

Recruitment of practice students for 2023: Interspecific interactions between beavers, moose, and wolves

We have several possibilities for practice students, mostly during the field season, which starts end of April and lasts until October

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Background

Being ecosystem engineers, beavers (*Castor fiber*) can massively alter their habitat via cutting down trees, flooding areas by damming streams, and digging activities. These habitat modifications might create more deciduous vegetation along water bodies, which in turn might provide food for other species, such as moose (*Alces alces*). The moose is an important game species with economic value for landowners that sell hunting permits. As beavers and moose have a similar feeding ecology, we want to investigate if the two species are competing for resources (exploitative competition), or if beavers are facilitating moose by providing more food via flooding of streams. Additionally, we want to investigate seasonal habitat selection by wolves in relation to water bodies and beaver presence. Beavers might directly be predated by wolves, or their habitat modifications might affect the wolves' main prey (moose) either positively via facilitation or negatively via competition. The analytical parts of the project are covered by three Master students, but they will need help with fieldwork.

Research group and location

As a practice student you will be part of a research group (<https://www.innlarge.no/grensevelt>) with Master students, a field coordinator, and several practice students. You will stay at Campus Evenstad, a remote campus about 2.5 hours north of Oslo. Located in the forests of the eastern valley with many possibilities for weekend hiking/camping trips. The campus has an active student society with social activities and possibility to rent outdoor equipment for camping, canoeing, and biking. The project does not cover any living costs or housing.

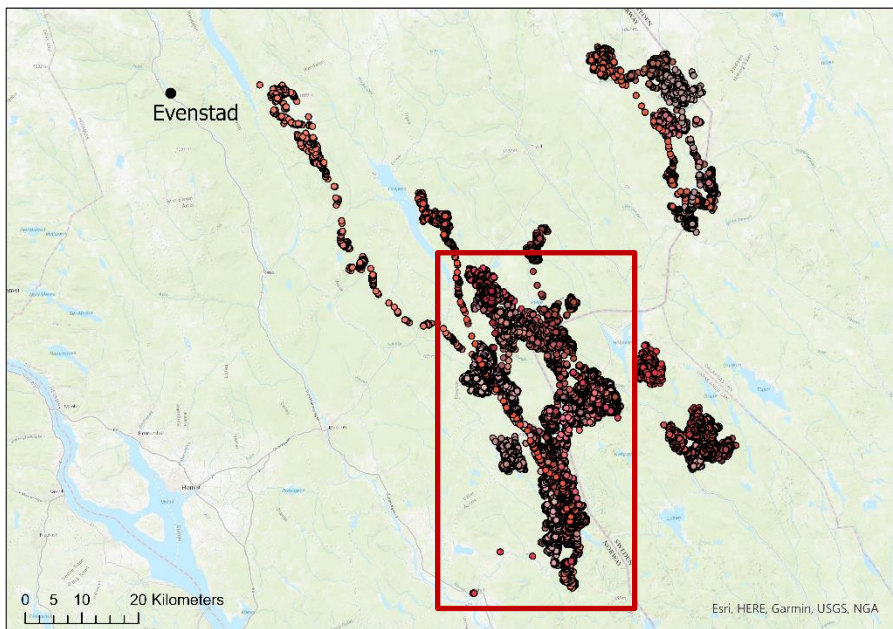


Figure 1: GPS positions of 38 moose in Finnskogen area (red square; showing data collected between March and August 2022).

Fieldwork

The practice student will help us with data collection in the field (April-June and/or August-October). Fieldwork will be conducted in Finnskogen area (Fig. 1), where we have GPS-collared moose and wolves. The main work will be to walk transects along water bodies to estimate beaver browsing and to use a kayak/canoe (or walk) to find beaver lodges and beaver dams. The aim of the fieldwork will be to monitor all major water bodies (rivers and lakes) within the home ranges of the GPS tagged moose and wolves to record active and

inactive beaver lodges, dams, and cut stems (as measure of beaver browsing). The fieldwork will require long hours in the field, walking in partly steep terrain with dense vegetation (requiring physical fitness), basic skills using a handheld GPS, and potentially canoeing/kayaking (previous experience is an advantage, but not necessary). A driving licence is an advantage.