ENVIRONMENTAL REPORT
OF THE OCEAN INITIATIVES 2018

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EDITORIAL

Fuelled by a steadfast desire to protect the oceans and promote prevention by focusing on education, Ocean Initiatives is celebrating its 24th anniversary this year. 24 years of data collection, 24 years of mobilisation, 24 years of people who want to participate, not spectate, together in the field: 24 years of passionate battle.

You may think that this ripe old age means the project is running out of steam but we're pleased to announce that the Ocean Initiatives project has beaten the NGO's long-standing record in terms of scheduled clean-ups and educated people. This year saw 1,420 clean-ups scheduled in over 47 countries worldwide. That means 56,245 people working in the field to fight marine litter.

These figures prove that protecting the ocean is now on the agenda and we can't stop now!

Surfrider has given participants the chance to become actual pollution spotters and drivers for change for the last 5 years through citizen science. Your involvement gives us a better insight into pollution throughout Europe and the specific issues that different countries are facing to fight the spread of marine litter.

The data that's been collected enables us to highlight our message among public decision-makers and companies by showing them how pollution is affecting marine environments and the main «ocean predators». Our warning has been heard as the European Parliament and Council adopted a Directive regarding single-use plastics in early 2019. From 2021, its goal is to reduce single-use plastics at the source and to reduce our consumption of 10 single-use plastic products through several measures ranging from compulsory labelling on certain items to their outright ban.
These 10 types of plastic items were not chosen at random. They are the 10 types of disposable plastic waste most often found on European beaches and this has been made possible by the commitment of thousands of people involved in Ocean Initiatives, their patience and their energy counting litter.

Every minute counts in the fight against marine litter so we'd like to say a big THANK YOU! This is your victory. It's your relentless commitment and iron will that takes the environmental cause another step further every year and encourages this passion for protecting the oceans.

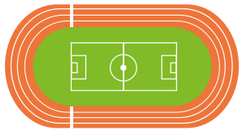
The Ocean Initiatives Team.

#INDEX

2018

OCEAN INITIATIVES IN 2018:

56,245
PARTICIPANTS



CAPACITY OF THE BARCELONA OLYMPIC STADIUM

1,550
KM OF LENGTH

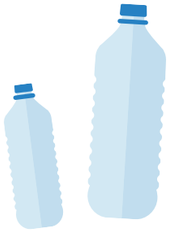
37
MARATHONS

73,375
KM COVERED BY PARTICIPANTS

2 TIMES THE CIRCUMFERENCE OF THE EARTH

1,977 m³
OF WASTE

16
BUSES FILLED WITH LITTER



128,167
PLASTIC BOTTLES

4,747
JUMPERS MADE WITH RECYCLED POLYESTER

#OCEAN INITIATIVES IN 2018:

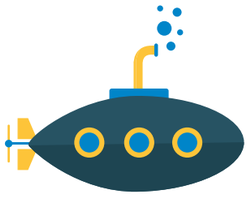
55,099
COTTON-BUDS PUT END-TO-END

14
TIMES THE HEIGHT OF THE TOUREIFFEL

1,279,101
CIGARETTE BUTTS PUT END-TO-END

4
TIMES THE HEIGHT OF MOUNT EVEREST

39,170
STRAWS



49
SUBMARINES END-TO-END

53,490
CANS
(if the cans were soda cans)

379,410
SUGAR CUBES CONSUMED

01
GENERAL REPORT

THREE TYPES OF REPORT FORMS IN 2018

In 2018, we gave the organizers the possibility of filling in several types of reports, after completion of their Ocean Initiatives. They could base their choice on the time taken, their expertise, and their degree of engagement in participatory science.

SIMPLIFIED VERSION

The organizer fills in information about the action, but also information on the plastic bottles for beverage found during their operation. This data is used for Surfrider's "Restet Your Habits" campaign.

INTERMEDIARY VERSION

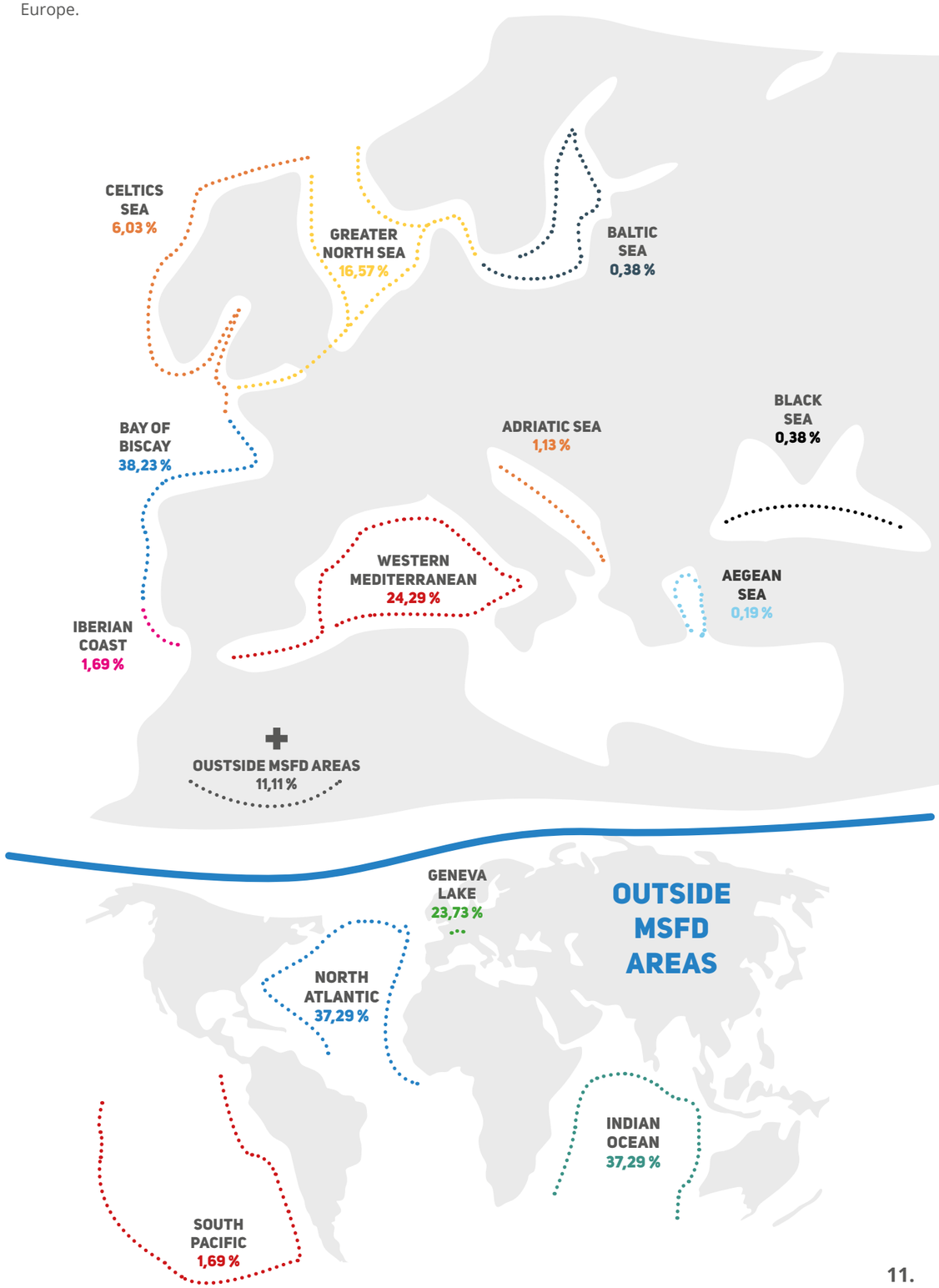
The organizer sends us general information about the action and the site chosen for the collection and quantifies 34 types of litter, broken down by material and use.

MARINE LITTER WATCH APP

Surfrider teamed up with the European Environment Agency to share data from the Ocean Initiatives organized and enter them into a European data base. Thus giving the most engaged and motivated the opportunity to take part in a complete quantification action, in line with the standard European procedure, using the Marine Litter Watch application.

WHERE HAVE COLLECTIONS TAKEN PLACE ?

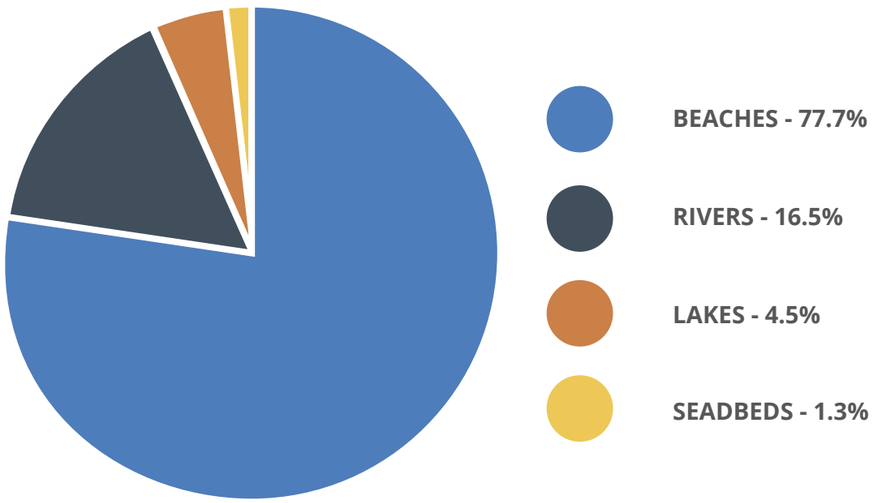
Two groups have been formed to present the areas where Ocean Initiatives have taken place: the large marine spaces in Europe such as those defined by the Marine Strategy Framework Directive (MSFD) and the areas outside Europe.



KEY DATA

The figures with an asterisk are based on a total of 531 report forms completed (339 simplified and 192 intermediary reports).

TYPES OF OPERATION



10,987*
Bags of trash were collected by the participants.

743.731 m³*
Total volume of litter collected.

20,923*
People reached**, 36.5%* of them are schoolchildren.**

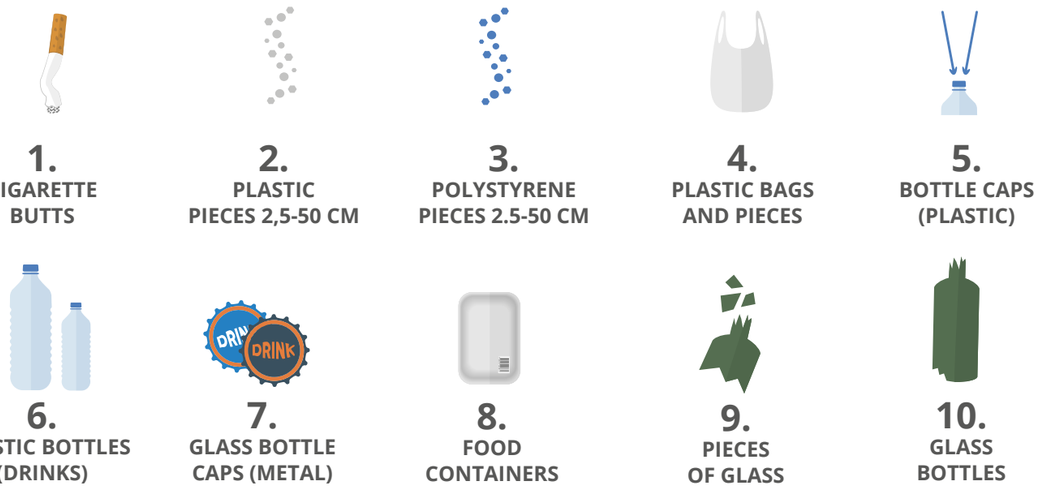
582.76 km*
of coastline length covered by participants.

