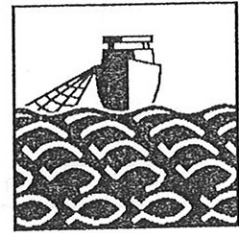


**Bundesforschungsanstalt  
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## **„WALTHER HERWIG III“**

**Cruise 266**

**REPORT**

**26.07. – 26.08.2004**

### **Personnel**

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7. Christoph Conrad	ISH-BFA
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9. Andrea Braunshausen	ISH-BFA
10. Dr. Ingrid Kröncke	Forsch. Senckenberg
11. Hermann Neumann	Forsch. Senckenberg
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13. Melanie Kruppe	ISH-BFA

### **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 epi- and infauna in the boxes and in the German Bight  
(as part of the EU-Project MAFCONS)

### **Narrative (Fig. 1)**

W. Herwig III left Bremerhaven the 26<sup>th</sup> of July 2004. The scientific programme started next morning at ICES-rectangle 36F6. During the next 3 days 11 rectangles were monitored by taking samples of fish, water (nutrients, temperature, salinity) and benthic epi- and partly infauna (Tab. 1). The vessel then worked for 3 days near Box A (MAFCONS-program) before starting the work at boxes C, L and M (3 days each, list of activities see Tab. 1). After a two days break in Lerwick (Shetlands) the standard programme was continued at boxes D and B. After one day fishing in 4 ICES-rectangles in the German Bight and 4 days in Box A

where the scientific program ended, the 'W. Herwig III' docked at Bremerhaven on Thursday, the 26<sup>th</sup> of August 2004.

**Tab. 1: Activities (stations) during the cruise**

area	GOV-hauls	CTD	nutrients	2m-beamtrawl	v.Veen grab
Box A	27	20	4	12	60
Box B	21	15	3	9	9
Box C	21	15	3	9	9
Box D	21	15	3	9	9
Box L	19	15	3	13	9
Box M	21	15	3	9	9
ICES-rectangles	23	23	23	23	43
MAFCONS	13	13	6	13	65
total	166	131	48	97	213

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

A total of 166 half an hour and valid hauls were made using the GOV trawl equipped with the standard ground gear, of which 130 hauls were carried out in the boxes to monitor changes in species compositions, 23 hauls in different ICES-rectangles as part of the IBTS Q3 survey, mainly within the German Bight and 13 additional hauls for the EU-project MAFCONS. At 131 stations salinity, temperature and at 48 stations nutrients were measured. Epibenthos was sampled by a 2m beam-trawl at 97 stations and 213 grab samples were taken to investigate the benthic infauna.

