



Marine recreation and other cultural services in Finland, Estonia and Latvia – Results of the survey

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Photo: SYKE's image bank - Jussi Leppänen



EUROPEAN UNION
European Regional Development Fund



Survey on recreational and other cultural ES provided from marine and coastal ecosystems

- The most visited leisure sites at the Baltic Sea or its coast (in the past 1 or 3 years) + important sites
- Number of visits to the site (in the past 1 or 3 years)
- Travel cost and distance to the site
- Socio-demographic questions

Basic information to applied travel cost mode to measure and value recreational services

- Perceived environmental conditions of the site (amount of algae, water transparency, litter amount at the coast, common reed patterns, biodiversity, landscape)

- How environmental condition influence recreational services (in both physical and monetary term) (Lankia et al., 2019, Bertram et al., 2020, Tienhaara et al. 2021)
- Compared modelling or monitoring environmental condition

- Difference cultural services (recreational activities + other cultural ES (e.g., Enjoying scenery, smell, sounds, reminiscing about life events and people, learning about the marine environment))

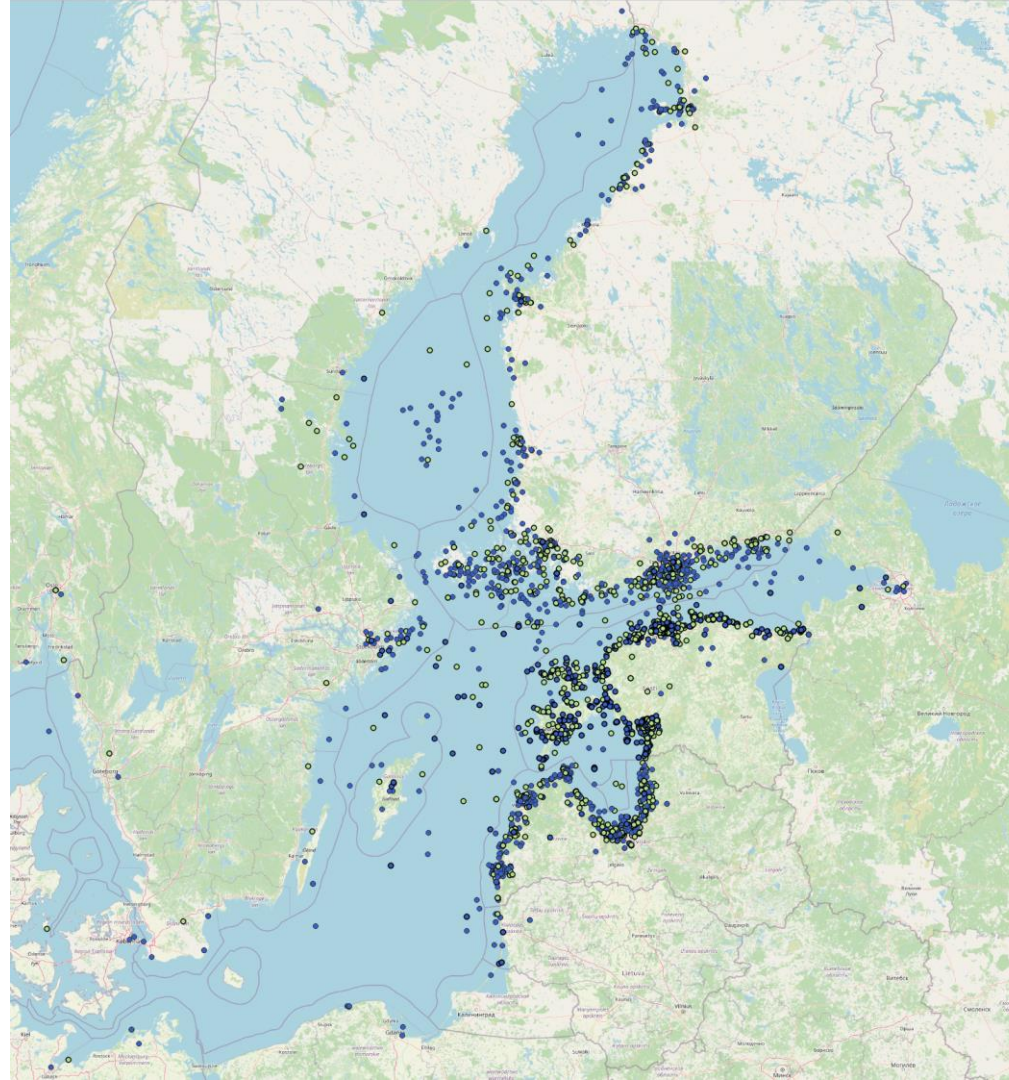
How different cultural ES attached to recreational value

