Society for the Study of Cetaceans in the Canary Archipelago (SECAC)

Canary Islands Cetacean Research Centre (CICC)

Cetacean Biological Reference Collection of Macaronesia (CBRCM)

# THESIS, DISSERTATION AND REPORT WRITING PROGRAMME




Lanzarote, Canary Islands, Spain

RESEARCH LEARN CONSERVE

# INDEX

Who are we? .....3

What does the training programme offer? .....4

What is included in the programme? .....5

Scientific expedition at sea .....6

Why is it a unique experience? .....7

Our student's experience .....8

About Lanzarote Island.....10

What are the dates? .....11

What is the financial contribution? .....11

How can I get involved? .....11

Contact.....11

# Who are we?



**T he Society for the Study of the Cetaceans in the Canary Archipelago (SECAC)** is a scientific NGO founded in 1993 (Canary Islands Association registration number G1/S1/8184-93/L). The aims of this organisation are to promote research, conservation, and the dissemination of cetaceans in the Canary Islands. SECAC manages the **Canary Islands Cetacean Research Centre (CICC),** located in Arrecife, Lanzarote Island. SECAC's scientific research activities focus on monitoring the structure and dynamics of cetacean communities in the Canary Islands, as well as obtaining biological information from stranded cetaceans. This work is behind the development of the **Biological Reference Collection of Cetaceans of Macaronesia (CBRCM),** which the organisation oversees. SECAC was co-founder of the Spanish Cetacean Society (SEC) in 1999, and the Cetacean Museum of the Canary Islands (MCC) between 2005 and 2011. SECAC has conducted 115,000 km of marine surveys in the Canary Islands, made more than 5,000 sightings in dedicated cetacean surveys and participated in the study of more than 1,000 whales and dolphins stranded in the islands. SECAC actively collaborates with other national and international scientists and research centres. If you want to know more about SECAC visit our website: www.cetaceos.org or our social networks on Facebook (SECAC) and Instagram.

## What does the training programme offer?





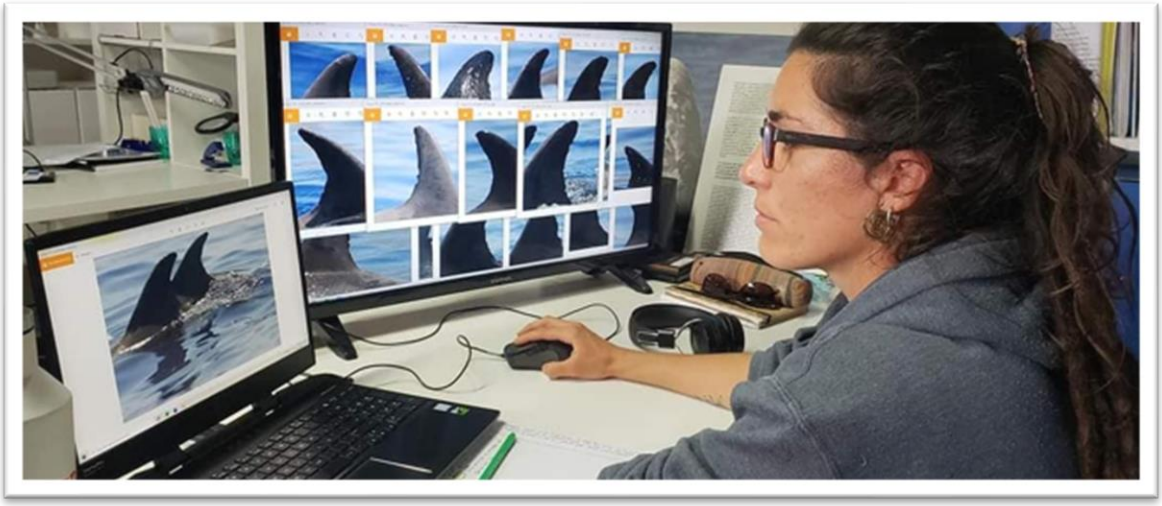
SECAC's training programme offers opportunities for **interested people (students, recent graduates, and young researchers in biology, veterinary science, and related fields) the opportunity to learn first-hand about the world of cetacean research and conservation**. Participants will work hand in hand with researchers at all stages, from data collection to data analysis, including outings to sea within the framework of our CETOC program (https://www.cetaceos.org/cetoc/). It is a unique opportunity to gain hands-on experience alongside marine mammals' experts in a privileged location such as the island of Lanzarote and its waters. The languages spoken during the training and internship are Spanish and English (it depends on the work group). The working place will be the **Canary Islands Cetacean Research Centre (CICC)** of SECAC in Arrecife, Lanzarote. The scientific expeditions will take place on the waters of Lanzarote and Fuerteventura, which are part of the EU marine protected area of the Natura 2000 Network: "LIC Marine Area of the East and South of Lanzarote and Fuerteventura".