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

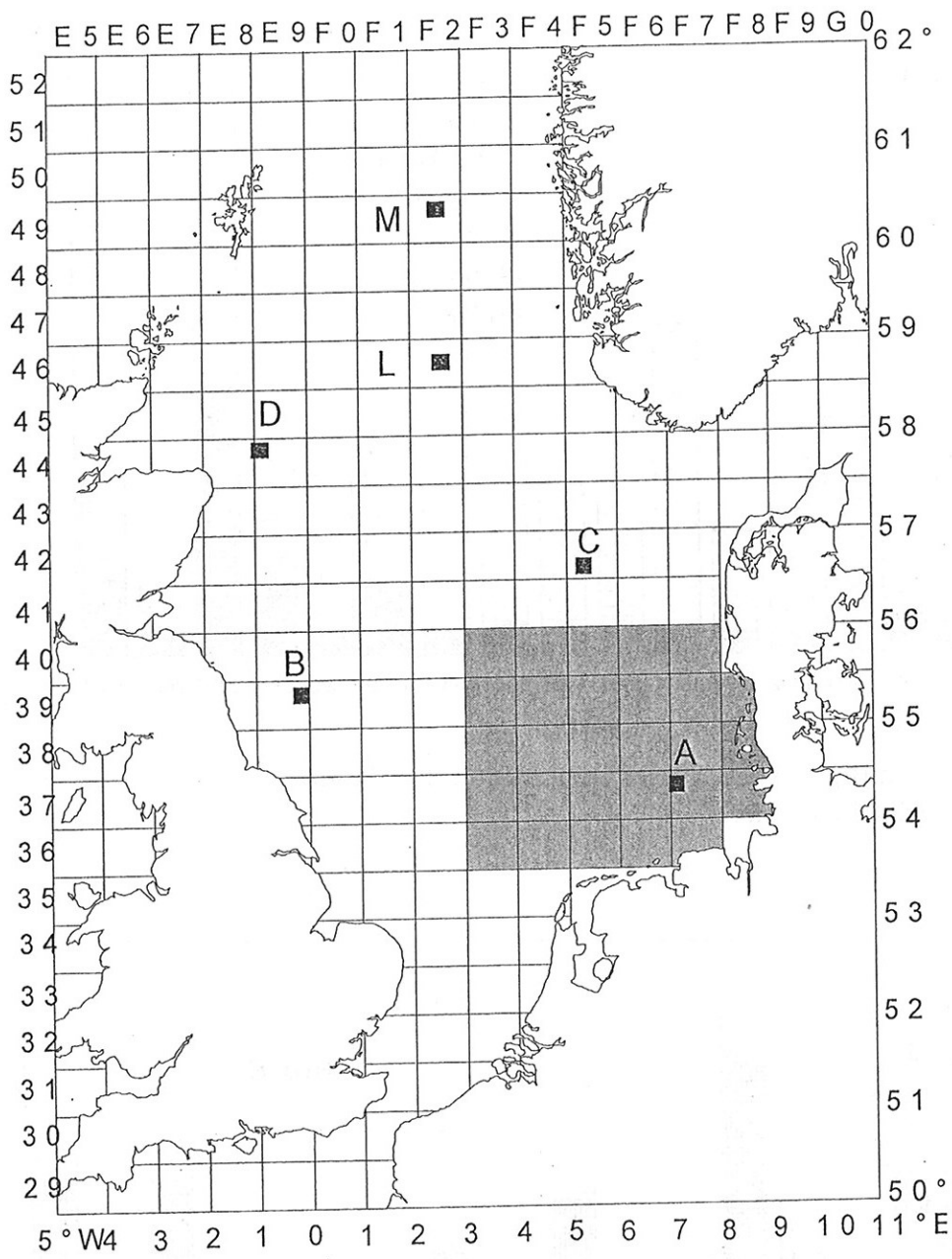


Fig. 1: „Walther Herwig III“. Cruise no. 266. Area of investigation and boxes

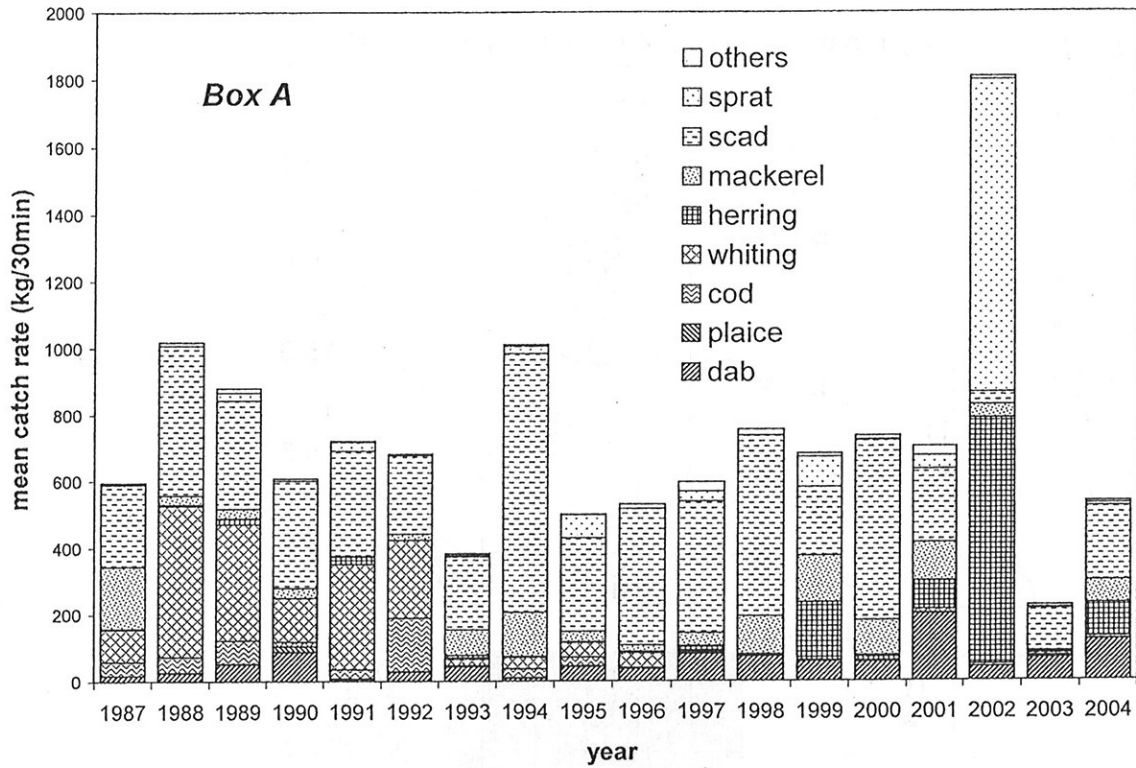