Study scope, important sites and most visited places from the survey

- Finland, Estonia, Latvia
- Adult population (18-80 years old)
- Representative sample based on ages, gender, and regions of each country
- BLUE = important site
- GREEN = most visited site



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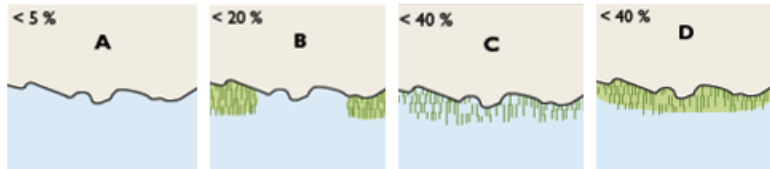
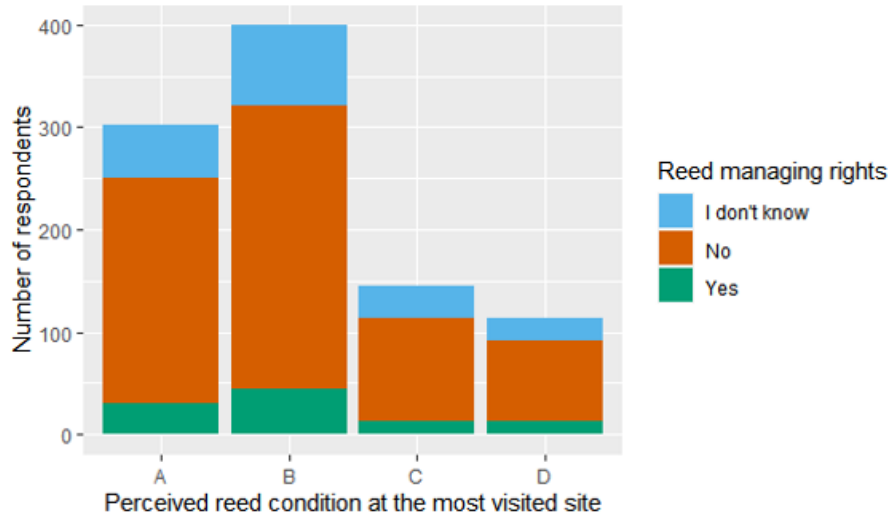


Survey summary

	Finland	Estonia	Latvia
Average number of visits per person per year (SD) ^{+/}	11.7 (40.4)	14.7 (35.4)	10.3 (24.0)
Average <u>stated</u> travel costs (TC) per visit (SD) in EUR	38.1 (89.5)	23.3 (42.7)	18.5 (48.8)
Average <u>estimated</u> travel costs (TC) per visit (SD) in EUR	44.71 (63.91)	20.43 (31.01)	14.61 (22.04)
% of respondents that visits the coast or marine of Baltic Sea in the past 3 years	67.3%	82.7%	82.5%
Estimated total visits for the adult population (18-80) of the country per year ⁺	34.35 million	12.67 million	12.70 million
Estimated TC for the adult population of the countries ^{**+}	1308 million	295 million	235 million

⁺ Overestimated from a national accounting scope as the visiting and the cost to the places outside the national sea have not excluded
^{**} underestimated as only the visits to the most visited sites are included

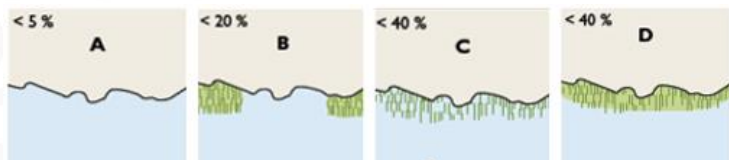
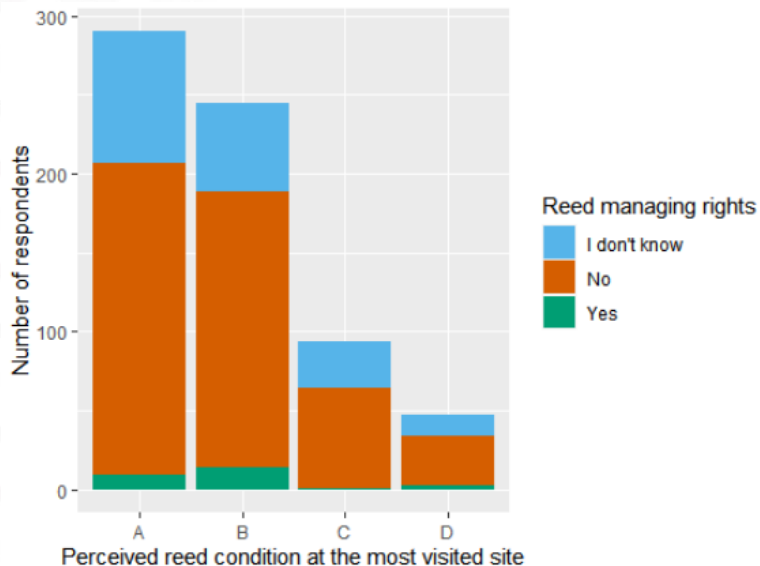
Preliminary results – Finland: how *perceived* environmental conditions influence the number of visits in TC model—example of reed patterns and



