

Thünen-Institute of Sea Fisheries

„SOLEA“
Cruise 796
REPORT
24.08. – 10.09.2021

Personnel

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Objectives

1. Participation in the ICES co-ordinated “International **B**eam **T**rawl **S**urvey” in the North Sea
2. Determination of temperature and salinity in the area of investigation

Narrative (Fig. 1)

Due to the test of the scientific crew and the crew on COVID-19 on the day of departure and the waiting time for the results, the scientific crew did not board the ship until the early morning of 24th August. FFS Solea then left Cuxhaven at around 7:00 o'clock am. By early afternoon, they set course for the FFH area "Sylter Außenriff" and began fishing there. Crab baskets from a commercial vessel on the planned tow lines prevented two of the four possible hauls of the day. Due to an approaching storm low in the BTS survey area, the port of Helgoland was approached for the next three days. Helgoland was left in the afternoon of 27 August and the survey was continued the next day in the inshore rectangle 39F7. In the following 10 days it was possible to work the entire BTS area with changing courses. On 7th and 8th September, the FFH area "Dogger Tail End" was fished. The BTS part of the survey ended in the morning of 9th September. The trip ended the

same evening in Cuxhaven. The return journey to Bremerhaven took place the next morning.

Due to the loss of time at the beginning of the trip, the work in the FFH area "Borkum Riffgrund" could not be carried out. The FFH area "Sylter Außenriff" could also not be fished any further.

Results (Fig. 2 – 9)

A total of 63 valid hauls with a standard duration of 30 minutes were conducted with the 7m beam trawl. Additional 12 15min hauls were carried out in the FFH areas "Sylter Außenriff" and "Dogger Tailend". At 66 stations salinity and temperature were measured. The distribution of species composition shows the usual geographic pattern with dab as the most frequent fish species, followed by plaice and lemon sole (offshore) or solenette (inshore).

Toward the north and the west soon the importance of long rough dab and starry ray in the biomass increases. Still, in the survey area some larger (up to 50 cm) plaice can be found, although quite sporadically.

Also in the FFH areas, nothing unusual was caught. The fish fauna is dominated by plaice and dab in both areas. The invertebrate fauna in the coastal area ("Sylteraußenriff") dominated by swimming crabs (*Liocarcinus holsatus* und *L. depurator*), starfish (*Asterias rubens* and *Astropecten irregularis*) and hermit crabs (*Pagurus bernhardus*). In the offshore FFH area "Dogger Tail End", hermit crabs (*Pagurus bernhardus*) and starfish (*Asterias rubens* and *Astropecten irregularis*) are the most commonly caught invertebrates.



Dipl.-Biol. K. Panten

Catch composition in kg and length distribution during Beam Trawl Survey

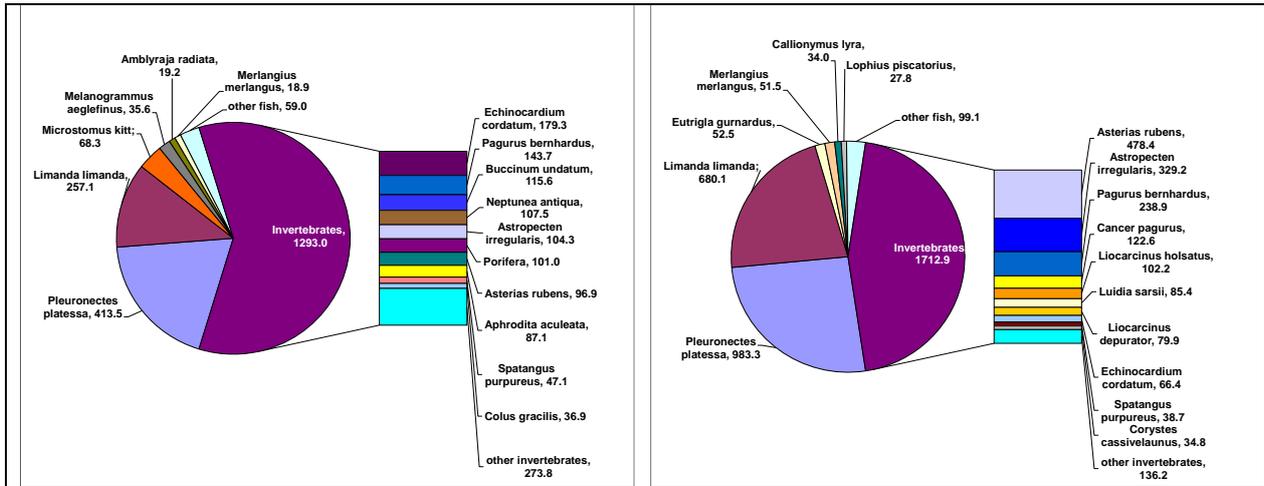


Fig. 2: Catch composition in 39-43F4&5 (offshore)

