

„WALTHER HERWIG III“

Cruise 290

REPORT

17.07. – 15.08.2006

Personnel

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Objectives

1. To participate in the ICES co-ordinated 'International Bottom Trawl Survey' in the North Sea, 3. quarter
2. Biological monitoring of the fish fauna in 6 small areas (boxes)
3. Distribution of temperature, salinity and nutrients in the area of investigation
4. Monitoring of the benthic epifauna in the boxes and in the German Bight
5. Monitoring of seabirds
6. Comparison fishing with FRV “Scotia”

Narrative (Fig. 1)

W. Herwig III left Bremerhaven the 17th of July 2006. The scientific programme started next morning at ICES-rectangle 38F7. During this day another 3 rectangles were monitored by taking samples of fish, water (nutrients, temperature, salinity) and benthic epi-fauna (Tab. 1). The vessel then worked in the boxes C, L and M (3 days each). The first 2 days of the 4 days in box D a comparison fishing experiment was carried out together with the Scottish FRV “Scotia”. After a two days break in Aberdeen (Scotland) the standard programme was continued at box B. After two days fishing in 8 ICES-rectangles in the German Bight, 3 days in Box A and another 11 rectangles the scientific program ended the 13th of August. The next day was used to check the fishery winches. The 'W. Herwig III' docked at Bremerhaven the 15th of August.

Tab. 1: Activities (stations) during the cruise

area	GOV-hauls	CTD	nutrients	2m-beamtrawl	v.Veen grab
Box A	21	15	4	9	9
Box B	20	14	6	9	9
Box C	21	15	9	9	9
Box D	24	18	5	12	12
Box L	21	15	6	9	9
Box M	20	15	6	9	9
ICES-rectangles	23	23	23	23	23
total	150	115	59	80	80

Results (Tab. 1 and Figs. 2-7)

A total of 150 half an hour and valid hauls were made using the GOV trawl equipped with the standard ground gear, of which 127 hauls were carried out in the boxes to monitor changes in species compositions and 23 hauls in different ICES-rectangles as part of the IBTS Q3 survey, mainly within the German Bight. At 115 stations salinity, temperature and at 59 stations nutrients were measured. Epibenthos was sampled by a 2m beam-trawl at 80 stations and 80 grab samples were taken to investigate the sediment.

The preliminary number at age data for the recruiting year-classes of the commercial important species and the catch data were submitted to the co-ordinator of the IBTS-Q3 survey and ICES resp. to make these data available to the ICES assessment working groups within due time.

Fig. 1 shows the area of investigation. The mean species compositions in the 6 boxes and the variability within the time periods are shown in Figs.2 to 7.