Variables	Coefficient (b)
Constant	2.6400***
Travel cost	-0.0099***
Age	0.0139***
Monthly Income	0.0002***
Household size	-0.2460***
Medium water quality*	-0.0514
Poor water quality*	-0.7149***
Reed pattern B+	0.7333***
Reed pattern C+	0.0141
Reed pattern D+	1.0230***

*good water quality is reference case
 + Reed pattern A is reference case
 n = 729

Preliminary results – Estonia and Latvia



Estonia

Variables	Coefficient (b)
Constant	3.1637***
Travel cost	-0.0107***
Age	0.0133***
Monthly Income	0.0000
Household size	-0.0775 ^o
Medium water quality*	-0.0292
Poor water quality*	-0.1731
Reed pattern B ⁺	0.4863***
Reed pattern C ⁺	0.4610**
Reed pattern D ⁺	0.7806***

*good water quality is the reference case
 + Reed pattern A is the reference case

n = 588

Preliminary results - Finland: how *perceived* environmental conditions influence the number of visits and travel cost

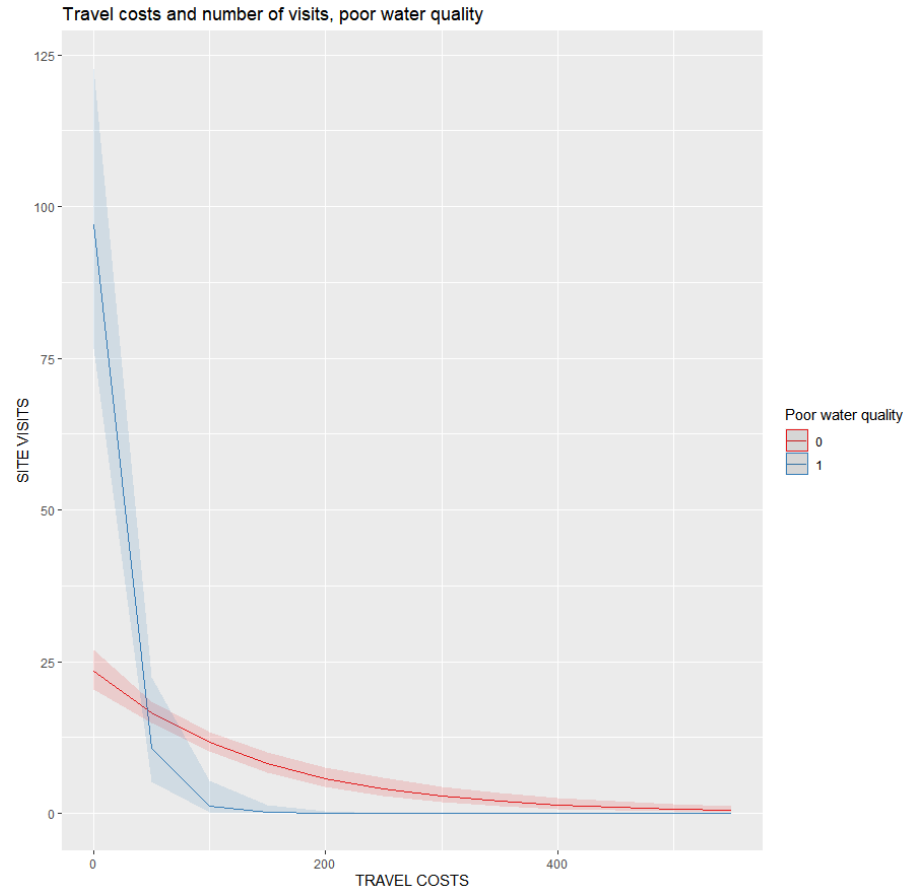
Variables	Coefficient (b)
Constant	2.2740***
Travel cost (TC)	-0.0087***
Travel mode dummy: walkers or cyclist	1.4040***
Age	0.0160***
Monthly Income	0.0002***
Household size	-0.1251**
Medium water quality*	-0.0723
Poor water quality*	-0.7045***
TC-Travel mode dummy	-0.0361***
TC-Medium water quality	0.0016
TC-Poor water quality	0.0060*



