



Franja Marina Teno-Rasca

Exploring the potential for Europe's first
Whale Heritage Site in Tenerife





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Executive Summary

Whale Heritage Sites are a global accreditation that recognises outstanding destinations for responsible and sustainable whale and dolphin watching. They provide the travel industry with a clear marker to identify and support sustainable practice, and create a platform for communities to engage with marine culture, heritage and biodiversity. Whale Heritage Sites give tourists a transparent and easy way to select responsible whale and dolphin watching holiday destinations, encouraging them to experience these incredible animals in their natural habitat, in an authentic and respectful way.

Franja Marina Teno-Rasca, Tenerife, is a very strong candidate to become Europe's first Whale Heritage Site. Its unique resident population of pilot whales live alongside a high diversity of other cetaceans (whales, dolphins or porpoises). They inhabit a designated Special Area of Conservation (SAC), with a coastline that hosts millions of tourists every year – many of whom wish to see these majestic marine mammals in the wild. There are 28 cetacean species to be found in the island's waters – most migrant or seasonal – but some resident, including short-finned pilot whales, sperm whales and bottlenose dolphins, ensuring a year-round whale and dolphin-watching season.

Image credit: Rolanas Valionis / Pixabay



Tenerife's whale and dolphin watching industry is already one of the largest and most famous in the world, estimated to directly generate €42 million revenue annually from 1.4 million tourists. After seeing a rapid rise in recent years, there is now a recognised need to cap that growth, continue to improve standards, and encourage further collaboration between operators.

A diverse range of engaged stakeholders are in place to support this process, including government departments, NGOs and scientists. There are also a range of exciting opportunities to further involve


Whale Heritage Sites give tourists a transparent and easy way to select responsible whale and dolphin watching holiday destinations, encouraging them to experience these incredible animals in their natural habitat, in an authentic and respectful way.



cetaceans in the cultural fabric of the proposed Whale Heritage Site. With some creative thinking, it's possible to engage local people and visitors with events, art, music, science and education, all at minimal cost.

While there is some work to do, it is clear Franja Marina Teno-Rasca, Tenerife has great potential to become a world class responsible whale and dolphin watching destination – and Europe's first and leading Whale Heritage Site. Resident pods of two species of dolphin – short-finned pilot whale (a large dolphin species) and common bottlenose dolphin – ensure fantastic opportunities to see them in the wild all year round. There are several outstanding elements in the proposed Whale Heritage Site that make it an excellent candidate for full certification. These include, but are not limited to:

1. Clear evidence of a unique resident population of short-finned pilot whales with uniquely described behaviours.
2. Site provides habitat for a very high diversity of cetaceans, including several species of dolphin, for all or some of the year, or as an important migratory route.
3. The Tenerife community includes a diverse range of stakeholders interested in and working alongside cetaceans. There is clear pride and a sense of connection between local residents, businesses, academics, and NGOs with regard to cetaceans.
4. The formal protection of marine ecosystems already exists through the designation of two SACs within the proposed Whale Heritage Site.
5. There are efforts to ensure that interactions with whales are informed by long-term research and researchers.
6. There is a strong legislative framework protecting cetaceans in Tenerife and more widely in Spain.
7. Finally, there is clear 'heritage' in that Tenerife has been globally recognised as a significant whale 'destination' for more than three decades.



“Whale Heritage Site status would provide us with a strong tool to preserve our rich cetacean diversity and habitat; to embrace economic, social, and environmental benefits for our local communities; and to share this wonder with the world.”

- Mercedes Reyes, Whale Wise Eco Tours



Crédito de la imagen: Dylan Walker

Franja Marina Teno-Rasca

Resumen Ejecutivo

Whale Heritage Sites (WHS) es una acreditación internacional que reconoce a destinos sobresalientes para la observación responsable y sostenible de ballenas y delfines. Esta acreditación proporciona a la industria del turismo un claro indicador para identificar y apoyar prácticas sostenibles, además de crear una plataforma para que las comunidades se involucren con la cultura, el patrimonio y la biodiversidad marina. Los WHS brindan a los turistas una forma transparente y fácil de seleccionar destinos turísticos para observar ballenas y delfines de manera responsable, alentándolos a ver estos increíbles animales en su hábitat natural, de una manera auténtica y respetuosa.

La Franja marina Teno-Rasca, Tenerife es un excelente candidato para convertirse en el primer WHS de Europa. Su población residente de calderones es única y comparte estas aguas con una gran diversidad de otros cetáceos (ballenas, delfines o marsopas). Estos cetáceos habitan en una área que ha sido designada como Zona Especial de Conservación (ZEC), con una costa que recibe a millones de turistas cada año, muchos de los cuales desean ver estos majestuosos mamíferos marinos en su hábitat natural. Hay 28 especies de cetáceos en las aguas de la isla,

la mayoría son migratorios o estacionales, pero algunos son residentes como los calderones y los delfines mulares. Esto asegura que la temporada de observación de ballenas y delfines en esta zona dure todo el año.

La industria de observación de ballenas y delfines en Tenerife ya es una de las más grandes y famosas del mundo. Se estima que genera directamente €42 millones de ingresos anuales, provenientes de 1,4 millones de turistas. Después de observar el rápido aumento de esta industria en los últimos años, ahora se reconoce la necesidad de limitar ese crecimiento, de continuar mejorando los estándares y fomentar una mayor colaboración entre los operadores.

Existe una amplia gama de actores interesados e involucrados para apoyar este proceso, incluyendo entidades gubernamentales, ONG y científicos. También hay una variedad de atractivas oportunidades para involucrar aún más a los cetáceos en el tejido cultural del WHS propuesto. Con pensamiento creativo, es posible involucrar a las personas locales y a los visitantes a través de eventos, arte, música, ciencia y educación, todo a un costo mínimo.

Si bien hay mucho trabajo por hacer, está claro que Franja marina Teno-Rasca, Tenerife tiene un gran potencial para convertirse en un destino de clase mundial para la observación responsable de ballenas y delfines, y en el primer WHS de Europa. Las poblaciones residentes de las dos especies de delfines, el calderón tropical (una especie de delfín grande) y el delfín mular, aseguran fantásticas oportunidades para verlos en su hábitat natural durante todo el año.

Hay varios elementos sobresalientes que convierten al WHS propuesto en un excelente candidato para obtener la acreditación. Estos incluyen, entre otros:

1. Esta demostrada la existencia de una población residente de calderón tropical que es única, y que muestra también comportamientos únicos.
2. El sitio proporciona un hábitat para una gran diversidad de cetáceos, incluidas varias especies de delfines, durante todo el año o parte de él, siendo una ruta migratoria importante.
3. La comunidad local de Tenerife cuenta con un diverso grupo de actores interesados en y trabajando por los cetáceos. Existe un claro orgullo y un sentido de conexión entre los residentes locales, las empresas, los académicos y las ONG en relación a los cetáceos.
4. La protección oficial de los ecosistemas marinos ya existe a través de la designación de dos Zonas Especiales de Conservación (ZEC) dentro del WHS propuesto.
5. Existen esfuerzos para asegurar que las interacciones con las ballenas sean documentadas por investigadores e investigaciones de largo plazo.
6. Existe un marco legislativo sólido que protege a los cetáceos en Tenerife y de manera general en España.
7. Finalmente, existe un claro “patrimonio” donde Tenerife ha sido reconocido mundialmente como un “destino” importante ligado a las ballenas por más de tres décadas.



Image credit: analogicus / Pixabay

Los WHS brindan a los turistas una forma transparente y fácil de seleccionar destinos turísticos para observar ballenas y delfines de manera responsable, alentándolos a ver estos increíbles animales en su hábitat natural, de una manera auténtica y respetuosa.



Introduction

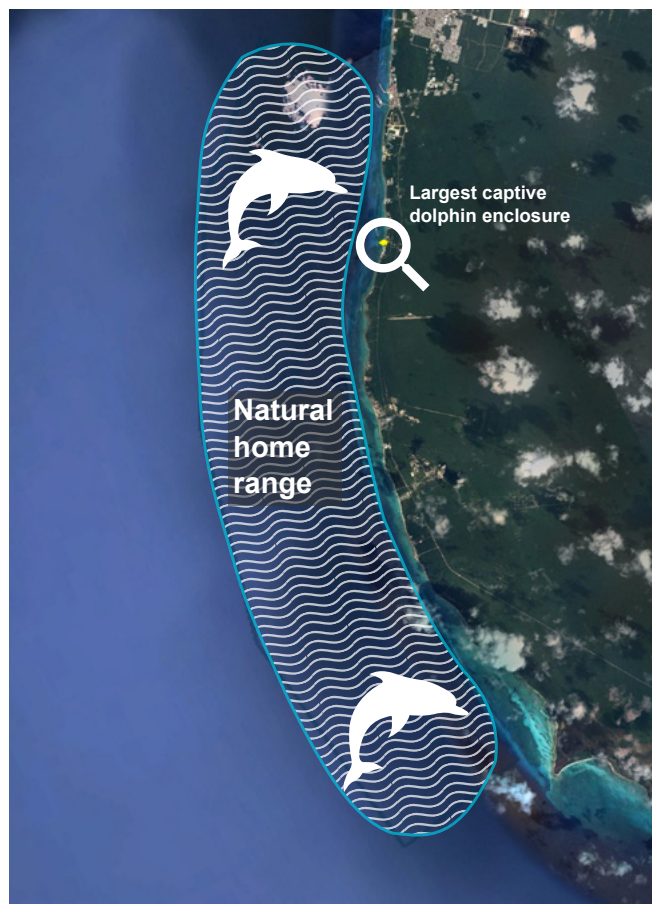
The last 50 years has seen an unprecedented interest in cetaceans (whales, dolphins and porpoises), leading to tourism activities on an expanding and global scale. Watching cetaceans in the wild is highly valuable to economies, with an estimated annual worth of more than US\$2 billion. More than 3,300 operators run trips to see cetaceans in the wild across 119 countries and territories, with more than 13 million people participating every year¹. The cetacean tourism industry also includes the viewing of captive whales, dolphins and porpoises in man-made facilities. There are 336 dolphin entertainment venues – known as dolphinariums – in 54 countries across the world, holding 3,029 captive dolphins that have either been bred or caught from the wild.²

But amid mounting evidence that the welfare of cetaceans is compromised in captivity, the tide of public opinion has been turning against dolphinariums. They are facing breeding bans, the introduction of legislation to phase out dolphinariums in some countries, and pressure from tour operators deciding to no longer sell these attractions to their customers, or to improve standards within existing facilities. As the appeal of seeing captive cetaceans declines and the demand for experiential holidays increases, the number of people wanting to watch them in their natural habitats is set to continue growing worldwide.

