

## MEESO and SUMMER SYMPOSIUM

**Venue:** IDA conference center (Kalvebod Brygge 31-33) in Copenhagen.

### PROGRAM

**14 February 2024**

*(Please notice, 10 minutes talk and 4 minutes for questions per presentation)*

**09:00 Welcome (Raul Pallezo and Webjørn Melle)**

**Biomass estimation (Dedicated to Thor Klevjer)**

**Chair: Webjørn Melle**

<b>09:10</b>	Reducing uncertainty in acoustic-based estimates of mesopelagic fish biomass	Clare	Webster
<b>09:24</b>	Advancements in mesopelagic acoustic data collection using a towed platform and its processing	Babak	Khodabandeloo
<b>09:38</b>	An in situ method for continuous measurement of the volume sampled from an non-graded trawl	Webjørn	Melle
<b>09:52</b>	Design, performance and inter-comparison of non-graded trawls for macroplankton and micronekton	Webjørn	Melle
<b>10:06</b>	Insights into mesopelagic fish aggregation in the Red Sea: Integrating ROV dive profiles and AI-based biomass estimation	Kah	Lim Kheng
<b>10:20</b>	Unveiling spatial structures in <i>Maurolicus muelleri</i> distribution in the Northeast Atlantic	Thibault	Cariou

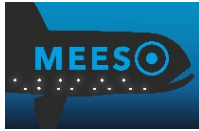
**10:34 - 11:00 Break**

<b>11:00</b>	Understanding the impact of along-transect resolution on acoustic surveys	Guillermo	Boyra
<b>11:14</b>	Species composition and biological characteristics of fish in the Irminger Sea mesopelagic zone	Warsha	Singh

**Biodiversity**

**Chair: Naiara Rodriguez-Ezpeleta**

<b>11:28</b>	Combining optical and acoustical methods to identify mesopelagic fish on operational surveys	Rolf	Korneliussen
<b>11:42</b>	Withdraw		
<b>11:56</b>	Integrating eDNA in the characterization of the mesopelagic fish layer: insight from the Multidisciplinary Mesopelagic Scouting Survey (M2S2)	Maddalena	Tibone
<b>12:10</b>	Strong differentiation coupled with high connectivity shapes three distinct populations in the glacier lanternfish in the North Atlantic and Mediterranean Sea	María	Quintela



**12:30-14:00 Lunch**

<b>14:00</b>	Island-mass driver of biomass and community differentiation in top predator prey scapes	Véronique	Merten
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### **Distribution, vital rates, trophic and ecosystem interactions**

**Chair: Klara Jakobsdottir**

<b>14:14</b>	Mesopelagic fishes at high and low latitudes	Stein	Kaartvedt
<b>14:28</b>	Mesopelagic micronekton and macrozooplankton community composition and vertical patterns in western Mediterranean Sea and temperate north-eastern Atlantic	Pilar M.	Olivar
<b>14:42</b>	Mapping the distribution of mesopelagic fishes in the Irminger Sea and the Iceland basin	Teresa	Silva
<b>14:56</b>	Diverse behavior in the mesopelagic – insights from scattering layers to individuals	Svenja	Christiansen
<b>15:10</b>	Hiding in plain sight: Predator avoidance behaviour of mesopelagic <i>Maurolicus muelleri</i> during foraging	Kjetil	Gjeitsund Thorvaldsen
<b>15:24</b>	Model of mesopelagic fish predation on eggs and larvae shows benefits of tuna spawning under full moon	Daniel	Ottmann

**15:38 – 16:10 Break**

<b>16:10</b>	Distribution, population dynamics and trophic interactions of <i>Benthoosema glaciale</i> in the Nordic Seas based on NORWECOM.E2E model framework.	Espen	Strand
<b>16:24</b>	Life History Strategy and diel vertical migration of <i>Maurolicus muelleri</i> (Gmenlin, 1789) in the Bay of Biscay.	Paula	Alvarez
<b>16:38</b>	Growth and natural mortality of <i>Maurolicus muelleri</i> and <i>Benthoosema glaciale</i> in the Northeast Atlantic Ocean	Berthe	Vastenhoudt
<b>16:52</b>	Biology of two abundant lanternfishes ( <i>Benthoosema glaciale</i> and <i>Notoscopelus kroyeri</i> ) caught in Icelandic waters and the Irminger Sea	Charlotte	Matthews
<b>17:06</b>	In situ observations of cephalopods in the mesopelagic zone off Terceira island, Azores	Julia	Stefanschitz