SYKE

*good water quality is the reference case

n = 729



Preliminary results – Estonia and Latvia

EE

Variables	Coefficient (b)
Constant	2.6164***
Travel cost (TC)	-0.0154***
Travel mode dummy: walkers or cyclist	1.3245***
Age	0.0148***
Monthly Income	0.0003***
Household size	-0.0464
Medium water quality*	-0.0047
Poor water quality*	0.3268
TC-Travel mode dummy	0.0079*
TC-Medium water quality	0.0021
TC-Poor water quality	0.0081

LV

Variables	Coefficient (b)
Constant	2.2965***
Travel cost (TC)	-0.0094**
Travel mode dummy: walkers or cyclist	1.1307***
Age	0.0090*
Monthly Income	0.0001*
Household size	0.1300***
Medium water quality*	-0.1472
Poor water quality*	0.1641
TC-Travel model dummy	-0.0083
TC-Medium water quality	-0.0017
TC-Poor water quality	0.0154



S Y K E

*good water quality is the reference case

n = 588

n = 576

Preliminary results - Latvia: how the amount of litter and travel costs influence the number of visits

Variables	Coefficient (b)
Constant	2.5010***
Travel cost (TC)	-0.0125***
Age	0.0145***
Monthly Income	0.0000
Household size	0.1093**
Medium water quality*	-0.1171
Poor water quality*	0.3698 ^o
Some litter ⁺	-0.01998
Abundant litter ⁺	-0.5870*

