



**Environmental  
Protection  
Agency**

# Cruise report

*R/V VĖJŪNAS*  
*Cruise No 16/V1(1-2).*

**Date 2016.03.02-03**



Environmental Protection Agency Marine Research Department  
Taikos avenue 26, LT-91149, Klaipėda, Lithuania  
Phone: +370 46 410 450  
Fax: +370 46 410 460  
E-mail: [jtd@aaa.am.lt](mailto:jtd@aaa.am.lt)

## GENERAL INFORMATION

1. Name of research vessel: **VĒJŪNAS**
2. Dates of cruise and cruise No.:  
2<sup>nd</sup> March 2016 – 16/V1 (1)  
3<sup>rd</sup> March 2016 – 16/V1 (2)
3. Operating Authority: Environmental Protection Agency Marine Research Department  
Taikos avenue 26, LT-91149, Klaipėda  
Phone: +370 46 410 450  
Fax: +370 46 410 460
4. Owner: Environmental Protection Agency
5. Particulars of ship:

**Table 1.**

Name	VĒJŪNAS
Year of building	2012 m.
Water capacity	424 m <sup>3</sup>
Length	23,90 m
Width	8 m
Draught	1,30 m
Average speed	11 knots
Call sign	LYTN
IMO No.	9640346

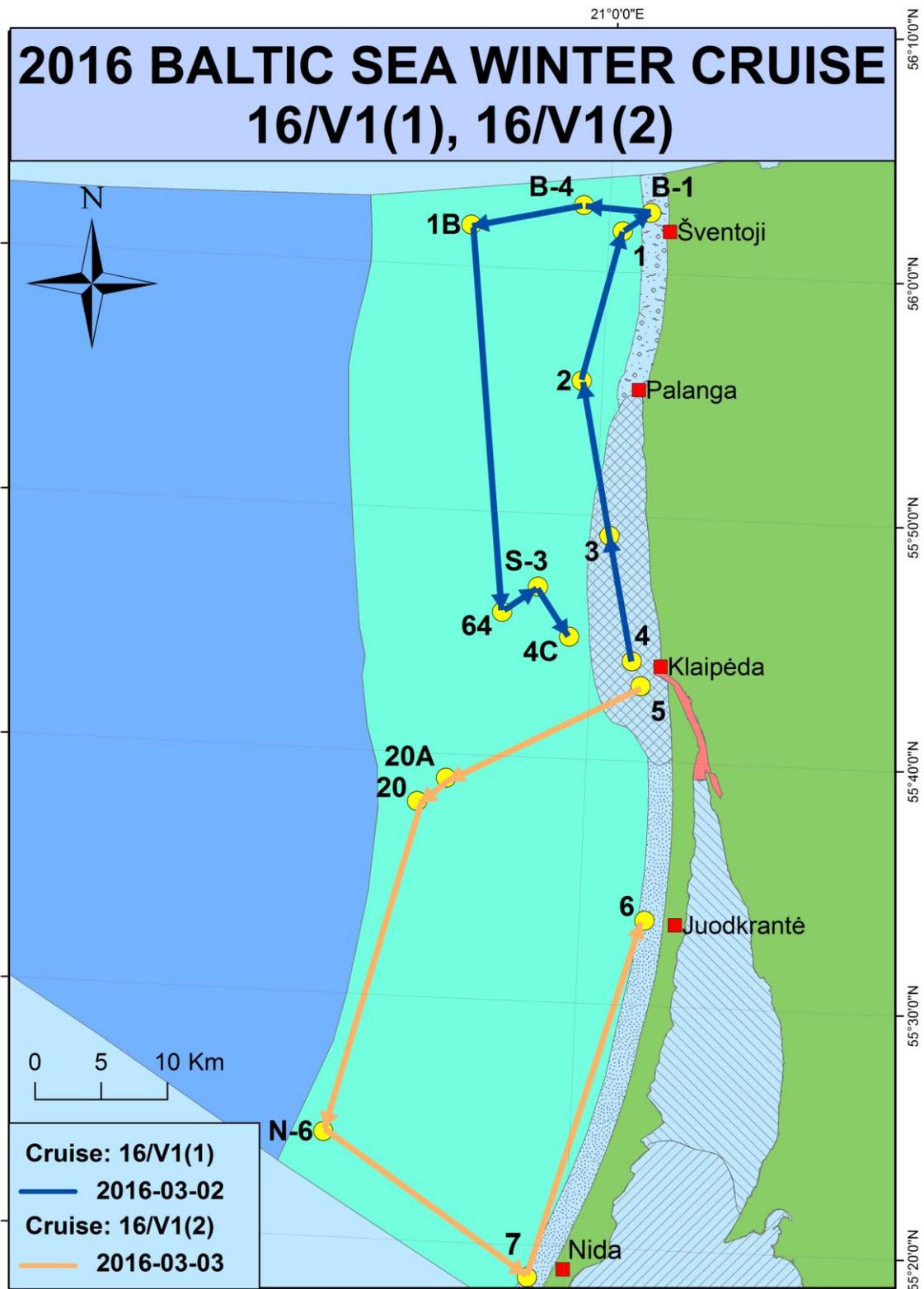
6. Crew:  
Name of captain: Gintautas Morkevičius
7. Scientific stuff