TOTAL LITTER COLLECTED BY ORGANIZERS WHO HAVE COMPLETED THE QUANTIFICATION PROTOCOL

For several years, we have been asking the participants of the Ocean Initiatives to take part in a citizen science action by filling in a complete report form, to improve knowledge of the state of European and world coastlines with regard to marine litter pollution. In order to do this, we asked them to answer questions on the place where their Ocean Initiatives took place and to quantify **34 types of litter, categorized according to materials and uses**. This simplified quantification is based on the master list of the European harmonized protocol.

191 organizers, accompanied by 7,442 people, got involved in this exercise. The total number of items of litter collected is 370 345 which translates into a volume of 209.375 m³.

TOP 10 ITEMS



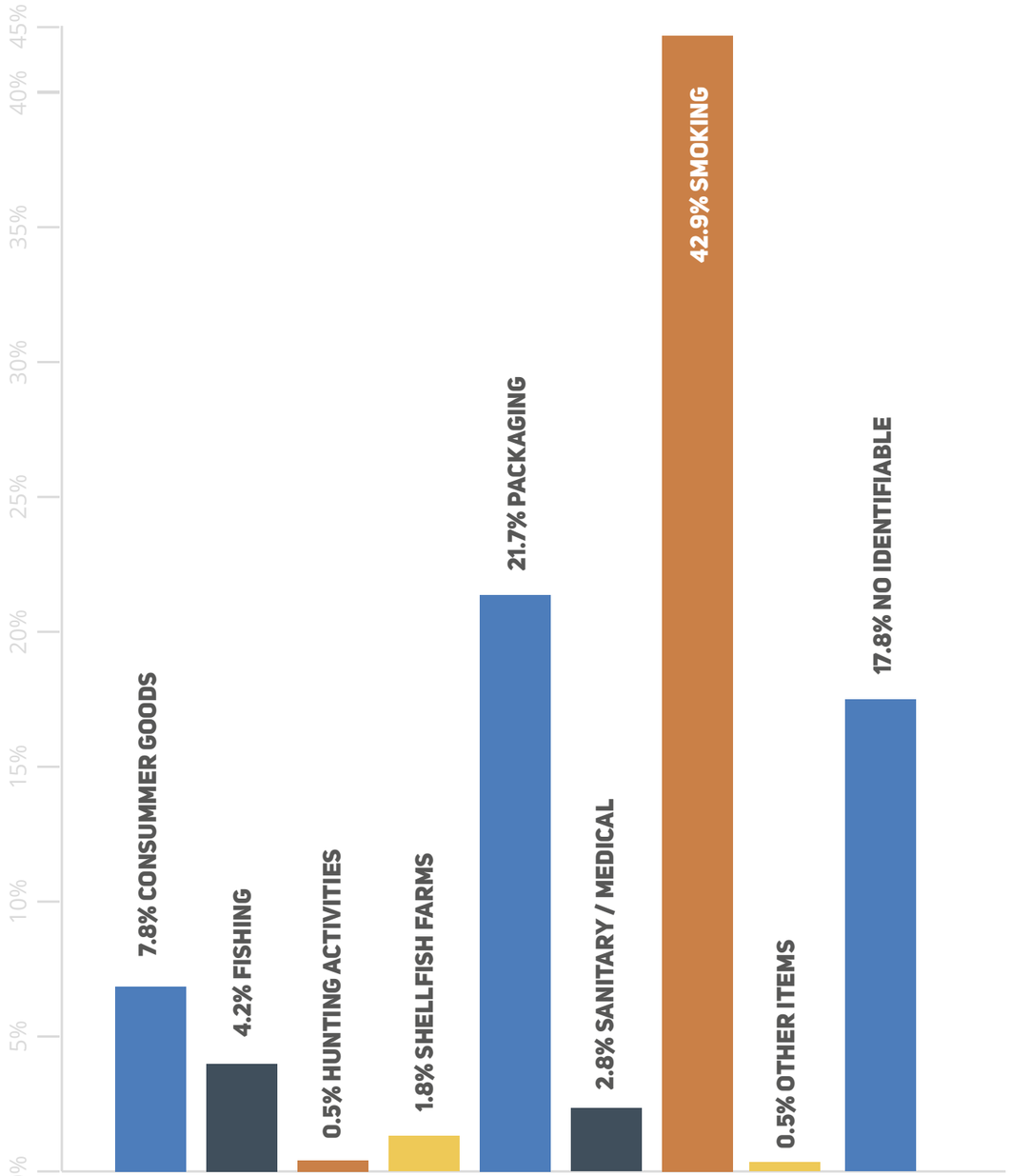
79%

79% of the waste collected were single-use plastic products.
"Single-use plastic items" are products destined to be used only once (such as a plastic bag or a straw).

DISTRIBUTION OF MARINE LITTER BY USE :

We grouped the different types of marine litter by broad usage category. The eight categories are as follows :

- **litter from common consumer goods** (e.g. plastic bags, toys, shoes and clothes),
- **litter from professional and amateur fishing** (e.g. cords and fishing lines),
- **litter from hunting activities** (shotgun cartridges),
- **litter from shellfish farms,**
- **packaging and food packaging litter** (e.g. food packaging, plastic cups and cutlery)
- **sanitary and medical litter** (e.g. medicine packaging, tampons and applicators)**,**
- **litter from smoking habits** (e.g. cigarette packets and cigarette butts),
- **Other litter** (identifiable litter that does not fit into the categories, e.g. car parts or biomedia),
- **non-identifiable litter (plastic and polystyrene pieces).**



TOTAL OF COLLECTED ITEMS

Total number of items collected in 191 collections: 370,345 quantified items.

PLASTIC

159,544 CIGARETTE BUTTS

8,243 BOTTLES ≤ 0,5 L

5,885 BOTTLES > 0,5 L

15,033 BOTTLE CAPS

4,722 OTHER BOTTLES OR CONTAINERS

10,385 FOOD CONTAINERS

16,659 PLASTIC BAGS AND PIECES

6,975 CRISPS PACKETS SWEET WRAPPERS

4,887 LOLLIPOP STICKS

997 MEDICAL WASTE: PACKAGING, CONTAINERS

7,491 SANITARY WASTES: COTTON SWAB

2,053 TAMPON APPLICATORS SANITARY TOWELS

19,701 POLYSTYRENE PIECES 2,5-50 CM

27,181 PLASTIC PIECES 2,5-50 CM

4,411 PLASTIC CUPS

1,920 CUTLERY TRAYS

5,157 STRAWS STIR-STICKS

7,330 FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

1,809 FISHING LINES (ANGLING)

6,497 TANGLED NETS/CORDS

1,759 SHOTGUN CARTRIDGES

403 TYRES WHEELS

787 TOYS AND PARTY POPPERS

1,136 LIGHTERS

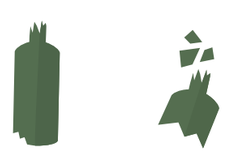
639 BALLOONS INCL. VALVES

1,000 SHOES SANDALS

6,608 SHELLFISH AQUACULTURE

1,327 BIOMEDIAS

GLASS



7,509 GLASS BOTTLES

8,773 PIECES OF GLASS

METAL

7,137 CANS

2,930 METAL PIECES

11,011 METAL CAPS

CLOTH

2,446 CLOTHING OTHER TEXTILES

FOCUS ON MARINE ENVIRONMENT : BEACHES AND SEABED

TOP 10 ITEMS

1.
CIGARETTE BUTTS

2.
PLASTIC PIECES 2,5-50 CM

3.
POLYSTYRENE PIECES 2,5-50 CM

4.
PLASTIC BAGS AND PIECES

5.
BOTTLE CAPS

6.
PLASTIC BOTTLES (DRINKS)

7.
PIECES OF GLASS

8.
FOOD CONTAINERS

9.
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

10.
SANITARY WASTES: COTTON SWAB

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT

Total number of items collected in 156 operations: 265,725 quantified items.

PLASTIC

89,710
CIGARETTE BUTTS

6,518
BOTTLES ≤ 0,5 L

4,703
BOTTLES > 0,5 L

12,828
BOTTLE CAPS

4,147
OTHER BOTTLES OR CONTAINERS

7,659
FOOD CONTAINERS

14,121
PLASTIC BAGS AND PIECES

5,450
CRISPS PACKETS SWEET WRAPPERS

4,394
LOLLIPOP STICKS

796
MEDICAL WASTE: PACKAGING, CONTAINERS

7,124
SANITARY WASTES: COTTON SWAB

1,723
TAMPON APPLICATORS SANITARY TOWELS

18,237
POLYSTYRENE PIECES 2,5-50 CM

25,831
PLASTIC PIECES 2,5-50 CM

2,784
PLASTIC CUPS

1,468
CUTLERY TRAYS

4,047
STRAWS STIR-STICKS

7,289
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

1,740
FISHING LINES, (ANGLING)

6,344
TANGLED NET/CORDS

1,541
SHOTGUN CARTRIDGES

287
TYRES WHEELS

669
TOYS AND PARTY POPPERS

907
LIGHTERS

430
BALLOONS INCL. VALVES

923
SHOES SANDALS

6,508
SHELLFISH AQUACULTURE

1,325
BIOMEDIAS

GLASS

5,881
GLASS BOTTLES

7,807
PIECES OF GLASS

METAL

4,813
CANS

2,569
METAL PIECES

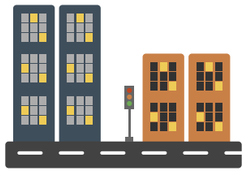
3,296
CAPS

CLOTH

1,856
CLOTHING OTHER TEXTILES

INFORMATION ON THE COLLECTION SITES (MARINE ENVIRONMENT)

We asked organizers to provide us with information about clean-up sites in the marine environment. The sites chosen by organizers may meet several features. The percentages are therefore for reference only.



75%

of beaches where the Ocean Initiatives took place are located near a town.

83%

of beaches where the Ocean Initiatives took place are very frequented or in tourist areas.

43%

of the beaches are near a river or waterway that runs into the sea.

*"**8,000,000***

of tons of plastic waste are dumped in our oceans every year."

FOCUS ON WATERCOURSES: RIVERS AND LAKES

TOP 10 ITEMS

1.
CIAGRETTE BUTTS

2.
CAPS (METAL)

3.
PLASTIC BOTTLES (DRINK)

4.
FOOD CONTAINERS

5.
PLASTIC BAGS AND PIECES

6.
CANS

7.
PLASTIC CAPS

8.
GLASS BOTTLES

9.
PLASTIC CUPS

10.
CRISPS PACKETS SWEET WRAPPERS

TOTAL OF COLLECTED ITEMS IN RIVERS AND LAKES

Total number of items collected in 35 cleanups: 104,620 quantified items.

PLASTIC

69,834
CIGARETTE BUTTS

1,725
BOTTLES ≤ 0,5 L

1,182
BOTTLES > 0,5 L

2,205
BOTTLE CAPS

575
OTHER BOTTLES OR CONTAINERS

2,726
FOOD CONTAINERS

2,538
PLASTIC BAGS AND PIECES

1,525
CRISPS PACKETS SWEET WRAPPERS

493
LOLLIPOP STICKS

201
MEDICAL WASTE: PACKAGING, CONTAINERS

367
SANITARY WASTES: COTTON SWAB

330
TAMPON APPLICATORS SANITARY TOWELS

1,464
POLYSTYRENE PIECES 2,5-50 CM

1,350
PLASTIC PIECES 2,5-50 CM

1,627
PLASTIC CUPS

452
CUTLERY TRAYS

1,110
STRAWS STIR-STICKS

41
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

69
FISHING LINES, (ANGLING)

153
TANGLED NETS/CORDS

218
SHOTGUN CARTRIDGES

116
TYRES WHEELS

118
TOYS AND PARTY POPPERS

229
LIGHTERS

209
BALLOONS INCL. VALVES

77
SHOES SANDALS

100
SHELLFISH AQUACULTURE

2
BIOMEDIAS

GLASS

1,628
GLASS BOTTLES

966
PIECES OF GLASS

METAL

2,324
CANS

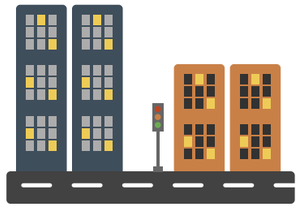
361
METAL PIECES

7,715
CAPS

CLOTH

590
CLOTHING OTHER TEXTILES

SOME FIGURES



100%
of the river and lake banks examined by Ocean initiatives organizers where located near a town or a village upstream.

