ENVIRONMENTAL REPORT
OF THE OCEAN INITIATIVES 2016

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The Ocean Initiatives team wishes to thank Philippe Maison for his support and technical expertise in data analysis.

EDITORIAL

For this 21st edition of the Ocean Initiatives you were once again in thousands, on the beaches, lakes and rivers of Europe and elsewhere, to raise awareness about marine litter pollution with your friends, your colleagues and all the participants.

For the past three years, some of you have chosen to get involved in participatory science and to share information about what they found on the beaches, lakes, rivers and seabed. Facing dozens of bags full of waste, one can legitimately wonder what is the purpose of rummaging in to identify the type and amount of litter which have been picked up. When, at each tide, new litter comes to pollute our beaches we can question the usefulness of our action. And yet, year after year we can rely on your commitment to keep on fighting marine litter.

It is because of the data you are gathering from the field that we can draw up a report about marine litter pollution and show public authorities that this problem will not be resolved on its own. It is thanks to you that new laws are being introduced to ban the most common waste found in the aquatic environments. Thus, all the measures taken to reduce the amount of plastic bags across Europe, or the new French laws banning cotton swabs, plastic dishes and microbeads in cosmetics could not have existed without your involvement. We hope that these laws will spread around the world and that the quantification carried out during the Ocean Initiatives will soon allow us to quantify the waste reduction in rivers and oceans.

So, for all this, the Ocean Initiatives team would like to thank you:

- **Thank** the organizers who renewed their involvement in 2016, showing continuity in their commitment.
- **Thank** all the volunteers who joined the program in 2016 and for trusting us.
- **Thank** all those who have chosen to share their opinions, ideas and comments in the satisfaction survey this year. Your contributions will allow us to manage the evolution of the program, the tools and the support provided by the association so we can adapt them to your needs.
- **Lastly, we would like to thank** those who are never discouraged and who are present every year because, without you, this big citizen gathering would not make sense.

THANK YOU FOR YOUR SUPPORT!

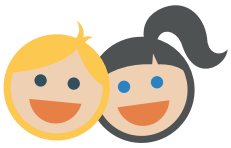
The Ocean Initiatives team.

#INDEX

2016

OCEAN INITIATIVES 2016 INCLUDED:

34 686
PARTICIPANTS



10 387
SCHOOLCHIDREN

1139.41
KM OF LENGHT

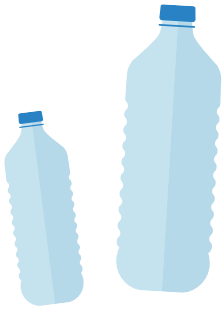
3 517
TOUR EIFFEL

40 980
KM COVERED
BY PARTICIPANTS

x 4.5
PARIS / LOS ANGELES
AS THE CROW FLIES

1 398 m³
OF LITTER

9 319
BATHTUBS
OF LITTER



If the plastic bottles found by our organizers had been sorted and recycled, we could have made:

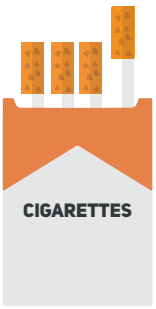
8 458
CUDDLY
BEAR TOYS

#OCEAN INITIATIVES 2016, INCLUDED:

41 172
COTTON SWABS PUT END-TO-END

35
TIMES THE HEIGHT OF BIG BEN

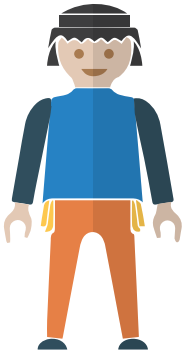
195 946
CIGARETTE BUTTS



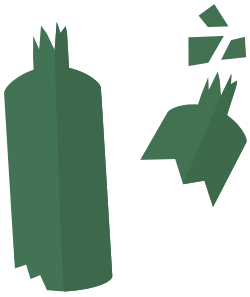
9 797
PACKETS OF CIGARETTES
thrown straight into the sea

Or €13 324 340 of unpaid fines, (based on the amount of the fine against people who do not dispose of their cigarette butts in the facilities provided for them in Paris).

41 555
PLASTIC BAGS OR PIECES



13 696
PLAYMOBILS ©



16 412

If we had recycled the 16 412 glass bottles found during the Ocean Initiatives, we could have:

11 228
Manufactured 11228 bottles.

6.14
Saved 6.14 m³ of water, 3.47 tons of sand and 525.184 kilos of fuel.

01
GENERAL REPORT

THREE TYPES OF REPORT FORMS IN 2016

In 2016, we gave the organizers the possibility of filling in several types of reports, after completion of their actions. They could base their choice on the time taken, their expertise, and their degree of engagement in participative science.

SIMPLIFIED VERSION

The organizer fills in information about the action, but also information on the “star “ item of waste in 2016, the plastic bottle.

INTERMEDIARY VERSION

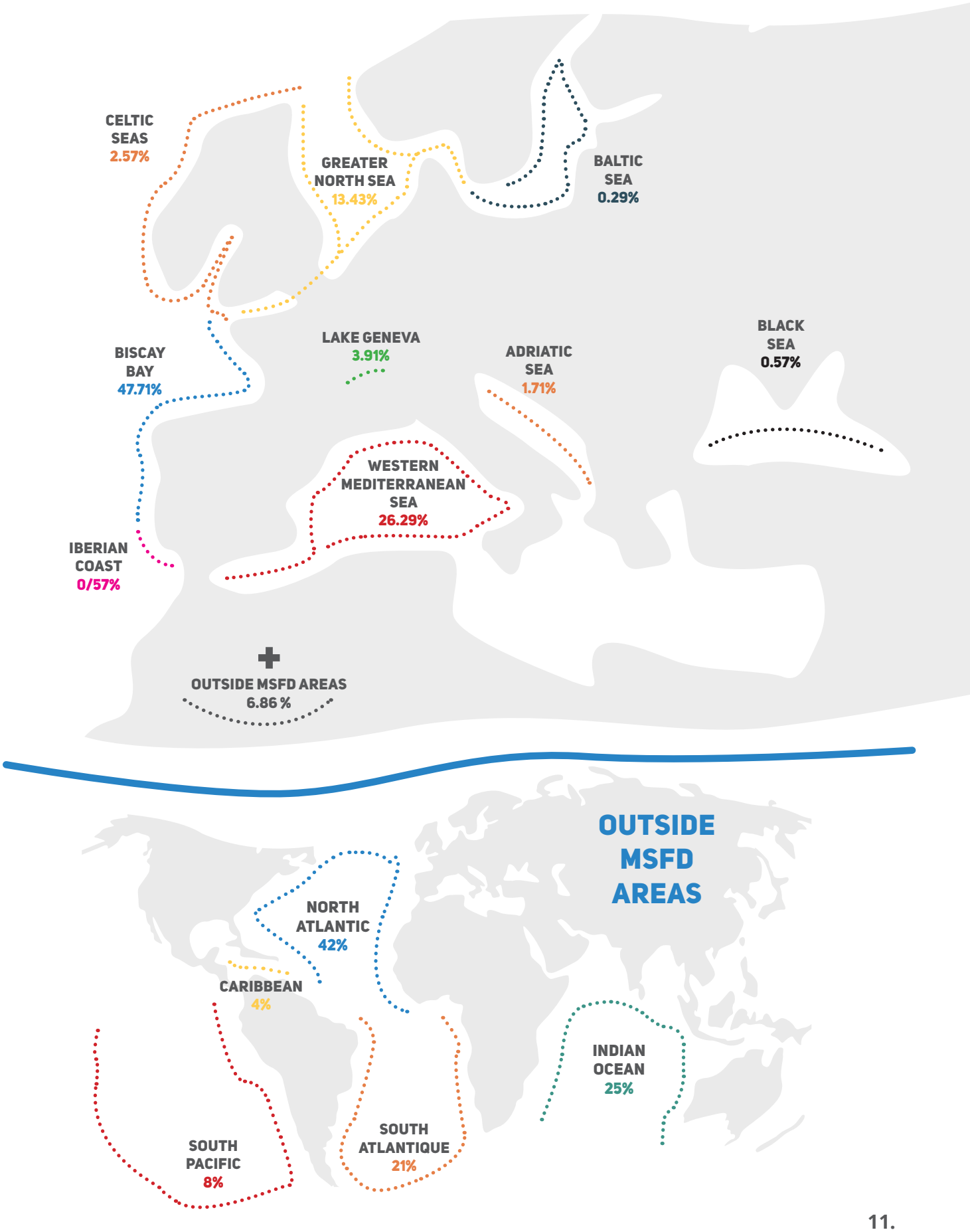
The organizer sends us general information about the action and the site chosen for the collection and quantifies 32 types of litter, broken down by material and uses.