*good water quality is the reference case

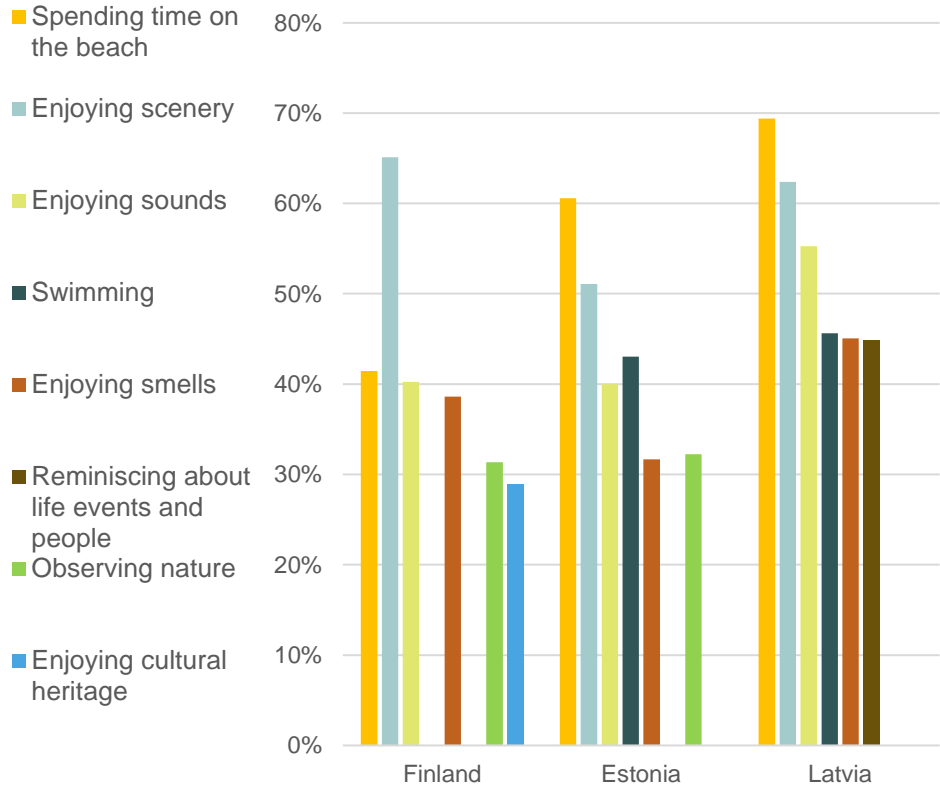
+very few litter is the reference case

n = 576

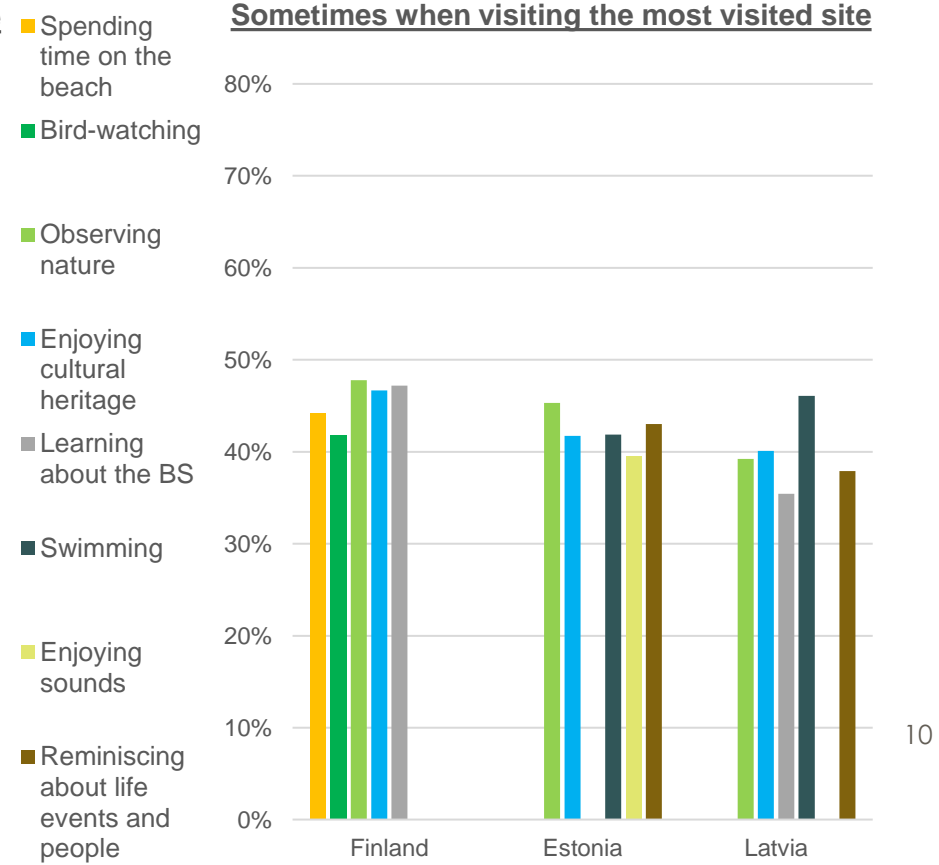


Top activities when visiting the most visited sites: % of respondent will do the activities

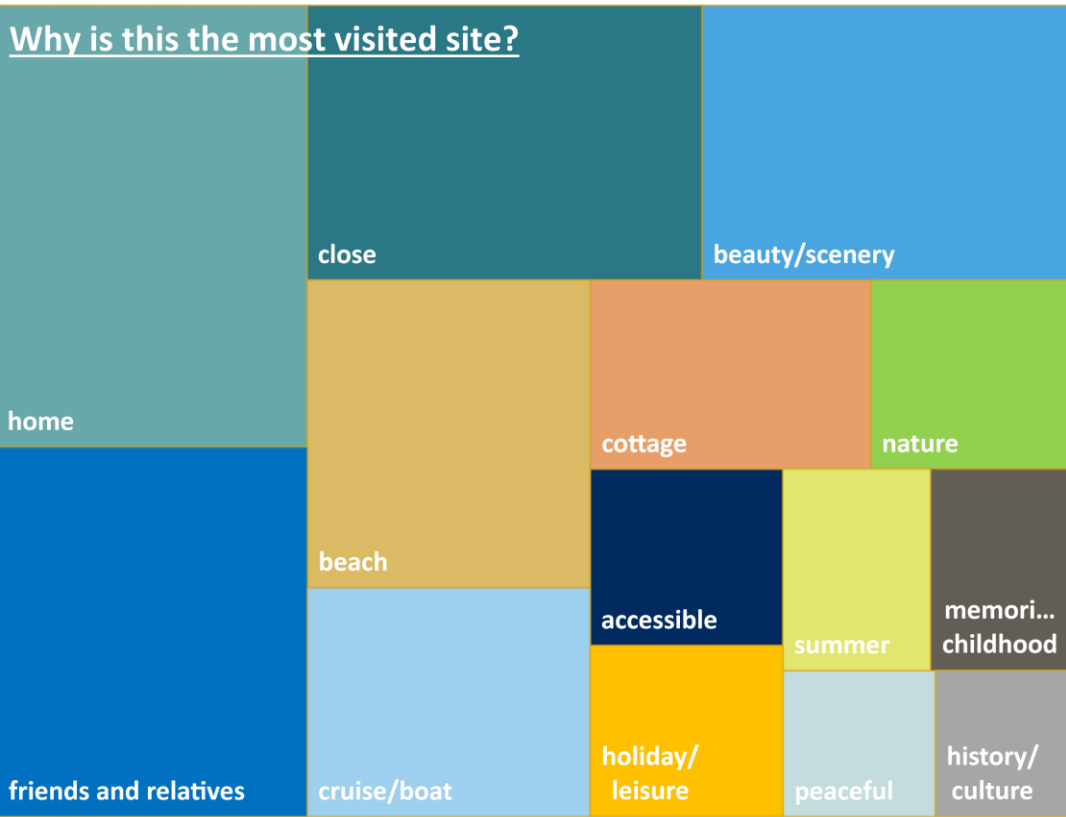
Every time when visiting the most visited site



