

**„SOLEA“**  
**Cruise 781**  
**REPORT**  
**24.08. – 09.09.2020**

**Personnel**

Name	Institution
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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)**

FRV “Solea” left the port of Cuxhaven in the afternoon on 24<sup>th</sup> August. Working started the next day by sampling the ICES statistical rectangle 39F5 and 39F4. Due to strong winds, fishing had to be temporarily stopped in the early afternoon. On the third day of the survey priority was given to monitoring the FFH area “Dogger Tail End”. On this day too, the fishing had to be stopped prematurely due to strong winds. The following day the offshore stations were sampled from South to North and sailed overnight in the direction of Jammer bay. The stations close to land could be fished the next three days with easterly winds. Afterwards, the northwestern stations and the remaining stations near the coast were worked off in calm weather. At noon on 7<sup>th</sup> September the final haul of the BTS was conducted. Due to a storm front, only the work in the FFH area “Borkum Riffgrund” on the 8<sup>th</sup> September was carried out. The FFH area “Sylter Außenriff” could not be sampled.

The cruise ended in Cuxhaven in the morning on 9<sup>th</sup> 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 16 15min hauls were carried out in the FFH areas. At 68 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 ("Borkum Riffgrund") dominate starfish (*Asterias rubens* and *Astropecten irregularis*) and hermit crabs (*Pagurus bernhardus*). In the offshore FFH area "Dogger Tail End", sponges (*Porifera*) and sea mouse (*Aphrodita aculeata*) are the most commonly caught invertebrates.