This shift in focus of the tourism industry is wholeheartedly welcomed by the animal welfare community. But it is critical that responsible and sustainable alternatives are available. This will ensure the transition is swift and avoids simply moving the pressure and animal welfare concerns onto wild populations of cetaceans.

Two international charities – World Cetacean Alliance (WCA) and World Animal Protection – share a common vision for whales and dolphins involved in tourism: “A world where cetaceans are only found in the wild, where they live in harmony with people and

Two international charities – World Cetacean Alliance (WCA) and World Animal Protection – share a common vision for whales and dolphins involved in tourism: “A world where cetaceans are only found in the wild, where they live in harmony with people and are experienced respectfully by a responsible and protective tourism industry.”



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Both organisations are working together to develop and implement this vision for the future of whale and dolphin tourism. Working towards ending captivity and developing responsible alternatives, they are clearing the way for a responsible whale watching industry that protects and facilitates experiencing cetaceans respectfully, in the wild.

WCA has developed two global certification programmes designed to manage wild cetacean tourism. The WCA Responsible Whale Watching Certification³ awards individual whale watching businesses that meet high levels of animal welfare, customer experience and sustainability. The Whale Heritage Sites⁴ programme represents the gold standard certification for responsible wild whale and dolphin tourism at destinations.

Through their vision, WCA and World Animal Protection are exploring the potential of Whale Heritage Sites in places of joint strategic interest. This report outlines the potential for a site in Tenerife; thereby applying the criteria for Whale Heritage Site status to a mainstream tourism destination for the first time.

THERE ARE
**355 CETACEAN
ENTERTAINMENT VENUES**
(known as dolphinariums)



**IN 58 COUNTRIES
ACROSS THE WORLD,**

**HOLDING 3,603
CAPTIVE WHALES AND DOLPHINS.**
that have either been bred
or caught from the wild

Of these animals, eight out of 10 (3,029) are
dolphin species, held captive at 336 venues,
making them by far the most commonly kept
cetacean family in captivity. Most of these (87%)
are bottlenose dolphins



What is a Whale Heritage Site?

Whale Heritage Site status is granted to those places around the world where:

- whales and dolphins are celebrated by engaging communities and tourists through art, music, education, research and cultural events
- sustainable practices and livelihoods are continually improved to ensure the health of cetacean habitats and the long-term economic benefit to human communities
- the highest standards of responsible whale and dolphin watching, marine conservation and sustainability are maintained
- respectful coexistence with cetaceans is supported through law, policy and cooperation.

Whale Heritage Sites are a globally recognised programme to identify destinations that implement and celebrate responsible and sustainable whale and dolphin watching. They provide the travel industry with a clear marker to identify and support sustainable practice, and create a platform for destinations to promote their whale related culture, heritage and biodiversity. Whale Heritage Sites also give tourists a transparent and easy way to select responsible whale and dolphin watching holiday destinations, and encourage them to experience these incredible animals in their natural habitat, in a sustainable and responsible way.

Designating a destination as a Whale Heritage Site offers several benefits to the local community. It allows for effective marketing campaigns and promotion of the destination, boosts visitor numbers and the incomes of tourism providers, enables sustainable management of marine and terrestrial resources, and celebrates history, the environment, and cultural identity.

Whale Heritage Sites are a globally recognised programme to identify destinations that implement and celebrate responsible and sustainable whale and dolphin watching

Why are Whale Heritage Sites so important?

The World Cetacean Alliance (WCA) and World Animal Protection believe that whales and dolphins have intrinsic value as wild animals, and should be protected and celebrated wherever they are found in their natural habitat. Not only because they are sentient, charismatic emblems of our seas and indicators of the health of marine ecosystems, but because they have the power to inspire millions of people to care about our oceans. Whales and dolphins are majestic, intelligent, socially complex marine mammals that have moved humans for thousands of years. But they are under threat from commercial enterprise. It is vital to support the growing wild whale watching industry to ensure that cetaceans continue to have an economic value through responsible tourism – and one that far outweighs the value of their meat through commercial hunting or as entertainers in captive facilities.

As concern about the welfare implications of keeping these animals in captivity increases and the demand for experiential holidays rises, the number of people wanting to watch cetaceans in their natural habitats is set to expand worldwide. But as whale watching grows, it is important that it develops in a way that is sensitive to the environment, the welfare of the animals involved and the livelihoods of local communities. In parts of the world where the industry has grown with little regulation, it is becoming increasingly unsustainable. In some of the worst cases, it is even causing behavioural change or physical harm to the very animals that attract tourists and support livelihoods.

That's why Whale Heritage Sites are so vital – as a certification programme they promote responsible whale and dolphin watching to the public in destinations worldwide, giving people the opportunity to enjoy these majestic creatures in their natural environment knowing negative impacts on animals are being minimised and mitigated. But that's only half the story. Whale Heritage Sites are also places where coastal communities celebrate cetaceans and marine biodiversity in all walks of life; through the arts, music, science, education and cultural events. These sites deliver long-term protection for marine habitats, allowing tourists to witness these beautiful mammals for thousands more years into the future. They also ensure sustainable development for the coastal communities that depend on the sea, inspiring local people to value their whale and dolphin related heritage.

Becoming a Whale Heritage Site – what’s involved?

There is a four-tiered process: an initial online assessment, a candidacy review, final application and then, if successful, Whale Heritage Site designation.

THE PROCESS

1. Online assessment

This questionnaire ensures there are no fundamental issues that preclude Whale Heritage Site candidacy. This may include situations where the coexistence of humans and cetaceans is considered harmful or compromises animal welfare. For example, where commercial whaling still exists or where cetaceans are held in captivity for any reason other than rehabilitation and release, or sanctuary.

2. Candidate review

Those sites that pass the initial review, are then accepted as a Whale Heritage Site candidate, and will receive the candidate site logo and license. A detailed review, including stakeholder analysis, is then carried out to produce a report making recommendations for specific improvement prior to application for full Whale Heritage Site status. This usually takes about one month to complete. Site sponsors undertake any required improvements either independently, or if requested, with help and advice from the WCA. Candidate Whale Heritage Site status will last for a maximum of three years before it is either revoked or renewed, or the site applies for full certification. During this period the site must submit annual reports summarising progress made towards full Whale Heritage Site status.

3. Final application

At this point, the site is invited to submit the following information to the Whale Heritage Site Independent Review Panel (IRP) by completing a detailed survey with:

I
supporting evidence (including statistics relevant to livelihoods, tourists visiting the area, whale-watch tour operators, protected areas, etc) to enable the IRP to build a picture of the site

II
justification for the geographical/political delineation of the site

III
a detailed explanation of how the site achieves each of the criteria.

This information will be reviewed along with the report from an independent on-site assessment. Everything will then be presented to the Whale Heritage Site IRP for consideration. The IRP will evaluate the site against the criteria and either:

1
award the site Whale Heritage Site status;

2
award the site Whale Heritage Site status upon the fulfilment of certain specific conditions; or

3
deny Whale Heritage Site status.

This process may be prolonged where a site is well-developed under the criteria, or involve a period of technical assistance to address identified weaknesses prior to full certification.

4. Site designation

The site has passed through the IRP and been designated as a Whale Heritage Site. It must then prepare and submit annual reports explaining how criteria are met, and will be subject to IRP review every three years. Upon request and submission of evidence that the criteria are no longer being met, the site may be investigated and/or downgraded. Certified Whale Heritage Sites must show continual improvement through annual reporting as a measure of their excellence.

Fees and support

Whale Heritage Site applicants pay a one-off fee of US\$3,000 to receive Candidate Site logos, advice and support for a maximum of three years. Once certified, the Whale Heritage Site pays an annual fee of US\$3,000. However, annual membership fees paid by WCA Responsible Whale Watching certified business or WCA partners operating within the Whale Heritage Site count towards the certification fee. There are currently four WCA Responsible Whale Watching certified businesses operating within the proposed Whale Heritage Site in this report. Their fees are sufficient to cover 100% of the cost of candidacy and full certification.

Once every three years the site must also pay for an on-site audit (usually under US\$750) to ensure the required standards are being maintained and enhanced. In addition, World Animal Protection and the WCA are available to provide technical advice, support, training, and examples of best practice to assist local stakeholders with an application.

To find out more about the benefits of Whale Heritage Site status, book a place on a workshop, being held in Tenerife week commencing 20 April 2020. For more information contact dylan@worldcetaceanalliance.org

The importance of establishing a Steering Committee

Establishing a Steering Committee to coordinate and facilitate the development of a Whale Heritage Site, is an important early step. We encourage applicants to seek out enthusiastic, creative and passionate individuals to serve on the committee and help launch, maintain, and sustain the Whale Heritage Site application process.

It is the job of the committee to help 'steer' the project to a successful conclusion. It must clearly define the purpose and vision of the project, monitor and maintain the application process. Its role is to deliberate, make decisions, advise, provide strategic oversight, and to serve as the primary 'advocate' for all the assigned initiatives.

