Application of floating wetlands for nutrient removal, enhancement of biodiversity and cultural services in coastal lagoons

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The LiveLagoons project (funded by Interreg South Baltic Programme 2014-2020) aims at improving the water quality in eutrophic lagoons in the South Baltic by the use of floating wetlands for nutrient removal. We test nutrient removal technology along with socioeconomic benefits in different environments at three pilot installation sites: Curonian Lagoon (Lithuania), Szczecin Lagoon (Poland) and Darss-Zingst Bodden Chain (Germany). We present variable experience of macrophyte growth on floating installations, both custom made and constructed by commercial producer.





Possibilities for research

Coastline monitoring at the installation site exposed to wave erosion will provide us an insight on the island efficiency to retain sediments.



Ecosystem services provided by floating wetlands

We aim to investigate the possible positive side effects of installations such as offering habitat for invertebrates, fish and birds as well as other organisms attached to the roots of macrophytes.





Education



Emerging concept of aesthetic ecosystem services (AES) needs further development of scientific approaches. We applied paired comparison survey using simulated images, method developed by Urbis et al. (in preparation) to examine attitudes of coastal community towards island as an esthetically attractive element of the landscape.

Possibilities for society: Education, Recreation, Donation

We present wetlands for the society as a possibility to contribute to nutrient removal activities by fundraising. Our installation sites selected in the coastal resort areas could be used to explain to the coastal communities, what we need and why, to reduce eutrophication.





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http://www.balticlagoons.net/livelagoons/