**The waters of the Canary Islands are an ideal laboratory for the study of cetaceans, with 31 listed species.**

# What is included in the programme?



The programme offers highly educational training **that includes courses, theoretical and practical workshops, field research and laboratory work at our Canary Islands Cetacean Research Centre (CICC)**, specifically:

- A training programme of lectures on cetacean biology, ecology, and research methods (field data collection, photo-identification, acoustic recording, GIS, basic analytical techniques, data processing, study and biological sampling of stranded cetaceans, management of the biological collection of cetaceans, etc.).
- Identification of the different species of cetaceans in the Canary Islands and the Macaronesia sub-region (31 species belonging to 7 families).
- Scientific expeditions carried out at sea to monitor cetacean populations (when sea conditions permit) using photo-ID, a drone, and hydrophones. These expeditions are part of our CETOC programme.
- Collection of biological information and samples from stranded whales and dolphins.
- Preparation, cleaning and cataloguing of osteological material (skulls and skeletons) from stranded cetaceans is held at the Biological Reference Collection of Cetaceans of Macaronesia (CBRCM).
- Biological analyses such as the study of stomach contents, parasites, etc.

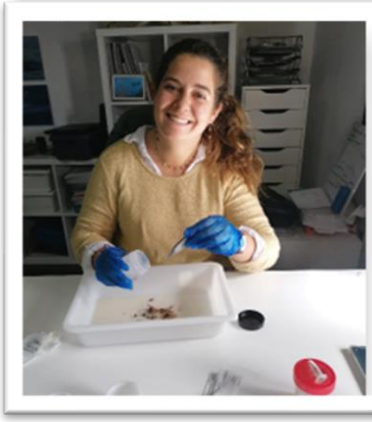
**The training programme is structured according to the level of knowledge, needs and length of stay of each participant.**

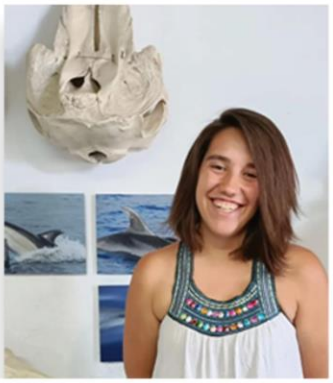
# Scientific expedition at sea



SECAC is currently carrying out a long-term study of the cetacean population in the waters of the east and south of Lanzarote-Fuerteventura within the CETOC programme. Thirty-one species of cetaceans can be found in the area, especially deep diving species such as pilot whales, and 3 species of sperm whales (*Sperm whale, Dwarf* and *Pygmy sperm whale)* and beaked whales. Of which at least four: Risso's dolphin (*Grampus griseus*), Cuvier's beaked whale (*Ziphius cavirostris*), Blainville's beaked whale (*Mesoplodon densirostris*) and probably Gervais's beaked whale (*Mesoplodon europaeus*) have resident populations that SECAC has been studying for more than two decades. This information is crucial for the correct management of these species and their habitat. The work methodology includes **marine surveys to determine the distribution, abundance, behaviour, habitat use, movements, social structure, and conservation status of these populations.** The navigation will be carried out with **a 5.5 m semi-rigid boat**. Due to the nature of the research; the scientific expeditions will only take place on days with excellent sea conditions (Beaufort 0-1).

## Why is it a unique experience?





**SECAC has been working with cetaceans since 1993, covering multiple levels of scientific research (stranding network, photo-identification, bio-acoustic, scientific expeditions at sea, etc.)**

The scientific director of the project is Vidal Martín. Vidal is a pioneer in the study of cetaceans in the Canary Islands and has more than 30 years of experience in this field. He is the founder of SECAC and has directed and participated at different research, conservation, and dissemination projects on the cetaceans of the Canary Archipelago. These projects were conducted at different levels: regional, national, european and international. He is author and co-author of several scientific publications in prestigious journals such as Nature, Scientific Reports, PeerJ, PloS ONE, Frontiers in Marine Sciences, Global Ecology and Conservation, Marine Mammal Science, Journal of Cetacean Research, Aquatic Mammals, among others. Furthermore, he has participated in the description of a new cetacean species: Ramari's beaked whale, *Mesoplodon eueu*, published in Procedings of the Royal Society (B) in 2021. He has more than 120 scientific communications and presentations at national and international conferences. His efforts are behind the creation of one of the most important biological collections of cetaceans in the Macaronesian sub-region, under the oversight of SECAC.

