

10 Mapping recreational activities in coastal and marine areas – PPGIS findings from western Sweden

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The presentation reports on a study and published paper with a focus on mapping coastal-marine recreation in the Gothenburg region on the west coast of Sweden. In Sweden, outdoor recreation is considered an important land and water use activity, and is associated with key societal aspects, such as increased environmental awareness, public health and local development. For this reason, outdoor recreation has become an important planning topic in the Gothenburg region, which offers many recreational opportunities in the coastal zone (Hansen, 2016).

Lately, the topic has received increased attention, accelerated by two processes. The first process concerns current work on national maritime spatial planning in Sweden, wherein outdoor recreation is emphasized as a key spatial layer alongside tourism and cultural heritage. The second process is strongly influenced by the maritime planning process and concerns regional and local coastal-marine development initiatives. In Sweden, the municipalities have the planning responsibility for the coastal zone. Consequently, many coastal regions and municipalities, including Gothenburg region, currently work towards clarifying and structuring their coastal interests, including outdoor recreation, in order to synchronize with the national maritime plans.

As part of this process, The Gothenburg Region (GR), a co-operative organization for 13 municipalities located around Gothenburg, launched a project between 2016 and 2019 with an aim to achieve sustainable coastal-marine development in the region's coastal municipalities. In late 2019, the result of the project was presented as a structural plan for the coastal zone, with a particular focus on a range of conservation and development initiatives. An important part of the work included an analysis of existing planning material as well as identification of missing documentation of key land and water use categories. This work revealed that documentation

of outdoor recreation in the region's coastal zone was almost completely missing. The situation presented a problem as an important prerequisite for planning, and thereby ensuring, quality recreational content in the coastal zone is detailed knowledge about it.

The study reported in the paper was formed in response to the situation. In practice, the study was done as a complementary study towards the end of the regional project with a focus on mapping recreational activities in the coastal zone. To move away from previous information sources, a choice was made to use a Public Participation GIS (PPGIS) method approach. PPGIS specializes in collecting relevant geographic data that can be used for mapping and overview purposes and is therefore particularly useful in planning processes. Furthermore, a distinct feature and difference from earlier sources is that PPGIS studies build on citizen science principles, involving members of the public in actively contributing with data input, leading to the generation of new data layers (Brown & Kyttä, 2014). The study therefore explored two key aspects: identifying and mapping coastal-marine recreation in order to create a basic knowledge base for planning processes in the region as well as introducing, testing and pioneering the PPGIS method approach in the region.

The most significant output of the study was spatial information about and, as a result, a basic knowledge base on coastal-marine outdoor recreation in the region. For the first time, it is possible to see the connection between the various recreational activities and the geographical context where they take place. For instance, the work shows that recreational activities take place almost everywhere along the coast and near coastal waters, confirming coastal-marine areas as a favorable recreational landscape type in the region. Furthermore, the work not only shows the presence, but also indications of volumes of coastal-based

recreation in the region. An important result is also that there appears to be variation between locations of different recreational activities, which is not a surprising result, but important to visualize nonetheless.

Together, the results confirm outdoor recreation as a significant land and water use category that deserves more attention and priority in future planning processes in the region. From a more regional perspective, the study results not only generate a new information layer to be used in regional planning processes, but also present an opportunity to work more actively with the region's focus on sustainable coastal development. On a national level, the study findings also have relevance in the work on maritime spatial planning. For instance, the study confirms outdoor recreation to be a mostly near coastal activity with limited impact on the national planning area. In other words, coastal-marine recreational is primarily a focus for municipal planning activities.

The work also concluded that the chosen PPGIS method strategy worked particularly well in terms of getting a spatial overview and involving citizens to take part of these types of studies. Indeed, from a research perspective, the work opens up for a broader look at data collection strategies that go

beyond traditional visitor monitoring methodologies. Researchers with an interest in these types of studies must learn to embrace new technologies and what solutions they offer, while also being mindful about the pros and cons of applying the methods, including thoughts about the geographical context wherein they are applied.

The reported study findings demonstrate that coastal-marine outdoor recreation no longer can continue to be an overlooked or disregarded planning category in the region. However, efforts should not stop here. In fact, the true value of the findings will only become apparent if the work is continued, partly in order to create more certainty around the results and partly as a way to discuss future changes and identify new developments. To realize this, the study must reach municipal and regional planners, who are the real targets for the study results and who not only have the power, but also the biggest need, to continue the work. If this outreach can be achieved, and planners embrace both the study results and the method approach, it would be an important step towards building a comprehensive knowledge base on outdoor recreation in all parts of the region.

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References

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