Measuring and improving the survival of discards

A Science - Policy conference for the closing of H2020 DiscardLess project, 30-31 January, Technical University of Denmark (DTU)

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CFP Landing Obligation survival exemption

- There are potential exemptions to the landing obligation, including under the high discard survival provision:
- Article 15 paragraph 2(b) of the regulation allows for the possibility of exemptions from the landing obligation for species for which:
- "scientific evidence demonstrates high survival rates, taking into account the characteristics of the gear, of the fishing practices and of the ecosystem".

First responses:

- Immediate interest from fishers and managers in gaining exemption
- June 2013 EU Commission requested STECF and ICES consider implementation issues and draft work plan
- September 2013 first STECF meeting on landing obligation, concluded limitations of existing survival estimates and science methods
- 2013, Landing Obligation and survival exemptions on agenda at regional Advisory Councils (ACs) meetings
- January 2014 initiation of new ICES WKMEDS (Methods to Estimate Discard Survival)
- And commissioning of new research projects

May 2014 the first version of the ICES guidance on survival assessments published

1 Vitality assessments:

- visual assessments
- at-vessel mortality and survival *potential*

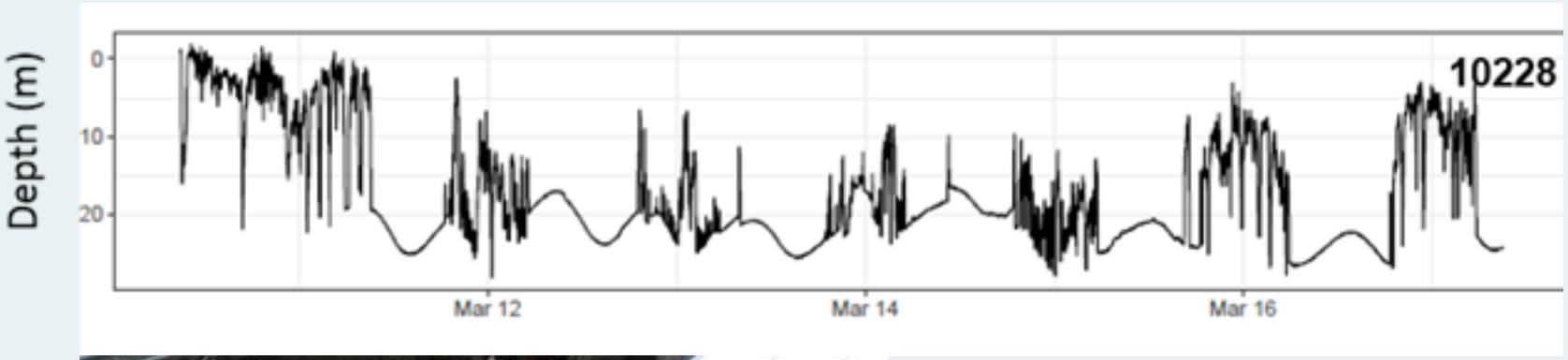
2 Captive observation:

- monitor ‘discarded’ catches
- excludes predation, controls determine captivity effect

3 Tagging:

- electronic tags on discards
- includes predation

Tagging and vitality (health assessment) methods



Tagging technology records pressure and temperature

Methods developing to assess health of discarded fish

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Estimating discard survival – supplementing captive observation data