THE MARINE LITTER WATCH APPLICATION

Surfrider joined up with the European Environment Agency to share the data from the collections organized during Ocean Initiatives and enter them into a European data base. Thus, the more experienced organizers, or those who wish to invest more time in the collection and feeding back of information have had 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?

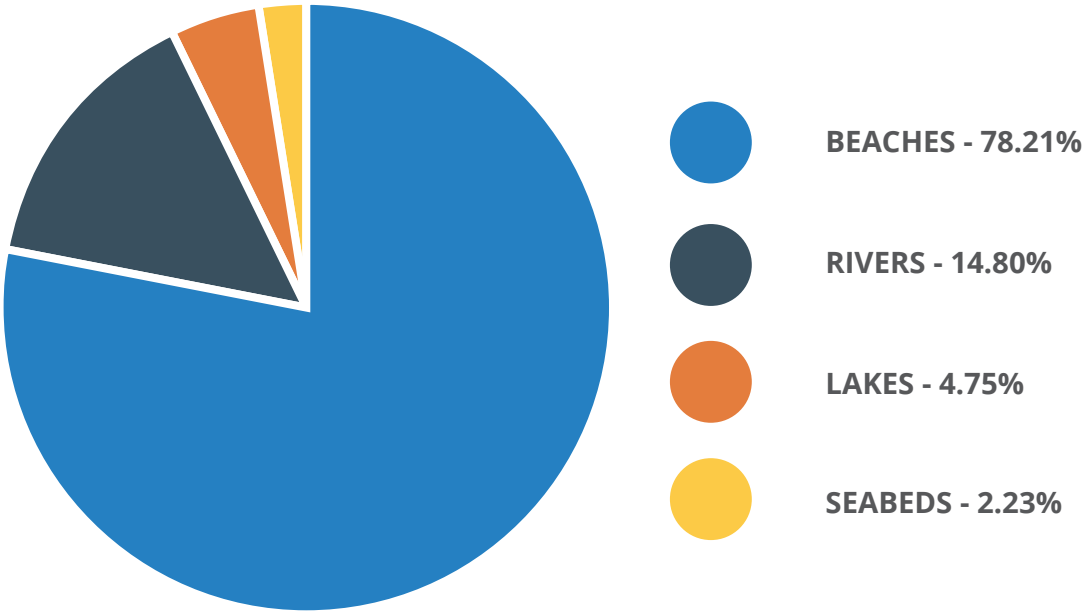
To present the areas where the collections have taken place, we divided them into two groups: on the one hand, the large marine spaces in Europe such as those defined by the Marine Strategy Framework Directive (MSFD) and on the other hand the spaces outside Europe.



SOME DATA

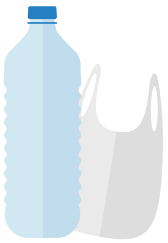
The figures with an asterisk are based on a total of 358 report forms completed (174 simplified and 194 intermediary reports) before December 10th, 2016.

TYPES OF COLLECTION



6 550*

bags of litter were collected by the participants.



446.21 m^{3*}

Total volume of litter collected.

10 964*

people have been sensitised, **30%* of them were schoolchilfren.**

364.62 km*

of coastline lenght covered and **13023* km kilometers covered** by participants in the initiatives.

TOTAL LITTER COLLECTED BY ORGANIZERS WHO HAVE COMPLETED THEIR QUANTIFICATION

In 2016, we asked the participants in Ocean Initiatives to take part in a participative scientific 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 the collection took place and to quantify **32 types of litter, categorized according to materials and uses.** This simplified quantification is based on the standard European protocol master list.

194 organizers, accompanied by 5148 people, got involved in this exercise. The total number of items of litter collected is 281 460, meaning a volume of 169.545 m³.

TOP 10 OF COLLECTED LITTER

1.
CIGARETTE BUTTS

2.
PIECES OF PLASTIC 2.5-50 CM

3.
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

4.
PIECES OF POLYSTYRENE 2.5-50 CM

5
PIECES OF GLASS

6.
BOTTLE CAPS

7.
PLASTIC BAGS AND PIECES

8.
SANITARY WASTES: COTTON SWABS

9.
ALL KIND OF PLASTIC BOTTLES

10.
FISHING: NETS, INTERTWINED ROPES

79.3%

79.3% of the litter collected is made up of single-use objects.
"Single-use objects" means objects destined to be used once only (such as a plastic bag or a straw). This figure is based on quantification for 30 items (excluding pieces of plastic and polystyrene).