Image credit: Dylan Walker



CASE STUDY

Hervey Bay, Australia's first Whale Heritage Site

More than 8,000 migrating humpback whales come to rest and socialise in the protected waters of Platypus Bay, between World Heritage listed K'gari (Fraser Island) and the Australian mainland. Hervey Bay is an important habitat for mature females accompanying immature whales early in the season, and mothers with calves later. It is neither an end destination nor a calving or breeding area, but rather a stopover early in the southern migration. Hervey Bay is part of the Great Sandy Bay Marine Park, which allows for better regulation, providing the highest level of safety for cetaceans.

Operating under strict laws regarding cetacean approach distances and vessel management, the Hervey Bay fleet provides whale and dolphin watching opportunities to almost 60,000 visitors every year. Driven by Fraser Coast Tourism and Events (FCTE), Hervey Bay has achieved Whale Heritage Site status through its promotion and support of marine education and research, enhanced by its relationship with the Marine Research Campus of Sunshine Coast University.

Within the Bay there are a range of research programmes and expeditions, such as the Oceania Project, which provides long-term insights into migrating humpback whale behaviour in the region. FCTE's extensive community engagement programmes promote environmental conservation and protection, as well as sustainability to benefit Hervey Bay's marine environment. Combined with valuable information sharing and its responsible whale watching industry, both the whale watching educational experience and community knowledge is amplified in a positive way.

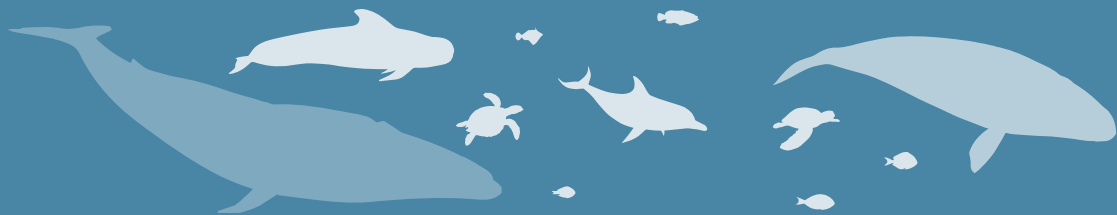
FCTE offers educational and research activities at their purpose-built Discovery Sphere and regional gallery. A sense of community pride and belonging are encouraged through several outstanding events, including the annual Ocean Festival, blessing of the fleet, paddle out for whales, and whale parade events.

Image credit: Fraser Coast Tourism & Events





The Canary Current and the coastal upwelling from the African coast promote wide marine biodiversity in the Canary Islands.



**Such biodiversity includes
730 NATIVE FISH SPECIES,
FOUR SPECIES OF MARINE TURTLES AND
28 CETACEAN SPECIES.**

Franja Marina Teno-Rasca, Tenerife, as a Whale Heritage Site

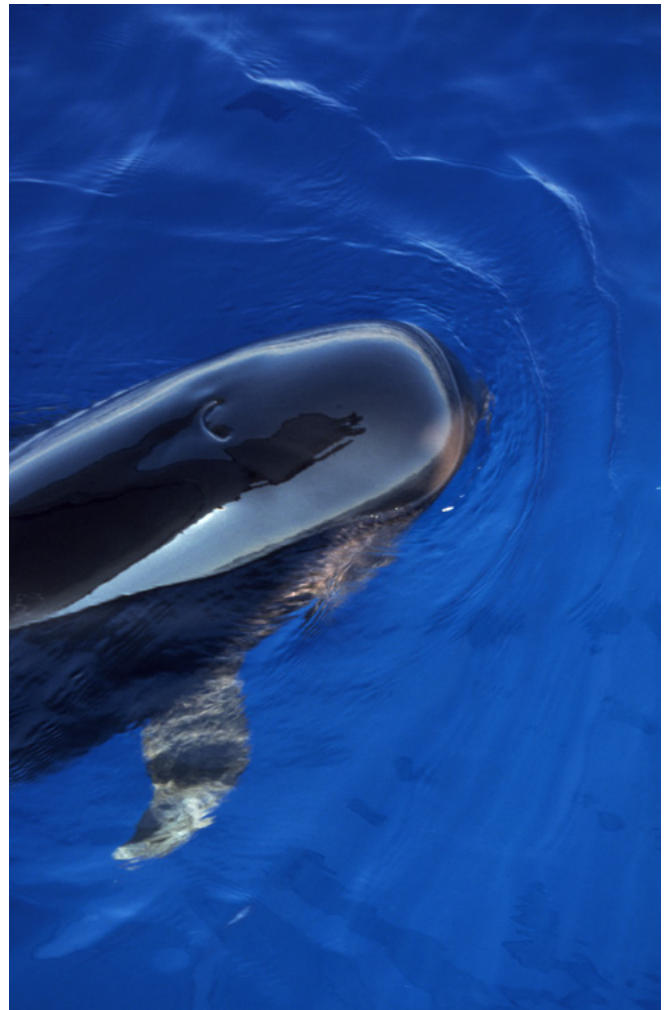
Background

Image credit: Dylan Walker

Tenerife is the largest and most populated island of the eight Canary Islands. It is also the most populated island of Spain, with a land area of 2,034 square kilometres (785 square miles) and more than 904,000 inhabitants. Approximately six million tourists visit Tenerife each year, making it the most visited island of the archipelago, and one of the most important tourist destinations in Spain. According to last year's Canarian Statistics Centre's (ISTAC) Report on Tourism⁵, the greatest number of tourists from any one country come from the United Kingdom, with nearly 4 million tourists in 2014. In second place is Germany, followed by Sweden, Norway, the Netherlands, France, Ireland, Belgium, Italy, Denmark, Finland, Switzerland, Poland, Russia and Austria.

Nearly half of the island territory of Tenerife (48.6%), is under protection from the Red Canaria de Espacios Naturales Protegidos (Canary Islands Network for Protected Natural Areas). Of the 146 protected sites under control of the network in the Canary Islands archipelago, a total of 43 are in Tenerife, the most protected island in the group.

The Canary Current and the coastal upwelling from the African coast promote wide marine biodiversity in the Canary Islands. Such biodiversity includes 730 native fish species, four species of marine turtles and 28 cetacean species. Although most of the cetacean species are migrant or seasonal, some of them are resident in the archipelago. This is the case for short-finned pilot whales (*Globicephala macrorhynchus*), sperm whales (*Physeter macrocephalus*) and bottlenose dolphins (*Tursiops truncatus*). This biodiversity has provided a unique opportunity for a multimillion dollar ecotourism industry to develop in Tenerife. Short-finned pilot whales and bottlenose dolphins are the main attraction for wildlife tourists to the Canary Islands, hence the whale watching industry in the South of Tenerife. According to Seeconservation.org, Tenerife accounts for 58% of all whale watching companies and 75% of the whale watching tourists in the Canary Islands.



"Franja Marina Teno-Rasca has one of the few resident populations of pilot whales anywhere in the world. With an estimated 391 individuals and an average of 4.6 sightings per hour, this is a place with immeasurable value and an amazing opportunity to introduce a Whale Heritage Site.."

- Ana Crespo Torres, Asociacion Tonina

Site area and designation

The proposed Whale Heritage Site mirrors the Special Area of Conservation (SAC), Franja Marina Teno-Rasca⁶ as designated by the Natura 2000 Network (site code: ES7020017) (Figure 1).

Additionally, it will extend eastward to encompass the town of Las Galletas and inland 2km along the entire coastal strip of the SAC, to include all communities that would directly the SAC.