Vidal Martín was co-founder and first president of the Spanish Cetacean Society (SEC). He is a winner of the *Jameo de Oro 2023* award for sustainability by the Cabildo de Fuerteventura (Island Council), the Severo Ochoa 2014 science award from the I.E.S. Agustin Espinosa, the 2007 César Manrique Environment Award from the Canary Islands Government and the 2004 Young Promise Award from the National Association of Environmental Sciences. In recent years, the SECAC has opened its doors to university students (biology, veterinary, marine sciences and related) so that they can develop their TFG, TFM and scientific reports. The main research topics are photo-identification with habitat studies, cetacean trophic ecology, and bioacoustics. The SECAC has published more than 40 scientific publications, 120 conference presentations and has tutored doctoral theses, as well as several dissertations, and scientific reports.

# Our Student's experience

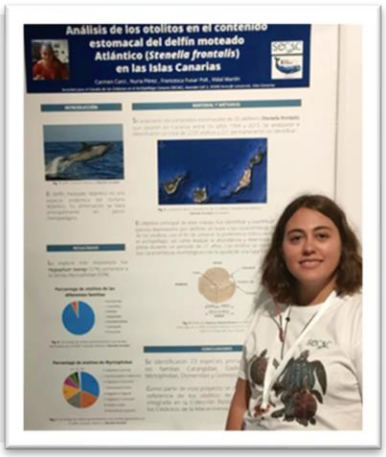
**The SECAC welcomes 20 students, recent graduates and young researchers each year to carry out scientific work. These have resulted in posters presented at national and international conferences.**

In recent years, the SECAC has opened its doors to university students (biology, veterinary, marine sciences and related) so that they can develop their TFG, TFM and scientific reports. The main research topics are photo-identification with habitat studies, cetacean trophic ecology and bioacoustic. The SECAC has produced more than 40 scientific publications, 120 presentations at conferences and has tutored 4 doctoral theses, as well as several TFG, TFM and scientific reports, of which the following stand out:

**Eric Cruz** is a veterinary student from Mexico. He has developed his Final Degree Project cataloguing the parasites of stranded cetaceans from 1980 to the present day. He has successively analysed stomach nematodes, found in 30 species of cetaceans. He is currently writing his thesis a er five months of work at SECAC in 2023.



**Carmen Carci** is a student of Biology at Universitat de Vic, UVic - UCC. She has worked on the trophic ecology of *Stenella frontalis*. Carrying out her internship and Final Degree Project "Analysis of otoliths in the stomach contents of the Atlantic spotted dolphin (*Stenella frontalis*) in the Canary Islands". This study has been accepted and presented at the XIII Congress SEC 2022 (Spanish Cetacean Society).



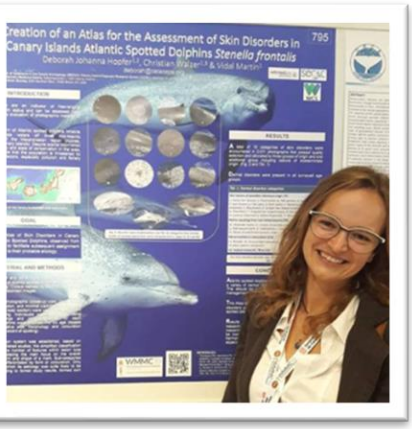
**Gaia Frau** is a master's student in Biology at the University of Cagliari (UNICA). She completed the Erasmus programme for 4 months. Her work is focused on the trophic ecology of small dolphins and especially of the rough-toothed dolphin. Analysing the samples belonging to the Cetacean Biological Reference Collection on of Macaronesia (CBRCM). This species is very li le known worldwide and SECAC is working on several scientific publications. This work and future analyses will allow a notable advance in the knowledge of the biology of the species.



Agathe Poignant has been studying Marine Biology at the University of La Rochelle. She completed her internship at SECAC, focusing on identifying the main taxonomic groups of cephalopods found in the stomach contents of pygmy sperm whales, with a focus on the species' trophic ecology and contributing to the improvement of the Macaronesian Cetacean Biological Reference Collection. The report is entitled: *"Détermination des espèces de céphalopodes ingérées par l'analyse des becs présents dans le contenu stomacal de 6 individus de cachalots pygmées (Kogia breviceps)"*.

