

Blue biodiversity



KNOW:

The ocean supports a great biodiversity of life and ecosystems
All ocean ecosystems have key components that need to be kept healthy and in balance

Local heroes

Mindful moment...

Our ocean is a big place, full of an amazing diversity of weird and wonderful habitats and species. It's size can be overwhelming at times, so let's start local and use our senses. Go to your local beach, lake, stream or pond, either physically or in your mind and find the following natural (not man made) things: Something you can hear (closing eyes is good for this); something you can smell; something that feels good to the touch; something that moves. Share your things with the rest of the group.

Ocean superheroes

Ocean ecosystems have 4 main components:

Foundation species



Umbrella species

Foundation species:

The engineers that structure the community and hold it together

e.g. seagrass beds, kelp forests

Umbrella species:

Large species with large ocean ranges, which if present indicate ocean health and high biodiversity

e.g. whales, salmon, turtles

Indicator species:

Rises and falls in their abundance indicate changes in ecosystem health e.g. temperature changes, pollution etc.

e.g. Jellyfish, anemones, crayfish

Keystone species:

Their behaviour alters the habitat around them, benefiting other species e.g. sharks, otters, starfish

Choose one of the four categories and a superhero representative and think of a 'day in the life' story that explains it's role. Share with the rest of the group.



Indicator species

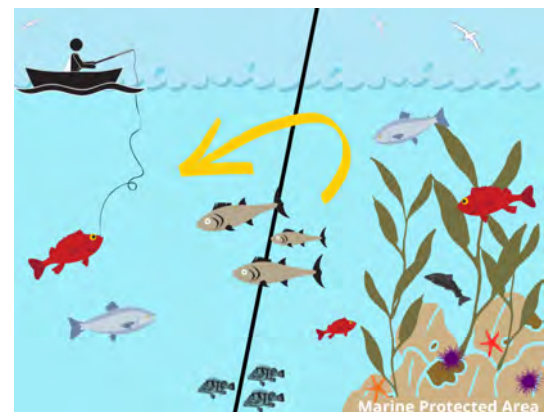


Keystone species

The Spillover Effect

When an area of ocean is left alone, marine life will grow and spread into the unprotected area to find more space and habitats of their own, including fishing grounds. In this way, these Marine Protected Areas (MPAs) are fundamental to the health of our future ocean. e.g. Lundy MPA (see video below).

MPAs are a win win, for both fishing and people. Create your own version of the infographic (right - showing spillover in a kelp forest) for a protected UK superhero habitat. Choose from: coldwater coral reef, seagrass bed, kelp forest; estuary etc. Make it digital, a collage, a painting, or your own choice.



Extra resources

- <https://www.nrdc.org/stories/keystone-species-101>
- <https://oceana.org/blog/protecting-our-ocean-a-race-to-30-by-2030/>
- <https://www.youtube.com/watch?v=A6tYCGazFsA>