Fig. 2: Box A: German Bight: Main species composition (kg/30min) from 1987 to 2004 (summer)

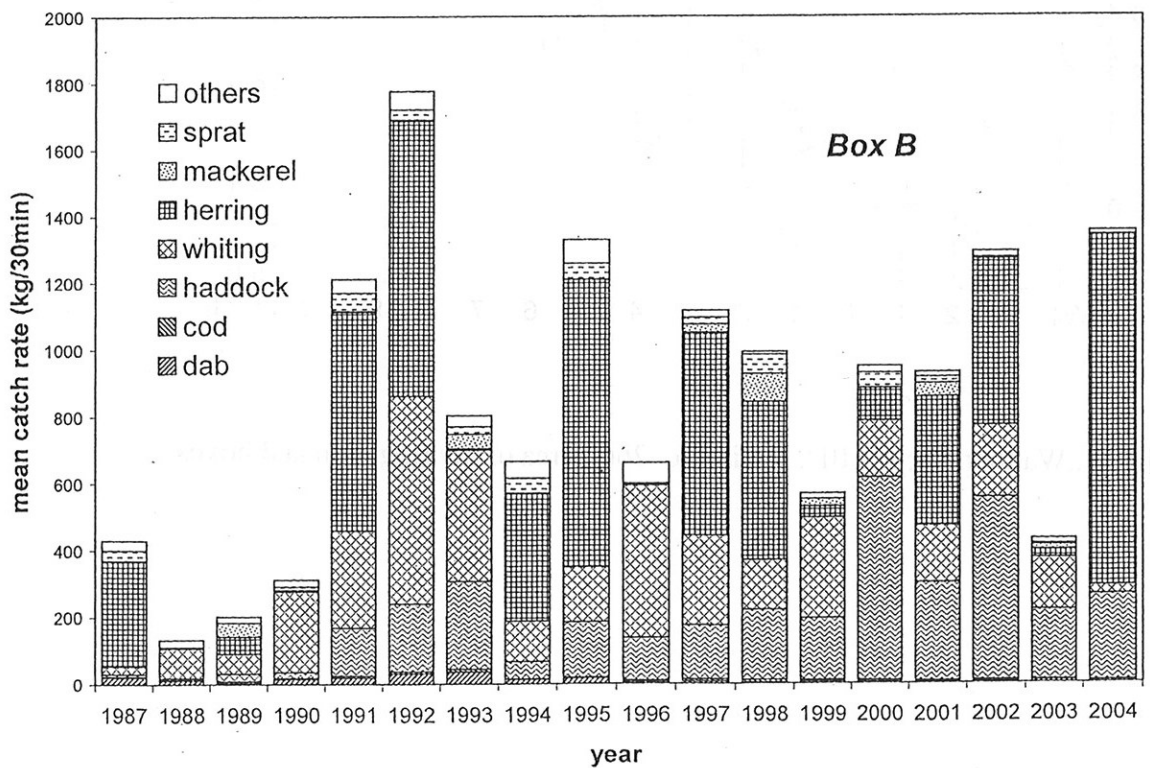


Fig. 3: Box B. English coast. Main species composition (kg/30min) from 1987 to 2004 (summer)

