

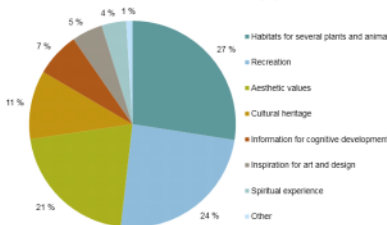
Importance of Baltic Sea ecosystem services on human health and well-being

This poster presents the BONUS ROSEMARIE project. The project involves conducting three systematic reviews on the Baltic Sea ecosystem services, their values and links to human health and well-being. The more detailed focus of the poster is to investigate how the frequency of recreational visits and the proximity to the Baltic Sea coast affects subjective human health and well-being. We further test the use of the life satisfaction approach to economically value non-market Baltic Sea ecosystem services. Both of these approaches are applied using unpublished data surveying the economic benefits of achieving good environmental status (GES) in the Finnish marine waters from 2017. The results can be used to support marine planning and policy-making to facilitate smart decisions for sustainable blue growth.

Does frequency of recreational visits and proximity to the Baltic Sea affect subjective human health and well-being?

- We study how proximity to the Baltic Sea coast and marine recreation frequency affect human health and well-being.
- Previous studies have found that coastal proximity can have positive effects on health and well-being [1]
- This study is based on previously unpublished data arising from a comprehensive survey on the economic benefits of achieving GES in Finnish marine waters from 2017 (N=1374) [2].
- 60% of the respondents feel that spending leisure time in the Baltic Sea reduces their stress level.
- 50% of the respondents feel that spending leisure time in the Baltic Sea improves their health.
- In addition to recreation frequency and coastal proximity we try to assess what other factors related to ecosystem services and state of the Baltic Sea are important from health and well-being perspective.

Figure 1. Importance of cultural ecosystem services based on survey data [2]



Life satisfaction approach – monetary valuation of non-market ecosystem services

- We test the life satisfaction approach to monetarily value non-market Baltic Sea ecosystem services.
- Life satisfaction approach stems from the assumption that reported subjective well-being or life satisfaction can serve as an adequate approximation for individually experienced welfare [3].
- This allows the use of life satisfaction data to assess individuals' preferences for non-market ecosystem services.
- Together with data on income, the marginal rate of substitution between income and ecosystem service can be assessed and the willingness to pay for an ecosystem service calculated.

Figure 2. Factors negatively impacting Baltic Sea experiences (%) [2]

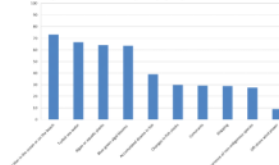
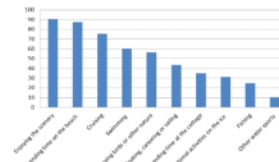


Figure 3. The most common leisure activities in the Baltic Sea (%) [2]



BONUS ROSEMARIE

Blue health and wealth from the Baltic Sea – a participatory systematic review for smart decisions



BONUS ROSEMARIE:

Blue health and wealth from the Baltic Sea – a participatory systematic review for smart decisions (BONUS Synthesis Projects 2018-2020)

Main objectives of BONUS ROSEMARIE

To support smart decisions, which consider and integrate the long-term ecological sustainability with the current and future human needs. BONUS ROSEMARIE carries out systematic reviews of the Baltic Sea ecosystem services, their impact on human health and well-being and how monetary and non-monetary valuation methods can help in decision making. BONUS ROSEMARIE works closely with government, business and civil society organization representatives to identify their evidence needs. The aim is to produce relevant and reliable results that are likely to lead into action.

Main outcomes of the project

BONUS ROSEMARIE delivers three high-quality Scientific review papers. The work will follow the systematic review guidelines and standards that Collaboration for Environmental Evidence (CEE) has developed for the evidence synthesis. Each of these syntheses papers will be accompanied by a policy brief that is produced together with the end-users. For the general public the project results will be summarized in an animation.

References:

- [1] Wheeler, B. W., White, M., Stahl-Timmins, W., & Depledge, M. H. (2012). Does living by the coast improve health and wellbeing?. *Health & place*, 18(5), 1198-1201.
- [2] Nieminen, E., Ahtiainen, H., Lagerkvist, C. J., & Oinonen, S. (2019). The economic benefits of achieving Good Environmental Status in the Finnish marine waters of the Baltic Sea. *Marine Policy*, 99, 181-189.
- [3] Frey, B. S., Luechinger, S., & Stutzer, A. (2009). The life satisfaction approach to valuing public goods: The case of terrorism. *Public Choice*, 138(3-4), 317-345.