



BLUE MARINE
FOUNDATION

EDUCATION CASE STUDIES

BLUEPrint for Marine Protected
Areas: A guide to establishing
and managing MPAs



BLUE MARINE GLOBAL EDUCATION INITIATIVES

Blue Marine Foundation's education unit works specifically to offer education, awareness and outreach programmes across its UK and international projects. Successfully delivered programmes have included summer schools, free digital resources, marine life guidebooks, boat trips, guided snorkel trails and talks with fishermen. Learnings are regularly shared between the projects on effective ways to empower communities, encourage positive behaviour change and mobilise conservation outcomes. Marine education not only inspires young people about marine conservation and climate change, but also enhances their career opportunities in industries such as sustainable fishing, science, conservation and eco-tourism.

Lyme Bay education visit to St Michael's Primary School



The Sea We Breathe

The Sea We Breathe, Blue Marine's largest online educational initiative to date, is an immersive digital platform which guides learners through interactive ocean journeys to explore the topics of sustainable fisheries, marine protection and blue carbon.

Narrated by Stephen Fry, this platform has been viewed by over 1.2 million users since its launch in November 2021 and received eight awards.

Each journey features case studies from Blue Marine's project sites around the world and provides direction to an array of further learning resources. Classroom packs, consisting of a facilitation guide, slide deck and student activity journal, are freely available to download. These materials are curriculum linked for UK, Canadian,

US and Australian science curricula and include activities designed specifically to engage with today's tech-minded children and teens. We have recently translated the Sea We Breathe into Spanish and Portuguese, and will soon complete an Italian translation. In partnership with The Ocean Race, the Sea We Breathe is being exhibited across the world in 2023.

Classroom packs, consisting of a facilitation guide, slide deck and student activity journal, are freely available to download.

The Sea We Breathe immersive digital platform: www.bluemarinefoundation.com/the-sea-we-breathe



JOURNEYS ABOUT GET INVOLVED SHARE +



JOURNEY TO A HEALTHY OCEAN

Climate change is impacting the ocean. We must drastically cut emissions and stop using fossil fuels. Choose a journey and explore how maintaining ocean health is essential for both people and planet in a changing climate.

THE OCEAN'S WEB OF LIFE

DIVE IN

RAINFORESTS OF THE SEA

DIVE IN

PROTECTING THE UNDERWATER WORLD

DIVE IN



ATLANTIC OCEAN
DISCOVERY PROGRESS: 0%
DEPTH: 15M | TEMP: 21°C

SELECT A CURRENT
TO BEGIN THE JOURNEY

AUDIO

Makerzines

In 2018, Blue Marine partnered with Planetari, a multi-media education platform aligned with the UN Sustainable Development Goals, to create a “Makerzine” called An Ocean Adventure.

This interactive magazine features pop-up and cut-out sections, including an activity where children can build their own MPA with a paper satellite, drone and patrol boat. The educational Makerzine has since been distributed to over 5,000 children around the world, many of whom are located close to MPAs where Blue Marine works, including children in the UK, Ascension Island, St Helena and the Maldives. Conservation stories are brought to life through a mixture of fun characters and real people, including Mondo the intellectual octopus, and Gaetano, a wild, white-haired Aeolian fisherman.

Due to the success and impact of the Makerzines internationally, the same framework is being used to create a bespoke Mediterranean Makerzine, with content focusing on the marine life within the proposed Aeolian Islands MPA and the regions unique maritime heritage. This resource is initially being used in Italian secondary schools as an English language teaching resource. The ultimate aim, however, is to empower young people across the Mediterranean to get involved with protection of their marine environment.

The educational
Makerzine has since been
distributed to over 5,000
children around the world



Makerzines in Harford Primary School, St Helena



PLANETARI

INTERNATIONAL

Aeolians: Fishing and education

To help address the growing disconnect between young Italians and the older fishing community, fishermen who are signed up to Blue Marine's Responsible Fishing Group were paid to take groups of local high school students out on their fishing boats to teach them about methods of sustainable fishing, the history and importance of small-scale fishing for communities, and the general life of an Aeolian fisherman.

The students were asked to fill out questionnaires about their experience and how it had changed (or not) their views on fishing and marine conservation. Results from the questionnaires were very positive. After the programme, 93 per cent of students think that creating MPAs is a good idea, 82 per cent are trying to use less plastic and 74 per cent want to learn more about the sea. Students were also taught about the importance of marine protection alongside sustainable fishing. Almost three times as many students said they knew 'a lot' about MPAs after taking this programme, compared to before.

