

Cruise Report
FRV DANA, 03/2026
07.02 to 27.02.2026
IBTS Q1 2026

Cruise Leader: Dr. Hermann Neumann

Summary

The cruise was part of the International Bottom Trawl Survey (IBTS), which is an internationally coordinated ICES program aiming to provide fish population and ecosystem data as well as biological parameters of commercial fish species for stock assessment purposes. The cruise has been moved from FRV Walther Herwig III to FRV DANA (Denmark). Sampling of fish was conducted by trawl hauls in allocated ICES statistical rectangles by means of the ICES standard bottom trawl GOV. In total, 56 GOV hauls were taken during the cruise accompanied by 56 CTD profiles. Standardized total catches of the GOV hauls were on average about 353 kg/30min (only fish). In addition, 106 MIK plankton samples were taken providing abundance estimates for large herring larvae (0-ringers) of the autumn spawning stock components. Standard length (SL) of herring larvae from the night time MIK sampling varied between 12- and 43 mm meaning the larvae were larger than in previous years. No Sardine larvae were found in the MIK samples in 2026 but unusual high numbers of European eel larvae (11 ind.). Additional work was done on stomach sampling (224 samples), cod finclips for population genetics (180 samples) and sampling for genetic age determination of plaice (126 finclips; 40 liver- and muscle tissue samples). On 86 MIK stations jellyfish was recorded and 15 eDNA samples were taken to test this method as alternative for fish diversity assessment.

Verteiler:

Schiffsführung FFS „Solea“ „Walther Herwig III“
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Deutsche Fischfang-Union, Cuxhaven
Deutscher Fischereiverband Hamburg
Doggerbank Seefischerei GmbH, Bremerhaven
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Thünen-Institut - Institut für Ostseefischerei
Thünen-Institut - Pressestelle
Thünen-Institut - Präsidialbüro
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Fahrteilnehmer*innen

1. Objectives and methods

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;
- monitor changes in the stocks of commercial fish species independently of commercial fisheries data;
- monitor the distribution and relative abundance of all fish species and selected invertebrates;
- collect data for the determination of biological parameters for selected species;
- collect hydrographical and environmental information;
- determine the abundance and distribution of late herring larvae.

Sampling of fish was conducted by trawl hauls in allocated ICES statistical rectangles by means of the ICES standard bottom trawl GOV during daytime. One GOV haul per rectangle was applied with 30 minutes towing duration at 4 knots. Fish sampling was accompanied by physical measurements (e.g. temperature, salinity and conductivity) via a CTD mounted directly onto the CTD-rosette system in every rectangle. Additionally, water bottle samples in selected rectangles were taken for microzooplankton sampling. During nighttime, two plankton hauls per each rectangle were conducted with a standardized 2 m midwater ring trawl (MIK) to a maximum depth of 100 m.

2. Cruise schedule

FRV "DANA" was embarked and prepared for the cruise on Friday, 06/02/26 in Hirtshals. Trawling started on Saturday morning, 07/02/26, at rectangle 39F8 (Fig. 1) and continued until Thursday, 26/02/26 (rectangle 43F5). We finished the survey at Friday, 27/02/26 in Hirtshals and managed a total of **56 GOV hauls, 56 CTD profiles and 106 MIK plankton samples (Table 1)**.

3. Preliminary results

In total, 83 Species (60 pisces, 9 cephalopods, 9 sharks/rays, 4 crustacean, 1 Myxiniformes) were found on IBTS Q1 2026. Standardized total catches of the GOV hauls varied between 6 kg (38F8) and 1405 kg (43F2) per 30 min trawling time, on average about 353 kg. Total number (ind./30min) and distribution of important species (pre-recruits) caught during the survey were given in Figure 2. Table 2 shows the number of biological samples taken during the IBTS Q1 2026.

In total, 1257 herring larvae were measured from the MIK sampling. Standard length (SL) of herring larvae varied between 12- and 43 mm meaning the larvae were larger than in previous years. No Sardine larvae were found in the MIK samples in 2026 but unusual high numbers of European eel larvae (11 ind.).

Additional work:

- 224 stomach samples following the proposed sampling scheme
- 180 cod finclips for genetic investigations
- 166 samples for genetic age determination of plaice (126 finclips; 40 liver- and muscle tissue samples)
- 86 MIK stations with recorded jellyfish
- 15 eDNA samples for diversity assessment

For further details and results of the complete survey with participations from France, the Netherlands, Denmark, Scotland, Sweden, Norway, and Germany, please refer to the respective chapter of this year's IBTSWG report.

