

„SOLEA“
Cruise 766
REPORT
19.08. – 03.09.2019

Personnel

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Objectives

1. Participation in the ICES co-ordinated “International **Beam Trawl Survey**” in the North Sea
2. Determination of temperature and salinity in the area of investigation

Narrative (Fig. 1)

FRV “Solea” left the port of Cuxhaven in the afternoon on 19th August. Working started the next day by sampling the ICES statistical rectangle 39F5, 39F4 and 40F4. On the third day of the survey priority was given to monitoring the FFH area “Dogger Tail End”. The following days the offshore stations were sampled from South to North to Jammer bay. On the afternoon of 28th August the survey was interrupted due to a technical defect in the Danish harbour of Esbjerg. With this opportunity the representative of multimar left the ship with the up to now attained aquarium stock. On the evening on 29th August FRV “Solea” disembarked the port and the research was continued on the next morning. Under good weather conditions the coastal stations were sampled thereafter from North to

South. At noon on 1st September the final haul of the BTS was conducted. Due to a storm front, only the work in the FFH area "Sylter Außenriff" on the 2nd September was carried out. The FFH area "Borkum Riffgrund" could not be sampled. The cruise ended in Cuxhaven in the morning on 3rd September. The return trip to Bremerhaven took place the same afternoon.

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 20 15min hauls were carried out in the FFH areas. At 69 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 all areas. The invertebrate fauna in the coastal area ("Sylter Aussenriff") dominate starfish (*Asterias rubens*) and swimming crab (*Liocarcinus holsatus*). In the offshore FFH area "Dogger Tail End", sponges (*Porifera*) and hermit crabs (*Pagurus bernhardus*) are the most commonly caught invertebrates.



