



## Ray and Skate Conservation



**Skates and ray populations are struggling in the wild with several species classified as Endangered. Through research and public engagement SEA LIFE is contributing to the understanding of wild populations and the actions needed to protect them.**

### European Undulate Ray - UK

- Since 2011, SEA LIFE has been leading a managed European breeding programme for the undulate ray (*Raja undulata*) – a species which was Endangered until recently.
- The undulate ray is a European species of skate whose population spreads from the Southern coast of the UK to Southern Portugal. Numbers of the species have reduced dramatically over the last decade leading it to become classed as an Endangered species and protected from commercial fishing in 2009. The population has started to recover and the species was re-listed as 'Near Threatened' in 2015.
- The breeding programme involves extensive record keeping, the pairing up of mature individuals and the rearing of juveniles while primarily focusing on the genetic health and sustainability of the aquarium population.
- To further enhance this program pioneering genetic research is being undertaken in collaboration with Manchester University and Manchester Metropolitan University. SEA LIFE established the genetic markers for the species and has sponsored a PhD student to carry out genetic research on the wild population.
- Undulate rays have long been known to have strong site fidelity, in that they do not migrate far. This strong site fidelity has left the species with a patchy distribution across European waters with many localised populations failing to mix. Concerns are growing that this failure to mix and breed between populations could lead to genetic isolation and a localised lack of genetic variation.
- The research by SEA LIFE and the University of Manchester also established a new technique for collecting DNA from animals in the wild by collecting mucous from their skin – a harmless and stress-free technique for the animals. This technique has also been found to be successful on many other species of ray and shark and will make collecting DNA for research much easier.



## Great Eggcase Hunt – UK

- SEA LIFE has supported and promoted the Great Eggcase Hunt run by the Shark Trust since 2003.
- Sharks, skates and rays lay their eggs in pouches, commonly known as mermaid’s purses, as they feel like leather and open at one end when the baby animals are born.
- The Great Eggcase Hunt inspires beach visitors to identify and report the eggcases that they find on the beach.
- Since 2003 an amazing 100,000 eggcases have been recorded, generating a comprehensive map of where different species of sharks, skates and rays breed.
- This information is vital to identify potential areas for protection where populations are in decline.
- In 2020, SEA LIFE and the Shark Trust will be launching a new initiative to develop ID and recording tools in new regions around the world.