INFORMATION ON FRESH WATER SITES (ACTIVITIES)

These are the main activities carried out on the area where the Ocean Initiatives took place, according to the organizers. Several types of activities can take place on the same area. The percentages are given for information purposes only.

43%
of sites are located near fishing areas.

20%
of sites are located near hunting areas.

29%
are downstream from agricultural areas.

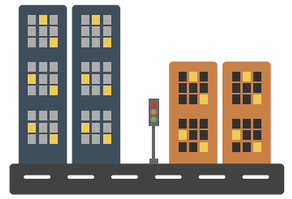
37%
are downstream from industrial areas.

43%
are in areas where water sports take place.

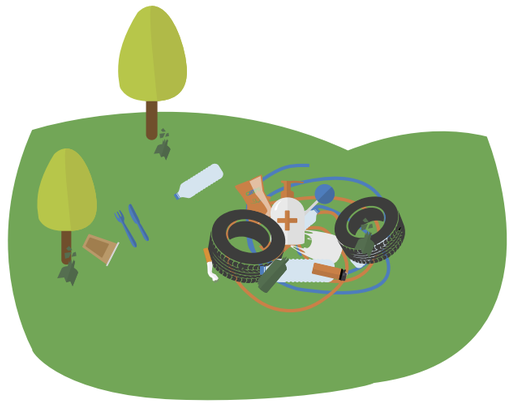
PERCEPTION OF THE ORIGIN OF THE LITTER

We have asked participants to tell us what, according to them, is the origin of the litter found during their clean-ups. Here are their answers :

77%
For 77% of the organizers, the litter found was related to anti-social behavior: leaving litter behind after a picnic, sport activities, fast food near the river banks.



20%
For 20% of the organizers, the litter recovered resulted from poor waste management in towns located upstream. It is thrown out in an urban area and moved by the wind or run-off water and wastewater networks.



Several organizers informed us of an unauthorised dumping site on the river banks or near the site. Some organizers also flagged up the presence of former landfill sites that end up emptying their contents into the waterway.

OTHER ITEMS COLLECTED IN LARGE NUMBERS

42% of the organizers reported to have found large quantities of other item types during their quantification (items not included in the item list).

WET WIPES

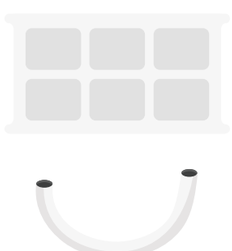
Many people still dispose of these synthetic single-use products in the toilet which damages waste water system. The European "Single use plastic" Directive, adopted in early 2019, has set out several measures ranging from labelling on packaging to establishing extended producer responsibility to restrict pollution by wet wipes.

CIGARETTE PACKETS

In addition to cigarette butts, organizers picked up numerous other types of smoking-related litter such as cigarette packets or plastic wrappers. 51 cigarette packets were collected during a single clean-up on a beach near Genoa (Italy).

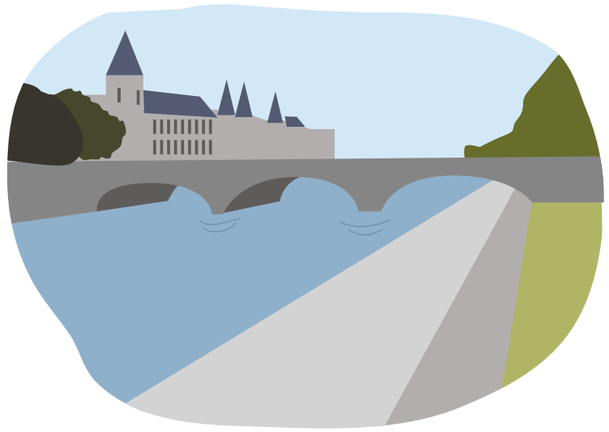
CORKS

Organizers collected countless corks during their operations. Over 164 corks were gathered during two clean-ups in Paris near the banks of the Seine!



CONSTRUCTION WASTE

Breeze blocks, pipes, rubble, sheaths, insulation; just some of the waste items found by our organizers along all maritime coasts and which are often the result of public or private building work.



THE SEINE RIVERBANKS: THE CITIES' BIN

Several organizers stated that the Seine River and its banks were all too often used as a dumping ground. For example, organizers found: 3 computer screens, 2 backpacks, 3 chairs, over 200 underground tickets, 3 car bumpers, 15 plywood boards, 1 bedside table etc. on the Seine riverbanks

AND ALSO...

21

Batteries found on a beach in Marseille (France)

48

Fishing floats collected on a Biscay beach (Spain)

WEIRD FINDS

STREAMS AND OCEANS: THE LARGEST DUMP OF HUMAN ACTIVITY

More than 200 unusual objects were found and listed by participants during Ocean Initiatives in 2018.

2 RELIGIOUS' STATUES

1 GUN AND BULLETS

1 MINITEL

1 BIRD CAGE

1 DENTURE

1 STREET SIGN

4 ASTHMA INHALERS

1 KITCHEN MACHINE

2 PIECES OF RAIL (TRAIN)

FROM THE HOUSE

3 VACUUM CLEANERS

1 OIL STOVE

1 BOILER

2 TOILETS

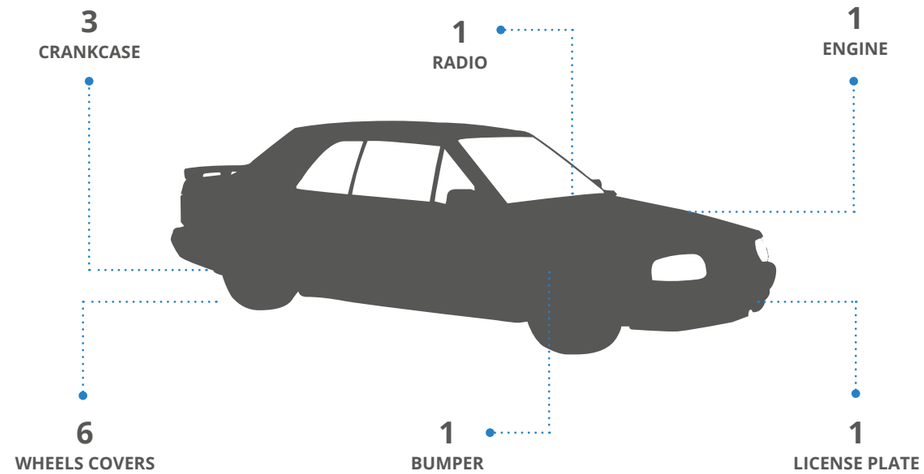
2 MICRO-WAVES

1 WASHING MACHINE

1 SCALE

2 COMPUTERS AND
4 COMPUTERS SCREENS

CAR DEPARTMENT



NOT FORGETTING THE USUAL SUSPECTS

4 MOBILE PHONES

2 FLIPPERS

5 PIECES OF ZODIAC

4 EXTINGUISHERS

2 SCOOTERS

60 ELECTRICAL
WIRING

21 TROLLEYS

4 BICYCLES, 5
WHEELS + 4 SEATS

02

REPORT BY SEAS AREAS

BAY OF BISCAY

FROM PENMARCH IN FRANCE TO ORTEGAL CAPE IN SPAIN.

GENERAL DATA ON THE WHOLE SEA AREA

Extrapolation based on a total of 561 Ocean Initiatives which took place in this sea area.

23,459*
People reached.

6,089*
bags of litter collected by participants.

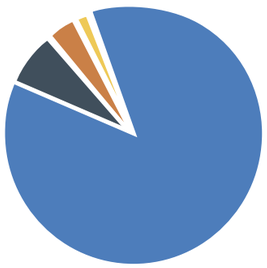
612,653 m*
613 km of coastline length covered by participants.

313.44 m³*
Total volume of litter collected.

DATA FROM QUANTIFICATION

82 quantification operations bringing together 3,389 persons took place in Spain (32 operations) and France (50 operations). **93,946 items were picked up and quantified over a distance of 87,400 meters.**
The total volume of collected litter is 45.5 m³.

TYPES OF COLLECTION



- BEACHES - 86.6%
- RIVERS - 8.5%
- LAKES - 3.7%
- SEABEDS - 1%

TOP 5 OF COLLECTED ITEMS

CIGARETTE BUTTS | PLASTIC PIECES 2,5-50 CM | POLYSTYRENE PIECES 2,5-50 CM | PLASTIC BAGS AND PIECES | BOTTLE CAPS (PLASTIC)

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT AND WATERCOURSES

PLASTIC

17,731 CIGARETTE BUTTS
692 BOTTLES ≤ 0,5 L
1,279 BOTTLES > 0,5 L
6,024 BOTTLE CAPS
1,071 OTHER BOTTLES OR CONTAINERS
2,748 FOOD CONTAINERS
7,131 PLASTIC BAGS AND PIECES

2,250 CRISPS PACKETS SWEET WRAPPERS
1,941 LOLLIPOP STICKS
437 MEDICAL WASTE: PACKAGING, CONTAINERS
5,648 SANITARY WASTES: COTTON SWAB
565 TAMPON APPLICATORS SANITARY TOWELS
8,144 POLYSTYRENE PIECES 2,5-50 CM
10,567 PLASTIC PIECES 2,5-50 CM

918 PLASTIC CUPS
383 CUTLERY TRAYS
1,240 STRAWS STIR-STICKS
5,371 FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)
834 FISHING LINES (ANGLING)
4,285 TANGLED NETS/CORDS
925 SHOTGUNS CARTRIDGES

54 TYRES WHEELS
303 TOYS AND PARTY POPPERS
303 LIGHTERS
325 BALLONS INCL. VALVES
223 SHOES SANDALS
5,448 SHELLFISH AQUACULTURE
1,148 BIOMEDIAS

GLASS

790 GLASS BOTTLES
2,158 PIECES OF GLASS

METAL

810 CANS
656 METAL PIECES
749 CAPS

CLOTH

795 CLOTHING OTHER TEXTILES

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT

768 bags filled with **86,803 items were picked up and quantified throughout 72** operations of citizen science (31 in Spain and 41 in France) carried out on the beaches and seabeds of this area, **over a distance of 62,850 meters. The total volume of collected litter was 38.59 m³.**

PLASTIC

16,317
CIGARETTE BUTTS

547
BOTTLES ≤ 0,5 L

1,040
BOTTLES > 0,5 L

5,760
BOTTLE CAPS

949
OTHER BOTTLES OR CONTAINERS

2,481
FOOD CONTAINERS

6,504
PLASTIC BAGS AND PIECES

1,612
CRISPS PACKETS SWEET WRAPPERS

1,890
LOLLIPOP STICKS

380
MEDICAL WASTE: PACKAGING, CONTAINERS

5,605
SANITARY WASTES: COTTON SWAB

413
TAMPON APPLICATORS SANITARY TOWELS

7,776
POLYSTYRENE PIECES 2,5-50 CM

10,184
PLASTIC PIECES 2,5-50 CM

656
PLASTIC CUPS

337
CUTLERY TRAYS

1,212
STRAWS STIR-STICKS

5,369
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

791
FISHING LINES (ANGLING)

4,175
TANGLED NETS/CORDS

895
SHOTGUN CARTRIDGES

45
TYRES WHEELS

259
TOYS AND PARTY POPPERS

288
LIGHTERS

217
BALLOONS INCL. VALVES

217
SHOES SANDALS

5,366
SHELLFISH AQUACULTURE

1,148
BIOMEDIAS

GLASS

455
GLASS BOTTLES

1,643
PIECES OF GLASS

METAL

500
CANS

565
METAL PIECES

513
CAPS

CLOTH

694
CLOTHING OTHER TEXTILES

FACTS AND FIGURES

11.91%
of waste collected on the beaches came from fishing (ropes, bits of net, lines etc.)