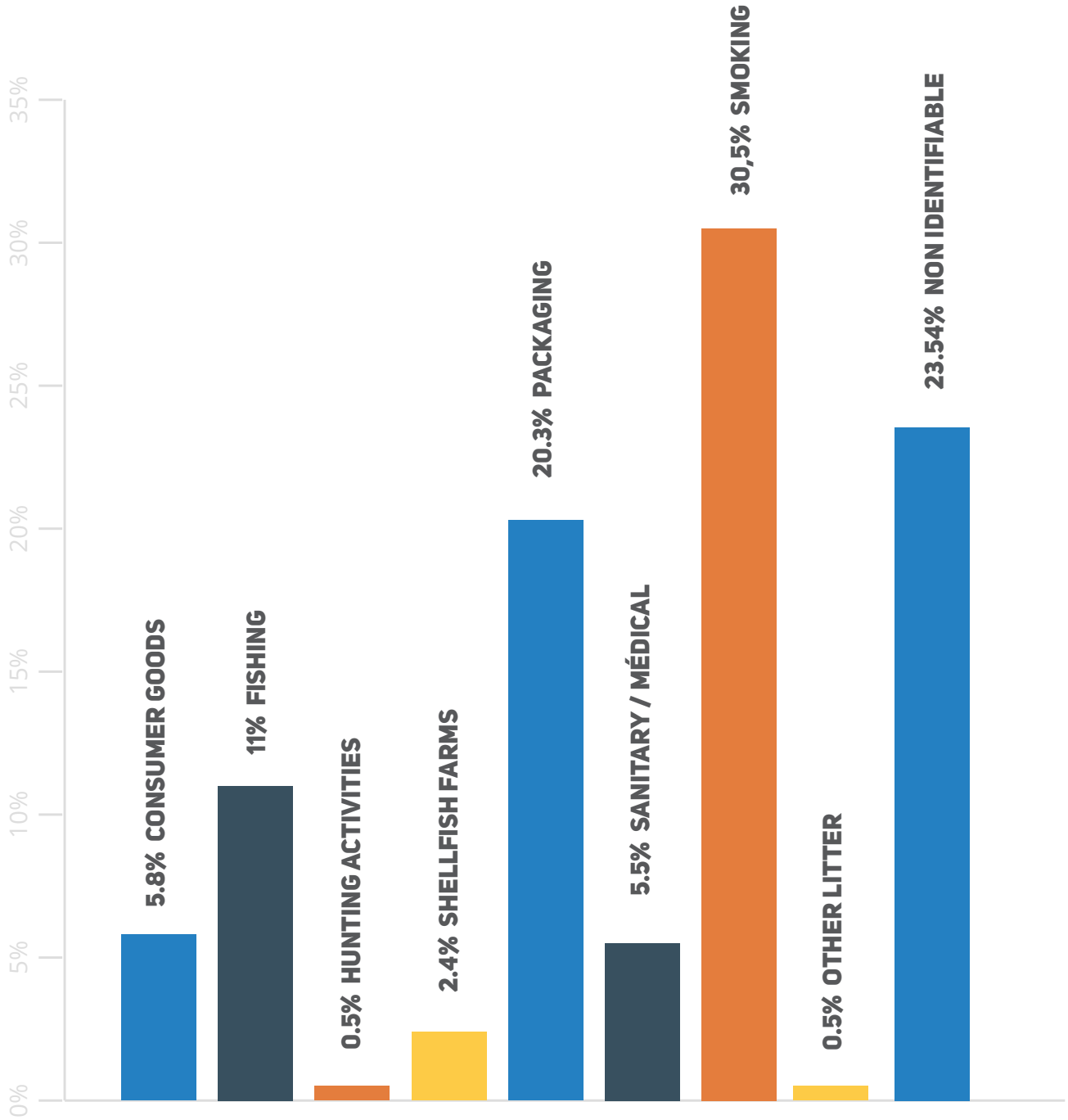
33%

We note an increase of 33% in the volume density of the litter
compared with 2015, which implies that litter found in 2016 consisted of smaller (more fragmented) items.

BREAKDOWN OF COLLECTED LITTER BY USE

We grouped together the different types of litter by broad use 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** (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 biocarriers),
- **Non-identifiable litter.**



TOTAL VOLUME OF COLLECTED LITTER

Total number of items collected in 194 collections: 281 460 quantified items.

PLASTIC

64 462
CIGARETTE BUTTS

6 281
BOTTLES < OR = 0.5 L

6 335
BOTTLES > 0.5 L

15 108
BOTTLE CAPS

7 094
FOOD PACKAGING

13 233
PLASTIC BAGS AND PIECES

7 455
SWEET PACKAGING

4 066
LOLLIPOP STICKS

14 41
MEDICAL WASTE: PACKAGING, CONTAINERS

13 172
SANITARY WASTES: COTTON SWABS

2 618
SANITARY WASTES: TAMPONS

18 303
PIECES OF POLYSTYRENE 2.5-50 CM

33 902
PIECES OF PLASTIC 2.5-50 CM

2 758
PLASTIC CUPS

2 128
PICNIC DISHES

2 357
STRAWS STIR-STICKS

24 660
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

1 905
FISHING: LINES, HOOKS

7 707
FISHING: NETS, INTERTWINED ROPES

1 531
SHOTGUN SHELLS

407
TYRES

760
TOYS

1 188
LIGHTERS

366
BALLOONS

1 525
SHOES SANDALS

7 400
SHELFISH AQUACULTURE

1 660
BIOMEDIAS

GLASS

5 293
GLASS BOTTLES

17 754
PIECES OF GLASS

METAL

4 137
CANS

2 491
PIECES OF IRON

CLOTH

2 157
CLOTHING TEA TOWELS

FOCUS ON MARINE ENVIRONMENT: BEACHES AND SEABED

TOP 10 OF COLLECTED LITTER

1.
PIECES OF PLASTIC 2.5-50 CM

2.
CIGARETTE BUTTS

3.
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

4.
PIECES OF GLASS

5
PIECES OF POLYSTYRENE 2.5-50 CM

6.
BOTTLE CAPS

7.
SANITARY WASTES: COTTON SWABS

8.
PLASTIC BAGS AND PIECES

9.
ALL KIND OF PLASTIC BOTTLES

10.
FISHING: NETS, INTERTWINED ROPES

*« **60 - 90%** of aquatic waste is made of plastic. »*

TOTAL VOLUME OF COLLECTED LITTER IN MARINE ENVIRONMENT

Total number of items collected in 160 collections: 220 728 quantified items.

PLASTIC

29 229
CIGARETTE BUTTS

4 563
BOTTLES < OR = 0.5 L

4 794
BOTTLES > 0.5 L

14 205
BOTTLE CAPS

5 252
FOOD PACKAGING

9 911
PLASTIC BAGS AND PIECES

4 277
SWEET PACKAGING

3 775
LOLLIPOP STICKS

1 254
MEDICAL WASTE: PACKAGING, CONTAINERS

12 907
SANITARY WASTES: COTTON SWABS

1 311
SANITARY WASTES: TAMPONS

15 850
PIECES OF POLYSTYRENE 2.5-50 CM

33 069
PIECES OF PLASTIC 2.5-50 CM

2 197
PLASTIC CUPS

1 944
PICNIC DISHES

2 068
STRAWS STIR-STICKS

24 572
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

1 859
FISHING: LINES, HOOKS

7 624
FISHING: NETS, INTERTWINED ROPES

1 440
SHOTGUN SHELLS

390
TYRES

642
TOYS

974
LIGHTERS

300
BALLOONS

1 359
SHOES SANDALS

7 313
SHELFISH AQUACULTURE

1 510
BIOMEDIAS

GLASS

3 160
GLASS BOTTLES

16 718
PIECES OF GLASS

METAL

3 012
CANS

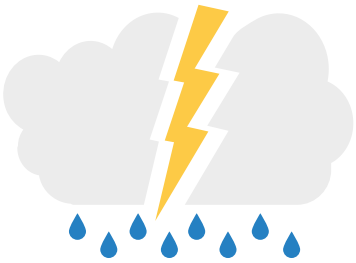
1 697
PIECES OF IRON

CLOTH

1 382
CLOTHING TEA TOWELS

EVENTS TAKING PLACE IN COLLECTINS AREAS

31% of the organizers questioned identified one or several events that could have influenced the quantity of waste found on the beaches and seabeds.



71%

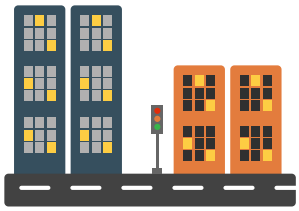
reported on exceptional weather conditions before their action: storms, high tides, watercourse flooding.

35%

identified events related to festivities: sporting events (surfing championship), one-off festivals (electro-music festival, concentration around Europe 2016, firework displays), regular meeting place (evenings on the beach at the week-ends).

TYPES OF ACTIVITIES

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



56%

of beaches and seabeds where quantification action took place are located near a town.

69%

of beaches and seabeds where quantification action took place are tourist beaches.

41%

of beaches and seabeds were near the mouth of a river / outlet.

« ***8 000 000*** *of tons*
of waste are dumped
in our oceans every year »

FOCUS ON WATERCOURSES: RIVERS AND LAKES

TOP 10 OF COLLECTED LITTER

1.
CIGARETTE BUTTS

2.
PLASTIC BAGS AND PIECES

3.
ALL KIND OF PLASTIC BOTTLES

4.
SWEET PACKAGING

5
PIECES OF POLYSTYRENE 2.5-50 CM

6.
GLASS BOTTLES

7.
FOOD PACKAGING

8.
SANITARY WASTES: TAMPONS

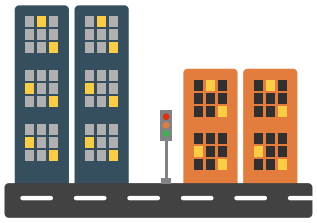
9.
CANS

10.
PIECES OF GLASS

SOME DATA

58%

of the litter found on the banks of lakes and rivers consists of cigarette butts.



