Why monitor seashore habitats?

Nature conservation in the EU is largely governed by the Habitats Directive, which aims at promoting the maintenance of biodiversity by conserving rare or decreasing natural habitats. In Sweden, there are about 90 such habitats. Some of them, such as the taiga, cover vast areas. Others, for example habitats connected to sea shores, are less common.

The Habitats Directive prescribes that member states shall ensure favourable conservation status of specified habitats. Every six years, each member state must present a report on how this work is proceeding. This can only be done if the area and conservation status of the habitats are known. This is rarely the case when it comes to less common habitats such as the ones occurring along sea shores.

Methods for the monitoring of sparsely occurring habitats are currently being developed in a project called *Demonstration of an integrated North-European system for monitoring terrestrial habitats* (MOTH), run by the Department of Forest Resource Management at the Swedish University of Agricultural Sciences in Umeå. The survey of habitats located along linear structures such as sea shores require specific methods, further described inside this leaflet.

Apart from new methods, the project will yield applicable data on the occurrence and conservation status of Swedish habitats. This will be useful both for the reporting according to the Habitats Directive and for Sweden's own follow-up of national environmental objectives. Furthermore, knowledge of the exploitation level of different kinds of shores will be useful for national decisions on spatial planning.

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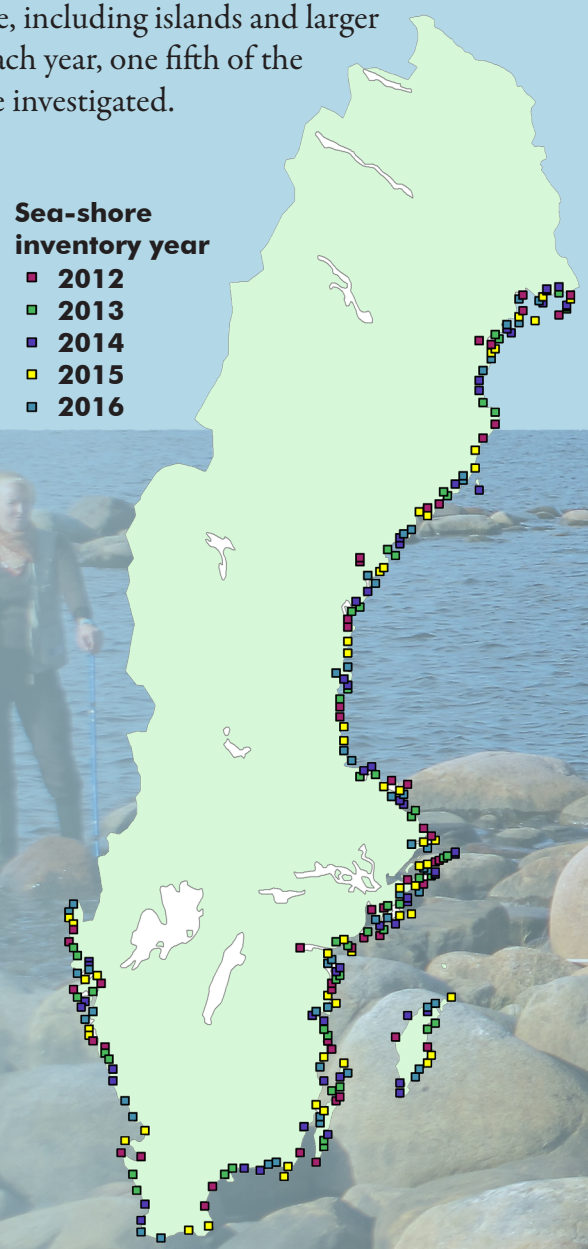
Monitoring of seashore habitats

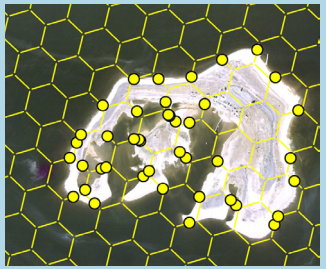
The two phases of seashore monitoring

The purpose of the survey is to estimate the total area of terrestrial habitats, listed in the EU habitats directive, along the Swedish coast. We also want to assess the conservation status of these habitats. The sampling is done in two phases. First, 250 sample units are randomly placed along the total Swedish coastline, including islands and larger islets. Each year, one fifth of the units are investigated.



Over an aerial photo of each sample unit, a hexagonal grid is laid. At every crossing between a grid line and a shore line a rough classification of occurring habitats is made by a trained photo interpreter.

In the second phase, a number of points likely to present interesting habitat types are selected for field survey.



Field data is gathered in a transect, 10 m wide, placed across the shore from mean sea level upwards. Habitats are classified, and variables such as land use, plant species and marine debris (both garbage and natural organic matter) are noted.

When combining the data from the photo interpretation and the field survey, the total area of shore habitats along the coast can be calculated and their overall conservation status assessed. By contrast, no information on individual units is revealed.