

**Berwickshire**

**Marine**

**Reserve**

# Who are we?

The Berwickshire Marine Reserve was set up in 1984 by local stakeholders and relevant organisations to help manage and conserve the marine environment.



# Activity in 2023

A group of four people are participating in a citizen science activity on a rocky shore. The background features a large, dark rock formation with some green moss or vegetation. The ground is covered in small, reddish-brown pebbles. The people are dressed in outdoor gear, including jackets, hats, and boots. One person is holding a blue tool, another is holding a white grid, and a third is holding a small chart or map. The overall scene suggests a field study or environmental monitoring project.

# Citizen Science



NATIONAL TRUST SCOTLAND

BIOBLITZ 2023

MAMA PGLAOS  
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**Bioblitz**

# Marine Mammals of the BMR

The Berwickshire Marine Reserve is home to several fantastic species of marine mammal, the largest species found here on the reserve.

The term "marine mammal" encompasses groups of mammals who have returned to life at sea. Like terrestrial mammals, marine mammals:

- breathe using lungs
- are warm-blooded
- have hair (even dolphins have a little hair when first born)
- produce milk to nurse their young

Most importantly marine mammals must get all, or at least most, of their food from the sea.

## Cetaceans

There are two groups of cetaceans: odontocetes (toothed whales) and mysticetes (baleen whales). These two groups are separated by their feeding and life behaviours.

Odontocetes are cetaceans with teeth, such as dolphins, porpoise, orcas (killer whales), and sperm whales. They are top predators and hunt their prey using echolocation (like called bio-sonar), making clicking sounds to find their prey, similar to bats.

Mysticetes are cetaceans that don't have teeth. Instead, they have a baleen plate, which is a black plate made of fibrous keratin strands hanging from their upper jaw. They use these baleen plates to filter their food, which is often small planktonic organisms, out of the water by gulping in their food and then pushing the seawater back through the baleen plate.

Mysticetes come in a range of sizes, from the relatively small minke to the gigantic blue whale.

## Pinnipeds

Pinnipeds are fin-footed mammals including seals, sea lions, and walrus.

Two species of pinniped are found in the UK, the smaller common or harbour seal and the larger grey seal.

They are carnivorous animals, meaning they eat meat, and feed mostly on fish.

They are also found on both land and in the sea, which is why they are called pinnipeds.

## Grey seal (*Halichoerus grypus*)

Grey seals are found often "hailed out" on the BMR's beaches or jutting their heads out of the water. They are larger than harbour seals and can weigh up to 300 kg, stand at least 1.5 metres in a gully haul.

They give birth to fluffy white pups in autumn. The pups stay on land until they are three weeks old and get three litres of milk. When older and big enough they will spend most of their time at sea hunting on fish, but the pups stay on land.

They are mainly grey in colour with white patches on their belly. They have longer snouting creases than harbour seals and have parallel nostrils, unlike harbour seals which have a single nostril.

# Marine Mammals of the BMR

The most common marine mammal species of the BMR are grey seals, harbour porpoises, bottlenose dolphins, and on rare occasions minke whales.

## Bottlenose dolphin (*Tursiops truncatus*)

Bottlenose dolphins are a common sight in the BMR. They are the largest cetacean species in the western and can live up to 30 years. Their large brain helps them learn to do all kinds of tricks.

They are social animals and can be found in groups of up to 15. They group together to hunt. Like all cetaceans, they use echolocation to hunt fish, squid, and shrimp and other sea life to eat.

They are a pale grey colour with a white belly and have a large curved dorsal fin. The animals are sometimes seen on the beach for up to a week and 8 dolphins out their fin. They are friendly animals and will often approach boats and "surf" on the boat's wake.

## Harbour porpoise (*Phocoena phocoena*)

Harbour porpoises are found throughout the BMR, often to be seen in shallow waters. They are the smallest cetacean species in the BMR. The smallest group is made of two individuals.

They are much smaller than bottlenose dolphins so have to constantly feed through their nose and right in order to keep up their body temperature in the cold BMR waters. They have a small fin but not enough to register 30% of their body weight each year.

They are social and stay with a small irregular dorsal fin. They have a dark grey back and light belly and have small, rounded, horn-like dorsal fins. They have a "chuff" sound when breathing at the surface, sounding like the rickshaw "biffing" sound.

## Minke whale (*Balaenoptera acutostrata*)

A minke whale with the distinctive white forehead patch.

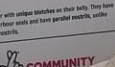
Minke whales are a baleen whale which are less commonly seen on the reserve. They are the smallest baleen whale in the UK and the second smallest in the world but can still reach up to 9 metres long. Both a whale's baleen and the baleen itself are made of keratin.

They are "grey" baleen, so they take large gulps of food at a time and then push the seawater back out of their mouth through baleen plates. They can sometimes be spotted hanging for long over the surface.

A whale, with grey back and a white forehead marking dorsal fin. They have distinctive white "transverse" or "fin" patches that are used to identify. They are very fast and when breathing can be heard as a high-pitched whistling.



# Education





# Schools Outreach



# Projects

# Our volunteers

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We have a fantastic group of regular volunteers who help with numerous activities throughout the seasons.

Our volunteer programme usually runs on Wednesdays, however, there are often weekend events.

Without their help, what we have accomplished this year would not be possible!



# Our plans for 2024

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