85%

of watercourses where quantification action took place are located near a town.

TOTAL VOLUME OF COLLECTED LITTER IN WATERCOURSES

Total number of items collected in 34 collections: 60 732 quantified items.

PLASTIC

35 233
CIGARETTE BUTTS

1 718
BOTTLES < OR = 0.5 L

1 541
BOTTLES > 0.5 L

903
BOTTLE CAPS

1 842
FOOD PACKAGING

3 322
PLASTIC BAGS AND PIECES

3 178
SWEET PACKAGING

291
LOLLIPOP STICKS

187
MEDICAL WASTE: PACKAGING, CONTAINERS

265
SANITARY WASTES: COTTON SWABS

1 307
SANITARY WASTES: TAMPONS

2 453
PIECES OF POLYSTYRENE 2.5-50 CM

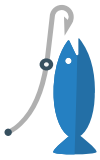
833
PIECES OF PLASTIC 2.5-50 CM

561
PLASTIC CUPS

184
PICNIC DISHES

289
STRAWS STIR-STICKS

88
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)



46
FISHING: LINES, HOOKS

83
FISHING: NETS, INTERTWINED ROPES

91
SHOTGUN SHELLS

17
TYRES

118
TOYS

214
LIGHTERS

66
BALLOONS

166
SHOES SANDALS

87
SHELFISH AQUACULTURE

150
BIOMEDIAS

GLASS

2 133
GLASS BOTTLES

1 036
PIECES OF GLASS

METAL

1 125
CANS

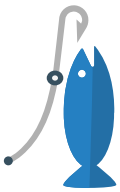
794
PIECES OF IRON

CLOTH

775
CLOTHING TEA TOWELS

TYPES OF ACTIVITIES

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



55%
of sites are in
important fishing areas

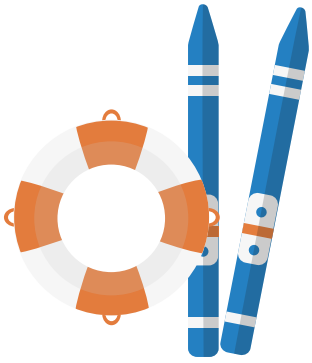
33%
of sites are located
near hunting areas

52%
are downstream
from agricultural areas

29%
are downstream
from industrial areas

29%
are in areas where
water sports
take place

18%
of sites are in leisure areas
(picnic, walking, hiking trails)



Other activities mentioned by the organizers in the catchment area of the watercourse or near the lakeside: navigation and passenger transport (barges), ski resorts and business parks.

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 on their actions. Here are the aswers:

70.6%

For 70.6% of the organizers, the litter found was related to anti-social behavior: leaving litter behind after a picnic, a walk or sports

15%

For 15%, litter comes from anti-social behavior by car drivers who throw litter out of their car windows on roads not far from the collection site

15%

For 15% 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.

12%

For 12% the litter found can be explained by the presence of farms upstream.

11%

11% of the organizers reported rising water levels and/or floods that could explain the presence of litter on their site.

6%

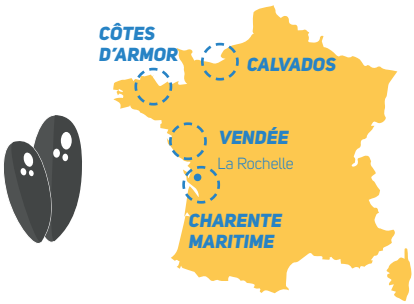
For 6% of the organizers, the litter collected came from treatment plants.

20.60%

20.60% of the organizers reported the dumping of litter on the banks of watercourses or lakes. This problem was pointed out by one person in particular, who has been collecting litter for years along a river and its affluents in Belgium. People living along the river banks use them as a tip for dumping litter.

OTHER LITTER COLLECTED IN LARGE NUMBERS

33% of the organizers reported that they had found large quantities of other litter during their quantification actions (non-identified in the list).



BLACK ELASTIC BANDS USED IN SHELLFISH FARMS

were found by organizers in the Charente Maritime and Vendée area (France, Bay of Biscay) and the Cotes d'Armor and Calvados (France, North Sea/Channel) coasts. 554 pieces of these elastic bands were found during a single collection close to La Rochelle.

WET WIPES WERE MAINLY FOUND IN RIVERS

(reported in Belgium, France and Spain). Many people continue to throw these new synthetic single-use products into toilets, causing damage to water treatment systems of up to 500 or 1000 million euros per year for the whole of the EU (according to the report "Toilets are not a bin" published in October 2014 by EurEau)

GEOTEXTILES

for the construction industry, civil engineering and agriculture (all types of coasts).

NUMEROUS SYRINGES

were round in the Morbihan area (France). These syringes came from a container lost off the coast of Brittany in January 2014.

FIREWORKS

after festivals (up to 312 picked up during one collection).

CABLES AND ELECTRICAL EQUIPMENT

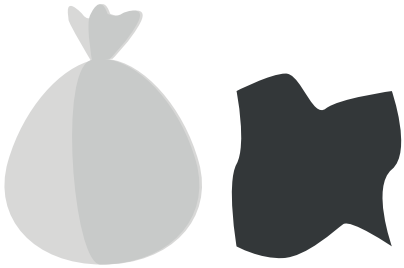
from civil engineering or individuals.

THOUSANDS OF GRANULES OF INDUSTRIAL PLASTIC

were reported in Ile et Vilaine (France, North Sea/Channel area). Industrial plastic granules are little balls, cylinders or pellets of plastic. They are manufactured and used in industry to make all of our plastic objects. They are scattered into the environment due to leaks during production and transportation, lost during transportation at sea or during the industrial conversion process or because they are inappropriately used. These granules are of small size and are easily confused with sediments.

This is a worldwide problem.

AND ALSO...

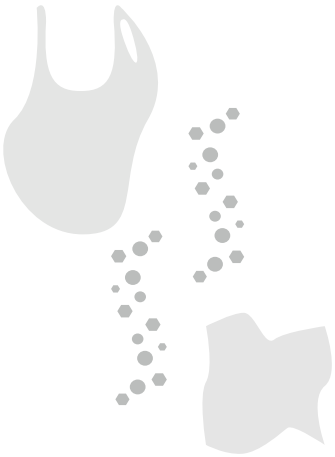


8

bags filled with agricultural canvas covers picked up along a river in South Eastern France.

4 364

beer bottle caps found during two lakeside and riverside collections.



A STRONG PRESENCE OF PLASTIC PIECES

Many organizers reported the presence on their beaches of very small plastic pieces (less than 2.5 cm). These microplastics result from the degradation of elements of larger size which, in the environment, are reduced in smaller and smaller fragments by the action, in particular, of the sun and the natural mechanical forces.

433 UNUSUAL OBJECTS

STREAMS AND OCEANS: THE LARGEST DUMP OF HUMAN ACTIVITY

433 unusual objects were listed by participants during Ocean Initiatives in 2016.

