



National Coordination
Estonia



UNESCO
Associated
Schools



The Baltic Sea Project



ENVIRONMENTAL INVESTMENT
CENTRE



REPUBLIC OF ESTONIA
MINISTRY OF EDUCATION
AND RESEARCH

UNESCO ASPNET BALTIC SEA PROJECT COASTWATCH 2020/2021 REPORT



General summary

<u>2020</u>	<u>2021</u>
<ul style="list-style-type: none">• Kadrina Secondary School teacher Siret Pung 5 students	<ul style="list-style-type: none">• Tamsalu Gymnasium Teacher Kerttu Urm 42 students
<ul style="list-style-type: none">• Loksa Gymnasium teacher Glaidi Aasrand 25 students	<ul style="list-style-type: none">• Kuusalu High School teacher Eve Sarap 18 students
<ul style="list-style-type: none">• Tallinn English College Teachers Luise Tiks, Kaisa-Helena Luht 25 students	<ul style="list-style-type: none">• Pärnu-Jaagupi Basic School teacher Hele Nööri 41 students
<ul style="list-style-type: none">• School of Viimsi teacher Karin Keert 45 students	<ul style="list-style-type: none">• School of Viimsi teacher Karin Keert 130 students

In 2020, there were conducted 4 coastal observations in which 100 students took part in total. In spring of 2021, 231 students from 4 different schools participated in coastal observation. Aged 12-18, the participants study in the second and third level of basic school and gymnasium.

In 2020/2021 the following coasts were selected for carrying out the observations:

- Tsitre (Kuusalu High School)
- Haabneeme (School of Viimsi),
- Käsmu (Tamsalu Gymnasium),
- Vainupea (Kadrina Secondary School)
- Kloogaranna (Tallinn English College),
- Hara bay/Saunalaht (Loksa Gymnasium)
- Valgerand (Pärnu- Jaagupi Basic School)

To compare the observation results of 5 years, the data collected in last two years has been added to the earlier report of 2017-2019. Data originated from 2020 is marked with yellow and data from 2021 is marked with purple colour. Graph shows (Figure 1) that the number of students participating in costal observation has been rising but the number of school participating has stayed

the same or even descended a little. In spring of 2020 the low participation of schools can be explained by the spread of covid-19 virus as most of the school stayed on distance learning and gatherings needed for coastal observation were not allowed.

Colors have been used to differentiate between results from different years as follows:

2017 - blue

2018 - red

2019 - green

2020 - yellow

2021 - purple

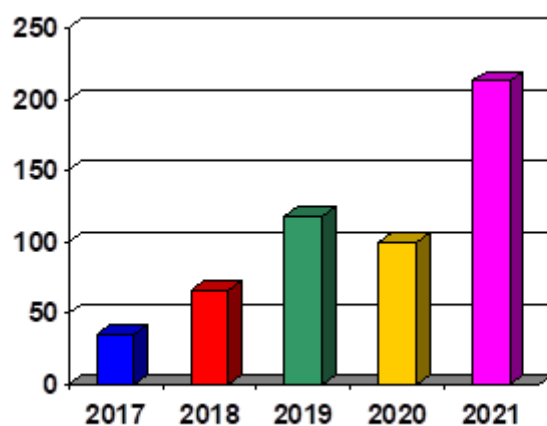


Figure 1. Number of students conducting coastwatch in the last five years

Notings from coastal observation:

- In 2020/2021 the amount of litter was smaller than in previous years. This might be resulted from the rising environmental awareness of Estonian people (e.g. participating in The World Clean up Days). The other reason might be that since the spring observation takes place at the end of school years which is right in the beginning of beach season, all the beaches have been cleaned up by the municipal governments.
- All school participating at the observation found microplastics from coastal area.
- Very few birds were noted compared to previous years.

BSP COASTWATCH QUESTIONNAIRE RESULTS

A 5 Do you know your site: Well 2 3 A little 1 Here on 1st or 2nd visit 2

A 6 Is your unit (part of) specially designated area? Yes 3 2 No 1 Don't know 1 1

A 7 If your unit is specially designated please mark:

UNESCO Biosphere Reserve

Ramsar Site

National Park 1 1

Nature or Marine Reserve

Other designation of natural importance

Bathing water 2 2

A 7 Is access to your coastal unit:

Easy by foot/vehicle 4 4

Difficult or normally 4 2

Tick, if access is prohibited

B INFLUENCES FROM LAND immediate hinterland up to 500 m beyond the splash zone

B 1 Is the immediate hinterland (up to 500 m from splash zone) mainly devoted to: (tick up to five boxes if necessary):

Intensive grazing 1 1

Tillage farming incl. horticulture

Scrub or rough grazing 3 4

Dunes 3 1

Park/woodland/forest 4 4

Wetland (bog, marsh, lagoon) 2 2

Rock/sand 4 4

Construction site

Village or residential 2 1

Tourist resort

Waste tip

Industry, port industry, power station

Transport: road, train port, marinas 2 1

Military zone

Other ___

C SPLAZH ZONE the shoreline from mean high water up to spring high water

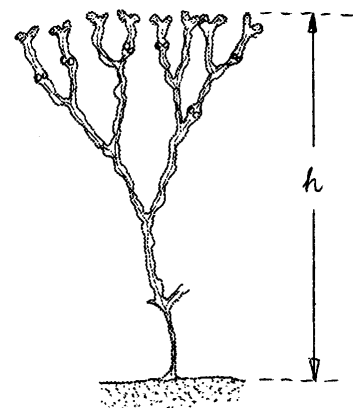
C 1 Indicate what the area is mainly composed of: (tick maximum 2 categories)

Solid rock	Boulders 20 cm +	Gravel 0.2-20 cm	Sand	Silt or Mud	Other (built walls)
	3 4	2	4 3	1	

C 2 Which of the plants listed did you find in your unit?