Aeolian fishermen take high school students out to sea



Aeolians: Posidonia summer school

In 2019, Blue Marine partnered with the Anton Dohrn Zoological Station (SZN) of Naples to set up the first project to monitor *Posidonia oceanica* seagrass around Salina Island. The aim of the study was to investigate the current state of the meadows and to identify both the most successful and most negatively impacted sites along the coast. Direct anchoring was shown to be just as damaging as was predicted; deep furrows in the sandy seabed where extensive seagrass meadows used to grow confirm the years of negative human impact - impact which skyrockets every summer season. Yet the outlook was not entirely bleak; other areas still house intact and flourishing meadows, characterised by dense mattes (solid root systems) and shoot leaves.

The results of the monitoring project were shown to locals and tourists during an open event in the main square of Santa Marina, spreading the word about the urgency in preserving local *Posidonia* meadows through an effective coastal management plan.

Thanks to close collaboration with the SZN, four international academic courses took place in 2021 and 2022 on the islands of Panarea and Salina. Thirty four students from different universities were hosted and given the chance to improve their scientific research and diving skills through practical field experience and understanding of marine seagrass ecology and its resilience to climate change, enhancing their conservation career opportunities. The summer schools will be carried out by further partnerships with the Oceanographic Institute of Murcia, the National Institute of Oceanography and Experimental Geophysics, and the European Scientific Diving Panel.

Aeolian Posidonia summer school student examining seagrass



Maldives education campaigns

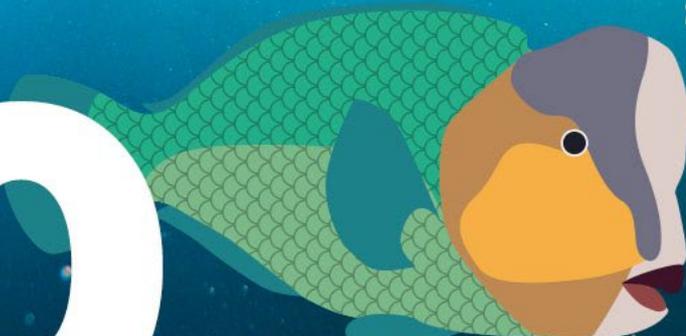
In the Maldives, Blue Marine works through Maldives Resilient Reefs (MMR) to help bring marine protection into the public sphere. Educational activities include school visits, snorkelling camps (which to date have reached over 500 children), presentations at international conferences and citizen science programmes teaching young people scientific field skills.

Educational campaigns have been particularly influential in the Maldives, due to high utilisation of social media among residents. In 2019, the #ProtectMaldivesSeagrass social media campaign convinced more than a quarter of all resorts in the country to commit to protecting more than 830,000 square metres of seagrass by highlighting the value of this blue carbon habitat. The following

year, MMR launched the #FishForTomorrow campaign, which aimed to educate citizens on how to fish responsibly. The interactive educational game created to support this campaign has been played by 10 per cent of the Maldivian population. Two months after the campaign, all parrotfishes were added to the protected species list.

The newest element of the Maldives education programme is a digital fisher education platform, which is to be piloted in Laamu atoll and scaled up country wide. Five modules, each consisting of videos, animations, infographics and quizzes are being crafted around key learning outcomes, including fisheries management and reef fish biology. It is hoped that by getting fishermen on board through meaningful and rewarding educational initiatives, marine protection principles will become instilled in local fishing practices.

**BUMPHEAD PARROTFISH
LIVE FOR
40 YEARS
THAT'S AS LONG AS A CAMEL!**



UNITED KINGDOM

Jersey: Creating a snorkel trail to raise awareness – Snorkel Portelet

In 2022, Blue Marine established 'Snorkel Portelet', a Jersey snorkel trail aiming to connect the community to the ocean and increase awareness of why we need to protect our marine environment. This was part of the wider project aim to secure a series of MPAs, in the form of a Jersey Marine Park. Through connecting people to the ocean, initiatives such as a snorkel trail can play a vital role in helping MPAs to not only deliver for climate and nature, but to also deliver for people. Children, as the future generation of ocean stewards, are the key to the future of our seas. Snorkel Portelet provides an opportunity to spark an interest and appreciation of our oceans for all generations. Snorkel Portelet is made up of three components, the trail itself, an education package and a citizen science portal.