1 PISTOL WITH ITS BULLETS

LORRY SEATS

2 BIDETS

1 FATHER CHRISTMAS OUTFIT

1 FAIRGROUND HORSE

1 BOW AND ARROW

IN THE DOMESTIC APPLIANCE DEPARTMENT

1 VACUUM CLEANER

6 REFRIGERATORS

1 WASHING MACHINE

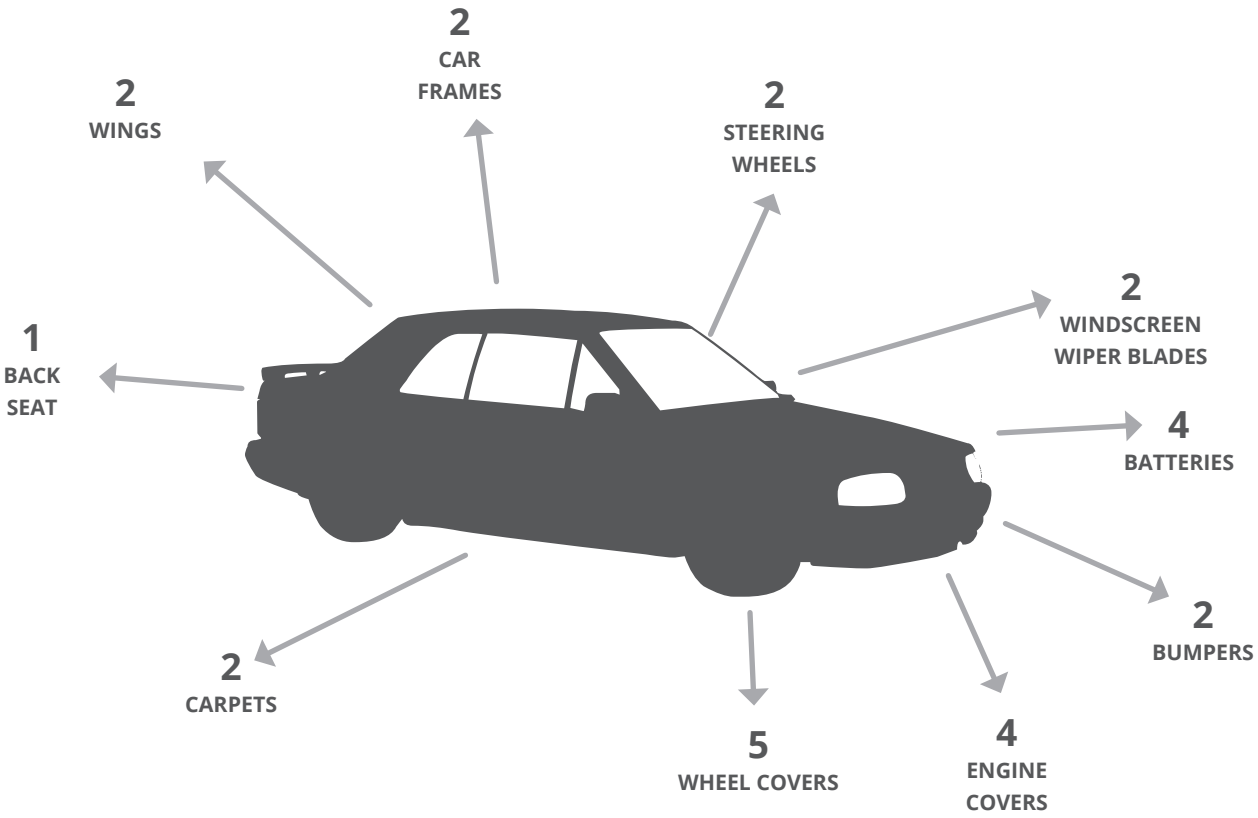
1 MICRO-WAVE OVEN

1 TOASTER

3 TELEVISIONS

IN 2016 THE CASE SHOWS:

2 entire car bodies and 24 detached parts.



WITHOUT FORGETTING THE INEVITABLE


25 LIFEBUOYS


11 BOAT PARTS


35 JERRYCANS


3 TRASHCANS (LARGE BINS)


9 CHAIRS


5 BICYCLES AND A SCOOTER


3 MANHOLE COVERS


5 MOBILE PHONES


5 COMPUTERS

02
REPORT BY SEA AREAS

BAY OF BISCAY

FROM PENMARCH POINT IN FRANCE TO ORTEGAL CAPE IN SPAIN.

GENERAL DATA ON THE WHOLE SEA AREA

Extrapolation based on a total of 461 collections which took place in this sea area.

11 357*

people have been sensitised, **1 266* of them were schoolchildren.**

6 248*

bags of litter were collected by the participants

458 135 m*

458 km of coastline and the banks of lakes and rivers were thoroughly combed by participants in this sea area.

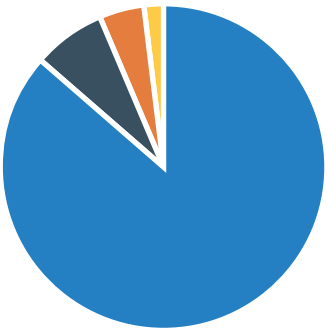
445 m³*

Total volume of litter collected.

DATA FROM LITTER QUANTIFICATION

The 111 quantification actions took place in France (75 collections) and Spain (36 collections).
120478 items were picked up and quantified, in 111 actions (all types) over a distance of 163 272 meters. The volume picked up is 158.905 m³.

TYPES OF COLLECTIONS



- BEACHES - 86.49%
- LAKES - 4.5%
- RIVERS - 7.21%
- SEABEDS - 1.80%

TOP 5 OF COLLECTED LITTER

21 087
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

14 161
CIGARETTE BUTTS

18 858
PIECES OF PLASTIC 2.5-50 CM

10 263
PIECES OF POLYSTYRENE 2.5-50 CM

9 732
PIECES OF GLASS

TOTAL VOLUME OF COLLECTED LITTER

PLASTIC

14 161
CIGARETTE BUTTS

1 459
BOTTLES < OR = 0.5 L

1 437
BOTTLES > 0.5 L

4 413
BOTTLE CAPS

3 123
FOOD PACKAGING

4 984
PLASTIC BAGS AND PIECES

2 005
SWEET PACKAGING

1 771
LOLLIPOP STICKS

420
MEDICAL WASTE: PACKAGING, CONTAINERS

4 080
SANITARY WASTES: COTTON SWABS

480
SANITARY WASTES: TAMPONS

10 263
PIECES OF POLYSTYRENE 2.5-50 CM

18 858
PIECES OF PLASTIC 2.5-50 CM

1 060
PLASTIC CUPS

428
PICNIC DISHES

777
STRAWS STIR-STICKS

21 087
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

780
FISHING: LINES, HOOKS

4 161
FISHING: NETS, INTERTWINED ROPES

839
SHOTGUN SHELLS

327
TYRES

256
TOYS

506
LIGHTERS

169
BALLOONS

1 061
SHOES SANDALS

5 902
SHELFISH AQUACULTURE

1 177
BIOMEDIAS

GLASS

1 216
GLASS BOTTLES

9 732
PIECES OF GLASS

METAL

1 303
CANS

1 175
PIECES OF IRON

CLOTH

1 068
CLOTHING TEA TOWELS

TOTAL VOLUME OF COLLECTED LITTER IN MARINE ENVIRONMENT

111 995 were picked up and quantified throughout 98 quantification actions carried out on the beaches and seabeds of this area, **over a distance of 84 450 meters, which represents a volume of 60.38 m³.** 1052 bags were picked up throughout 98 collections (34 in Spain and 64 in France).