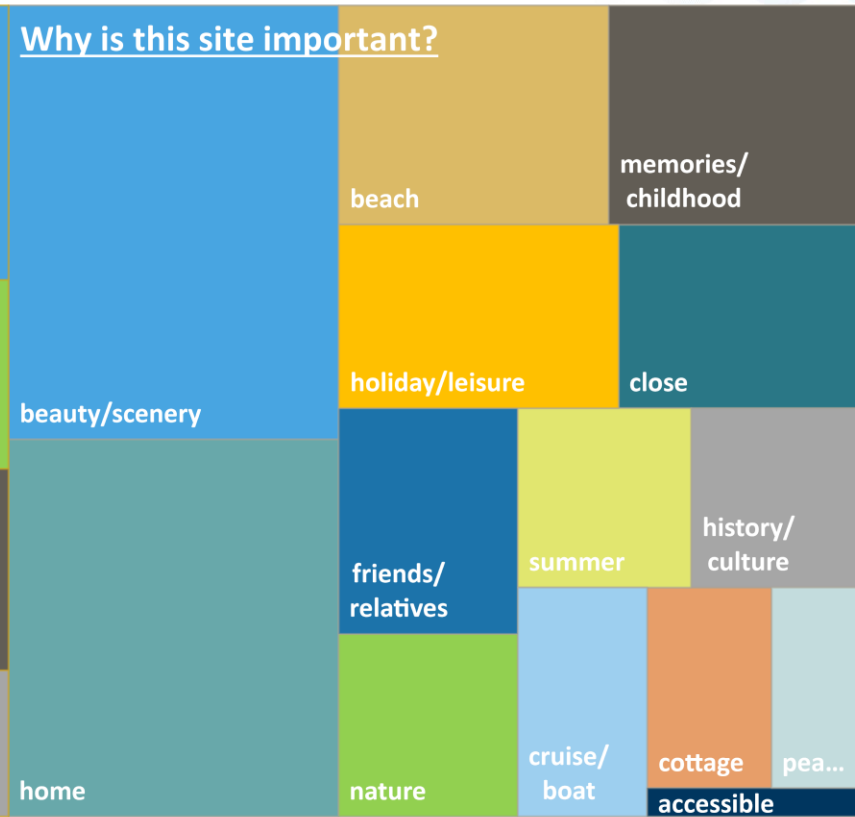
Sometimes when visiting the most visited site