Dr. S. Ehrich; Dr. R. Kafemann

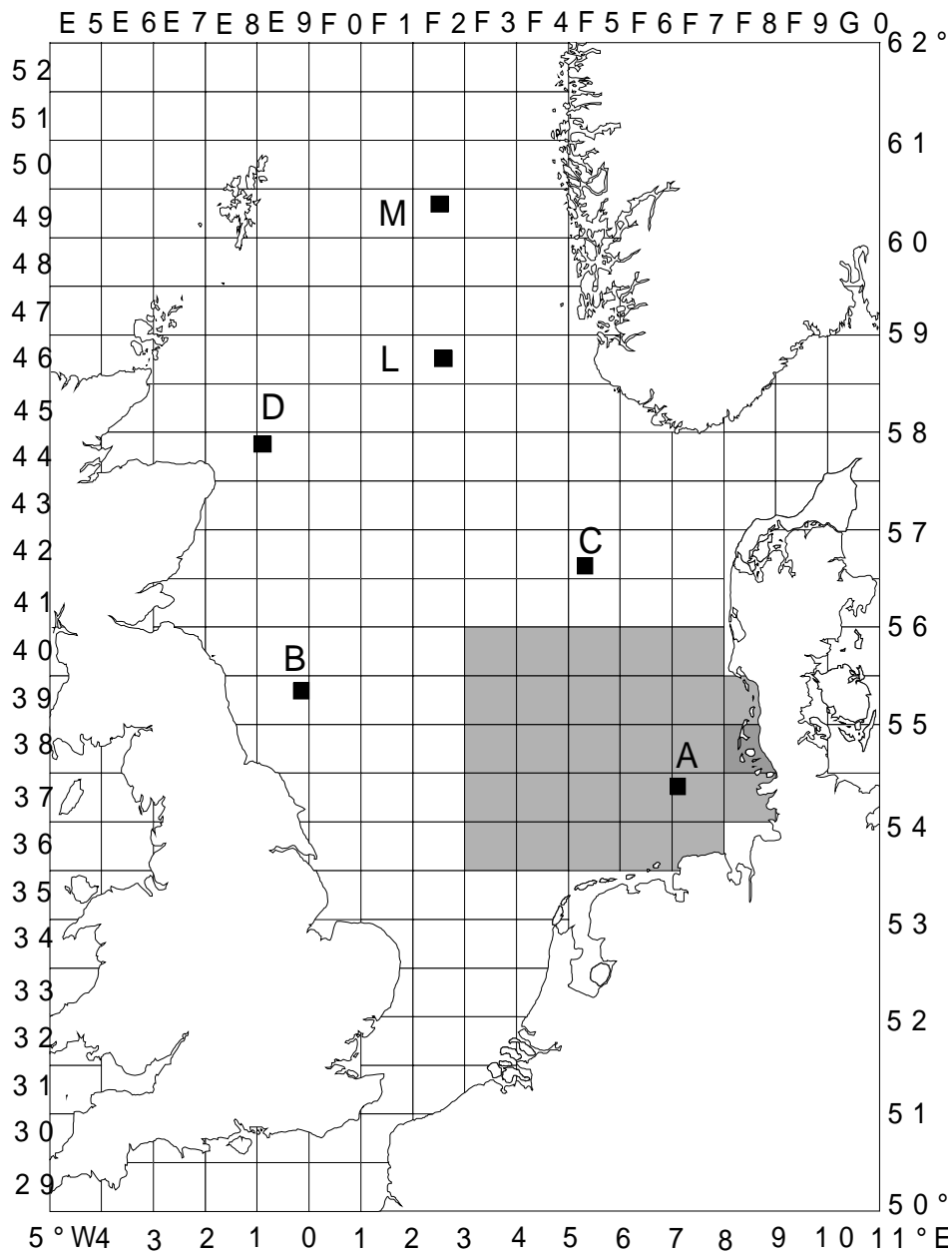


Fig. 1: „Walther Herwig III“. Cruise no. 290. Area of investigation and boxes

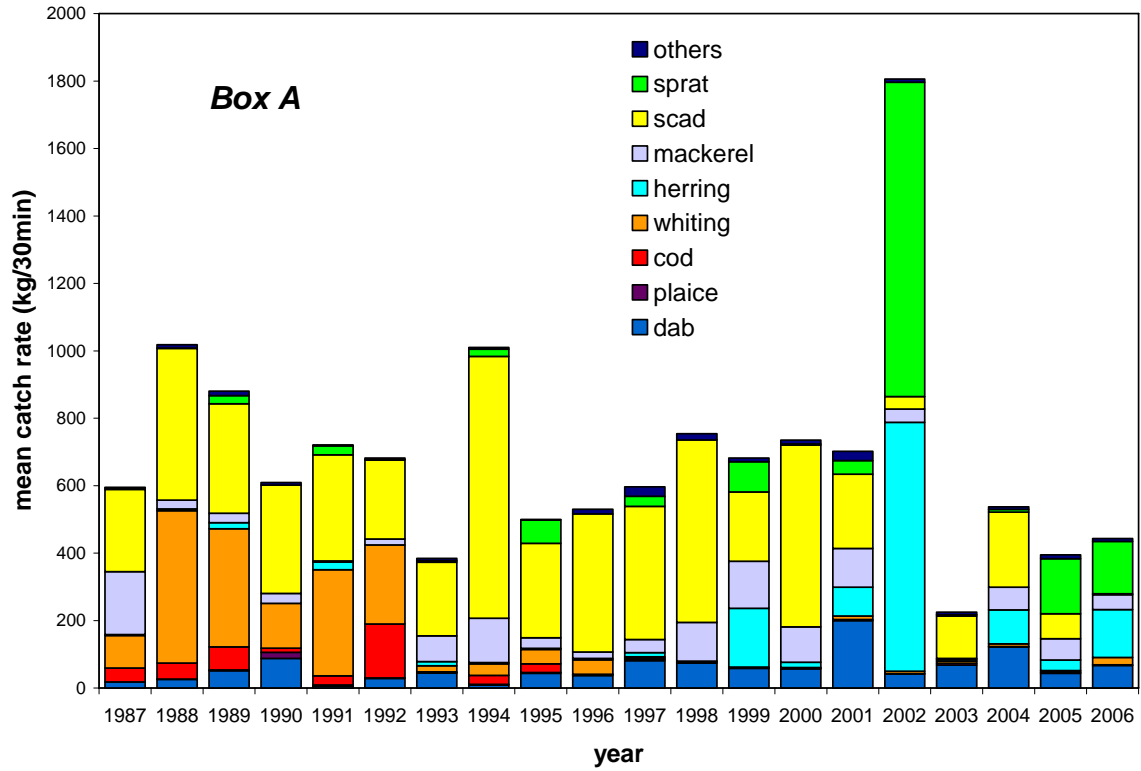