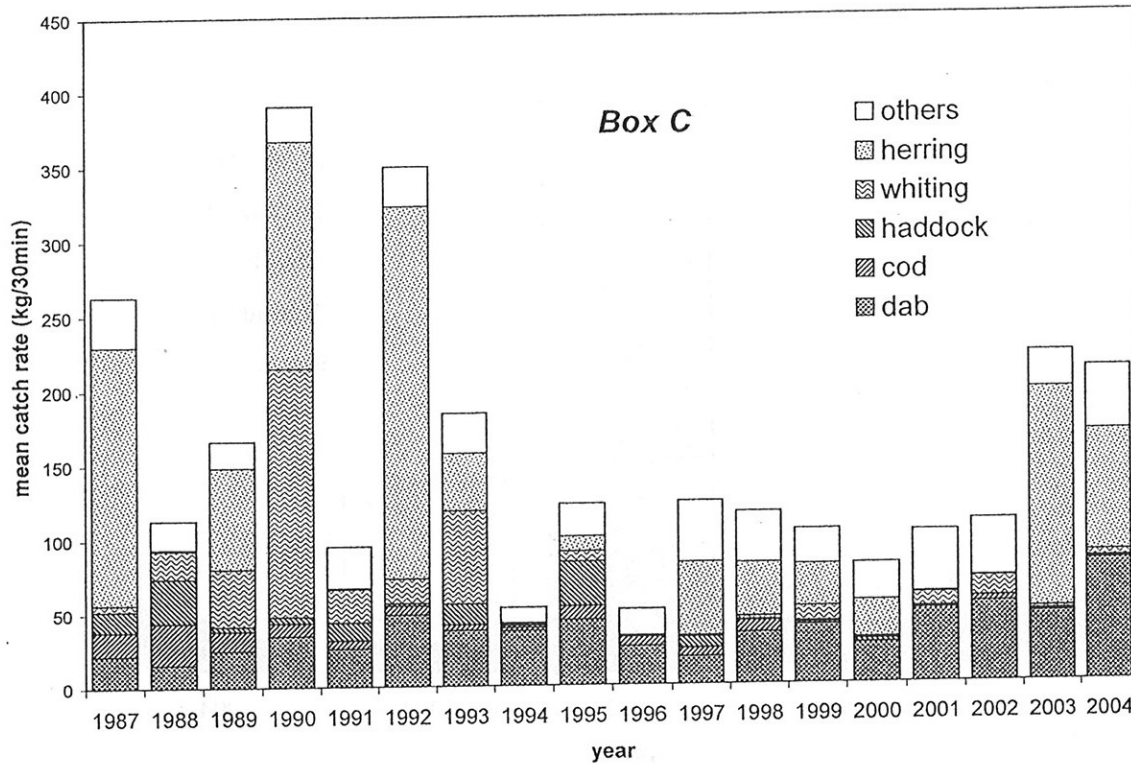


Fig. 4: Box C. Danish coast. Main species composition (kg/30min) from 1986 to 2004 (summer)