Snorkel Portelet highlights four areas of interest which act as self-guided snorkel trails. Information about the location, species, habitats and safety will be available on information boards in the bay as well as online. A promotional film was created, which will be supported by another, more information based film due to be released over Summer 2022.

Working with Bouley Bay Dive Centre, Blue Marine has developed an educational outreach programme, tailored for ages nine to eleven, that provides underwater experiences to more than 180 children. The programme is delivered in three parts across one week.

First, pupils have a lesson in school to learn about Jersey's marine environment and what can be done to protect it. Next, they attend a pool session with Bouley Bay Dive Centre to familiarise themselves with snorkel equipment and safe and responsible snorkelling practices. Finally, at the end of the week, pupils are taken on a sea snorkelling session with Bouley Bay Dive Centre at the Portelet Bay snorkel trail.

Citizen science allows a wider group of people to better understand the marine environment and contribute to the science helping us understand the impacts of the global biodiversity and climate crisis. A citizen science portal is in development by the Société Jersiaise Marine Biology section and Blue Marine. This portal will allow visitors to the bay to report the species they see allowing us to track how these change over time, particularly following the designation of Portelet Bay as a No-Take Zone in 2022.



Jersey Snorkel Portelet group 2022

Berwickshire: Ocean Observatory

Blue Marine started developing the “Berwickshire Ocean Observatory” in 2022, an online platform commissioned to showcase the Berwickshire MPA’s underwater world. The observatory consists of two parts; the first being a continually evolving archive of high-resolution underwater footage, captured using a variety of scientific methods such as dive transect surveys and baited remote underwater video (BRUV). The best of these videos are highlighted in the observatory’s second element, the “Science Centre”. The Science Centre is an education portal providing worksheets and fact files suitable for use by children in upper primary and lower secondary school (9–12-year-olds), both in the classroom and independently at home. Skills learnt within the “Science Centre” link closely with the UK Science curriculum, in particular with regards to “working scientifically”, a theme which runs through all key stages. These activities allow children to practice real scientific methods in an interactive online setting, which prepares them well for further study, or for contribution to conservation projects as a citizen scientist.

The observatory will be rolled out in schools and with conservation groups across Berwickshire in 2023 and we plan to scale this up across Scotland in due course. The online microsite is free to all users and will be promoted across our existing network of educators. The observatory platform is also well-suited for exhibition at events, community centres, and science festivals.

The Ocean Observatory aims to complement the Berwickshire MPA project by encouraging curiosity, increasing knowledge and inspiring the next generation to care for their local coastline. Fostering support for the MPA among children will encourage intergenerational transfer of information and increase the likelihood of support from parents and guardians. The “Berwickshire Ocean Observatory” is a pilot project, which we hope to expand across other project sites and MPAs.

Berwickshire Ocean Observatory Species ID Guide



Lyme Bay Reserve: Schools outreach and fisheries ambassador programme

To promote the Lyme Bay Reserve amongst local communities and engage school children in learning about the importance of protecting marine areas and sustainable fisheries, a Schools Outreach Programme was established in 2014 with funding from the Rita Lila Howard Foundation. The programme involved 'ambassadors' from within the Lyme Bay fishing community being funded to visit primary, secondary schools and colleges to deliver presentations about marine life, fishing methods and their own experience of the ocean.

The programme proved highly popular and with further funding from Marks & Spencer and FLAG a part-time Education Co-ordinator was appointed to co-ordinate the school visits and create a comprehensive set of resources tailored for different year groups from Key Stage 1 to higher education. Between 2014 and 2019 over 129 schools and colleges in Dorset and Devon were visited, engaging over 7,400 children and students.

Whilst funding was not available to continue the programme beyond 2019, the resources were made available online so that teachers could download the lesson plans, PowerPoint presentations and activity sheets.

Lyme Bay Reserve education resources can be downloaded from: Lymebayreserve.co.uk/Education



Lyme Bay Fisherman Ambassador with St Mary's school pupil

The programme involved 'ambassadors' from within the Lyme Bay fishing community



Children at Mukurimagu School, Maldives, build their MPA mobile.



**BLUE MARINE
FOUNDATION**

3rd Floor South Building,
Somerset House, Strand, London,
WC2R 1LA

+44 0207 845 5850
info@bluemarinefoundation.com
www.bluemarinefoundation.com

© Blue Marine Foundation 2023

