

Sustainable practices in water sport tourism

A benchmark of educational tools and environmental activities already implemented in Europe and beyond.

Ocean Sustainability through Education and Sport (OSES)

Water sports offer humans a unique connection to the marine environment. As opposed to "leisure tourists" water sports enthusiasts take advantage of this unparalleled ecosystem all year round, and many times regardless of air and water temperature. This makes water sports enthusiasts highly susceptible to environmental degradation, be it from pollution hindering water access or shifting hydrological conditions disrupting their activities.

These enthusiasts often evolve into professional athletes, ocean advocates, or water sports business owners contributing significantly to local economies. Consequently, education and awareness among water sports practitioners at all levels of engagement are essential for protecting and improving our marine environment. Sports can be a powerful tool for fostering eco-responsible actions and environmental awareness. Activities like waste collection, biodiversity awareness, coastal preservation, and oceanic issue discussions can be seamlessly integrated into sports, and help create an ocean-literate community dedicated to safeguarding our waters.



The OSES project aligns with the broader goal of supporting education through sport. We believe that sports can play a pivotal role in educating youth about environmental protection. Addressing ocean preservation serves as a pilot initiative that can be expanded to other sports in the future.

Nautical sports, including surfing, sailing, scuba diving, and kayaking, have specific environmental concerns tied to marine area preservation. One unifying value across these sports is the imperative to protect their playground.

Sport, with its educational and exemplary values, has the power to raise awareness and drive behavioral change in environmental protection. The «green sport» dimension in the European Union's Work Plan for Sport emphasizes the sector's potential to combat climate change and become more sustainable.

OSES seeks to strengthen the role of sports actors in addressing ocean conservation through three dimensions:



Education for sustainable sport: Developing tools and methodologies to instill eco-responsible actions and environmental awareness in youth through sports.



Environmentally friendly sports practice, facilities, and events: Gathering expertise to integrate environmental aspects into all sporting activities, including events, competitions, and organizational management.



Evolution of sport and its practice in the context of climate change: Focusing on ocean health and preservation by addressing activities significantly impacted by ocean challenges such as pollution, coastal development, and water quality issues.



The OSES Good Practices Handbook seeks to compile impactful actions and projects across Europe and beyond, serving as a benchmark for environmental awareness and ocean protection education.

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Water sports, in general, are closely connected with sports tourism, bringing both positive and negative impacts to the economy, environment, and local communities. While some practitioners may, perhaps inadvertently, contribute to environmental degradation, these activities can also awaken individuals to the beauty of nature, instilling a desire to protect and conserve it.

Given that many water sports practitioners evolve into business owners within the industry, they play a role in popularizing these activities, potentially adding to environmental pressures. Therefore, fostering a sustainable approach to water sports-related tourism is crucial. Encouraging local business owners to implement sustainable practices, and engage with their clients through education and awareness raising, is essential. Providing them with the necessary tools to develop and promote these practices is also paramount.

In this section, we present initiatives targeting tourists at various levels of experience. These range from initiatives designed for individuals with no prior water sports experience, focusing on educating them and promoting positive and sustainable interactions with marine ecosystems, to projects creating tools for experienced practitioners to raise their awareness and enhance their practices.



SCIENTIST OF THE SEA





TARGET AUDIENCE | tourists



Led by EcoMarine Malta Ltd

Two-day marine education program integrates classroom and hands-on exploration

This educational program spans two days, offering a comprehensive experience that combines classroom learning with hands-on outdoor exploration by the seashore or aboard a boat.

During the initial day, students engage in classroom sessions that integrate various educational resources. These resources include videos, audio materials, and handson experiments, all designed to teach different methods employed in scientific data collection. Throughout this day, students delve into the fascinating realms of marine ecosystems, oceanography, and marine biodiversity. To cater to the diverse age groups of the participants, the classroom activities include manual exercises. dedicated board drawing sessions, and collaborative group work. These activities serve as essential groundwork for the practical session scheduled for the following day.



The second day offers an exciting field experience, with options for exploration either along the seashore or aboard a research boat.

For the beach session, the day begins with a meeting with a scientist. Here, students embark on a journey to recognize marine organisms, animals, plants, and their various adaptations through engaging and handson experiments. Activities like «the great



search» involve students working together in groups to explore the beach, identifying elements for later information processing. They learn to differentiate between mollusks and crustaceans and understand factors influencing sea color and beach formation. Found materials, both natural and man-made, can be creatively used by the students to craft 2D or 3D art pieces. Additionally, a seawater analysis is conducted to measure parameters such as pH and the presence of nitrite, facilitating discussions on ocean acidification and eutrophication.