PLASTIC

12 816
CIGARETTE BUTTS

1 063
BOTTLES < OR = 0.5 L

988
BOTTLES > 0.5 L

4 180
BOTTLE CAPS

2 680
FOOD PACKAGING

4 092
PLASTIC BAGS AND PIECES

1 668
SWEET PACKAGING

1 711
LOLLIPOP STICKS

357
MEDICAL WASTE: PACKAGING, CONTAINERS

4 024
SANITARY WASTES: COTTON SWABS

413
SANITARY WASTES: TAMPONS

9 602
PIECES OF POLYSTYRENE 2.5-50 CM

18 432
PIECES OF PLASTIC 2.5-50 CM

845
PLASTIC CUPS

389
PICNIC DISHES

719
STRAWS STIR-STICKS

21 056
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

763
FISHING: LINES, HOOKS

4 159
FISHING: NETS, INTERTWINED ROPES

802
SHOTGUN SHELLS

318
TYRES

226
TOYS

411
LIGHTERS

155
BALLOONS

987
SHOES SANDALS

5 806
SHELFISH AQUACULTURE

1 171
BIOMEDIAS

GLASS

610
GLASS BOTTLES

8 936
PIECES OF GLASS

METAL

837
CANS

1 007
PIECES OF IRON

CLOTH

772
CLOTHING TEA TOWELS

SOME DATA

16.46%

of the litter collected are pieces of plastic of indeterminate origin, between 2.5 and 50 cm.

11,.45%

of the litter collected are cigarette butts.

5.21%

of the litter collected are litter from shellfish farming.

23.2%

In 2016 litter from fishing activities represents 23.2% of recovered litter (all types together).

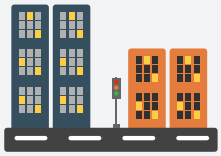
60

tyres (28 and 32) were recovered from the seabed in the port of Mutriku (Basque country, Spain) during an underwater collection.

With regard to beaches where the participative science actions took place:

83%

of beaches and seabeds where quantification action took place are tourist beaches.



63%

of beaches and seabeds where quantification action took place are located near a town.

TYPES OF ACTIVITIES

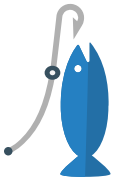
The main activities carried out on the area on where the collections took place, according to the Ocean Initiatives organizers. Several types of activities can take place on the same area. The percentages are given for information purposes only.

53%

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

22.45%

of beaches are located near shellfish aquaculture areas.



53%

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

31.63%

of beaches are located near port activity areas.

TOTAL VOLUME OF COLLECTED LITTER IN WATERCOURSES

8 772 were picked up and quantified throughout 13 quantification actions carried out on the watercourses of this area, **over a distance of 11 950 meters, which represents a volume of 12.855 m³.** 187 bags were picked up throughout 13 collections (2 in Spain and 11 in France).

PLASTIC

1 345
CIGARETTE BUTTS

715
BOTTLES < OR = 0.5 L

469
BOTTLES > 0.5 L

233
BOTTLE CAPS

443
FOOD PACKAGING

892
PLASTIC BAGS AND PIECES

337
SWEET PACKAGING

60
LOLLIPOP STICKS

63
MEDICAL WASTE: PACKAGING, CONTAINERS

56
SANITARY WASTES: COTTON SWABS

67
SANITARY WASTES: TAMPONS

661
PIECES OF POLYSTYRENE 2.5-50 CM

426
PIECES OF PLASTIC 2.5-50 CM

215
PLASTIC CUPS

39
PICNIC DISHES

58
STRAWS STIR-STICKS

31
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

17
FISHING: LINES, HOOKS

2
FISHING: NETS, INTERTWINED ROPES

37
SHOTGUN SHELLS

9
TYRES

30
TOYS

95
LIGHTERS

14
BALLOONS

74
SHOES SANDALS

71
SHELFISH AQUACULTURE

6
BIOMEDIAS

GLASS

596
GLASS BOTTLES

791
PIECES OF GLASS

METAL

456
CANS

168
PIECES OF IRON

CLOTH

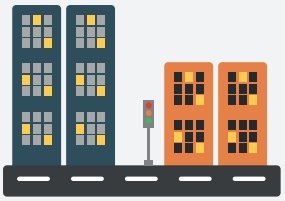
296
CLOTHING TEA TOWELS

SOME DATA

15.78%
of collected litter
are cigarette butts.

10.47%
of collected litter
are plastic bags or pieces.

9.28%
of collected litter
are pieces of glass.



31.63%
of rivers and lakes monitored by our
organizers are situated next to a town.

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 on their actions. Here are the aswers:

76 + 117
During a collection at Pauillac, a town on the left bank of the Gironde Estuary, up to 76 cigarette lighters and 117 pieces of glass were found over a distance of 150 meters.

85%
of the people questioned think that the litter they found came from daily anti-social behavior, leaving litter directly on the banks of watercourses (from fishing, parties, picnics or walks). Some participants pointed out a lack of trashcans on the banks.

NORTH SEA CHANNEL

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

GENERAL DATA ON THE WHOLE SEA AREA

Extrapolation based on a total of 196 collections which took place in this sea area.

6 250*

participants sensitised, **1 512* of them were schoolchidren.**

4 085*

bags of litter were collected by the participants.

304 912 m*

linear meters of coast, riverbanks, lakes and rivers, so 305km have been examinated by the Ocean Initiatives participants.

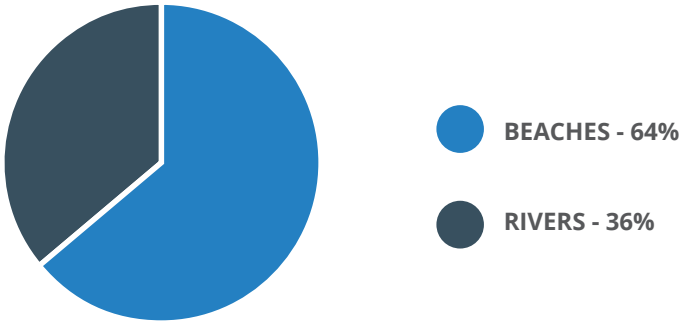
249 m³*

Total volume of litter collected.

DATA FROM LITTER QUANTIFICATION

The 25 quantification actions took place in France (19 collections) and Belgium (6 collections). **30 449 items were picked up and quantified throughout 25 collections (all types) over a distance of 30 800 meters, representing a volume of 34.085 m³.**

TYPES OF COLLECTIONS



TOP 5 OF COLLECTED LITTER

7 797
CIGARETTE BUTTS

2 677
SWEET PACKAGING

2 466
BOTTLE CAPS

2 126
PIECES OF POLYSTYRENE 2.5-50 CM

1 319
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

TOTAL VOLUME OF COLLECTED LITTER

PLASTIC

7 797
CIGARETTE BUTTS

1 322
BOTTLES < OR = 0.5 L

547
BOTTLES > 0.5 L

2 466
BOTTLE CAPS

998
FOOD PACKAGING

1 739
PLASTIC BAGS AND PIECES

2 677
SWEET PACKAGING

343
LOLLIPOP STICKS

108
MEDICAL WASTE: PACKAGING, CONTAINERS

169
SANITARY WASTES: COTTON SWABS

1 302
SANITARY WASTES: TAMPONS

2 126
PIECES OF POLYSTYRENE 2.5-50 CM

1134
PIECES OF PLASTIC 2.5-50 CM

149
PLASTIC CUPS

136
PICNIC DISHES

143
STRAWS STIR-STICKS

1 319
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

563
FISHING: LINES, HOOKS

1 124
FISHING: NETS, INTERTWINED ROPES

136
SHOTGUN SHELLS

8
TYRES

171
TOYS

118
LIGHTERS

40
BALLOONS

128
SHOES SANDALS

1 158
SHELFISH AQUACULTURE

60
BIOMEDIAS

GLASS

917
GLASS BOTTLES

254
PIECES OF GLASS

METAL

251
CANS

592
PIECES OF IRON

CLOTH

454
CLOTHING TEA TOWELS

TOTAL VOLUME OF COLLECTED LITTER IN BEACHES

11 983 were picked up and quantified throughout 16 collections carried out on the beaches of this area, over a distance of **27 850 meters, which represents a volume of 17.915 m³.** 264 bags were picked up throughout 16 collections (1 in Belgium, 15 in France).

