



COASTWATCH EUROPE SHORE SURVEY 2021

Sept 15th to Oct 15th

5 step SUMMARY: more detail in [GUIDE NOTES](#) on www.coastwatch.org

1. FIND AND BOOK YOUR SURVEY AREA - 2 options to do that:

OPTION 1: DIY - all on line

Go to www.coastwatch.org and follow survey [booking instructions](#) with [map](#) to choose your 500m survey unit(s). Copy the unique code that pops up when you click on a s.u. on the map into the survey form question A1. Take a photo or screen shot of the map with code.

OPTION 2: Contact Coastwatch

Contact Coastwatch regional or national coordination – (see bottom of page) to help you find a suitable area to book. Indicate if you are a new volunteer, want to join others, &/or do training.

2. MATERIALS CHECK LIST before going out to do your fieldwork:

1. Shore Survey form, 1 per 500m survey unit (s.u.)
2. Map: screenshot on phone, printed or sketch.
3. Guide Notes & species ID posters (on paper or phone)
4. Biros (2 colours to facilitate a 2nd survey)
5. Phone (if smart phone see planning below)

OPTIONAL/WHERE RELEVANT

Nitrate test kits for fresh water inflow testing (request from coordinator)


Phone apps: Coastwatch Micro Litter, River Obstacle and Eyeonwater

Useful: A bag with camera, clip board, hankies, hair tie, raingear, container like Greek yogurt bucket with lid for special finds or sample. Thermometer &/or pH sticks for more inflow data.

3. PLAN YOUR SURVEY

- Plan survey to start an hour before low tide. Use a tide table or Google: **Low tide at** (nearby town) or check www.bit.do/easytide
- Print online survey form or get a hard copy from Coastwatch coordinator and download guide notes and ID posters to your phone.
- Take the map of the survey area (photographed in step 1 or printed screenshot for viewing on your phone when out).
- Allow enough time ~ 30 min. for a simple straight dune site or promenade, an hour for a complex shore with streams.

4. SURVEY

- Complete the survey form while checking the shore from edge of hinterland to low water. Use apps where relevant if you can.
- NB - Note the tide on arrival and if it is starting to come in, start at low water – especially with extra biodiversity questions.
-  Take pictures of key findings and if concerned or immediate action is needed, call Coastwatch coordination or relevant authority.

5. BACK HOME

- Input your results online while its fresh in your mind by going to www.coastwatch.org/europe/survey/ or post your survey forms.
- If you used our micro litter or other apps and waited to send to avoid using up data, send your results now.
- You can submit pictures on coastwatch.org/europe/send-your-pictures/ or by emailing them to survey@coastwatch.org.
- If you want to post query material or photos on CD send to **Coastwatch, Civil & Env. Engineering, TCD, Dublin 2. Ireland.**

HEALTH AND SAFETY + COVID notes

- Check latest COVID rules and plan travel and work to comply.
- Check the weather to avoid storms, high waves and heavy swells.
- Wear suitable boots/water shoes; bring raingear & layers of clothes.
- Survey where it's safe. Avoid walking over wet rocks and onto soft mud (most inner estuary sites) where you could sink or get cut off.

SHORTCUTS

- Complete most of page 1 before going out.
- Share questions (e.g. counts) between surveyors.
- Do two adjacent survey sites on 1 form. Use two different colour biros on the one questionnaire (1/survey unit) to save paper and time.

Contacts/Queries: Regional coordinators are listed on: www.coastwatch.org

COVID: Coastwatch will be working remotely from Wexford + Trinity College Dublin: survey@coastwatch.org
International and urgent **Karin Dubsy** 00 353 (0)86 8111 684 and kdubsky@tcd.ie
Mapping/Data Handling Queries: **Ángel Duarte Campos** survey@coastwatch.org

THIS SURVEY FORM IS ORGANISED IN THEMATIC SECTIONS

Section	Covering	Page
A	Surveyors, Area Designation & Access to the Shore	1
B	Hinterland, Inflows (water draining from land) and Sewage Pollution	2
C, D	Splash zone, Intertidal, Animals and Plants	3
E	Litter and micro litter (+ litter app option) Oil and Tar	4
F	Overall shore looks, shore cleaning, Notes and Threats	6
Extra: Biodiversity & Use	Biodiversity and shore use specific for your country or region	7
Extra E 2021	COVID linked litter and SUP Directive phase out 2021 Litter	5



A Background information on the 500 m survey unit & surveyor(s)

A1 Country code County code Block code Unit code

www.coastwatch.org/europe/map/



Scan me
with your phone
to see the
Coastwatch map

A2 Name of survey unit or area

Map name Local name if different &/or landmark

A3 Name and address of surveyor(s)/school/group

Name (Please write **very** clearly!)

