# COASTWATCH EUROPE SHORE SURVEY 2023
## 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 Bird flu

**Useful:** A bag with: camera, clip board, hankies, hair tie, raingear, small water bottle to bring back sample and do more tests (see inflow guide), container like Greek yogurt bucket with lid for special finds.

## 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 – at least 30 min. for a simple straight dune site or promenade, 1 hr or more for a complex shore with streams.

## 4. SURVEY

- Complete the survey form while checking the shore from edge of land to low water. If you can, use apps where relevant.
- 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 downloading the app or post your survey forms. Download the Spaces app from Wix (iOS and Android) and join Coastwatch using the invite code: OWQYUO. If you used our micro litter or other apps and waited to send to avoid using up data, send your results now.

  If you want to post material 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 by using 2 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 Dubsky** 00 353 (0)86 8111 684 and kdubsky@tcd.ie
Mapping/Data Handling Queries: **Kevin Lynch** kevinlynchGIS@gmail.com

### THIS SURVEY FORM IS ORGANISED IN THEMATIC SECTIONS

# 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

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

☐ **(UNESCO) Biosphere Reserve**

☐ **RAMSAR Site**

☐ Natura 2000 site (**SPA, cSAC or SAC**)

☐ **National Park**

☐ Other **Nature designation**………………..

☐ designated 'Bathing Water'

☐ designated 'Shellfish Production Area'

☐ Access for vehicles (on shore parking, route to fields)

☐ Other use right or designation (seaweed harvest, boat slip)

…………………………………………………………………

**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)

| | |
|---|---|
| ☐ **Farmland**: Intensive grazing | ☐ Village or town residential |
| ☐ **Farmland**: Tillage, horticulture | ☐ Tourist resort |
| ☐ **Farmland**: Rough grazing | ☐ Waste tip/dump (official and unofficial) |
| ☐ Park, woodland, forest | ☐ Industry, commercial area, or power station |
| ☐ Dunes | ☐ Construction site |
| ☐ Wetland (bog, marsh, lagoon) | ☐ **Transport→** tick: ☐ road ☐ train ☐carpark ☐harbour |
| ☐ Rock or other bare natural sediment | ☐ **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 **P**ipe, '**S**' for **S**eepage, '**D**' for **D**rain, storm drain or irrigation canal, '**R**' for **Ri**ver, stream. **Add R name** if known. | | | | |
| Inflow Size:  S (**S**mall), M (**M**edium) or L (**L**arge) | | | | |
| ✓    if found | | | | |
| Animal life in/on water (and add **F** if you see **live Fish**) | | | | |
| A bad smell from the inflow. **Add Cl i**f 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 **w**ater or '**B**' on inflow **b**anks (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). | | | | |
| 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:** ……………………………………………………………......................................

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## 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)

| | | |
|---|---|---|
| ☐ Salt Marsh | ☐ Sand, Gravel, Stones | ☐ Building Construction (**not** erosion control) |
| ☐ Reed Bed | ☐ Natural Rock/boulder | ☐ Hard erosion control Rock armour, cement |
| ☐ Dune | ☐ Cliff | ☐ Hard Erosion Control Sea Wall (📷 repair needs) |
| ☐ Other (e.g. bog) ……………………….. | | ☐ 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)

| | |
|---|---|
| ☐ Solid rock | ☐ Sand |
| ☐ Boulders (>20cm ø) | ☐ Silt or mud |
| ☐ Gravel (0.2 – 20cm ø) | ☐ 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

| | |
|---|---|
| ☐ Glasswort (*Salicornia*) | ☐ Brown /or red seaweed growing |
| ☐ Cord grass (*Spartina*) | ☐ Green seaweed: <u>patches or thin band</u> |
| 📷 ☐ Sea grass (*Zostera*) ☐ *growing* ☐ *swept up* | ☐ Green seaweed: <u>carpet cover or thick mats</u> |
| ☐ Other noteworthy native plant………………………… | ☐ 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. Bird flu suspects report**

| 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 dead birds don't touch but please photograph and report. Also **large numbers of live/dead animals (incl. live shellfish) washed up** here today or recently, let us know what you saw and when in D5 note above. Coastwatch is researching causes of mass stranding of small animals and ways to <u>help them survive</u>.*

# 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.

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

**E2**   **LITTER Count:** **D**rinks 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.

| | |
|---|---|
| ☐ | Fishing or aquaculture gear; tick source(s) → ☐ Traps   ☐ Nets  ☐ Aquaculture  ☐ Angling |
| ☐ | Rope and String |
| ☐ | Hard Plastic containers like crates, buckets |
| ☐ | Foamed Polystyrene items/pieces, note beads in E4. |
| ☐ | Sanitary waste, condoms, nappies |
| ☐ | Medical Waste - syringes, plasters … |
| ☐ | Container(s) of hazardous but not medical substance (e.g. chemical drums empty or full) |
| ☐ | Other plastics (not any of above) |
| ☐ | Tar, oil, petrol. If found, describe in **F6**. If action needed, contact & Coastwatch. |

Geotextiles (*new question see ID notes*)
☐ Textiles, shoes, gloves and clothing
☐ Paper, cardboard and worked wood
☐ Food, fish waste and bones
☐ Faeces - mammal (e.g. dog, cow, human)
☐ Glass (**not drinks**), including light bulbs
☐ Cans (**not drinks**), including sprays
☐ Other (e.g. balloons, dog poo bag)..
…………………………………………………

**E4**   **Micro litter:** Do you see **litter** no larger than the beads, filaments on the coin picture?

☐ Yes   ☐ No   **If yes**, please take photo and describe.
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 <u>serious risk</u> and/or <u>imminent planned change for the worse</u> 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.

☐ Erosion                  ☐ **Water pollution by** ──────→ ☐ Sewage

☐ Flooding                 ☐ Recreational abuse    ──→ ☐ Oil

☐ Mining/quarrying         ☐ Aquaculture           ──→ ☐ Agricultural or industrial farming

☐ Construction/sealing     ☐ Invasive Alien Species (IAS) ──→ ☐ Industrial pollution

☐ Dumping, tipping, infill ☐ Loss of Biodiversity  ☐ **Other** …………………………………..

**F5 ♡   Is there something or things <u>you really like or love</u> about this survey unit? Tell us:**

[   ]

**F6    Comments or observations:**

[   ]

**Thank you so much for all your work**! If interested, there is more: <u>Extra Nature & shore use</u> 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 (*Arenicola*) casts (at all shore levels) | | |
| Honeycomb (*Sabellaria)* reef (Mid-Low shore levels) | | |
| Sand mason (*Lanice*) 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 speciment 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 plan** was to be drafted for your sea and shore area to protect and restore it, would you in principle like to be involved in the drafting?  Please say **yes** - **no** – or **may be** and add any **comment.**

Coronavirus **COVID-19**

## LITTER ASSOCIATED WITH COVID (health protection)

Please count any of the listed COVID related litter you found <u>in your survey uni</u>t. 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 - Bleach container litter and single use gloves aren't just associated with COVID, but there was an increased use of these during COVID.

## 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 2 years on 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.

| 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? | |

**NOTE: We are planning an international workshop on the SUP Directive in the first week of December to which all surveyors will be invited. Your SUP litter information, photos, exhibits and recommendations will be particularly valuable.**

Thank you so so much for all your work. Please submit answers through the Data Input Form 2023 on the website: www.coastwatch.org