



COASTWATCH EUROPE SHORE SURVEY 2024

Sep. 15th – Oct. 15th

5 step SUMMARY: more detail in **GUIDE NOTES** on www.coastwatch.org

1. FIND AND BOOK YOUR SURVEY UNIT (there are 2 options):

OPTION 1: DIY - all online

Go to www.coastwatch.org, follow survey [booking instructions](#) or straight to the Coastwatch map - **QR code beside question A1 of the Survey Form** - to choose your 500m survey unit(s). Take a photo or screenshot of the map with highlighted su and its unique code.

OPTION 2: contact Coastwatch

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

2. PLAN YOUR SURVEY

- **TIME:** its best to survey interesting shores at spring low tide (days around full & new moon). Start an hour before low tide. Google: Low tide at (nearby coastal town) and date. Straight forward gravel or sand with dune can be surveyed any low tide and takes ± 30 min. Complex shores with streams and the prospect of special low water finds checked at spring low might take 1.5 hours.
- **WATER TESTS:** if a stream or other inflows discharges into your su, ask Coastwatch for **Nitrate test(s)**. Bring any extra tests yourself.
- **SURVEY MATERIALS:** procure hard copy or print survey form and possibly the ID poster.


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

1. Shore Survey form, 1 per 500m survey unit (su) and two bios
2. Map: as screenshot on phone, or printed or sketched.
3. Guide Notes & species ID posters (on paper or phone)
4. Phone with camera
5. Nitrate test kits if you have fresh water inflows entering & clean yoghurt tub

USEFUL:

A rucksack with waterproof phone bag, clip board, hankies, plaster hair tie, raingear, small water bottle to bring a sample back evidence or to do more tests, a container with lid for any special finds.

4. SURVEY

- Complete the survey form while checking the shore from edge of land to low water. If there are several of you, or school look at detailed guide notes for dividing labour. NB - If the tide is starting to come in, focus on the low shore and biodiversity Pages 3 & 6.
-  Take pictures of key findings and if concerned or immediate action is needed, call Coastwatch coordination or relevant authority.

5. BACK AT BASE or CAFÉ with a nice hot drink in a real cup:

- Input your results online while its fresh in your mind at www.Coastwatch.org if on your PC, or using your mobile phone on the **SPACES** app from Wix (iPhone and Android) and join COASTWATCH using the invite code: **OWQYUO** or use QR code on page 7
- Post (if you cannot input) to: Coastwatch, Civil & Env. Engineering, TCD, Dublin 2, IRL.



HEALTH AND SAFETY

- 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.
- Survey with a friend where possible and share your plans and return.

SHORTCUTS

- Complete most of page 1 before going out.
- Share questions (e.g. counts) between surveyors.
- Do two adjacent survey sites on 1 form by using 2 different colour bios. (1/survey unit) to save paper and time.

Contacts/Queries: Regional coordinators are listed on: www.coastwatch.org
 Coastwatch HQ are in Wexford + Trinity College Dublin: survey@coastwatch.org
 International and/or urgent: Karin Dubsy +353 (0)86 8111 684 & KDubsy@tcd.ie
 Mapping/Data Handling Queries: Kevin Lynch KLynch@riochtgis.ie

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	Waste and Litter (macro to micro), Oil and Tar	4
F	Overall shore looks, shore cleaning, Notes and Threats	5
Extra: Biodiversity & Use	Biodiversity and shore use specific for your country or region	6
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A Background information on the 500 m survey unit & surveyor(s)

A1 Country code County code Block code Unit code

www.coastwatch.org



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 (to learn/ help with green part of A7 click [here](#))

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

 (UNESCO) Biosphere Reserve designated 'Bathing Water' RAMSAR Site designated 'Shellfish Production Area' Natura 2000 site (SPA, cSAC or SAC) Access for vehicles (on shore parking, route to fields) National Park Other use right or designation (seaweed harvest, boat slip) 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 The su is 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"/> Construction site |
| <input type="checkbox"/> Wetland (bog, marsh, lagoon) | <input type="checkbox"/> Transport → <u>tick</u> : <input type="checkbox"/> road <input type="checkbox"/> train <input type="checkbox"/> carpark <input type="checkbox"/> harbour |
| <input type="checkbox"/> Rock or other bare natural sediment | <input type="checkbox"/> Other: (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 >4, choose the most important inflow in terms of biodiversity &/or pollution.



