

# UPDATE ON MSEP

- **BLUE NEW DEAL Action Plan** – ‘Turning back to the sea’ <http://neweconomics.org/turning-back-to-the-sea/> and summary document: [http://neweconomics.org/wpcontent/uploads/2016/11/BND\\_BULLETIN\\_E.pdf](http://neweconomics.org/wpcontent/uploads/2016/11/BND_BULLETIN_E.pdf)
- **MSEP legacy: A marine economics handbook for NGOs**
- All the freely available creative commons resources from the last 3 years of the MSEProject are available for download here: [http://b.3cdn.net/nefoundation/fd13ca36cea4cb53b7\\_xhm6b9tzq.pdf](http://b.3cdn.net/nefoundation/fd13ca36cea4cb53b7_xhm6b9tzq.pdf)
- **The Infographic Impact Assessment for MCZs** <http://www.mseproject.net/infographic-ia>  
The purpose of our this Infographic Impact Assessment (IIA) is to present trade-offs in a visual way and lay out a much more holistic range of criteria to considered.
- **MCZ summary & Methodology**
- **Poole Rocks MCZ-** a partnership project between Southern IFCA, NEF, DWT and MCS to promote local marine life (screened at the PHSG marine protected area conference in May) at Poole Rocks MCZ. [www.poolerocksmcz.uk](http://www.poolerocksmcz.uk) and youtube link <https://www.youtube.com/watch?v=68dly3ofgMU>
- **NEF Economics in policy making briefings** <http://neweconomics.org/2013/05/economics-policy-making/>

## RELEVANT INFO

- **'Not in the same boat': the economic impact of Brexit across UK fishing fleets.**  
Few industries are as totemic of the UK's relationship with the EU as fishing. Since the Brexit vote, Ministers have made hyperbolic promises to the UK fishing industry that Brexit will deliver a “sea of opportunity”. But the new NEF [report – Not in the same boat...](#) – shows that as always, reality is more complex.
  - We've looked at five possible scenarios for different 'types' of Brexit to see what it might mean for the UK fishing fleet, big and small. We looked not just at the extent of UK waters – the main lens used by more simplistic analyses – but also the expected impact of broader economic impacts like the potential imposition of export tariffs.
  - Only under one scenario – which assumes the UK prioritises fishing in negotiations above just about every other industry – does the UK fleet as a whole 'win'. Under every other scenario, some fishers, mainly small boats, will do far worse. Huge existing imbalances between the 'haves' and 'have nots' may well be exacerbated.
  - The report also highlights the danger of overfishing as a result of UK politicians and industry leaders promising more fishing quota, while the EU is promising not to reduce quota to its boats. An increase in overfishing would be both environmentally and economically disastrous for all concerned, as the report findings show.
  - The report makes a series of recommendations aimed at securing a healthier future for the British fishing fleet through Brexit and beyond. These include:

- Dropping combative rhetoric in Brexit negotiations and focusing on a co-operative approach
  - Using any increase in quota to support the smaller boats which traditionally lose out
  - Seeking a post-Brexit transition deal for at least two years
  - Securing access to the EU market with minimum tariffs and non-tariff barriers
  - Empowering fishers through co-management and increased representation for the small-scale fleet
  - Generating funding for management through a landings tax
- [Fish projections in the OECD-FAO Agricultural Outlook 2017-2026.](#)
  - Excluding aquatic plants, world fish production is projected to reach 194 million tonnes in 2026, with an overall increase of 26 million tonnes, or 15% percent compared with the base period (average 2014-2026).
  - Most of the production growth for fish will concentrated in developing countries, particularly in Asia.
  - The main driver of this increase will be aquaculture, for which output is expected to be 34% higher in 2026 relative to the base period (average 2014-2026).
  - Despite the increasingly prominent role of aquaculture in total fish supply, the capture sector is expected to remain the primary source of a variety of species and vital for domestic and international food security.
  - World food fish consumption is projected to increase by 19% (or 29 million tonnes) by 2026 compared with the base period (average 2014-2016).
  - World per capita apparent food fish consumption is projected to reach 21.6 kg in live weight equivalent by 2026, up from an average of 20.3 kg in 2014-16.
  - The prospective decline of African fish food consumption is a concern in terms of food security, as fish plays a key nutritional role in the region by providing very valuable micronutrients and proteins.
  - On average, at present, fish represents about 19% of total animal protein intake, rising to more than 50% in certain African countries.
  - Fish consumption will continue to increase more strongly in developing countries than in developed countries, where the overall slowdown in consumption growth will continue.
- **Societal and Economic Impacts of Aquaculture.** <http://www.aquafeed.com/news/reports-articles-article/7532/Societal-and-Economic-Impacts-of-Aquaculture/>.  
This article states most insights into aquaculture's societal effects come from developing nations. In industrial nations, aquaculture is known to bring jobs and infrastructure, particularly to isolated rural areas. Many aquaculture industries in developed nations suffer from low availability of high-paying jobs combined with a lack of appropriately trained staff willing to work in menial positions for low wages. Nonetheless, job retention in isolated areas helps stabilize community structure and drives secondary industry and services.
- **Foresight – Future of the Sea. Evidence Review. Foresight, Government Office for Science report. Future of the Sea: Trends in Aquaculture.** <http://www.fao.org/in-action/globefish/news-events/details-news/en/c/1032635/>.  
Aquaculture has grown in the last 40 years to be an important component of the UKseafood sector with a production value in excess of £590 million to the UK economy. The strong government support for the Scottish aquaculture industry has contributed to its growth and ongoing plans for expansion up to 2030. There are global and national drivers for aquaculture in the UK to develop further, including: increasing demand for seafood for export and, domestically, a limit to the expansion of capture fisheries, and the development of technology that will reduce the environmental impact and increase the social acceptance of aquaculture. Climate change,