1
car was retrieved during an underwater clean-up in Bermeo (Spain)

X2
The number of cotton buds found on the Bay of Biscay beaches has doubled since 2017.

18.80%
of the litter collected on the Bay of Biscay area was cigarette butts.

1,755
Fragments of Shellfish farming-related waste was gathered over less than 1km on a Loire Atlantique beach (France).

89 KG
Over 89kg of oyster farming equipment was found (not included in the count) in Carnac in the Morbihan area (56, France).

Regarding the beaches where the citizen science activities were undertaken :

12.5%
organizers stated that a festival (village festivity, fireworks display etc.) or meteorological event (spring tide, storm) that occured before their operation may have affected the amount of litter they found.

72%
of beaches are located near a town.

TYPES OF ACTIVITIES

These are the main activities performed at the area where the Ocean Initiative took place, according to the organizers. At these sites, several types of activities can take place on the same grounds. The percentages are given for information purposes only.

68%
of beaches are nautical activity areas (swimming, kite surfing, surfing, sailing, paddle boarding, diving...).

42%
of the sites are fishing areas.

19%
of beaches are located near shellfish aquaculture.

TESTIMONIAL

MARISE GONZALEZ VICENTE, LIMPIANDO Y APRENDIENDO

CARREÑO, ASTURIAS (ESPAGNE), 22 MARCH 2018.

I began to take an interest in the issue of marine litter whilst exploring my region's beaches with a surfer, without a car, on the lookout for the perfect wave. Whilst he surfed, I picked up litter thinking, at that time, it was left by people visiting the beach or sea.

I found out about Surfrider when I saw a spring cleaning operation (which really caught my attention). So I've been organizing one or several projects at my local beaches (Carreño Asturias, Spain) with students from my school or external participants since 2011. I teach 3-6 year olds and I've been working as a teacher in the same town for several years. That means I've had several generations of pupils and all of them can remember our beach clean-ups that we organized during their time at school. Everyone remembers Surfrider.

Surfrider has provided me with constant support, remotely but very closely. The ocean initiatives platform is fantastic. I'm a mature woman with few IT skills but the Ocean Initiatives platform has never posed a problem for me. All the educational materials provided with each of the Initiatives have enabled me to understand more about the problem of marine litter. I think I have learned so much about plastics and microplastics that I'm almost an expert: and that's all thanks to Surfrider. All these educational materials are now part of the school's library and the Ocean Initiatives banners are part of the educational materials in the classrooms.

My students have been using stainless steel flasks for the last two years and we're extremely careful not to produce plastic litter. I launched a playground project which will be a no litter area shared with the seagulls.

I was delighted and touched to hear that our clean-up would appear in a Surfrider report. It's good to know that the litter counts we conduct during each clean-up are useful. I like to say that Ocean Initiatives are here to «get beaches clean and consciences dirty».

The most common types of litter on our beaches are plastics and microplastics that come from both maritime activities and landfill sites. Just remember that beaches were used for landfill until the 80s. Tyres and crates for shellfish farming are the largest types of litter. Then there are cigarette butts and, more recently, dog dirt. I'm convinced that the cigarette butts come from the sewers. The local council leaves the bins on the beach in winter for animal dirt... That's a big mistake as the tides knock the full bins over. When all is said and done, I think it would be better to let the animals do their business in the sand.

I'm currently planning a clean-up for September 1st 2019 where we'll have a team of divers to collect underwater litter. We'll see what happens! There are some fishermen and several people who are very interested in taking part already.

TOTAL OF COLLECTED ITEMS IN RIVERS AND LAKES

115 bags filled with **7,143 items were collected and quantified during 10** operations of citizen science (1 in Spain and 9 in France) performed on the banks of rivers and lakes banks, **over a distance of 24,550 meters. The total volume of collected litter is 6.91m³.**

PLASTIC

1,414 CIGARETTE BUTTS

145 BOTTLES ≤ 0,5 L

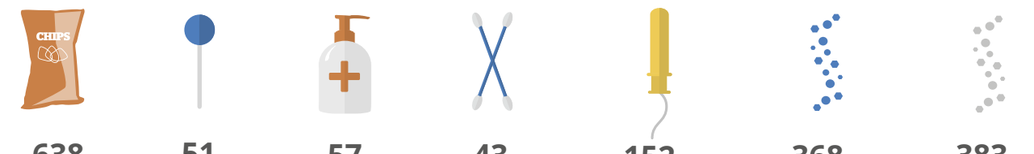
239 BOTTLES > 0,5 L

264 BOTTLE CAPS

122 OTHER BOTTLES OR CONTAINERS

267 FOOD CONTAINERS

627 PLASTIC BAGS AND PIECES



638 CRISPS PACKETS SWEET WRAPPERS

51 LOLLIPOP STICKS

57 MEDICAL WASTE: PACKAGING, CONTAINERS

43 SANITARY WASTES: COTTON SWAB

152 TAMPON APPLICATORS SANITARY TOWELS

368 POLYSTYRENE PIECES 2,5-50 CM

383 PLASTIC PIECES 2,5-50 CM

262 PLASTIC CUPS

46 CUTLERY TRAYS

28 STRAWS STIR-STICKS

2 FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

43 FISHING LINES, (ANGLING)

110 TANGLED NETS/CORDS

30 SHOTGUN CARTRIDGES

9 TYRES WHEELS

44 TOYS AND PARTY POPPERS

15 LIGHTERS

108 BALLOONS INCL. VALVES

6 SHOES SANDALS

82 SHELLFISH AQUACULTURE

0 BIOMEDIA

GLASS

335 GLASS BOTTLES

515 PIECES OF GLASS

METAL

310 CANS

91 METAL PIECES

236 CAPS

CLOTH

101 CLOTHING OTHER TEXTILES

FACTS AND FIGURES

19.80%

of the collected litter on river banks in the Bay of Biscay was cigarette butts.

100%

of all the clean-ups on watercourse banks found snack packaging (chocolate bars, confectionery, crisps etc.).

3

Hubcaps, a bumper and lots of wine making-related litter were found by participants during a clean-up in Margaux (33, France)

PERCEPTION OF THE ORIGIN OF THE LITTER

We have asked participants to tell us, in their opinion, what is the origin of the litter found during their actions. Here are their answers:

100%

of rivers and lakes monitored by our organizers are situated next to a town.

90%

think that the litter came from daily irresponsible behaviour, leaving litter directly on the banks of watercourses (from fishing, parties, picnics or walks).

TESTIMONIAL

CÉLINE MORISSEAU, ASSOCIATION MARG'O LOULOUS, CLEAN-UP ALONG THE GARONNE,

MARGAUX (GIRONDE, FRANCE), 5 MAY 2018

We organized a clean-up walk in our village on the banks of the Garonne. Our aim was to bring together the village's inhabitants and associations and have fun picking up litter together and making our environment cleaner. We thought we'd be able to collect litter in and around the village and along the port but there weren't enough teams to cover all these sectors. I filled in the report on our clean-up on your platform.

It's our second walk and we managed to mobilise more people this year. We collected fewer large-sized items this year. Cigarette butts still account for most of the litter, along with drinks bottles.

Our day resulted in some interesting encounters. People already aware of the need to protect our environment who want to do more. The children, who had learned all about it at school, were also very engaged and involved both during the walk and when sorting and counting the litter collected.

We hope to be able to repeat the walk next year or even organize other events during the year.

GREATER NORTH SEA

UNITED KINGDOM, NORTHERN AREA OF FRANCE, BELGIUM, NETHERLANDS, DENMARK, WESTERN AREA OF GERMANY, NORWAY AND SWEDEN.

GENERAL DATA ON THE WHOLE NORTH SEA AREA

Extrapolation based on a total of 264 Ocean Initiatives which took place in this sea area.

11,805*
people reached.

8,674*
bags of litter collected by participants.

253,157 m*
of coastline covered by participants.

607.6 m³*
Total volume of litter collected.

DATA FROM QUANTIFICATION

28 quantification operations involving 1,252 people took place in France. **101,800 items (including 67,812 cigarette butts) were collected and quantified over a distance of 26,850 meters. The total volume of collected litter was 26.385 m³.**

TYPES OF COLLECTION

TOP 5 OF COLLECTED ITEMS

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT AND WATERCOURSES

PLASTIC

67,812	841	573	1,905	1,034	2,740	2,875
CIGARETTE BUTTS	BOTTLES ≤ 0,5 L	BOTTLES > 0,5 L	BOTTLE CAPS	OTHER BOTTLES OR CONTAINERS	FOOD CONTAINERS	PLASTIC BAGS AND PIECES

1,053	562	151	349	407	3,783	1,819
CRISPS PACKETS SWEET WRAPPERS	LOLLIPOP STICKS	MEDICAL WASTE: PACKAGING, CONTAINERS	SANITARY WASTES: COTTON SWAB	TAMPON APPLICATORS SANITARY TOWELS	POLYSTYRENE PIECES 2,5-50 CM	PLASTIC PIECES 2,5-50 CM

1,310	500	937	490	307	452	153
PLASTIC CUPS	CUTLERY TRAYS	STRAWS STIR-STICKS	FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)	FISHING LINES, (ANGLING)	TANGLED NETS/CORDS	SHOTGUN CARTRIDGES

119	93	144	38	76	21	10
TYRES WHEELS	TOYS AND PARTY POPPERS	LIGHTERS	BALLOONS INCL. VALVES	SHOES SANDALS	SHELLFISH AQUACULTURE	BIOMEDIAS

GLASS

1,129	532
GLASS BOTTLES	PIECES OF GLASS

METAL

1,593	306	7,293
CANS	METAL PIECES	CAPS

CLOTH

393
CLOTHING OTHER TEXTILES

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT

120 bags filled with **12,706 items were collected and quantified throughout 12** operations of citizen science performed on the beaches and sea floor of this area, **over a distance of 5,850 meters. The total volume of collected litter was 7.83 m³.**

PLASTIC

477
CIGARETTE BUTTS

68
BOTTLES ≤ 0,5 L

71
BOTTLES > 0,5 L

670
BOTTLE CAPS

610
OTHER BOTTLES OR CONTAINERS

569
FOOD CONTAINERS

1,566
PLASTIC BAGS AND PIECES

399
CRISPS PACKETS SWEET WRAPPERS

140
LOLLIPOP STICKS

29
MEDICAL WASTE: PACKAGING, CONTAINERS

91
SANITARY WASTES: COTTON SWAB

286
TAMPON APPLICATORS SANITARY TOWELS

3,530
POLYSTYRENE PIECES 2,5-50 CM

1,350
PLASTIC PIECES 2,5-50 CM

173
PLASTIC CUPS

173
CUTLERY STRAYS

61
STRAWS STIR-STICKS

479
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

295
FISHING LINES, (ANGLING)

439
TANGLED NETS/CORDS

117
SHOTGUN CARTRIDGES

33
TYRES WHEELS

78
TOYS AND PARTY POPPERS

40
LIGHTERS

30
BALLOONS INCL. VALVES

34
SHOES SANDALS

6
SHELLFISH AQUACULTURE

9
BIOMEDIAS

GLASS

180
GLASS BOTTLES

362
PIECES OF GLASS

METAL

81
CANS

142
METAL PIECES

4
CAPS

CLOTH

114
CLOTHING OTHER TEXTILES

FACTS AND FIGURES

22.40%
Of the litter collected in this area was polystyrene pieces between 2,5 and 50 cm.

9.94%
Of the litter collected was plastic bags and pieces.

10
Helium balloons were found on a beach on the Channel (Quend, 08, France).

100%
100% of the beaches chosen by our organizers are near a major sailing area with significant shipping traffic.

77%
of the beaches where quantification took place are near a waterway or outlet running into the North Sea.

TYPE OF ACTIVITIES

These are the main activities performed at the area where the Ocean Initiative took place, according to the organizers. At these sites, several types of activities can take place on the same grounds.