Motivations to visit the BS - Finland



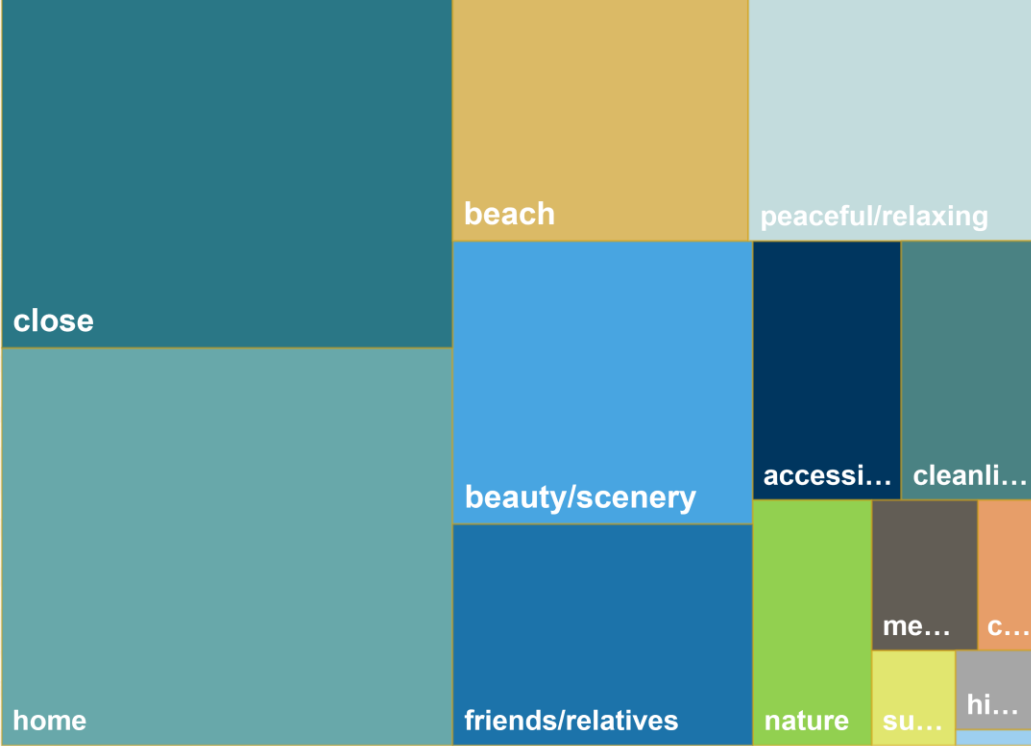
n = 799



n = 545

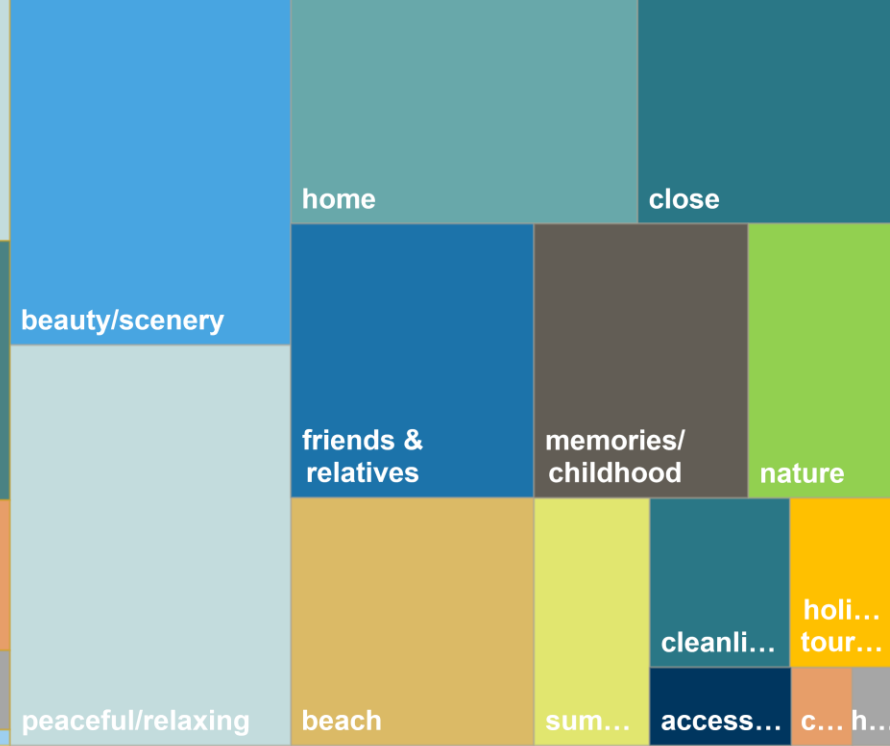
Motivations to visit the BS - Latvia

Why is this the most visited site?



n = 479

Why is this site important?