Address (Please give your address, phone and email only if you agree to be contacted by Coastwatch)

Telephone Email

A4 Date of survey

Day Month Year

For your privacy:
Would you like to be named as surveyor and results contributor?
 Yes No

A5 How well do you know this site?

Well A little Here on 1st or 2nd visit

A6 From present knowledge - is this unit (or part of) an officially designated area?

Yes No Don't know

A7 If yes, tick which nature &/or human use designations/permits apply:

<input type="checkbox"/> (UNESCO) Biosphere Reserve	<input type="checkbox"/> designated 'Bathing Water'
<input type="checkbox"/> RAMSAR Site	<input type="checkbox"/> designated 'Shellfish Production Area'
<input type="checkbox"/> Natura 2000 site (SPA, cSAC or SAC)	<input type="checkbox"/> Access for vehicles (on shore parking, route to fields)
<input type="checkbox"/> National Park	<input type="checkbox"/> Other use right or designation (seaweed harvest, boat slip)
<input type="checkbox"/> Other Nature designation.....

A8 Is there public access to your coastal unit from land down to high water?

by vehicle Also please tick if: Access is marked private or prohibited.

by foot Partially inaccessible.

by wheelchair Inaccessible. Your report ends here, or note how you overcame the access problem

Any comment questions A 7 or 8

.....
.....



B Land and Inflows

B1 What is the immediate hinterland (first 500 m) mainly devoted to? (Tick up to 5 boxes)

- | | |
|---|--|
| <input type="checkbox"/> Farmland: Intensive grazing | <input type="checkbox"/> Village or town residential |
| <input type="checkbox"/> Farmland: Tillage, horticulture | <input type="checkbox"/> Tourist resort |
| <input type="checkbox"/> Farmland: Rough grazing | <input type="checkbox"/> Waste tip/dump (official and unofficial) |
| <input type="checkbox"/> Park, woodland, forest | <input type="checkbox"/> Industry, commercial area, or power station |
| <input type="checkbox"/> Dunes | <input type="checkbox"/> Transport → tick: <input type="checkbox"/> road <input type="checkbox"/> train <input type="checkbox"/> carpark <input type="checkbox"/> harbour |
| <input type="checkbox"/> Wetland (bog, marsh, lagoon) | <input type="checkbox"/> Construction site |
| <input type="checkbox"/> Rock or other bare natural sediment | <input type="checkbox"/> Other: please state: (e.g. golf course) |

NB - Extra Coastwatch harbour Qs available

B2 Please count all inflows into your s.u. as you walk. Give details of up to 4 inflows in the order encountered. If there are more than 4, choose the most important in terms of potential pollution impact.

Information on inflows as encountered - or important ones:	Inflow 1	Inflow 2	Inflow 3	Inflow 4
Type: 'P' for Pipe, 'S' for Seepage, 'D' for Drain, storm drain or irrigation canal, 'R' for River, stream. Add name for R if known.				
Inflow Size: S (Small), M (Medium) or L (Large)				
✓ if found				
Animal life in/on water (and add F if you see live Fish)				
A bad smell from the inflow				
Discolour/scum/froth				
Dead Fish - if yes, please add a count/estimate and photograph				
General Waste/litter dumped or washed down				
Sanitary litter &/or visible sewage				
Filamentous algae &/or sewage fungus. Add B if it's a blanket layer				
Oil, petrol or diesel				
Invasive Alien Species. Note 'W' if in water or 'B' on inflow banks (see Coastwatch IAS poster for some IAS species)				

If you have access to any test kits, please test inflow in the fresh water zone and record results here:

Inflow water:	Inflow 1	Inflow 2	Inflow 3	Inflow 4
Did you detect Nitrite (NO ₂)? If tested, please circle + yes or - no.	+ or -	+ or -	+ or -	+ or -
Nitrate (mg/l NO ₃) levels (read result 1 min. after dip test).				
Inflow Water temperature (please use your own thermometer).				
How acidic or basic is the water? The pH is:				