Fig. 3: Catch composition in 39-43F6&7, 43F8&9 (inshore)

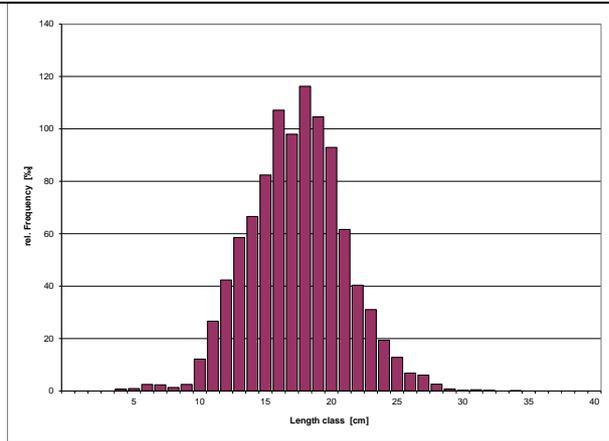
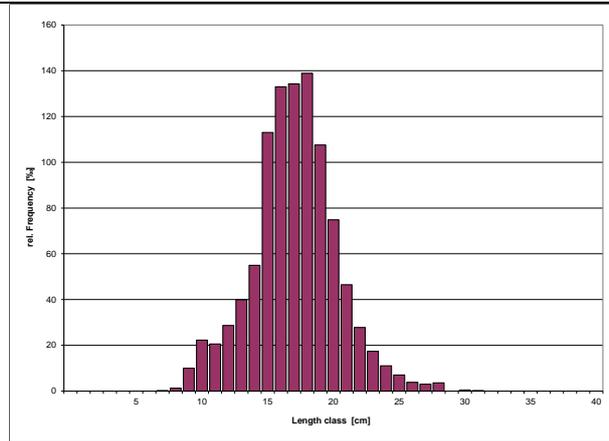


Fig. 4: Length distribution of Dab in 39-43F4&5

Fig. 5: Length distribution of Dab in 39-43F6&7, 43F8&9

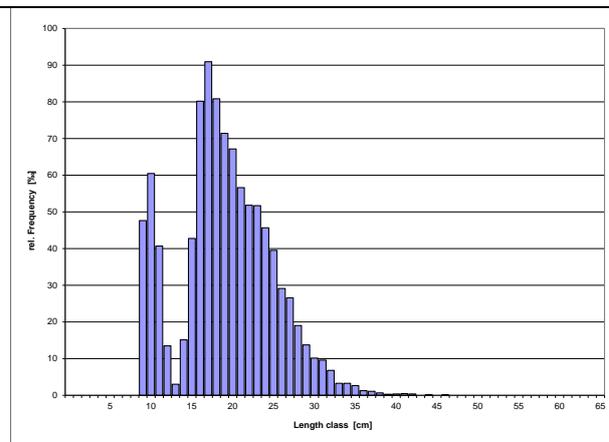
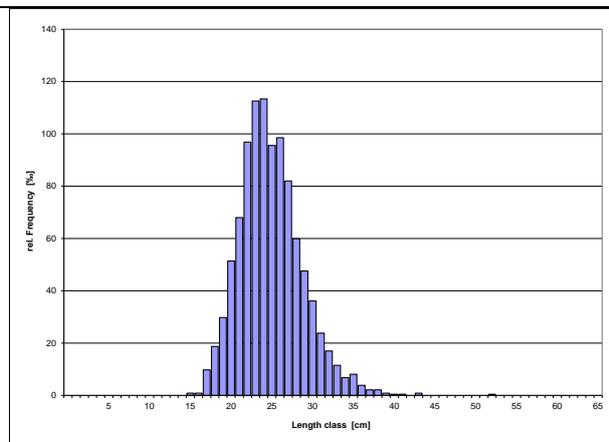


