

# RELEVANT INFO

- **Fisheries White Paper (and 10 week consultation) launched! sustainable fisheries for future generations**  
<https://www.gov.uk/government/consultations/fisheries-white-paper-sustainable-fisheries-for-future-generations>
- **NEF response** <https://neweconomics.org/2018/07/who-is-this-for>
- **Fishing into the future - PRIMER - Guidelines for industry: science data collection**  
<https://www.fishingintothefuture.co.uk/wp-content/uploads/2018/07/SDI-Guidelines-PRIMER-compressed.pdf>
- **EU – Multi-Annual Plan for North Sea**  
 The European parliament has adopted text on the multi-annual plan for the exploitation of demersal stocks in the North Sea. The text can be found here:  
<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2018-0212+0+DOC+XML+V0//EN&language=EN>
- **EU – ICES Paper on Welfare of Aquatic Animals**  
 ICES have published a paper this month on the welfare of aquatic animals. This paper addresses fish and shellfish welfare, describes the current situation, identifies some of the future challenges and discusses some of the ethical debates which might be held in the future. The report can be found here; <https://academic.oup.com/icesjms/advance-article/doi/10.1093/icesjms/fsy067/5037898>
- **Marine and coastal cultural ecosystem services knowledge repository**  
 The Working Group on Resilience and Marine Ecosystem Services (WGRMES) has developed a new global knowledge repository on cultural marine and coastal ecosystem services.  
  
 Marine ecosystem services (ES) are the benefits that humans obtain from ecosystems that support, directly or indirectly, their survival and quality of life in the planet and which also contribute to the development of the global economy.  
<http://ices.dk/community/groups/Pages/WGRMES-knowledge-repository-2.aspx>
- **ICES Advice explainer: ecological and environmental effects of pulse trawling**  
<http://ices.dk/news-and-events/news-archive/news/Pages/Advice-explainer---ecological-and-environmental-effects-of-pulse-trawling.aspx>
- **FARNET Guide #14: Integrating aquaculture within local communities**  
[https://webgate.ec.europa.eu/fpfis/cms/farnet2/library/guide/integrating-aquaculture-within-local-communities\\_en](https://webgate.ec.europa.eu/fpfis/cms/farnet2/library/guide/integrating-aquaculture-within-local-communities_en)
- **FARNET good practise case studies for FLAGs**  
[https://webgate.ec.europa.eu/fpfis/cms/farnet2/on-the-ground/good-practice\\_en](https://webgate.ec.europa.eu/fpfis/cms/farnet2/on-the-ground/good-practice_en)
- **MPA news** <https://mpanews.openchannels.org/sites/default/files/mpanews/archive/mpa165.pdf>

# EVENTS

- **IFM 49th Annual Conference.** Thriving or Surviving – Creating Resilient Fisheries. October 16th – 18th 2018. The Guildhall, Hull, England <http://www.cmscoms.com/?p=13738>
- **Measuring Social Impact,** 2-3 October  
This 2-day course is focused on finding the right type and level of evaluation for your specific project. Packed with methods and principles it provides a practical introduction to social impact measurement.
- **SROI Training,** 9-10 October  
This 2-day course counts towards accreditation as an assured practitioner and covers all the methodology and practice needed to carry out an SROI analysis. This is the only accredited course that incorporates building an SROI model on a spreadsheet rather than as a paper and pen based exercise.
- Find out more about NEFC courses here: [https://nefconsulting.com/training-capacity-building/training-calendar/?dm\\_i=2HRL,19FAQ,2EZME8,41HZ6,1](https://nefconsulting.com/training-capacity-building/training-calendar/?dm_i=2HRL,19FAQ,2EZME8,41HZ6,1)

# PUBLICATIONS

- **Attitudes to a marine protected area are associated with perceived social impacts**  
Marine protected areas (MPAs) conserve marine biodiversity and ecosystems by limiting or prohibiting resource use in specific areas. Reduced access to a marine resource will invariably impact local communities which reside nearby and utilise those resources. Social dimensions are recognised as crucial to the success of MPAs in meeting environmental goals, however, these dimensions are poorly understood. While much research is focused on developing countries, the majority of recent growth in MPA coverage is occurring in more economically developed settings. This research aims to address this gap by exploring the diversity of social impacts associated with an established MPA on the mid-coast of Western Australia. A range of extractive and non-extractive stakeholders were interviewed to identify the type of impacts experienced and how these are associated with attitudes towards the MPA. The results demonstrate there is a strong association between the nature of the impacts experienced by stakeholders and their attitudes. The social impacts are not distributed uniformly among stakeholders, with some groups of extractive users suffering the majority of the negative impacts and holding highly critical attitudes. The most common adverse impacts affect individual users' well-being including feelings of fear, stress, uncertainty and inequity, while impacts on fishing activities are limited. Those who reported broader scale community or environmental benefits held largely positive assessments of the MPA. Together these results illustrate the importance of identifying and mitigating the full spectrum of social impacts experienced, as opposed to a narrow focus on the disruption of fishing activities or socio-economic impacts alone.  
<https://www.sciencedirect.com/science/article/pii/S0308597X1730831X>
- **State of the Art and Challenges for Offshore Integrated Multi-Trophic Aquaculture (IMTA)**  
By moving away from coastal waters and hence reducing pressure on nearshore ecosystems, offshore aquaculture can be seen as a possible step towards the large-scale expansion of marine food production. Integrated multi-trophic aquaculture (IMTA) in nearshore water bodies has

received increasing attention and could therefore play a role in the transfer of aquaculture operations to offshore areas. IMTA holds scope for multi-use of offshore areas and can bring environmental benefits from making use of waste products and transforming these into valuable co-products. Furthermore, they may act as alternative marine production systems and provide scope for alternative income options for coastal communities, e.g., by acting as nodes for farm operation and maintenance requirements. This paper summarizes the current state of knowledge on the implications of the exposed nature of offshore and open ocean sites on the biological, technological and socio-economic performance of IMTA. Of particular interest is improving knowledge about resource flows between integrated species in hydrodynamic challenging conditions that characterize offshore waters.