Dipl.-Biol. K. Panten

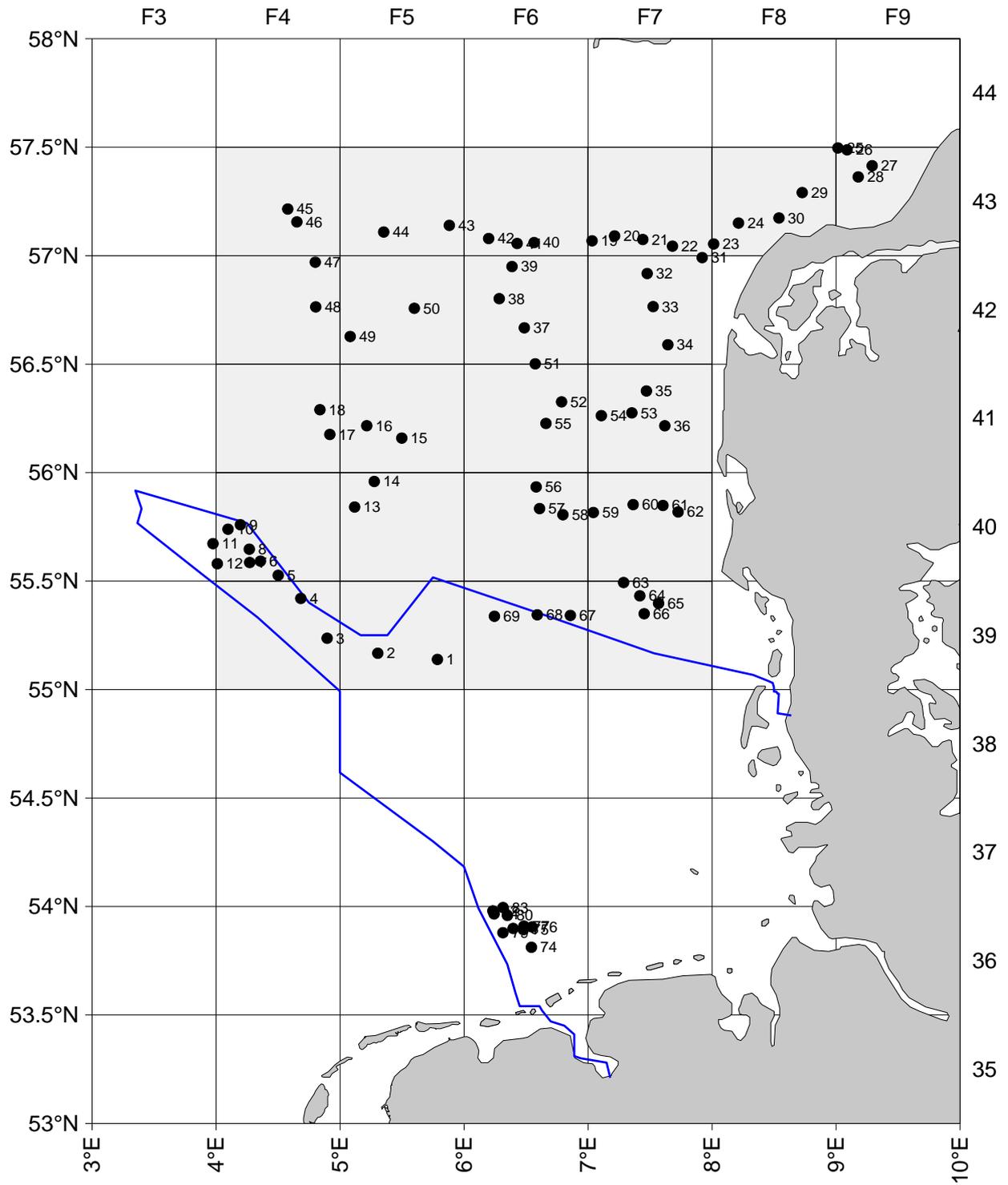
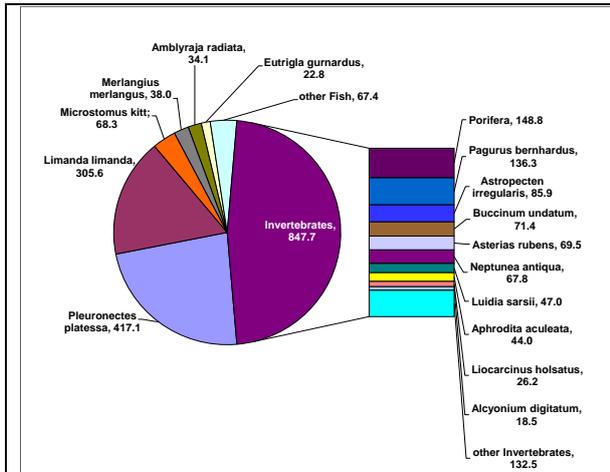
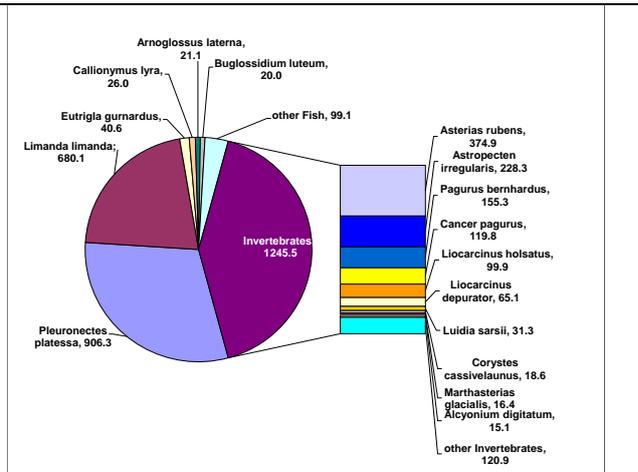


Fig. 1: "Solea", Cruise no. 781, Haul positions and area of investigation

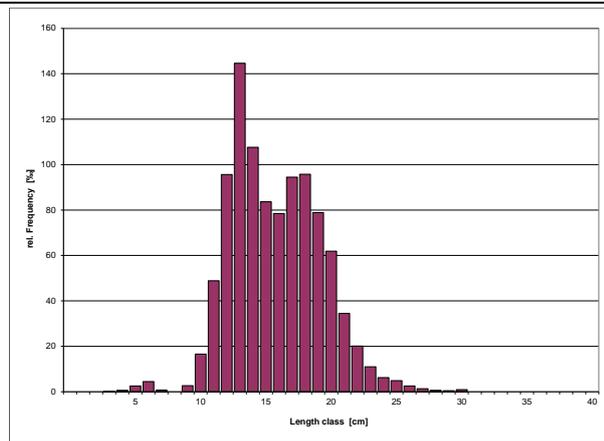
## Catch composition in kg and length distribution during Beam Trawl Survey



