

FRV Walther Herwig III Cruise 362. IBTS Q1 2013 - Report 21.01. – 22.02.2013

Scientist in charge: Dr. M.H.F. Kloppmann

Objectives:

The International Bottom Trawl Survey (IBTS) is an internationally coordinated ICES program. The survey aims to provide ICES assessment and science groups with consistent and standardized data for examining spatial and temporal changes in (a) the distribution and relative abundance of fish and fish assemblages; and (b) of the biological parameters of commercial fish species for stock assessment purposes.

The main objectives are:

- To determine the distribution and relative abundance of pre-recruits of the main commercial species with a view of deriving recruitment indices;
- To monitor changes in the stocks of commercial fish species independently of commercial fisheries data;
- To monitor the distribution and relative abundance of all fish species and selected invertebrates;
- To collect data for the determination of biological parameters for selected species;
- To collect hydrographical and environmental information;
- To determine the abundance and distribution of late herring larvae.

Verteiler:

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Methods:

- Trawl hauls in allocated ICES statistical rectangles by means of the ICES standard bottom trawl GOV during daytime, one haul per rectangle
- Plankton hauls with a standardized 2 m midwater ring trawl (MIK) to a maximum depth of 100 m during nighttime, two hauls per rectangle.
- One CTD cast per each rectangle with a Seabird SBE 911 for hydrographical data
- Water bottle samples per each rectangle for nutrient concentration

Itinerary:

21.01.2013 (11:00) Embarkation of cruise participants
22.01.2013 (09:30) Depart Bremerhaven
22.01. – 20.02.13 Sampling / fishing in central and northern North Sea)
21.02.2013 (17:00) Dock Bremerhaven
22.02.2013 Disembarkation of cruise participants, end of cruise.

Results:

Due to rough weather conditions during the entire duration of the cruise, WALTHER HERWIG III was able to fish only 65 rectangles of the assigned 77 (Fig 1). 12 rectangles had to be skipped in consequence of bad weather prediction in the northeastern area; one GOV haul in rectangle 50E9 was invalid.

Total catches of the GOV hauls were between 8.8 and 6340 kg, on average about 247 kg, which is less than in the previous year. Recruitment situation of the gadoids cod, haddock and whiting is still bad with abundance indices of 1-groups still far below the long term average. Also the 2012 year classes of herring and mackerel were below the long term mean while only Norway pout and sprat revealed increased abundance indices (Table 1).

Again, the MIK herring larvae index of 54.0 indicated at rather low recruitment. Herring larvae showed two cores of abundance: one in the northwestern and another in the southeastern North Sea.

Water temperature were between 3.4 and 7.6 °C in there extremes but chiefly between 5.1 and 6.8 °C which is about 1 °C cooler than in the previous year. The water column was always thermally well mixed.

Tab.1: IBT-Survey: Comparison of abundance indices (n/h) of 2012 (final), 2013 (preliminary) with the long term mean, 1980 - 2012 (catches of all participating nations):

	final 2012	prelim. 2013	1980- 2012
cod	3.1	2.5	8
haddock	11.9	36	576
whiting	392	66	479
Norway pout	994.8	4694	2810
herring	2939.0	1442	1963
sprat	2451.7	1576	1107
mackerel	98.7	9	103

source: IBTSWG, April 2013

Participants

Gertrud Delfs	TI, Institute of Sea Fisheries, Hamburg (SF)
Gudrun Gentschow	TI-SF
Gitta Hemken	TI-SF
Sakis Kroupis	TI-SF
Alexander Schulz	TI-SF
Lars Christiansen	TI-SF
Maik Tiedemann	TI-SF
Sergej Schachray	TI-SF
Nina Köczalan	trainee, FAO (until 31.01.13)
Dr. Matthias Kloppmann	TI-SF (chief scientist)

