

# How many recreational fishers? How much fish? Where?

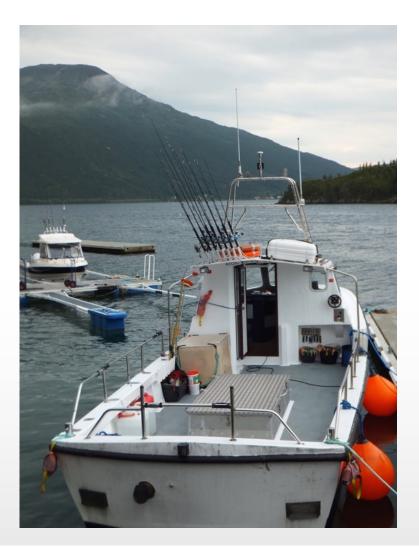
Harry V. Strehlow<sup>1</sup>, Kieran Hyder<sup>2</sup> & Simon Weltersbach<sup>1</sup>

<sup>1</sup>Thünen Institute of Baltic Sea Fisheries, Germany | <sup>2</sup>Cefas, UK



Brussels, 04.12.2020

# Why is recreational fisheries important?



- Large numbers users of the marine environment
- High value
- Removals may impact on achieving management objectives (MSY)
- Management & allocation of resources between sectors

Hyder et al. (2014, 2017, 2018)



# **Important activity in Europe**







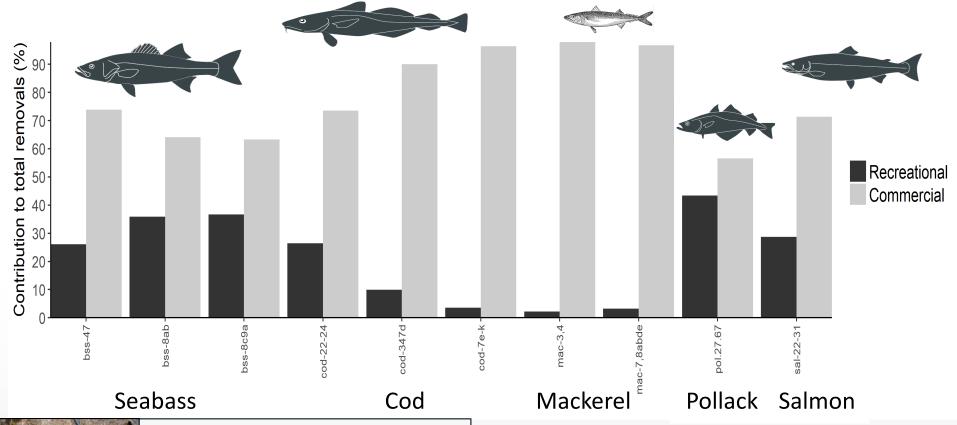


Category	Total
Numbers (millions)	8.67
Participation (%)	1.60
Activity (million days)	77.6
Days per angler	9.04
Expenditure (billion €)	5.89
Spend per angler (€)	679
Economic impact (billion €)	10.5
Number of FTEs (thousands)	97.2

Hyder et al. (2018)



## MRF impact – comparison with commercial





#### **Impacts:**

- Stock: 2-43% removals
- Live bait (disease & NNS)
- Lead (sinker loss)

Radford et al. 2018 | Lewin et al. 2019







## **Diverse & challenging sector**









#### **Platforms**

- Shore
- Private boat
- Charter boat

#### Gears

- Angling
- Nets & traps
- Spearfishing
- Gathering

## Target

- Fish
- Crustaceans
- Molluscs
- Algae

## Participant

- Activity
- Motivation
- Organisation
- Impact

Difficult to monitor, assess, manage & enforce



## **Management paradox**



VS



Maximum Sustainable Yield (MSY)

Maximum Total Satisfaction (MTS)

Competing objectives are not always compatible, so may require trade-offs between sectors



## **Fisheries legislation**

### General legal background:

- ➤ Control Reg focuses on "vessels" does not apply to recreational fisheries where the "individual" is the legal entity
- Landing obligation and EU MLS do not apply
- Recreational fisheries jurisdiction lies with the MS
- In the case of fish stocks below limit reference points (violation of CFP objectives) recreational fisheries jurisdiction lies with the EU



## How do we know how much fish is actually caught?

Conduct recreational fishing surveys BUT no one-size fits all approach due to diverse nature of the sector & cultural differences!

- Multispecies surveys for all countries needed
- Combination of on-site and off-site approaches
- > Licensing would help to develop surveys
- > Include economic value and social benefits





## Take home messages

- Anglers take a significant but variable amount of fish
- ➤ Paradigm shift is necessary recreational fishing in some countries is becoming more important than commercial fishing high value sector
- > Sector highly diverse requires controls of all platforms and individuals
- Angler don't maximize catch but satisfaction
- Understanding how anglers are affected by regulations is crucial to sustain the sector and ensure the continued economic benefit to coastal regions

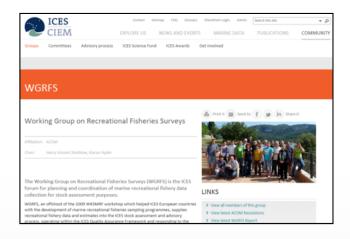


## References

- Hyder, K., Armstrong, M., Ferter, K., & Strehlow, H. V. (2014). Recreational sea fishing the high value forgotten catch. ICES Insight, 51.
- Hyder, K., Weltersbach, M. S., Armstrong, M., Ferter, K., Townhill, B., Ahvonen, A., . . . Strehlow, H. V. (2018). Recreational sea fishing in Europe in a global context—Participation rates, fishing effort, expenditure, and implications for monitoring and assessment. Fish and Fisheries, 19(2), 225-243. doi:10.1111/faf.12251
- Hyder, K., Radford, Z., Prellezo, R., Weltersbach, M. S., Lewin, W. C., Zarauz, L., . . . Strehlow, H. V. (2017). Research for PECH Committee -Marine recreational and semi-subsistence fishing - its value and its impact on fish stocks.
- Lewin, W.-C., Weltersbach, M. S., Ferter, K., Hyder, K., Mugerza, E., Prellezo, R., Radford, Z., Zarauz, L., & Strehlow, H. V. (2019). Potential Environmental Impacts of Recreational Fishing on Marine Fish Stocks and Ecosystems. Reviews in Fisheries Science & Aquaculture: 1-44.
- Lewin, W.-C., Weltersbach, M. S., Denfeld, G., & Strehlow, H. V. (2020). Recreational anglers' perceptions, attitudes and estimated contribution to angling related marine litter in the German Baltic Sea. Journal of Environmental Management, 272. doi:10.1016/j.jenvman.2020.111062
- Radford, Z., Hyder, K., Zarauz, L., Mugerza, E., Ferter, K., Prellezo, R., Strehlow, H. V., et al. (2018). The impact of marine recreational fishing on key fish stocks in European waters. PLoS ONE, 13: e0201666.



# Thanks for your attention!



ICES Working Group on Recreational Fisheries
Surveys



harry.strehlow@thuenen.de

