

Post-conference field trip to the summit craters of Mount Etna

Friday, 10 July 2026

Scientific coordinators: Filippo Greco (INGV-OE), Marco Viccaro (UNICT)

Field trip logistically supported by: BUUM – Italian Volcanological Guides Team

Brief overview of Etna's summit area

Up to the end of the 19th century, the morpho-structural setting of Etna's summit area was dominated by a single large crater, known as the Central Crater, reaching an elevation of about 3270 m a.s.l. During the 20th century, this configuration underwent major changes with the formation in 1911 of a pit crater on the north-eastern flank of the summit cone, known as the North-East Crater. From the 1950s onward, frequent Strombolian activity at this site led to the growth of a prominent cone, which by the late 1990s reached an elevation of about 3330 m a.s.l.

The internal structure of the Central Crater further evolved starting in 1945 with the formation of the Voragine crater, and later in 1968 with another pit crater, the Bocca Nuova. Until the mid-1990s, Bocca Nuova was mainly characterized by subsidence of its crater floor, progressively widening the crater to a maximum diameter of over 350 m.

The most recent major change in the summit crater area began in 1971 with the formation of a new pit crater on the south-eastern flank of the summit cone, known as the South-East Crater. Since the early 21st century, this has become the most active of the four summit craters, with more than 200 explosive lava fountaining episodes (so-called paroxysms), which built a prominent volcanic cone directly overlooking the western wall of the Valle del Bove. During recent paroxysmal activity, the South-East Crater cone has experienced several collapse events that generated pyroclastic density currents confined to the summit area, the latest occurring on 2 June 2025. Following a series of intense lava fountains in the summer of 2024, the Voragine crater is currently the highest summit of Etna, reaching an elevation of 3400 m a.s.l.

During the ascent to the summit craters, a visit is planned to one of the INGV multiparametric monitoring stations located in the summit area. Along the route, participants will observe different types of pyroclastic deposits, particularly those related to recent eruptive activity. Finally, during the descent toward Piano delle Concazze, the itinerary will pass by the Pizzi Deneri area, where the INGV volcanological observatory is located, currently under renovation. The Pizzi Deneri ridge forms part of the rim of an ancient caldera, the Ellittico Caldera, formed between ~15,500 and 15,000 years ago following a series of Plinian eruptions.

Outline of the field trip

Pick-up at 07:00 by bus from Catania (exact meeting point to be defined). Arrival at Piano Provenzana for pre-departure briefing, equipment check, and group allocation with BUUM – Italian Volcanological Guides. Transfer by 4×4 vehicles to the summit area (~2800–2900 m a.s.l.). Visit to the summit craters. Return to Piano delle Concazze and descent by 4×4 vehicles to Piano Provenzana. Departure by bus from Piano Provenzana to Catania, with estimated arrival around 16:30.

Route characteristics

- Starting altitude: 1800 m a.s.l. (Piano Provenzana)
 - 4×4 transfer: ~9 km ascent (1800 → 2800–3000 m a.s.l.) and return
 - Elevation gain: +500 m hiking only
 - Duration: 4–5 hours hiking
 - Distance: 5–6 km hiking only
 - Terrain: unconsolidated volcanic ash, unstable and scoriaceous volcanic rocks, steep slopes
 - Summit conditions: presence of volcanic gases and rapidly changing weather conditions.
The field trip is strictly dependent on the volcano's status as defined by the Civil Protection Department and related municipal ordinances
-

Difficulty

Moderate to high

Cost per person

130 EUR

Included

- Scientific/technical guidance by university/INGV staff and certified volcanological guides (BUUM – GVI)
- Personal safety equipment (helmets)
- Trekking poles (if needed)
- High-altitude thermal jacket
- Buff/neck gaiter for protection from ash and volcanic gases
- Round-trip transport Catania/Etna
- 4×4 transport (Piano Provenzana ↔ summit area)
- Packed lunch (sandwich + water bottle)

Not included / required personal equipment

- High-top hiking boots (required).
- Mid-layers and a rain/windproof jacket (REQUIRED).
- Long hiking trousers (REQUIRED).
- A technical backpack with a capacity of at least 20–25 litres (or a sturdy backpack)(recommended).
- Technical mid-layers in softshell or merino wool (recommended).
- A 2- or 3-layer technical windproof jacket (recommended)
- Long socks, preferably technical (recommended)
- Gloves (recommended)
- Essential medications based on personal medical conditions.
- Additional water in your lunch pack, bringing your total to at least 1.5 litres.
- Sunscreen
- Lip balm
- Sunglasses
- Snacks

How to participate

Those interested in joining the field trip are invited to submit their expression of interest by 15 June 2026 to the following email address: segreteria@conferenzarittmann.it