The Total Number of Inflows counted in the survey unit was:

(Include intermittently active inflows like storm drains)

B3 If you know the survey unit well, **please estimate frequency of sewage pollution incidents** (This is focussing on water of your survey unit. Think of advice if a visitor was to swim or eat shellfish here)

- Never
 Rare
 Occasional
 Frequent
 Usual
 Seasonal

Notes on B2 & B3:

 **C SPLASH ZONE** (The shoreline from mean high water up to land - spring high watermark)

C1 Indicate the approximate width of splash zone. (Tick several widths if area is not uniform)
 0-1m 1-5m 5-50m 50-250m > 250m (estimate with big steps)

C2 What did you find in your splash zone? (Tick up to five boxes)

<input type="checkbox"/> Salt Marsh	<input type="checkbox"/> Sand, Gravel, Stones	<input type="checkbox"/> Building Construction (not erosion control)
<input type="checkbox"/> Reed Bed	<input type="checkbox"/> Natural Rock/boulder	<input type="checkbox"/> Hard erosion control Rock armour, cement
<input type="checkbox"/> Dune	<input type="checkbox"/> Cliff	<input type="checkbox"/> Hard Erosion Control Sea Wall (📷 repair needs)
<input type="checkbox"/> Other (e.g. bog)	<input type="checkbox"/> Soft erosion control (man-made e.g. bank)	


D INTERTIDAL (From low to high water) + see Extra Questions end page

D1 Estimate the average width of the intertidal area at low tide. (If width varies, tick all that apply)
 < 5m 5-50m 50-250m > 250m

D2 What is the intertidal surface composed of: (Tick max. four boxes)

<input type="checkbox"/> Solid rock	<input type="checkbox"/> Sand
<input type="checkbox"/> Boulders (>20cm ø)	<input type="checkbox"/> Silt or mud
<input type="checkbox"/> Gravel (0.2 – 20cm ø)	<input type="checkbox"/> Other (e.g. maerl, peat, walls, infill)

D3 Which of the plants and seaweeds did you find in the intertidal&/or splashzone?
[Check ID poster/notes](#) extra seaweed and seagrass info and project ideas are available on www.coastwatch.org

<input type="checkbox"/> Glasswort (<i>Salicornia</i>)	<input type="checkbox"/> Brown /or red seaweed growing
<input type="checkbox"/> Cord grass (<i>Spartina</i>)	<input type="checkbox"/> Green seaweed: <u>patches or thin band</u>
 <input type="checkbox"/> Sea grass (<i>Zostera</i>) <input type="checkbox"/> growing <input type="checkbox"/> swept up	<input type="checkbox"/> Green seaweed: <u>carpet cover or thick mats</u>
<input type="checkbox"/> Other noteworthy not IAS.....	<input type="checkbox"/> Dislodged decaying seaweeds of any kind

D4 Any invasive alien species of animal, plant, or seaweed water, splashzone & immediate hinterland?
 Yes No Unsure/suspect Name or note?.....
 See Invasive Alien Species **Poster** of some. Photos of *Sargassum muticum* particularly welcome to feed into study.

D5 Indicate which of the animals listed below you found alive or dead – [see ID notes](#)

Animal	Alive	Dead
Jellyfish		
Sea anemone		
Worms + casts		
Molluscs/seashells (empty shells = dead)		
Barnacles		
Crabs		
Sea urchins		
Starfish		
Fish		

Animal	Alive	Count (or estimate)	Dead	Count
Seabirds				
Seabirds with oil				
Seals				
Dolphins or Whales				
Rats				
Others and Notes:				

If you found **large numbers of live/dead animals (incl. live shellfish) washed up** here today or recently, let us know what you saw and when. Use D5 note above. Coastwatch is researching causes of mass stranding of small animals and ways to help them survive.



E LITTER, WASTE AND POLLUTION (at all shore levels)

E1 **Tick** major item(s) found on your survey unit anywhere from start of hinterland to water
Give any extra information in F6, take pictures if possible and note location if this requires follow up work.


