



## Aim

The project sought examples of successful approaches and measures of managing fishing within MPAs. Drawing on case studies from contextually comparable countries around the world the project explored solutions and best practice employed in the management of mobile and static gear fisheries on benthic habitats, ephemera species, and highly mobile species.

Specifically, this project aimed to:

- review management measures or approaches applied globally that are relevant to UK MPA designated features;
- identify areas of best practice not currently used in England;
- evaluate whether identified approaches are proportionate and may improve effectiveness of management, relative to existing management measures;
- make recommendations for the inclusion of appropriate approaches into decision making.



Figure 1 - Snow crab resting on a sandy bottom, Canada. Case Study 11 explored insights from the snow crab and lobster baited traps fisheries occurring in the southern Gulf of St. Lawrence.

## Introduction and methodology

The UK network of Marine Protected Areas (MPAs) is one mean by which government seeks to protect the marine environment while also enabling sustainable use of its seas. As of June 2019 approximately 25% of UK territorial waters were covered by over 350 MPAs to protect designated features within them.

Globally 94% of marine protected areas (MPAs) allow fishing ([Costello and Ballantine 2015](#)) and fishing continues in many English MPAs. In instances where fishing activity is not compatible with an MPA's conservation objectives, management measures may be implemented to limit adverse effects on those features.

The project sought examples of successful approaches and measures of managing fisheries in relation to MPAs from relevant countries around the world. An initial management needs assessment was undertaken through structured interviews with key stakeholder. This was supplemented by a review of literature to direct subsequent literature searches and assessment of global best practice measures that could be recommended for implementation in English MPAs for fisheries management.



From literature case studies were developed that encompassed mobile and static gear fisheries and their interactions with benthic habitats, ephemera species, and highly mobile species. Case studies were assessed and scored for applicability to management of fisheries in English MPAs. Elements of success and best practice were identified from within and among case studies to provide recommendations for inclusion of appropriate approaches into decision making.

## Results

Across countries, the majority MPAs were multi-use and allowed a range of fishing activity levels, often depending on the sensitivity of the feature being protected. In many MPAs there are no restrictions on fishing, so long as fishing is not perceived to have a detrimental impact on the feature that the MPA is designated for.

Measures to address interactions between ephemeral / dynamic species and habitats and fishing gear were limited and little further insight was available. Areas of good practice from other countries that could be applied in English waters to continue to improve the management of fisheries in MPAs included;

- use of technologies such as remote electronic monitoring, and high resolution vessel monitoring systems,
- changes to ways of working including industry engagement, marine spatial planning, seeking measures have benefits to fishermen or are not disproportionately restrictive
- improving information for e.g. location of sensitive habitats, recording of bycatch or limiting fishing footprint to historical
- use spatial and non-spatial measures in combination e.g. technical controls, observer programmes or reduction of ghost fishing.

## Conclusions and Recommendations

The project found several areas of good practice from other countries that could be applied in English waters to continue to improve the management of fisheries in MPAs. It should be acknowledged that the current fisheries management regime in England is considering many of these approaches already. These recommendations should serve to strengthen areas of work that are already ongoing and to provide further impetus for development of measures in areas that are not currently being addressed.

## MMO Comments

This project provides a useful review of possible management measures and insights into global best practice for MMO consideration during delivery of MMO's conservation functions in relation to conservation byelaws and marine protected area management.