EMODnet Thematic Lot n° 4 - Chemistry

Visualization products for Beach Litter data

Thomas A., Le Moigne M., Quimbert E., Molina Jack M. E., Vinci M., Cociancich A., Barth A., Holdworth N., Giorgetti A., Galgani F.

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History

Authors	Date	Comments
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I. Introduction

EMODnet Chemistry included marine litter in its last phase. Since the beginning of 2018, data of beach litter, seafloor litter and floating micro litter have been gathered and processed for creating the EMODnet Chemistry Marine Litter Database (MLDB). The litter data have been ingested in the database using specific data formats developed by the project with the base of existing formats and reporting practices. The EMODnet litter formats are described in guidelines available on the EMODnet Chemistry website[1] (Galgani *et al*, 2020; M. Vinci *et al,* 2021).

In addition to data collation, one of the objectives of EMODnet Chemistry is to offer marine litter products that allow the visualization of the data gathered in the EMODnet Chemistry database. The EMODnet Marine Litter Visualization Products have been designed attempting a homogeneous representation of the data, within the limits of compatibility of the data sampling methodologies.

The products described in this guideline refer to beach litter data. The harmonization of all data has been the most challenging task considering the heterogeneity of the data sources, sampling protocols and reference lists used on a European scale. In particular, the EMODnet Marine Litter Database contains data collected using several different protocols and reference lists of litter, as summarized in Table 1.

Table 1: Marine litter protocols used for data collection of beach litter.

PROTOCOLS	OSPAR
	UNEP
	UNEP (modified by MARLIN project)
	TSG-ML
	Italian
REFERENCE LISTS	OSPAR (100m surveys)
	OSPAR (1000m surveys)
	UNEP
	UNEP (modified by MARLIN project)
	Master List
	Italian

The reference documents to the monitoring protocols are the following:
  – OSPAR:
      o Guideline for Monitoring Marine Litter on the Beaches in the OSPAR Maritime Area (Wenneker B. *et al*, 2010);
      o Baseline and power analyses for the assessment of beach litter reductions in the European OSPAR region (Schulz M. *et al*, 2019);
      o CEMP Guidelines for marine monitoring and assessment of beach litter (OSPAR, 2020).
  – UNEP:
      o Guidelines on Survey and Monitoring of Marine Litter (Cheshire A.C. *et al*, 2009);
      o Marine Litter Assessment in the Mediterranean (UNEP/MAP, 2015).

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[1] https://www.emodnet-chemistry.eu/about/documents

— UNEP (modified by MARLIN project):
  o Final Report of Baltic Marine Litter Project MARLIN – Litter Monitoring and awareness raising 2011-2013 (MARLIN, 2013).
— TSG-ML[2]:
  o Guidance on Monitoring of Marine Litter in European Seas (Hanke G. *et al*, 2013);
  o EU Marine Beach Litter Baselines (Hanke G. *et al*, 2019);
  o A European Threshold Value and Assessment Method for Macro Litter on Coastlines (Van Loon W. *et al*, 2020).
— Italian:
  o Monitoring program for the marine strategy of the Italian Ministry of Environment - Programmi di Monitoraggio per la Strategia Marina (U.O. Marine Strategy & Ministero dell'Ambiente e della Tutela del Territorio e del Mare, 2014).

Data from various monitoring (Marine Strategy Framework Directive – MSFD – and non-MSFD protocols), research and cleaning operations have been stored in the database.

This document describes the data management and computation methods used to produce the EMODnet Chemistry beach litter visualization products. The heterogeneities in the data described above induced some normalization depending on the product. **The data used for the EMODnet Marine Litter Products have been homogenized and filtered in order to allow comparisons among countries. Thus, EMODnet Marine Litter products might not be comparable with source data available on other platforms.**

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[2] These products are based on general codes from the Masterlist established in 2013. The latest Masterlist updates made in 2021 (general codes and J-codes) will be considered in the next phase of the project.

II. Data management

The MLDB is loaded with data entries from various data providers and by regular harvesting from the OSPAR database.

OGS has implemented an Application Programming Interface (API) to allow Ifremer to access continuously updated data from the MLDB in Excel format (.xlsx).

Data is divided into 4 separate tabs in the Excel file:

- Beaches: descriptive data of the beaches;
- Surveys: descriptive data of the surveys;
- Animals: data of animals found during the surveys (this part is not used for mapping data);
- Litter: litter data found during the surveys.

This format is not directly usable for data cartography. It has been transformed to facilitate the implementation of queries for the different calculation methods.

Beach and surveys tabs were saved in a csv table format so that they can be integrated via QGIS (DB manager) into an Ifremer PostgreSQL database used for the mapping analysis of beach litter data. The litter tab contains more entries than the others, so it has been integrated into the database using the command prompt.

In this database, the three tables keep the original structure.

From these three data tables, processing requests have been set up to create different products:

- Beaches locations and litter list used;
- Number of surveys and temporal coverage per beach;
- Composition of litter according to material categories in percent per beach;
- Median total number of litter items per 100m and to 1 survey;
- Median number of items per 100m and to 1 survey for specific litter group abundances: cigarette related items, fishing and aquaculture related plastic items, plastic bags.

A Web Map Service (WMS) has been set up to load the data analysis layers and the associated graphic semiology (symbology, labeling, legend, etc.) produced through Mapserver.

Maps can be visualized through OceanBrowser[3] and associated metadata are available through the Sextant Catalogue Service[4]. A Web Feature Service (WFS) has also been set up to allow data to be downloaded.
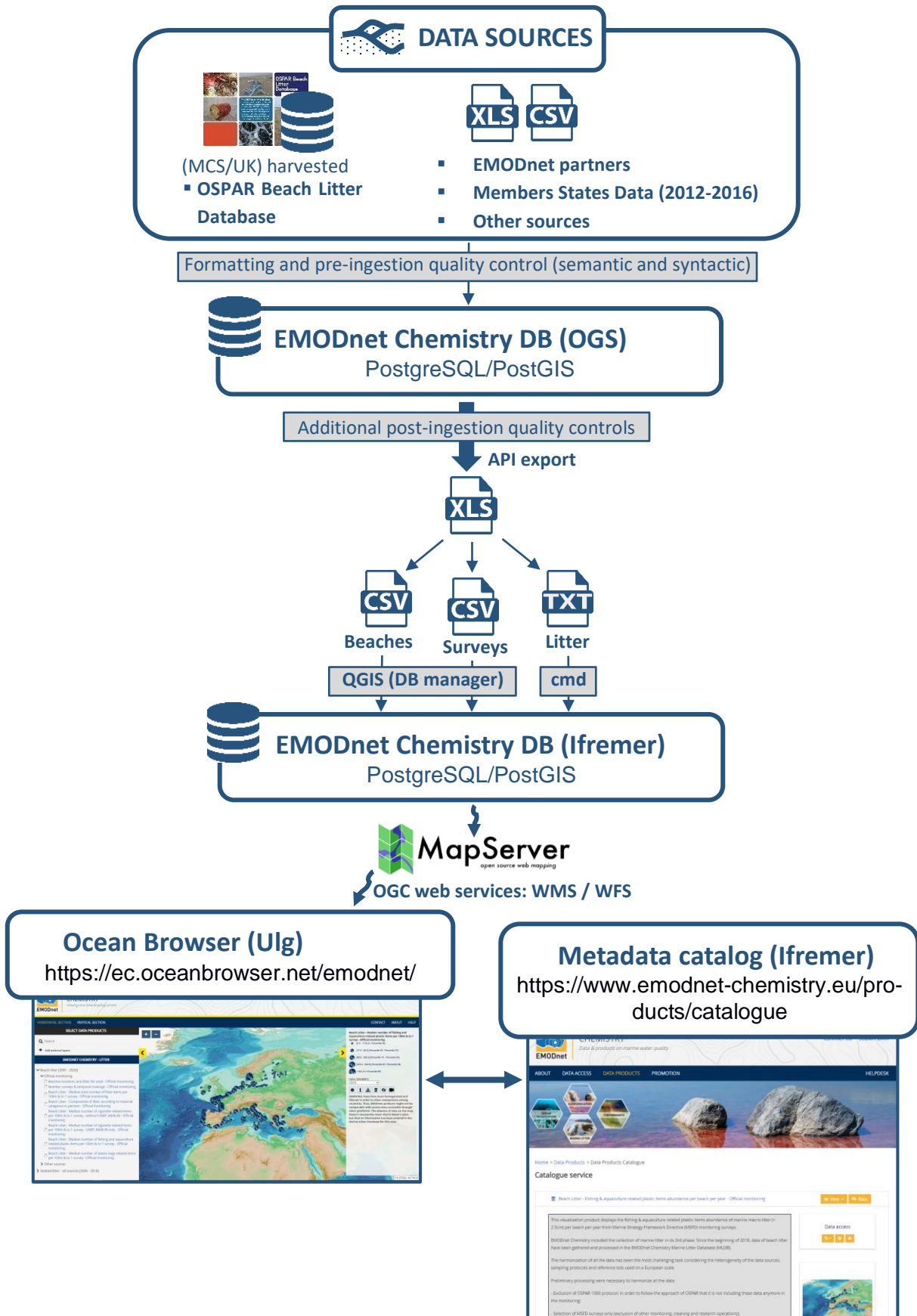
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[3] http://ec.oceanbrowser.net/emodnet/

[4] http://www.emodnet-chemistry.eu/products/catalogue/

Figure 1: Data management scheme.

III. Data description

1. Fields available in data tables

In this section, the fields on each table are described according to the EMODnet litter formats.

a. Beaches

Table 2: Columns in the table beaches.