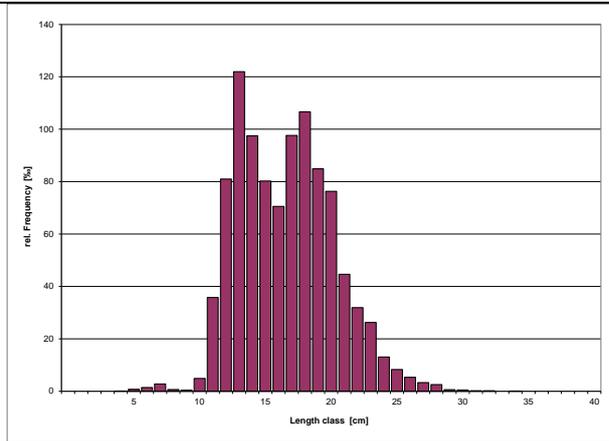
**Fig. 2: Catch composition in 39-43F4&5 (offshore)**



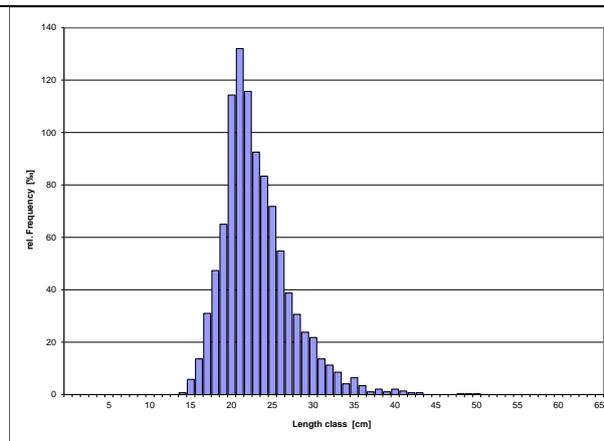
**Fig. 3: Catch composition in 39-43F6&7, 43F8&9 (inshore)**



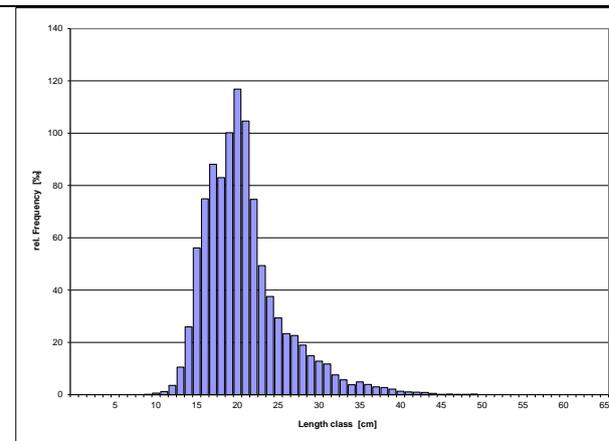
**Fig. 4: Length distribution of Dab in 39-43F4&5**