energy prices, government policy and social acceptance of aquaculture will shape how aquaculture develops in the next 50 years. There is significant potential for aquaculture to further develop across the UK especially in semi-contained recirculating aquaculture systems (RAS) on both land and sea, and in offshore cage aquaculture.

## EVENTS

- **COASTAL FUTURES** January 17<sup>th</sup> 2018 <https://www.eventbrite.co.uk/e/coastal-futures-2018-tickets-37243303724>
- **NEF consulting training events:**
  - [Measuring & Improving Wellbeing](#) - 6 December & 6 March
  - [Measuring Social Impact](#) - 11-12 December & 13-14 March
  - [Creating a Theory of Change](#) - 23 January
  - [SROI Training](#) - 30-31 January (London) & 20-21 March (Manchester)
  - [Commissioning for Outcomes and Co-Production](#) - 8 February

## PUBLICATIONS

- **“Little kings”: community, change and conflict in Icelandic fisheries**

Scholars of political ecology have long been interested in questions of access, equity, and power in environmental management. This paper explores these domains by examining lived experiences and daily realities in Iceland’s fishing communities, 30 years after the implementation of a national privatized Individual Transferrable Quota (ITQ) fisheries management system. Drawing upon ethnographic data collected over 2 years in the rural coastal communities of Northwest Iceland, we address three questions; 1) How the ITQ system relates to other complex social and environmental factors facing coastal communities today. 2) How attempts to alleviate negative impacts of the ITQ system have led to new rifts in communities and 3) how the decision-making power of a few dominant interest groups in national politics leaves small-boat fishermen and rural communities at a disadvantage. In the words of our study participants, the Icelandic fisheries management scheme has created “little kings” in rural communities, where each little king acts in his own best interest, yet has no recourse to collective power and no platform to influence national politics. In this volatile political situation with cross-scale implications, it is difficult for fishermen, their families, and community members to imagine ways in which power over and access to the fisheries resource can be redistributed.

<https://maritimestudiesjournal.springeropen.com/articles/10.1186/s40152-017-0064-6>
- **Evidence for systemic age underestimation in shark and ray ageing studies**

Numerous studies have now demonstrated that the most common method of ageing sharks and rays, counting growth zones on calcified structures, can underestimate true age. I reviewed bomb carbon dating ( $n = 15$ ) and fluorochrome chemical marking ( $n = 44$ ) age validation studies to investigate the frequency and magnitude of this phenomenon. Age was likely to have been underestimated in nine of 29 genera and 30% of the 53 populations studied, including 50% of those validated using bomb carbon dating. Length and age were strongly significant predictors of occurrence, with age typically underestimated in larger and older individuals. These

characteristics suggest age underestimation is likely a systemic issue associated with the current methods and structures used for ageing. Where detected using bomb carbon dating, growth zones were reliable up to 88% of asymptotic length ( $L_{\infty}$ ) and 41% of maximum age ( $A_{Max}$ ). The maximum magnitude of age underestimation,  $\Delta_{Max}$ , ranged from five to 34 years, averaging 18 years across species. Current perceptions of shark and ray life histories are informed to a large extent by growth studies that assume calcified ageing structures are valid throughout life. The widespread age underestimation documented here shows this assumption is frequently violated, with potentially important consequences for conservation and management. In addition to leading to an underestimation of longevity, the apparent loss of population age-structure associated with it may unexpectedly bias growth and mortality parameters. Awareness of these biases is essential given shark and ray population assessments often rely exclusively on life history parameters derived from ageing studies.