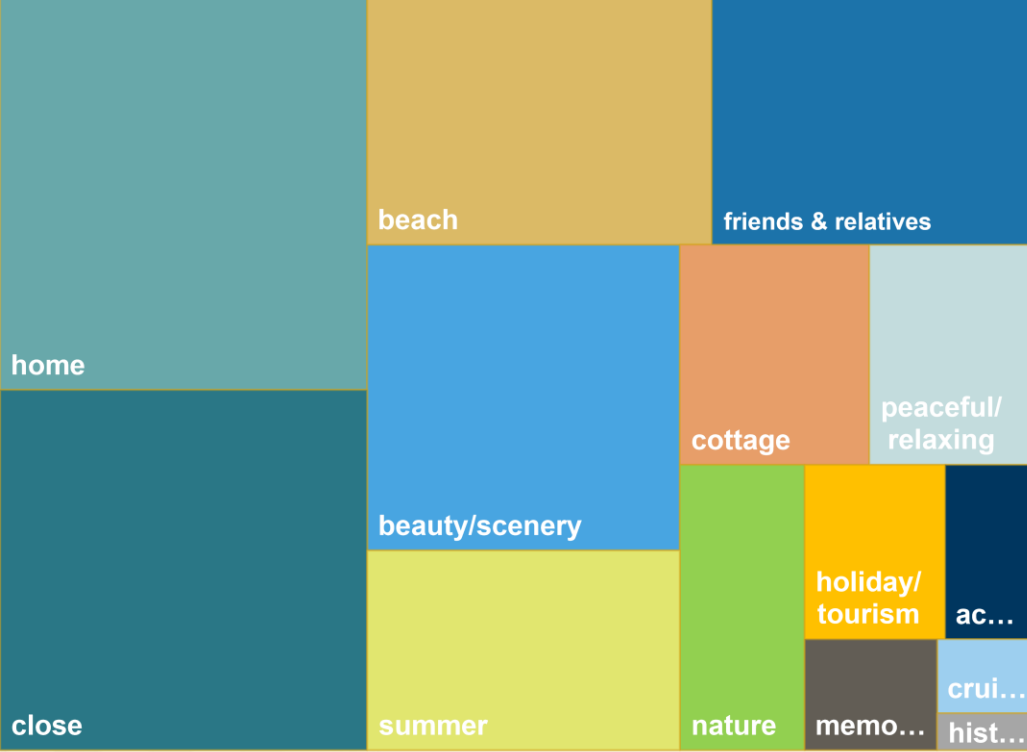
n = 572



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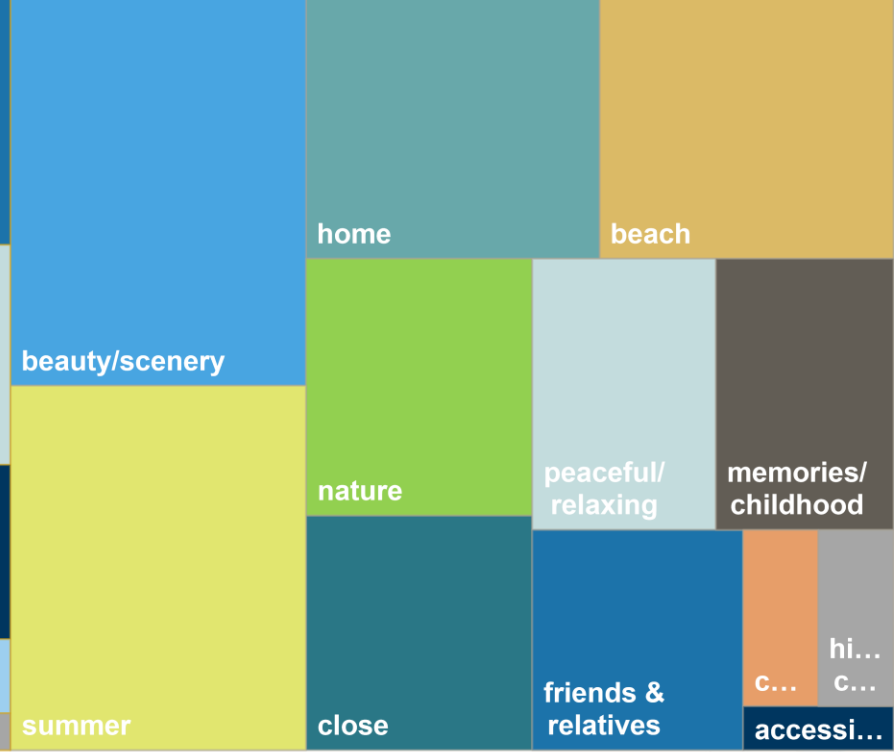
Motivations to visit the BS - Estonia

Why is this the most visited site?



n = 555

Why is this site important?



n = 410



S Y K E

End



Why is this site important?

“The culture and customs and identity are preserved there”

“I have spent a lot of time there as a child, it has many happy and special memories”

“The place is sacred to me, it is where I connect with nature, my ancestors and the history and the prehistory of my country”



Why is this site the most visited?

“I have spent all my summers at the cottage and I will spend the rest of them there because it is a dear place, my grandfather was born there”

“Beautiful nature, where the hustle and bustle of everyday life is forgotten. The pleasantly rolling sea and the lapping of the waves removes stress.”

“We park the car there facing the sea and sit there enjoying the scenery and the boats and ships passing by. It's my favorite place in the country”



General feedback

“I don't really like spending time by the sea because I'm afraid of it. I still consider the sea to be very important, especially in terms of nature”

“It's great that there is interest in the situation in the Baltic Sea. I follow articles about the Baltic Sea”

“Good luck and success in protecting the Baltic Sea. The Baltic Sea is a nature's gift to us”