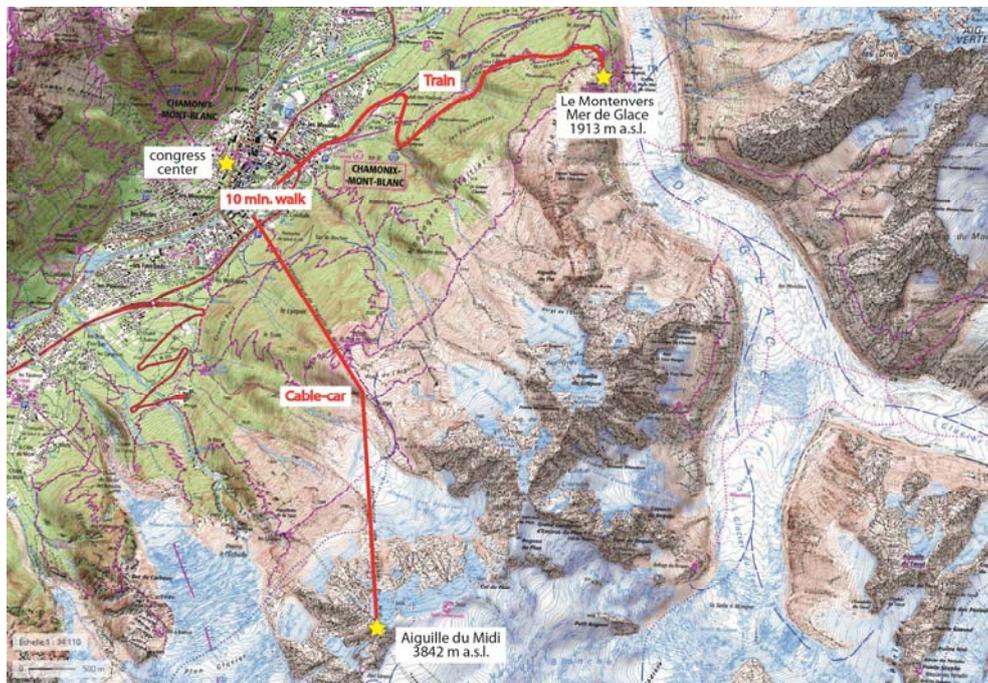




## **#1 - Local field trip**

### **Aiguille du Midi - Mer de Glace**

#### **(Chamonix)**



### **Aiguille du Midi**

Peaking at 3842 m a.s.l. above Chamonix, the Aiguille du Midi is one of the few high-elevated sites worldwide where rockwall permafrost is studied. All year long reachable by cable car (0.9 M tourists per year), rock temperature is monitored since 2005 by surface to 10-m-deep thermistors. This permanent network was completed during the last decade with AWS, automatic cameras for snow cover, ERT surveys, or extensometers for instance.

Combined with temperature sensors and geophysics surveys at other sites in the Mont Blanc massif, the Aiguille du Midi data are used to understand the rock temperature regime in the massif rockwalls, their current permafrost degradation, and its relationship with rockfall occurrence that has increased since the 1990s.

<https://www.montblancnaturalresort.com/en/aiguille-du-midi>



### **Mer de Glace**

Field trip participants will take the one-century old cogwheel train to access the Montenvers (1913 m a.s.l.) and admire the Mer de Glace – the largest French glacier (30 km<sup>2</sup>) – towered by the iconic Drus. The visit of its famous ice cave that needs to go down and up a staircase with 480 steps will give the opportunity to the participants to realize how much the shrinkage of the glacier has been dramatic since 1990! Finally, a visit to the Glaciorium will offer you scientific information about the glaciers in the Mont Blanc massif and their evolution.

<https://www.montblancnaturalresort.com/en/montenvers-mer-de-glace>



Ten groups with 20 participants each, supervised by a researcher, will be organized for each day of local fieldtrip #1 and will visit both sites. Half of the groups will start by the Aiguille du Midi, the other half by the Montenvers – Mer de Glace.

The course of the fieldtrip will be the following:

After a possible short wait at the departure station due to the high popularity of these sites in this season, a trip of 25 min. will bring you to the top of the Aiguille du Midi (cable car) or at the Montenvers (train).

At the Aiguille du Midi, you will spend 1h30 on the different terraces connected by elevator, galleries and footbridges, where you will be informed about the studies and monitoring carried on about rockwall permafrost, related rockfall frequency, and cold-based glacier monitoring. Of course, you will also have time to admire the tremendous landscape in the heart of the Mont Blanc massif! (Note that you will not have enough time to cue for the Step into the Void...)

At the Montenvers, you will admire the glacier tongue of the Mer de Glace and get information about the rock instabilities in the West face of the Drus since several decades. After a short trip with a small cable car, you will be able – if you wish – to go down to the glacier to visit its carved ice cave. Once climbed the 130-m relief through the very long stair, the cable car will bring you back to the Montenvers terrace, from where you could visit the nice, close Glaciorium.

After returning to Chamonix with the cable car from Aiguille du Midi or the train from the Montenvers, each group will walk for 15 min. across the city towards the departure station of the second site. Accessing it after a 25-min. trip, the group will visit its second site during 1h30 before going down to Chamonix in the afternoon.

*Even if the fieldtrip will take place in Summer, due to the high elevation, plan on appropriate equipment (warm shoes, thick jacket and pants, gloves, wool hat, sunglasses, suncream, drink water...).*