





Maintenance of the coastal foredune ridge as the key tool of coastal protection in the Curonian Spit



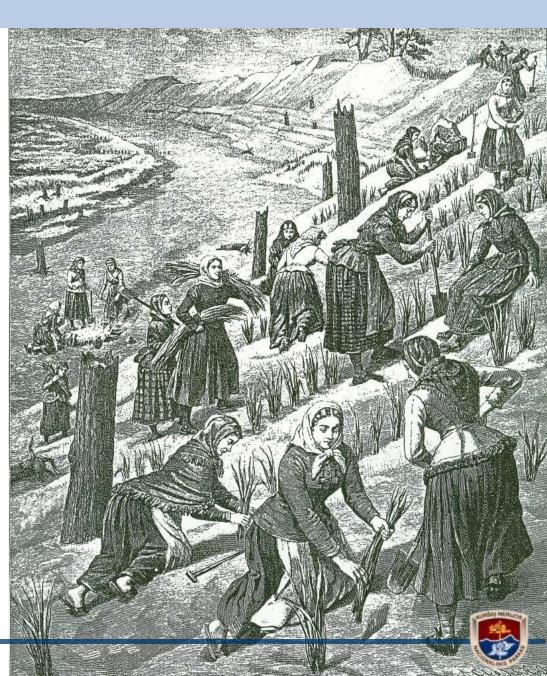






Historical context

- ✓ 18th century actualisation of Coastal erosion problematic.
- ✓ 19th century implementation of coastal protection (defence) measures creation of coastal foredune ridge.
- ✓ Since the end of 19th century maintenance of coastal area by the same principles and using only natural materials.
- ✓ Since 2000 coastal foredune ridge is one of cultural landscape elements of UNESCO WHS.
- Coastal protection tradition as intangible heritage.



Threats: storms

- ✓ The coastal foredune ridge accumulates sand and prevents degradation of the coastal line.
- ✓ If the coastal foredune ridge disappears, during the period of heavy storms, the land breadth of the sea water would increase up to three times, and extreme (hurricane) storms up to five times.







Threats: recreation





Measures to increase resistance of the coastal line

Law on the Coastal Zone (2002)

Coastal Zone Management Programme for 2014-2020

taking into account

HELCOM convention:

DECLARING their firm determination to assure the ecological restoration of the Baltic Sea, ensuring the possibility of <u>self-regeneration</u> of the marine environment and preservation of its ecological balance

HELCOM RECOMMENDATION 16/3:

...if coastal defence measures are necessary, <u>natural materials</u> such as stones, sand, soil or wood shall be preferred to artificial materials (concrete, asphalt or plastic)"



Measures to increase resistance of the coastal line

In the context of coastal management measures, the principle of natural or specific materials, natural analogues is preferred.

It is necessary to ensure that coastal management measures for individual coastal areas are harmonized.







Measures to increase resistance of the coastal line

It is necessary to neutralize the negative impact of recreation on the state of the coast.

36.3 percent of the Curonian Spit coast is used for recreation purposes.

The total length of the recreational areas (on the sea coast) of the Curonian Spit is 18,5 km. There are 67 transit paths:

- ~ 1824 sq. m. stairs;
- ~ 4343 sq.m. wooden paths;
- ~ 2033 sq.m. clay-gravel paths.

New trails, stairs and bicycle racks will be installed in 2019. In the planning documents there are up to 96 transit paths.



Coastal protection mesures implementation 2017-2021

05.1.1-APVA-V-005-01-0001 The Baltic sea coast (coastal foredune ridge) protection in

the Curonian Spit

Coastal management measures:

- Brushwoods floorings;
- Brushwood fences;
- Renovation of stairs and paths

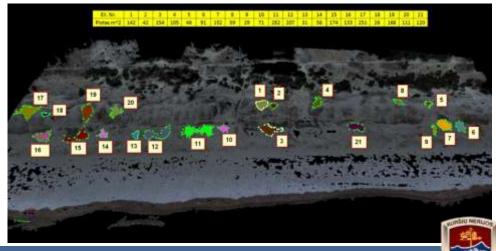
Coastal dune ridge condition monitoring.

- Progamm for the year;
- 1 annual report;
- evaluation of completed works.

Total project value **– 1 709 530,52** €

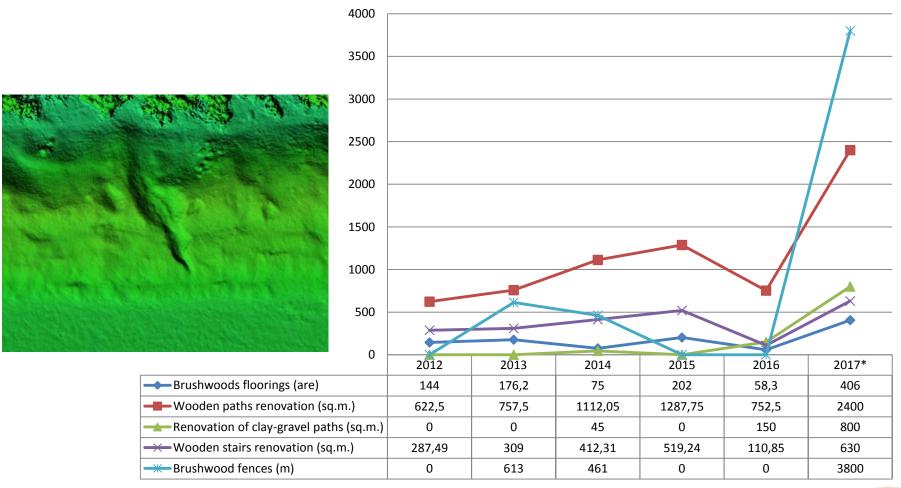






Coastal protection mesures implementation 2017-2021

Amount of coastal management measures in 2012-2016 and plan for 2017





Chalanges

- ✓ To ensure the continuous maintenance of the coastal foredune ridge in oder to keep its accumulative quality (skilled workers, financial resources, legal basis).
- ✓ To adapt to continually increasing recreational activity and changing visitors needs and activities.
- ✓ To keep balance between coastal protection and Natura 2000 requirements (invasive and rare species).