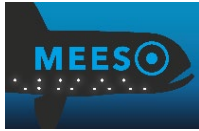


**17:20** Measurement of Field Metabolic Rates of Mesopelagic Fishes using an otolith-based proxy

Clive

Trueman

**17:34** End of day



## 15 February 2024

09:00	The role of mesopelagic fishes in the pelagic food web of the Benguela Current Upwelling Systems	Sabrina	Duncan
09:14	From the surface to the near-bottom: distribution and trophic structure of deep pelagic fishes on the Bay of Biscay slope	Liz	Loutrage
09:28	Diet and feeding strategies of myctophids in the Northeastern Atlantic	Eva	García-Seoane
09:42	<i>Snapshots of Benthosema glaciale feeding across the North Atlantic</i>	Tor	Knutsen
09:56	Modelling Antarctic krill transport in the Southern Ocean	Cian	Kelly

### Carbon cycle

Chair: Adrian Martin

10:10	High resolution vertical distributions of marine snow and plankton in the Iceland Basin and Irminger Sea, observed by a Video Plankton Recorder	Sólrún	Sigurgeirsdóttir
10:24	Quantifying passive carbon flux in the Iceland Basin and Norwegian Sea	Kristian	Fjeld

### 10:38 – 11:10 Break

11:10	Zooplankton and micronekton active flux in the ocean: Variability and gaps	Santiago	Hernández-León
11:24	Model estimated active vertical carbon transport by <i>Benthosema glaciale</i> in the Nordic Seas.	Espen	Strand
11:38	Effects of migrating mesopelagic fishes on the biological carbon pump	Anita Stene	Løtvedt
11:52	Distribution and valuation of biomass and carbon sequestration: Implications for international area-based management and governance	Fabio	Berzaghi

### Fisheries, composition, and processing

Chair: Runar Gjerp Solstad

12:06	Pharmaceutical Prospects of Mesopelagic Microorganisms	Deniz	Tasdemir
12:20	Production of bioactive peptides from <i>Maurollicus muelleri</i> : a potential option for the exploitation of mesopelagic resources	Bruno	Iñarra



### 12:34-14:00 Lunch

14:00	Enzymatic activity in mesopelagic species: introducing a fast-method for estimating enzymatic bioluminescence	Maria	Alquiza Madina
14:14	Generation and characterisation of bioactive peptide containing hydrolysates with potential to inhibit enzymes relevant to prevention of hypertension, type 2 diabetes and inflammation	Maria	Hayes
14:28	Potential roles of mesopelagic species in food security and nutrition	Yiou	Zhu
14:42	Sustainability of mesopelagic fishery in the Bay of Biscay	Marga	Andrés
14:56	Could harvesting mesopelagic fish be sustainable?: Results from population and ecosystem models in the northeastern Atlantic	Douglas	Speirs
15:10	Testing different spatial implementations of fishing in population model to study its effect on unexploited fish stocks	Douglas	Speirs

### 15:30-16:00 Break

#### Economics, future prospects, governance

Chair: Mary Wisz

16:00	Economic viability of a large-vessel mesopelagic fishery under ecological uncertainty	Berthe	Vastenhou
16:14	"New" resources in old waters - the governance of ungoverned mesopelagic organisms	Rachel	Tiller
16:28	Science is not enough: The role of legitimacy in the governance of the mesopelagic zone	Amanda	Schadeberg
16:42	The role of science in the governance of the mesopelagic zone	Amanda	Schadeberg

**17:10 End of the day (Posters will be displayed on the walls in the meeting room both days)**

#### Posters

Daily/Circadian vertical distribution in epi- and mesopelagic decapod crustaceans along the Mediterranean – Eastern Atlantic transition (Atlanto-Mediterranean transition)	Ricardo	Santos Bethencourt
Public acceptance of fishing the mesopelagic	Rolf	Groeneveld
Abundance, distribution and migration behaviour of pearlsides ( <i>Maurolicus muelleri</i> ) in a sub-polar front of the north Atlantic current	Birkir	Bárðarson
Diversity in the Mesopelagic Zone: Exploring the Impact of Topographic Features in the Bay of Biscay Using eDNA Analysis	Anik	Brind'Amour

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**Symposium Committee:**

Webjørn Melle; Klara Jakobsdottir; Runar Gjern Solstad ; Mary Wisz; Naiara R Ezpeleta; Bruno Iñarra; Raúl Prelezo; Ivo Grigorov; J. Rasmus Nielsen.

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