

Annex 3: National reports

Belgium

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Highlights

During 2015 a second small population of the Manilla clam *Ruditapes philippinarum* was discovered in Oostende.

In October 2015 the red alga *Dasysiphonia japonica* has been found in situ on a pontoon in the Marina of Zeebrugge.

1. Laws and regulations

There is no new national legislation to report. The various EU legislations are being implemented.

2. Intentional introductions

There is no information available on intentional introductions if any.

3. Unintentional introductions

During 2015 a second population of the Manilla clam *Ruditapes philippinarum* was discovered (Kerckhof, 2016). The small population lives on the so called Klein Strand in Oostende, an artificially created beach - embayment. Co-occurring species included *Cerastoderma edule*, *Ensis directus*, *Venerupis corrugata*, *Mya arenaria*, *Spisula subtruncata* and *Macoma balthica*. Such an intertidal assemblage of species is not known elsewhere along the Belgian coast and is because of the particular sheltered condition of this small beach with a sediment of rather coarse sand with mud.

In October 2015 the red alga *Dasysiphonia japonica* has been discovered in situ for the first time in Belgian waters on the pontoons of the marina of Zeebrugge together with amongst others *Aglaothamnion hookeri*, *Neosiphonia harveyi*, *Pterothamnion plumula*, *Antithamnionella spirographidis* & *Undaria pinnatifida*. Earlier, in December 2014, the species was found on the hull of the RV Belgica which often moored at the port of Zeebrugge.

All introduced species that were reported during previous years are still present and seem to be well-established and thriving except for the barnacle *Megabalanus coccopoma* of which there are no recent records anymore.

4. Pathogens

No information

5. Meetings

6. Research projects

The Phycology research group of the Ghent University is partner in the INVASIVES project that aims to assess present and future impacts of invasive alien seaweeds on the North-Atlantic coastal biodiversity, by using a combination of modelling, field studies, ecological experiments, biochemical and molecular work. The project aims specifically at predicting the effects of alien seaweeds under climate variability and rising sea surface temperatures in the North-Atlantic.

In the framework of the Invasives project the risk of aquarium trade toward introductions of seaweed in European waters was investigated (Vranken *et al.* 2016). A large-scale survey of marine seaweeds diversity found in the European aquarium trade circuit was undertaken, in order to assess the risk of introducing potentially invasive species by aquarium trade in the North-Atlantic. The main objective was to characterize the risk posed by the European aquarium trade market regarding introduction of potentially invasive species and their possible impact on the European biodiversity. The diversity and magnitude of the European aquarium trade circuit was characterized. Secondly, the algae diversity encountered in aquaria ranging from private aquarists over shops and wholesalers to public aquaria was sampled. Using DNA-barcoding approaches no less than 137 species were identified, of which 15% are flagged as introduced species. Subsequently the realized temperature niche was estimated, using species occurrence data available from OBIS and GBIF in an attempt to predict the potential range of these species in Europe by mapping the realized temperature niche on present and future climate conditions. These data are used to identify regions particularly vulnerable toward introductions of aquarium-associated seaweeds.

7. References and bibliography

- Kerckhof F. (2016). Nieuwe natuur: de bivalven fauna van het Klein Strand in Oostende en een tweede populatie van de Filipijnse tapijtschelp *Ruditapes philippinarum*. *De Strandvlo* 36(21): 6–17.
- Vranken S., Bosch S., Peña V.P., Leliaert F., Mineur F. & De Clerck O. (2016). The risk of aquarium trade toward introductions of seaweed in European waters, in: Mees J. *et al.* (Ed.) (2016). Book of abstracts – VLIZ Marine Scientist Day. Brugge, Belgium, 12 February 2016. VLIZ Special Publication, 75: pp. 137

Canada

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Overview

Fisheries and Oceans Canada has finalized the new Aquatic Invasive Species Regulations for the *Fisheries Act* and it is now in force in Canada effective 17 June 2015. (<http://gazette.gc.ca/rp-pr/p2/2015/2015-06-17/html/sor-dors121-eng.php>)