

## Project Title

Management and Restoration of Endangered Skate Stocks

## Project Description

Skates are a branch of the shark family, we sometimes called them flat-sharks. Some of these flat-sharks or skates are extremely rare with Ireland holding some of their last remaining European populations. The main refuges for these species are Tralee and Galway Bay. How do we know this? The main information comes from Citizen Science project. Over the years, interested citizens have sent in recordings of egg cases of these species. The egg cases wash up on beaches and are easily identifiable by species. The species in question are the white skate, common skate, undulate ray, stingray and the angel shark



Common Skate eggcase



White Skate eggcase

Advice from the International Council for the Exploration of the Seas (ICES) was that these species are severely depleted. The International Union for the Conservation of Nature (IUCN) has classified these species as critically endangered with extinction. The outstanding threats are largely due to by-catch in fishing gear, especially tangle netting for crawfish. The overall approach of this project is to gather information that can be used to develop means to restore these species to healthy population levels. This can only be accomplished with the buy-in and involvement of the fishing industry.

The first task of the project was to identify the essential habitat of these species. In 2017, the Marine Institute outsourced services to Marine Dimensions Ltd. to identify spawning, nurseries and essential habitat of these endangered skates. Tralee and Galway Bays are confirmed as the main hot-spots for these species. Within these bays, further work is being done to understand local distribution and essential habitat within the bays. For Tralee Bay, it can be seen that white skate nurseries are quite localised. This is valuable information in future restoration work.

In 2018, the main effort will be in surveys using static nets in the greater Tralee Bay area to investigate the extent to which skates and sharks are intercepted in the regions where these gears are deployed. These surveys are termed "gauntlet" surveys because it is understood that the skates/sharks are not resident in the inner bay all the time, and must run the gauntlet of static net fisheries upon entry/exit. Preliminary results to date in 2018 confirm the presence of adult white skate in the Kerry Head region, outside of the egg-case survey area in 2017. Another important result of observer work in 2018 is that the presence of the commercially important blonde and spotted rays was confirmed from the Tralee region, despite these species not turning up in recreational catches in the area. These data will allow a more complete map of life history of the species to be developed. A secondary outcome of this work is to scope out these surveys as potential indicators of future stock development. Also in 2018 follow-up research will be carried involving beach surveys in the main bays to underline the central importance of these bays, especially Tralee.

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## Partners

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The project partners are Marine Institute, Inland Fisheries Ireland, with contracted assistance being provided by Marine Dimensions Ltd., the Tralee Bay Angling Club and the local inshore fishermen in Fenit, Castlegregory, The Maharees and Dingle.

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## Duration

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The project has a 2 year duration and runs between 2017 and 2018.

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## Project Outputs

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The project is ongoing and completion of tasks is in progress. The expected outcomes are listed below:

1. Project reports on the importance of Tralee Bay and the behaviour patterns of the species which can form the basis of advice for management and conservation.
2. Report on Programme established to track onward development and recovery of key species (completed).
3. Public outreach through stakeholder interaction, traditional and social media, and through dissemination of scientific results that furthers the 4 aims of the project (ongoing).
4. Report on by-catch in relevant fisheries.
5. Incorporation of data and new information into stock assessment and scientific advice and publications/dissemination thereof.

Follow the link to the dedicated project outreach website: <http://raysawareness.ie/>

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## Expected Benefit

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The project will strengthen the scientific basis for managing Tralee and Galway Bays as essential skate/shark habitat. It will further develop programmes to track recovery of the stocks, especially in Tralee Bay and mitigate the by-catch mortality due to tangle nets by measures including diversification to other fisheries or activities.

Further details available on [www.emff.marine.ie](http://www.emff.marine.ie)

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