<input type="checkbox"/>	Landfill Materials (e.g. concrete, rubble, debris from sea defences, demolition...)
<input type="checkbox"/>	Abandoned Vehicles, Girders, Machines
<input type="checkbox"/>	Household furnishings (e.g. beds, carpets, pieces of furniture etc.)
<input type="checkbox"/>	Dumped household refuse in bags or piles of rubbish
<input type="checkbox"/>	Ship wreck, or parts of ship wreckage
<input type="checkbox"/>	Tyres. Please count if more than 1 →
<input type="checkbox"/>	Aquaculture trestles and other large abandoned aquaculture gear
<input type="checkbox"/>	Other. Please specify

E2 **LITTER Count:** Drinks containers and other items found anywhere on the shore.
If there is too much to count, please estimate. If you didn't have time to count mark NC.

Drinks Containers:	Count	Other Litter	Count
Plastic Bottles		Bottle Lids	
Metal Cans		Wet Wipes	
Glass Bottles		Plastic Shopping Bags	
Cartons/Tetra pack		Other*	

*if you see items which you think should be counted as a category in future.

E3 **Tick** which of the following items of general litter or pollution you found on your unit.

- | | | | | |
|---|---|-------------------------------|--------------------------------------|----------------------------------|
| <input type="checkbox"/> Fishing or aquaculture gear; tick source(s) → | <input type="checkbox"/> Traps | <input type="checkbox"/> Nets | <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Angling |
| <input type="checkbox"/> Rope and String | <input type="checkbox"/> Geotextiles (<i>new question see ID notes</i>) | | | |
| <input type="checkbox"/> Hard Plastic containers like crates, buckets | <input type="checkbox"/> Textiles, shoes, gloves and clothing | | | |
|  <input type="checkbox"/> Foamed Polystyrene items/pieces, note beads in E4. | <input type="checkbox"/> Paper, cardboard and worked wood | | | |
| <input type="checkbox"/> Sanitary waste, condoms, nappies | <input type="checkbox"/> Food, fish waste and bones | | | |
| <input type="checkbox"/> Medical Waste - syringes, plasters ... | <input type="checkbox"/> Faeces - mammal (e.g. dog, cow, human) | | | |
| <input type="checkbox"/> Container(s) of hazardous but not medical substance (e.g. chemical drums empty or full) | <input type="checkbox"/> Glass (not drinks), including light bulbs | | | |
| <input type="checkbox"/> Other plastics (not any of above) | <input type="checkbox"/> Cans (not drinks), including sprays | | | |
| <input type="checkbox"/> Tar, oil, petrol. If found, describe in F6. If action needed, contact & Coastwatch. | <input type="checkbox"/> Other (e.g. balloons, dog poo bag).. | | | |

E4 **Micro litter pilot:** Is there an area where you see **tiny litter** threads, bits, polystyrene beads?

-  Yes No **If yes**, please use the **Coastwatch micro litter app** which puts photo & location on line.
- or describe:



E5 Looking back, **which area was most littered?** If several, tick more than one.

- Splash zone Tide mark Intertidal Sea

Was that litter: accumulating in area(s) or was it spread more or less evenly?



THANK YOU!!! All the nasty litter stuff done. Onward to the last page of the main questionnaire ...



F GENERAL OBSERVATIONS

F1 Has recent weather made the appearance of your coastal unit change?

- Yes, looks cleaner than usual No, recent weather is insignificant
 Yes, looks worse than usual Don't know

If there are other reasons for changed appearance, please note space at F6 below.

F2 Has the shore been cleaned within the last week?

- Yes No Don't know

F3 Is there any planned change of character (positive or negative) which is imminent for this coastal unit? (If 'yes' describe in F6)

- Yes No Don't know

F4 Tick if you have evidence of a serious risk and/or imminent planned change for the worse from any of the threats/activities listed below to your s.u. or adjacent sea/land.

ACTION: In case of threat which requires immediate action, call relevant authority or Coastwatch.

- | | | |
|---|---|---|
| <input type="checkbox"/> Erosion | <input type="checkbox"/> <u>Water pollution by</u> | <input type="checkbox"/> Sewage |
| <input type="checkbox"/> Flooding | <input type="checkbox"/> Recreational abuse | <input type="checkbox"/> Oil |
| <input type="checkbox"/> Mining/quarrying | <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Agricultural or industrial farming |
| <input type="checkbox"/> Construction/sealing | <input type="checkbox"/> Invasive Alien Species (IAS) | <input type="checkbox"/> Industrial pollution |
| <input type="checkbox"/> Dumping, tipping, infill | <input type="checkbox"/> Loss of Biodiversity | <input type="checkbox"/> Other |

F5 Is there something or things you really like or love about this survey unit? Tell us:

F6 Comments or observations:

Thank you so much for all your work! If interested, there is more: Extra Nature & shore use questions PTO A harbour questionnaire and a seaweed pilot useful for biology and geography class are also on our website.

