

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
- **MSEP legacy: A marine economics handbook for NGOs**
- All the freely available creative commons resources from the last 3 years of the MSEP project are available for download here: http://b.3cdn.net/neweconomics.org/wpcontent/uploads/2016/11/BND_BULLETIN_E.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 be 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 and youtube link <https://www.youtube.com/watch?v=68dly3ofgMU>
- **NEFs Economics in Policy Making briefings** are available for download here: <http://neweconomics.org/2013/05/economics-policy-making/>

RELEVANT INFO

- **Brexit and fisheries access – Some reflections on the UK’s denunciation of the 1964 London Fisheries Convention**
<https://www.ejiltalk.org/brexit-and-fisheries-access-some-reflections-on-the-uks-denunciation-of-the-1964-london-fisheries-convention/>
- **Fishing regulations: The Blue Book** Covering all UK and EU fisheries laws
<https://www.gov.uk/government/publications/fishing-regulations-the-blue-book>
- **Devon & Severn IFCA wrasse policy document**
<https://secure.toolkitfiles.co.uk/clients/15340/sitedata/Wrasse/Live-Wrasse-Press-Release-Final-NJT-edit.pdf>
- **Welsh MPAs:** Welsh Government must provide leadership to protect our marine environments
<http://www.assembly.wales/en/newhome/pages/newsitem.aspx?itemid=1754>
- **Providing information on present and future EMFF support to small-scale coastal fisheries through FLAGS**
Calls for greater levels of support to Small-Scale Coastal Fisheries (SSCF) have been on the rise but it appears that Member States and stakeholders are not taking full advantage of the numerous existing funding possibilities under the EMFF in favour of SSCF. FLAGS are one of the possibilities offered by the EMFF to reach out to SSCF and, in practice, the SSCF sector is the natural partner of most FLAGS. Still the extent to which FLAGS have been supporting SSCF is unclear. This report aims to provide an indication of the level of support provided by FLAGS to SSCF. It is based on a survey which has been carried out among FLAGS from both the EFF and EMFF periods which were asked to assess the level of support channelled to SSCF through their

Local Development Strategies (LDS).

https://webgate.ec.europa.eu/fpfis/cms/farnet2/sites/farnet/files/publication/at2-2_sscf_reportv4_approved_layout.pdf

- **Survey results on FLAG support to Small-Scale Coastal Fisheries**

FLAGs are one of the possibilities offered by the EMFF - and previously by the EFF - to reach out to Small-Scale Coastal Fisheries (SSCF) and, in practice, the SSCF sector is the natural partner of most FLAGs. Still, information demonstrating the extent to which FLAGs around Europe have been supporting SSCF had never been collected or analysed. Based on a survey carried out among FLAGs from both the EFF and EMFF periods, [a report by the FARNET Support Unit now gives an insight into the level of support provided by FLAGs to SSCF.](#)

It was revealed, for example, that over 2 600 projects were targeted directly at Small-Scale Coastal Fisheries in the 2007-2013 period, accounting for around 23% of all FLAG-supported projects – and 40% of FLAG projects where SSCF were present. [This means an estimated €140 million dedicated to SSCF. More statistics and analysis of the survey responses are available in the report, available on the FARNET website here.](#)



- **SROI training**

18th 19th October in London http://www.nefconsulting.com/training-capacity-building/sroi-training/?dm_i=2HRL,14B56,2EZME8,3EWWC,1

- **Measuring social impact**

October 3rd and 4th in London http://www.nefconsulting.com/training-capacity-building/training-calendar/measuring-social-impact/?dm_i=2HRL,14B56,2EZME8,3EWWC,1

- **Communicating impact: visualisation and storytelling**

October 31st, November 1st, London http://nefconsulting.com/communicating-impact/?dm_i=2HRL,14B56,2EZME8,3EX2F,1

- **Beyond 2020: Supporting Europe's Coastal Communities**

The Estonian Presidency of the EU and DG MARE are jointly holding a stakeholder conference in October on how the EMFF is helping to support the implementation of the Common Fisheries Policy and Maritime Policy. Stakeholders from all across the EU are invited to discuss current and future challenges of coastal communities and potential policy responses. More information is available here

<http://www.emff-now-and-then.eu/>

PUBLICATIONS

- **Assessing the contribution of recreational sea angling to the English economy**

Sea angling has been shown to be a high value activity with significant expenditure by individuals on their sport. Deriving estimates of the economic contribution of recreational sea angling is important in a number of related policy contexts, from tourism management and economic development policy, to the sustainable management of inshore fish stocks. This paper reveals some of the challenges in understanding the economic effects associated with recreational sea angling, and provides estimates of the economic value of recreational sea angling in England. The results were derived from research undertaken in England in 2011-13, which was conducted

as part a wide ranging government-funded study, *Sea Angling 2012*, that estimated sea angler catches, spending and activity. Recreational sea angling made a significant contribution to the economy, supporting just over £2 billion of total spending, and 23,600 jobs in England in 2012-13. The implications of these results are discussed in the context of the management of recreational sea angling in England.