**Table 2.**

1.	Vitalijus Malejevas	Hydrologist
2.	Ignas Vyšniauskas	Hydrologist
3.	Paulius Petrošius	Hydrologist
4.	Albertas Kvietkus	Hydrologist
5.	Viktorija Savickienė	Chemist
6.	Agnė Vasiljevė	Chemist
7.	Eglė Šupinienė	Biologist
8.	Grasilda Gudžiūnaitė	Biologist
9.	Sabina Solovjova	Biologist
10.	Natalija Demereckienė	Biologist

## BRIEF DESCRIPTION OF THE CRUISE

**Aim of the cruise** – collection of factual information about meteorological, hydrological, hydrochemical and biological state of the Baltic Sea according to the 2016 monitoring plan, which is based on National environment monitoring program of 2011-2017 (<http://gamta.lt>).



*Fig. 1* Routes of the cruise 16/V1(1-2)

## General information (used equipment)

During the cruise, we used water sampling system sampler “Hydro-Bios” PRS 12, Sea & Sun probe CTD 90, meteorological station MAWS 420, Seccki disk, filtrating equipment and integrated samples sampler “Hydro-Bios”.



*Fig. 2* Probe CTD 90



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
20	20°48.0'	55°38.0'	2016-03-03 9:40	46	-	1	1	7	2	2		2		1	1		2	
N-6	20°42.4'	55°24.3'	2016-03-03 11:45	36	-	1	1	6	2			2					2	
7	20°57.4'	55°18.7'	2016-03-03 13:20	14	-	1	1	4	3			2	2	1		1	4	1
6	21°04.7'	55°33.5'	2016-03-03 15:25	13	-	1	1	3	2				2		1	1	4	

*Numbers represents in which horizons samples were taken and measurements were carried.*

## **BRIEF REVIEW**

### Hydrometeorological conditions

During the winter expedition easterly winds dominated (3-8 m/s). Prevailed 0,5-1,0 m high waves. Air temperatures ranged from 0 to 4 °C and a relative humidity ranged from 75 to 89 %. Visibility varied from 10 to 20 km. The sky was mostly covered by 9-10 points of *Stratocumulus*, *Cumulus* clouds.

### Hydrological researches

**Water temperature.** Surface water layer temperature investigated in the Baltic Sea during expedition ranged from 2,3 °C (at Klaipėda port gates) to 4,5 °C (at sea landfill). Water temperature increased about 1 °C with the depth only in coastal stations where occurred inland waters influence. Average water temperature at the studied oceanographic stations area was 0,4 °C higher than 2015 winter expedition and 1,1 °C higher than average water temperature tested at the sea surface during winter seasons expeditions last decade.

**Water salinity.** Sea surface water salinity of the Baltic Sea in the winter expedition ranged from 2,6 ‰ (at Klaipėda port gates) to 7,5 ‰ (in the southwestern part of the territorial sea). Water salinity increased several parts per mille with the depth (plume of Curonian lagoon water), and further offshore water salinity changed only hundredths of per mille parts. Average salinity of investigated water area was similar to the last year and to the last decade, average winter expeditions water salinity (difference only 0,1 ‰).

**Water transparency.** During seasonal winter expedition water was more transparent than the previous winter expedition. It varied from 1 m (at Klaipėda port gates) up to 10 m in the southwestern part of the territorial sea.

**Biological samples** are analyzed in the laboratory on shore. The results will be available later and placed on the Environment integral data management information system (AIVIKS).