Dipl.-Biol. K. Panten

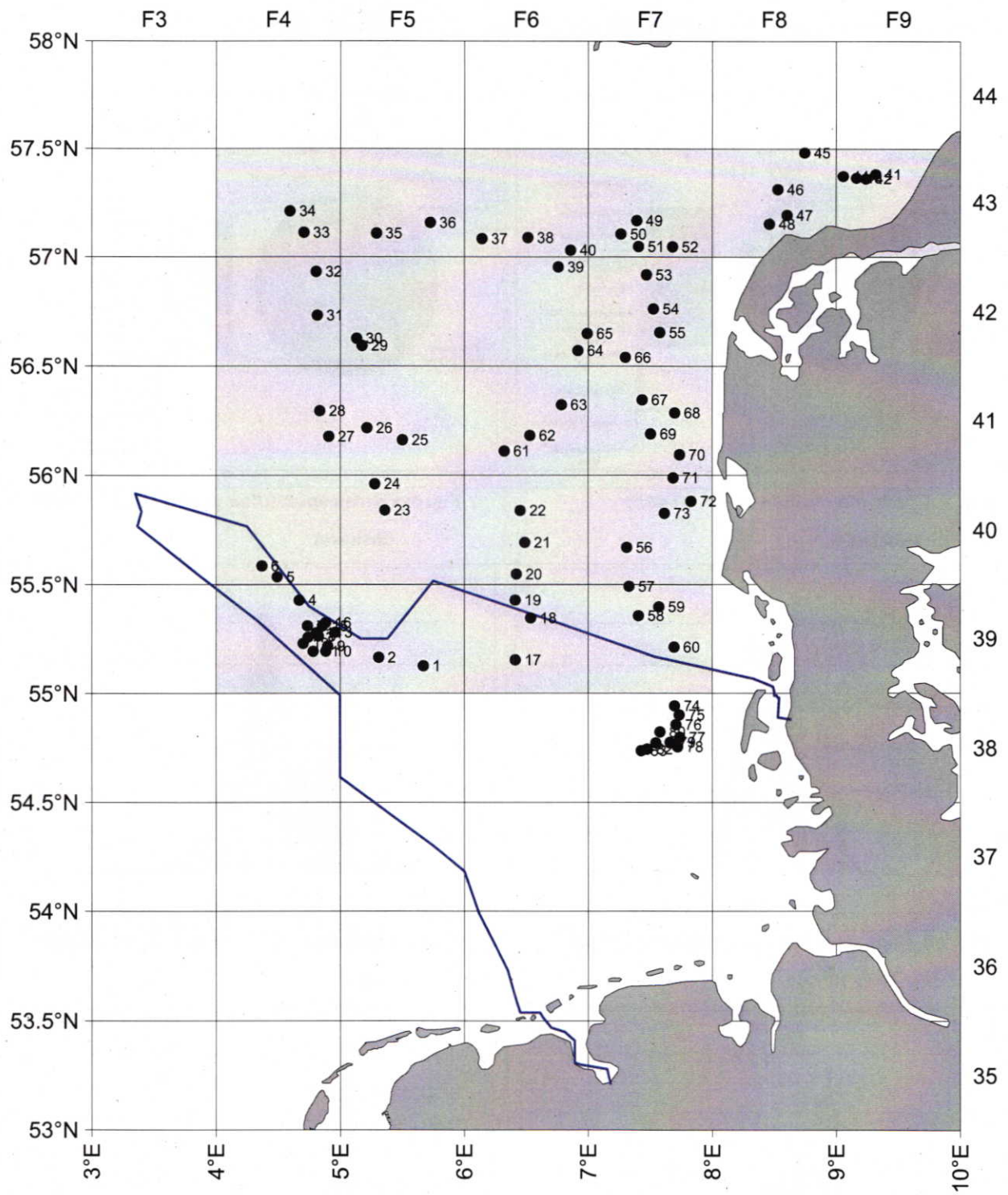


Fig. 1: "Solea", Cruise no. 766, Haul positions and area of investigation

Catch composition in kg and length distribution during Beam Trawl Survey

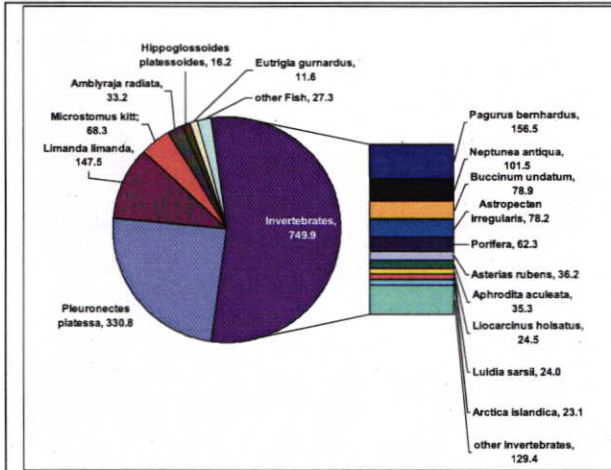


Fig. 2: Catch composition in 39-43F4&5 (offshore)

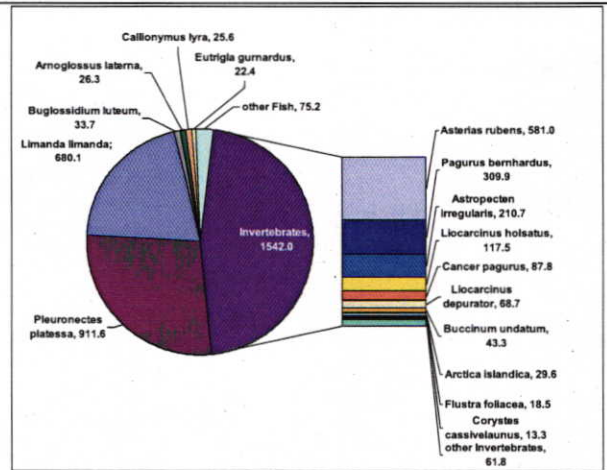


Fig. 3: Catch composition in 39-43F6&7, 43F8&9 (inshore)

