Program

Day 1 (Tuesday 4 March)

11:30–12:00 Lunch

12:00–12:10 Welcome, introductions and plan for the day (Maria Tenningen, IMR)

12:10–12:20 CRIMAC Centre for research-based innovation (www.crimac.no) (Nils Olav Handegard, IMR)

12:20–12:30 IMR plans on using camera systems in research surveys (Geir Huse, IMR)

Part 1 (12:30–13:45). Stock assessment surveys: What information is currently required from trawl samples and how can it be replaced by image data?

12:30–12:45 Criteria for Including In-Trawl Camera Surveys in Fishery Stock Assessments (Steven Cadrin, UMass)

12:45–13:00 Image-based surveys for stock assessment: current status and challenges (Fabian Zimmermann, IMR)

13:00–13:15 Acoustic and swept area trawl surveys for pelagic species (Hector Peña, IMR)

13:15–13:45 Discussion: How can image data meet the criteria for application in stock assessment surveys? What data can be replaced by trawl and towed camera and how?

(Coffee break ~13:45–14:00)

Part 2 (14:00–16:00). Technology: In-trawl and towed camera systems including methods for data processing and transfer

14:00–14:15 Smart trawl (Paul Fernandes, Heriot-Watt University)

14:15–14:30 Toward Fully Automated Intelligent Fishing: From Game of Trawls to Horizon Europe Marine Beacon. (Julien Simon, Ifremer)

14:30–14:45 NepCon: Real-time camera observation in the trawl fisheries (Ludvig Kraag, DTU Aqua)

14:45–15:00 ActSel active-selection bycatch reduction device. Triggering and feedback methods, potential application for collecting biological samples and handling aspects (Craig Rose, Fishnext Research)

15:00–15:15 FX system: a cable-based platform that integrates sonars, cameras, lamps, and various other instruments with the trawl, enabling real-time monitoring. (Jason Holgerson, KD Canada)

15:15–15:30 CamSounder (Hege Hammersland, Scantrol Deep Vision)

15:30–16:00 Discussion: State of the art technology, how well does it meet the needs for data collection on scientific surveys and what is missing?

(Coffee break ~16:00–16:15)

Part 3 (16:15–17:30). Examples of planned or implemented use of in-trawl and towed camera systems in scientific surveys

16:15–16:30 Plankton cameras (Jules Jaffe, UCSD)

16:30–16:45 Improving the SMAST Video Trawl Survey (Nicholas Calabrese, UMASS)

16:45–17:00 A new pelagic and benthopelagic towed camera and environmental sensing array. (Astrid Leitner, Oregon State University)

17:00–17:15 How can images help inform or improve survey trawl catch inference (Kresimir Williams, NOAA)

17:15–17:30 Discussion: Examples of planned or implemented use of in-trawl and towed camera systems in scientific surveys

18:00 Dinner (in the same location as the workshop)

Day 2 (Wednesday 5 March)

08:30–09:00 Doors open and morning coffee

Part 3 *cont.* (09:00–10:45). Examples of planned or implemented use of in-trawl and towed camera systems in scientific surveys

09:00–09:15 towed video for stock surveys in the Scottish trial electro fishery for razor clams (Clive Fox, SAMS)

09:15–09:30 towed divers and towed cameras to allocate acoustic echoes (Anne Mouget, MNHN)

09:30–09:45 Swedish ideas, and attempts in the Baltic Sea, with CamSounder (Hans Nilsson, SLU)

09:45–10:00 Deep Vision in tropical waters- experiences, bottlenecks and future usage (Kathrine Michalsen, IMR)

(Coffee break ~10:00–10:15)

10:15–10:30 in-trawl cameras to sample mesopelagic organisms (with machine learning) (Taraneh Westergerling, IMR)

10:30–10:45 Obtaining clear images from demersal survey trawls (Georgina Vickery, IMR)

10:45–11:00 Discussion: Examples of planned or implemented use of in-trawl and towed camera systems in scientific surveys

Part 4 (11:00–11:30). Summary discussion, draft manuscript and meeting closure

11:30 End of formal meeting

11:30–12:00 Lunch

12:00–14:00 Time for manuscript drafting, spin-off meetings and discussions if needed