Fig. 2: Box A: German Bight: Main species composition (kg/30min) from 1987 to 2006 (summer)

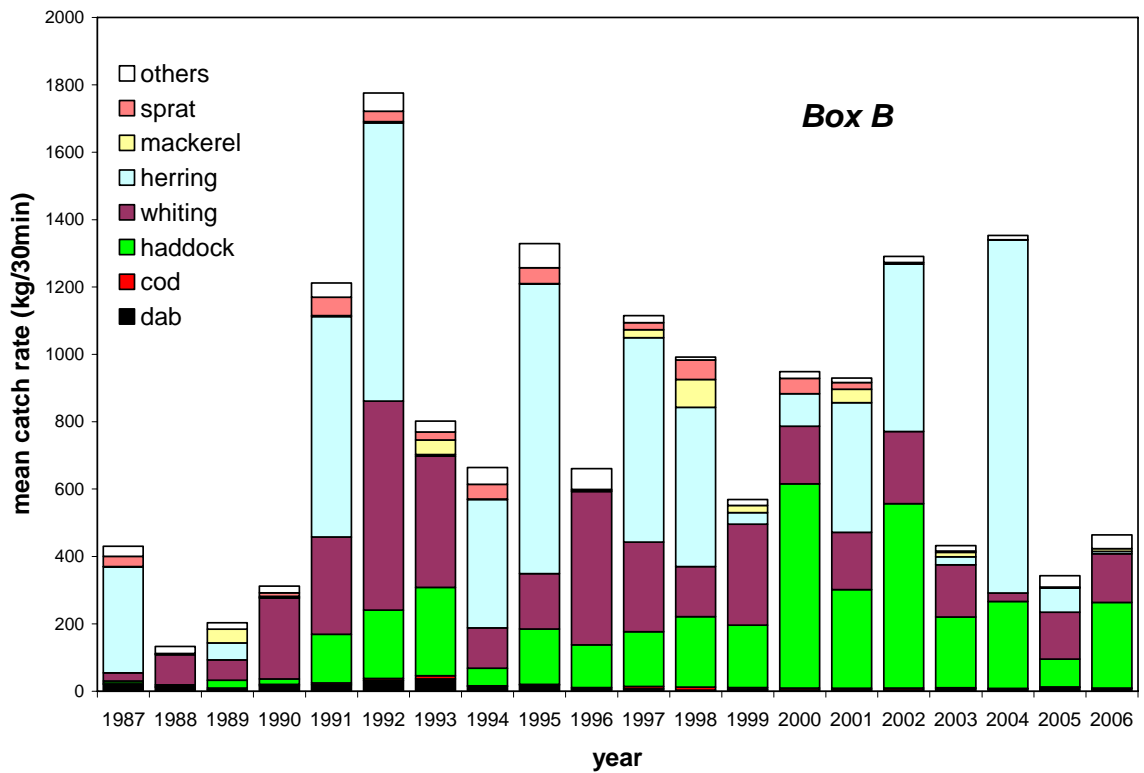


Fig. 3: Box B. English coast. Main species composition (kg/30min) from 1987 to 2006 (summer)

