EUCOP5
CHAMONIX MONT-BLANC

27.06
or
29.07
2018

Local Excursion

The Dérochoir rock glacier and torrential risk of the Griaz-Arrandélys catchment

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Pacte

LOCATION

The Dérochoir rock glacier is located on the Mont-Blanc Massif (French side), above Les Houches, at 2 250 meters a.s.l.

ORGANIZERS

Philippe Schoeneich, Xavier Bodin and Marco Marcer.

UNIVERSITIES AND LABS

- Institute for Urban Planning and Alpine Geography, University Grenoble Alpes, France
- EDYTEM lab, CNRS/University Savoie Mont Blanc, France

DURATION

All day long, on the 27th OR 29th .

DESCRIPTION

Overlooking *Les Houches* city from about 1500m, the Dérochoir active rock glacier evacuates its material directly in the Arandelys ravines, tributary of the Griaz torrent (left bank of the Arve). The torrential activity of the watershed causes serious threat for the population downslope, and the national service de *Restauration des Terrains en Montagne* (RTM, ONF) is actively managing this risk since more than 120 years. Indeed, the Dérochoir area was subjected to a strong geomorphological crisis at the end of the 19th century, that led to build several civil engineering infrastructures.

Since 2009, the rock glacier is monitored by PACTE and EDYTEM (ground temperature, surface displacement) and its internal structure and geomorphological settings have been investigated in details, using geophysics, UAV. The upslope-downslope interactions and the particular at-risk context make this site of great interest for leading research on the responses of socio-ecosystems to global change.

Easily hiking along the ancient Mont-Blanc route, you will benefit, through this excursion, from an original panorama of natural risks in the Chamonix valley, including emerging hazards related to the destabilization of one of the rarest active rock glacier of the Mont Blanc massif.

CONTACT

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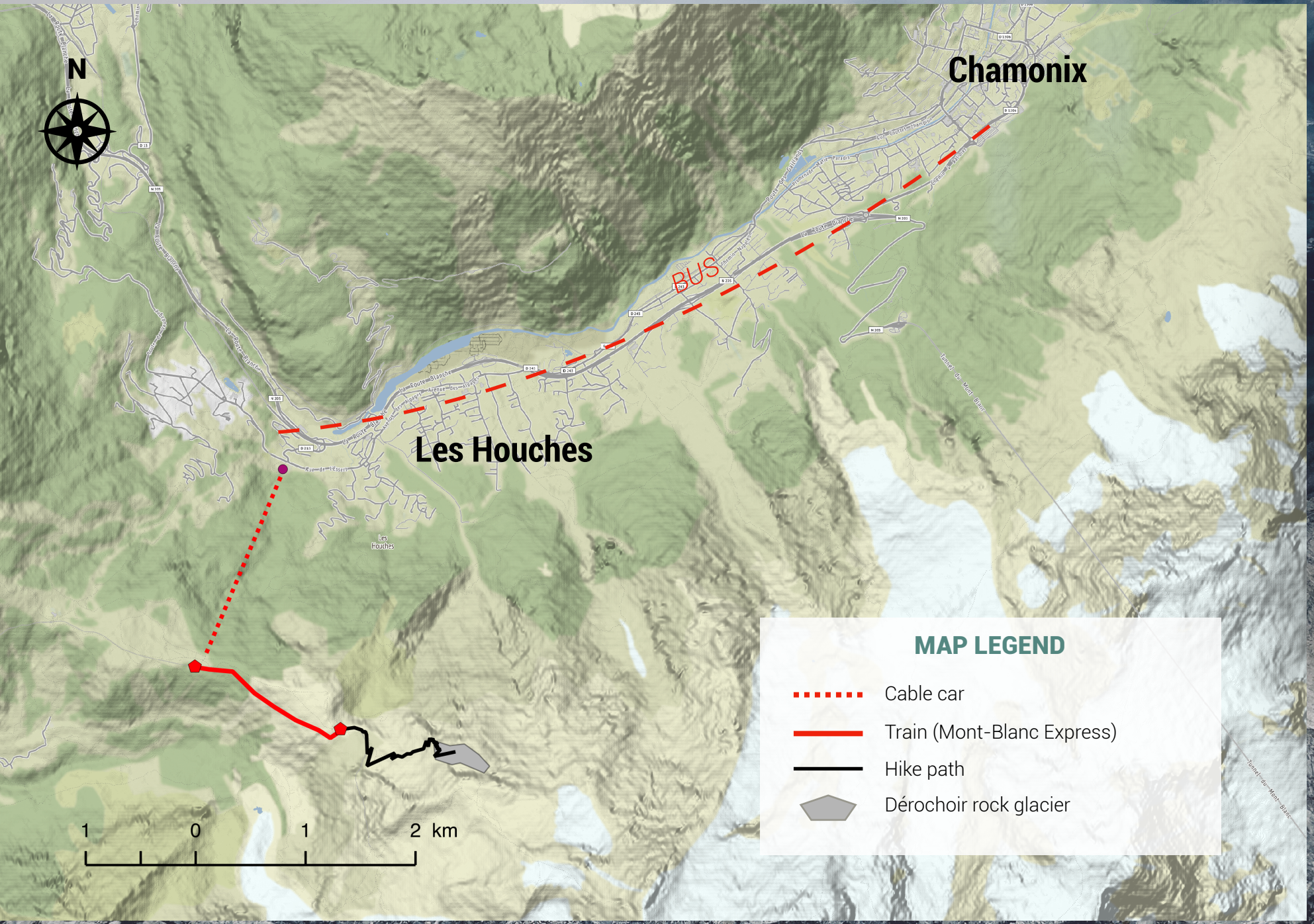
Location Plan