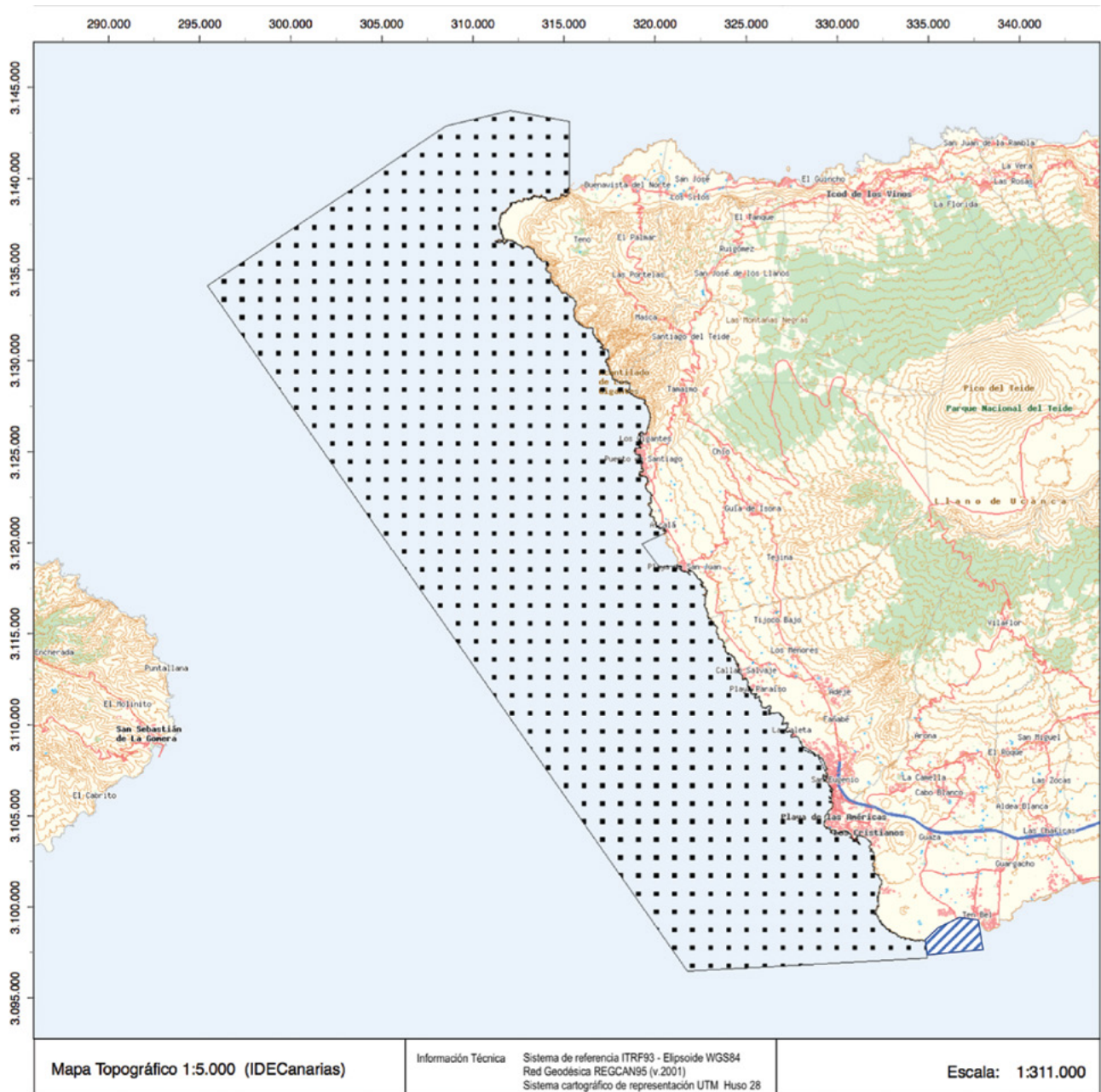


Figure 1: Proposed designated area of the Whale Heritage Site. The area identified with black dots indicates the SAC boundary and the area identified with blue diagonal lines shows the extended area of the Whale Heritage Site outside the SAC zone, encompassing the town of Las Galletas. [Adapted from: https://www.oag-fundacion.org/content/pdf/zec_files/zec103_franja_teno-rasca.pdf]

The SAC is strictly a marine area that encompasses both pelagic and benthic habitats, between the points indicated in Figure 1. This area has specific boundaries on land⁷, from the Punta del Fraile (Teno), in the north to Punta Salema (Rasca), in the south. Additionally, the proposed Whale Heritage Site would include Fonsalía, encompassing the town of Las Galletas (Figure 1). The Franja Marina Teno-Rasca SAC reaches 12 nautical

miles from the coast at its furthest point, and about 2,000m at maximum depth. The proposed site does not include any zones where human-cetacean interactions are prohibited, nor are there any fishing no-take zones. Three species and three habitats that are protected under the Natura 2000 Network are found within the proposed Whale Heritage Site and listed in Table 1.

Table 1: Species and Habitats protected under the Natura 2000 network that are found in the proposed Whale Heritage Site.

Species	Habitat
Bottlenose dolphin (<i>Tursiops truncatus</i>)	Sandbanks slightly covered by seawater at all times
Loggerhead turtle (<i>Caretta caretta</i>)	Reefs
Green turtle (<i>Chelonia mydas</i>)	Submerged or partially submerged sea caves

Marine protected areas within the Whale Heritage Site

The entire proposed area of the Whale Heritage Site is a Special Area of Conservation (SAC) within the Natura 2000 network designated by the European Environment Agency (EEA). *NATURA 2000 is the ecological network for the conservation of wild animals and plant species and natural habitats of Community importance within the European Union. It consists of sites classified under the Birds Directive and the Habitats Directive (the Nature Directives).* The Ministry of Ecological Transition of the Spanish Government has the legal competences of the SAC.

The proposed site also borders another SAC in the south: [Sebadales del Sur de Tenerife \(ES-7020116\)](#)⁸. Within the SAC and proposed Whale Heritage Site is another SAC and priority conservation habitat, an underwater volcanic cave called [Cueva marina de San Juan \(ES-7020117\)](#)⁹.

Cetacean species, protected status and culture

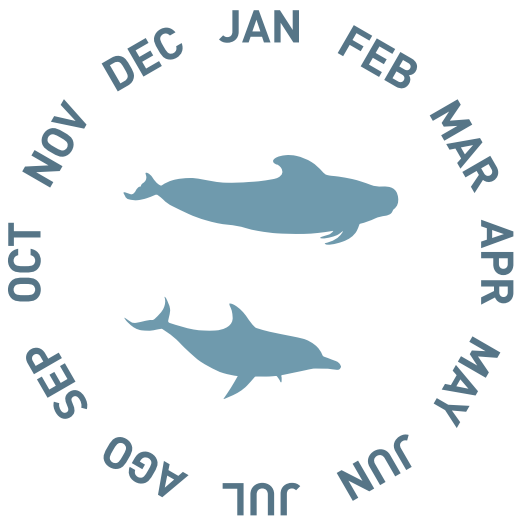
Species recorded

Table 2: Table of all cetacean species recorded off Tenerife, with their conservation and protection status. (Data from: <https://www.boe.es/buscar/pdf/2011/BOE-A-2011-3582-consolidado.pdf>)

Latin Name	Common Name	Spanish Government Protection Status	Canary Islands Government Protection Status
<i>Tursiops truncatus</i>	Common bottlenose dolphin	Vulnerable (BOE. N°46 de 23 de febrero de 2011)	Special protection (B.O.C. n° 112, junio de 2010)
<i>Globicephala macrorhynchus</i>	Short-finned pilot whale	Vulnerable	Special protection
<i>Grampus griseus</i>	Rosso's dolphin	Not categorised	Special interest
<i>Physeter microcephalus</i>	Sperm whale	Vulnerable	Vulnerable
<i>Orcinus orca</i>	Killer whale	Not categorised	Special interest
<i>Pseudorca crassidens</i>	False killer whale	Not categorised	Special protection
<i>Delphinus delphis</i>	Short-beaked common dolphin	Not categorised	Special interest
<i>Stenella coeruleoalba</i>	Striped dolphin	Not categorised	Special interest
<i>Stenella frontalis</i>	Atlantic spotted dolphin	Not categorised	Special protection
<i>Steno bredanensis</i>	Rough-toothed dolphin	Not categorised	Special protection
<i>Lagenodelphis hosei</i>	Fraser's dolphin	Not categorised	Special protection
<i>Ziphius cavirostris</i>	Cuvier's beaked whale	Vulnerable	Vulnerable
<i>Mesoplodon densirostris</i>	Blainville's beaked whale	Not categorised	Special protection
<i>Mesoplodon europaeus</i>	Gervais' beaked whale	Special protection	Special protection
<i>Megaptera novaeangliae</i>	Humpback whale	Vulnerable	Special interest
<i>Balaenoptera physalus</i>	Fin whale	Vulnerable	Special protection
<i>Balaenoptera borealis</i>	Sei whale	Vulnerable	Special protection
<i>Balaenoptera musculus</i>	Blue whale	Vulnerable	Special protection
<i>Balaenoptera edeni</i>	Bryde's whale	Not categorised	Special protection
<i>Eubalaena glacialis</i>	North Atlantic right whale	Critically endangered	
<i>Kogia breviceps</i>	Pygmy sperm whale	Not categorised	Special protection

Whale watching season

Resident pods of short-finned pilot whales and common bottlenose dolphins ensure a year-round whale watching season.



Distinct cetacean culture

There are two principal species inside the proposed Whale Heritage Site – bottlenose dolphin and short-finned pilot whale – both of which have resident populations in the area and show strong social units.

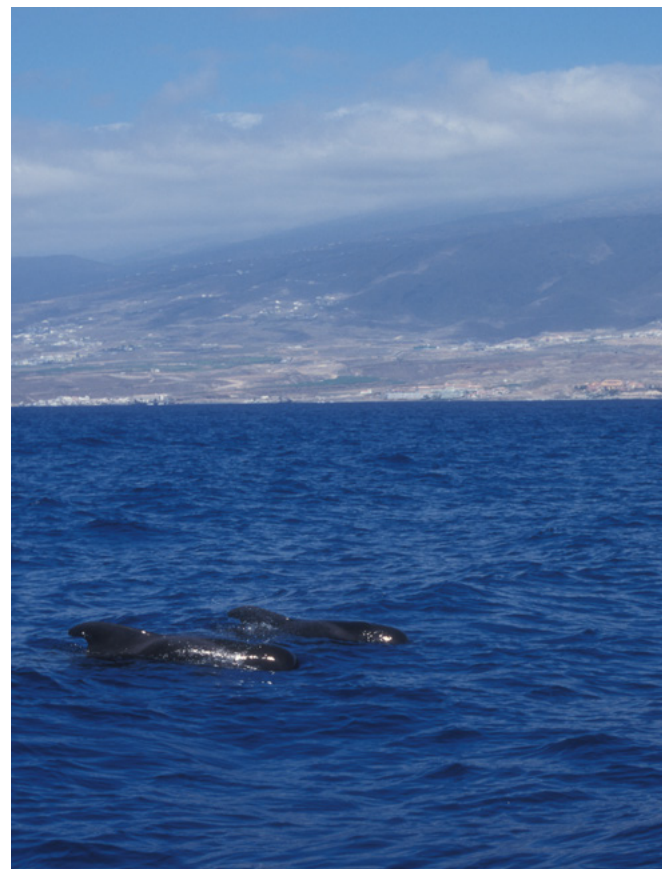
Several studies have confirmed a general matrilineal social system in pilot whales, where social units remain stable, and related individuals stay together for years. The community of short-finned pilot whales living in Franja Marina Teno-Rasca is one of the few resident populations known, so is of great worldwide importance. This cetacean community performs a unique hunting behaviour, never registered in a deep diving species before. This involves deep, high-speed, sprint-dives to chase and capture large squid, giving them the nickname 'cheetahs of the deep sea'. Some studies also suggest the existence of both specific individual and group calls that ensure group cohesion and coordinate group activities.

Human activities with potential to interact with cetaceans

The Whale Heritage Site area is located next to one of the biggest tourist hotspots in Tenerife, offering huge potential for nautical tourism. Many of these marine tourism activities could interact with cetaceans, including:

- whale watching
- parasailing
- jet sky tours
- fishing tours
- water skiing
- diving
- recreational sailing
- paddle surfing
- kayaking.

