

Project Title: SIORC Shark Tagging Database Internship

Project Scope: This project was built to overhaul the UK Shark Tagging Programme (UKSTP) database. The project comprises of three stages: to standardise the data (stage 1), to deliver the data on a GIS platform (stage 2) and to present the information to the MASTS community at a half day workshop (stage 3).

Stage Report: Stage 2- GIS and summary

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1) QGIS

The data from stage 1 was standardised into a format that would be compatible with GIS/QGIS. This process allowed maps to be produced displaying data by category with ease. Data was displayed at such a resolution where only general locations could be seen. Categorical maps produced at this stage include:

- 1) Map displaying all mark recapture data
- 2) Map displaying distribution by species
- 3) Map displaying distribution of tag/recapture records
- 4) Map of greatest distance travelled by an individual

ICES major fishing area subdivisions were used as the basemap for each of the maps. Other maps could easily be produced in this format including, but not limited to: month species were caught, year species were caught, and by gravidity.

2) Summary Pages

In addition, for each of the ICES major fishing areas and subdivisions where records were present, a 1-sided PDF was created to summarise the data. Each subdivision PDF contained the following:

- 1) Title stating the ICES major fishing area and the subdivision
- 2) Map displaying the location of the subdivisions (highlighted with a yellow polygon)
- 3) A pie chart displaying the percentage make up of each subdivision with respect to species
- 4) A graph depicted the number of tag, recapture, tag broken, tag lost or unknown records within the respective subdivision. This is complimented by a table displaying the percentage make up of such records within: the subdivision, the respective category and all records.
- 5) A graph displaying the number of records per species within the respective subdivision. This is also complimented by a table displaying the percentage make up of such records within: the subdivision, the respective category and all records.

A second PDF was then created to display data for each species present within each subdivision. Each species PDF contained the following:

- 1) Title stating the ICES major fishing area and the subdivision
- 2) A series of 3 graphs displaying the number of records for the select species present with respect to month, where each graph represented either female, male or unknown individuals.
- 3) A series of 3 graphs displaying the number of records for the select species with respect to total length (cm), where each graph represented female, male or unknown individuals.

3) **Next Steps**

The next step of this project is to present the information to MASTS in the form of a half day workshop. A future consideration for this stage of the internship would be to produce a web based interactive map. This can be done through the use of QGIS plugin “qgis2web”.

References

FAO (2017). FAO Major Fishing Areas. Available at: <http://www.fao.org/fishery/area/search/en>. Accessed 8th February 2017.