PLASTIC

567
CIGARETTE BUTTS

369
BOTTLES < OR = 0.5 L

82
BOTTLES > 0.5 L

2 236
BOTTLE CAPS

298
FOOD PACKAGING

239
PLASTIC BAGS AND PIECES

427
SWEET PACKAGING

143
LOLLIPOP STICKS

40
MEDICAL WASTE: PACKAGING, CONTAINERS

91
SANITARY WASTES: COTTON SWABS

81
SANITARY WASTES: TAMPONS

1 016
PIECES OF POLYSTYRENE 2.5-50 CM

1 034
PIECES OF PLASTIC 2.5-50 CM

69
PLASTIC CUPS

35
PICNIC DISHES

73
STRAWS STIR-STICKS

1 299
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

543
FISHING: LINES, HOOKS

1 104
FISHING: NETS, INTERTWINED ROPES

96
SHOTGUN SHELLS

5
TYRES

101
TOYS

75
LIGHTERS

18
BALLOONS

69
SHOES SANDALS

1 153
SHELFISH AQUACULTURE

35
BIOMEDIAS

GLASS

110
GLASS BOTTLES

204
PIECES OF GLASS

METAL

151
CANS

122
PIECES OF IRON

CLOTH

98
CLOTHING TEA TOWELS

SOME DATA

18.62%

of collected litter are caps of plastic bottles.

10.82%

of collected litter are were cords and lines from fishing activities.

900

An organizer from the North Sea/Channel (Cotes d'Armor Department, France) reported a large number (around 900) of items of litter from shellfish farms. These were, for the most part, pieces of rubber and oyster nets.

24.53%

of collected litter are related to fishing activities

8.61%

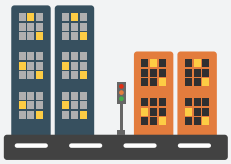
of collected litter are pieces of plastic between 2.5 and 50 cm.

68.75%

For 68.75% of participants the North Sea/Channel costal area is an important sea route.

81%

81% of beaches where quantification action took place are tourist beaches.

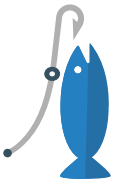


56%

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

TYPES OF ACTIVITIES

We have asked participants to tell us what, according to them, is the origin of the litter found on their actions. Here are the aswers:



44%

of the beaches where the collections took place are close to fishing areas (92% professional fishing, 8% recreational, including hand-fishing).

25%

of the beaches are close to port activity areas (including the port of Calais).

TOTAL VOLUME OF COLLECTED LITTER IN RIVERS

18 261 were picked up and quantified throughout 9 quantification actions carried out on the rivers of this area, **over a distance of 2 950 meters, which represents a volume of 16.17 m³.** 263 were picked up throughout 9 collections (6 in Belgium, 3 in France).

PLASTIC

7 236
CIGARETTE BUTTS

953
BOTTLES < OR = 0.5 L

465
BOTTLES > 0.5 L

230
BOTTLE CAPS

700
FOOD PACKAGING

1 500
PLASTIC BAGS AND PIECES

2 251
SWEET PACKAGING

200
LOLLIPOP STICKS

68
MEDICAL WASTE: PACKAGING, CONTAINERS

78
SANITARY WASTES: COTTON SWABS

1 221
SANITARY WASTES: TAMPONS

1 108
PIECES OF POLYSTYRENE 2.5-50 CM

97
PIECES OF PLASTIC 2.5-50 CM

42
PLASTIC CUPS

19
PICNIC DISHES

37
STRAWS STIR-STICKS

3
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

4
FISHING: LINES, HOOKS

1
FISHING: NETS, INTERTWINED ROPES

35
SHOTGUN SHELLS

3
TYRES

70
TOYS

43
LIGHTERS

22
BALLOONS

59
SHOES SANDALS

5
SHELFISH AQUACULTURE

30
BIOMEDIAS

GLASS

807
GLASS BOTTLES

50
PIECES OF GLASS

METAL

98
CANS

470
PIECES OF IRON

CLOTH

356
CLOTHING TEA TOWELS

SOME DATA

The items of litter most frequently found on the riverbanks are:

39.60%
OF CIGARETTE BUTTS

12.33%
OF SWEET PACKAGING

8.22%
OF PLASTIC BAGS AND PIECES

67%
of collections took place in watercourses close to agricultural areas.

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 on their actions. Here are the aswers:

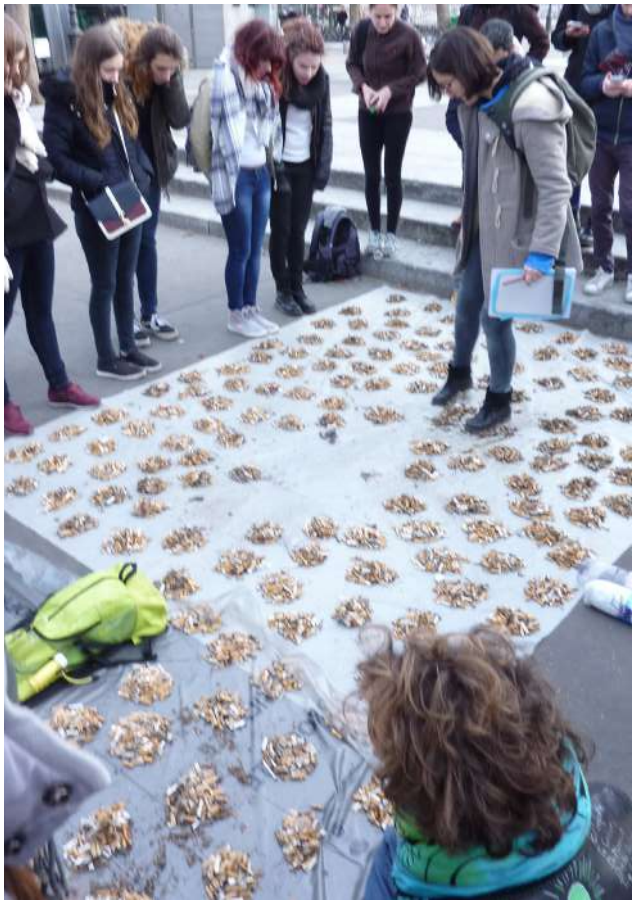
100%
of the people questioned think that the litter found was thrown away on or close to the collection site. This is due to anti-social behavior (throwing litter away without using trash cans) or more significant infringements (illegal dumping or using the river as a trash can).

TESTIMONIAL

During an action in Paris close to the Seine river, the Ocean Initiatives organizers found up to 16500 cigarette butts (not counted in the table below). For information, the city of Paris has introduced a €68 fine for throwing cigarette butts on the ground and this can be increased to a 1 122 000 euro fine if people are caught in the act.

LITTER COLLECTION, NOVEMBER 19TH, 2016

SURFRIDER PARIS CHAPTER



« We decided to organize an event with the Paris branch of the Zero Waste France association during Sustainable Development Week. We wanted our action to be simple, effective and quick to set up. Our last joint effort had been an ocean imitative focusing on cigarette butts. The choice was quickly made: we decided to renew the #this is not an ash-tray action, which had been highly popular in 2015!