Field	Description
BeachCode	Code for the beach. In case you don't have a code, it has to be created with the country code and a number code (6 digits)
BeachName	Name of the beach
Country	Identifier for the country that performed the survey from ISO countries reference code list
BeachInfoAmendment	Is this an amendment to an existing beach info questionnaire?
FillingDate	Date when the questionnaire was filled in. Date format ISO 8601 (YYYY-MM-DD)
FillingName	Name of the person who filled the questionnaire
FillingPhone	Phone number of the person who filled the questionnaire
FillingMail	E-mail of the person who filled the questionnaire
FillingInstitute	Institution in charge of filling the questionnaire
UrbanizationDegree	Degree of urbanization of the beach area: − Urban: Densely populated area, 500 inhabitants/km2 and total population at least 50,000 inhabitants; − Periurban: Intermediate area, 100 inhabitants/km2 and at least 50,000 inhabitants or adjacent to a densely populated area; − Rural: Thinly populated area.
ReferenceBeach	Indicate if the beach is considered a sampling unit within any litter survey programme
BeachWidthLow	Beach width in metres at mean low spring tide
BeachWidthHigh	Beach width in metres at mean high spring tide
BeachLength	Total length of the beach in metres
BeachLatitude	Latitude of the beach position (Degree.Decimal Degree of latitude)
BeachLongitude	Longitude of the beach position (Degree.Decimal Degree of latitude)
CoordinateSystem	Coordinate reference system used: if not differently specified WGS84 (EPSG:4326) reference system is assumed. Please specify the "Identifier"
BeachBack	Elements on the back of the beach
BeachBackOther	If the beach back category cannot be selected from the dropdown list ("BeachBack" field) it should be listed here.
BeachBackDevelopment	Is there any development behind the beach?
DevelopmentDescription	Description of the development behind the beach
PositionMeasurementDate	Date when the position of the beach was measured. Date format ISO 8601 (YYYY-MM-DD)
CurrentsDirection	Prevailing currents off the beach
WindsDirection	Prevailing winds

Field	Description
BeachOrientation	In which direction the beach is facing when looking from the beach to the sea?
BeachMaterial	Define beach sediment as in EMODnet Geology five class sediment categorization (Modified from Folk Triangle)
BeachTopography	Short description of the beach topography
Obstacles	Objects in the sea that influence the currents
Usage1	Usage of the beach
Usage1Seasonality	Is the usage seasonal?
Usage2	Usage of the beach
Usage2Seasonality	Is the usage seasonal?
Usage3	Usage of the beach
Usage3Seasonality	Is the usage seasonal?
BeachAccess	Possibilities of access to the beach
BeachCleaningSeasonality	Is the beach cleaning seasonal?
SeasonalityMonths	List the number of the months in which the cleaning is accomplished
CleaningFrequency	Indicate the frequency of beach cleaning
OtherDescription	If frequency is "Other", please describe it
CleaningMethod	Cleaning method used
CleaningResponsible	Responsible for cleaning
Notes	Additional comments and observations about the beach

b. Surveys

Table 3: Columns in the table surveys.

Field	Description
BeachCode	Code for the beach referring Beach metadata sheet. In case you don't have a code, it has to be created with the country code and a number code (6 digits)
SurveyCode	Number code that must be unique within the whole file
SurveyType	Type of survey
DataPolicy	Data access restriction policies[5]
SurveyDate	Date of the survey. Date format ISO 8601 (YYYY-MM-DD)
Originator	EDMO[6] code for data originator organization
Collator	EDMO code for data collator organization
ProjectCode	Project code from EDMERP (European Directory of Marine Environmental Research Projects)[7]
SurveyStartLatitude	Latitude of the survey starting point (Degree.Decimal Degree of latitude)
SurveyStartLongitude	Longitude of the survey starting point (Degree.Decimal Degree of latitude)
SurveyEndLatitude	Latitude of the survey ending point (Degree.Decimal Degree of latitude)
SurveyEndLongitude	Longitude of the survey ending point (Degree.Decimal Degree of latitude)
CoordinateSystem	Coordinate reference system used: if not differently specified WGS84 (EPSG:4326) reference system is assumed. Please specify the "Identifier"

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[5] Library L08 in: https://vocab.seadatanet.org/search

[6] https://edmo.seadatanet.org/

[7] https://edmerp.seadatanet.org/

Field	Description
SurveyLength	Length of the survey in metres
SurveyWidth	Width of the survey in metres
Surveyor1Name	Name of the surveyor 1
Surveyor1Phone	Phone number of the surveyor 1
Surveyor1Mail	E-mail of the surveyor 1
Surveyor2Name	Name of the surveyor 2
Surveyor2Phone	Phone number of the surveyor 2
Surveyor2Mail	E-mail of the surveyor 2
TownName	Name of the nearest town
TownDistance	Distance to the nearest town in kilometres
TownPosition	Position of the town in relation to survey area
TownPopulation	Residential population of the nearest town
WinterTourists	Number of tourists during winter
SpringTourists	Number of tourists during spring
SummerTourists	Number of tourists during summer
AutumnTourists	Number of tourists during autumn
FoodOutlets	Are there food and/or drink outlets on the beach?
FoodOutletsDistance	Distance of the nearest food/drink outlet in kilometres in relation to survey area
FoodOutletsSeasonality	Is the opening seasonal?
SeasonalityMonths	List the number of the months in which the outlets are present
FoodOutletsPosition	Position of the nearest food outlet in relation to survey area
ShippingLaneDistance	Distance from the beach to the nearest shipping lane in kilometres
ShippingLaneTraffic	Estimated traffic of the shipping lane (number of ships/year)
ShippingLaneTypes	Type of ships that navigate along this lane
ShippingLanePosition	Position of the nearest shipping lane in relation to survey area
HarbourName	Name of the nearest harbour
HarbourDistance	Distance from the beach to the nearest harbour in kilometres
HarbourPosition	Position of harbour in relation to survey area
HarbourType	Type of Harbour
HarbourSize	Total number of ships
RiverName	Name of the nearest river
RiverDistance	Distance from the beach to the nearest river mouth in kilometres
RiverPosition	Position of river mouth in relation to survey area
WasteWaterDischarges	Is the beach located near waste water discharges?
WasteWaterDistance	Distance from the beach to the nearest discharge point in kilometres
WasteWaterPosition	Position of the nearest discharge point in relation to survey area
LitterPresence	Was litter collected during this survey?
LastCleaning	When was the last beach cleaning? Date format ISO 8601 (YYYY-MM-DD)
WeatherConditions	Did any weather conditions affect the data of the surveys?
WeatherConditionsOther	If any other weather conditions affected the survey, describe it
AnimalsFound	Did you find stranded or dead animals?

Field	Description
AnimalsNumber	If so, how many?
SurveyCircumstances	Any circumstances influencing the survey (e.g. tracks on the beach…)
SpecialEvents	Events that lead to unusual types and/or amounts of litter on the beach
Notes	Additional comments and observations about the survey

c. Litter

Table 4: Columns in the table litter.

Field	Description
SurveyCode	Number code referring Survey metadata sheet that must be unique in the whole file
LitterReferenceList	Name of the Litter reference list used. It is strongly recommended the use of TSG_ML General code
ItemCode	Litter parameter code of the Litter Reference list used
ItemName	Litter parameter name of the Litter Reference list used
ParameterOriginalName	Litter parameter name as reported by the surveyor (can be also in national original language)
NoItems	Number of items; for "other Pollutants" frequency (estimated number/m); for Pellets Y/N
Notes	Special observations

2. Preliminary processing

a. Survey type (official monitoring or other sources)

Because data quality may vary depending on the purpose of the survey, the different survey types present in the database have been separated. In order to distinguish more easily the MSFD data, beaches surveyed following this protocol have been separated from those collected for other purposes. Therefore, the visualization products are organized under two groups:

- Official monitoring: MSFD monitoring : data from this survey will be considered for MSFD official evaluation and analysis (e.g. Baselines, etc.);
- Other sources: non-MSFD monitoring, cleaning and research operations.

In all the cases, the survey type is indicated among the survey metadata.

b. Data exclusion

- **OSPAR 1000 protocol**

Data collected using "OSPAR 1000" protocol has been removed for all the products, following the approach of OSPAR that it is not including these data anymore in the monitoring.

- **Beaches without coordinates**

Coordinates of the survey (or the beach) are needed to create the maps. Therefore, surveys/beaches without geographic information have been excluded.

For beaches with codes "PT002", "PT003" and "PT006", survey coordinates were only reported for a few years. Therefore, for an identical type of survey, the coordinates of these beaches were copied for the years for which they were not filled in.

To conclude, the following surveys/beaches without any coordinate have been excluded from the products:

- BE002
- DE004

- **Surveys without length**

In some cases, surveys have no length associated, which means that the median abundance cannot be calculated. In these cases, the distance cannot be estimated using coordinates because the beaches are not always linear.

To reduce the amount of excluded data, when the survey length was null but part of the MSFD protocol, the length has been set to 100m assuming the protocol was followed.

Surveys without coordinates and not included in MSFD monitoring have been excluded for abundance maps. To avoid this, some warnings have also been defined when data is integrated into the MLDB.

- **Categories and litter types**

Beach litter products focus on macrolitter because microlitter and pollutants will be available on dedicated maps. For this reason, small fragments (**paraffin and wax**; **items < 2.5 cm**) and pollutants have been excluded for the beach litter products.

Additionally, because of their organic composition inducing relatively rapid biodegradability and as they are not considered as litter, these three material categories have been removed from the products: **Faeces, Food waste and Organic**.

NB: The item "IT59 - Dog excrement in bag" from the ITA reference list has been considered as part of the "Plastic and Polystyrene" litter category for the map products to be consistent with the OSPAR and TSG ML reference lists.

A list of selected items for each product was defined (Annex B – List of selected items) using EU Marine Beach Litter Baselines (Hanke *et al*, 2019) and EU Threshold Value for Macro Litter on Coastlines (Van Loon *et al*, 2020) from JRC.

c. Surveys normalization

- **Temporal normalization**

The number of surveys performed in a year differs between beaches. Therefore, the surveys number of each beach has been normalized **for each solar year to obtain the median abundance for one survey per year**.