54%
Of beaches offer nautical activities such as: swimming, kite surfing, surfing, sailing, paddle boarding, diving...

92%
of the beaches are near a port area (fishing port e.g. Boulogne-sur-Mer, trade and passenger port e.g. Le Havre's major ferry port).

TOTAL OF COLLECTED ITEMS IN RIVERS AND LAKES

420 bags filled with **89,093 items were collected and quantified** on the banks of rivers and lakes in this area, **over a distance of 21,000 meters. The total volume of collected litter was 18.555 m³.**

PLASTICC

67,335
CIGARETTE BUTTS

773
BOTTLES ≤ 0,5 L

502
BOTTLES > 0,5 L

1,235
BOTTLE CAPS

424
OTHER BOTTLES OR CONTAINERS

2,171
FOOD CONTAINERS

1,309
PLASTIC BAGS AND PIECES

654
CRISPS PACKETS SWEET WRAPPERS

422
LOLLIPOP STICKS

122
MEDICAL WASTE: PACKAGING, CONTAINERS

258
SANITARY WASTES: COTTON SWAB

121
TAMPON APPLICATORS SANITARY TOWELS

253
POLYSTYRENE PIECES 2,5-50 CM

469
PLASTIC PIECES 2,5-50 CM

1,137
PLASTIC CUPS

327
CUTLERY STRAYS

876
STRAWS STIR-STICKS

11
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

12
FISHING LINES, (ANGLING)

13
TANGLED NETS/CORDS

36
SHOTGUN CARTRIDGES

86
TYRES WHEELS

15
TOYS AND PARTY POPPERS

104
LIGHTERS

8
BALLOONS INCL. VALVES

42
SHOES SANDALS

15
SHELLFISH AQUACULTURE

1
BIOMEDIA

GLASS

949
GLASS BOTTLES

170
PIECES OF GLASS

METAL

1,512
CANS

164
METAL PIECES

7,289
CAPS

CLOTH

279
CLOTHING OTHER TEXTILES

FACTS AND FIGURES

Here are some of the most frequently found items on the riverbanks of this area:

75.58%
CIGARETTE BUTTS

8.18%
CAPS (METAL)

Some organizers conducted their operations on the banks of the Seine around Paris with a specific focus on several items such as cigarette butts and bottle caps, which may explain why they feature so prominently in the counts for the Channel and North Sea.

15
CADDIES
trolleys were retrieved in Dunkerque (59, France) on the banks of the Bergues Canal which runs straight into the North Sea.

223
CANS
223 cans were found on the banks of the Meuse near a hangar where there had been a party. Most of the cans were from the same brand of beer.

30% of organizers highlighted one-off or exceptional events that may have affected the amount of litter collected (flooding, rises in water level or parties near the riverbanks).

100%

of clean-ups took place on a riverbank near a city (from Dunkerque to Charleville-Mézières, France)

37.5%

were held downstream from industrial areas.

56.25%

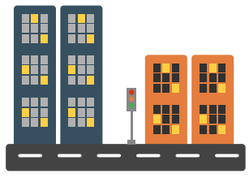
were nautical activities areas.

PERCEPTION OF THE ORIGIN OF THE LITTER

We have asked participants to tell us, in their opinon, whatis the origin of the litter found during their operations. Here are the answers:

63%

of organizers highlighted irresponsible personal behaviour (litter left by walkers, presence of a high school near the river causing increased student traffic and land use, fast foods and restaurants nearby causing excess of disposable waste), phenomena of high water levels and flooding which carry waste from towns and farmland.



31%

31% mentioned the presence of a city upstream that could explain we find waste in area barely frequented or inhabited. An organizer informed us of overflowing bins on the location.

TESTIMONIAL

SAMUEL FROIDEVAL, QUEND BEACH CLEAN-UP

QUEND (SOMME, FRANCE), 5 MAY 2018.

I organized this Ocean Initiative, along Quend Beach (in the Bay of the Somme). It's a magnificent place with its wild coastline, fantastic landscapes and exceptional plants and wildlife.

The clean-up site, between Quend beach and Saint Quentin en Tourmont point, is a site I know and love. I explored every nook and cranny when I was a child and have continued to do so for more than twenty years. I saw some rather disturbing items of litter, especially after very high tides or storms. Litter such as televisions, tyres, syringes, drums, shoes, a weather balloon with its transmitter, a Second World War mine and on a different note, a dolphin carcass. Not forgetting the usual litter: plastic bottles, bits of fishing net, etc.

For me it was clear that this litter wasn't left behind by tourists, or even local inhabitants. The diversity of this litter suggested that it came from a landfill site or a boat having lost containers or dumped its waste in the sea. I knew that for certain when I read the labels on some of the litter. Most of the labels were written in foreign languages (Japanese, Chinese or English). For example, everyone recognises the logo on a Coca-Cola bottle, well I found Coca-Cola bottles with Japanese writing on them! This unusual litter continued to wash up on the beaches for several years. But there hasn't been any for the last 5 or 6 years. However, I still regularly find litter with English writing on it, and even promotional balloons released in England or the United States! It's interesting to see the path the litter has taken to reach the coast here. By air, in rivers, oceans, etc. I know places I describe as 'bottlenecks' with the highest concentrations of litter. I carry out my research on these sites.

As far as the Quend Ocean Initiative is concerned, the type of litter most frequently found was unsurprisingly plastic bottles and pieces of fishing nets but also, dozens of these promotional helium balloons. I've been doing research in this area for years and I'd like to discuss my findings with Surfrider. Of course, it doesn't come directly from the sea, but that's where it all ends up.

I organized this clean-up at the last minute, there weren't many of us, but there were some really interesting discussions. In fact, it's often easier to share information with a smaller group of people, they're more willing to listen and speak.

WESTERN MEDITERRANEAN SEA

FRANCE, SPAIN, ITALY, MOROCCO, TUNISIA AND ALGERIA.

GENERAL DATA ON THE WHOLE SEA AREA

Extrapolation based on a total of 326 Ocean Initiatives which took place in this sea area.

11,385*
participants reached.

7,119*
bags of litter collected by participants.

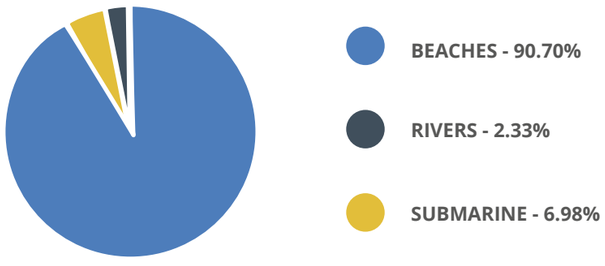
258,905 m*
of coastline covered by participants.

488.51 m³*
Total volume of litter collected.

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT AND WATERCOURSES

43 quantifications involving 1,503 people took place in Spain (7 operations) France (28 operations) and Italy (8 operations). **129,698 items were collected and quantified over a distance of 34,150 meters. The total volume of collected litter is 64,435 m³.**

TYPES OF COLLECTION



TOP 5 OF COLLECTED ITEMS

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT AND WATERCOURSES

There was only one count conducted in freshwater in 2018 (Le Lez, 34, France). As Le Lez is a coastal river, we decided to add the results from this clean-up to the citizen science projects conducted in the marine environment (beach and underwater). **933 bags** filled with **129,685 items were picked up and quantified throughout 72 operations over a distance of 34,150 meters. The total volume of collected litter was 64.435 m³.**

PLASTIC

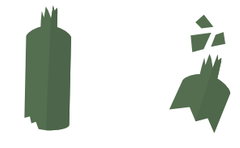
66,387	3,015	860	3,336	1,742	3,172	4,868
CIGARETTE BUTTS	BOTTLES ≤ 0,5 L	BOTTLES > 0,5 L	BOTTLE CAPS	OTHER BOTTLES OR CONTAINERS	FOOD CONTAINERS	PLASTIC BAGS AND PIECES

2,297	2,001	271	1,123	847	4,296	12,879
CRISPS PACKETS SWEET WRAPPERS	LOLLIPOP STICKS	MEDICAL WASTE: PACKAGING, CONTAINERS	SANITARY WASTES: COTTON SWAB	TAMPON APPLICATORS SANITARY TOWELS	POLYSTYRENE PIECES 2,5-50 CM	PLASTIC PIECES 2,5-50 CM

1,304	680	1,799	626	358	515	142
PLASTIC CUPS	CUTLERY TRAYS	STRAWS STIR-STICKS	FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)	FISHING LINES, (ANGLING)	TANGLED NETS/CORDS	SHOTGUN CARTRIDGES

168	228	433	106	323	223	143
TYRES WHEELS	TOYS AND PARTY POPPERS	LIGHTERS	BALLOONS INCL. VALVES	SHOES SANDALS	SHELLFISH AQUACULTURE	BIOMEDIAS

GLASS



4,003	4,236
GLASS BOTTLES	PIECES OF GLASS

METAL

3 260	1,596	1,610
CANS	METAL PIECES	CAPS

CLOTH

837
CLOTHING OTHER TEXTILES

FACTS AND FIGURES

34,258

Cigarette butts were found in a single clean-up on a beach in Palavas les Flots (34, France).

1,024

Plastic bottle caps were collected on a beach in Puig de Santa Maria (Valencia, Spain).

12

Plastic chairs were found on a beach in Santo Stefano al Mare (IM, Italy).

23%

of organizers stated that meteorological events (spring tide, storm) took place before their operation and that may have affected the amount of litter they found.

74%

of beaches where the Ocean Initiatives took place are highly frequented or are in tourist areas.

67%

of beaches where the quantification took place are located near a town.

TYPES OF ACTIVITIES

These are the main activities performed on the area where the Ocean Initiatives took place, according to the organizers. Several types of activities can take place on the same area. The percentages are given for information purposes only.

72%

of beaches are nautical activities areas (swimming, kite surfing, sailing, paddle boarding, diving...).

67%

of the beaches are close to professional and amateur fishing areas.

TESTIMONIAL

ALLESANDRO BELLOTI, SEVERAL BEACH CLEAN UPS AROUND IMPERIA (ITALIE), MAY 2018.

We decided to organize an Ocean initiative (beach clean up) firstly because we wanted to show first-hand the situation of the beaches because it is only through this way that participants could understand the severity of the pollution.

Moreover, the event was an opportunity to inform participants about how important the beach is as a nursery for many animals (for example turtles, crustaceans,) and is a recorder of the sea's health status. In fact, the sea always gives back what we release in it, both natural and artifical things. Most of what you find on the beach was originally in the sea. . Understanding the situation of the beaches can help us to understand the condition of the sea.

Finally, this event allowed us to engage people and explain to them that even just a small effort is enough.

In fact the most common litter that we encountered during the event, and which we find all the time on the beach but also on the streets, are cigarette butts. People should know that all they need to do is not throw them on the beach. Very funny thing that happened was that, among the litter, we found some false teeth next to an apple core...maybe someone lost them eating an apple!

The most satisfying aspect of the event was not only the number of participants (more than 400 despite the rain) but also that many other municipalities have since asked us to join in thanks to the popularity and the success of our beach clean-up.

CELTICS SEA

IRELAND, GREAT BRITAIN FRANCE.

GENERAL DATA ON THE WHOLE SEA AREA

Extrapolation based on a total of 55 Ocean Initiatives which took place in this sea area.

2,838*
people reached.

209*
bags of litter collected by participants.

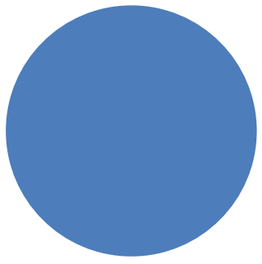
78,950 m*
Of coastline covered by participants.

14.58 m³*
Total volume of litter collected.