Image credit: Dylan Walker



**MORE THAN
3,300 TRIP OPERATORS**

run trips to see cetaceans in the wild
across 119 countries and territories,



**WITH OVER
13 MILLION PEOPLE**

participating every year.

Whale Heritage Site Criteria

Each Whale Heritage Site may find its own unique means to satisfy the criteria, appropriate to its local context, including geography, culture, economics, and politics. A candidate site must consider information relating to the relevant local cetacean populations, including their status, numbers, biology, habitat, behaviour, and welfare.

Here we assess the proposed Whale Heritage Site against the four criteria:

1. Encouraging Respectful Human-Cetacean Coexistence;
2. Celebrating Cetaceans;
3. Environmental, Social and Economic Sustainability; and
4. Research, Education and Awareness.

1. Encouraging Respectful Human-Cetacean Coexistence

The Whale Heritage Site has developed, and seeks to continually improve, a responsible framework managing the coexistence of people and cetaceans.

Table 3: The table outlines the sub-criteria under criterion 1 of the Whale Heritage Site application. Four of the five sub-criteria must be met to achieve Whale Heritage Site status.

	Criteria	Fulfilled
1.1	Guidelines and/or regulations related to the interactions between humans and cetaceans support international best practice and are appropriate to local context. Guidelines and/or regulations must be developed collaboratively by all the key stakeholders, reviewed regularly, and clearly communicated to relevant audiences.	Yes
1.2	Guidelines and/or regulations are monitored by a minimum of two authorities, one of which can be advisory, but the other should be a responsible government body authorised to take effective action. There should be a clear process for any breaches, including consequences for offenders.	Yes
1.3	Regular training takes place for skippers, crew, guides, onshore staff, and other stakeholders to ensure ownership and maintenance of responsible standards for interactions.	Yes
1.4	A permit system exists that manages and limits licences for cetacean interactions according to the best available local research, and includes regular assessment and reapplication.	Yes
1.5	Mechanisms are in place to encourage ongoing reduction of any environmental impacts associated with watching cetaceans.	Yes

1.1. Guidelines

Regulations for the practice of whale watching are set in the Canary Islands' local legislation (Decree 178/2000) and in the national legislation of Spain (Royal Decree 1727). These rules govern how whale watching activities may take place, including, but not limited to, approach guidelines.

Due to evidence of the negative impact of poor practice on the local cetacean population, and the growing frustration of operators who adhere to legal requirements, while others do not, 2010 saw the launch of the Whale Watching Quality Charter. The Quality Charter, created by the Tenerife Tourism Corporation (TTC) and updated in May 2018, is a voluntary set of

commitments developed in collaboration with whale watching companies. It recognises best practice within the whale watching community.

Approximately 20% of local whale or dolphin watching tour operators participate in the ongoing development and implementation of the Whale Watch Quality Charter.

Although there have been sporadic meetings, currently there are no regular meetings between the different stakeholder groups (such as whale and dolphin watch tour operators, NGOs, research centres or universities, and government officials) to review or communicate the guidelines and/or regulations.

Table 4: List of licensed whale and dolphin watching tour operators in the proposed Whale Heritage Site.

Organisation name	Website	Sustainable Whale Watching Quality Charter Member	ACEST Whale Watch Association Member	WCA Partner / Certified
Aguazul SL/ Flipper Uno	https://www.flipperuno.com/			
Aila	http://www.boatexcursionstenerife.com/excursions_by_sea_Ayla-privateboat-from-Las-Galletas-42-P307-en.htm			
Alexander Cruises	https://www.tripadvisor.es/Attraction_Review-g1058792-d10180088-Reviews-Alexander_Cruises-Santiago_del_Teide_Tenerife_Canary_Islands.htm			
Atlantic Blue	https://thingstenerife.com/			
Atlantic Eco Experience	http://www.atlanticecoexperience.com			
Barillely	http://www.mardeons-tenerife.com/excursiones.html			
Big Smile Luxury Charters	http://bigsmilecharters.com			
Blue Ocean	https://oceanbluetenerife.com/			
Bluedreams	https://www.bluedreamsailing.es/			
Bonadea 2	www.bonadea2catamaran.com			
Canary Adventure	https://canaryadventure.com/en/			
Catamaran Lady Shelley	http://en.atlanticoexcursiones.com/excursion-Lady-Shelley-TenerifeTFS25.html			
Dolphin and Whale Watch	http://www.dolphinwhalewatch.com			
Eden Catamaran S.L.	http://www.edencatamaran.com/index.html			

Organisation name	Website	Sustainable Whale Watching Quality Charter Member	ACEST Whale Watch Association Member	WCA Partner / Certified
Exmarán	https://exmaran.com/			
Freebird Catamarans	https://www.freebirdone.com/			
Katrin	http://www.dolphinwhalewatch.com/?page_id=514			
Mar de Ons Tenerife	http://www.mardeons-tenerife.com/excursions.html			
Marhaba	https://catamarantenerife.com/catamaran-tenerife-2/catamaran-tenerifelos-gigantes/catamaran-marhaba/			
Maritima Acantilados SL	https://www.maritimaacantilados.com/			
Monte Cristo Catamaran	http://montecristocatamaran.com			
MPC Yacht Charter	http://www.mpcyachtcharter.com/en/home/			
Mustcat	https://www.mustcatinfo.com/?gclid=Cj0KCQiAvc_xBRCYARIsACSQT9m8J MfiXF0wt16B0 PL7fHYHY_p8SEi F3 NA8U0J FuV6rVpqPa Nj6-DOaAt7N EALw wcb			
Neptuno Sea Company				
Picarus Sailing Club	http://www.picarusailingclub.com			
Roulette Charters	http://roulettecharters.com			
Royal Delfin	https://www.tenerifedolphin.com/index.html			
Sea Passion	www.seapassion.es			
SeaQuestff				
Tenerife Snorkelling and Kayaking	http://tenerifesnorkellingandkayaking.com/en/			
Third Element	https://thirdelementcharters.com/			
Whale Watch Tenerife	https://whalewatchtenerife.org/			
Whale Wise Eco Tours	https://whalewise-ecotours.com/?lang=es			
White Tenerife	www.whitetenerife.com			
X Tenerife	https://www.xploretenerife.com			

1.2. Monitoring and enforcement

There are several regulatory and advisory authorities responsible for monitoring compliance with local regulations for cetacean-human interactions within the Whale Heritage Site.

Authorities:

- Canary Government (Consejería de Transición Ecológica, Lucha contra el Cambio Climático y Planificación Territorial)
- Spanish Government (Ministerio para la Transición Ecológica y el Reto Demográfico)

NGO, University and research groups:

- University of La Laguna (Grupo de investigación de Biodiversidad, Ecología marina y Conservación, BIOECOMAC)
- CIMA Canarias (Centro de Investigaciones Medioambientales del Atlántico)
- Tonina Association (Asociación para la investigación y divulgación del medio marino)
- SECAC (Sociedad para el Estudio de los Cetáceos en el Archipiélago Canario)
- CEAMAR (Cetaceans and Marine Research Institute of the Canary Islands)
- Canarias Conservación (Cetaceans & Sea Turtle Research Society)
- AWDF (Atlantic Whale and Dolphin Foundation)
- others.

Image credit: Jacobo Marrero Pérez



Evidence from best practice case studies of destination whale watching management, suggests that for regulations to be effectively implemented, there must be at least two enforcement bodies actively monitoring compliance; ideally one governmental authority and one non-governmental body.

Within the proposed Franja Marina Teno-Rasca Whale Heritage Site, there is a governmental surveillance team called TRAGESA that monitors compliance of the whale watching activities from both land and sea (surveillance boat "Mar Canario"). Regulation complies with legislation that regulates cetacean protection and includes a penalty system for any breach of the law.¹⁰

There are also research groups (such as those listed opposite) in charge of monitoring the anthropogenic impacts on cetacean populations, using both land and sea observation stations in the area. Bad practices such as reckless approaches at high speeds, or the overcrowding of boats around groups are included in reports and presented to the relevant authorities.

Whale watch association

Several whale watching tour operators have created the Association of Cetaceans South of Tenerife (ACEST), which promotes good practices and works together with research groups, such as Tonina Association. Whale watch associations have been proven to be effective mechanisms to encourage self-regulation and enforcement. ACEST is a non-profit organisation of 14 whale and dolphin watching companies (May 2019) that operate on the south coast of Tenerife in the proposed Whale Heritage Site.

The objective of ACEST is to promote the responsible use of the ocean and ensure protection and conservation of marine resources. ACEST collaborates with administrations, academic institutions and other associations related to the study of marine mammals. It also actively participates in working groups on the management of Franja Marina Teno-Rasca. Around 15% of the whale watching operators are members of ACEST, and meet at least once a month.

1.3. Training

There are two main online training courses available to those participating in whale watching activities in Tenerife. These focus on the training of guides in environmental interpretation and education.

- Course by the Canarian Government.¹¹
- Course for the interpretation of the marine environment carried out by the Council of Tenerife.

1.4. Permits

Since 1996, the Canary Island government has stipulated that any company offering a whale watching activity must have a legal permit to operate. In order to obtain a permit, the company must demonstrate their compliance with the safety, environmental and animal welfare standards outlined in the legislation listed in criterion 1.1. for Whale Heritage Sites.

In the past, there was no limit to the number of permits allocated to whale watching activities. However, at present, the Ministry of Ecological Transition from the Spanish Government has established a two-year moratorium on the number of whale watching permits. This is due to:

1. the uncontrolled increase of whale watching activity in the area,
2. evidence that confirms behavioural changes in cetaceans related to nautical activities in the area, through high cortisol levels (stress hormone) registered in the blubber. Currently, a study is being carried out to evaluate if those effects could have an impact on calf mortality of the resident community of pilot whales in the proposed Whale Heritage Site.

In 2015, more than 70% of whale watching tour operators (37 legal boats) had permits with the Ministry of Ecological Transition (Government of Spain) and the Canarian Government. The remaining 30% were illegal (having fewer or none of the permits required). There are currently 86 licensed permits for the proposed Whale Heritage Site for whale and dolphin watching activities.