- **Length normalization to 100 m**

Depending on countries and protocols applied for performing the beach litter surveys, the survey lengths may be different (e.g. 100 metres in OSPAR, varying in UNEP_MARLIN, etc.). In order to compare the data, normalization has been set up using a **coefficient to get the number of litter per 100 linear metres**. The formula used to normalize the number of litters depending on the distance is:

$$\text{Number of litter per items of each survey (normalized by 100 m)} = \text{Number of litter per items of each survey} * (100 / \text{survey length})$$

- **UNEP Marlin surveys number**

UNEP Marlin protocol (MARLIN, 2013) foresees three different types of length for each survey. In order to be able to ingest data from UNEP Marlin into the MDLB database, each survey has been divided into three different ones according to their length (Figure 2). In the products, a query has been set up to calculate the number of surveys based on each survey date to get the correct number of surveys per year.
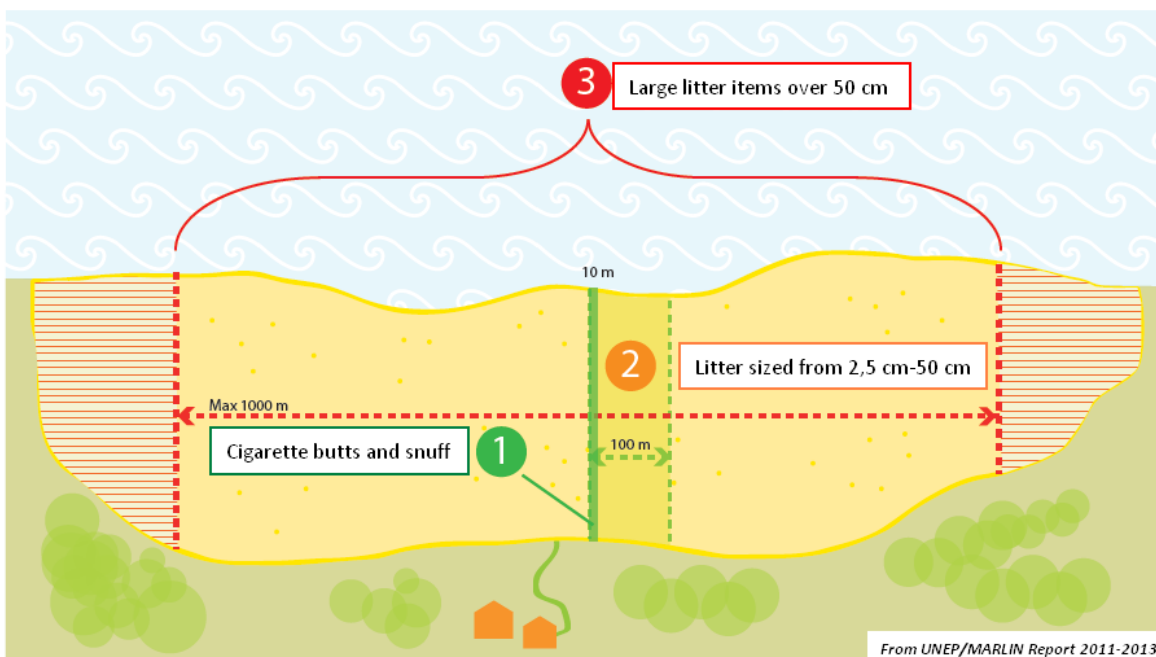
Figure 2: Scheme of survey definition according to the UNEP Marlin protocol.

3. Visualization products and calculations

a. Total abundance per beach per year

For the total abundance and thematic maps (cigarette related items, fishing and aquaculture related items, plastic bag related items), the median abundance has been calculated for each beach and year.

To do this, the normalized number of items calculated in the previous section (III.2.c) is summed to obtain the total normalized number of litter for each survey. Finally, the median abundance for each beach and year is calculated from these normalized abundances per survey using the 50 percentile[8]:

$$\textit{Median total number of litter per items per 100m \& to 1 survey} \quad = \quad P50(\Sigma \textit{ Number of litter per items of each survey (normalized by 100 m))}$$

The symbols size in the map is classified into 5 categories: 50, 75, 95 & 99 percentiles. The 99 percentile shows the extremely high values.

b. Material categories percentage per beach per year

The material categories differ between reference lists. In order to apply a common procedure for all the surveys, the material categories have been harmonized as shown in Table 5.

Table 5: Material categories in each reference list and the one harmonized categories applied to the products.

Harmonised material categories used in the maps	OSPAR Material categories	ITA Material categories	TSG_ML Material categories	UNEP Material categories	UNEP_MARLIN Material categories
Artificial polymer materials	Plastic/ Polystyrene	Plastic and Polystyrene	Artificial polymer materials	Plastic	Plastic
				Foamed Plastic	Foamed Plastic
Cloth/Textile	Cloth	Fabrics	Cloth/Textile	Cloth	Cloth
Glass/Ceramics	Glass	Ceramic glass	Glass/Ceramics	Glass & ceramic	Glass & ceramic
	Pottery/Ceramics				
Medical litter	Medical waste	Medical litter			
Metal	Metal	Metal	Metal	Metal	Metal
Other			Undefined	Other	Other
			Unidentified		
Paper/Cardboard	Paper/Cardboard	Cardboard paper	Paper/Cardboard	Paper cardboard	Paper cardboard
Processed/Worked wood	Wood	Wood	Processed/Worked wood	Wood	Wood
Rubber	Rubber	Rubber	Rubber	Rubber	Rubber
Sanitary litter	Sanitary waste	Sanitary litter			

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[8] The « PERCENTILE_CONT » function in postgresql is used to calculate a percentile based on a continuous distribution. It means that the function interpolates the appropriate value, which may or may not exist in the data set (unlike the « PERCENTILE_DISC » function, which always returns an actual value from the set).

The percentage of the harmonized material categories has been computed on each beach and year, applying normalizations described in the previous sections (III.2.c) and with the following computation:

$$Material\% = \frac{\sum number\ of\ items\ (normalized\ at\ 100\ m)\ of\ each\ material\ category\ per\ beach\ per\ year}{\sum number\ of\ items\ (normalized\ at\ 100\ m)\ of\ all\ categories\ per\ beach\ per\ year} *100$$

These 10 harmonized material categories have been used in the map to show percentage of litter per beach per year in pie charts.

c. Thematic maps

Because of their importance and presence on European legislations, litter types related with smoking activities, fishing and aquaculture activities and plastic bags have been considered for specific products.
Tables 6, 7 and 8 summarize the litter types that have been taken into account for these products.
More details are in Annex B – List of selected items.

- **Smoking related items**

Table 6: Litter types by reference lists aggregated in the smoking related items product.

Reference list	Item code	Smoking related items
OSPAR	16	Cigarette lighters
OSPAR	63	Cigarette packets
OSPAR	64	Cigarette butts
TSG_ML	G25	Tobacco pouches / plastic cigarette box packaging
TSG_ML	G26	Cigarette lighters
TSG_ML	G27	Cigarette butts and filters
TSG_ML	G152	Cigarette packets
UNEP	PC03	Cups, food trays, food wrappers, cigarette packs, drink containers
UNEP	PL10	Cigarette lighters
UNEP	PL11	Cigarettes, butts & filters
UNEP_MARLIN	PC03	Cups, food trays, food wrappers, cigarette packs, drink containers
UNEP_MARLIN	PL10	Cigarette lighters
UNEP_MARLIN	PL11	Cigarettes, butts & filters
ITA	IT31	Packets of cigarettes or parts
ITA	IT32	Cigarette butts and filters

- **Fishing and aquaculture related plastic items**

Table 7: Litter types by reference lists aggregated in the fishing and aquaculture related plastic items product.

Reference list	Item code	Fishing related items
OSPAR	26	Crab/lobster pots
OSPAR	27	Octopus pots
OSPAR	28	Oyster nets or mussel bags including plastic stoppers
OSPAR	29	Oyster trays (round from oyster cultures)
OSPAR	30	Plastic sheeting from mussel culture (Tahitians)
OSPAR	31	Rope (diameter more than 1 cm)
OSPAR	32	String and cord (diameter less than 1 cm)
OSPAR	33	Tangled nets/cord/rope and string

Reference list	Item code	Fishing related items
OSPAR	34	Fish boxes
OSPAR	35	Fishing line (angling)
OSPAR	36	Light sticks (tubes with fl,uid)
OSPAR	37	Floats/Buoys
OSPAR	71	Crab/lobster pots
OSPAR	95	Octopus pots
OSPAR	114	Lobster and fish tags
OSPAR	115	Nets and pieces of net < 50 cm
OSPAR	116	Nets and pieces of net > 50 cm
OSPAR	119	Fish boxes
OSPAR	200	Old rope small
OSPAR	201	Old rope large
TSG_ML	G42	Crab/lobster pots and tops
TSG_ML	G43	Tags (fishing and industry)
TSG_ML	G44	Octopus pots
TSG_ML	G45	Mussels nets, Oyster nets
TSG_ML	G46	Oyster trays (round from oyster cultures)
TSG_ML	G47	Plastic sheeting from mussel culture (Tahitians)
TSG_ML	G48	Synthetic rope
TSG_ML	G49	Rope (diameter more than 1cm)
TSG_ML	G50	String and cord (diameter less than 1cm)
TSG_ML	G51	Fishing net
TSG_ML	G52	Nets and pieces of net
TSG_ML	G53	Nets and pieces of net < 50 cm
TSG_ML	G54	Nets and pieces of net > 50 cm
TSG_ML	G55	Fishing line (entangled)
TSG_ML	G56	Tangled nets/cord
TSG_ML	G57	Fish boxes - plastic
TSG_ML	G58	Fish boxes - expanded polystyrene
TSG_ML	G59	Fishing line/monofilament (angling)
TSG_ML	G60	Light sticks (tubes with fluid) incl. packaging
TSG_ML	G61	Other fishing related
TSG_ML	G62	Floats for fishing nets
TSG_ML	G63	Buoys
TSG_ML	G64	Fenders
TSG_ML	G92	Bait containers/packaging
TSG_ML	G142	Rope, string and nets
TSG_ML	G163	Crab/lobster pots
TSG_ML	G164	Fish boxes
TSG_ML	G207	Octopus pots
UNEP	CL04	Rope & string
UNEP	FP03	Foam buoys
UNEP	FP04	Foam (insulation & packaging)
UNEP	PL14	Plastic buoys
UNEP	PL17	Fishing gear (lures, traps & pots)

Reference list	Item code	Fishing related items
UNEP	PL18	Monofilament line
UNEP	PL19	Rope
UNEP	PL20	Fishing net
UNEP_MARLIN	CL04	Rope & string
UNEP_MARLIN	FP03	Foam buoys
UNEP_MARLIN	FP04	Foam (insulation & packaging)
UNEP_MARLIN	PL14	Plastic buoys
UNEP_MARLIN	PL17	Fishing gear (lures, traps & pots)
UNEP_MARLIN	PL18	Monofilament line
UNEP_MARLIN	PL19	Rope
UNEP_MARLIN	PL20	Fishing net
UNEP_MARLIN	WD02	Fishing traps and pots
ITA	IT15	Boxes and boxes for fish in polystyrene
ITA	IT16	Plastic containers for lures / fishing lines and fishing line in nylon (fishing) / plastic boxes and boxes for fish / nets and network pieces / ropes and tops
ITA	IT17	Baskets for the cultivation of oysters / nets or bags for mussels or oysters (socks) / plastic plates used in aquaculture or fishing / lobster pots
ITA	IT41	Leads / fishing weights / hooks

- **Plastic bags related items**

Table 8: Litter types by reference list aggregated in the plastic bags related items product.

