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D8.4  
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Organization name of lead participant for this deliverable:  
Institute of Marine Research (IMR)



Dissemination level		
PU	Public	X
CO	Confidential, only for members of the consortium (incl the Commission Services)	

Deliverable number:	D.8.4
Deliverable title:	Videos and potentially manuals on best fishing and surveying practice
Work package:	8
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## Executive Summary

Videos covering important aspects of best surveying and survey fishing practices for mesopelagic resources are provided. The project was scheduled to run cruise campaign blogs by invited journalists where relevant to cruise and trial fisheries campaigns, but COVID-19 prevented this. In a cooperation between WP2, WP3 and WP4, video format presentations of survey and fishing processes are given, including footage from both a scientific cruise as well as a trial fishery on *Maurolicus muelleri*. The trial fishery video focuses on trawl performance, examples are shown of herding of epipelagic fish, mesopelagic fish entering the cod-end, as well as through mesh escapement, and catch processing. The “potential manuals” envisioned by the deliverable author is not realised in this deliverable, but an encompassing manual dealing in detail with survey practices was delivered from WP2 at the same time as this deliverable, covering the same topic.

Due to file-size limitations, the material cannot be uploaded directly through the EU portal, once approved the videos will therefore be linked to the MEESO website for direct online access.

The following files are available as part of Deliverable 8.4:

### Sampling in the Irminger Sea and the Iceland Basin:

The video linked on the webpage gives a quick overview of methods used by the MFRI MEESO team to scientifically sample the mesopelagic zone, further details about the cruise can be found in the accompanying cruise report. The material is based on efforts under MEESO WP4. Direct link to video: <https://www.hafogvatn.is/en/about/news-announcements/category/1/report-published-about-sampling-in-the-irminger-sea-and-the-iceland-basin>

Mapping mesopelagic resources acoustically: This video gives an overview of common challenges when attempting to map mesopelagic resources acoustically, as well as insight into recent methodological attempts to circumvent these issues developed as part of MEESO. The material is partially based on developments and results from MEESO WP2. Direct link to video: <https://youtu.be/c5rdgpgrIMs>

Quantifying mesopelagic resources: This video goes into details of central issues of quantifying and capturing on mesopelagic resources, focusing on elements needed to minimize bias in resulting size and biomass distributions, which has important ramifications also for acoustic mapping of the mesopelagic zone. The material is based on experiences, developments and results primarily from MEESO WP2 and WP4. Direct link to video: <https://youtu.be/ADEKEJ62xa8>



The material presented in the first 2 videos presents subsets of information submitted in the deliverables under WP2, especially the deliverable D2.4: “Protocol for abundance estimation of biomass and diversity in the mesopelagic zone” presents in depth discussions of many of the topics covered in D8.4, in document form.

Mesopelagic trial fisheries 2019: The video presents footage from a 2019 trial fishery for *Maurolicus muelleri*, showing aspects of the best practices at that time and knowledge level. The non-narrated video documents trawl operation and performance, ending up with showing example catch processing, illustrating what a sea-to-product fishing operation might look like. In the middle sections the video shows examples of herding of epipelagic fish, mesopelagic fish entering the cod-end, as well as mesh escapement from fine meshed nets. These are the same key issues identified for scientific quantification methods in the “Quantifying\_mesopelagic\_resources” webinar and shows that while the solution chosen to tackle the issue may vary depending on the desired outcome, the underlying challenges are similar. The material presented is based on results and footage obtained in MEESO WP3. Direct link to video: <https://youtu.be/2TYKovj7Y6I>