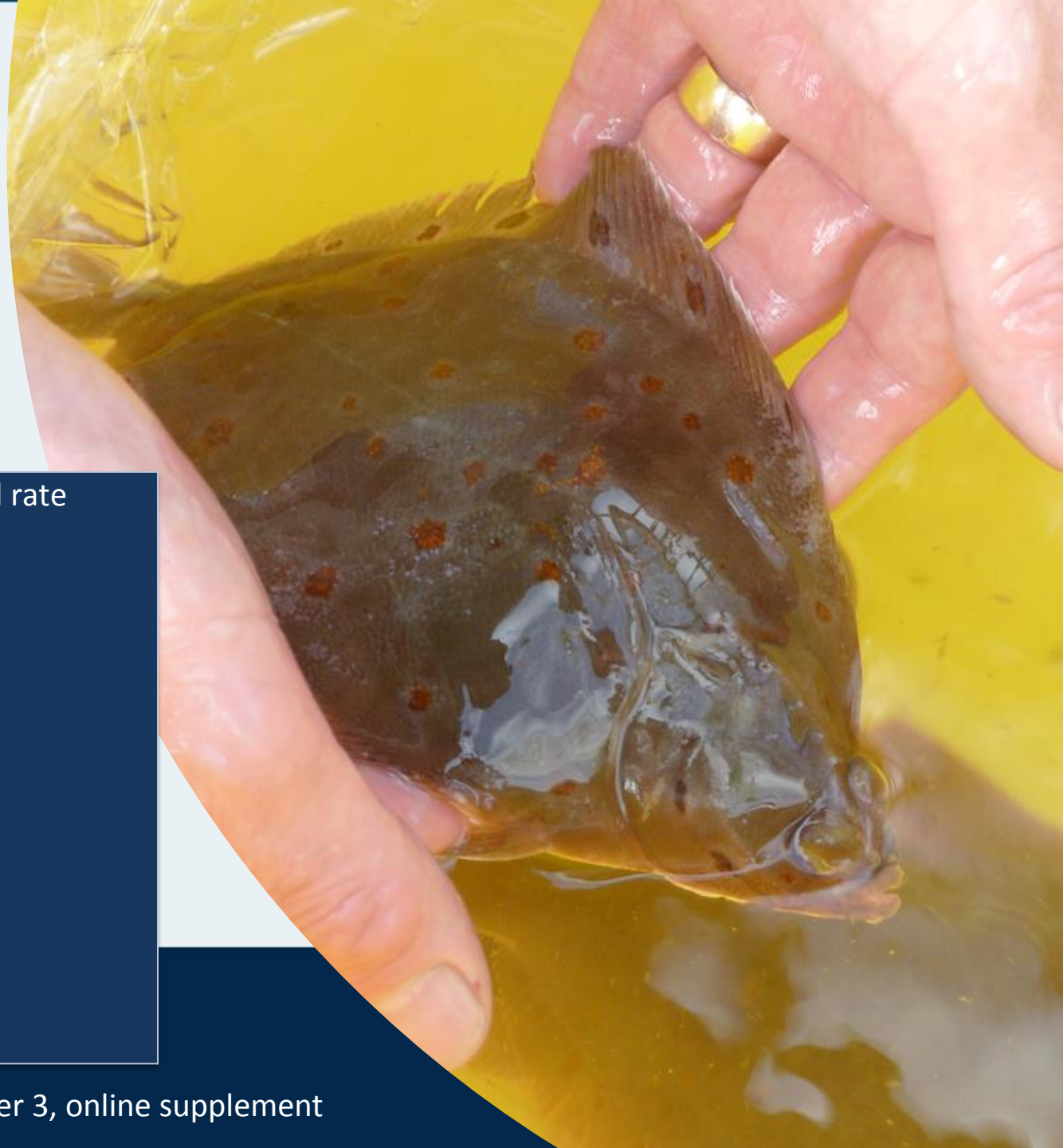
Can discarded Nephrops re-establish with seabed?

Clive J Fox, Amaya Albalat. FISC project F015

Each May, evidence to support exemptions proposed by regional High Level Groups (govts), in consultation Advisory Councils (stakeholders)

Survival evidence is assessed by STECF (using ICES Guidance), and exemptions are awarded by EU COM

Authorised high survival exemptions	Estimated survival rate
Mackerel/herring; Purse seine	50-70%
Nephrops; Creel	80%
Nephrops; TR	42-75%
Plaice <MCRS; BT2	15-20%
Plaice; BT	8-73%
Plaice; Danish seine	78%
Plaice; gill/trammel nets	49-100%
Plaice; TR	64%
Plaice; TR1	75%
Fish; Pots/fykes	90%
Skates and Rays; all gears	17-100%
Sole (<MCRS); inshore TR2	51-84%
Red seabream; Long line	84-96%



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Rihan et al. 2019 – Springer book, Chapter 3, online supplement

Improving the survival chances of discards

- Baseline survival levels established for some species
- Influenced by temperature, depth, fishing/sorting duration, catch composition…
- Modify fishing – reduced haul duration/soak time, more selective fishing
- Modify sorting methods – sorting times, sorting chutes, conveyors, mist sprays

- French study - Nephrops survival 37% with standard sorting and 51% with "chute sorting system“
- Dutch study – examining water filled hoppers, shorter hauls and knotless twine cod ends
- Advisory Councils (ACs) – leading on developing methods of best practice for catching and handling skates and rays

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Stakeholder collaboration

- Response to survival exemptions is demonstration of CFP regionalisation
- Highlighted decision making contributions of ACs, HLGs, EU Commission and the influence of STECF and ICES
- Scientists, fishery managers and fishing industry responded:
  - *interpreted policy; recognised need for more and better evidence; initiated new research; evaluated and applied new evidence*
- Industry has benefited with award of exemptions; scientists benefited with opportunity for research
- Provided new knowledge on fisheries – potential to improve stock assessments
- Policy was catalyst for many interactions between many individuals to solve a challenge, remains an active area for collaboration

DiscardLess

Thank you

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