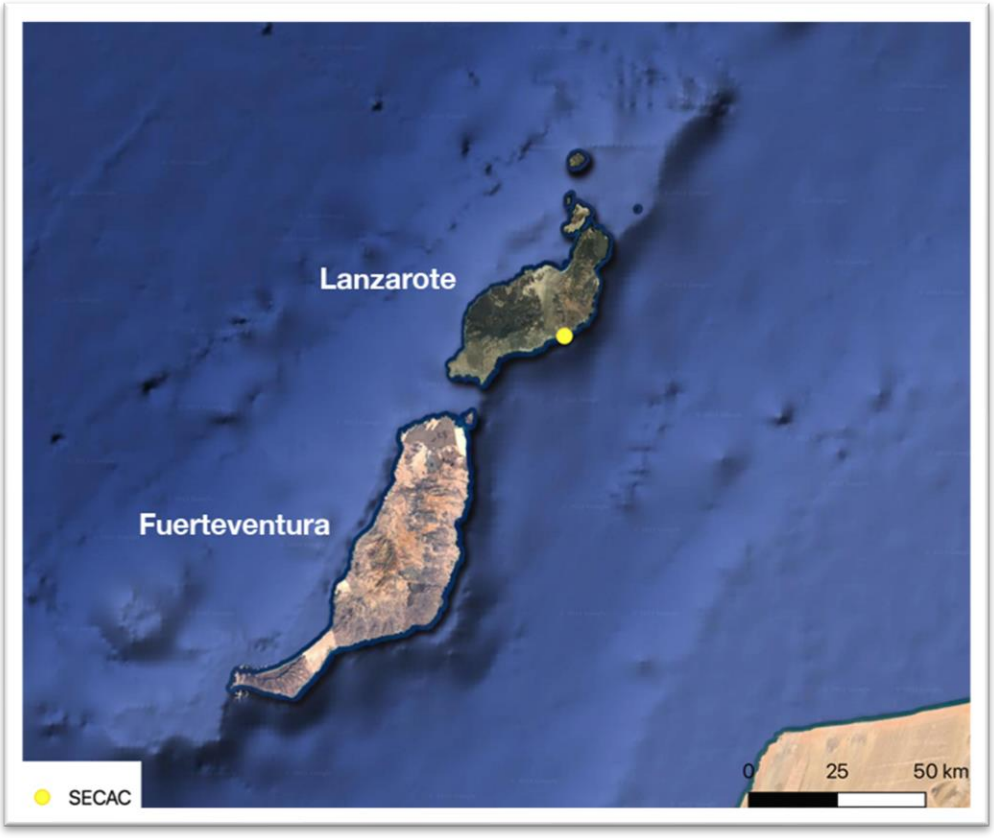


**Deborah Johanna** Hopfer is a veterinary student at the Veterinary University of Vienna (Vetmeduni). She did her final thesis on skin disorders in the Atlantic spotted dolphins. This work, "Creation of an Atlas for the Assessment of Skin Disorders in Canary Islands Atlantic Spotted Dolphins *Stenella frontalis*" was accepted at the World Marine Mammal Conference (WMMC'19).



# About Lanzarote Island

Lanzarote is one of the eight Canary Islands. It has an area of 845.94 km making it the fourth-largest island in the archipelago. It's a unique island with a volcanic origin and a beautiful landscape. The last historical eruption was in Timanfaya (in the south of the island) during a period between 1730 and 1736, giving rise to one of the largest lava fields in the world in terms of extension. The island is approximately 15 million years old and, due to its special characteristics, was classified by UNESCO "Geopark of Lanzarote and Chinijo Archipelago" (www.geoparquelanzarote.org). The landscape of this enclave is one of the most beautiful in the Canary Islands. Lanzarote was declared a Biosphere Reserve by UNESCO 25 years ago for its exceptional natural values and the unique relationship between its inhabitants and nature (www.lanzarotebiosfera.org). Its waters are protected by the European Union's Natura 2000 Network (SCIs, SPAs and SACs). The Marine Protected Area (MPA) is a Site of Community Importance (LIC*): "Espacio Marino del Oriente y Sur de Lanzarote- Fuerteventura"* (ESZZ15002) for its rich marine biodiversity and the presence of cetaceans, marine turtles, and seabirds. Lanzarote is an ideal island for those who enjoy nature and tranquillity, spectacular landscapes, hiking, diving, snorkelling and water activities. The island also offers a wide range of leisure and cultural activities.



# Participation Fees and How to Apply

To participate in our scientific training programme, please complete the Application Form. At the end of the form, you will find detailed information about the participation fees and programme conditions.
If you have any questions or need further information, please contact us at:

secaclanzarote@gmail.com