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# COMPLETE

## Completing management options in the Baltic Sea Region to reduce risk of invasive species introduction by shipping

Status report  
HELCOM MARITIME 18

Katja Broeg



## COMPLETE project

- 12 partners
- LP Kotka Maritime Research Association
- 23 associated partners
- 10/2017 – 09/2020
- Harmonization of monitoring for NIS/HAOPs (MSFD/BWMC synergies)
- Regionally harmonized implementation and enforcement of IMO BWMC
- Roadmap proposal for a regional biofouling management strategy
- Stakeholder involvement and participation





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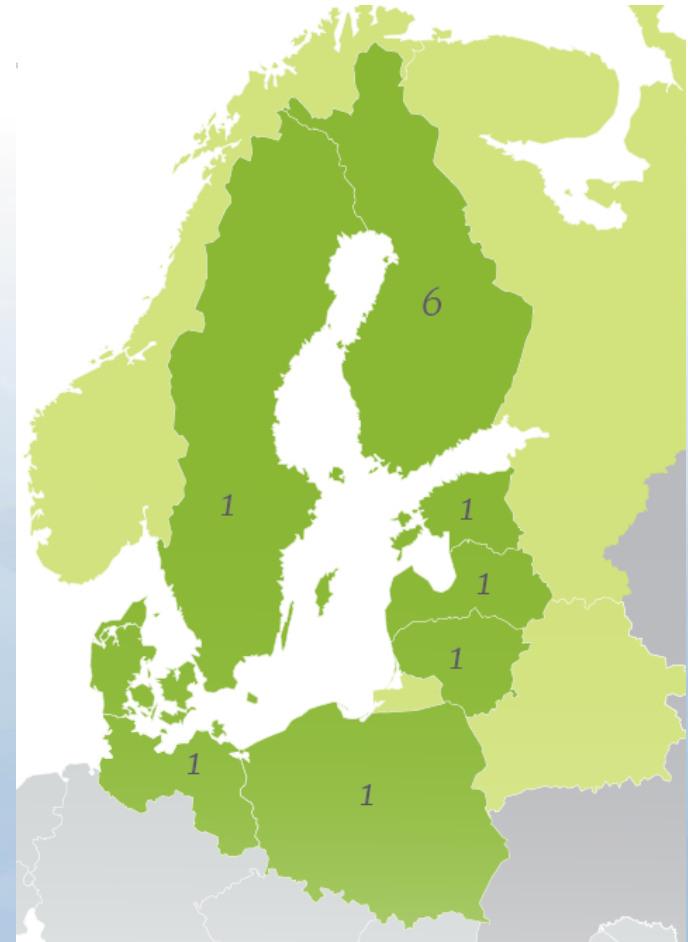
# COMPLETE project

Homepage:

- <http://balticcomplete.com/>

Twitter:

- @BalticCOMPLETE
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## WP2

### Guidelines for surveillance and monitoring of non-indigenous species

#### Developing molecular methods for NIS detection

→ Selection of first candidate species for the detection by eDNA methods

#### Biofouling assessment protocol for leisure boats

→ Protocol has been developed and tested, sampling in 2019

#### Assessment of biofouling potential and areas of risk

→ Data for the calculation of wetted surface area (WSA) of maritime traffic collected  
→ Most vulnerable areas for species introductions identified

#### Integrated monitoring of NIS

→ Monitoring manual for the BSR will be drafted  
→ Includes all applied monitoring methods including new methods, developed during COMPLETE



## WP3

### Ballast water risk assessment and management systems

#### Target species selection criteria and risk assessment

→ HELCOM/OSPAR JHP target species selection criteria and risk assessment scheme (BWMC A-4) are currently reviewed

#### Advanced risk assessment tool under HELCOM/OSPAR JHP

→ Improvement of the online risk assessment tool  
[http://jointbwmexemptions.org/ballast\\_water\\_RA/apex/f?p=104:13](http://jointbwmexemptions.org/ballast_water_RA/apex/f?p=104:13)  
→ Link between AquaNIS and risk assessment tool

#### Regionally harmonized early warning system (EWS)

→ Based on WP2 monitoring programme  
→ First step: Warning criteria and identification of species of concern

#### Decision support system (DSS) for BSR ballast water management

→ BWM DSS derived from VECTORS project will be adapted to BSR  
→ First step: Collection of experiences from BWMC implementation

#### Training of authorities for the BWMC

→ Harmonization of ballast water sampling and analysis processes  
→ Organized in **spring 2019 in Hamburg (April/Mai)**  
→ Invited: Port State Control authorities of all Baltic Sea countries



## WP4

### Evidence-based options for biofouling management in the Baltic Sea Region

#### Biofouling regulations, cleaning procedures and facilities

→ Information gathered on: National legislation (cleaning and anti-fouling), facilities and waste management. Application and experiences with IMO biofouling guidelines and guidance

#### Best practices for biofouling management within and outside BSR

→ Good practices and best available technology (antifouling, cleaning, biofouling management)  
→ Assessment of applicability in the BSR

#### Guidance on antifouling systems (AFS) performance /cost -efficiency

→ Growth of biofouling on different AFS and efficiency of these systems, test of the efficiency of different copper concentrations in AF, hull cleaning effects

#### Benefits of biofouling management on ship speed, fuel consumption and emissions

→ Experiments on the effect of biofouling management on ship emissions and fuel consumption started



**WP5**  
**Databases and  
user-friendly  
information  
support**

**Information system on non-indigenous species and harmful aquatic organisms and pathogens**

→ Further development of the AquaNIS information system, which contains the most up-to-date and free-access information/data on NIS

**Decision support tool for selection of optimal anti-fouling system and cleaning options**

→ First version of a decision support tool for evaluating biofouling risk and its cost-effective management will be developed.  
→ Tool will integrate knowledge related to performance and cost-efficiency of different anti-fouling strategies

**Interactive user-friendly map on hull cleaning services**

→ Presents the hull cleaning services and applied technologies in the Baltic Sea Region



## WP6

### Stakeholder involvement and strategy development processes

#### Co-operation with stakeholders

- Stakeholder mapping has been started
- Once completed, active communication and involvement of all project target groups during the project

#### Roadmap proposal for a harmonized biofouling management strategy in the Baltic Sea Region

- Tailored recommendations from the project for the Baltic Sea Region, reviewed and supplemented by the target groups
- Proposal for specific actions needed in order to reach harmonized biofouling management of maritime and leisure traffic
- Evaluation which stakeholders have to be involved in developing this regional management strategy





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