Dérochoir rock glacier access from Chamonix (OSM-Terrain map)

ORGANIZATION

Group information

Each group is composed of 15-20 persons and will be accompanied by a mountain guide.

Group 5 and 6 will have to walk 300 denivelation meters more to the cable car station.

DEPARTURES

	08:00	09:00	10:00
June 27th	Group 1	Group 3	*Group 5*
	Group 2	Group 4	*Group 6*
June 29th	Group 1	Group 3	
	Group 2	Group 4	

08:00AM to 10:00AM

Guided departures from *Chamonix* with the **city bus** to *Les Houches* (1000m a.s.l).

From *Les Houches* to *Bellevue* (1800m a.s.l) by **cable car**.

From *Bellevue* to the *Col du Mont Lachat* (2090m a.s.l.) with the **Mont-Blanc Express train**.

From the Col du Mont Lachat we will **walk** to the Dérochoir rock glacier by following a good mountain path up to 2550m a.s.l. (**450m height difference - about an hour ok walking**).

About an hour of scientific presentation on the site with Philippe Schoeneich, Xavier Bodin and Marco Marcer.

Back the same way to Chamonix, with additional walk from the path to the cable car station.

05:00PM maximum

General Informations

PROGRAMM

The Derochoir rock glacier is a small rock glacier, with a front overhanging the torrential basin of the Arrandellys/Rognes torrent. This torrent crosses the village of Les Houches, and caused several times damage due to overflowing of debris flows.

The overhanging rock glacier front feeds the upper basin of the torrent with material, so that the role of the rock glacier in the initiation of debris flows is questioned. In the years 1895-1900, a well documented crisis was initiated by increased rockfalls from the rock glacier front, and resulted in repeated debris flows. Reconstructed superficial displacements for the 20th century show very slow movements, showing that the crisis got to an end in the very early 1900's. Since the early 2000's however, the rock glacier shows again an acceleration of the movements.

The rock glacier is monitored since 2007 for superficial displacements and ground surface temperature. Geophysical measurements were performed too.

The traditional normal route to Mont Blanc crosses the rock glacier. The excursion will follow this path on the rock glacier. The various results will be presented along the path.

The itinerary offers good views on the Mont Blanc massif, as well as to the Bionnassay glacier basin.

Program adaptation

Due to the abundant snow fall this winter, the excursion program is subjected to adaptations, depending on the amount of snow remaining.

General Informations

What you need for hiking

- Backpack
- Good hiking shoes (no baskets!)
- Hiking socks
- Hiking gear : functional t-shirt *(both breathable and moisture- regulating),* fleece, suitable pair of pants (in case of hazardous weather). *Avoid extra-gear and prefer light ones.*
- Waterproof/windbreaker jacket
- Rain-gear *(poncho can drape over your backpack and save you expense of your waterproof jacket)*
- Water bottle or camel bag
- Cap, sunglasses, sunscreen
- Thin gloves and beanies

Optional

- Hiking poles
- Gaiters
- First aid kit and personnel medication
- Binoculars
- Walking sticks

Difficulty, health and fitness

The hike includes ca 450 m height difference uphill in a short distance, and ca 750 m downhill. We will climb up to 2550 m a.s.l. Groups will be accompanied by middle mountain guides.

For your own safety, please advise us in advance of any health particular conditions, such as asthma, diabetes, etc.