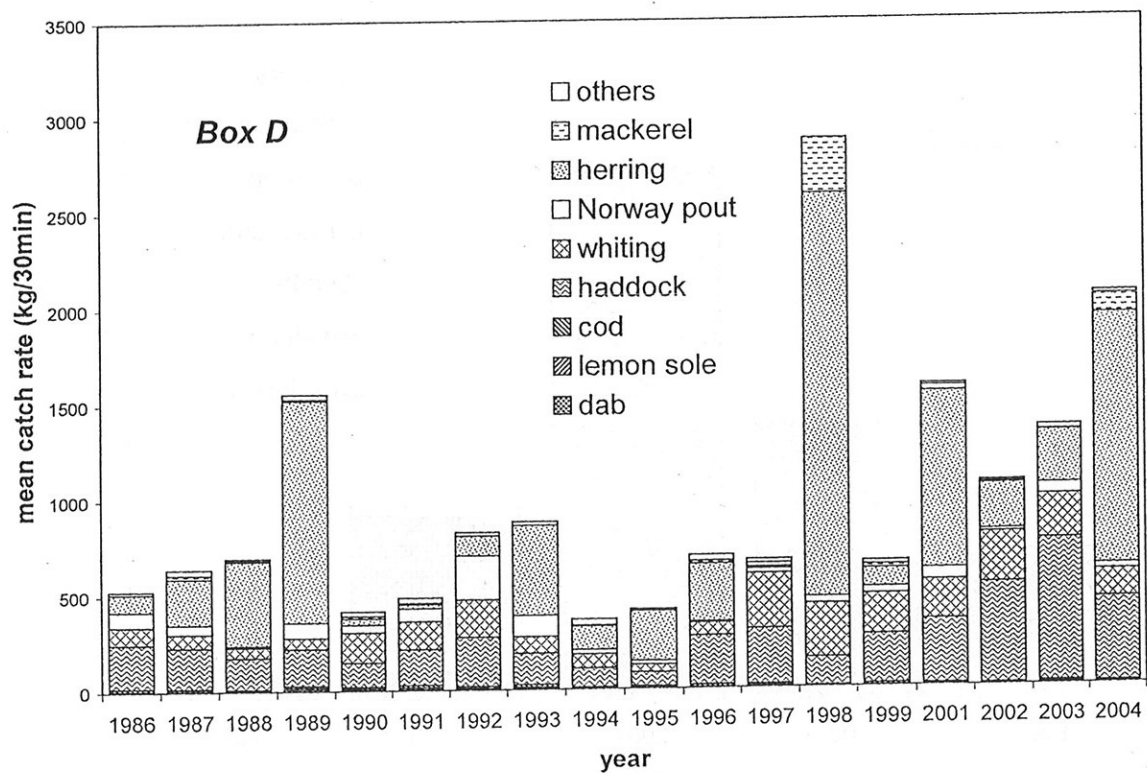


Fig. 5: Box D. Scottish coast. Main species composition (kg/30min) from 1986 to 2004 (summer)