DATA FROM QUANTIFICATION

10 quantification operations involving 516 persons took place in France. **6,454 items were collected and quantified over a distance of 14,350 meters. The total volume of collected litter is 2.65 m³.**

TYPES OF COLLECTION



BEACHES - 100%

TOP 5 OF COLLECTED ITEMS

CIGARETTE BUTTS

GLASS OF PIECES

PLASTIC PIECES 2,5-50 CM

FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

TANGLED NETS/CORDS

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT

38 bags filled with **6,454 items were collected and quantified throughout 10** operations of citizen science performed on the beaches of this area, **over a distance of 14,350 meters. The total volume of collected litter was 2,65 m³.**

PLASTIC

1,914 CIGARETTE BUTTS

123 BOTTLES ≤ 0,5 L

10 BOTTLES > 0,5 L

222 BOTTLE CAPS

27 OTHER BOTTLES OR CONTAINERS

107 FOOD CONTAINERS

421 PLASTIC BAGS AND PIECES

299 CRISPS PACKETS SWEET WRAPPERS

67 LOLLIPOP STICKS

5 MEDICAL WASTE: PACKAGING, CONTAINERS

28 SANITARY WASTES: COTTON SWAB

2 TAMPON APPLICATORS SANITARY TOWELS

355 POLYSTYRENE PIECES 2,5-50 CM

560 PLASTIC PIECES 2,5-50 CM

16 PLASTIC CUPS

13 CUTLERY STRAYS

27 STRAWS STIR-STICKS

549 FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

16 FISHING LINES, (ANGLING)

549 TANGLED NETS/CORDS

12 SHOTGUN CARTRIDGES

1 TYRE WHEEL

17 TOYS AND PARTY POPPERS

7 LIGHTERS

13 BALLOONS INCL. VALVES

14 SHOES SANDALS

308 SHELLFISH AQUACULTURE

6 BIOMEDIAS

GLASS

31 GLASS BOTTLES

593 PIECES OF GLASS

METAL

27 CANS

31 METAL PIECES

68 CAPS

CLOTH

28 CLOTHING OTHER TEXTILES

FACTS AND FIGURES

29.66%

of the litter collected are cigarette butts.

17.7%

of collected litter are linked to fishing activities.

TYPES OF ACTIVITIES

These are the main activities carried out in the area where the Ocean Initiatives took place, according to the Ocean Initiatives organizers. Several types of activities can take place in the same area. The percentages are given for information purposes only.

70%

of beaches are fishing areas (professional and amateur).

80%

of beaches are nautical activity areas (swimming, kite surfing, surfing, sailing, paddle boarding, diving...).

50%

of the beaches are near a port area.

INDIAN OCEAN

GENERAL DATA ON THE WHOLE SEA AREA

Extrapolation based on a total of 49 Ocean Initiatives which took place in this sea area.

817*
participants reached.

853*
bags of litter collected by participants.

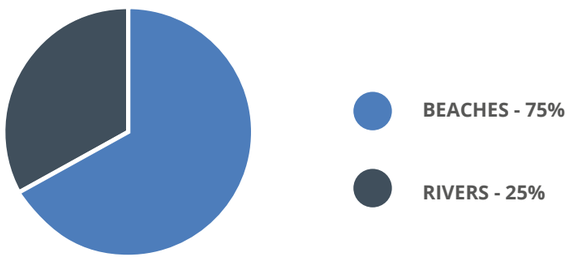
18,783 m*
of coastline length covered by participants.

55 m³*
Total volume of litter collected.

DATA FROM QUANTIFICATION

12 quantification operations bringing together 200 people took place in Reunion island (France), Indonesia (1) and Kenya (1). **17,002 items were collected and quantified over a distance of 4,600 meters. The total volume of collected litter is 13.49 m³.**

TYPES OF COLLECTION



TOP 5 OF COLLECTED ITEMS

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT

182 bags filled with **14,653 items were collected and quantified throughout 9** operations of citizen science performed on the beaches of this area, **over a distance of 3,950 meters. The total volume of collected litter was 9.95 m³.**

PLASTIC

GLASS

METAL

CLOTH

FACTS AND FIGURES

29.73%

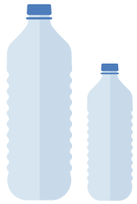
of collected litter are plastic cigarette butts.

45%

food or drink packaging, straws and cups (all materials) accounted for 45% of the litter collected on the beaches on this coastline.

12

baby food pouches were found by one of our organizers during a clean-up on Reunion island (France). This item was mentioned by 2018's Ocean Initiatives participants on several occasions along with Capri-sun pouches.

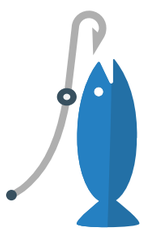


100%

Plastic bottles were found on 100% of beaches in the Indian Ocean where there were clean-ups during the Ocean Initiatives.

77%

Of beaches where the clean-ups took places where located near river mouth or ravines.



56%

of sites are located near fishing areas.

TOTAL OF COLLECTED ITEMS IN RIVERS AND LAKES

27 bags filled with **2,794 items were collected and quantified throughout 3** citizen science activities performed on the river banks of this area, **over a distance of 650 meters. The total volume of collected litter was 3.54 m³.**

PLASTIC

610 CIGARETTE BUTTS

492 BOTTLES ≤ 0,5 L

118 BOTTLES > 0,5 L

409 BOTTLE CAPS

10 OTHER BOTTLES OR CONTAINERS

77 FOOD CONTAINERS

31 PLASTIC BAGS AND PIECES

14 CRISPS PACKETS SWEET WRAPPERS

1 LOLLIPOP STICK

3 MEDICAL WASTE: PACKAGING, CONTAINERS

4 SANITARY WASTES: COTTON SWAB

0 TAMPON APPLICATOR SANITARY TOWEL

10 POLYSTYRENE PIECES 2,5-50 CM

0 PLASTIC PIECE 2,5-50 CM

133 PLASTIC CUPS

55 CUTLERY STRAYS

20 STRAWS STIR-STICKS

0 FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

2 FISHING LINES, (ANGLING)

8 TANGLED NETS/CORDS

0 SHOTGUN CARTRIDGE

4 TYRES WHEELS

1 TOYS AND PARTY POPPER

4 LIGHTERS

0 BALLOON INCL. VALVES

6 SHOES SANDALS

0 SHELLFISH AQUACULTURE

1 BIOMEDIA

GLASS

246 GLASS BOTTLES

0 PIECE OF GLASS

METAL

347 CANS

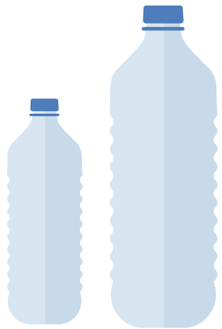
29 METAL PIECES

156 CAPS

CLOTH

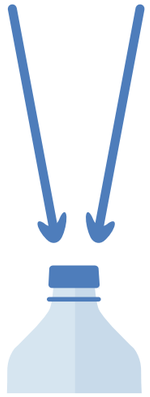
3 CLOTHING OTHER TEXTILES

FACTS AND FIGURES



406

beverage plastic bottles (less or equal to 500 ml) were collected on a river bank of the Reunion island.



306

bottles caps were quantified in a beach at Monbasa (Kenya).

TESTIMONIAL

SONIA SERRA, ALLONS MET' PROPRE ! , LA RÉUNION – ST-DENIS

SAINT-DENIS, LA RÉUNION (FRANCE), 1ER JUILY 2018.

On Réunion we're surrounded by the sea. And unfortunately, it's difficult to go and admire it without being struck by the amount of litter on the beaches.

I've already taken part in and organized several Ocean Initiatives and, in 2018, along with several associations we decided to organize a special day to hold Initiatives at the same time, at several points along the coast.

For me, the Ocean Initiatives are above all a fantastic tool for organizing events and raising the public's awareness while taking part in a concrete project with a solid scientific approach in terms of the sorting and counting of the litter.

During the clean-ups, half of what we collect is water or soda bottles, then there are a lot of cigarette butts, consumer waste, scrap metal such as car parts, a lot of microplastics and waste from fishing boats. It depends on the site, of course.

One type of litter which particularly surprised us and we find a lot of is the so-called 'modern' fruit puree packaging. This type of litter is so common it should be included on the report sheet.

At each clean-up, we are always astounded by the amount of litter which could so easily be avoided, particularly consumer waste (bottles, food packaging, etc.), especially when there are bins provided on the site.

As ever, cigarette butts are a real problem, but I'm shocked to have to pick them on the island's most beautiful sites. I don't understand how people can come to the sea, admire the ocean and then just throw away their cigarette like that.

NORTH ATLANTIC

GUADELOUPE (FRANCE), FRENCH GUYANA, MARTINIQUE (FRANCE), MOROCCO, MEXICO, SENEGAL.

GENERAL DATA ON THE WHOLE SEA AREA

Extrapolation based on a total of 69 Ocean Initiatives which took place in this sea area.

2,363*
participants reached.

3,105*
bags of litter collected by participants.

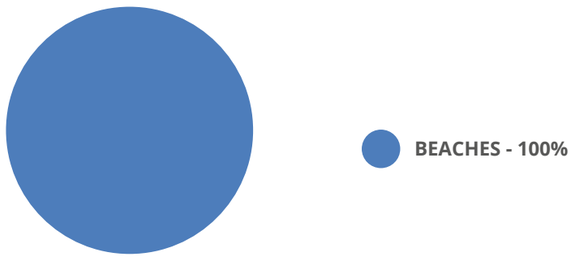
53,906 m*
of coastline length covered by participants.

231.32 m³*
Total volume of litter collected.

DATA FROM QUANTIFICATION

7 quantification operations bringing together 265 people took place in Guadeloupe island (1), Mexico (1), Morocco (3), Martinique island (1) and Senegal (1). **9,631 items were picked up and quantified over a distance of 6,100 meters. The total volume of collected litter is 11.82 m³.**

TYPES OF COLLECTION



TOP 5 OF COLLECTED ITEMS

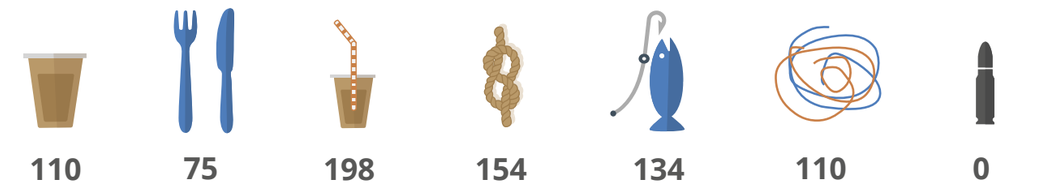
PLASTIC BOTTLES (DRINK) · BOTTLE CAPS · FOOD CONTAINERS · GLASS BOTTLES · CRISPS PACKETS SWEET WRAPPERS

TOTAL OF COLLECTED ITEMS IN MARINE ENVIRONMENT AND WATERCOURSES

PLASTIC

424 CIGARETTE BUTTS · 732 BOTTLES ≤ 0,5 L · 1,163 BOTTLES > 0,5 L · 1,951 BOTTLE CAPS · 460 OTHER BOTTLES OR CONTAINERS · 750 FOOD CONTAINERS · 314 PLASTIC BAGS AND PIECES

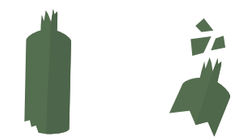
675 CRISPS PACKETS SWEET WRAPPERS · 174 LOLLIPOP STICKS · 47 MEDICAL WASTE: PACKAGING, CONTAINERS · 39 SANITARY WASTES: COTTON SWAB · 43 TAMPON APPLICATORS SANITARY TOWELS · 107 POLYSTYRENE PIECES 2,5-50 CM · 259 PLASTIC PIECES 2,5-50 CM



110 PLASTIC CUPS · 75 CUTLERY STRAYS · 198 STRAWS STIR-STICKS · 154 FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM) · 134 FISHING LINES, (ANGLING) · 110 TANGLED NETS/CORDS · 0 SHOTGUN CARTRIDGE

10 TYRES WHEELS · 11 TOYS ANS PARTY POPPERS · 26 LIGHTERS · 6 BALLOONS INCL. VALVES · 106 SHOES SANDALS · 3 SHELLFISH AQUACULTURE · 1 BIOMEDIA

GLASS



680 GLASS BOTTLES · 305 PIECES OF GLASS

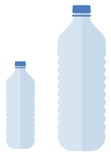
METAL

351 CANS · 60 METAL PIECES · 224 CAPS

CLOTH

112 CLOTHING OTHER TEXTILES

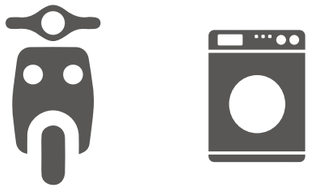
QUELQUES CHIFFRES



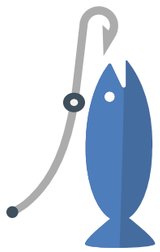
14.09%
of collected litter in this area are plastic bottles.