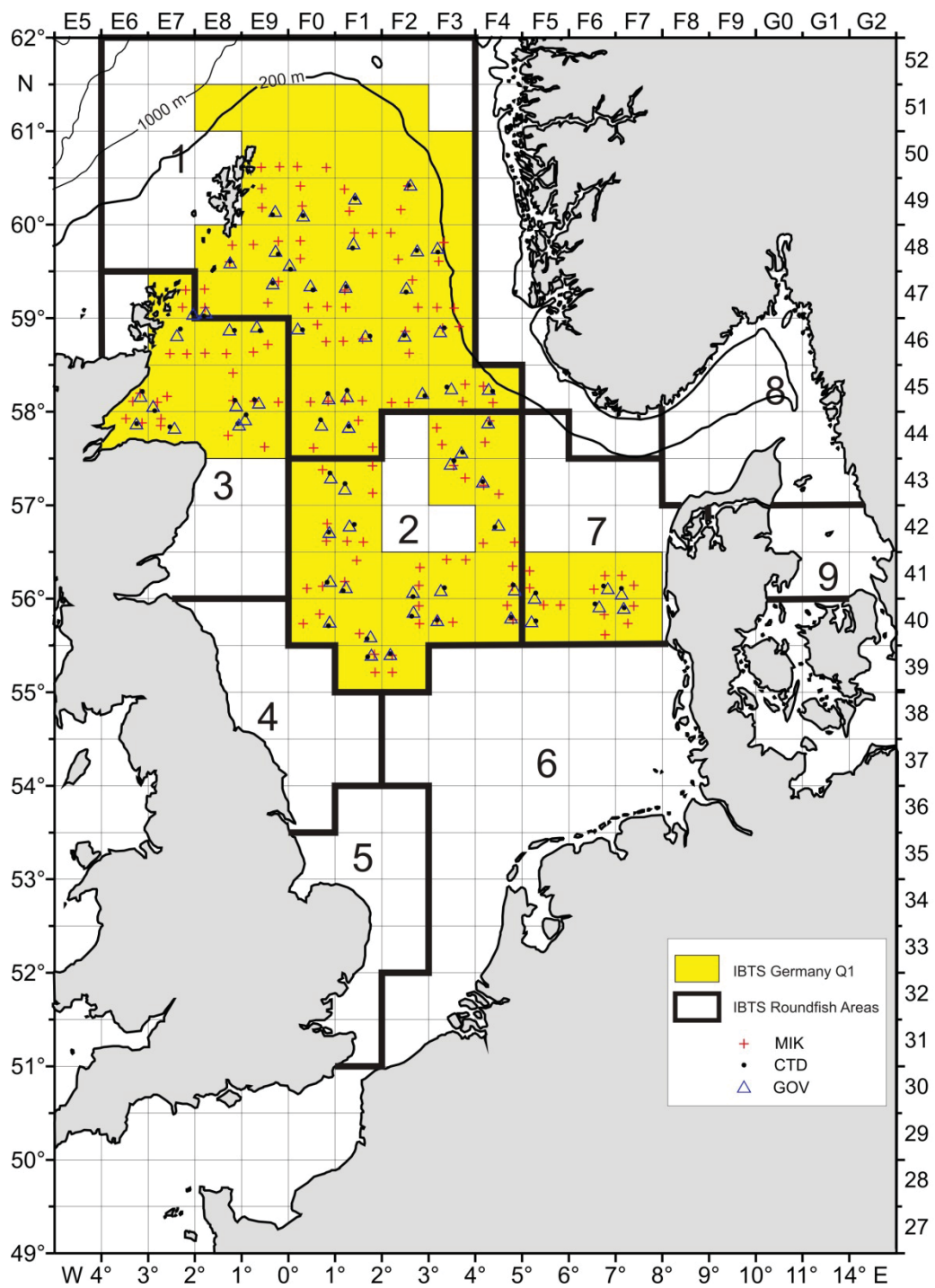


Fig. 1: GOV-haus, CTD- and MIK-Stations of FFS WALTHER HERWIG III cruise 362.