Image credit: Jacobo Marrero Pérez



1.5. Reducing environmental impact

There are several stakeholder groups within the proposed Whale Heritage Site that are committed to the continued reduction of environmental impacts. Activities include:

- use of low environmental impact motors/sailing/paddling
- research to understand environmental impacts as part of efforts to reduce them
- efforts to reduce acoustic impacts
- use of eco-friendly products and clearly labelled recycling
- registration with an acknowledged eco-label such as the Blue Flag Sustainable - Boating Tour Operators scheme
- adoption of ethical advertising practices that do not set unrealistic whale/dolphin viewing expectations
- efforts to reduce over-crowding of cetaceans during activities
- beach clean-up events
- educational programmes/signage to inform tourists of the impacts of littering
- installation or use of renewable energy, such as solar panels, on any onshore buildings
- installation or practice of low water use technologies (low flow toilets, signage asking guests to limit water consumption in restrooms etc).

In recent years, responsible whale watching operators in Tenerife have been making great efforts towards best practice, including implementing the following:

- eliminating single-use plastic
- having trained personnel on board, including a certified guide for interpretive talks about local conservational needs
- collaboration with conservation initiatives
- collaboration with wildlife rescue organisations
- posting relevant information on social media.

Whale Wise Eco Tours is a great example of an operator shifting towards more sustainable practices. This company runs an eco-friendly, self-sufficient hybrid boat that uses electric engines powered by solar panels. These quieter engines allow for silent sightings. The boat also has cameras and a hydrophone integrated into the hull, to avoid submerging hydrophones or cameras, and thus reducing stress on the animals. The company follows a Zero Waste, Zero Processed philosophy.

Ecolabels

Ecolabels have proven to be an effective way of encouraging best practice among tourism operators, as well as ensuring tourists have a simple way of choosing the best company to book with.

Several ecolabels have been awarded to boats within the proposed Whale Heritage Site. These are a mixture of local labels (Blue Boat and Carta por la sostenibilidad para el avistamiento de cetáceos) and international labels (WCA Responsible Whale Watching certification and Blue Flag certification).

The following are the current ecolabels present within the proposed Whale Heritage Site.



Blue Boat

www.gobiernodecanarias.org



Carta por la sostenibilidad para el avistamiento de cetáceos

www.webtenerife.com



WCA Responsible Whale Watching Certification

www.worldcetaceanalliance.org



Blue Flag

www.blueflag.global

2. Celebrating Cetaceans

The Whale Heritage Site celebrates the close cultural association between cetaceans and people.

Table 4: The table outlines the sub-criteria under criterion 2 of the Whale Heritage Site application. Two of the three sub-criteria of criterion 2 must be met to achieve Whale Heritage Site status.

	Criteria	Fulfilled
2.1	Wild cetaceans are reflected in culture through historical or contemporary practices that harness a greater appreciation for living cetaceans in their natural habitats.	No
2.2	Cetacean-related festivals, ceremonies, meetings or other events that encourage a sense of pride, heritage, history, sustainability and legacy are held annually.	Yes
2.3	Cetacean-related works of art are created, including in music, dance, and theatre; the visual arts, and in literature, from both written and spoken traditions.	No

Image credit: White Tenerife



2.1. Wild cetaceans reflected in culture

Cetaceans have been important to human cultures for millennia, from the earliest depictions of whales and dolphins in cave paintings to 20th century whaling practices. Whale Heritage Sites celebrate these cultural connections between humans and cetaceans, even those that historically had a negative impact on cetaceans.

Museums:

Within the proposed Whale Heritage Site, the non-governmental organisation Rumbo Ziday has created an interpretation centre, *Centro de interpretación itinerante de Canarias*, based in the town of Los Gigantes. It focuses on raising awareness of the conservation and biology of local cetaceans, as well as the general marine environment off the coast of southern Tenerife.

2.2. Cetacean-related festivals and events

There is one major event held within the proposed Whale Heritage Site. *Arona Son Atlántico* is a large annual festival that promotes the preservation of environmental and marine resources. It's a celebration of music, film and photography, supported by a programme of educational workshops, marine experiences and conservation events, such as beach cleans, turtle and bird releases.

The famous *Boreal International Festival* has also been going since 2008, held just north of the proposed Whale Heritage Site. This sustainable cultural project features concerts, street markets and several activities relating to environmental sustainability.


Visitors of all ages can learn about the natural treasure that is found off the coast of Tenerife. These events are particularly focused on promoting and encouraging environmental conservation values, such as:

- reducing consumption of non-renewable resources
- driving down waste and pollution
- promoting awareness of the environmental challenges, solutions or changes we can make to protect or preserve our community and the environment
- driving awareness of climate change, ocean acidification, the tropicalisation phenomena, and invasive species
- creating partnerships between citizens and local authorities to preserve the marine natural environments of Tenerife.

These activities generate a real sense of pride in the local community, encouraging a greater understanding of the natural heritage of Tenerife. Local people can gain a better understanding about the threats and risks for conservation of the area, understanding that every single action matters.

2.3. Cetacean-related works of art

There are no known cetacean-related works of art identified within the proposed Whale Heritage Site, although evidence of this may be found during the candidacy process.



"We ourselves feel that what we are doing is just a drop in the ocean. But the ocean would be less because of that missing drop."

- Mother Teresa of Calcuta

3. Environmental, Social and Economic Sustainability

The Whale Heritage Site seeks to achieve an environmentally, socially and economically sustainable balance between the natural environment, the expectations of visitors, the needs of the local community and the businesses that operate there. This balance is best achieved through engaging representatives from government, the private sector, the local community and other relevant organisations. They should work together to embed effective policies and practices into the sustainable management of the Whale Heritage Site, and the wider tourism industry in the destination.

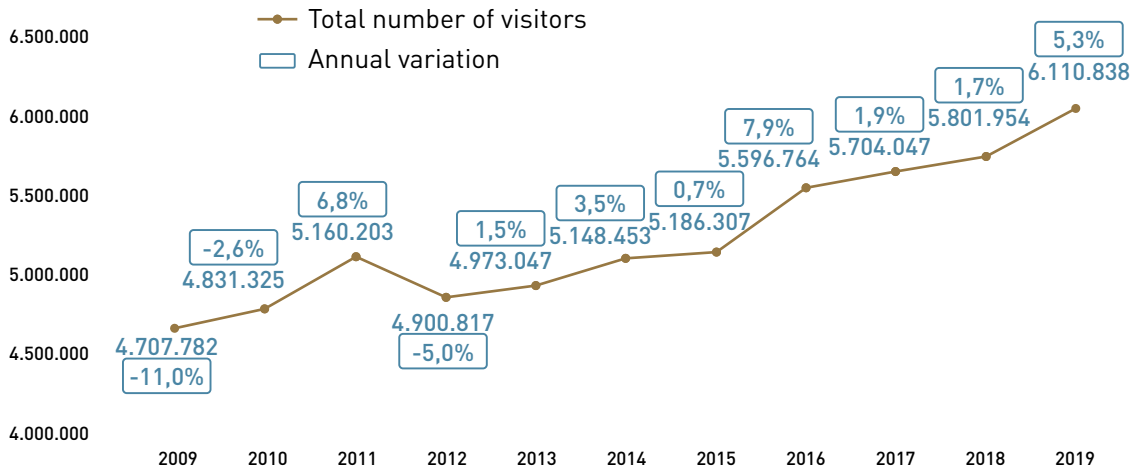
Table 5: The table outlines the sub-criteria under criterion three of the Whale Heritage Site application. Sub-criteria 3.1, 3.2 and 3.3 must be met to achieve Whale Heritage Site status. Sub-criterion 3.4. is optional.

	Criteria	Fulfilled
3.1	Economic sustainability – sustainable livelihoods are created, generating employment and financial benefits, to provide a clear demonstration of the economic value of protecting cetaceans. This can be achieved directly (through whale watching, tour guiding, research and conservation) and indirectly (through employment in cetacean tourism-related services, such as arts festivals, exhibitions and other cultural events) but should include a balance of jobs (ie should ideally not be overly dominated by low paid, informal work).	Yes
3.2	Social sustainability – local communities are recognised as key Whale Heritage Site stakeholders by:	NA
3.2.1	Being given the opportunity to participate in decision making at key stages.	NA
3.2.2	Informed via press, social media or other means, about the Whale Heritage Site Candidacy and the rationale behind it.	NA
3.2.3	Involved in preparing and maintaining the site for Whale Heritage Site status.	NA
3.2.4	Engaged in educational and community outreach events that promote the Whale Heritage Site and the reasons for its existence.	NA
3.3	Environmental sustainability – the marine and terrestrial ecosystems within the Whale Heritage Site must be maintained and preferably enhanced to support a thriving population of wild cetaceans.	Yes
3.3.1	Threats relevant to the primary cetacean habitat should be identified and an action plan developed to address those impacts within the control of local stakeholders.	Yes
3.3.2	A range of measures to enhance general environmental sustainability should be undertaken.	Yes
3.4	Sustainable Destination Management – to support the achievement of all the above criteria, ensure continuous improvement and maintain the long-term sustainability of the Whale Heritage Site, those responsible for the management of tourism in the location should ensure there is an active and ongoing process to improve sustainability using recognised tools such as: <ul style="list-style-type: none"> • the European Sustainable Tourism Indicator System (ETIS), developed by the European Commission • the Global Sustainable Tourism Council’s Criteria for Destinations (GSTC C-D) • or another Global Sustainable Tourism Council recognised destination management or accreditation scheme 	No

3.1. Economic sustainability

Whale and dolphin watching is a hugely important industry for Tenerife's economy; it is the second most popular activity for tourists visiting the island. The following graph shows the total number of visitors per year in Tenerife over the last 10 years. The Tenerife government confirmed that at least 23% of visiting tourists practice whale and dolphin watching. This means that for 2019, with a total of 6,110,838 visitors to Tenerife, 1.4 million of them went whale and dolphin watching. (Data from Cabildo de Tenerife).