4. Participants

Name	Institution	Function
1. Dr. Hermann Neumann	TI-SF	Cruise leader
2. Annika Elsheimer	TI-SF	Technician/Fish+Data
3. Andrij Martynenko	TI-SF	Technician/CTD
4. Sakis Kroupis	TI-SF	Technician/MIK
5. Sergej Schachray	TI-SF	Technician/MIK
6. Alexandra Poell	TI-SF	Technician/Fish
7. Angelina Eichsteller	TI-SF	Technician/Fish
8. Svea Winning	TI-SF	Technician/Fish
9. Clara Nietz	TI-SF	Technician/Fish
10. Samira Peters	TI-SF	Technician/Fish
11. Simon Wieser	TI-SF	Technician/Fish

5. Acknowledgement

Thanks to captain and crew of FRV "DANA" for their great support and hospitality and to all participants for their reliable and responsible teamwork.



(Dr. H. Neumann)

6. Tables and Figures

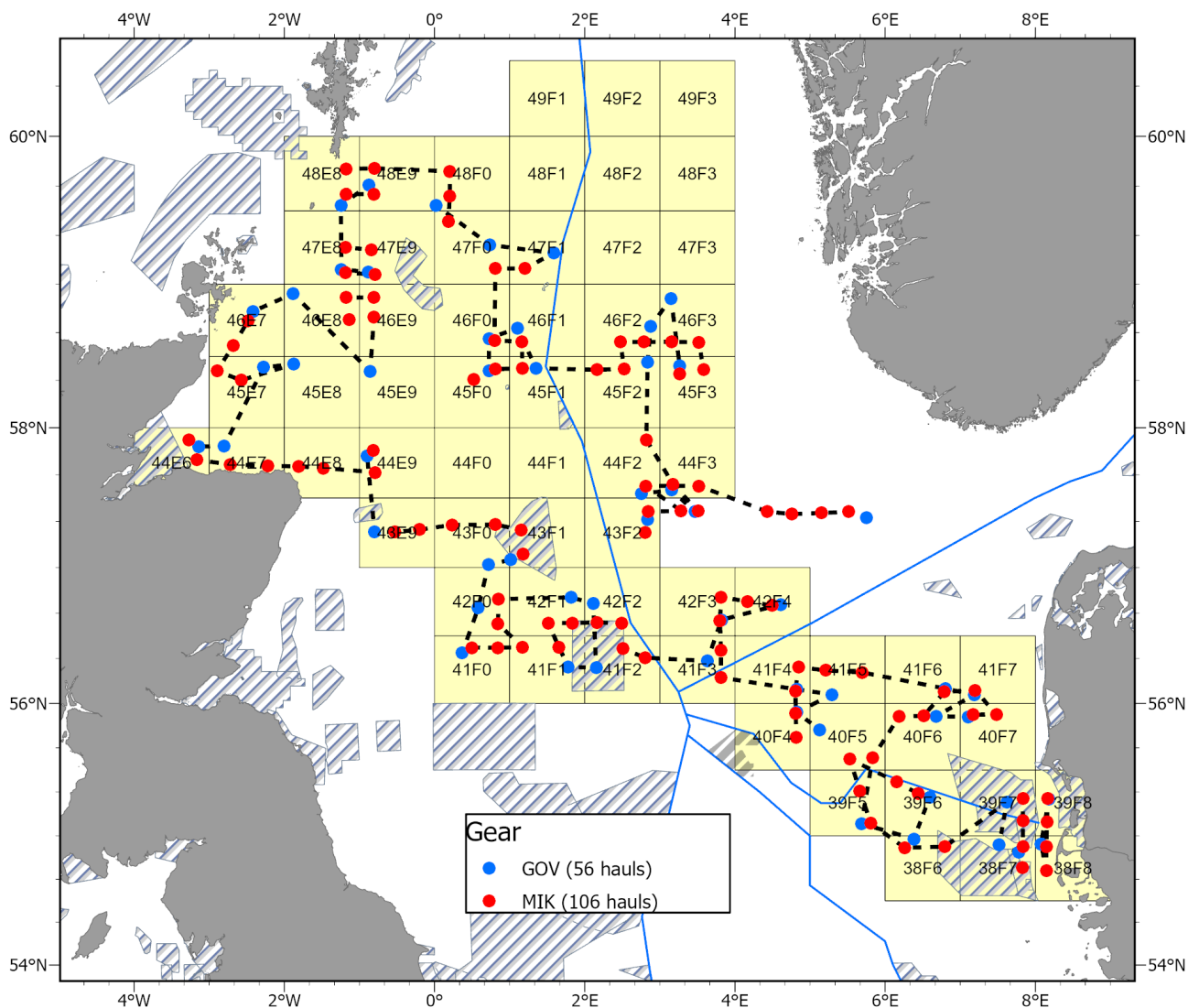


Fig. 1: DANA 03/2026 sampling stations. Blue dots: combined CTD and GOV-trawl stations, red dots: MIK stations. (dashed line = cruise track; dashed areas = MPAs; blue line = national EEZs)

