



FRV WALTHER HERWIG III

Cruise 271: IBTS 2005 (I)

REPORT

19.01. – 14.02.2005

Participants

| | |
|------------------------|---|
| Gerd Wegner | BFA für Fischerei, Hamburg (in charge) |
| Wolfgang Ahlers | BFA für Fischerei, Ast. Cuxhaven |
| Annika Elsheimer | BFA für Fischerei, Hamburg |
| Frank Fuhr | BFA für Fischerei, Hamburg (student helper) |
| Gitta Hemken | BFA für Fischerei, Hamburg |
| Dr. Matthias Kloppmann | BFA für Fischerei, Hamburg |
| Melanie Kruppe | BFA für Fischerei, Hamburg (student helper) |
| Tobias Pfingstl | University of Graz (voluntary helper) |
| Karin Schiefelhövel | University of Bremen (voluntary helper) |
| Ingo Wilhelms | BFA für Fischerei, Hamburg |

Objectives

1. Participation in the ICES co-ordinated 'International Bottom Trawl Survey' 2004 (I) in the North Sea
2. Distribution of herring larvae, temperature, salinity, and nutrients in the area of investigation

Narrative

| | |
|-------------------|--|
| Time schedule | |
| 19.01.2005, 18:30 | Departure Bremerhaven |
| 21.01., 08:00 | Start of fishing in the northern German Bight |
| 22.01.-04.02. | Sampling in the central area |
| 04./05.02. | Break in Aberdeen, Scotland |
| 06.02.-13.02. | Sampling in the western, northern, and eastern areas |
| 14.02.2004, 18:00 | End of survey in Bremerhaven |

According to the international ICES program coordinated by the Netherlands (RIVO-DLO) the rectangles assigned to Germany in the northern and central North Sea were to be fished by means of the ICES standard bottom trawl GOV during daytime and by the pelagic herring larvae net MIK during night. Additionally, temperature and salinity measurements and nutrient samples were to be taken in each rectangle. Due to persistent gale and storm periods, WALTHER HERWIG was able to work only in 60 of the 77 rectangles

assigned (comp.: cruise track). Another six GOV hauls were overtaken from the Norwegian vessel. In total, WALTHER HERWIG did 98 MIK and 66 GOV hauls as well as 64 CTD profiles.

Results

Except three larger hauls (herring, mackerel, young mackerel), the total catches of the 66 GOV hauls were in the lower part of the variations of the preceding years. Although giving a totally incomplete view on the basis of an incomplete survey, a comparison of the German 1-group fish numbers from the period 2001 to 2005 in the ICES roundfish areas (see table) demonstrates the further on disappointing recruitment situations.

Numbers of 1-group (ICES def.; 60 min trawling time)

| year | area | herring <20cm | cod <25cm | haddock <20cm | whiting <20cm | mackerel <25cm | sprat <10cm | Norw. pout <15cm |
|------|------|------------------|--------------|------------------|------------------|-------------------|----------------|---------------------|
| 2001 | 1 | 4942 | 99 | 35166 | 2090 | 12402 | 150 | 153505 |
| 2002 | 1 | 166 | 8 | 6706 | 290 | 11744 | 2 | 135152 |
| 2003 | 1 | 452 | | 1897 | 239 | 2231 | | 156941 |
| 2004 | 1 | 10 | 2 | 638 | 187 | 2744 | | 34734 |
| 2005 | 1 | | | 1382 | 381 | 324696 | | 50416 |
| 2001 | 2 | 18388 | 40 | 2190 | 1361 | 131 | 6 | 27779 |
| 2002 | 2 | 49752 | 35 | 227 | 3890 | 98 | | 5130 |
| 2003 | 2 | 19921 | 2 | 48 | 455 | 207 | 2 | 2913 |
| 2004 | 2 | 700 | 99 | 28 | 959 | 4 | | 877 |
| 2005 | 2 | 1242 | 16 | 2 | 112 | 2 | 263 | 36 |
| 2001 | 3 | 7618 | 6 | 12364 | 7321 | 6 | 2288 | 17008 |
| 2002 | 3 | 1427 | 74 | 970 | 3675 | 10 | 10758 | 16753 |
| 2003 | 3 | 1533 | 2 | 242 | 6100 | 4 | 254 | 9470 |
| 2004 | 3 | 830 | 64 | 7698 | 17915 | | 7543 | 55857 |
| 2005 | 3 | 24668 | 10 | 414 | 1498 | | | 23275 |
| 2001 | 6 | 30567 | 6 | 12 | 143964 | 4 | 34835 | |
| 2002 | 6 | 28266 | 8 | | 236 | | 8105 | |
| 2003 | 6 | 44815 | 2 | | 466 | | 13205 | |
| 2004 | 6 | 6287 | 12 | | 80 | | 671 | |
| 2005 | 6 | 992 | 12 | | 6 | | 14791 | |

The distribution of the herring larvae caught by the MIK was similar compared with the previous two years. Larger concentrations were spread over a larger offshore area in the north-western North Sea. The quantities were partly beneath the numbers of those years.

The hydrographic situation was characterized by temperatures of 0.4 –1.3 K and salinities of 0.1 ppt above the long term mean values in the whole area.

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IBTS 2005 1 Quartal

Walther Herwig 271. Reise