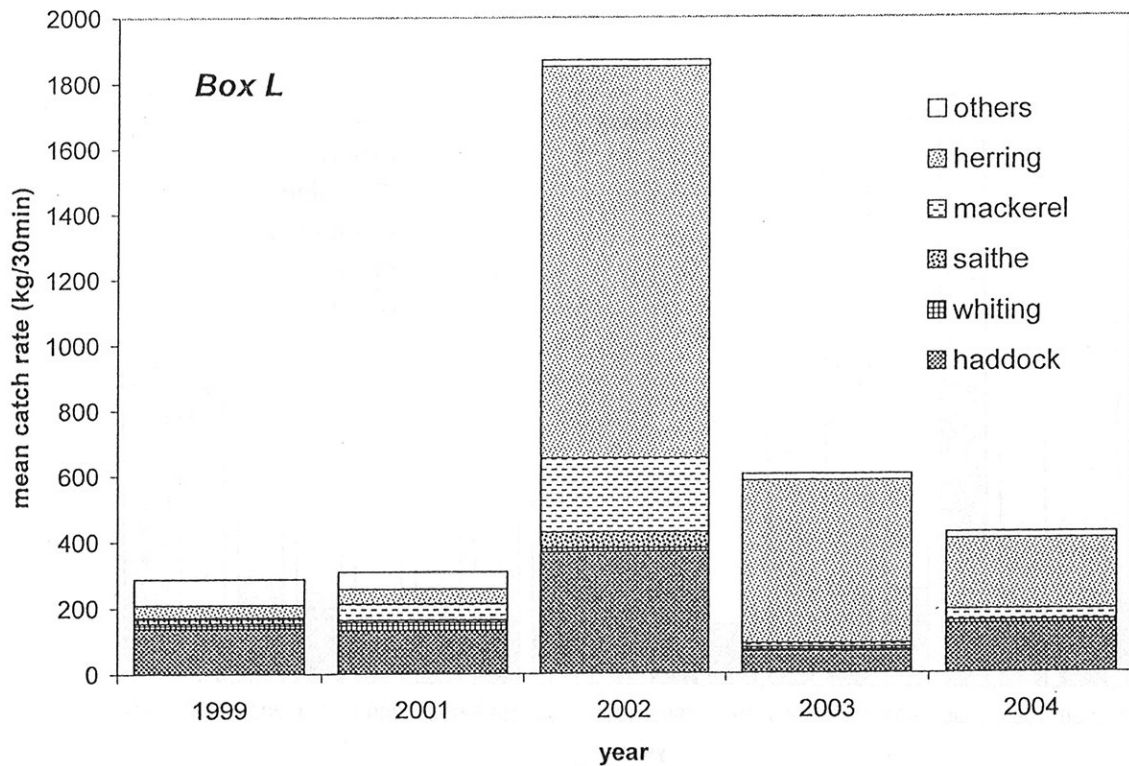


Fig. 6: Box L. Norwegian coast. Main species composition (kg/30min) in 1999 and from 2001 to 2004 (summer)

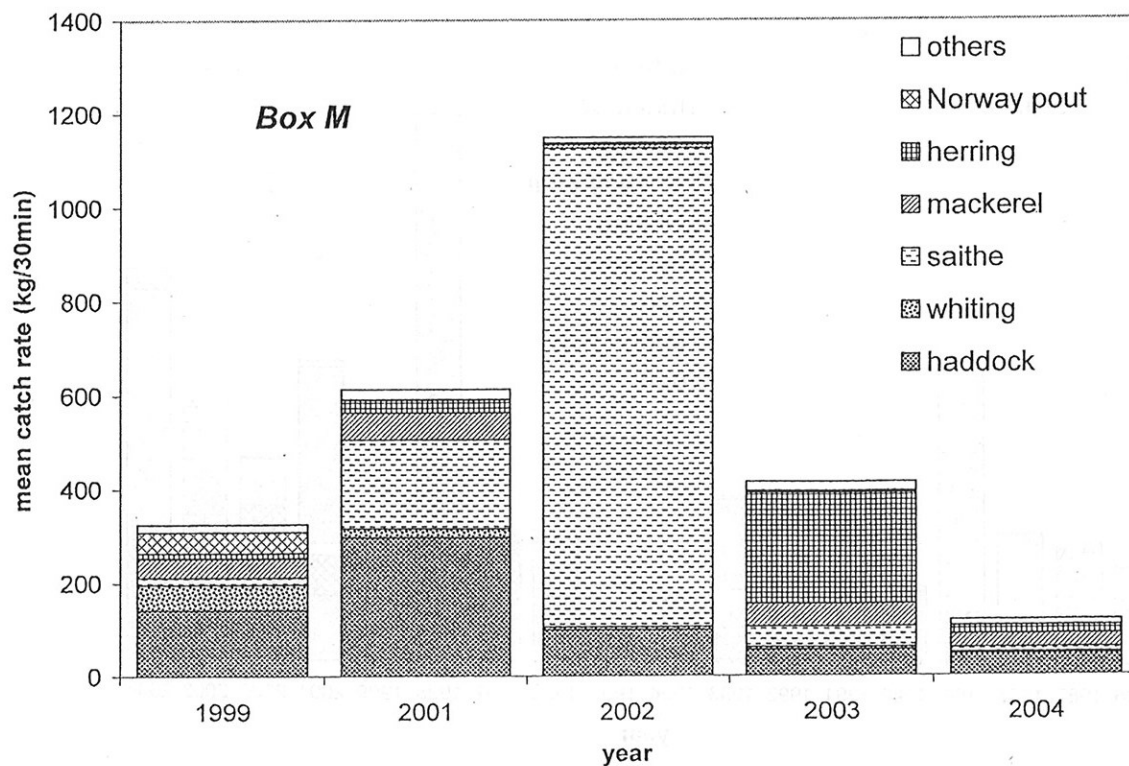


Fig. 7: Box M. Norwegian coast. Main species composition (kg/30min) in 1999 and from 2001 to 2004 (summer)