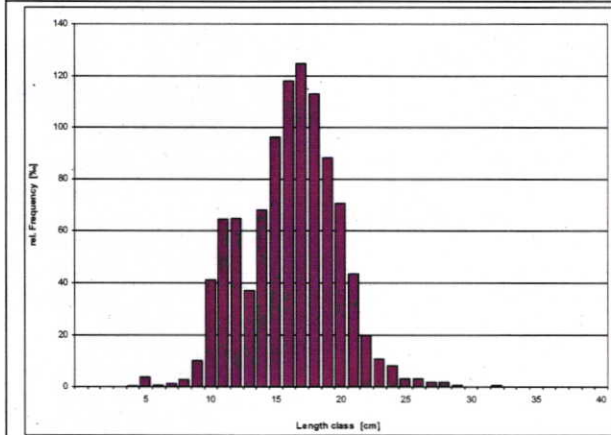


Fig. 4: Length distribution of Dab in 39-43F4&5

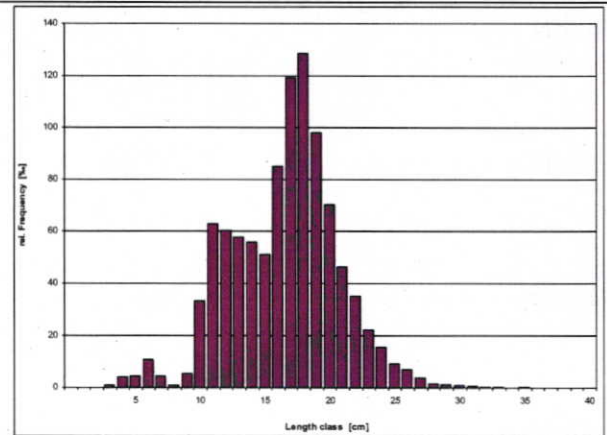


Fig. 5: Length distribution of Dab in 39-43F6&7, 43F8&9

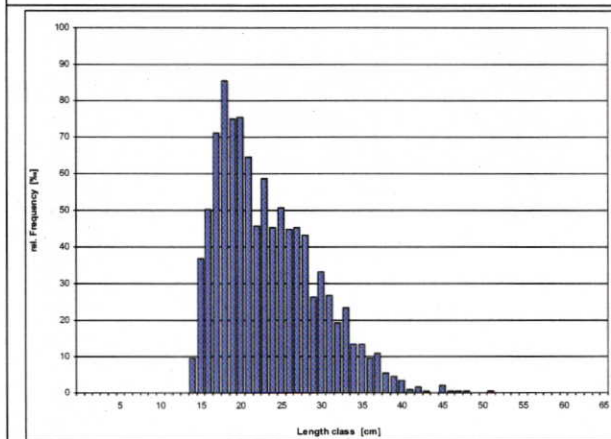


Fig. 6: Length distribution of Plaice in 39-43F4&5

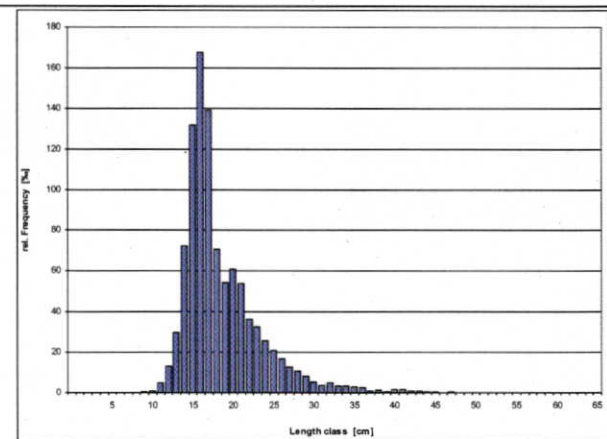