Reference list	Item code	Plastic bag related items
OSPAR	2	Bags (e.g. shopping)
OSPAR	3	Small plastic bags, e.g., freezer bags
OSPAR	112	Plastic bag ends
TSG_ML	G2	Bags
TSG_ML	G3	Shopping Bags incl. pieces
TSG_ML	G4	Small plastic bags, e.g. freezer bags incl. pieces
TSG_ML	G5	Plastic bag collective role; what remains from rip-off plastic bags
UNEP	PL07	Plastic bags (opaque & clear)
UNEP_MARLIN	PL07	Plastic bags (opaque & clear)
ITA	IT1	Envelopes, shoppers, garbage bags / small plastic bags, e.g., freezer bags / central part tear-off roll of plastic bags

- **Median abundance calculation**

The median abundance for each of these thematic maps has been calculated in the same manner as the total abundance map (section III.3.a).

Moreover, as for the total abundance map, the symbols size in the maps is classified into 5 categories: 50, 75, 95 & 99 percentiles.

As shown in the scheme in section III.2.c (Figure 2), a specific protocol is applied for cigarette butts and snuff in UNEP Marlin surveys, as they are surveyed in a 10m square. Because of these differences in the sampling of UNEP Marlin surveys, a separate map has been produced for the "smoking related items" of these surveys.

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Acronyms

API	Application Programming Interface
EMODnet	European Marine Observation and Data Network
EU	European Union
GES	Good environmental status
Ifremer	French Research Institute for Exploitation of the Sea
JRC	Joint Research Centre
MARLIN	Project on Marine Littering the Baltic Sea Area
MLDB	Marine Litter Database
MSFD	Marine Strategy Framework Directive
OGS	National Institute of Oceanography and Applied Geophysics (Italy)
OSPAR	Oslo/Paris convention (for the Protection of the Marine Environment of the North-East Atlantic)
TSG-ML	MSFD GES Technical Subgroup on Marine Litter
Ulg	University of Liège
UNEP	United Nations Environment Program
WFS	Web Feature Service
WMS	Web Map Service

Annex A – Contact

OGS

- **European marine litter databases provider**

Maria Eugenia Molina Jack: mmolinajack@inogs.it

Matteo Vinci: mvinci@inogs.it

Alessandra Giorgetti: agiorgetti@inogs.it

Ifremer

- **Cartographic database administrator and development of cartographic valorization analysis**

Morgan le Moigne: Morgan.Le.Moigne@ifremer.fr
Service Valorisation de l'Information pour la Gestion Intégrée et la Surveillance (VIGIES)

Erwann Quimbert: Erwann.Quimbert@ifremer.fr
Service des Systèmes d'Informations Scientifiques pour la MER (SISMER)

- **Server and cartographic database manager**

Patrick Bossard: Patrick.Bossard@ifremer.fr
Service Ressources Informatiques et Communications (RIC)

- **SEXTANT web mapping services and WMS flow manager**

Sextant team: sextant@ifremer.fr
Service des Systèmes d'Informations Scientifiques pour la MER (SISMER)

LIÈGE université

- **OceanBrowser Web Mapping Services Manager**

Alexander Barth: a.barth@uliege.be
GeoHydrodynamics and Environment Research (GHER), MARE, AGO

Annex B – List of selected items

TA: Total abundance   **FISH-AQUA:** fishing and aquaculture related plastic items   **FISH:** Fishery related litter types
CIG: cigarette related items   **BAG:** plastic bags related items

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
OSPAR	Plastic/Polystyrene	1	4/6-pack yokes	4/6-pack yokes, six-pack rings	x			x			
		2	Bags (e.g. shopping)	Plastic bags and parts/remains	x		x	x		x	
		3	Small plastic bags, e.g., freezer bags	Plastic bags and parts/remains	x		x	x		x	
		4	Drinks (bottles, containers and drums)	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		5	Cleaner (bottles, containers and drums)	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		6	Food containers incl. fast food containers	Food & fast food containers	x			x			
		7	Cosmetics (bottles & containers e.g. sun lotion, shampoo, shower gel, deodorant)	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		8	Engine oil containers and drums <50 cm	Engine oil bottles & containers, Buckets, Jerry cans	x			x			
		9	Engine oil containers and drums > 50 cm	Engine oil bottles & containers, Buckets, Jerry cans	x			x			
		10	Jerry cans (square plastic containers with handle)	Engine oil bottles & containers, Buckets, Jerry cans	x			x			
		11	Injection gun containers	Injection gun containers	x			x			
		12	Other bottles, containers and drums	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		13	Crates	Crates, trays, containers/baskets	x			x			
		14	Car parts	Car parts	x			x			
		15	Caps/lids	Plastic caps, lids and rings	x			x			
		16	Cigarette lighters	Cigarette lighters	x			x			x
		17	Pens	Pens and pen lids	x			x			
		18	Combs/hair brushes	Combs/hairbrushes/sunglasses	x			x			
		19	Crisp/sweet packets and lolly sticks	Crisps packets, sweets wrappers, lolly sticks	x			x			
		20	Toys & party poppers	Toys and party poppers	x			x			
		21	Cups	Cups and cup lids	x			x			
		22	Cutlery/trays/straws	Cutlery, trays, straws, stirrers	x			x			
		23	Fertiliser/animal feed bags	Fertiliser/animal feed bags	x			x			
		24	Mesh vegetable bags	Mesh vegetable bags	x			x			
		25	Gloves (typical washing up gloves)	Gloves (washing up)	x			x			
		26	Crab/lobster pots	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		27	Octopus pots	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		28	Oyster nets or mussel bags including plastic stoppers	Mussel nets, Oyster nets, Oyster trays, Tahitians	x	x		x	x		
		29	Oyster trays (round from oyster cultures)	Mussel nets, Oyster nets, Oyster trays, Tahitians	x	x		x	x		
		30	Plastic sheeting from mussel culture (Tahitians)	Plastic sheeting from mussel culture (Tahitians)	x	x		x	x		
		31	Rope (diameter more than 1 cm)	Rope, string, cord (all diameters)	x	x		x	x		
		32	String and cord (diameter less than 1 cm)	Rope, string, cord (all diameters)	x	x		x	x		
		33	Tangled nets/cord/rope and string	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Refe-rence list	Litter ca-tegory name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
OSPAR	Plastic/Po-lystyrene	34	Fish boxes	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		35	Fishing line (angling)	Nets and pieces of net, Fishing line/nets (tan-gled), monofilament (angling)	x	x		x	x		
		36	Light sticks (tubes with fl,uid)	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		37	Floats/Buoys	Buoys & floats for fishing nets	x	x		x	x		
		38	Buckets	Engine oil bottles & containers, Buckets, Jerry cans	x			x			
		39	Strapping bands	Strapping bands	x			x			
		40	Industrial packaging, plastic sheeting	Sheets, industrial packaging, plastic sheeting	x			x			
		41	Fibre glass	Fibre glass/fragments	x			x			
		42	Hard hats	Hard hats/Helmets	x			x			
		43	Shotgun cartridges	Shotgun cartridges	x			x			
		44	Shoes/sandals	Clothing, shoes and sandals, hats & towels	x			x			
		45	Foam sponge	Foam sponge/packaging/insulation/polyure-thane	x			x			
		46	Plastic/polystyrene pieces 2,5 cm > < 50 cm	Plastic/polystyrene pieces 2.5 cm > < 50cm	x			x			
		47	Plastic/polystyrene pieces > 50 cm	Plastic/polystyrene pieces > 50 cm	x			x			
		48	Other plastic/polystyrene items (please specify in other item box*)	Other plastic/polystyrene items (identifiable)	x			x			
	Rubber	49	Balloons, including plastic valves, ribbons, strings etc.	Balls, balloons, balloon sticks	x			x			
		50	Boots	Rubber boots	x			x			
		52	Tyres and belts	Wheels, tyres and belts	x			x			
		53	Other rubber pieces (please specify in other item box*)	Other rubber pieces	x			x			
	Cloth	54	Clothing	TA	x			x			
		55	Furnishing	Carpet & Furnishing	x			x			
		56	Sacking	Sails & canvas, Sacking (hessian)	x			x			
		57	Shoes (leather)	TA	x			x			
		59	Other textiles (please specify in other item box*)	Other textiles (incl. rags)	x			x			
	Pa-per/Card-board	60	Bags	Paper bags	x			x			
		61	Cardboard	Paper and Cardboard pieces	x			x			
		62	Cartons e.g. tetrapak (other)	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			
		63	Cigarette packets	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			x
	Plastic/Po-lystyrene	64	Cigarette butts	Cigarettes, butts and filters	x			x			x
	Pa-per/Card-board	65	Cups	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			
		66	Newspapers & magazines	Newspapers & magazines	x			x			
		67	Other paper items (please spec-ify in other item box*)	Other paper items	x			x			
	Wood	68	Corks	Corks	x			x			
		69	Pallets	Pallets, Crates and Processed timber	x			x			
		70	Crates	Pallets, Crates and Processed timber	x			x			
		71	Crab/lobster pots	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		72	Ice lolly sticks / chip forks	Ice-cream sticks, chip forks, chopsticks, toothpicks	x			x			

Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
				ITEMS DESCRIPTION / **BASELINES** / **EMODNET MAPS**							
OSPAR	Wood	73	Paint brushes	Paint brushes	x			x			
		74	Other wood < 50 cm (please specify in other item box*)	Other wood (all length)	x			x			
		75	Other wood > 50 cm (please specify in other item box*)	Other wood (all length)	x			x			
	Metal	76	Aerosol/Spray cans	Aerosol/Spray cans industry	x			x			
		77	Bottle caps	Bottle caps, lids & pull tabs	x			x			
		78	Drink cans	Cans (beverage)	x			x			
		79	Electric appliances	Other metal pieces (all lengths)	x			x			
		80	Fishing weights	Fishing related (weights, sinkers, lures, hooks, traps & pots) including remains	x			x			
		81	Foil wrappers	Foil wrappers, aluminium foil	x			x			
		82	Food cans	Cans (food and other) < 4 L	x			x			
		83	Industrial scrap	Other metal pieces (all lengths)	x			x			
		84	Oil drums	Gas bottles, oil drums & buckets (> 4 L), paint tins, barrels	x			x			
		86	Paint tins	Gas bottles, oil drums & buckets (> 4 L), paint tins, barrels	x			x			
		87	Lobster/crab pots and tops	Fishing related (weights, sinkers, lures, hooks, traps & pots) including remains	x			x			
		88	Wire, wire mesh, barbed wire	Wire, wire mesh, barbed wire	x			x			
		89	Other metal pieces < 50 cm (please specify in other item box*)	Other metal pieces (all lengths)	x			x			
		90	Other metal pieces > 50 cm (please specify in other item box*)	Other metal pieces (all lengths)	x			x			
	Glass	91	Bottles	Bottles (glass) incl. pieces	x			x			
		92	Light bulbs/tubes	Light bulbs and fluorescent light tubes	x			x			
		93	Other glass items (please specify in other item box*)	Other glass items	x			x			
	Pottery/Ceramics	94	Construction material e.g. tiles	Construction material (brick, cement, pipes)	x			x			
		95	Octopus pots	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		96	Other ceramic/pottery items (please specify in other item box*)	Glass or ceramic fragments > 2.5 cm	x			x			
	Sanitary waste	97	Condoms	Condoms (incl. packaging)	x			x			
		98	Cotton bud sticks	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		99	Sanitary towels/panty liners/backing strips	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		100	Tampons and tampon applicators	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		101	Toilet fresheners	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		102	Other sanitary items (please specify in other item box*)	Other sanitary items	x			x			
	Medical waste	103	Containers / tubes	Medical/Pharmaceuticals containers/tubes	x			x			
		104	Syringes	Syringes/needles	x			x			
		105	Other medical items (swabs, bandaging etc.)(please specify in other item box*)	Other medical items (swabs, bandaging, adhesive plaster etc.)	x			x			
	Pollutants	108	Wax small								
		109	Wax medium								
		110	Wax large								
		111	Other								

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ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
OSPAR	Plastic/Polystyrene	112	Plastic bag ends	Plastic bags and parts/remains	x		x	x		x	
		113	Gloves (industrial/professional gloves)	Gloves (industrial/professional, rubber)	x			x			
		114	Lobster and fish tags	Tags (fishing and industry)	x	x		x	x		
		115	Nets and pieces of net < 50 cm	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		116	Nets and pieces of net > 50 cm	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		117	Plastic/polystyrene pieces 0 - 2,5 cm								
	Paper/Cardboard	118	Cartons e.g. tetrapak (milk)	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			
	Wood	119	Fish boxes	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
	Metal	120	Disposable BBQ's	Disposable BBQ's	x			x			
	Plastic/Polystyrene	121	Bagged dog faeces	Dog faeces bag	x			x			
	Plastic/Polystyrene	200	Old rope small	Rope, string, cord (all diameters)	x	x		x	x		
		201	Old rope large	Rope, string, cord (all diameters)	x	x		x	x		
		202	Old plastic pieces						x			
		203	Old gloves						x			
	Paper/Cardboard	204	Old cartons	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			
	Metal	205	Old oildrums new	Gas bottles, oil drums & buckets (> 4 L), paint tins, barrels	x			x			
		206	Old oildrums old	Gas bottles, oil drums & buckets (> 4 L), paint tins, barrels	x			x			
	Faeces	207	Old human faeces								
		208	Old animal faeces								
	Cloth	210	Old cloth rope	Other textiles (incl. rags)	x			x			
	Plastic/Polystyrene	998	Pellets								
UNEP	Cloth	CL01	Clothing, shoes, hats & towels	Clothing, shoes and sandals, hats & towels	x			x			
		CL02	Backpacks & bags	Backpacks & bags	x			x			
		CL03	Canvas, sailcloth & sacking (hessian)	Sails & canvas, Sacking (hessian)	x			x			
		CL04	Rope & string	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		CL05	Carpet & furnishing	Carpet & Furnishing	x			x			
		CL06	Other cloth (including rags)	Other textiles (incl. rags)	x			x			
	Foamed Plastic	FP01	Foam sponge	Foam sponge/packaging/insulation/polyurethane	x			x			
		FP02	Cups & food packs	Cups and cup lids	x			x			
		FP03	Foam buoys	Buoys & floats for fishing nets	x	x		x	x		
		FP04	Foam (insulation & packaging)	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		FP05	Other (specify)						x			
	Glass & ceramic	GC01	Construction material (brick, cement, pipes)	Construction material (brick, cement, pipes)	x			x			
		GC02	Bottles & jars	Bottles (glass) incl. pieces	x			x			
		GC03	Tableware (plates & cups)	Tableware (plates, cups & cutlery)	x			x			
		GC04	Light globes/bulbs	Light bulbs and fluorescent light tubes	x			x			
		GC07	Glass or ceramic fragments	Glass or ceramic fragments > 2.5 cm	x			x			
		GC08	Other (specify)	Other glass items	x			x			

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Refe-rence list	Litter ca-tegory name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
	Metal	ME01	Tableware (plates, cups & cu-tlery)	Tableware (plates, cups & cutlery)	x			x			
		ME02	Bottle caps, lids & pull tabs	Bottle caps, lids & pull tabs	x			x			
		ME03	Aluminium drink cans	Cans (beverage)	x			x			
		ME04	Other cans (< 4 L)	Cans (food and other) < 4 L	x			x			
		ME06	Foil wrappers	Foil wrappers, aluminium foil	x			x			
		ME07	Fishing related (sinkers, lures, hooks, traps & pots)	Fishing related (weights, sinkers, lures, hooks, traps & pots) including remains	x			x			
		ME08	Fragments					x			
		ME09	Wire, wire mesh & barbed wire	Wire, wire mesh, barbed wire	x			x			
		ME10	Other (specify), including ap-pliances					x			
	Other	OT01	Paraffin or wax								
		OT02	Sanitary (nappies, cotton buds, tampon applicators, tooth-brushes)	Sanitary (nappies, cotton buds, tampon appli-cators, toothbrushes)	x			x			
		OT04	Batteries (torch type)	Household batteries	x			x			
		OT05	Other (specify)	Other medical items (swabs, bandaging, ad-hesive plaster etc.)	x			x			
	Paper cardboard	PC01	Paper (including newspapers & magazines)	Newspapers & magazines	x			x			
		PC02	Cardboard boxes & fragments	Paper and Cardboard pieces	x			x			
		PC03	Cups, food trays, food wrappers, cigarette packs, drink containers	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			x
		PC04	Tubes for fireworks	Tubes for fireworks	x			x			
		PC05	Other (specify)	Other paper items	x			x			
	Plastic	PL01	Bottle caps & lids	Plastic caps, lids and rings	x			x			
		PL02	Bottles < 2 L	Drink/cleaner/cosmetics/food bottles & con-tainers	x			x			
		PL03	Bottles, drums, jerrycans & buckets > 2 L	Engine oil bottles & containers, Buckets, Jerry cans	x			x			
		PL04	Knives, forks, spoons, straws, stirrers, (cutlery)	Cutlery, trays, straws, stirrers	x			x			
		PL05	Drink package rings, six-pack rings, ring carriers	4/6-pack yokes, six-pack rings	x			x			
		PL06	Food containers (fast food, cups, lunch boxes & similar)	Food & fast food containers	x			x			
		PL07	Plastic bags (opaque & clear)	Plastic bags and parts/remains	x		x	x		x	
		PL08	Toys & party poppers	Toys and party poppers	x			x			
		PL09	Gloves	Gloves (washing up)	x			x			
		PL10	Cigarette lighters	Cigarette lighters	x			x			x
		PL11	Cigarettes, butts & filters	Cigarettes, butts and filters	x			x			x
		PL12	Syringes	Syringes/needles	x			x			
		PL13	Baskets, crates & trays	Crates, trays, containers/baskets	x			x			
		PL14	Plastic buoys	Buoys & floats for fishing nets	x	x		x	x		
		PL15	Mesh bags (vegetable, oyster nets & mussel bags)	Mesh vegetable bags	x			x			
		PL16	Sheeting (tarpaulin or other wo-ven plastic bags, palette wrap)	Sheets, industrial packaging, plastic sheeting	x			x			
		PL17	Fishing gear (lures, traps & pots)	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		PL18	Monofilament line	Nets and pieces of net, Fishing line/nets (tan-gled), monofilament (angling)	x	x		x	x		
		PL19	Rope	Rope, string, cord (all diameters)	x	x		x	x		

Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
				ITEMS DESCRIPTION / **BASELINES** / **EMODNET MAPS**							
UNEP	Plastic	PL20	Fishing net	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		PL21	Strapping	Strapping bands	x			x			
		PL22	Fibreglass fragments	Fibre glass/fragments	x			x			
		PL24	Other (specify)	Other plastic/polystyrene items (identifiable)	x			x			
	Rubber	RB01	Balloons, balls & toys	Balls, balloons, balloon sticks	x			x			
		RB02	Footwear (flip-flops)	Flip-flops	x			x			
		RB03	Gloves	Gloves (industrial/professional, rubber)	x			x			
		RB04	Tyres	Wheels, tyres and belts	x			x			
		RB05	Inner-tubes and rubber sheet	Inner-tubes and rubber sheet	x			x			
		RB06	Rubber bands	Rubber bands (small, for kitchen/household/post use)	x			x			
		RB07	Condoms	Condoms (incl. packaging)	x			x			
		RB08	Other (specify)	Other rubber pieces	x			x			
	Wood	WD01	Corks	Corks	x			x			
		WD03	Ice-cream sticks, chip forks, chopsticks & toothpicks	Ice-cream sticks, chip forks, chopsticks, toothpicks	x			x			
		WD04	Processed timber and pallet crates	Pallets, Crates and Processed timber	x			x			
		WD05	Matches & fireworks	Matches & fireworks	x			x			
		WD06	Other (specify)	Other wood (all length)	x			x			
UNEP_MARLIN	Cloth	CL01	Clothing, shoes, hats & towels	Clothing, shoes and sandals, hats & towels	x			x			
		CL02	Backpacks & bags	Backpacks & bags	x			x			
		CL03	Canvas, sailcloth & sacking (hessian)	Sails & canvas, Sacking (hessian)	x			x			
		CL04	Rope & string	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		CL05	Carpet & furnishing	Carpet & Furnishing	x			x			
		CL06	Other cloth (including rags)	Other textiles (incl. rags)	x			x			
	Foamed Plastic	FP01	Foam sponge	Foam sponge/packaging/insulation/polyurethane	x			x			
		FP02	Cups & food packs	Cups and cup lids	x			x			
		FP03	Foam buoys	Buoys & floats for fishing nets	x	x		x	x		
		FP04	Foam (insulation & packaging)	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		FP05	Other (specify)					x			
	Glass & ceramic	GC01	Construction material (brick, cement, pipes)	Construction material (brick, cement, pipes)	x			x			
		GC02	Bottles & jars	Bottles (glass) incl. pieces	x			x			
		GC03	Tableware (plates & cups)	Tableware (plates, cups & cutlery)	x			x			
		GC04	Light globes/bulbs	Light bulbs and fluorescent light tubes	x			x			
		GC05	Fluorescent light tubes	Light bulbs and fluorescent light tubes	x			x			
		GC06	Glass buoys	Glass buoys	x			x			
		GC07	Glass or ceramic fragments	Glass or ceramic fragments > 2.5 cm	x			x			
		GC08	Other (specify)	Other glass items	x			x			
	Metal	ME01	Tableware (plates, cups & cutlery)	Tableware (plates, cups & cutlery)	x			x			
		ME02	Bottle caps, lids & pull tabs	Bottle caps, lids & pull tabs	x			x			
		ME03	Aluminium drink cans	Cans (beverage)	x			x			
		ME04	Other cans (< 4 L)	Cans (food and other) < 4 L	x			x			

Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
			ITEMS DESCRIPTION	**BASELINES**				**EMODNET MAPS**			
UNEP_ MARLIN	Metal	ME05	Gas bottles, drums & buckets (> 4 L)	Gas bottles, oil drums & buckets (> 4 L), paint tins, barrels	x			x			
		ME06	Foil wrappers	Foil wrappers, aluminium foil	x			x			
		ME07	Fishing related (sinkers, lures, hooks, traps & pots)	Fishing related (weights, sinkers, lures, hooks, traps & pots) including remains	x			x			
		ME08	Fragments					x			
		ME09	Wire, wire mesh & barbed wire	Wire, wire mesh, barbed wire	x			x			
		ME10	Other (specify), including appliances	Other metal pieces (all lengths)	x			x			
		ME11	Dispensable grill	Disposable BBQ's	x			x			
	Organic	OR01	Snuff, swedish snus								
		OR02	Feces (excrement)								
		OR03	Fruit, food, pastry, candy and ice cream								
		OR04	Other (specify)								
	Other	OT01	Paraffin or wax								
		OT02	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		OT03	Appliances & Electronics	Car parts/batteries	x			x			
		OT04	Batteries (torch type)	Household batteries	x			x			
		OT05	Other (specify)	Other medical items (swabs, bandaging, adhesive plaster etc.)	x			x			
	Paper cardboard	PC01	Paper (including newspapers & magazines)	Newspapers & magazines	x			x			
		PC02	Cardboard boxes & fragments	Paper and Cardboard pieces	x			x			
		PC03	Cups, food trays, food wrappers, cigarette packs, drink containers	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			x
		PC04	Tubes for fireworks	Tubes for fireworks	x			x			
		PC05	Other (specify)	Other paper items	x			x			
	Plastic	PL01	Bottle caps & lids	Plastic caps, lids and rings	x			x			
		PL02	Bottles < 2 L	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		PL03	Bottles, drums, jerrycans & buckets > 2 L	Engine oil bottles & containers, Buckets, Jerry cans	x			x			
		PL04	Knives, forks, spoons, straws, stirrers, (cutlery)	Cutlery, trays, straws, stirrers	x			x			
		PL05	Drink package rings, six-pack rings, ring carriers	4/6-pack yokes, six-pack rings	x			x			
		PL06	Food containers (fast food, cups, lunch boxes & similar)	Food & fast food containers	x			x			
		PL07	Plastic bags (opaque & clear)	Plastic bags and parts/remains	x		x	x		x	
		PL08	Toys & party poppers	Toys and party poppers	x			x			
		PL09	Gloves	Gloves (washing up)	x			x			
		PL10	Cigarette lighters	Cigarette lighters	x			x			x
		PL11	Cigarettes, butts & filters	Cigarettes, butts and filters	x			x			x
		PL12	Syringes	Syringes/needles	x			x			
		PL13	Baskets, crates & trays	Crates, trays, containers/baskets	x			x			
		PL14	Plastic buoys	Buoys & floats for fishing nets	x	x		x	x		
		PL15	Mesh bags (vegetable, oyster nets & mussel bags)	Mesh vegetable bags	x			x			
		PL16	Sheeting (tarpaulin or other woven plastic bags, palette wrap)	Sheets, industrial packaging, plastic sheeting	x			x			
		PL17	Fishing gear (lures, traps & pots)	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
UNEP_MARLIN	Plastic	PL18	Monofilament line	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		PL19	Rope	Rope, string, cord (all diameters)	x	x		x	x		
		PL20	Fishing net	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		PL21	Strapping	Strapping bands	x			x			
		PL22	Fibreglass fragments	Fibre glass/fragments	x			x			
		PL23	Resin pellets								
		PL24	Other (specify)	Other plastic/polystyrene items (identifiable)	x			x			
	Rubber	RB01	Balloons, balls & toys	Balls, balloons, balloon sticks	x			x			
		RB02	Footwear (flip-flops)	Flip-flops	x			x			
		RB03	Gloves	Gloves (industrial/professional, rubber)	x			x			
		RB04	Tyres	Wheels, tyres and belts	x			x			
		RB05	Inner-tubes and rubber sheet	Inner-tubes and rubber sheet	x			x			
		RB06	Rubber bands	Rubber bands (small, for kitchen/household/post use)	x			x			
		RB07	Condoms	Condoms (incl. packaging)	x			x			
		RB08	Other (specify)	Other rubber pieces	x			x			
	Wood	WD01	Corks	Corks	x			x			
		WD02	Fishing traps and pots	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		WD03	Ice-cream sticks, chip forks, chopsticks & toothpicks	Ice-cream sticks, chip forks, chopsticks, toothpicks	x			x			
		WD04	Processed timber and pallet crates	Pallets, Crates and Processed timber	x			x			
		WD05	Matches & fireworks	Matches & fireworks	x			x			
		WD06	Other (specify)	Other wood (all length)	x			x			
ITA	Plastic and Polystyrene	IT1	Envelopes, shoppers, garbage bags / small plastic bags, eg, freezer bags / central part tear-off roll of plastic bags	Envelopes, shoppers, garbage bags / small plastic bags, e.g., freezer bags / central part tear-off roll of plastic bags	x		x	x		x	
		IT2	Bottles and containers of cosmetic products (sunscreens) / bottles and containers of detergents and detergents	Bottles and containers of cosmetic products (sunscreens)/bottles and containers of detergents and detergents	x			x			
		IT3	Bottles and containers of engine oil	Bottles and containers of engine oil	x			x			
		IT4	Parts of cars and motorcycles	Parts of cars and motorcycles	x			x			
		IT5	Lighters	Lighters	x			x			
		IT6	Pens and / or pen lids	Pens and/or pen lids	x			x			
		IT7	Straws and stirrers(bars)/plastic cutlery/plates/plastic cups and crisp lids/bags, plastic sweets/rings of bottle caps/caps and lids/food containers(eg hamburgers)/beverage bottles and containers/packaging for cans of 4/6 rings/lolly sticks	Straws and stirrers (bars) / plastic cutlery / plates / plastic cups and crisp lids / bags, plastic sweets / rings of bottle caps / caps and lids / food containers (e.g. hamburgers) / beverage bottles and containers / packaging for cans of 4/6 rings / lolly sticks	x			x			
		IT8	Gloves (industrial / professional rubber gloves) / household gloves	Gloves (industrial/professional rubber gloves) / household gloves	x			x			
		IT9	Fenders / floats / buoys	Fenders / floats / buoys	x			x			
		IT10	Plastic ties for gardening / nurseries / bands and plastic packaging bands	Plastic ties for gardening / nurseries / bands and plastic packaging bands	x			x			
		IT11	Shoes / sandals / glasses / sunglasses / combs / hair brushes	Shoes / sandals / glasses / sunglasses / combs / hairbrushes	x			x			

Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
ITA	Plastic and Polystyrene	IT12	Synthetic sponge / helmets / hardhat / glass fibers / industrial packaging, plastic sheeting / mesh bags for vegetables (eg potatoes, oranges) / fertilizer bags / animal feed	Synthetic sponge / helmets / hardhat / glass fibres / industrial packaging, plastic sheeting / mesh bags for vegetables (e.g. potatoes, oranges) / fertilizer bags / animal feed	x			x			
		IT13	CD / CD casing / luminous phosphorescent tubes (tubes with liquid) / toys or parts of them	CD / CD casing / luminous phosphorescent tubes (tubes with liquid) / toys or parts of them	x			x			
		IT14	Plastic jars / buckets / crates and baskets / jerrycans (plastic containers with handles)	Plastic jars / buckets / crates and baskets / jerrycans (plastic containers with handles)	x			x			
		IT15	Boxes and boxes for fish in polystyrene	Boxes and boxes for fish in polystyrene	x	x		x	x		
		IT16	Plastic containers for lures / fishing lines and fishing line in nylon (fishing) / plastic boxes and boxes for fish / nets and network pieces / ropes and tops	Plastic containers for lures / fishing lines and fishing line in nylon (fishing) / plastic boxes and boxes for fish / nets and network pieces / ropes and tops	x	x		x	x		
		IT17	Baskets for the cultivation of oysters / nets or bags for mussels or oysters (socks) / plastic plates used in aquaculture or fishing / lobster pots	Baskets for the cultivation of oysters / nets or bags for mussels or oysters (socks) / plastic plates used in aquaculture or fishing / lobster pots	x	x		x	x		
		IT18	Other polystyrene objects	Other polystyrene objects	x			x			
		IT19	Other plastic objects	Other plastic objects	x			x			
	Rubber	IT20	Inflatable balloons, including valves, ribbons, lanyards / balloons	Inflatable balloons, including valves, ribbons, lanyards / balloons	x			x			
		IT21	Rubber boots and overshoes	Rubber boots and overshoes	x			x			
		IT22	Tires / inner tubes	Tires / inner tubes	x			x			
		IT23	Rubber bands (domestic / postal use)	Rubber bands (domestic / postal use)	x			x			
		IT24	Other pieces of rubber	Other pieces of rubber	x			x			
	Fabrics	IT25	Upholstery / carpet / jute bags / canvas bags	Upholstery / carpet / jute bags / canvas bags	x			x			
		IT26	Backpacks and bags / shoes and sandals / clothing (clothing / hats / towel)	Backpacks and bags / shoes and sandals / clothing (clothing / hats / towel)	x			x			
		IT27	Other textile products	Other textile products	x			x			
	Cardboard paper	IT28	Envelopes / paper bags	Envelopes / paper bags	x			x			
		IT29	Cartons / newspapers and magazines / fragments of paper	Cartons / newspapers and magazines / fragments of paper	x			x			
		IT30	Tetrapack containers / paper cups / cups, food trays	Tetrapack containers / paper cups / cups, food trays	x			x			
		IT31	Packets of cigarettes or parts	Packets of cigarettes or parts	x			x			x
		IT32	Cigarette butts and filters					x			x
		IT33	Other paper articles	Other paper articles	x			x			
	Wood	IT34	Corks	Corks	x			x			
		IT35	Boxes	Boxes	x			x			
		IT36	Ice-cream sticks	Ice-cream sticks	x			x			
		IT37	Other worked / processed wood / pallets / manufactured goods	Other worked / processed wood / pallets / manufactured goods	x			x			
	Metal	IT38	Spray cans	Spray cans	x			x			
		IT39	Bottle caps / lids / beverage cans / jars or food cans / Aluminum trays and paper (aluminum foil)	Bottle caps / lids / beverage cans / jars or food cans / Aluminium trays and paper (aluminium foil)	x			x			

Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
ITA	Metal	IT40	Electrical appliances / appliances / car battery / motorcycle / truck / cables	Electrical appliances / appliances / car battery / motorcycle / truck / cables	x			x			
		IT41	Leads / fishing weights / hooks	Leads / fishing weights / hooks	x	x		x	x		
		IT42	Scrap / industrial waste	Scrap / industrial waste	x			x			
		IT43	Drums, cylinders, barrels, drums, oil cans	Drums, cylinders, barrels, drums, oil cans	x			x			
		IT44	Drums, cylinders, barrels, drums, oil cans	Paint bin, cans or tins	x			x			
		IT45	Wire, wire mesh, barbed wire	Wire, wire mesh, barbed wire	x			x			
		IT46	Household batteries	Household batteries	x			x			
		IT47	Other pieces of metal	Other pieces of metal	x			x			
	Ceramic glass	IT48	Bottles / plates and cups / jars	Bottles / plates and cups / jars	x			x			
		IT49	Fluorescent tubes light bulbs	Fluorescent tubes light bulbs	x			x			
		IT50	Construction material (debris, bricks)	Construction material (debris, bricks)	x			x			
		IT51	Other glass / ceramic items	Other glass / ceramic items	x			x			
	Sanitary litter	IT52	Condoms	Condoms	x			x			
		IT53	Cotton bud sticks	Cotton bud sticks	x			x			
		IT54	Sanitary napkins slip / linings / support strips / diapers / tampons and tampon applicators	Sanitary napkins slip / linings / support strips / diapers / tampons and tampon applicators	x			x			
		IT55	Other sanitary items	Other sanitary items	x			x			
	Medical litter	IT56	Medicinal containers / tubes / blisters	Medicinal containers / tubes / blisters	x			x			
		IT57	Syringes / needles	Syringes / needles	x			x			
		IT58	Other medical articles (tampons, bandages, etc.)	Other medical articles (tampons, bandages, etc.)	x			x			
	Faeces[9]	IT59	Dog excrement in bag	Dog excrement in bag	x			x			
TSG_ML	Artificial polymer materials	G1	4/6-pack yokes, six-pack rings	4/6-pack yokes, six-pack rings	x			x			
		G2	Bags	Plastic bags and parts/remains	x		x	x		x	
		G3	Shopping Bags incl. pieces	Plastic bags and parts/remains	x		x	x		x	
		G4	Small plastic bags, e.g. freezer bags incl. pieces	Plastic bags and parts/remains	x		x	x		x	
		G5	Plastic bag collective role - what remains from rip-off plastic bags	Plastic bags and parts/remains	x		x	x		x	
		G6	Bottles	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		G7	Drink bottles <=0.5l	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		G8	Drink bottles >0.5l	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		G9	Cleaner bottles & containers	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		G10	Food containers incl. fast food containers	Food & fast food containers	x			x			
		G11	Beach use related cosmetic bottles and containers, e.g. Sun-blocks	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		G12	Other cosmetics bottles & containers	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		G13	Other bottles & containers (drums)	Drink/cleaner/cosmetics/food bottles & containers	x			x			
		G14	Engine oil bottles & containers <50 cm	Engine oil bottles & containers, Buckets, Jerry cans	x			x			

[9] Item considered to be in the "Plastic and Polystyrene" category for the map products (as in the OSPAR and TSG ML lists).

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
TSG_ML	Artificial polymer materials	G15	Engine oil bottles & containers >50 cm	Engine oil bottles & containers, Buckets, Jerry cans	x			x			
		G16	Jerry cans (square plastic containers with handle)	Engine oil bottles & containers, Buckets, Jerry cans	x			x			
		G17	Injection gun containers	Injection gun containers	x			x			
		G18	Crates and containers / baskets	Crates, trays, containers/baskets	x			x			
		G19	Car parts	Car parts	x			x			
		G20	Plastic caps and lids	Plastic caps, lids and rings	x			x			
		G21	Plastic caps/lids drinks	Plastic caps, lids and rings	x			x			
		G22	Plastic caps/lids chemicals, detergents (non-food)	Plastic caps, lids and rings	x			x			
		G23	Plastic caps/lids unidentified	Plastic caps, lids and rings	x			x			
		G24	Plastic rings from bottle caps/lids	Plastic caps, lids and rings	x			x			
		G25	Tobacco pouches / plastic cigarette box packaging	Tobacco pouches / cigarette box packaging	x			x			x
		G26	Cigarette lighters	Cigarette lighters	x			x			x
		G27	Cigarette butts and filters	Cigarettes, butts and filters	x			x			x
		G28	Pens and pen lids	Pens and pen lids	x			x			
		G29	Combs/hair brushes/sunglasses	Combs/hairbrushes/sunglasses	x			x			
		G30	Crisps packets/sweets wrappers	Crisps packets, sweets wrappers, lolly sticks	x			x			
		G31	Lolly sticks	Crisps packets, sweets wrappers, lolly sticks	x			x			
		G32	Toys and party poppers	Toys and party poppers	x			x			
		G33	Cups and cup lids	Cups and cup lids	x			x			
		G34	Cutlery and trays	Cutlery, trays, straws, stirrers	x			x			
		G35	Straws and stirrers	Cutlery, trays, straws, stirrers	x			x			
		G36	Fertiliser/animal feed bags	Fertiliser/animal feed bags	x			x			
		G37	Mesh vegetable bags	Mesh vegetable bags	x			x			
		G38	Cover / packaging	Sheets, industrial packaging, plastic sheeting	x			x			
		G39	Gloves	Gloves (washing up)	x			x			
		G40	Gloves (washing up)	Gloves (washing up)	x			x			
		G41	Gloves (industrial/professional rubber gloves)	Gloves (industrial/professional, rubber)	x			x			
		G42	Crab/lobster pots and tops	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		G43	Tags (fishing and industry)	Tags (fishing and industry)	x	x		x	x		
		G44	Octopus pots	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		G45	Mussels nets, Oyster nets	Mussel nets, Oyster nets, Oyster trays, Tahitians	x	x		x	x		
		G46	Oyster trays (round from oyster cultures)	Mussel nets, Oyster nets, Oyster trays, Tahitians	x	x		x	x		
		G47	Plastic sheeting from mussel culture (Tahitians)	Plastic sheeting from mussel culture (Tahitians)	x	x		x	x		
		G48	Synthetic rope	Rope, string, cord (all diameters)	x	x		x	x		
		G49	Rope (diameter more than 1cm)	Rope, string, cord (all diameters)	x	x		x	x		
		G50	String and cord (diameter less than 1cm)	Rope, string, cord (all diameters)	x	x		x	x		
		G51	Fishing net	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		G52	Nets and pieces of net	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		G53	Nets and pieces of net < 50 cm	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
TSG_ML	Artificial polymer materials	G54	Nets and pieces of net > 50 cm	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		G55	Fishing line (entangled)	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		G56	Tangled nets/cord	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		G57	Fish boxes - plastic	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		G58	Fish boxes - expanded polystyrene	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		G59	Fishing line/monofilament (angling)	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		G60	Light sticks (tubes with fluid) incl. packaging	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		G61	Other fishing related	Other fishing related	x	x		x	x		
		G62	Floats for fishing nets	Buoys & floats for fishing nets	x	x		x	x		
		G63	Buoys	Buoys & floats for fishing nets	x	x		x	x		
		G64	Fenders	Buoys & floats for fishing nets	x	x		x	x		
		G65	Buckets	Engine oil bottles & containers, Buckets, Jerry cans	x			x			
		G66	Strapping bands	Strapping bands	x			x			
		G67	Sheets, industrial packaging, plastic sheeting	Sheets, industrial packaging, plastic sheeting	x			x			
		G68	Fibre glass/fragments	Fibre glass/fragments	x			x			
		G69	Hard hats/Helmets	Hard hats/Helmets	x			x			
		G70	Shotgun cartridges	Shotgun cartridges	x			x			
		G71	Shoes/sandals	Clothing, shoes and sandals, hats & towels	x			x			
		G72	Traffic cones	Traffic cones	x			x			
		G73	Foam sponge	Foam sponge/packaging/insulation/polyurethane	x			x			
		G74	Foam packaging/insulation/polyurethane	Foam sponge/packaging/insulation/polyurethane	x			x			
		G75	Plastic/polystyrene pieces 0 - 2.5 cm								
		G76	Plastic/polystyrene pieces 2.5 cm > < 50cm	Plastic/polystyrene pieces 2.5 cm > < 50cm	x			x			
		G77	Plastic/polystyrene pieces > 50 cm	Plastic/polystyrene pieces > 50 cm	x			x			
		G78	Plastic pieces 0 - 2.5 cm								
		G79	Plastic pieces 2.5 cm > < 50cm					x			
		G80	Plastic pieces > 50 cm					x			
		G81	Polystyrene pieces 0 - 2.5 cm								
		G82	Polystyrene pieces 2.5 cm > < 50cm					x			
		G83	Polystyrene pieces > 50 cm					x			
		G84	CD, CD-box	CD, CD-box	x			x			
		G85	Salt packaging	Salt packaging	x			x			
		G86	Fin trees (from fins for scuba diving)	Fin trees (from fins for scuba diving)	x			x			
		G87	Masking tape	Masking tape	x			x			
		G88	Telephone (incl. parts)	Telephone (incl. parts)	x			x			
		G89	Plastic construction waste	Plastic construction waste	x			x			
		G90	Plastic flower pots	Plastic flowerpots	x			x			
		G91	Biomass holder from sewage treatment plants	Biomass holder from sewage treatment plants	x			x			