The boat day offers a captivating marine research experience aboard a safe and comfortable vessel. Here, students actively take on the roles of marine researchers. The day begins with planning and plotting routes for the boat trip. Participants apply what they've learned during the previous

days, drawing routes on maps and entering data into navigational systems. Before departure, observational shifts and data collection are organized to ensure that every student is actively engaged in the various research activities. When marine animals such as dolphins, turtles, seabirds, or migrating birds are spotted during the excursion, participants actively record their observations, including start and end times, and capture photos and videos of these magnificent creatures. Furthermore, water sampling is conducted to analyze various parameters, including plankton and microplastics collection. Simple microscopes are used when available, enhancing the overall educational experience.



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FINS INTO THE WATER:

Ocean Literacy Into Practice



Ocean literacy manual merges diving education and environmental awareness

Fins Into The Water: Ocean Literacy Into Practice is an educational outreach initiative that was developed starting in 2022. Its primary achievement is the creation of a teaching manual, which emerged from a field-based mission carried out in collaboration with a prominent representative of the Italian SCUBA diving community within the Tavolara Marine Protected Area (MPA).

The concept behind this manual is rooted in an innovative storytelling approach. It combines diving education with marine research and environmental awareness. The project pooled expertise from multiple disciplines, including geological and ecological aspects. To make the content engaging and accessible, a charming character named «Bloop» was introduced into the narrative. Bloop was purposefully illustrated by a local artist, Filippo Cellini, to convey the story of one of Italy's most



iconic MPAs in a reader-friendly manner. The manual follows a structure reminiscent of conventional diving teaching materials. It's divided into thematic chapters, each with defined learning objectives. To assess comprehension, readers are presented with quizzes at the end of each chapter. Additionally, a «Bloop's glossary» is included in the final chapter to explain technical terminology to a general audience.

The manual consists of five thematic chapters, each focusing on a different aspect:

- The Origin of Tavolara Island
- Geomorphological Characterization of the Islands of Tavolara, Molara, and the Surrounding Seabed
- The Effects of Climate Change on Marine Biota
- Ongoing and Upcoming Conservation Measures in the MPA
- Understanding What I See Underwater:
 Different Substrates, Different
 Colonizers

In the next phase, this teaching material integrated with a certification was that emphasizes ecological program skills. This certification recognizes divers' ability to appreciate local biodiversity from an ecological perspective. The assessment was conducted by designated diving professionals. This model, initially developed in the pilot area of Tavolara MPA, has been shared with other teaching agencies adhering to the same safety and teaching standards at the EU level (RSTC standards). The primary target audience for this product is diving professionals and recreational divers.

During the summer season, the manual and the rationale behind the initiative were disseminated widely. This included sharing the contents with diving customers, trained divers, and locally engaged diving information professionals. The integrated into both regular teaching activities underwater and sessions specifically focused on biodiversity and local marine ecosystems. This allowed the project to gauge the effectiveness of the manual as an additional resource to complement the existing teaching materials provided by the reference teaching agency, PSS (Professional Scuba Schools).

The outcomes of the field research activities were also shared with local authorities. These activities helped highlight ongoing threats to local biodiversity, such as ghost nets, illegal fishing practices, and unsustainable tourism. Uncommon events discovered during dives, including seagrass flowering events, the presence of alien species, and climate change-related effects, were communicated to MPA professionals.



ENVIRONAUT

Ocean Literacy Into Practice





TARGET AUDIENCE





nautical tourism professionals

Led by Bundesverband Wassersportwirtschaft e.V (BVWW)

Pioneering course for sustainable nautical tourism practices

The EnviroNaut project is dedicated to creating the pioneering Environmental Officer and CV course, designed to educate aspiring and current nautical tourism professionals. This course aims to promote good practices that can contribute to the sustainable advancement of the sector while bridging the competency gap between industry needs and workforce skills.

self-paced online program environmental officers is available from January 2024. The curriculum encompasses 5 modules, with the introductory module, «Value of the Ocean,» serving as a foundational and obligatory component. This module will offer comprehensive insights into oceans, inland waters, the services they provide as well as reasons to safeguard them.



The subsequent four modules will be tailored to four specific sectors:

- Marinas,
- Nautical Schools and Water Sports Clubs,
- Skippers
- Boat Maintenance

While every student has to complete the essential module 0, they have the freedom to choose modules that align with their preferences—opting for in-depth training in one or more sectors. These modules introduce best practices to mitigate the impact of activities on air, water, and land/soil, encompassing crucial topics like pollution control, waste management, institutional frameworks, and eco-management.

At the heart of the project's mission is the development of an online course that is both accessible and free of charge. While specific cities are not the focus, the project's broader objective is to engage a diverse audience across Europe. This reflects the project's ambition to equip individuals from various regions with the knowledge and tools needed to foster sustainable practices within the nautical tourism sector.