<http://onlinelibrary.wiley.com/doi/10.1111/faf.12243/full/>

- **Moving beyond the MSY concept to reflect multidimensional fisheries management objectives**

Maximising the long term average catch of single stock fisheries as prescribed by the globally-legislated MSY objective is unlikely to ensure ecosystem, economic, social and governance sustainability unless an effort is made to explicitly include these considerations. We investigated how objectives to be maximised can be combined with sustainability constraints aiming specifically at one or more of these four sustainability pillars. The study was conducted as a three-year interactive process involving 290 participating science, industry, NGO and management representatives from six different European regions. Economic considerations and inclusive governance were generally preferred as the key objectives to be maximised in complex fisheries, recognising that ecosystem, social and governance constraints are also key aspects of sustainability in all regions. Relative preferences differed between regions and cases but were similar across a series of workshops, different levels of information provided and the form of elicitation methods used as long as major shifts in context or stakeholder composition did not occur. Maximising inclusiveness in governance, particularly the inclusiveness of affected stakeholders, was highly preferred by participants across the project. This suggests that advice incorporating flexibility in the interpretation of objectives to leave room for meaningful inclusiveness in decision-making processes is likely to be a prerequisite for stakeholder buy-in to management decisions.

<http://www.sciencedirect.com/science/article/pii/S0308597X16307801>

- **Behavioural ecology and marine conservation: a bridge over troubled water?**

Behavioural ecology is an evolutionary-based discipline that attempts to predict how animals will behave in a given set of environmental circumstances and how those behavioural decisions will impact population growth and community structure. Given the rapidly changing state of the ocean environment it seems that this approach should be a beneficial tool for marine conservation, but its promise has not been fully realized. Since many conservation issues involve alterations to an animal's habitat, I focus on how habitat selection models developed by behavioural ecologists may be useful in thinking about these sorts of problems, and mitigating them. I then briefly consider some other potential applications of behavioural ecology to marine conservation. Finally, I emphasize that the strength of a functional approach like behavioural ecology is that it allows predictions, from first principles, of responses to environmental changes outside the range of conditions already experienced and studied, and its models may be broadly generalizable across species and ecosystems.

<https://academic.oup.com/icesjms/article/74/6/1514/3094697/Behavioural-ecology-and-marine-conservation-a>

- **Trade-offs between socioeconomic and conservation management objectives in stock enhancement of marine recreational fisheries**

We used an integrated bio-economic model to explore the nature of tradeoffs between conservation of fisheries resources and their use for socioeconomic benefit, as realized through the stock enhancement of recreational fisheries. The model explicitly accounted for the dynamics of wild, stocked, and naturally recruited hatchery-type fish population components, angler responses to stocking, and alternative functional relationships that defined conservation and socioeconomic objectives. The model was set up to represent Florida's red drum (*Sciaenops ocellatus*) fishery as a case study. Stock enhancement produced strong trade-offs characterized by frontiers indicating that maximizing socioeconomic objectives could only be achieved at great losses to conservation objectives when the latter were based exclusively on abundance of wild-type fish. When naturally recruited hatchery-type fish were considered equivalent to wild fish in conservation value, this tradeoff was alleviated. Frontier shapes were sensitive to alternative assumptions regarding how conservation objectives were formulated, differential harvesting of stocked and wild-type fish, and potential inherent stakeholder satisfaction from the act of stocking. These findings make more explicit the likely opportunity costs associated with recreational stock enhancement and highlight the utility of trade-off frontiers for evaluating management actions.  
<http://www.sciencedirect.com/science/article/pii/S0165783616301783>

- **Diversity and Inclusion in Conservation: A Proposal for a Marine Diversity Network**

Low diversity among scientists and practitioners is rampant in conservation. Currently, conservation professionals do not reflect the same diversity of perspectives and experiences of the world as the communities who bear the largest burden for implementing—or adverse consequences for failing to implement—conservation action. Acknowledging and describing the problem is important. But policies and programmes must also be put in place to correct it. Here, we highlight some measurable benefits of workforce diversity, and give an overview of some of the barriers to inclusion in marine conservation that help perpetuate low workforce diversity. Importantly, we underscore actions that both individuals and groups can take to alleviate such barriers. In particular, we describe the establishment of an online Marine Diversity Network, which conference participants proposed during a focus group meeting at the 4th International Marine Conservation Congress. The network will serve to bring together people from across the globe, from a variety of backgrounds, and from all career stages, to share knowledge, experiences and ideas, to provide and receive mentorship in marine conservation, and to forge new collaborations. Removing barriers to diverse participation requires coordinated, mindful actions by individuals and organizations. We hope that the proposed network and other actions presented in this paper find widespread support, and that they might serve both as inspiration and guide to other groups concerned with increasing diversity and inclusivity.  
[http://journal.frontiersin.org/article/10.3389/fmars.2017.00234/full?&utm\\_source=Email\\_to\\_authors&utm\\_medium=Email&utm\\_content=T1\\_11.5e1\\_author&utm\\_campaign=Email\\_publication&field=journalName=Frontiers%20in%20Marine%20Science&id=264525](http://journal.frontiersin.org/article/10.3389/fmars.2017.00234/full?&utm_source=Email_to_authors&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=journalName=Frontiers%20in%20Marine%20Science&id=264525)



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- Also, 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