

Cruise Report

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F.K. Littorina

Cruise No.: L18-07

Dates of Cruise: 11.6. – 15.6.2018

Areas of Research: Public relations and aquarium west shore

Port Calls: Osterby/Laeso (12.6. – 13.6.2014)

Institute: GEOMAR

Chief Scientist: Heidi Gonschior

Number of Scientists: 5

Projects:

Acquisition of living marine organisms for the public relations division (GEOMAR), the institute's own aquarium and the Multimar Wattforum - Tönning in the northern Kattegat.

Cruise Report

This cruise report consists of XX pages including cover:

1. Scientific crew
2. Research programme
3. Narrative of cruise with technical details
4. Scientific report and first results
5. Moorings, scientific equipment and instruments
6. Additional remarks
7. Appendix.
 - A. Map with cruise track
 - B. Station list

1. Scientific crew

Name	Function	Institute	Leg
Heidi Gonschior	Chief scientist	GEOMAR	Complete
Rebekka Leßke	Student		Complete
Jule Neumann	Student		Complete
Jan Schulz	Aquarium	GEOMAR	Complete
Timo Kaminski		Multimar Wattforum	Complete
Total	5		

Chief scientist: Heidi Gonschior, Dorfstrasse 251, 24222 Schwentinental/Klausdorf,
Germany, 0049-431-6004514, 0049-431-6001515, hgonschior@geomar.de

2. Research program

The aim of this cruise of the research vessel “Littorina” from June 11th to 15th 2018 was the sampling of living marine organisms for the public relations division (GEOMAR) and the institutes own aquarium.

Marine invertebrates and vertebrates were collected with dredges at different stations and depth in the northern Kattegat for use during “F.S. Alkor Open Ship Day 2018” and to complete scientific collections in the Kiel aquarium.

Additional depth water sampling was maintained for rearing the organisms.

3. Narrative of cruise with technical details

11.6.18	08:45	Departure of RV “Littorina” from Kiel harbor
12.6.18	08:00	Arrival at the 1th station in the northern of Læsø
	08:30	Sampling of depth water from 26m of depth Salinity was 30,8 and Temperature at 7,5 °C
	09:05	First dredge at 24m of depth (Dive point: 56°58.931N, 11°36.135E)
	15:25	Finished first station after 27 dredge towings
	19:30	Mooring at port of Osterby (Læsø)
13.6.18	07:30	Departing port of Osterby
	14:55	Arriving at the 2nd station
	15:00	First dredge at 17m of depth (Dive point: 56°18.223N, 11°43.478E)
	16:55	Finished second station after 9 dredge towings
	18:10	Arriving at the 3rd station
	18:15	First dredge at 19m of depth (Dive point: 56°24.179N, 11°21.501E)
	20:00	Finished third station after 19 dredge towings
		Heading towards Grena (DK)
	21:30	Mooring at port of Grena (DK)
14.6.18	07:45	Departing port of Grena
	09:15	Sampling of depth water from 26m of depth Salinity was 28,3 and Temperature at 10,5 °C
	09:40	Arriving at the 4rd station
	09:45	First dredge at 25m of depth (Dive point: 56°24.695N, 11°21.466E)
	11:45	Finished third station after 09 dredge towings because of bad weather with strong winds (Wind intensity 7, blast 8) Rest of the cruise work is cancelled, heading towards Kiel.
15.06.18	07:00	Arrival of RV “Littorina” at Kiel port

4. Scientific report and first results

During your fieldwork the sampling results contained a wide range of marine organisms with a focus on a high salinity environment within the Baltic Sea in an area called the Kattegat. Because this area is located close to the North Sea it is characterized by a high salinity and also by a high abundance of North Sea species, which is important and very interesting for sampling cruises. An effect of the low salinity environment like existing in most parts of the Baltic Sea is that the organisms, which are mainly emigrated from the North Sea, have to cope with salinity stress. To deal with that energy demanding stress the organisms have to relocate their focus from growth processes to e.g. ion exchange processes resulting in smaller sizes compared to their species members in the salty North Sea environment. One proper way to show the public the differences in species abundance and the size to stress relationship is the public presentation of living organisms. This public relations work is done during the R.V. Alkor Open Ship day during the Kiel Week 2018, in the Kiel Aquarium and also in the Multimar Wattforum, which we supported with living organisms from this cruise.

To gain as many different species as possible we also dredged in various depths between 12 to 35m where the factor “light intensity” plays also a big role in benthic community composition.

5. Scientific equipment: moorings and instruments

- Dredge
- Depthwater pump
- Salinity probe

6. Acknowledgements

Thanks to captain and the whole Littorina crew for the big support during the trip.

7. Appendices

- A. Map
- B. Station list

Station list “1. dredge towing starting point”:

Station 1	56°58.931N 11°36.135E
Station 2	56°18.223N 11°43.478E
Station 3	56°24.179N 11°21.501E
Station 4	56°24.695N 11°21.823E