Evolution of tourism in Tenerife:



Data from Economy Development Department. Tenerife Tourism. Cabildo de Tenerife.

Image credit: Dylan Walker



Table 6: Economic data relating to the proposed Whale Heritage Site (figures for all Tenerife). Further investigation and research will be required to obtain accurate numbers for some of the data listed below.

Economic measure	Data	Source
Total number of visitors to Tenerife in 2019	6,110,838	Cabildo de Tenerife
Total number of tourists whale and dolphin watching in 2019	1,405,492	(based on an estimate of 23% of total tourist visitors) Cabildo de Tenerife
Population of proposed Whale Heritage Site	Est. 622,900	Eurostat
Number of people employed directly by activities relating to cetaceans	Est. 400-700	Anecdotal
Percentage of employees directly employed by cetacean-related activities that are unskilled or lowest paid workers	Est. 50%	Anecdotal (based on stakeholders' personal experience)
Percentage of employees directly employed by cetacean-related activities that are skilled manual workers	Est. 30%	Anecdotal (based on stakeholders' personal experience)
Percentage of employees directly employed by cetacean-related activities that are skilled technical workers	Est. 20%	Anecdotal (based on stakeholders' personal experience)
Revenue generated annually by activities directly related to cetaceans in 2019	€42million	Based on 1,405,492 people each paying on average €30 for the activity, giving a total of: 42,164,760 euros. (Data from Cabildo de Tenerife)
Revenue is generated annually, by activities indirectly related to cetaceans	Unknown: There is a huge network of businesses linked with whale watching activities.	Anecdotal
Number of people in the proposed site that are employed indirectly by activities that relate to cetaceans (eg hotels, transport, restaurants, natural parks, visitor attractions)?	Est. 20,000 including the multiple ticket sellers within hotels, offices and street stands.	Anecdotal
Tourist origins	38% UK 13.6% Germany 13.2% Mainland Spain 35% Other	Data from 2018 (https://turismodeislascanarias.com/sites/default/files/promotur_tenerife_2018.pdf)

3.2. Social sustainability

Much of these criteria can only be achieved once the site begins the candidacy phase, as they relate to the extent that the Whale Heritage Site certification is shared and communicated to the local community. Although we cannot assess this yet, it is evident that there are already mechanisms in place to support this. For example, current events and festivals, interpretation centres and whale watch associations exist to communicate information to local communities and visiting tourists. The current stakeholders already engaged in the Whale Heritage Site process in Tenerife have suggested that future events will be designed and organised to involve and communicate with other stakeholders and the public.

3.3. Environmental sustainability

Current threats to cetaceans

Pilot whales and common bottlenose dolphins are the most vulnerable species in the area because they are resident populations. This is the main reason why local scientists are focusing their research on these two species. Around 140 bottlenose dolphins have been identified through a photo-identification study by Tonina Association. The total population is likely to be larger and includes both resident and transient animals. There is an estimated population of 390 pilot whales, with 70 of them habitually resident. Recent studies¹² observed significant decreases in the rest time of pilot whale groups in the presence of jet skis (illegal) and recreational vessels (both illegal and legal). They have also observed increased levels of accumulated cortisol in subcutaneous tissue. Evidence suggests that excessive nautical activity in the area is the main cause of these results.¹³

It is still unknown how this increase in cortisol levels affects the resident population of pilot whales, but some preliminary data (unverified) suggests it may affect calf survival rates, currently estimated at 60%.

Vessel collision with pilot whales and other cetaceans in the region is also a threat. A tragic example occurred last year, when a pilot whale calf had to be euthanized because of a lethal wound in its caudal fin. Unfortunately, the ranging patterns of the non-resident cetaceans can make it difficult to determine where collisions initially took place, with some individuals and groups travelling between islands and even further afield, such as between Tenerife and Madeira.¹⁴

Action to address threats

Since 2014, Tonina Association has been conducting research during several field seasons to establish the

conservation status of the cetacean populations in the area and their principal risks. Following the results, the Association, together with several stakeholders, recommended a package of mitigation measures, including:

1. Surveillance of whale watching boats by both land and sea station, mystery shopper, etc. This measure has been adopted by the proper authorities.
2. Specific training courses, both for employers and tourism guides. These courses are mandatory in order to obtain a whale watching license. This measure has been partially adopted by the relevant authorities.
3. It is mandatory for all boats to hold a favourable environmental impact report, including acoustic studies (noise levels with frequency and different speeds). Negotiations are ongoing to make it mandatory for the Ministry of Ecological Transition to revise the licenses granted.
4. All the boats working inside the SAC area must have propeller guards. This measure includes all boats, not just whale watching tour operators; research, recreational, diving boats, and those who have special permits to take underwater photos and/or videos. This mitigation package is being discussed by whale watching tour operators who plan to present it this year to the Canarian Government and the Ministry of Ecological Transition of Spain.

There are several stakeholder groups within the proposed Whale Heritage Site area, committed to reducing environmental impacts. Activities currently being undertaken or within an action plan to be carried out by the various stakeholders, include:

- measures to encourage lowering energy use and the adoption of renewable technologies
- carbon footprint measurement and steps to reduce carbon emissions in the tourism sector
- initiatives to maintain or improve biodiversity, both marine and terrestrial
- taking steps to reduce water pollution
- measures to reduce plastics, discarded fishing gear and other solid waste entering waterways
- provision of sustainability training for local tourism businesses.

A comprehensive action plan is in progress. Regarding whale watching operators, it will involve outreach and government initiatives to implement necessary actions in the sector.

4. Research, Education and Awareness

The Whale Heritage Site recipient has developed, and seeks to continually improve, its commitment towards research, education and awareness.

Table 7: The table outlines the sub-criteria under criterion 4 of the Whale Heritage Site application. Three of the four sub-criteria of criterion 4 must be met to achieve Whale Heritage Site status.

	Criteria	Fulfilled
4.1	Companies and organisations involved with cetacean interactions incorporate conservation-directed science and research programmes.	Yes
4.2	Conservation-based cetacean research and policy is showcased within the site.	Yes
4.3	Educational programmes that focus on cetaceans are delivered to local communities.	Yes
4.4	Local sustainability initiatives benefitting the marine environment are showcased.	?

Image credit: Dylan Walker



4.1. Conservation-directed science and research programme implementation

Cetacean-related science and research initiatives undertaken by companies and organisations include:

- citizen science initiatives
- collaborative long-term data gathering projects, run by whale watch tour operators in association with academic institutions or NGOs
- opportunities for researchers aboard whale watch boats through internship programmes
- government management strategy, including funding research focused on human impacts on cetaceans
- ongoing independent conservation research, delivered by several stakeholders, including NGOs, academic institutions, and government bodies

Of particular note, is the creation of comprehensive photo identification catalogues for cetacean species found within the proposed Whale Heritage Site area, made possible thanks to a donation scheme. This has added value to whale watching activities and several tour operators are sharing their data to further develop these catalogues.

Examples of Photo identification catalogues:

<http://asociaciontonina.com/investigacion-y-divulgacion/proyectos/catalogo-calderones/>

<http://asociaciontonina.com/catalogo-delfin-mular/>

<http://asociaciontonina.com/catalogo-zifio-blainville-tenerife-la-gomera-la-palma/>

<http://asociaciontonina.com/catalogo-fotoidentificacion-rorcuales-gen-balaenoptera/>

The Government of the Canary Islands has also set up a tool for monitoring marine life in the archipelago using citizen science, called [RedPROMAR](#). RedPROMAR is a collaborative platform where members of the public, volunteers, marine tourism operators, NGOs and anyone spending time in the marine environment, can share their observations of marine life through an associated app or online platform. The result is a long-term dataset that will help to improve our knowledge of species and habitats in the Canary Islands and help monitor any changes.

4.2. Conservation-based cetacean research and policy is showcased in the site

Dissemination of research and policy

Here are some of the ways conservation-based research and policy is showcased within the proposed Whale Heritage Site area and beyond:

- peer reviewed journal publications
- non-scientific articles, television or radio interviews
- dissemination of the latest research or policy changes to whale watching naturalist guides
- school visits
- scientific conferences and meetings

4.3. Education programmes

Here are some of the ways that education programmes are rolled out into the community:

- incorporation into the school curriculum or through school outreach programmes
- incentivised opportunities for local community groups or schools to meet cetacean experts and take whale or dolphin watching tours
- citizen science projects with a focus on raising awareness among participants
- opportunities for local students to study cetaceans and their habitats
- awards ceremonies for student projects linked to cetaceans and their habitats
- opportunities for local students to intern with whale and dolphin watching operators
- some operators offer free tours to school activities. For example, those carried out by Tonina Association in collaboration with the Candelaria Council during 2019.

The *Centro de interpretación itinerante de Canarias*, founded by the NGO Rumbo Ziday, is a permanent education centre that highlights the marine biology, ecology and conservation of the region, with a focus on cetaceans. Rumbo Ziday also does several research activities in tourism, including their renowned Be a Biologist for a day initiative, where the local community and tourists have the chance to experience what it's like to work as a biologist.


The [Asociación Tonina](#) also works extensively in education both within the proposed Whale Heritage Site area and across Tenerife more widely. Since 2013, it has developed a great range of educational materials, workshops and talks both for schools and members of the public. It presents these materials at a range of events in Tenerife.

There have also been other successful environmental education programmes developed previously for use in schools, which are no longer running. For example:

- [Delfines y ballenas en la escuela](#): (2002 – 2009) An educational programme for children aged 11 to 13 years old
- [Piélago en la escuela](#): (2011-2012) Educational programmes and workshops in schools around the island, for children aged 10 to 13 years old.

This shows the potential for programmes like these to be reinvigorated and reintroduced.