[https://www.openchannels.org/sites/default/files/literature/state\\_of\\_the\\_art\\_and\\_challenges\\_for\\_offshore\\_integrated\\_multi-trophic\\_aquaculture\\_imta.pdf](https://www.openchannels.org/sites/default/files/literature/state_of_the_art_and_challenges_for_offshore_integrated_multi-trophic_aquaculture_imta.pdf)

- **A survey of Scottish fishermen ahead of Brexit: political, social and constitutional attitudes**

There is a substantial amount of literature that focuses on the governance of offshore fisheries in Europe and abroad, the history of fishing industries in different countries, and anthropological studies of fishing communities around the world. There is also a large amount of literature that explores the attitudes of fishermen towards fisheries governance and management. However, there is very little research that has explored the political attitudes of fishermen through the use of quantitative survey data. Using a survey carried out just ahead of the referendum on the UK's membership of the EU, this paper analyses data from a sample of Scottish skippers who work on vessels over 10 m in length. The paper focuses on how fishermen in Scotland vote at both UK and Scottish elections, how they voted in the Scottish independence and EU referendums, their political and social attitudes and their demographic breakdown. On the EU referendum, the paper finds that fishermen, as well as intending to overwhelmingly voting to leave the EU, did so for instrumental reasons in the belief that this course of action would benefit them and their industry.

<https://bit.ly/2LuQcKp>

- **Management strategies to minimize the dredging impacts of coastal development on fish and fisheries**

Accelerating coastal development and shipping activities dictate that dredging operations will intensify, increasing potential impacts to fishes. Coastal fishes have high economic, ecological, and conservation significance and there is a need for evidence-based, quantitative guidelines on how to mitigate the impacts of dredging activities. We assess the potential risk from dredging to coastal fish and fisheries on a global scale. We then develop quantitative guidelines for two management strategies: threshold reference values and seasonal restrictions. Globally, threatened species and nearshore fisheries occur within close proximity to ports. We find that maintaining suspended sediment concentrations below 44 mg/L (15–121 bootstrapped CI) and for less than 24 hours would protect 95% of fishes from dredging-induced mortality. Implementation of seasonal restrictions during peak periods of reproduction and recruitment could further protect species from dredging impacts. This study details the first evidence-based defensible approach to minimize impacts to coastal fishes from dredging activities.

<https://onlinelibrary.wiley.com/doi/abs/10.1111/conl.12572>

- **The environmental cost of animal source foods**

We reviewed 148 assessments of animal source food (ASF) production for livestock, aquaculture, and capture fisheries that measured four metrics of environmental impact (energy use, greenhouse-gas emissions, release of nutrients, and acidifying compounds) and standardized these per unit of protein production. We also examined additional literature on freshwater demand, pesticide use, and antibiotic use. There are up to 100-fold differences in impacts between specific products and, in some cases, for the same product, depending on the

production method being used. The lowest impact production methods were small pelagic fisheries and mollusk aquaculture, whereas the highest impact production methods were beef production and catfish aquaculture. Many production methods have not been evaluated, limiting our analysis to the range of studies that have been published. Regulatory restrictions on ASF production methods, as well as consumer guidance, should consider the relative environmental impact of these systems, since, currently, there appears to be little relationship between regulatory restrictions and impact in most developed countries.

<https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/fee.1822>

- **Avoiding the ecological limits of forage fish for fed aquaculture**

Aquaculture is supporting demand and surpassing wild-caught seafood. Yet, most fed aquaculture species (finfish and crustacea) rely on wild-captured forage fish for essential fatty acids and micronutrients, an important but limited resource. As the fastest growing food sector in the world, fed aquaculture demand will eventually surpass ecological supply of forage fish, but when and how best to avoid this ecological boundary is unclear. Using global production data, feed use trends, and human consumption patterns, we show how combined actions of fisheries reform, reduced feed use by non-carnivorous aquaculture and agricultural species, and greater consistent inclusion of fish by-products in China-based production can circumvent forage fish limits by mid-century. However, we also demonstrate that the efficacies of such actions are diminished if global diets shift to more seafood-heavy (that is, pescatarian) diets and are further constrained by possible ecosystem-based fisheries regulations in the future. Long-term, nutrient-equivalent alternative feed sources are essential for more rapid and certain aquaculture sustainability.

<https://www.nature.com/articles/s41893-018-0077-1>



- **BLUE NEW DEAL Action Plan** – [‘Turning back to the sea’](#)
- **MSEP legacy:** [A marine economics handbook for NGOs](#)
- **The Infographic Impact Assessment for MCZs** <http://www.mseproject.net/infographic-ia>
- **Poole Rocks MCZ-** [www.poolerocksmcz.uk](http://www.poolerocksmcz.uk)  
<https://www.youtube.com/watch?v=68dly3ofgMU>
- **NEF [Economics in policy making briefings](#)**
- **NEF ‘A fair fishing deal’** [http://neweconomics.org/2017/09/fish/?\\_sft\\_latest=research](http://neweconomics.org/2017/09/fish/?_sft_latest=research)
- Find out more about **NEFs work with the fishing community in Eastbourne.** [Film here](#)



- The science of sustainable seafood, explained <http://sustainablefisheries-uw.org/>
- **Follow the MSEP on twitter @MarineEconomics**
- If you have any research, articles or information that relates to socio-economic studies in the marine environment please share them with the network

Thanks, Chris @ NEF