Table 1: Stations fished

ICES DIVISIONS	STRAT.	GEAR	TOWSPANNED	VALID	ADD.	INV.	% STATIONS FISHED	COMMENTS
27.4	N/A	GOV	66	56	2	0	85 %	
27.4	N/A	MIK	132	106	0	0	83 %	

Table 2 Number of biological samples (maturity and age material)

SPECIES	AGE	SPECIES	AGE
<i>Clupea harengus</i>	672	* <i>Molva molva</i>	11
<i>Engraulis encrasicolus</i>	6	<i>Pleuronectes platessa</i>	507
<i>Gadus morhua</i>	201	* <i>Pollachius virens</i>	3
* <i>Lophius piscatorius</i>	46	* <i>Scophthalmus maximus</i>	3
* <i>Lophius budegassa</i>	4	* <i>Scophthalmus rhombus</i>	2
* <i>Merluccius merluccius</i>	113	<i>Sardina pilchardus</i>	11
<i>Melanogrammus aeglefinus</i>	925	<i>Scomber scombrus</i>	82
<i>Merlangius merlangus</i>	746	<i>Sprattus sprattus</i>	179
* <i>Microstomus kitt</i>	207	<i>Trisopterus esmarkii</i>	257

* Maturity only.

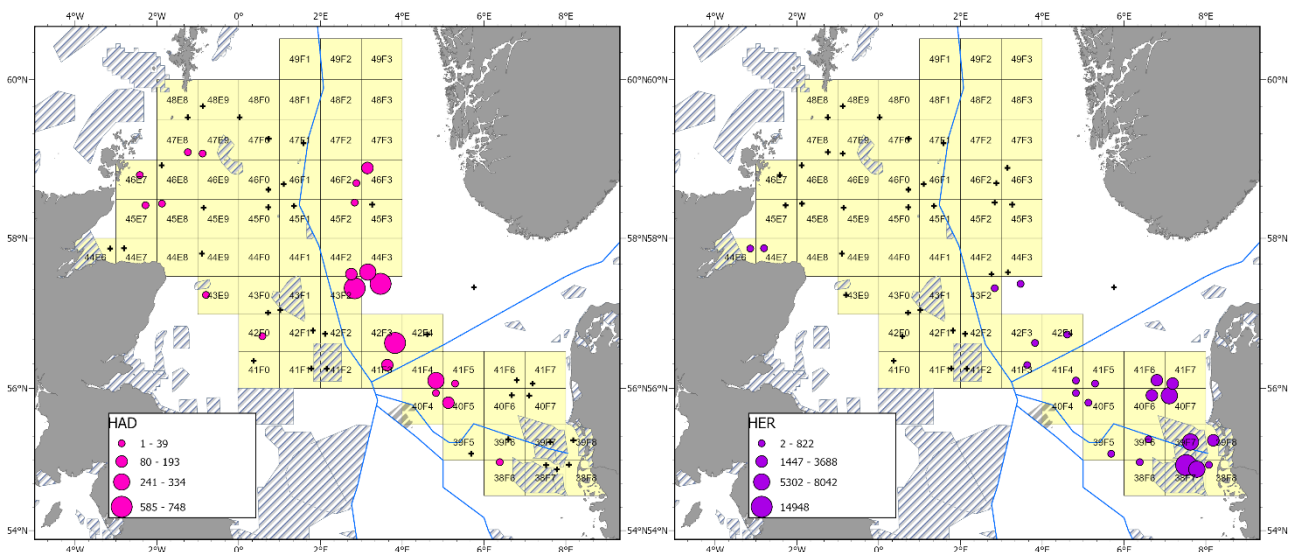


Fig. 2: Number [ind. / 30min] and distribution of pre-recruit Haddock (< 20 cm; had), Herring (< 20 cm; herr), Mackerel (< 25 cm; mac), Norway pout (< 15 cm; Npout), Sprat (< 10 cm; sprat), Whiting (< 20 cm; whi) and Cod (<25 cm; cod) caught at IBTS Q1 2026. (Black crosses indicate zero catches)

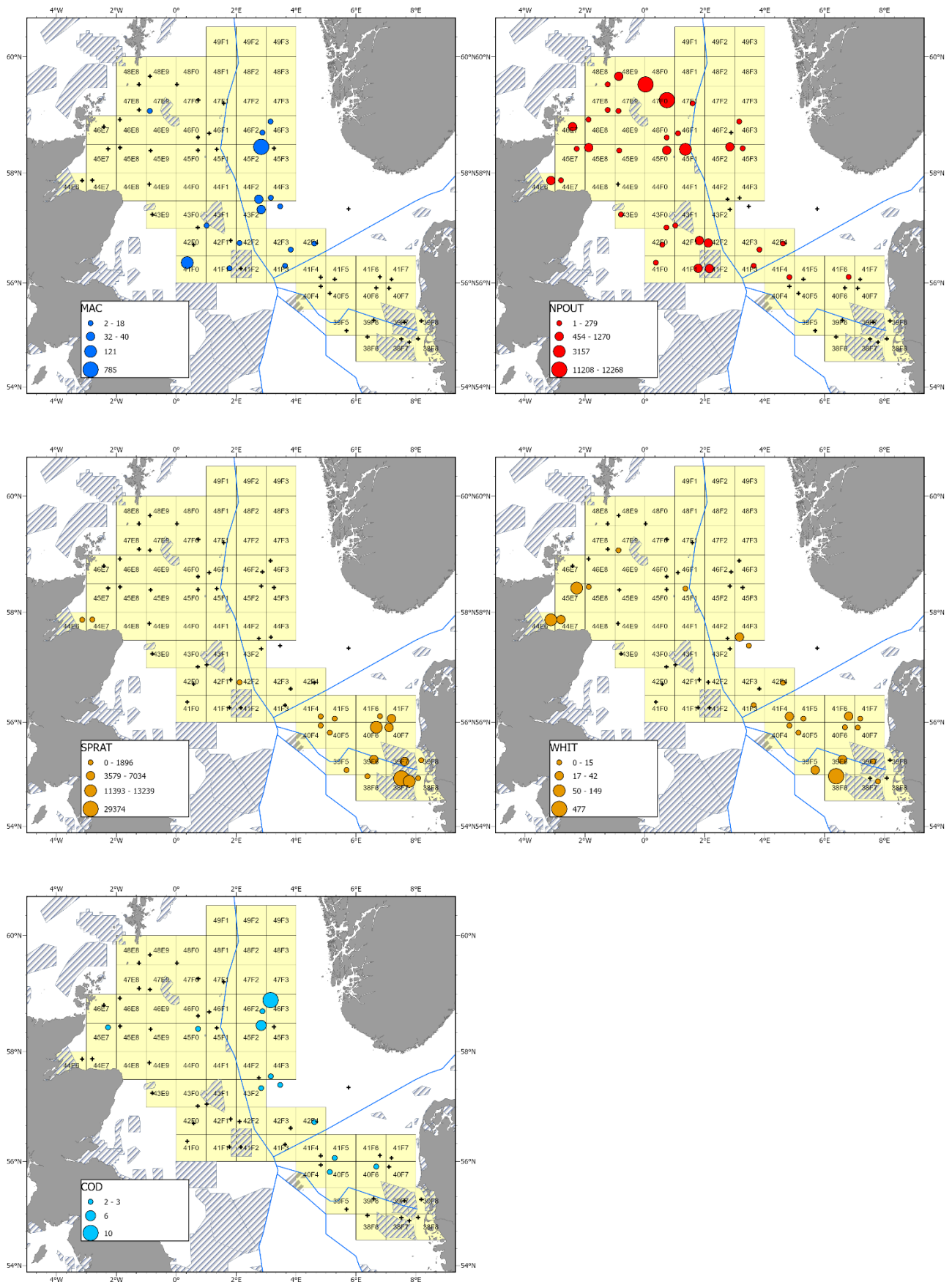


Fig. 2 (continued): Number [ind. / 30min] and distribution of pre-recruit Haddock (< 20 cm; had), Herring (< 20 cm; herr), Mackerel (< 25 cm; mac), Norway pout (< 15 cm; Npout), Sprat (< 10 cm; sprat), Whiting (< 20 cm; whi) and Cod (<25 cm; cod) caught at IBTS Q1 2026.