Fig. 7: Length distribution of Plaice in 39-43F6&7, 43F8&9

Catch composition and length distribution during FFH Monitoring

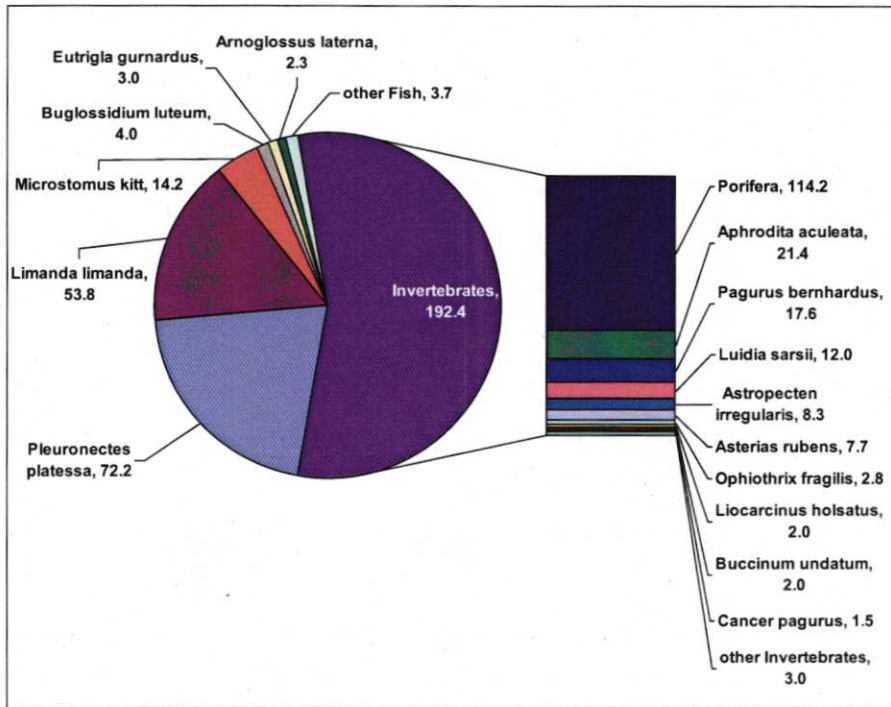


Abb. 8: Catch composition in FFH-Area „Dogger Tail End“

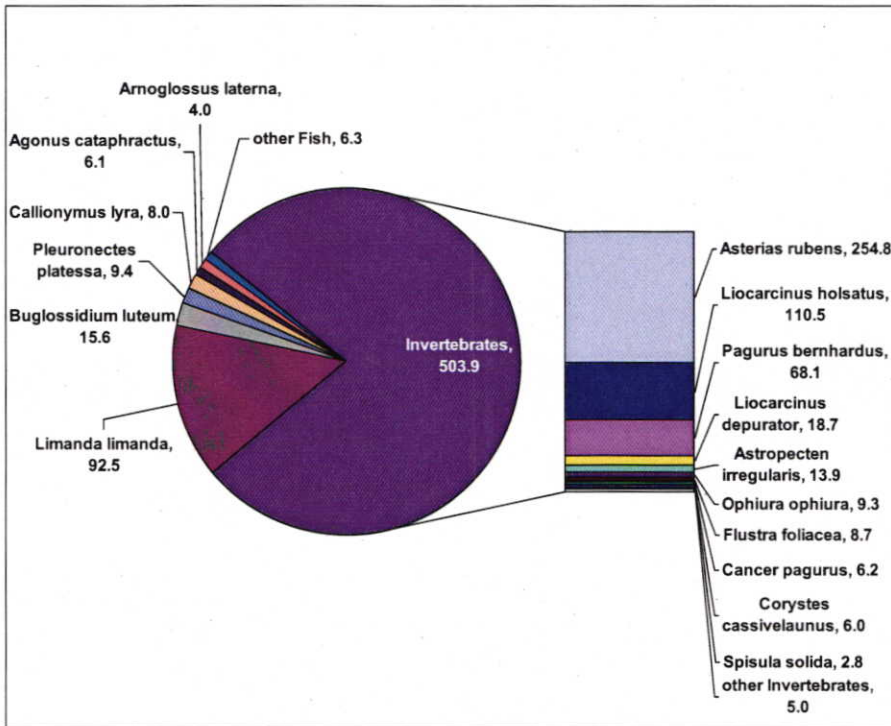


Abb. 10: Catch composition in FFH-Area „Sylter Aussenriff“