

Mt. Etna and Aeolian Arc active volcanoes (Stromboli, Vulcano and Lipari): geology, eruptive activity and volcanic hazards

Name, email and affiliation of the field trip leaders

Federico Lucchi | University of Bologna
Eugenio Nicotra | University of Calabria
Stefano Branca | INGV, Catania
Gianfilippo De Astis | INGV, Rome

Name of financially responsible person

Eugenio Nicotra | University of Calabria

Summary

This fieldtrip will focus on the geology and eruptive activity of Mt. Etna and Aeolian Arc volcanoes (Stromboli, Vulcano, Lipari), with a special focus on the evaluation and management of their volcanic hazards and risk in a highly-urbanized territory characterized by intense tourism exploitation. We will appreciate the incessant and rhythmic explosive activity of the summit craters of Stromboli and the Sciara del Fuoco collapse scar, the quiescent La Fossa cone on Vulcano characterized by intense fumarolic activity after its latest unrest phase and the deposits of its historical eruptions, the well-known Rocche Rosse obsidian lava flow and Mt. Pilato pumice cone relative to eruptions on Lipari during the Middle Ages, and various spectacular geological outcrops of the summit area of majestic Mt. Etna, and the products of its latest eruptive paroxysms.

Dates

22-28 June 2025

Start and end locality

Start locality: Catania, 22 June, meeting point at Catania airport. Departure of the transfer (bus) to the hotel in Zafferana Etnea at 3 pm.

End locality: Catania, 28 June, arrival at Catania airport in the early afternoon. Departure from Stromboli (hydrofoil) in the morning (depending on the expected timetable).

Further transfers (by bus and hydrofoil) during the fieldtrip organised centrally.

Programm (detailed per day)

22 June – Transfer from Catania airport (3 pm) to Zafferana Etnea, Introduction meeting
 23 June (all day)– Excursion to the southern side of the summit area of Mt. Etna
 24 June (all day)- Excursion to the northern side of the summit area of Mt. Etna
 25 June –Transfer to Lipari (morning), tour of Lipari island by boat (afternoon)
 26 June (all day) – Excursion to La Fossa cone and Vulcanello on Vulcano
 27 June – Transfer to Stromboli (morning), excursion to the viewpoint of the present-day eruptive activity (afternoon-evening)
 28 June – Departure from Stromboli (morning), arrival at Catania airport in the afternoon

Level of fitness

Low to medium-high level of difficulty depending on the different excursions (in cases alternative shorter routes could be possible depending on the various levels of physical preparation)

Required equipment

Hiking boots, rain jacket, lamp, helmet (if available)

Accommodation (name, type of rooms)

All the accommodation in double or triple rooms with half board (single use supplement to be paid by the applicants):

22-25 June (3 nights) – Airone Hotel, Zafferana Etnea (Catania)

25-27 June (2 nights) – Hotel La Filadelfia, Lipari

27-28 June (1 night) – Hotel Villaggio Stromboli, Stromboli

Number of participants

max 40

Expected costs (and what is included/excluded)

950 €

Including all transportation (from Catania airport [22 June] to Catania airport [28 June], accommodation with half board as well as lunches on 25 June in Lipari and 27 June in Stromboli. Any extras are up to the participants.

Flights to Catania and Catania to Geneva to be booked and paid individually.



Fig. 1: The summit of Mount Etna volcano as seen from the Pizzi De Neri observatory on the northern flank: the New South-East crater in the center, North-East crater to the right, the central craters (Bocca Nuova and Voragine) between them in the back. Picture credit: Federico Lucchi



Fig. 2: Left: The summit crater of the quiescent La Fossa cone on Vulcano with its fumarolic system along the northern rim. The islands of Lipari, Panarea and Stromboli are visible in the background. Right: View from Lipari (foreground) towards Vulcano (middle) and Sicily with Mount Etna volcano (back). The rhyolitic lava domes and pyroclastic products of the southern dome complex are exposed along the steep coastal cliff of Lipari. Picture credit: Federico Lucchi



Fig. 3: Left: Tourists observing the Strombolian activity of the summit craters of Stromboli at dawn. The viewpoint is located near to Semaforo Labronzo along the border of the Sciara del Fuoco collapse. Right: Overnight Strombolian eruption of the North-East crater of Stromboli. Picture credit: Eugenio Nicotra