Fig. 6: Length distribution of Plaice in 39-43F4&5

Fig. 7: Length distribution of Plaice in 39-43 F6&7, 43F8&9

Catch composition and length distribution during FFH Monitoring

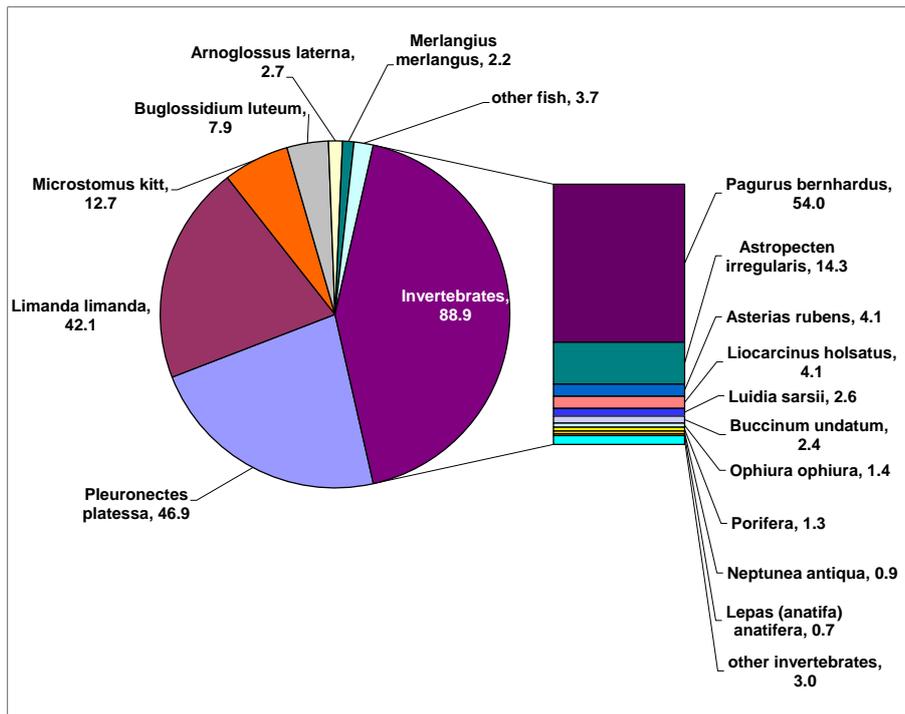


Abb. 8: Catch composition in FFH-Area „Dogger Tail End“

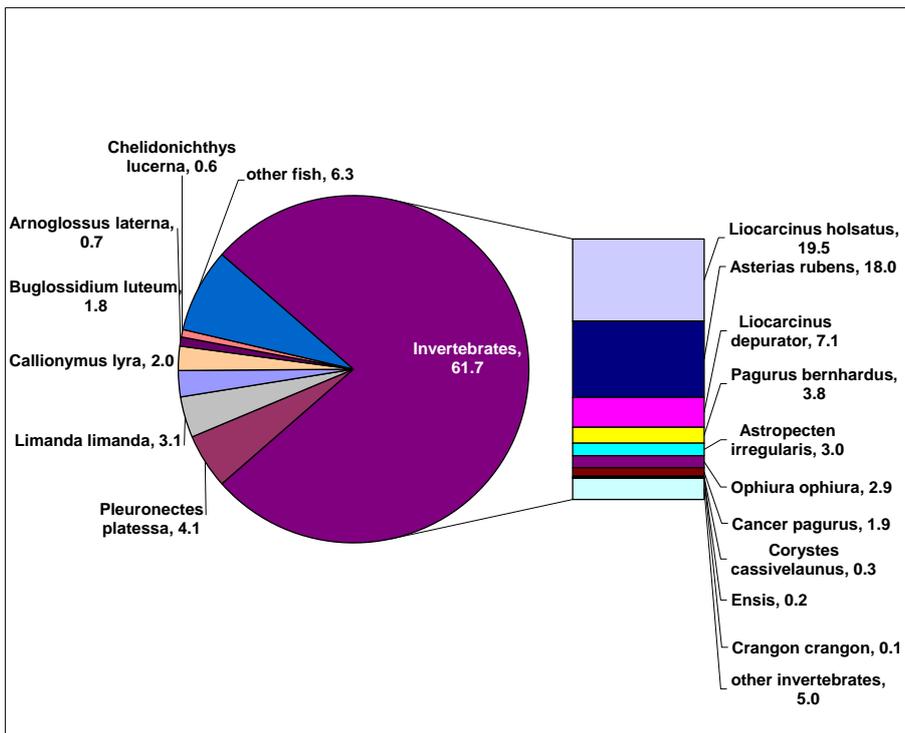


Abb. 10: Catch composition in FFH-Area „Sylder Außenriff“