. I have also been teaching permafrost processes to students at graduate level both in the field and in practical classroom exercises.

#### 2. Describe your experience as a supervisor for student projects:

I have supervised thesis students at PhD (1 students as main and 3 as co-supervisor), MSc (3), and BSc (3) levels, eight of these in topics related to permafrost. I have also supervised one visiting student intern, also within a research project related to permafrost. I have taken one course in PhD student supervision at Stockholm university (2014) and one course in Responsible conduct of research for supervisors at the University of Copenhagen (2021).

# 3. Describe the students at your home institutions, including the academic programs and any teaching on permafrost:

At the department of Geosciences and Natural Resource Management at the University of Copenhagen, where I work, I teach students within the Bachelor and Master programs for Geography and Geoinformatics. We have only limited teaching in permafrost, integrated in a few lectures and exercises through several courses, mainly at the MSc level. MSc students have the opportunity to take a field course in Greenland, which includes some teaching on permafrost, every second year. However, most students have limited exposure to topics related to permafrost. Considering this level of prior knowledge among my students and my academic expertise, I feel confident to supervise my students in most topics related to permafrost.

4. Describe how your home institution is currently working with internships (e.g. compulsory part of education, offered as courses, no internship opportunities offered, etc.). Please provide as much information as possible regarding the formal structure and possibilities for students: We offer internships as elective 15 ECTS courses for students at both the BSc and MSc levels. The internships within these courses need to be held at companies or organizations outside of the university. The student cannot be paid unless the internship is held in a country with legal requirements to pay the intern. The internship cannot be focused on research or teaching at another university. The internship elective courses have clearly described education plans, including learning outcomes and exam format. The university does not offer any help with matchmaking for students and potential internship hosts.

Students can also take elective courses outside of scheduled courses, in which case a special project is set up for the student(s) together with a supervisor.

Most students do not take any internship course during their studies, but at least a handful of students take these courses each year.

## <u>6. Provide a reflection on your role as a supervisor for interns in the PermaIntern program, in the context of your answers to questions 1-6 above:</u>

In my experience, the support needed from students during thesis projects is highly individual. During any longer project, students often need help with planning and structuring their work. In terms of external internship projects, they will need this support both from me as a supervisor and by the internship host. I therefore need to communicate and coordinate not only with the student, but also with the host, keeping in mind that my role is to guide the student through the course as a part of the study program. For this, I will have the course plan with the description of learning outcomes and exam requirements, as well as my Head of Studies at the department as a support. I will also ensure that the permafrost educational component is of high quality throughout the project and guide the students to relevant resources for learning about permafrost. This is especially important as most of my students have limited academic background in permafrost. With these two focus points, I will adapt my supervising strategies to student needs. When possible, I will try to integrate the supervision of the internship student with the supervision of other students who are also working with permafrost. Providing thesis students with a group context and exposing them to the work of fellow thesis students can help support and motivate students throughout their extended individual projects.

Participating as a supervisor in PermaIntern, I aim to provide the students with a unique educational experience that is not otherwise easily available through their study program. The program will strengthen the link between our educational programs and the working life in Arctic societies.