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 R name if available.				
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. Add Cl if a chlorine smell + take sample				
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 1-2 minutes after dip test).				
Transparency: (Yoghurt tub test) 1= very poor to 5= crystal clear.				
Any other tests taken, pl tick and note results in comments				

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) Also see Extra Questions page 6

- 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?**
 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 native plant..... | <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 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. Bird flu suspects report**

Animal	Alive	Dead	Animal	Alive	Count (or estimate)	Dead	Count
Jellyfish			Seabirds				
Sea anemone			Seabirds with oil				
Worms + casts			Seals				
Molluscs/seashells (empty shells = dead)			Dolphins or Whales				
Barnacles			Rats				
Crabs			Others and Notes:				
Sea urchins							
Starfish							
Fish							

If you found dead birds don't touch but please photograph and report. Also use D5 note above to report **large numbers of live/dead animals (incl. live shellfish) washed up** today or recently. Coastwatch is logging and researching causes of mass strandings 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 add a 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 Count 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.

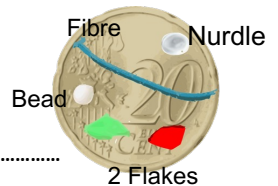
- | | | | | |
|---|---|-------------------------------|--------------------------------------|----------------------------------|
| <input type="checkbox"/> Fishing or aquaculture gear; tick source(s) → | <input type="checkbox"/> Traps | <input type="checkbox"/> Nets | <input type="checkbox"/> Aquaculture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

E4 **Micro litter:** Do you see litter which fits onto a coin as shown?



Yes No

If yes, please collect sample & tick all present: Fibre Nurdle Flake Bead



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 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"/> (over)harvest 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 and willing turn to Extra questions PTO



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				

If a management or restoration plan was to be drafted for this area, would you like to be involved in the drafting? yes - no – or may be and add any comment.



EXTRA INTERNATIONAL MARINE LITTER PAGE

As COVID and associated litter has dwindled and we have optimistically removed the COVID litter section. If you do find COVID litter, especially masks, please note in end comments below.

TRACKING THE SINGLE USE PLASTICS (SUP) DIRECTIVE

The questions below relate to Directive (EU) 2019/904 and especially the Single Use Plastic items which have been banned since July 2021 under Article 5 and Irish legislation to implement the directive. Our SUP questions were introduced in 2020. So this will be our 5th survey tracking banned items in shore litter. The data collected by volunteers so far has improved law enforcement - see SUP workshop [report](#). More is planned and Coastwatch is now partner in an international project trying to bring about top environmental law enforcement. So we would be delighted if you could participate in gathering this information in autumn 2024.



Tick/count	Single Use Plastic banned since 4 th July 2021
	Plastic cotton bud sticks
	Plastic cutlery (forks, knives, spoons, chopsticks)*
	Plastic single use plates, including paper plates with plastic film*
	Plastic straws
	Plastic beverage stirrers
	Plastic sticks to be attached to balloons
	Food containers made of expanded polystyrene (EPS) (boxes, burger scallop shells, intended for immediate consumption, or take-away without reheating) *
	Beverage containers and cups made of expanded polystyrene*
	Plastic Lids for Beverage Containers (coffee cups, milk shakes)* Currently these are only banned if on polystyrene cups, but please record all cup lids .
Any Comment	

Follow-up suggestion for items marked*:
Take these items home, wash them and look for the embossed number between 1 and 7 in a triangle, to tell you what kind of plastic was used -e.g. polystyrene-> See Coastwatch bookmark for ID of the codes and more detail including recyclability in Ireland.



We are planning our second international workshop on the SUP Directive, together with a results highlights launch to which all surveyors will be invited. Your SUP litter information, photos, exhibits and recommendations could be valuable display and discussion material.

Thank you so much for all your work!

Please submit results no later than October 25th 2024 from your PC on our website: www.Coastwatch.org or use your mobile phone (iPhone or Android) and the SPACES app. Scan QR code ->



Any comment, or queries? Contact your regional coordinator, or send an email to survey@coastwatch.org or if urgent Karin KDubsky@coastwatch.org 00 353 (0)86 8111 684.

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