Reed bed	Sea Grass <i>Zostera</i>	Brown or Red Algae	Green algae		Dislodged decaying algae	Other
			Patches or thin band	Extensive cover or thick mats		
2 1	2	4 2	4 3	2	3 3	

C 3 Size of bladder wrack *Fucus vesiculosus*, varies in different areas of the Baltic Sea depending on living conditions. If you have found bladder wrack in your area, please take 3 – 5 plants and measure the length of the plant from the attaching place to the top of the longest branch and calculate the average.



Plant was attached: yes 2 2 no 3 2

Average length of bladder wrack: 11,95 11 cm

Look carefully bladder wrack plants. Are there growing other alga (hair, filaments)? none 3 3 a few 1 1 many

C 4 If you know area well indicate whether there was any visible algal blooms in water this spring or summer

Yes 2 1 No _ Don't know 2 3

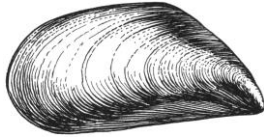
C 5 Indicate which of the animals listed you found live (L) or dead (D):

Jellyfish	Worms and wormcasts	Shellfish eg cockles, winkles		Crustaceans eg crabs		Fish		Seabirds		Seals		Dolphins		Rats	
		L	D	L	D	L	D	L	D	L	D	L	D		
1	1		2 4	3		2	3	2	2					1	
				1		1	1	2							
How many of each? →														L	D
														5	7

C 6 Which of the following animals were you lucky to find along your part of the shore?

Blue mussel *Mytilus edulis*

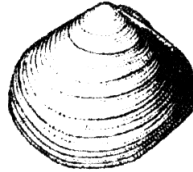
none 1 a few 4 3 many



Length 1.5 - 10 cm

Baltic clam *Macoma baltica*

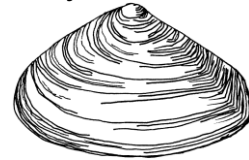
None 3 a few 2 1 many 2



Triangular shell

Mya arenaria

1 3 none 2 1 a few 1 many



Oval, up to 12 cm long

Common cockle *Cerastoderma glaucum*

none 1 3 a few 3 1 many



Heart- shaped, transverse ridges

Gammarus sp.

2 3 none 2 1 a few many



C 7 Did you find any visibly oiled birds (live or dead) during your survey? How many live oiled birds? 0 0 How many dead oiled birds? 0 1

D GENERAL LITTERING

D 1 Tick any major item(s) found on your unit

Landfill materials (e.g. concrete, rubble, debris from sea defences etc.)	<input type="checkbox"/> 1
Large metal objects e.g. abandoned vehicles, girders (exclude bins)	<input type="checkbox"/>
Household furnishings (beds, carpets, pieces of furniture etc.)	<input type="checkbox"/> 1
Household refuse in bags or piles of rubbish	<input type="checkbox"/> 2
Ship wreckage or small metal parts of ship wreckage	<input type="checkbox"/>
Dumped crops (potatoes, onions etc.)	<input type="checkbox"/> 2 <input type="checkbox"/> 1

D 2 Please count each type of beverage container, can holders, tyres and plastic shopping bags found anywhere on the shore. If the number is too large to count, estimate it.

Glass bottles (drinks)	2 2
Metal drinks container	2 3
Plastic drinks containers	3 1
Can holders	1
Paper or lined paper drinks containers	4 1
Tyres (Half a tyre or more = 1)	0 0
Plastic shopping bags	5 12

D 3 Tick which of the following items of general litter or pollution you found on your unit:

Lost or discarded plastic fishing & aquaculture gear (nets, lines, bags)	
Packing straps	2
Hard plastic containers (including crates)	2 1
Foamed polystyrene and polyurethane	1
Sanitary material (incl. condoms, sanitary towel)	2
Other plastics (not sanitary, bottles, bags, can holders, straps)	1 2
Tar, oil, petrol, diesel	
Containers of potentially hazardous substance (chemicals etc.)	1
Textiles, shoes, gloves, items of clothing	2 1
Paper, cardboard, worked wood, vegetable waste	2 2
Food, fish waste and bones	2
Faeces (mammal incl. human)	1 1
Medical waste e.g. syringes, plasters	2 1
Glass (including light bulbs)	1 1
Cans (including non-hazardous spray cans, camping gas)	1

E GENERAL OBSERVATIONS

E 1 Has recent weather made the appearance of your coastal unit change?

Yes, it looks cleaner than usual 1 2 Yes, looks worse than usual 1

No, recent weather is insignificant 2 1 Don't know 1

E 2 Has the beach been cleaned within the last week?

Yes 2 No Don't know 4 2

E 3 Is there any planned change of character (positive or negative) which is imminent for this coastal unit?

Yes No 2 1 Don't know 2 3

E 4 If you have evidence of a serious risk or imminent planned change for the worse, please tick up to five boxes which describe the principal risk or imminent negative changes:

Erosion	Beach mining	Construction	Dumping/ tipping	Water pollution	Recreational abuse	Other
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Sewage 1	Radioactivity	Oil	Industry	Agriculture or industrial farming
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E 5 Please enter a short comment or observation.