Bundesforschungsanstalt für Fischerei

Institut für Seefischerei

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27.02.2004

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FRV WALTHER HERWIG III

Cruise 260: IBTS 2004 (I)

REPORT

21.01. - 17.02.2004

Participants

Gerd Wegner Wolfgang Ahlers Annika Elsheimer Frank Fuhr Horst Haidn Gitta Hemken Sakis Kroupis Lydia Peters Ursula Siment Ingo Wilhelms BFA für Fischerei, Hamburg (in charge) BFA für Fischerei, Ast. Cuxhaven BFA für Fischerei, Hamburg BFA für Fischerei, Hamburg (student helper) BFA für Fischerei, Hamburg BFA für Fischerei, Hamburg BFA für Fischerei, Hamburg (student helper) University of Graz (voluntary helper) 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 temperature, salinity and nutrients in the area of investigation

Narrative

I ime schedule	
21.01.2004, 10:30	Departure Bremerhaven
21.01., 18:00	Start of MIK sampling in northern German Bight
22.0104.02.	Sampling in the central and western areas
04./06.02.	Break in Lerwick, Shetland
06.0216.02.	Sampling in the norther and eastern areas
17.02.2004, 11:00	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 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 taken in each rectangle.



Results

Except one larger herring haul, the total catches of the 70 GOV hauls were within the variations of the preceding years. With respect to the species, the numbers of individuals decreased for all species except herring, sprat, mackerel, and pollack. Although giving a totally incomplete view, a comparison of the German 1-group fish numbers from the period 2000 to 2004 in the ICES roundfish areas (see table) demonstrates the still disappointing recruitment situations.

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

year	area	herring	cod	haddock	whiting	mackerel	sprat	Norw. pout	
		<20cm	<25cm	<20cm	<20cm	<25cm	<10cm	<15cm	
2000	1	2928	90	169298	2517	850	4	544125	
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	2744		
2000	2	101210	454	77402	8725	10	237	198464	
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	
2000	3	25220	98	63226	34144	4	4129	40930	
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	
2000	6	115713	66	224	57884	93	37249		
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		

The distribution of the herring larvae caught by the MIK was similar compared with the year. Larger concentrations were spread over a larger offshore area in the north-western North Sea.

The hydrographic situation was characterized by temperatures of 0.7 - 1.7 K and salinities of 0.1ppt above the long term mean values in the whole area.

Inside the northern North Sea herring stock, the prevalence of ichtyophonus amounted 17 % for smaller catches, the mean value was 2.6 %.

Gerd Wegner

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	FOR COLLATIMG CENTRE USE					
CRUISE SUMMARY REPORT	Centre: DOD Ref.	. No.:				
	Is data exchange restricted	□ Yes	□ In part	⊠ No		
SHIP enter the full name and international radio call sign of the ship from which the data were c example, research ship; ship of opportunity, naval survey vessel; etc.	ollected, and indicat	e the typ	be of ship, for			
Name: <u>Walther Herwig III</u>	Call Sign:	DBFR				
Type of ship: <u>FRV</u>						
CRUISE NO. / NAME WH 260	enter the or acron (or cruise	e unique ym assig e leg, if a	number, nan gned to the cl appropriate).	ne ruise		
CRUISE PERIOD start (set sail) day/ month/ year to 17/02/2004 end day/ month/ year (return to port)						
PORT OF DEPARTURE (enter name and country) Bremerhaven (Gernany)						
PORT OF RETURN (enter name and country) Bremerhaven (Germany)						
RESPONSIBLE LABORATORY enter name and address of the laboratory responsible the cruise	for coodinating the	scientifi	c planning of			
Name: <u>BFA für Fischerei, Institut für Seefischerei</u> Address: <u>Palmaille 9, D - 22767 Hamburg</u> Country: <u>Germany</u>						
CHIEF SCIENTIST(S) enter name and laboratory of the person(s) in charge of the scient G. Wegner, Institut für Seefischerei	ific work (chief of mis	ssion) dı	uring the cruit	3e.		
OBJECTIVES AND BRIEF NARRATIVE OF CRUISE enter sufficient information a as to provide the context in the second s	about the purpose ar n which the report d	nd nature ata were	e of the cruis collected.	e so		
National part of: International Bottom Trawl Survey 2004 - 1, ICES coordinated						
General operational methods: - bottom trawling (GOV) - Plankton hauling (MIK) - CTD profiling and nutrient sampling						
PROJECT (IF APPLICABLE) if the cruise is designated as part of a larger scale cooperation of the project, and of organisation responsible for co-ordinating the project.	ive project (or expec	lition), th	nen enter the	name		
Project name:						
Coordinating body:						

