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Interim cruise report no ""24.01.2023, 22.04.2023-05.06.2023, 23/1320".".

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."24.01.2023, 22.04.2023-05.06.2023, 23/1320" is part of the fulfillment of the conditions to enter Norwegian zone with the research vessel Svea given by permit "23/1320"

Final results are to be presented in the ICES working groups WGNEPS 2023 report (planned during winter 2023/2024) and the WGNSSK report 2024.

Participants

Svea skipper Johan Edvall and crew and from SLU Aqua: Erika Norlinder, Emmelie Hammenstig-Åström, Baldvin Thorvaldsson and Anders Wernbo. 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 coordinated through ICES working group WGNEPS. 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 up to 500 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 2023 Sweden was using the research vessel Svea (call sign **SEYB**) for the fourth time during this survey. Svea left Lysekil the 2023-04-28 travelling first north and arrived in Lysekil at 2023-05-05. No foreign port calls were made during the cruise. The four planned stations in the Norwegian EEZ where sampled between 2300UTC 29th of April and 0400UTC the 30th of April. Samples were carried out according to plan. The cruise track and visited stations in the northern Skagerrak are visualized in the map below.

Achievements

The Swedish part of the survey covered 108 planned stations out of which four were located in the Norwegian part of the Skagerrak. In relation to the original plan some stations in Swedish and Danish EEZ were swapped between the two (SE &

Mailing address: Mailing address Street address: Street address VAT no: SE202100281701 www.slu.se Phone: +46 10 478 4029 Mobile: 46 761 26 8020 Patrik.jonsson@slu.se DK) surveys. In the southern Kattegat two stations were moved and one dropped due to military exercise activities in the area. An additional ten stations in the creel areas were also sampled. The final number of valid stations awaits the completion of video analyses but overall the visibility was good and high turbidity was mainly a problem in the area outside of Gothenburg affecting around 10-12 stations.

2023 UWTV med R/V Svea (28 April - 5 May) 10°0'0"E 11°0'0"E N..0.0.69 2023-04-30 2023-04-29 2023-04-29 Legend Sampled stations Planned stations 2023-05-05 2023-04-30 Denmark Norway Sweden

Figure. Cruise track and sampled stations (with dates) in the northern Skagerrak area from SVEA during the Nephrops UWTV survey (FU 3 & 4) 2023.