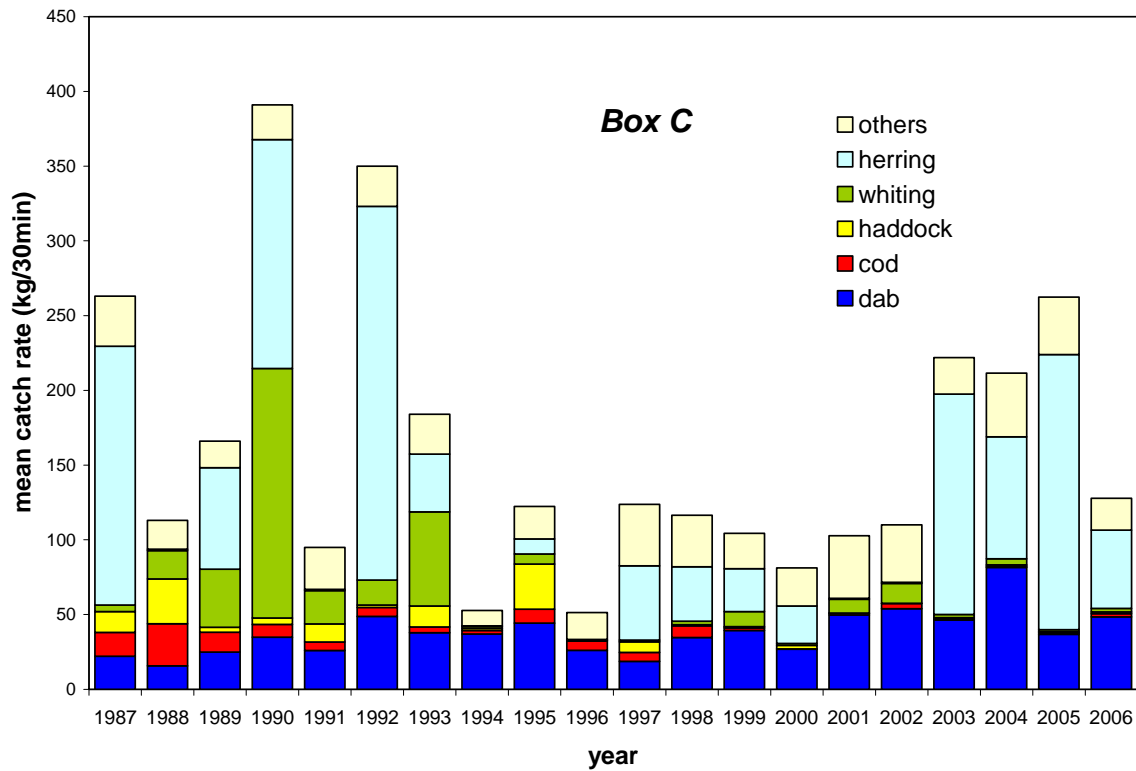


Fig. 4: Box C. Danish coast. Main species composition (kg/30min) from 1986 to 2006 (summer)

