

GUE PROJECT BRIEF - 2024

Phreatic is a non-profit organisation based in Cala Gonone (Sardinia, Italy); founded by a group of extreme environment explorers, scientists, and researchers. We started our operations in 2014, and are active in the Mediterranean basin. Our projects cover an ever-growing spectrum of scientific subjects such as environmental processes, geology speleology, marine biology, and the conservation of delicate ecosystems / marine caves.



<https://www.phreatic.org/>

We study a diversity of subjects, such as hypogene environments, groundwater resources, marine caves, and their integration with coastal environments. Projects include: Map the Gulf (traditional and digital cartography), cave photogrammetry (developing methodologies), citizen science weeks and more. We have an active social media and outreach campaign, with many of our projects featured also on GUEtv. Specific project updates include:

- **Mapping darkness 2.0: Grotta del Fico photogrammetry** – the goal is to continue capturing more of the cave's beauty through photogrammetry, this time aiming to extend their model to the cave entrance. However, the team faces a more challenging environment for constructing 3D models with cavern sections, dry chambers, and hydrogen sulfide. A prime example of how a team composed of experienced and new Cave1 divers can contribute to project resolution with tasks in their individual capacities.
- **Cala Luna** – cave surveys, drawing plan, profile and cross-sectional areas to add depth to Ariane's line
- **Su Gologone and Utopoia** – exploring and surveying some of the deepest caves in the wider area
- **Bue Marino Ecosystem characterization:** to document where and what kind of life forms inhabit this cave and to measure critical environmental factors like salinity and halocline layers. Over the course of the project week, we collected more than 30 water samples from three distinct layers and multiple locations within the cave. In addition, we gathered and samples and monitored the cave's fauna.



HOW TO BE PART OF THIS PROJECT / CONTACT

- Contact us at info@phreatic.org for the current project calendar, to join an existing project as a volunteer, or to propose your own project.

LOCATION: Cala Gonone, Sardinia, Italy

SPONSORS / PARTNERS: see below



- **Marine Genome Project – a continuation of previous years.** Deployed temperature sensors in Bue Marino, Isopod collection in Fico, Cala Luna and Bue Marino, and continuing eDNA collection and orthomosaic benthic characterisation surveys in all the caves in the area.
- **Bio-Speleology Sessions 2023-24 - Sa Conca e Locoli Cave System with Brussels University.** Several missions throughout the year featuring experienced divers (DPV / sump diving / sidemount and stage) support crews, collecting water samples and setting traps for bug collections.

ALL PROJECTS STATUS: ACTIVE. Check out Phreatic's project website to see project weeks throughout the year. Open to all levels and experiences of divers. More image below:

