

**Bundesforschungsinstitut für Ernährung und Lebensmittel**  
 Institut für Sicherheit und Qualität bei Milch und Fisch,  
 Standort Hamburg  
 Palmaille 9, 22767 Hamburg

**Federal Research Centre for Nutrition and Food**  
 Department of Safety and Quality of Milk and Fish products  
 Palmaille 9, 22767 Hamburg, Germany

**Report of the 355<sup>th</sup> cruise of FRV "Walther Herwig III"**  
**15.06.2012 – 08.07.2012**

Chief scientist: Horst Karl  
 e-mail: [Horst.Karl@mri.bund.de](mailto:Horst.Karl@mri.bund.de)

**Biological, chemical and radio analytical investigations of fish from the  
 North Sea, Barents Sea and waters west of Svalbard**

**Summary:**

Investigations of the 355<sup>th</sup> cruise of FFS "Walther Herwig III" focused on aspects of consumer protection of fish as food. Samples of various fish species from different fishing grounds were collected to follow the temporal and spatial trend of inorganic and organic contaminants and to study their actual radioactivity.

In waters west of the Kongsfjord of Svalbard a monitoring array, first established in 2010, was extended to study the long time development of the biological variations and pollutants in fish assemblages.

In the frame of the activities of the national reference laboratory for nematodes in fish, the infestation rate and distribution of nematodes of fish species for human consumption were studied.

**Narrative of cruise**

FFS "Walther Herwig III" (W.H. III) departed Bremerhaven with a delay of 1 day due to technical problems on the 15<sup>th</sup> of June and scientific investigations started on the 16<sup>th</sup> of June 2012 in the German Bight.

The progress of the cruise is summarised in table 1.

Date	Area of investigation	Main activity
17.06.2012	Eigersundbank	Sampling of fish, vertical hydrographic profiles
18.06.2012	Bergen Pilot station	Embarkation of 2 Norwegian scientists from NIFES
19. - 20.06.2012	Tampen, north of Shetlands	Sampling of fish, vertical

		hydrographic profiles
23. - 24.06.2012	Lofoten, Fugløybanken	Sampling of fish, vertical hydrographic profiles
25.06.2012	Tromsø	Crew change
27.06.2012	North cap bank	Sampling of fish, vertical hydrographic profiles
28.06.2012	West of Svalbard	Vertical hydrographic profiles
29.06.2012- 03.07.2012	West of Svalbard	Establishing of a monitoring array, sampling of fish, vertical hydrographic profiles
03.07.2012	Departure from the Svalbard area	

On July 3<sup>rd</sup> scientific work ended and FFS “Walther Herwig III” returned to Bremerhaven in the night to July 8<sup>th</sup> 2012.

### Preliminary results

All tasks of the cruise could be fulfilled. A total of 43 fishing hauls and 27 hydrographic profiles were made and samples of various species of fish and other marine biota were collected and prepared for later chemical and radioanalytical studies at land based laboratories. Sampling for contaminant studies focused on the edible part of important fish species for the German market such as cod, red fish and Greenland halibut. Parasitological studies on red fish and haddock were undertaken in cooperation with the Norwegian National Institute of Nutrition and Seafood Research (NIFES). A monitoring array, first established in 2010, was extended by 13 new fishing stations for studying long time development of demersal fish species west of Svalbard.

### Scientific crew members

Name	Institution
Dr. Horst Karl (chief scientist)	MRI, HH
Iris Bagge	MRI, HH
Sven Blechner	MRI, HH
Dr. Karin Schiefenhövel	MRI, HH
Dr. Heino Fock	vTI, HH
Wolfgang Lindemann	vTI, HH
Farzaneh Kazemi	vTI, HH
Thomas Kuhn	BiK-F
Achim Mall	Uni Freiburg
Dr. Arne Levsen (18.06-25.06.12)	NIFES, Norwegen
Vidar Fauskanger (18.06-25.06.12)	NIFES, Norwegen
Dr. Monika Lahrssen-Wiederholt	BfR, Berlin
Manfred Ladwig (until 18.06.12)	SWR-Television

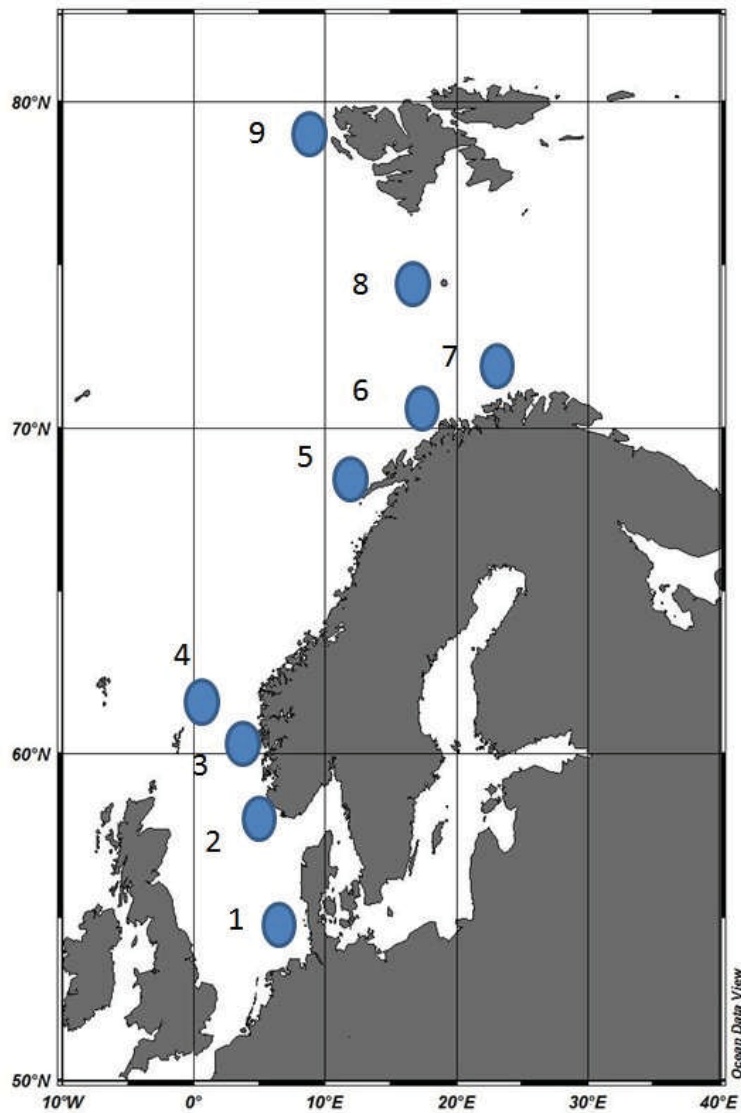
Hamburg, July 17<sup>th</sup>, 2012



Dr. Horst Karl, Chief scientist

Annex:

Main research areas 355 WH III



1: German Bight 2: Eigersundbank 3: Vikingbank 4: Tampen  
 5: Lofoten 6: Fuglöv-Bank 7: Nordkap-Bank 8: Björnøya  
 9: Svalbard