Please submit results (ideally online) as soon as possible and no later than **October 20th**.

Data return, comment and queries? Go to www.coastwatch.org or your regional coordinator, send an email to survey@coastwatch.org or if urgent Karin kdubsky@coastwatch.org 00 353 (0)86 8111 684.



Biodiversity – just a few important members of 3 groups which may be found on your shore:

I. Worms: note if you see worms, their casts, reefs or large patches with lots of:

Worms (other add in bottom box)	Found?	Comment (Amounts/ noteworthy change)
Lug worm (<i>Arenicola</i>) casts (at all shore levels)		
Honeycomb (<i>Sabellaria</i>) reef (Mid-Low shore levels)		
Sand mason (<i>Lanice</i>) bed &/or casts (low shore and shallow sand/shingle pools)		
Other Worm of note?		

II. Sea shells: A small selection to focus on - see new [Coastwatch Seashell poster for ID](#) these and more.

Sea shells and eggs	Alive	Dead (empty shell)	Describe your find. (e.g. large mussel bed, or tiny mussel spat in a few cracks on rocks, Gigas oyster stuck to rocks ...)	Photo or specimen for ID?
Mussel				
Native oyster				
Gigas oyster				
Cockle				
Razor shell				
Limpet				
Slipper limpet				
Dogwhelk				
Shellfish eggs				
Other:				

III. Fish: photos to help identify species of fish and fish egg cases are extra welcome. See guide notes on ways to find them.

Did you see fish? No Yes - If you identified please note:

Count/estimate: What shape? streamline  flatfish  eel-like 

If you know this place, did you see fish here before? No Yes

Did you find any fish egg case(s)?  No Yes if yes please estimate count: collect/photo

Harvesting from the sea

Do you see or know of aquaculture, collecting for home use, or commercial harvesting? (Add if other)

	Aquaculture	Harvesting	Commercial Harvesting	Comment
Seaweed				
Mussel				
Oyster				
Periwinkle				
Crab				
Lobster				
Fish				
Other				

By 2022 we should have our first Marine Spatial Plan (MSP) Does your survey area have important intertidal or submerged features (Nature, archaeology, etc) or traditional use to include (see guide notes)

Marine Litter is a major problem. While on the one hand it is being tackled, on the other we are still in the COVID pandemic and are including the COVID litter questions introduced last year to capture lost or discarded marine litter associated with it.



LITTER ASSOCIATED WITH COVID (health protection)

Please count any of the listed COVID related litter you found in your survey unit. If the litter isn't in your survey unit yet, but found on access points, like beach car parks, please still count, but note location in comments.

Tick/count	Items	Any comment
	Mask	
	Sanitiser	
	Single use gloves	
	Bleach container	

Nb - Ireland is among the few which encourage wearing of reusable masks. <https://www2.hse.ie/conditions/coronavirus/face-masks-disposable-gloves.html>

SINGLE USE PLASTICS (SUP) DIRECTIVE

This relates to the [single use plastics directive](#) and covers plastic items which should no longer be for sale across the EU, as Article 5 of the Directive requires a ban by July 2021. Please join us to collect this baseline data.

Did you see any of these Single-Use Plastic products on your shore between edge of hinterland and water's edge or floating on water? Please tick if yes and **if time allows** add a count or estimate where you found large amounts. We are also planning an exhibition to photos are welcome.

Tick/count	Plastic Item which will no longer be placed on the market by July 2021
	Plastic cotton bud sticks
	Plastic cutlery (forks, knives, spoons, chopsticks);
	Plastic single use plates; including paper plates with plastic film
	Plastic straws, (except medical use)
	Plastic Beverage stirrers;
	Plastic Sticks to be attached to balloons,
	Food containers made of expanded polystyrene, i.e. boxes, with or without a cover, intended for immediate consumption, either on-the-spot or take-away. (those which don't need cooking/heating
	Beverage containers and cups made of expanded polystyrene , including their caps and lids which are normally other plastic. If you found one with lid pl tick
ANY COMMENTS?	

Thank you so much - don't forget to submit answers Data input form 2021 www.coastwatch.org