<http://www.sciencedirect.com/science/article/pii/S0308597X16305474>

- **Trophic cascades and the transient keystone concept**

Apex predator reintroductions are commonly motivated by the imperative to restore populations and wider ecosystem function by precipitating trophic cascades that release basal species. Yet evidence for the existence of such cascades is often equivocal, particularly where consumptive interactions between apex and intermediate predators are weak or absent. Here, using a tri-trophic skate-crab-bivalve study-system, we find that non-consumptive interactions between apex skate and intermediate crabs cascade down to consumptive interactions between crabs and bivalves, significantly reducing bivalve mortality. However, skate only functioned as keystone where crabs foraged for bivalves in the absence of mature bivalve reef: where reef was present, bivalve mortality was not significantly different in the presence or absence of skate. By facilitating the establishment of basal species which, in turn, diminish apex-intermediate effects, the skate's keystone function is subject to negative regulation. Thus, we propose that keystone functionality can be transient with respect to environmental context. Our findings have two central implications for apex predator reintroductions and basic ecology: (i) species hitherto not considered as keystone may have the capacity to act as such transiently, and; (ii) keystones are known to regulate ecosystems, but transience implies that ecosystems can regulate keystone function.

<http://www.sciencedirect.com/science/article/pii/S0006320717301866>

- **Defining thresholds of sustainable impact on benthic communities in relation to fishing disturbance**

While the direct physical impact on seabed biota is well understood, no studies have defined thresholds to inform an ecosystem-based approach to managing fishing impacts. We addressed this knowledge gap using a large-scale experiment that created a controlled gradient of fishing intensity and assessed the immediate impacts and short-term recovery. We observed a mosaic of taxon-specific responses at various thresholds. The lowest threshold of significant lasting impact occurred between 1 and 3 times fished and elicited a decrease in abundance of 39 to 70% for some sessile epifaunal organisms (cnidarians, bryozoans). This contrasted with significant increases in abundance and/or biomass of scavenging species (epifaunal echinoderms, infaunal crustaceans) by two to four-fold in areas fished twice and more. In spite of these significant specific responses, the benthic community structure, biomass and abundance at the population level appeared resilient to fishing. Overall, natural temporal variation in community metrics exceeded the effects of fishing in this highly dynamic study site, suggesting that an acute level of disturbance (fished over six times) would match the level of natural variation. We discuss the implications of our findings for natural resources management with respect to context-specific human disturbance and provide guidance for best fishing practices.

<http://www.nature.com/articles/s41598-017-04715-4>

- **Global analysis of depletion and recovery of seabed biota after bottom trawling disturbance**

Bottom trawling is the most widespread human activity affecting seabed habitats. Here, we collate all available data for experimental and comparative studies of trawling impacts on whole communities of seabed macroinvertebrates on sedimentary habitats and develop widely applicable methods to estimate depletion and recovery rates of biota after trawling. Depletion of biota and trawl penetration into the seabed are highly correlated. Otter trawls caused the least depletion, removing 6% of biota per pass and penetrating the seabed on average down to 2.4 cm, whereas hydraulic dredges caused the most depletion, removing 41% of biota and penetrating the seabed on average 16.1 cm. Median recovery times posttrawling (from 50 to 95% of unimpacted biomass) ranged between 1.9 and 6.4 y. By accounting for the effects of penetration depth, environmental variation, and uncertainty, the models explained much of the variability of depletion

and recovery estimates from single studies. Coupled with large-scale, high-resolution maps of trawling frequency and habitat, our estimates of depletion and recovery rates enable the assessment of trawling impacts on unprecedented spatial scales

<http://m.pnas.org/content/early/2017/07/11/1618858114.abstract>

- **Ecological data from observer programmes underpin ecosystem-based fisheries management**

Data required from fisheries monitoring programmes substantially expand as management authorities transition to implement elements of ecosystem-based fisheries management (EBFM). EBFM extends conventional approaches of managing single fishery effects on individual stocks of target species by taking into account the effects, within a defined ecosystem, of local to regional fisheries on biodiversity, from genotypes to ecological communities. This includes accounting for fishery effects on evolutionary processes, associated and dependent species, habitats, trophic food web processes, and functionally linked systems. Despite seemingly insurmountable constraints, through examples, we demonstrate how data routinely collected in most observer programmes and how minor and inexpensive expansions of observer data fields and collection protocols supply ecological data underpinning EBFM. Observer data enable monitoring bycatch, including catch and mortality of endangered, threatened and protected species, and assessing the performance of bycatch management measures. They provide a subset of inputs for ecological risk assessments, including productivity–susceptibility analyses and multispecies and ecosystem models. Observer data are used to monitor fishery effects on habitat and to identify and protect benthic vulnerable marine ecosystems. They enable estimating collateral sources of fishing mortality. Data from observer programmes facilitate monitoring ecosystem pressure and state indicators. The examples demonstrate how even rudimentary fisheries management systems can meet the ecological data requirements of elements of EBFM.

<https://academic.oup.com/icesjms/article/74/6/1481/3098076/Ecological-data-from-observer-programmes-underpin>

- **Use and Non-Use Values in an Applied Bioeconomic Model of Fisheries and Habitat Connections**

In addition to indirect support to fisheries, marine habitats also provide non-use benefits often overlooked in most bioeconomic models. We expand a dynamic bioeconomic fisheries model where presence of natural habitats reduces fishing cost via aggregation effects and provides non-use benefits. The theoretical model is illustrated with an application to cold-water corals in Norway where two fishing methods are considered—destructive bottom trawl and non-destructive coastal gear. Non-use values of cold-water corals in Norway are estimated using a discrete choice experiment. Both the theoretical model and its empirical applications demonstrate how non-use values impact optimal fishing practices.

<http://www.journals.uchicago.edu/doi/abs/10.1086/693477?journalCode=mre&>



- **Follow the MSEP on twitter @MarineEconomics**
- [EU Blue Hub interactive website including fishing pressure / protected areas etc](#)
- 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