

Oceano Azul Gorringe Expedition

Critical scientific discoveries mark conclusion of Oceano Azul Expedition to Gorringe Seamount

- A scientific expedition to the Gorringe Seamount, the tallest mountain in Western Europe, was conducted from September 7 to 28 to enhance understanding and protection of Portugal's natural heritage.
- The expedition identified priority habitats for conservation, including marine forests and rocky reefs. Observation also revealed a notable and rare concentration of electric rays, alongside a concerning absence of large predators and commercially valuable species.
- The data gathered will play a pivotal role in defining protection measures for this vital marine conservation area in Portugal.

The scientific expedition to the Gorringe Seamount, the tallest mountain in Western Europe, concluded today, September 28, offering valuable insights into previously unexplored areas containing **priority species and habitats for conservation**, such as coral gardens and thriving marine forests – true **biodiversity oases**.

The expedition also revealed a **rare concentration of electric rays**, or torpedo rays. Although the reason for this aggregation remains unclear, all observed individuals were female, with many found to be pregnant, suggesting the seamount plays serves a **crucial role in the species' reproduction and survival**. A **concerning absence of large predators**, such as sharks, **and other commercially valuable species** was also noted.

Initial findings from three weeks of scientific research **documented at least 200 species, over 40 of which had not been previously recorded in the region**. These included observations of 12 seabird species, at least seven cetacean species, 55 species of algae, 12 coral species, 36 species of fish, and 523 types of invertebrates.



Noteworthy sightings included the common bottlenose dolphin and the loggerhead sea turtle, both threatened species. The area is also vital for other marine mammals, such as the Atlantic spotted dolphin. Additionally, three species of beaked whales – rare and difficult to study – were observed near the seamount.

This expedition will support the development of conservation and management measures for this oceanic oasis. A scientific report and a documentary showcasing the richness of this underwater heritage will be produced using the collected data and footage.

Located 200 kilometres southwest of *Ponta de Sagres* in mainland Portugal, the seamount spans 220 kilometres in length and 80 kilometres in width. Situated within Portugal's Exclusive Economic Zone (EEZ), it rises approximately 5.000 metres, making it the **tallest mountain in Western Europe** – higher than Mont Blanc in the Alps. The expedition, conducted from September 7 to 28, took place aboard the historic **vessel *Santa Maria Manuela*** and two catamarans, the NRP D. Carlos I vessel from the Portuguese Navy Hydrographic Institute, and **28 national and international scientists**. The research vessel *Mário Ruivo* from the Portuguese Institute for the Sea and Atmosphere (IPMA) also joined the effort, having recently conducted biological, geological, and oceanographic studies of the seamount.

The expedition was led by Oceano Azul Foundation, Oceanário de Lisboa, the ICNF – Institute for Nature Conservation and Forests, and the Portuguese Navy. Institutional support was provided by the Portuguese Government through the Ministry of Environment and Energy and the Environmental Fund, the National Maritime Authority, the Santa Maria Manuela, the international organisation Oceana, National Geographic Pristine Seas, and the Waitt Institute. Fundamental partnerships were established with national and international scientific institutions, including the Hydrographic Institute, IPMA - Portuguese Institute for the Sea and Atmosphere, CCMAR at the University of Algarve, CESAM at the University of Aveiro, CIBIO and CIIMAR at the University of Porto, MARE – Polytechnic of Leiria, Okeanos at the University of the Azores, SPEA - Portuguese Society for the Study of Birds, AIMM - Marine Environment Research Association, Vasco da Gama Aquarium, Moss Landing Marine



Laboratories at San Jose State University in California, the Marine Futures Lab at the University of Western Australia, and the Laboratory of Applied Bioacoustics at the Polytechnic University of Catalonia.

Among the key highlights of this expedition are the discoveries underscoring the uniqueness of this marine life oasis in Portugal. Findings include the **identification of new animal and algal forests, high species diversity, and the near absence of invasive species** prevalent on the mainland and islands. Many rare and threatened species were documented, including marine turtles, marine mammals such as whales and dolphins, and crustaceans like the spiny lobster). Additionally, at least 40 species previously unrecorded in the Goringe Seamount were documented.

This expedition represents the largest scientific effort focused on detailed mapping of species occurrences, many of which hold conservation status. The notable absence of large predators, such as sharks, and commercially valuable species was also emphasised. Samples collected will be analysed by laboratories and specialists across different animal and plant groups, with numerous new records for the seamount anticipated. Further studies in biology, ecology, and genetics will be conducted by the scientific partners involved.

The scientific expedition was led by Emanuel Gonçalves, Scientific Coordinator and Board Member of Oceano Azul Foundation, and Henrique Cabral, biologist and researcher at the *Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement (INRAE)* in France.

Various methods were employed, including scientific diving and advanced technologies such as drones, baited remote underwater video systems (BRUVs and video landers) for megafauna studies, and a remotely operated vehicle (ROV). These tools facilitated access to previously unexplored areas. Additionally, bioacoustics research and seabed mapping were conducted in collaboration with the Hydrographic Institute and the Portuguese Institute for the Sea and Atmosphere (IPMA).



About Oceano Azul Foundation

Oceano Azul Foundation is an international foundation based in Portugal, established in 2017. Operating under the motto ***From the ocean's point of view***, its mission is to contribute to a healthy and productive ocean for the benefit of all life on the planet. Guided by science, the Foundation works to **protect, develop, and enhance Blue Natural Capital**, focusing on key areas such as **Ocean Conservation, International Ocean Advocacy**, and the **Blue Economy**. The Foundation also prioritises Ocean Literacy and Education and empowers civil society. Its change model enables the development of projects centred on Marine Protected Areas and sustainable fisheries while also advising governments and decision-makers to advance the international ocean agenda, working with other foundations, civil society organisations, the UN, and the EU. The Foundation also runs communication campaigns to amplify its impact by raising awareness of the importance of protecting and restoring the ocean.

About the Oceanário de Lisboa

Recognised three times as "the best aquarium in the world" by Tripadvisor's Travellers' Choice, the Lisbon Oceanarium is a world-renowned public aquarium, a place that brings the ocean into the city with nearly 500 marine species inhabiting it. The Oceanarium's mission is to inspire visitors to learn more about the ocean, raising awareness of their individual responsibility in conserving our natural heritage by encouraging behavioural change towards a more sustainable society. The Oceanarium engages in educational activities, collaborates on scientific research and marine biodiversity conservation projects, and promotes the sustainable development of the ocean.

About ICNF

The Institute for Nature Conservation and Forests (ICNF) is a public body under the indirect administration of the State. It serves as the National Authority for Nature Conservation and the National Forestry Authority. ICNF manages the country's natural and forestry heritage, involving territorial development stakeholders in conservation measures and forest management actions.

About the Portuguese Navy

The Portuguese Navy is a branch of the Armed Forces with administrative autonomy, integrated into the State Administration through the Ministry of National Defence.

Its mission is "to promote and protect Portugal's interests in and through the sea" via three key functions related to Defence, Security and Authority, and Development, enabling Portugal to ensure the free, sustainable, and equitable use of the sea.