

# PROJECTS - 2021

JOIN OUR CITIZEN SCIENCE INITIATIVES



## CAVE SURVEY AND 3D MODELING

Understanding caves and costal underwater environments requires **mapping** and **surveying**. By joining this project, you will learn and practice the use of both traditional techniques and new digital instruments to build digital cartography.

Surveying tools will include: **M-Nemo** and the new **SUEX Sinapsi** nose. This year, we will concentrate on the beautiful **Grotta del Fico** and multiple smaller systems, fascinating caves characterised by several vertical shafts, complex morphology with multiple ramifications and some sump.

**Minimum participation requirement** is Cave2 and some caves require Sidemount.

**Dates:** This project will be active during the full summer season and dates will be defined together with participants in order to host multiple sessions.

## CALA LUNA EXPLORATION

The maze of cave passages under the Supramonte plateau is still to be discovered and mapped; while the exploration of the furthest passages requires very advanced techniques due to restrictions and dry caving skills to explore the dry areas, **we need support divers** to allow smoother operations. Due to the extension of the explored passages, it is now more efficient to sleep into the cave to complete a reasonable amount of exploration and documentation goals. Lots of materials have to be transported (dry tubes, stages, speleo bags etc) and while participation to the project for exploration is only on invitation due to the nature of the site, we need help and support on multiple activities.

**Minimum participation requirement** is Cave2.

**Dates:** This project will be active during the full summer season and dates will be defined together with participants in order to host multiple sessions.

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## CAVE PHOTOGRAMMETRY

Join **Peter Brandt** for a 3D photogrammetry project of **Bel Torrente** cave! During this project, you will try out a new concept to measure the quality and accuracy of 3D modeling in a cave, in collaboration with a research group that developed a method to be tested and put into practice. It involves line-laying, survey, measurement and 3D capture. You will also learn new techniques to improve 3D alignment for big and challenging cave passages.

**Minimum participation requirement** Project is open for C1/C2/C2-DPV/C2-RB.

**Dates:** 2-6 August

## SHIPWRECKS PHOTOGRAMMETRY

Learn and practice the art of photogrammetry with the instructions and guidance of **John Kendall** on one of the two main wrecks of the Gulf of Orosei. The **Ugo Bassi** wreck, sunk by the English submarine HMS Safari during WWII, lies in pristine conditions at 80mt depth in an upright position. The **KT12** wreck is an armed German cargo ship “Krieg Transporte”, torpedoed by HMS Safari during World War II. It lies on the sea bottom in an upright position at 30mt depth.

**This project is open to:** JJ divers for Ugo Bassi and Fundamentals for KT12.

**Dates:** 5-10 September.

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## DIVING FOR ANTIBIOTICS

This interesting project reaches Cala Gonone from Scotland, under the guidance of **Marcus Rose** in collaboration with researchers from the Institute of Pharmacy and Biomedical Sciences at the University of Strathclyde. The main scope is to **search the marine biosphere for novel Actinobacteria**, and also to detect the presence of **micro plastics** in the water sample.

Together with Phreatic, this search will be performed also inside marine caves. Volunteer divers will have to collect samples of water and sediments, to be analyzed afterwards by the researchers. Some activities will require geo referencing and the use of Sinapsi Suex system.

**Minimum participation requirement:** Fundamentals to Cave, according to dive site.

**Dates:** 18-23 September.

Other projects are still in the pipeline and will be announced as soon as we will have full details and formal confirmation of institutional partnerships or collaborations.

During summer we will run multiple collateral activities, both meant to scout inland areas and to verify areas and springs which could be of interest for future projects.