14.51%
of collected litter in this area are plastic bottles caps.

3,600
bottles (over 500ml) were picked up on a French Guyana beach (not counted for the total).



1+1
scooter and a washing machine were picked up during a clean-up in French Guyana.



87.5%
of the beaches are close to professional and amateur fishing areas.

OTHER COASTAL AREAS

We’re presenting results from citizen science projects on the coastline in this report. That means we need a minimum number of completed report documents to have data representing coastline pollution. Organizers were involved in counts throughout Europe (Adriatic, Aegean, Iberian coast etc.) but we don’t have enough data to present them separately. That’s why we’ve decided to let them speak for themselves so they can share their work and experience of pollution.

AEGEAN SEA

TESTIMONIAL

INGRID AYSU «SAVE OUR OCEANS», SEVERAL BEACH CLEAN-UPS IN NORTHERN TURKEY

TURKEY, JULY 2017.

I decided to organize Ocean Initiatives due to the alarmingly huge amounts of trash, mainly plastics littering the coast where we live, in Turkey's Northern Aegean. I was swung into action with my daily beach walks with our two rescue dogs. I became interested in the subject and read widely. I fear that the damage we have done our oceans has already gone too far. «Out of sight, out of mind» people, at least in Turkey, just don't care and it saddens me. Our region of the Mediterranean comes right out on top according to a recent WWF report on plastics in the seas. I keep plugging away.

The marine litter we encounter most are: Dominantly single use items such as water bottles, soft drink bottles, plastic bags, straws and just about every conceivable plastic item you can imagine. This is in addition to cigarette buts. There is just so much macro plastic littering our beaches, I haven't even attempted micro plastics or even cigarette buts... there is just so much.

I started this work coincidently at the height of the refugee crisis. Refugees where crossing from our coast line to the Greek island of Lesbos. In one of the first big beach clean-ups we organized we found items left by refugees that had presumably drowned including inflatable boats, refugee ID cards and pathetic cheap plastic children's life jackets. These were sad and shocking sights.

I often say going to a beach in my area is like sitting in an ash tray! There are so many cigarette buts. The other thing I say is «When I was a child growing up in Australia I used to collect sea shells, now I collect plastics» Sad hey!

In addition to giving education sessions at schools, we run workshops for children where we create art from the plastics, we have collected along our otherwise magnificent coast line.

ADRIATIC SEA

TESTIMONAIL

AMANDINE BORGOO, SEVERAL BEACH CLEAN UPS CROATIA.

FROM MAY TO JUNE 2018.

3 friends and I thought up field project ideas whilst organizing a clean-up for Surfrider. We set ourselves the challenge of a fundraising bike ride through the Croatian islands - we thought we could organize beach clean-ups on-site since we were going past the Adriatic Sea. To sum up, we four all want to protect the marine environment and the environment in general so that's why we wanted to plan beach clean-ups whilst visiting Croatia. Instead of having a negative «tourist impact» on our environment, we wanted to do the opposite.

From memory, we found lots of cigarette butts, cotton buds and microplastics. The beaches were relatively clean most of the time (no flying plastic bags, not many bottles) but there were definitely small items like those I've just mentioned. However, I remember that we found a huge amount of plastic/glass bottles inland, on the roads and paths to the beach. Litter collection required quite a bit of motivation on our part after a day cycling but we did it because we're a good team. Sometimes people on the beach would help us whilst others thought we were walking dustbins and came to put their rubbish in our bags so they didn't have to walk 100m to the bins on the beach. The more we looked for litter on the floor, the more obsessed we got with it as that's all we could see, even when we weren't doing clean-ups!

It was a good thing to do with a team because you walked on the beach, you chatted and picked up litter at the same time. What was a bit disappointing was that so few people joined us despite the Ocean Initiatives banner that we displayed and having posted the clean-ups on the website. The banner message may not have been clear enough from a distance and maybe holidaymakers couldn't understand it if they didn't speak French.»

03
BIOMEDIAS

SEWAGE FILTER MEDIA AND POLLUTION OF THE AQUATIC ENVIRONMENT

Since 2008, Surfrider has noted a growing presence of plastic wheels, called sewage filter medias, biomedia or biocarriers, on beaches and on the banks of waterways firstly in France and then in Europe. These biomedia (or bacteriological biofilm carriers) are used as a medium for bacteria during the biological wastewater treatment phase in collective and industrial water treatment plants.

The proliferation of these plastic objects in the sea and on the coasts, is adding to the pollution caused by marine litter. In order to fight against this specific source of plastic pollution, Surfrider carried out investigations aimed at improving understanding of the process, identifying the manufacturers and the users and tracing up the source of the waste.

Over the course of the 2018 Ocean Initiatives campaign, 1,508 biomedia were found during 55 clean-up operations along beaches, lakes and rivers (all areas and shapes combined). Biomedia were found in 25.6% of operations. More than 87% of the biomedia picked up by our organizers were found on beaches in the Bay of Biscay. 9.5% were found along the coastline of the Western Mediterranean sea.

NUMBER OF BIOMEDIA PICKED UP EACH 1000 METERS PER SEA AREA

SEA AREA	NUMBER OF BIOMEDIA PICKED UP EACH 1,000M PRE SEA AREA
Bay of Biscay	**13**
Western Mediterranean	**3,6**

TYPES OF BIOMEDIAS / SEA AREAS

23 different biomedia models were found on the Bay of Biscay coastline during the 2018 Ocean Initiatives project. Unsurprisingly, models 8 and 9 were the most common on this coastline. We suspect that two accidents which occurred in 2009 and 2010 in an industrial treatment plant (paper mills) in Northern Spain were why these two biomedia models had polluted the Bay of Biscay beaches. To our knowledge, it's the most significant pollution we've found in terms of time and quantity on the entire Atlantic coastline.

Models 6, 12 and 13 were mostly collected on the shores of the Mediterranean, and in smaller numbers, on the beaches of the Bay of Biscay.

SEA AREAS / MODEL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Adriatic sea	0	0	0	0	4	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0
Bay of Biscay	75	38	155	112	68	6	17	153	436	136	5	5	4	38	23	1	1	0	11	0	1	5	21	2	1
Indian Ocean	0	0	0	0	6	0	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0
Celtic seas	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0
Greater North sea	0	0	0	0	0	2	0	15	6	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Western Mediterranean	2	0	5	1	0	68	4	0	0	11	0	30	20	0	1	0	0	0	0	1	0	0	0	0	1
TOTAL	77	38	160	114	78	76	21	168	442	147	5	37	25	43	25	3	1	0	11	1	1	5	21	7	2

Mid-March 2018, a municipal water treatment plant in the Salerno area near Naples (Italy) was affected by a series of technical issues leading to the release of thousands of biomedia (Biochip, model 13 above) in a river running into the Tyrrhenian Sea (Mediterranean). The biomedia spread widely on the Ligurian coast and as far as the French coastline. Surfrider got involved very early on and brought participants into the 2018 Ocean Initiatives to monitor this new type of pollution so they could distinguish the extent of the pollution and map it. Thanks to you, we've gathered over 40 testimonials that we have sent to French and Italian science institutes tracking the pollution. This biomedia model was also found in a dead turtle's stomach by the Le Grau du Roi sea turtle treatment centre. Surfrider continues to closely monitor this form of pollution along with all other forms past and future.

REPORT ON THE POLLUTION OF BEACHES AND WATERCOURSES BY PLASTIC

Many recent reports indicate the presence of and pollution by biomedia across Europe. These reports were made through Ocean Initiatives as well as by citizens concerned about the health of their beaches and waterways. Thanks to all these reports, we have been able to carry out a full investigation enabling us to compile valuable information on biomediaand to trace up the sources of a part of this pollution. In order to prevent it, we have shared the results of our research with professionals from the water sector.

This study allowed us to constitute an overview of the global operation of water treatment systems and specific processes relating to biocarriers. Additionally, we studied the use of biomedia and the main forms of pollution observed in order to understand their origins. Using these observed cases of malfunctions within the system and thanks to the collaboration of industry professionals, we have been able to produce guidelines aimed at reducing the emission of biocarriers into the environment.

By publishing this report, we hope not only to share our observations with politicians and environment professionals to help improve practices and mitigate pollution risks, but also to share it with the Ocean Initiatives observers who enabled us to gather this precious information to understand this pollution.

But this battle isn't over and pollution continues. So if you've seen biomedia pollution, don't forget to let us know through the Ocean Initiatives provisional report page or direct using this form.

Every case we resolve brings us one step closer to ending pollution!
More informations : https://surfrider.eu/en/our-missions/scientific-legal-expertise/biomedia-70164.html

04

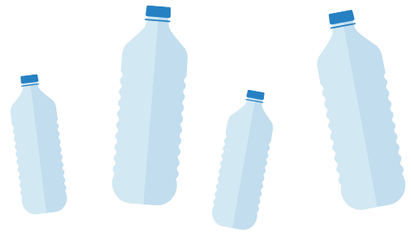
FOCUS ON PLASTIC BOTTLES

PLASTIC BOTTLES, IN THE TOP 10

Plastic bottles and their caps are part of the top ten items most often found on beaches and in rivers. They are single-use plastic items which, used every day and mainly outdoors, are often found in the environment, where they become real predators for aquatic animals and plants. However, alternatives exist and would help reduce this pollution at its source.

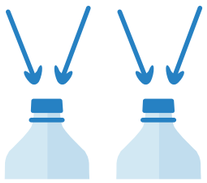
As part of the program to fight against single-use plastic marine litter, Surfrider has developed the 'Reset your habits: reusable bottles can make the difference' campaign. The global objective aims at reducing the use of plastic bottles, polluting the coastline and marine environment. Reset Your Habits is calling for a wide-sweeping change in behaviour within society, urging us to modify our consumption and production patterns to limit their impact on the environment. This involves replacing single-use plastic bottles with reusable ones, among other sustainable alternatives.

To improve our understanding of consumer habits as well as the pollution of aquatic environments by this everyday object, we asked organizers of Ocean Initiatives to count the number of plastic bottles found on beaches, in lakes, rivers and on the seabed. This helped us highlight the reality of the pollution as well as drawing attention of manufacturers and public authorities to the faults in the system (from production to end of life).



3.83%

Plastic drinks bottles (all sizes) represent 3.83% of litter collected during the 2018 Ocean initiatives campaign.



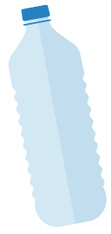
4.07%

Plastic bottle caps account for 4.07% of the litter found during the 2018 Ocean Initiatives operations.

44,954

bottles of all sizes were collected during 398 clean-ups across the world.

21,977
BOTTLES
Bottles of 50 cl or less.



22,977
BOTTLES
Bottles of more of 50 cl.

Around 128,167 bottles are estimated to have been collected by organizers*

16%

of bottles were picked up in rivers and lakes banks.

84%

of bottles were picked up on beaches.

