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Interim cruise report no: 01.03.2021, 21.04.2021-30.04.2021, Jnr. 21/3516".

The final results from the Swedish UWTV (Underwater television) *Nephrops* survey in the Skagerrak & Kattegat (functional unit 3 & 4) area are not yet available. The following interim report no. **01.03.2021**, **21.04.2021-30.04.2021**, **Jnr. 21/3516"**. is part of the fulfillment of the conditions to enter Norwegian zone with the research vessel Svea given by permit "21/3516"

Final results are to be presented in the ICES working groups WGNEPS 2021 report (planned during winter 2021/2022) and the WGNSSK report 2022.

Participants

Svea skipper Johan Edvall and crew and from SLU Aqua: Baldvin Thorvaldsson, Svend Koppetsch, Anders Wernbo and Peter Wickström. The scientific officer and cruise leader was Patrik Jonsson.

Objectives

The cruise is part of the joint Swedish-Danish survey to cover the nephrops fishing grounds in the Skagerrak and Kattegat area. A video camera mounted on a sledge is towed along the bottom in a short segments (approx. 200 m) at about 100 station. In case of steep topography, rocky bottoms etc the sledge can be moved within 300 m to seek a more suitable bottom for towing without risking entanglements or poor bottom contact. In subsequent video analysis, the nephrops burrows are counted manually and estimated burrow density is part of the assessment and quota calculations coordinated by the ICES.

Itinerary

In 2021 Sweden was using the new research vessel Svea (call sign **SEYB**) for the second time during this survey. Svea left Lysekil the 2021-04-22 04:00 travelling north and arrived again to Lysekil at 2021-04-29 13:39. No foreign port calls were made during the cruise. The three planned stations in the Norwegian EEZ where sampled around midnight between the 22nd and 23rd of April. The cruise track and visited stations are visualized in the map below.

Achievments

The Swedish part of the survey covered 104 planned stations out of which three were located in the Norwegian part of the Skagerrak. All stations were visited but it was decided not to drop the sledge due to the high numbers of creels (nephrops fishing gears) at one station. The final number of valid stations awaits the final video analyses but due to a long period of hard northerly winds preceding the

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survey, several stations were revisited in southern Kattegat during the survey but we still expect approximately 10 stations to be declared invalid due to high turbidity and visibility problems.

2021 UWTV med R/V Svea (22-29 April) 10°0'0"E 12°0'0"E 13°0'0"E 59°0'0"N Legend Preliminära stn -trålområde Preliminära stn - burområden SVEA cruise track 58°30'0"N Provtagningsområde UWTV Sveriges_EEZ_inkl_land 58°0'0"N 57°30'0"N 57°0'0"N 56°30'0"N

Figure. Cruise track from SVEA during the Nephrops UWTV survey (FU 3 & 4)

2021.