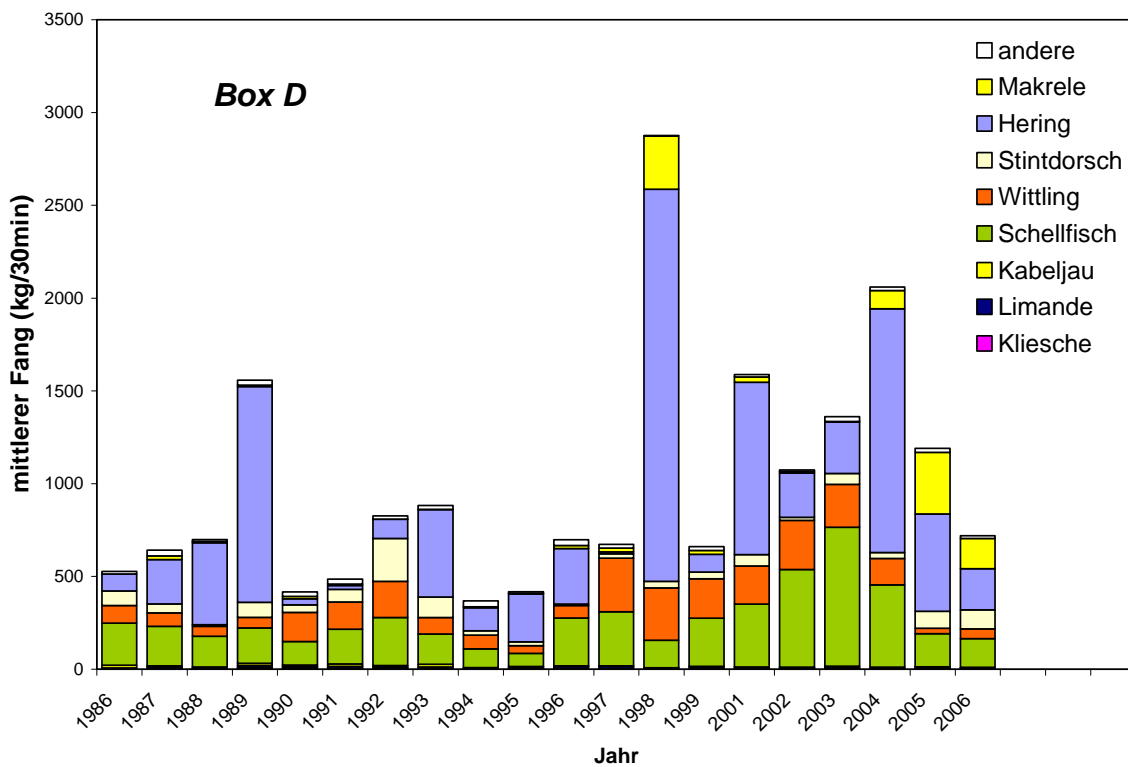


Fig. 5: Box D. Scottish coast. Main species composition (kg/30min) from 1986 to 2006 (summer)