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
TSG_ML	Artificial polymer materials	G92	Bait containers/packaging	Bait containers/packaging	x	x		x	x		
		G93	Cable ties	Cable ties	x			x			
		G94	Table cloth	Tablecloth	x			x			
		G95	Cotton bud sticks	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		G96	Sanitary towels/panty liners/backing strips	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		G97	Toilet fresheners	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		G98	Diapers/nappies	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		G99	Syringes/needles	Syringes/needles	x			x			
		G100	Medical/Pharmaceuticals containers/tubes	Medical/Pharmaceuticals containers/tubes	x			x			
		G101	Dog faeces bag	Dog faeces bag	x			x			
		G102	Flip-flops	Flip-flops	x			x			
		G103	Plastic fragments rounded <5mm	Other plastic/polystyrene items (identifiable)	x						
		G104	Plastic fragments subrounded <5mm								
		G105	Plastic fragments subangular <5mm								
		G106	Plastic fragments angular <5mm								
		G107	cylindrical pellets <5mm								
		G108	disks pellets <5mm								
		G109	flat pellets <5mm								
		G110	ovoid pellets <5mm								
		G111	spheruloids pellets <5mm								
		G112	Industrial pellets								
		G113	Filament <5mm								
		G114	Films <5mm								
		G115	Foamed plastic <5mm								
		G116	Granules <5mm								
		G117	Styrofoam <5mm								
		G118	Small industrial spheres (<5mm)								
		G119	Sheet like user plastic (>1mm)								
		G120	Threadlike user plastic (>1mm)								
		G121	Foamed user plastic (>1mm)								
		G122	Plastic fragments (>1mm)								
		G123	Polyurethane granules <5mm								
		G124	Other plastic/polystyrene items (identifiable)	Other plastic/polystyrene items (identifiable)	x			x			
	Rubber	G125	Balloons and balloon sticks	Balls, balloons, balloon sticks	x			x			
		G126	Balls	Balls, balloons, balloon sticks	x			x			
		G127	Rubber boots	Rubber boots	x			x			
		G128	Tyres and belts	Wheels, tyres and belts	x			x			
		G129	Inner-tubes and rubber sheet	Inner-tubes and rubber sheet	x			x			
		G130	Rubber wheels	Wheels, tyres and belts	x			x			
		G131	Rubber bands (small, for kitchen/household/post use)	Rubber bands (small, for kitchen/household/post use)	x			x			
		G132	Rubber bobbins (fishing)	Bobbins (fishing)	x			x			

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
TSG_ML	Rubber	G133	Condoms (incl. packaging)	Condoms (incl. packaging)	x			x			
		G134	Other rubber pieces	Other rubber pieces	x			x			
	Cloth/Textile	G135	Clothing (clothes, shoes)	Clothing, shoes and sandals, hats & towels	x			x			
		G136	Shoes	Clothing, shoes and sandals, hats & towels	x			x			
		G137	Clothing / rags (clothing, hats, towels)	Clothing, shoes and sandals, hats & towels	x			x			
		G138	Shoes and sandals (e.g. Leather, cloth)	Clothing, shoes and sandals, hats & towels	x			x			
		G139	Backpacks & bags	Backpacks & bags	x			x			
		G140	Sacking (hessian)	Sails & canvas, Sacking (hessian)	x			x			
		G141	Carpet & Furnishing	Carpet & Furnishing	x			x			
		G142	Rope, string and nets	Nets and pieces of net, Fishing line/nets (tangled), monofilament (angling)	x	x		x	x		
		G143	Sails, canvas	Sails & canvas, Sacking (hessian)	x			x			
		G144	Tampons and tampon applicators	Sanitary (nappies, cotton buds, tampon applicators, toothbrushes)	x			x			
		G145	Other textiles (incl. rags)	Other textiles (incl. rags)	x			x			
	Paper/Cardboard	G146	Paper/Cardboard	Paper and Cardboard pieces	x			x			
		G147	Paper bags	Paper bags	x			x			
		G148	Cardboard (boxes & fragments)	Paper and Cardboard pieces	x			x			
		G149	Paper packaging	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			
		G150	Cartons/Tetrapack Milk	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			
		G151	Cartons/Tetrapack (others)	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			
		G152	Cigarette packets	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			x
		G153	Cups, food trays, food wrappers, drink containers	Cups, food trays, food wrappers, cigarette packs, drink containers, Tetrapack	x			x			
		G154	Newspapers & magazines	Newspapers & magazines	x			x			
		G155	Tubes for fireworks	Tubes for fireworks	x			x			
		G156	Paper fragments	Paper and Cardboard pieces	x			x			
		G157	Paper	Paper and Cardboard pieces	x			x			
		G158	Other paper items	Other paper items	x			x			
	Processed/Worked wood	G159	Corks	Corks	x			x			
		G160	Pallets	Pallets, Crates and Processed timber	x			x			
		G161	Processed timber	Pallets, Crates and Processed timber	x			x			
		G162	Crates	Pallets, Crates and Processed timber	x			x			
		G163	Crab/lobster pots	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		G164	Fish boxes	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		G165	Ice-cream sticks, chip forks, chopsticks,toothpicks	Ice-cream sticks, chip forks, chopsticks, toothpicks	x			x			
		G166	Paint brushes	Paint brushes	x			x			
		G167	Matches & fireworks	Matches & fireworks	x			x			
		G168	Wood boards	Wood boards	x			x			
		G169	Beams / Dunnage	Beams/Dunnage	x			x			
		G170	Wood (processed)	Wood (processed)	x			x			
		G171	Other wood < 50 cm	Other wood (all length)	x			x			
		G172	Other wood > 50 cm	Other wood (all length)	x			x			

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
TSG_ML	Processed/Worked wood	G173	Other wood (specify)	Other wood (all length)	x			x			
	Metal	G174	Aerosol/Spray cans industry	Aerosol/Spray cans industry	x			x			
		G175	Cans (beverage)	Cans (beverage)	x			x			
		G176	Cans (food)	Cans (food and other) < 4 L	x			x			
		G177	Foil wrappers, aluminium foil	Foil wrappers, aluminium foil	x			x			
		G178	Bottle caps, lids & pull tabs	Bottle caps, lids & pull tabs	x			x			
		G179	Disposable BBQ's	Disposable BBQ's	x			x			
		G180	Appliances (refrigerators, washers, etc.)	Other metal pieces (all lengths)	x			x			
		G181	Tableware (plates, cups & cutlery)	Tableware (plates, cups & cutlery)	x			x			
		G182	Fishing related (weights, sinkers, lures, hooks)	Fishing related (weights, sinkers, lures, hooks, traps & pots) including remains	x			x			
		G183	Fish hook remains	Fishing related (weights, sinkers, lures, hooks, traps & pots) including remains	x			x			
		G184	Lobster/crab pots	Fishing related (weights, sinkers, lures, hooks, traps & pots) including remains	x			x			
		G185	Middle size containers					x			
		G186	Industrial scrap	Other metal pieces (all lengths)	x			x			
		G187	Drums, e.g. oil	Gas bottles, oil drums & buckets (> 4 L), paint tins, barrels	x			x			
		G188	Other cans (< 4 L)	Cans (food and other) < 4 L	x			x			
		G189	Gas bottles, drums & buckets (> 4 L)	Gas bottles, oil drums & buckets (> 4 L), paint tins, barrels	x			x			
		G190	Paint tins	Gas bottles, oil drums & buckets (> 4 L), paint tins, barrels	x			x			
		G191	Wire, wire mesh, barbed wire	Wire, wire mesh, barbed wire	x			x			
		G192	Barrels	Gas bottles, oil drums & buckets (> 4 L), paint tins, barrels	x			x			
		G193	Car parts / batteries	Car parts/batteries	x			x			
		G194	Cables	Cables	x			x			
		G195	Household Batteries	Household batteries	x			x			
		G196	Large metallic objects	Other metal pieces (all lengths)	x			x			
		G197	Other (metal)	Other metal pieces (all lengths)	x			x			
		G198	Other metal pieces < 50 cm	Other metal pieces (all lengths)	x			x			
		G199	Other metal pieces > 50 cm	Other metal pieces (all lengths)	x			x			
	Glass/Ceramics	G200	Bottles incl. pieces	Bottles (glass) incl. pieces	x			x			
		G201	Jars incl. pieces					x			
		G202	Light bulbs	Light bulbs and fluorescent light tubes	x			x			
		G203	Tableware (plates & cups)	Tableware (plates, cups & cutlery)	x			x			
		G204	Construction material (brick, cement, pipes)	Construction material (brick, cement, pipes)	x			x			
		G205	Fluorescent light tubes	Light bulbs and fluorescent light tubes	x			x			
		G206	Glass buoys	Glass buoys	x			x			
		G207	Octopus pots	Fish boxes (plastic & expanded polystyrene), octopus & crab/lobster pots/tops, light sticks	x	x		x	x		
		G208	Glass or ceramic fragments >2.5cm	Glass or ceramic fragments > 2.5 cm	x			x			
		G209	Large glass objects (specify)	Glass or ceramic fragments > 2.5 cm	x			x			
		G210	Other glass items	Other glass items	x			x			

ITEMS DESCRIPTION				BASELINES				EMODNET MAPS			
Reference list	Litter category name	Item code	Item name	Aggregated name	TA	FISH	BAG	TA	FISH-AQUA	BAG	CIG
TSG_ML	Unidentified	G211	Other medical items (swabs, bandaging, adhesive plaster etc.)	Other medical items (swabs, bandaging, adhesive plaster etc.)	x			x			
		G212	Slack / Coal	Slack/Coal	x						
	Chemicals	G213	Paraffin/Wax Chemicals								
	Chemicals	G214	Oil/Tar Chemicals								
	Food waste	G215	Food waste (galley waste)								
	Undefined	G216	various rubbish (worked wood, metal parts)	other: various rubbish (worked wood, metal parts)	x			x			
	Unidentified	G217	Other (glass, metal, tar) <5mm								