**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

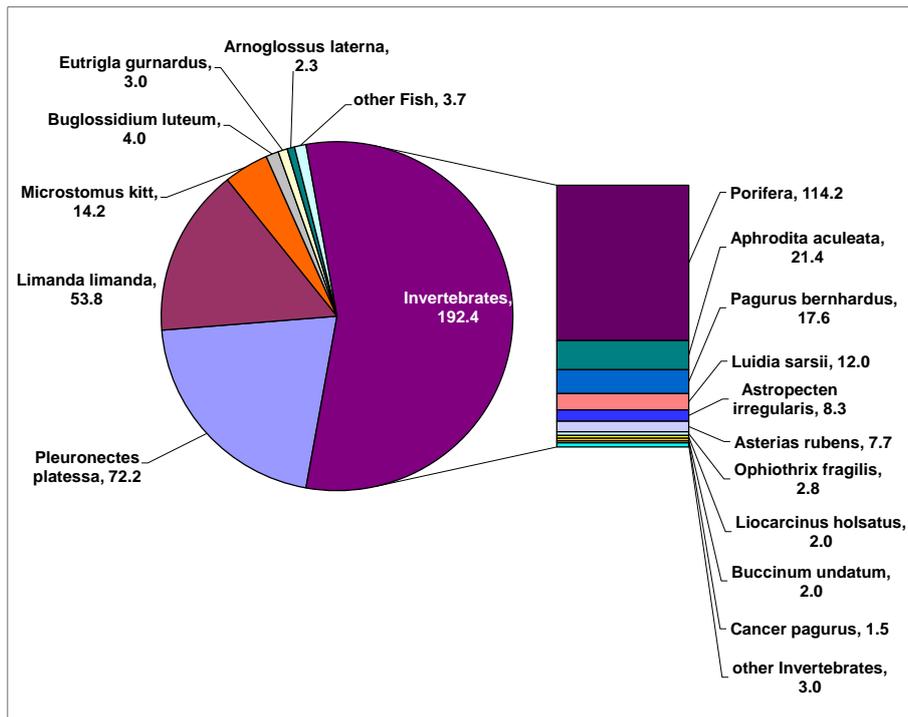


Abb. 8: Catch composition in FFH-Area „Dogger Tail End“

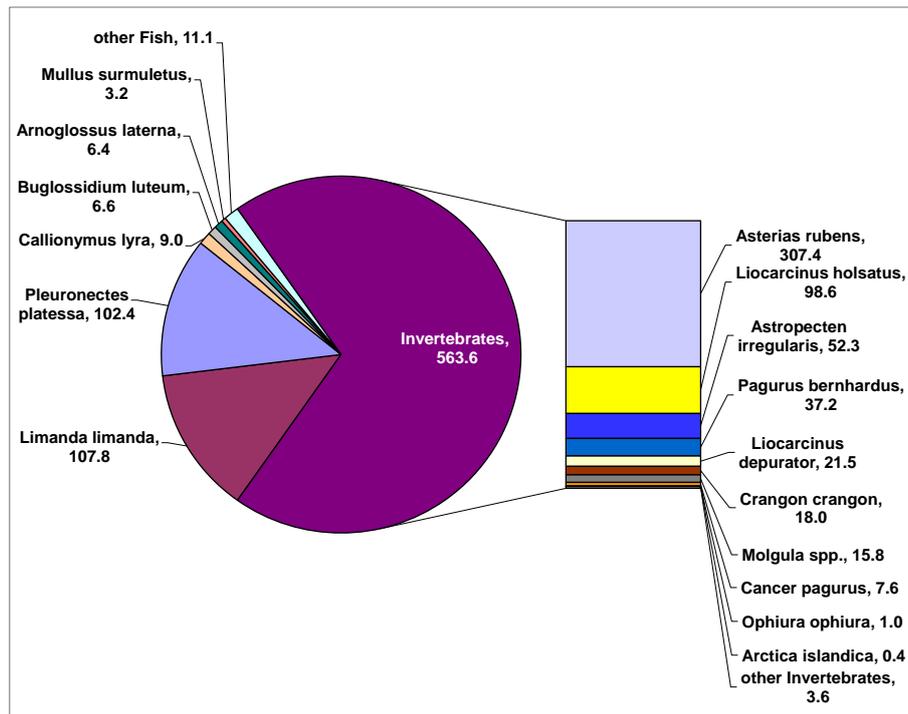


Abb. 10: Catch composition in FFH-Area „Borkum Riffgrund“