A DIP IN THE SEA

SCUBA DIVING ()



TARGET AUDIENCE



tourists over 10 years old

Led by Oceanário de Lisboa

Immersive, educational marine experiences with Oceanário de Lisboa.

At the Oceanário de Lisboa, we are passionate about fostering ocean literacy and creating a stronger connection between people and the oceans. Our educational programs are designed to encourage learning and cultivate a deep appreciation for the marine world. One of our most recent initiatives offers tourists an extraordinary journey in the pristine waters of Sesimbra. Whether a first-time explorer or a seasoned diver, each dive promises an unparalleled encounter with the remarkable biodiversity of the Portuguese coast.

The three-hour program, tailored for nature enthusiasts aged ten and above, offers a range of options, including diving activities, try dives, and snorkeling experiences. The program includes:



- Informative Briefing during which the participants learn about the local biodiversity, understand the threats it faces and discover conscientious and sustainable dive practices.
- Guided Dive led by a marine biologist is a unique opportunity for an emotional connection with biodiversity. The divers explore natural habitats, uncover species and their behaviors, and witness the delicate balance of the marine world.
- Final Discussion allows the participants to reflect on their experience, record the species they encountered, share their insights, and engage in a meaningful conversation about contributing to the protection of threatened species and habitats.

Moreover, we urge participants to upload the data they have collected to a citizen science database. Thus, they actively contribute to the conservation of species, increasing knowledge about them.





Oceanário de Lisboa

https://www.oceanario.pt/

Contact us to get more information about our work: dgeraldes@oceanario.pt

POSIDONIA ESCAPE EXPERIENCE

SCUBA DIVING, SNORKELING 🕟



TARGET AUDIENCE



tourists

Led by Plàncton, Divulgació i Serveis Marins, Plàncton Diving,

Marine education through innovative underwater escape rooms

Plàncton, Divulgació i Serveis Marins, is a marine consulting agency driven by a profound commitment to the protection, conservation, and management of sea and coastal environments. Located in l'Ametlla de Mar, a fishing village with a beautiful coastline, our agency strives to promote the beauty and significance of this lesser-known stretch of the Mediterranean coastline.

Our work extends beyond consultancy; we've established our own diving center, Plancton Diving, where snorkeling and diving take center stage. Through this center, we aspire to ignite a passion for the marine environment and strengthen efforts toward its preservation. To achieve this, we've developed the Posidonia Escape Experience educational program.







This unique escape room initiative is designed with three key objectives. Firstly, it aims to educate participants about Posidonia meadows—their impacts, importance, and fragility. Secondly, it seeks to inspire divers and snorkelers to explore our region beyond high tourist seasons. Lastly, it tries to reduce human pressure on the most crowded dive sites in our area.

The escape room can be experienced in three different ways: diving, snorkeling, or a family-friendly beach version. Participants, grouped into 4-6 people, immerse themselves in an engaging storyline during their underwater activities, simultaneously learning about the critical role of Posidonia meadows as an ecosystem.

The narrative revolves around Blau, a marine scientist and science communicator, dedicating her life to studying an endemic marine plant of the Mediterranean - Posidonia oceanica — that forms the large meadows around l'Ametlla de Mar. However, her research is sabotaged, leaving her investigations incomplete. Participants become crucial players in helping Blau by undertaking tasks that involve critical thinking, and physical and diving abilities. Each completed task contributes a piece



to a puzzle, unveiling the impacts on Posidonia meadows. As they assemble the puzzle, participants gain insights into the various challenges Posidonia meadows face. The ultimate goal is to close the puzzle in a symbolic gesture to eliminate these impacts.

This project has been carried out within the framework of the Medusa Project as one of the winning proposals in Catalonia of the "Mediterranean sub-grantee Adventure Tourism Competition" that supports the creation of sustainable and innovative adventure tourism products, and in Catalonia, it is coordinated by the Barcelona Chamber of Commerce.





https://www.planctondiving.cat/es/

Contact us to get more information about our work : info@planctondiving.cat

GOOD PRACTICES HANDBOOK

The OSES Good Practices Handbook serves as a reference point for assessing our progress as a society in terms of connecting water sports with OL, environmental awareness, and marine education.

It is aimed at people and organizations at different stages of their journey towards a cleaner, more sustainable ocean, and covers a number of themes:

- 1. Connecting schools, water sports, and ocean literacy
- 2. Environmental cleanups
- 3. Citizen science, environmental data collection, and monitoring
- 4. Sustainable practices in water sport tourism
- 5. Engaging with local communities
- 6. Good Practices in Professional Sports

Discover the other sections of the handbook on: www.oses-project.org

Reference:

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