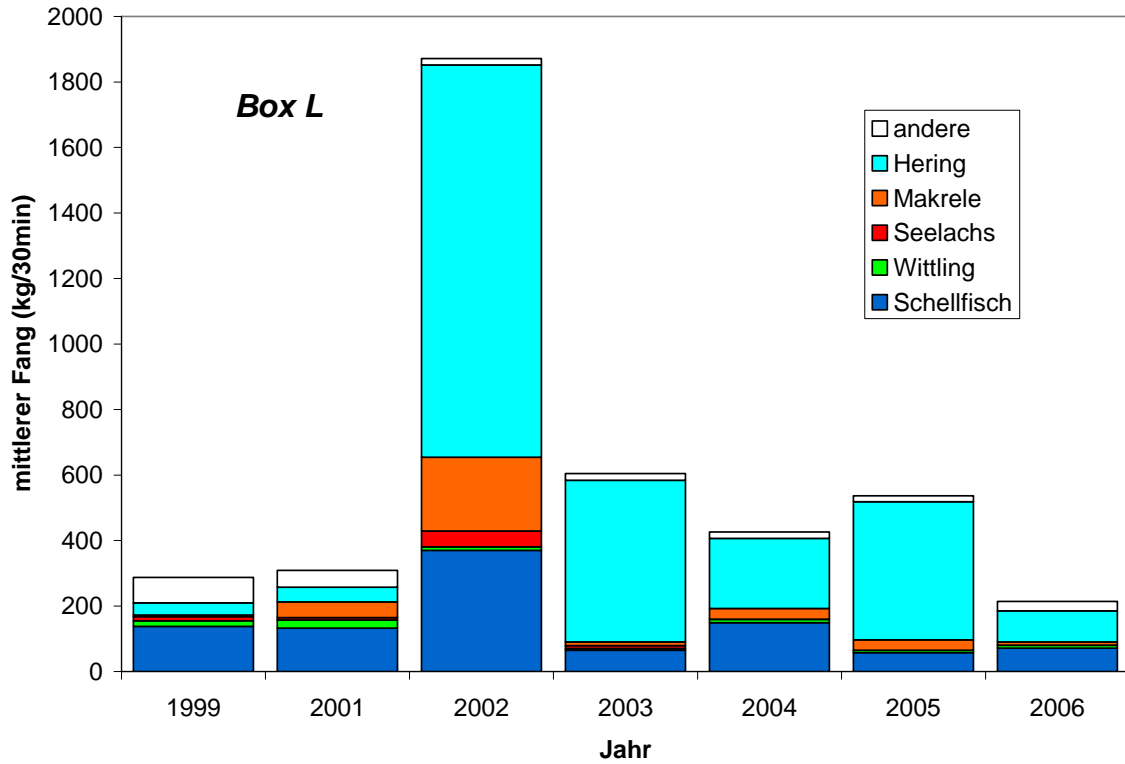


Fig. 6: Box L. Norwegian coast. Main species composition (kg/30min) in 1999 and from 2001 to 2006 (summer)

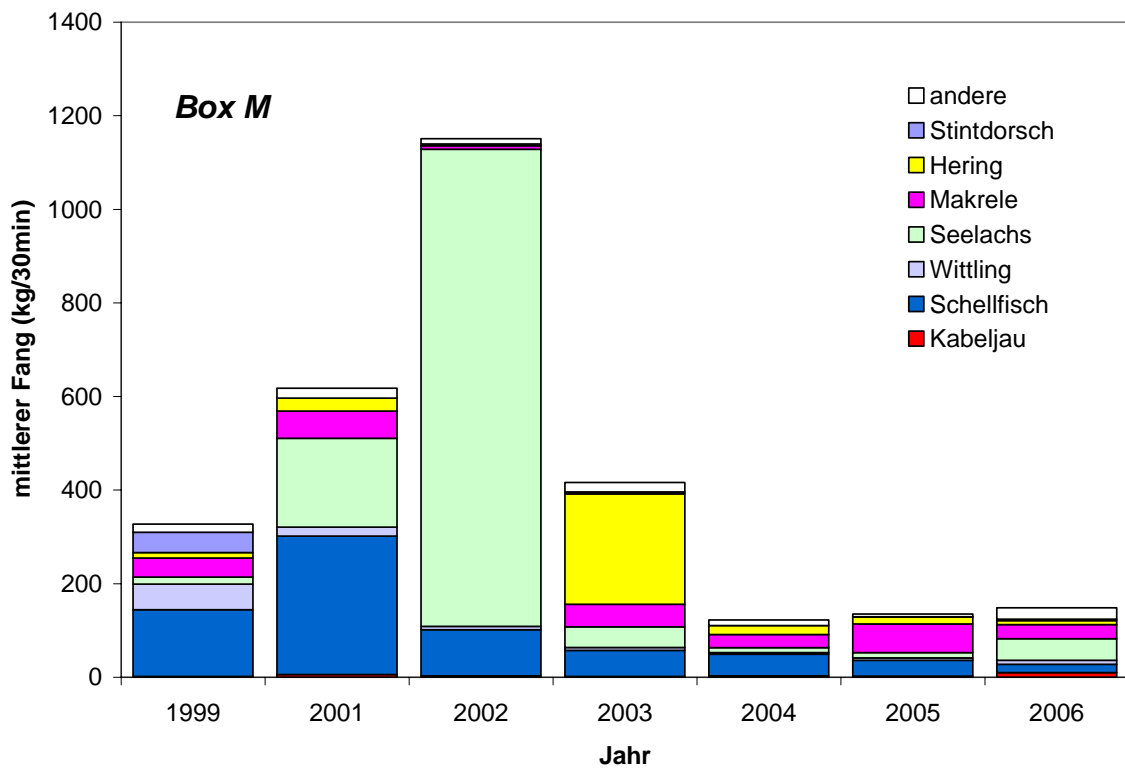


Fig. 7: Box M. Norwegian coast. Main species composition (kg/30min) in 1999 and from 2001 to 2006 (summer)