PRINCIPAL INVESTIGATORS: Enter the name and address of the Principal Investigators responsible for the data collected on the cruise and who may be contacted for furtherinformation about the data. (The letter assigned below against each Principal Investigator is used on pages 2 and 3, under the column heading 'PI', to identify the data sets for which he/she is responsible) A. Dr. S. Ehrich, Institut für Seefischerei, B. G. Wegner, Institut für Seefischerei, C. Dr. U Brockmann, Bio- und Geochemie Univ. Ham D. _____ Е. F. _____ MOORINGS, BOTTOM MOUNTED GEAR AND DRIFTING SYSTEMS This section should be used for reporting moorings, bottom mounted gear and drifting systems (both surface and deep) deployed and/or recovered during the cruise. Separate entries should be made for each location (only deployment positions need be given for drifting systems). This section may also be used to report data collected at fixed locations which are returned to routinely in order to construct 'long time series'. APPROXIMATE POSITION DATA DESCRIPTION ΡI TYPE Identify, as appropriate, the nature of the instrumentation the parameters (to be) measured, the number of instruments and their depths, whether deployed and/or LATITUDE LONGITUDE See enter recovered, dates of deployments and/or recovery, and any identifiers given to the site. top of min N/S code(s) deg deg min E/W page. from list on cover page. Please continue on separate sheet if necessary

Page 2

SUMMARY OF MEASUREMENTS AND SAMPLES TAKEN						
Except for the data already described on page 2 under 'Moorings, Bottom Mounted Gear and Drifting Systems', this section should include a summary of all data collected on the cruise, whether they be measurements (e.g. temperature, salinity values) or samples (e.g. cores, net hauls).						
Separate entries should be made for each distinct and coherent set of measurements or samples. Different modes of data collection (e.g. vertical profiles as opposed to underway measurements) should be clearly distinguished, as should measurements/sampling techniques that imply distinctly different accuracy's or spatial/temporal resolutions. Thus, for example, separate entries would be created for i) BT drops, ii) water bottle stations, iii) CTD casts, iv) towed CTD, v) towed undulating CTD profiler, vi) surface water intake measurements, etc.						
Each da	ta set ent	ry should start o	n a new line	e – it's description may extend over several lines if necessary.		
NO, UNITS : for each data set, enter the estimated amount of data collected expressed in terms of the number of 'stations'; miles' of track; 'days' of recording; 'cores' taken; net 'hauls'; balloon 'ascents'; or whatever unit is most appropriate to the data. The amount should be entered under 'NO' and the counting unit should be identified in plain text under 'UNITS'.						
PI	NO	UNITS		DESCRIPTION Identify, as appropriate, the nature of the data and of the instrumentation/sampling gear and list the para		
see page 2	see above	see above	Enter code(s) from list on cover page	measured. Include any supplementary information that may be appropriate, e. g. vertical or horizontal profiles, depth horizons, continuous recording or discrete samples, etc. For samples taken for later analysis on shore, an indication should be given of the type of analysis planned, i.e. the purpose for which the samples were taken.		
Α	70	70	B19	bottom trawls by GOV		
Α	71	71	B09, B	Zooplanktonand larvae hauls by MIK		
В	72	72	H10	CTD profiles between surface and bottom		
С	76	76	H22,24	stations with nutrient samples in different depths		
			<u> </u>			
				Please continue on separate sheet if necessary		

TRACK CHART: You are strongly encouraged to submit, with the completed report, an annotated track chart illustrating the route followed and the points where measurements were taken.

Insert a tick(♥) in this box if a track chart is supplied

GENERAL OCEAN AREA(S): Enter the names of the oceans and/or seas in which data were collected during the cruise – please use commonly recognised names (see, for example, International Hydrographic Bureau Special Publication No. 23, 'Limits of Oceans and Seas').

North Sea

SPECIFIC AREAS: If the cruise activities were concentrated in a specific area(s) of an ocean or sea, then enter a description of the area(s). Such descriptions may include references to local geographic areas, to sea floor features, or to geographic coordinates. **Please insert here the number of each square in which data were collected from the below given chart**

North Sea: 181, 216, 217 252



THANK YOU FOR YOUR COOPERATION

Please send your completed report without delay to the collating centre indicated on the cover page