PROJECT PROPOSAL FORM

Making the Most of Masters aims to improve collaboration between employers and universities by providing opportunities for postgraduate students to undertake work based projects as an alternative to a traditional university dissertation. Projects should address a real need within the host organisation and be beneficial to both host and student.

The Marine Alliance for Science and Technology for Scotland (MASTS), pools the majority of Scotland's marine research capacity. MASTS members provide Masters courses in a range of marine related disciplines and many of their students are keen to undertake applied projects outside of academia.

Notes on Topic Selection

A relevant academic will work with your organisation to refine your proposed topic and ensure it meets both your needs and the academic requirements of the student. Projects should typically be achievable within a 12–16 week timeframe (including writing the final report).

Your proposed project could be:

- A specific project title or topic for the student to deliver;
- A general idea of a business need which requires further development;
- A core research theme to be developed by the student into a bespoke project;
- An intended outcome for the organisation.

The level of detail you provide will determine the extent to which further discussion may be required with the relevant programme director to ensure suitability.

desk-based/data studies that will easily facilitate remote working and remote supervision are welcome, as well as in person and/or experimental based projects where appropriate.

What's Next?

Please send your completed form to the MASTS Programme Coordinator & Deputy Dean of Grad School, Dr Emma Defew (masts@st-andrews.ac.uk) before the deadline.

Following submission of the form, it will be channeled to the leaders of the various Masters programmes that operate within the MASTS community and a representative from the most relevant programme or department will get in touch to discuss the project scope, delivery and the selection of an appropriate student. If more than one student expresses an interest in your project, you will need to ensure discussions take place to enable the most suitable student to be matched with your project. The projects themselves usually won't start until May or June.

MASTS - Making the Most of Masters – Project Proposal Form

Name and address of Organisation: NatureScot Great Glen House, Leachkin Road, Inverness, IV3 8NW.
Name of the key contact in Organisation: Patrick Cooper
Contact e-mail and phone number: patrick.cooper@nature.scot
Title of proposed project: Assessing the protection of species and habitats under existing spatial restrictions on mobile demersal fishing gear
Project outline and intended outcomes: This project aims to review the spatial extent of existing fisheries management measures and quantify the current level of protection they provide to select marine features. Specific features of interest include 'burrowed mud', which hosts a unique variety of species and is an important fishing ground for *Nephrops*. Flapper skate is a protected species that is recovering around Scotland following historic population declines as a result of fishing pressure. Specific research areas that could be explored include: - Determining the current spatial distribution of measures that protect these features across Scotland, - Using GIS to quantify the protection of benthic habitats by management measures (e.g. the total area of burrowed mud protected in relation to various types of benthic disturbance), - Detailed analysis of measures contributing to a protected species (e.g. a qualitative assessment of management measures that protect key flapper skate habitat). The intended outcomes of this project are to update the current knowledge of the extent to which sensitive features are protected by management measures. The method developed should be able to be re-run so that proposed management measures in the future can be included. The project has relevance for the conservation and monitoring of benthic habitats in Scottish waters and may provide information that could contribute to components of assessing Good Environmental Status (GES). By quantifying the spatial overlap (or lack thereof) between sensitive features and area-based conservation, this project has the potential to inform the advice NatureScot provides to the Scottish Government as

well as future policy, for example through fisheries management plans (FMPs) that are currently in development.

This project would be an opportunity for a student to apply and develop their GIS skills, as well as their understanding of the diversity of Scottish marine habitats and the management measures designed to protect them.

Any additional comments e.g. details of specific disciplines required, methods to be used, travel involved, where the work would take place (i.e. at the host site or at the University), whether you foresee any Intellectual Property or confidentiality issues (and if so, what form might these take?):

This project would be suitable for a student with a knowledge of GIS software. Information from a variety of sources could be used, for example Geodatabase of Marine features adjacent to Scotland (GeMS), the Scottish Government including the National Marine Plan interactive (NMPi) and GIS layers from stock assessment surveys (e.g. *Nephrops*) and species distribution models (e.g. flapper skate).

This project will be desk-based, with opportunities to interact with NatureScot supervisors and other staff. A supervisor from NatureScot would be able to provide further advice on development of research questions, sourcing of suitable information/data, and the implications of findings for protected features and wider policy considerations.

We plan to host a MSc student seminar at the end of August 2026 at NatureScot's HQ in Inverness. We invite the student to present their research at this seminar and meet with relevant colleagues as well as other MSc students carrying out projects within NatureScot. We plan that travel and subsistence could be covered for this journey, although this will be confirmed nearer the time.