Educational programmes and environmental activities or initiatives allow children, local people and the general public to see the value of the area's natural environment and better understand its ecology. Through these activities, they can also better understand cetacean behaviours, distribution, acoustics and the threats they face.




"In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we are taught."

- Baba Dioum



**FRANJA MARINA
TENO-RASCA, TENERIFE**

is uniquely placed and has the
collective ability to become



a world-class responsible
whale and dolphin
watching destination

**AND EUROPE'S FIRST AND
LEADING WHALE HERITAGE SITE.**



Conclusion

Franja Marina Teno-Rasca is a very strong candidate to become Europe's first Whale Heritage Site. Its unique population of pilot whales, living alongside a high diversity of other cetaceans, inhabit a designated Special Area of Conservation, with a coastline that hosts millions of tourists every year. Twenty-eight cetacean species can be found in the island's waters – most migrant or seasonal – but some resident, including short-finned pilot whales, sperm whales and bottlenose dolphins, ensuring a year-round whale and dolphin-watching season.


Tenerife's whale and dolphin watching industry is one of the largest and most famous in the world, generating an estimated €42 million revenue annually from the activities of 1.4 million tourists. The industry has seen rapid growth in recent years and there is now a recognised need to cap that growth, continue to improve standards, and encourage further collaboration between operators – to protect the welfare of the animals upon which the industry depends.

A diverse range of engaged stakeholders exist to support this process, including government departments, NGOs, and scientists. There are also a range of exciting opportunities to further entwine cetaceans into the cultural fabric of the proposed Whale Heritage Site. With some creative thinking, it is possible to engage local people and visitors with events, art, music, science and education, all at minimal cost. While there is still some work to do, it is clear that Franja Marina Teno-Rasca, Tenerife is uniquely placed and has the collective ability to become a world-class responsible whale and dolphin watching destination and Europe's first and leading Whale Heritage Site.

Whale Heritage Sites provide the travel industry with a clear marker to identify and support sustainable practice, and create a platform for destinations to promote their whale-related culture, heritage and biodiversity. The designation gives tourists an easy and transparent way to select responsible whale and dolphin watching holiday destinations, and encourages them to experience these incredible animals in their natural habitat, in a sustainable and responsible way. World Cetacean Alliance and World Animal Protection are committed to supporting this process as part of our joint vision *'for a world where cetaceans are only found in the wild, where they live in harmony with people and are experienced respectfully by a responsible and protective tourism industry.'*

Why Franja Marina Teno-Rasca, Tenerife is an excellent candidate for a Whale Heritage Site.

1. There is clear evidence of a unique resident population of short-finned pilot whales, with uniquely described behaviours.
2. The site provides habitat for a very high diversity of cetaceans, including several species of dolphin, for all or some of the year, or as an important migratory route.
3. The Tenerife community includes a diverse range of stakeholders interested in and working alongside cetaceans. There is a clear feeling of pride and connection between local residents, businesses, academics, and NGOs with regard to cetaceans and the marine environment.
4. The formal protection of marine ecosystems is clear through the designation of two SACs within the proposed Whale Heritage Site.
5. There are efforts to ensure that the interactions associated with whales are informed by long-term research and researchers.
6. There is a strong legislative framework protecting cetaceans in Tenerife and more widely in Spain.
7. Finally, there is clear 'heritage' in that Tenerife has been globally recognised as a significant whale 'destination' for more than three decades.




there is now a recognised need to cap that growth, continue to improve standards, and encourage further collaboration between operators

Recommendations and next steps

The following recommendations would help to ensure the best chance of success when completing the Whale Heritage Site application process.

1. Ongoing research to assess the stress impacts of boat-based tourism on short-finned pilot whales is completed and feeds into management decisions.
2. Governing authorities maintain the current moratorium on licensed vessels, until there's evidence of reduced stress impacts on cetaceans. Other mitigation measures are acted upon, such as increased compliance with guidelines, reduction in illegal whale watching, quieter engine use etc.
3. The current whale watch association is further developed and expanded to ensure improved communication between operators, a consistent approach on the water, and a representative voice for the industry liaising with government, NGOs and other interested parties.
4. As a priority, the Whale Heritage Site Steering Committee (or other coordinating body) seeks to develop a more integrated approach to research, conservation and educational initiatives, and to encourage projects that improve the economic, social and environmental sustainability of the Whale Heritage Site. The Committee should consider the value of dedicated research, citizen science programmes and further opportunities to engage with academic institutions and community groups. Mechanisms should be put in place to encourage the ongoing reduction of environmental impacts, to enhance the social and educational benefits of watching cetaceans. A draft action plan with measurable goals to achieve these objectives would bolster a final application.
5. The Whale Heritage Site Steering Committee might also consider establishing a whale museum or educational visitor centre, a model that has worked successfully elsewhere (eg Friday Harbor, San Juan Islands, Maui, Hawaii; Rarotonga, Cook Islands). This could become an important base for research, education and advocacy, as well as becoming a key visitor attraction for the area. It could be staffed largely by volunteers and thereby engage the local community to become whale docents/naturalists and ambassadors. The local university could also be a key partner, with student placements/internships supporting research, education and outreach.
6. The Whale Heritage Site Steering Committee could consider developing a cultural event or other artistic opportunities to embed cetaceans as iconic animals in the coastal towns where whale watching is important. Europe remains the only continent worldwide outside Antarctica that lacks an annual whale festival. This is a tremendous opportunity to raise the profile of Tenerife on the European stage and encourage inbound tourism during the off-peak season. There are also numerous cost-effective ways to increase people's exposure to the importance of whales and dolphins, through wall murals, photography exhibitions, and sculptures made from recycled materials. These events and art installations provide positive and fun opportunities to engage local schools and young people with cetaceans through related educational programmes and activities.



"We must continue to do everything in our hands to preserve Franja Marina Teno-Rasca. It does not belong to us. It is our heritage to pass to future generations."

- Antonio Sampedro, Atlantic Eco Experience

Table 8: Strengths, Opportunities, Weaknesses, Threats (SWAT) analysis: Whale Heritage Site potential for Franja Marina Teno-Rasca, Tenerife.

Criteria	Sub-criteria met	Strengths	Weaknesses	Opportunities	Threats
1. Human-cetacean interactions	5/5 Acceptable.	Strong regulation and monitoring of guidelines. Very promising collaboration and push for best practice through ACEST and quality charter.	There are already a lot of permits issued so this current pressure will need to be managed. Training courses are available but these must be attended regularly and refresher courses undertaken.	Strong motivation among some of the whale watching companies to become responsible. Very willing and want to lead and encourage others to follow suit.	Continuing expansion of whale watching industry to unsustainable levels. Other forms of tourism impacting cetaceans (eg recreational boats) Ship strikes. Climate change. Illegal vessels - both recreational and touristic.
2. Celebrating cetaceans	1/3 Unacceptable (2/3 must be met).	Focus on education in schools, although some programmes are not currently running. Museums and centres provide some information.	Lacking in a cultural element. Strong on scientific research and published materials, but lacking permanent artistic or other cultural links. Clarity is required on whether school programmes are currently running or whether new programmes need to be developed. No cetacean-related works of art are visible to the community.	Education is a strong theme. With a reinvigoration of current education programmes this could be a real strength. No cetacean-related works of art. There is a great opportunity to develop visible art pieces to celebrate cetaceans. Cultural activities. Two festivals already have marine conservation and sustainability themes. Likely opportunities to strengthen the link with cetaceans.	Lack of investment or capacity to develop events/ information/ art focused on cetaceans.

Criteria	Sub-criteria met	Strengths	Weaknesses	Opportunities	Threats
3. Environmental, Social and Economic Sustainability	Cannot confirm until candidacy completed but there are positive signs.	<p>Economic value of whale watching is clear.</p> <p>Stakeholders capable of communicating the importance of the proposed Whale Heritage Site to the wider community.</p> <p>SAC designation important for the protection and maintenance of critical habitat.</p>	<p>Number of whale watching companies is likely to be too high.</p> <p>Responsible practices are limited to a restricted number of whale watch operators.</p> <p>Developing widespread sustainable practices in a mainstream tourism destination is challenging.</p>	<p>Improved communication between stakeholders is likely to lead to increased collaboration and improved standards.</p> <p>Exceptional potential to show a strong economic value for whale watching and associated activities at a mainstream tourism destination.</p> <p>Potential to further increase protection for cetaceans and their habitats within a designated site of conservation importance.</p>	<p>Pollution and littering.</p> <p>Challenges of communicating to a large and transient community.</p> <p>Pressure to drive down prices by tour operators and the package travel industry.</p>
4 Research, education and awareness	3/4 Acceptable.	<p>Strong emphasis on conservation-directed science and research programmes by some businesses, NGOs and academic institutions.</p> <p>Conservation-based cetacean research and policy is showcased onboard whale watching boats, through published papers, and at conferences.</p> <p>Citizen science, volunteer opportunities, and links between whale watching boats and schools and educational institutions provide opportunities for students to gain experience.</p> <p>Shared data collection and development of photo-ID catalogues for long-term monitoring of cetacean populations.</p> <p>Impressive range of environmental education programmes organised by NGOs.</p>	<p>Clarity is needed on how research and policy is disseminated to a wider audience.</p> <p>Improved collaboration between whale watching companies would facilitate wider uptake of the latest scientific information.</p> <p>Communicating the importance of the Whale Heritage Site along an extensive coastline with many competing tourism activities.</p>	<p>Opportunity to develop a strategy to ensure cetaceans and the Whale Heritage Site are communicated more widely and across all available platforms through consistent messaging.</p> <p>Important to continue research to assess and reduce the impacts of whale watching on stress levels of pilot whales.</p> <p>Continue collaboration and further develop opportunities to engage with local schools.</p>	<p>Funding for research and education initiatives tends to be short-term.</p> <p>Risk that data collected is not used for research and results are not recycled to all participants.</p> <p>Very high turnover of tourists makes it challenging to communicate the importance of wildlife protection, animal welfare and sustainability.</p>

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