74.95%

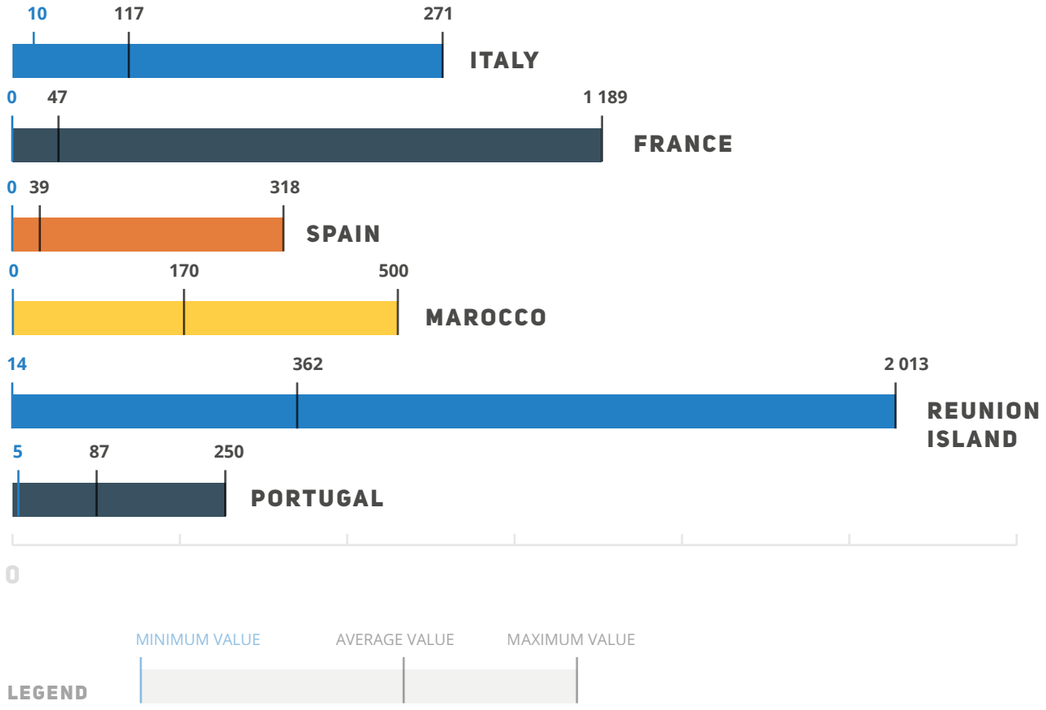
bottles of 50 cl or less were collected in 74.95% of Ocean Initiatives.

73.26%

bottles of more of 50 cl were collected in 73.26% of Ocean Initiatives.

AVERAGE NUMBER OF BOTTLES COLLECTED PER COUNTRY (EUROPE AND OVERSEAS REGIONS)

This diagram indicates the average number of plastic drinks bottles collected per country from lakes, beaches and rivers. For each country, the minimum and maximum number of bottles collected is represented.



*By extrapolating to the number of total clean-up operations in 2018.

25.23%

Plastic drinks bottles (all sizes) represent 25.23% of litter collected in the North Atlantic area.

7,519

In Reunion island 7,519 bottles were collected over 5,400 meters during 12 clean-ups).

2,234

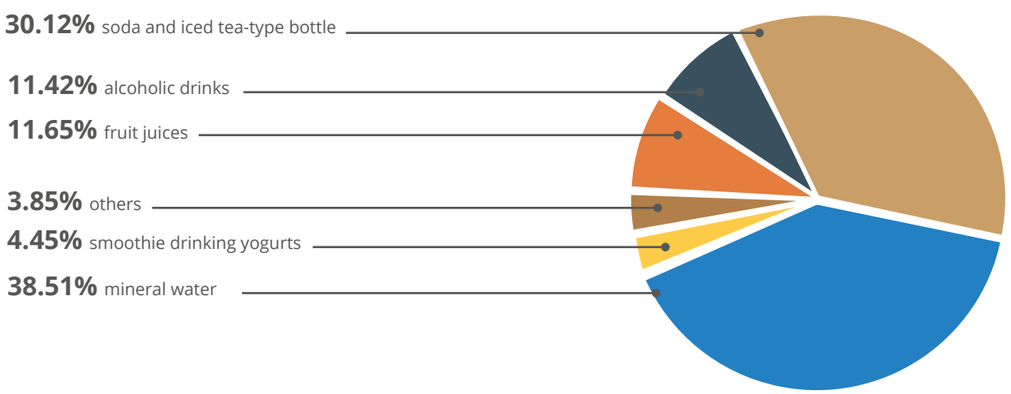
Bottles were found in a single clean-up in Kenya (1,586 of 50 cl or less and 648 of more than 50 cl).

5,023

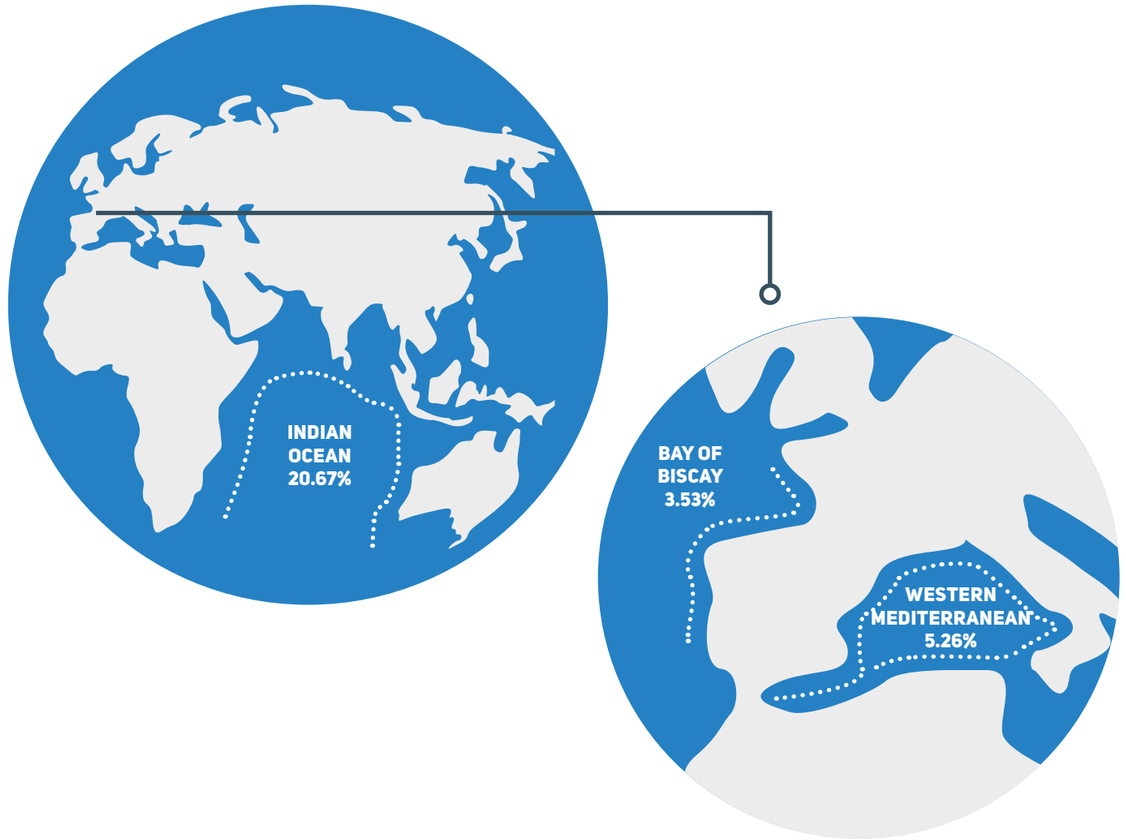
Plastic bottles (1,265 of 50 cl or less and 3,758 more than 50 cl) were picked up and quantified during 6 beach clean ups in Algeria over 1,900 meters.

TYPES OF PLASTIC BOTTLES

318 organizers identified the types of drinks bottles (from all countries).



% OF PLASTIC DRINK BOTTLES COMPARED TO THE TOTAL OF LITTER PER SEA AREA



BEST PRACTICES GUIDE FOR PLASTIC BOTTLE-FREE CITIES

Citizens, industrialists and politicians, we all have a role to play in eradicating these plastic bottles from our environment, by refusing to use this single-use packaging, by rethinking its design, its method of production, consumption and its end of life.

Cities home to high populations are among the main sources of litter. Cities exemplify «local action» as regards ecological transition and, as such, are key players in fighting pollution.

That's why Surfrider Foundation Europe has put together a good practices guide for public authorities with 20 initiatives to reduce this form of pollution at the source by working throughout its life cycle to limit the production and consumption of plastic bottles, promote reusable and sustainable alternatives and improve plastic bottles' eco design and end-of-life. This guide also includes solutions for improved awareness and education among citizens so they can play an active role in this transition.

Cities, communities and states can use it to get inspiration, adapt and implement these good practices to make their commitment to the war against plastic pollution a reality. Paris and Barcelona are already committed to the cause.

A EUROPEAN PLASTIC BOTTLE CLEAN-UP OBJECTIVE

Following its plastic strategy, an action plan to review how we use plastic and react to the pollution it generates, the European Union adopted a Directive to reduce the negative effects of certain plastic items on the planet.

This European legislation intends to ban, reduce consumption, manufacture eco-friendly designs, improve labelling and the collection of certain single-use plastic products including plastic bottles.

It requires Member States to achieve a rate of 90% plastic bottle collection by 2029 and the adoption of certain eco-design measures such as a 25% recycled plastic content in bottles launched on the market for 2025 and attached caps.

Through its Europe-wide monitoring, petitioning and coalition work, Surfrider has been part of recognising plastic bottles as the most common form of litter found on beaches and as a disposable plastic product that requires measures to be taken to stop them flooding the environment. The NGO will now monitor the effective and ambitious implementation of these European measures nationwide.

05
FOCUS ON MERMAID TEARS

Since 2018's ocean initiatives, we've been asking organizers and participants to keep their eyes peeled during clean-ups and help us monitor pollution from pre-production plastic pellets in sediment.

Pre-production plastic pellets, or mermaid tears, are small plastic beads, cylinders or pellets the size of a lentil. They are made and used in industry to make all our plastic products. Millions are lost every year and end up in the waterways and marine environment where they can easily mix into the sediment.

The results of observations will be sent to specialist associations who have been reporting to public bodies on a regular basis for years. We want to warn decision-makers about this little-known form of microplastic pollution as there are currently no regulations for businesses producing, processing and transporting pre-production plastic pellets so they can restrict their emission in the marine environment.

This year, 21% of Ocean Initiatives organizers found mermaid tears during their clean-ups.

WHERE PRE-PRODUCTION PLASTIC PELLETS WERE FOUND

Pre-production plastic pellets were retrieved in 24% of clean-ups on the Bay of Biscay coastline and 42% on the Irish Sea coastline.

Please note: one organizer found an astronomical amount of these pre-production plastic pellets around a saltwater lake in Vieux Boucau (France).

26.8%

of organizers found a significant amount of pre-production plastic pellets at the top of beaches: 1,000 pellets or more per square meters (sign of a long-standing accumulation related to strong tides).

43.9%

of organizers observed large amounts of pre-production plastic pellets in sea debris: 100 pellets per linear meters (sign of regular influx).

Pre-production plastic pellets can come in several colours. Knowing the colour of these microplastics can go into a body of evidence to identify long-standing pollution or a regular influx.

COLOURS OF THE MERMAID TEARS FOUND

(several colours can have been found i a single beach clean up)

23 TRANSPARENT

30 WHITE

8 BLACK

4 RED

OTHER (details below)

1 PINK, BLUE, GREEN

4 BLUE

1 BLUE AND GREEN

1 GREY

1 YELLOWE AND GREY

1 ORANGE

1 YELLOW

OCEAN INITIATIVES

Ocean Initiatives is a program aimed at reducing marine litter at the source. Through local operations around rivers, lakes, oceans and sea beds, Surfrider's main objective is to support a societal change. The data collected during the Ocean Initiatives enable situational analyses, leading to an adaptation of the European regulatory framework.

www.initiativesoceanes.org