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Report of the 321. Cruise of FRV "Walther Herwig III"
26.03.09 – 13.04.09

Chief scientist: Ines Lehmann

Studies on food quality and nematode infestation of fishes from the North Sea

Summary:

Investigations of the 321th cruise of FFS "Walther Herwig III" focused on aspects of consumer protection and quality of fish as food. In cooperation with a scientist from the Norwegian NIFES, trials were started on the infestation rate and distribution of nematodes in commercially used fish species.

Fish samples for studies of genetic differentiation of fish and bacteria population were collected at different fishing grounds and samples were taken for pollution studies on organic and anorganic residues.

Narrative of cruise

FFS "Walther Herwig III" (W.H. III) departed Bremerhaven the 26th of March and scientific investigations started at the same day in the German Bight.

The progress of the cruise is summarised in table 1.

Date	Area of investigation	Main fish samples taken
27.03.2009	Helgoland	Herring, various species
28.-31.03.2009	West of Norway	Saithe, haddock, whiting, various species
01.-04.04.2009	East of Scotland	Haddock, various species
05.-06.04.2009	North of Shetlands	Blue whiting, redfish
07.-10.04.2009	Middle of the North Sea	Haddock, herring, dab, various species
11.04.2009	Doggerbank	Dab, whiting, various species
12.04.2009	German Bight	Herring, various species

On the morning of April 3rd, Walther Herwig III arrived at Aberdeen, UK to disembark 2 scientists from the Max Rubner-Institut, Karlsruhe and one Norwegian scientist from NIFES arrived. W.H.III left Aberdeen the next day and started fishing again on the 3th of April east of Scotland. In the morning of April 12th fishing ended and FFS "Walther Herwig III" returned to Bremerhaven on April 13th.

Preliminary results

All tasks of the cruise could be fulfilled. A total of 48 hauls were made and samples of various species of fish and other marine boita were collected and prepared for later biochemical studies and for the analysis of organic pollutants at land based laboratories. Sampling for contaminant studies focused on the edible part of important fish species for the German market such as herring, mackerel, cod and flounder. Numerous tissue and liver samples of various fish species were collected for differentiation of species according to the fishing ground by DNA based techniques. Extensive samples were taken for molecular biological differentiation of various *Shewanella* strains.

Scientific crew members

Name	Institution
Ines Lehmann (chief scientist)	MRI, HH
Dr. Horst Karl	MRI, HH
Iris Bagge	MRI, HH
Sven Blechner	MRI, HH
Susanne Schering	MRI, HH
Ines Wilhelms	MRI, HH
Iris Lehmann (26.-3.4.09)	MRI, Karlsruhe
Silvia Roser (26.- 3.4.09)	MRI, Karlsruhe
Arne Levsen (4.-13.4.09)	NIFES, Norwegen
Karin Schiefenhövel	University Bremen
Konstanze Behrmann	Deutsche See, Bremerhaven
Anja Sell	Voluntary, HH

Hamburg, May 20th, 2009

Ines Lehmann, Chief scientist