We focused on the cigarette butt in the Bastille district (Paris). Unfortunately, the usual items of litter were identified (bottles, cigarette packets, bottle tops, plastic cups and food packaging...)

We emptied all the cigarette butts onto a plastic sheet and made little piles of 100 with the participants to make counting easier. The result defies all argument: 165 piles, i.e. 16500 cigarette butts! Along a route limited to 3 streets, with slightly under 50 participants, for around 1 hour 30 minutes.

The thing that we enjoyed during the counting process, which was detailed and participative, apart from the figures, which were useful and reliable, was that passers-by were captivated. Every time, in fact, passers-by or locals were struck by our Initiatives, giving us the opportunity to create a special awareness-raising time with these people.»

*« A **1 122 000** euro fine would have been gotten to Paris for throwing cigarette butts on the public highway. »*

WESTERN MEDITERRANEAN

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

GENERAL DATA ON THE WHOLE SEA AREA

Extrapolation based on a total of 32 collections which took place in this sea area.

9 523*

participants sensitised, **2 127* of them were schoolchildren.**

5 225*

bags of litter were collected by the participants

191 370 m*

riverbanks, lakes and rivers, so 191km have been examinated by the Ocean Initiatives participants.

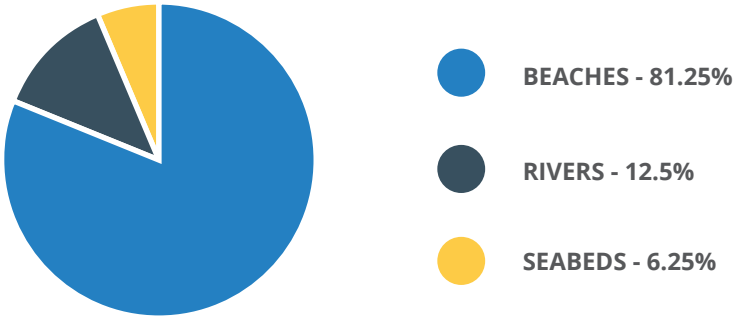
311 m³*

Total volume of litter collected.

DATA FROM LITTER QUANTIFICATION

The 32 quantification actions took place in Algeria (2), Spain (7), France (17) and Italy (6). **76 623 items were picked up and quantified, over a distance of 21 850 meters, which represents a volume of 41.88 m³.**

TYPES OF COLLECTIONS



TOP 5 OF COLLECTED LITTER

12 680
PIECES OF PLASTIC 2.5-50 CM

10 657
CIGARETTE BUTTS

6 875
BOTTLE CAPS

6 615
PIECES OF GLASS

4 991
PLASTIC BAGS AND PIECES

TOTAL VOLUME OF COLLECTED LITTER

PLASTIC

10 657
CIGARETTE BUTTS

3 145
BOTTLES < OR = 0.5 L

3 937
BOTTLES > 0.5 L

6 875
BOTTLE CAPS

1 891
FOOD PACKAGING

4 991
PLASTIC BAGS AND PIECES

1 828
SWEET PACKAGING

1 456
LOLLIPOP STICKS

540
MEDICAL WASTE: PACKAGING, CONTAINERS

4 459
SANITARY WASTES: COTTON SWABS

790
SANITARY WASTES: TAMPONS

4 521
PIECES OF POLYSTYRENE 2.5-50 CM

12 680
PIECES OF PLASTIC 2.5-50 CM

1 100
PLASTIC CUPS

1 327
PICNIC DISHES

905
STRAWS STIR-STICKS

829
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

510
FISHING: LINES, HOOKS

896
FISHING: NETS, INTERTWINED ROPES

489
SHOTGUN SHELLS

54
TYRES

279
TOYS

426
LIGHTERS

60
BALLOONS

281
SHOES SANDALS

27
SHELFISH AQUACULTURE

58
BIOMEDIAS

GLASS

2 237
GLASS BOTTLES

6 615
PIECES OF GLASS

METAL

1 762
CANS

551
PIECES OF IRON

CLOTH

447
CLOTHING TEA TOWELS

TOTAL VOLUME OF COLLECTED LITTER IN MARINE ENVIRONMENT

74 103 were picked up and quantified throughout 28 collections (included two seabeds actions) carried out on this sea area, **over a distance of 15 250 meters, which represents a volume of 35.5 m³.** 598 bags were picked up throughout 28 collections (2 in Algeria, 6 in Spain, 14 in France and 6 in Italy).

PLASTIC

10 655
CIGARETTE BUTTS

3 032
BOTTLES < OR = 0.5 L

3 457
BOTTLES > 0.5 L

6 607
BOTTLE CAPS

1 880
FOOD PACKAGING

4 636
PLASTIC BAGS AND PIECES

1 770
SWEET PACKAGING

1 455
LOLLIPOP STICKS

514
MEDICAL WASTE: PACKAGING, CONTAINERS

4 349
SANITARY WASTES: COTTON SWABS

779
SANITARY WASTES: TAMPONS

4 121
PIECES OF POLYSTYRENE 2.5-50 CM

12 560
PIECES OF PLASTIC 2.5-50 CM

1 085
PLASTIC CUPS

1 327
PICNIC DISHES

895
STRAWS STIR-STICKS

812
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

510
FISHING: LINES, HOOKS

846
FISHING: NETS, INTERTWINED ROPES

477
SHOTGUN SHELLS

52
TYRES

274
TOYS

396
LIGHTERS

56
BALLOONS

261
SHOES SANDALS

16
SHELFISH AQUACULTURE

58
BIOMEDIAS

GLASS

2 046
GLASS BOTTLES

6 585
PIECES OF GLASS

METAL

1 683
CANS

488
PIECES OF IRON

CLOTH

421
CLOTHING TEA TOWELS

SOME DATA

17.08%
of collected litter are pieces of plastic between 2.5 and 50 cm.

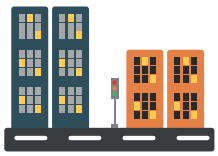
14.49%
of collected litter are cigarette butts.

5.91%
of collected litter are cotton swabs.

35%
of the organizers identified one or several events with a possible influence on the quantity of litter found on the beaches and seabeds of the Mediterranean coastline.

25%
of the organizers informed us about weather conditions that might explain the quantity and type of litter found during their action.

93%
of beaches and seabeds where quantification action took place are tourist beaches.



78,6%
of beaches and seabeds where quantification action took place are located near a town.

Extremely large quantities of litter were found during a collection and quantification action on the island of Majorca in April 2016: 245 tampon applicators, 475 plastic cups and 564 picnic dishes.

TYPES OF ACTIVITIES

We have asked participants to tell us what, according to them, is the origin of the litter found on their actions. Here are the aswers:

50%
of beaches are nautical activity areas (swimming, kite surfing, surfing, sailing, paddle boarding, diving...).

39%
of the beaches and seabeds are close to professional fishing and leisure areas.

28,6%
of the beaches are close to areas of port activity (oil terminals or cruise liners) .

TOTAL VOLUME OF COLLECTED LITTER IN WATERCOURSES

2 520 were picked up and quantified throughout 4 quantification actions carried out on the rivers of this area, **over a distance of 6 600 meters, which represents a volume of 6.38 m³.** 102 bags were picked up troughout 4 collections: 3 in France, 1 in Spain. Three of the collections were carried out from a boat (kayak) and the figures given below therefore correspond mainly to floating debris or litter washed up onto the banks.

PLASTIC

2
CIGARETTE BUTTS

113
BOTTLES < OR = 0.5 L

480
BOTTLES > 0.5 L

268
BOTTLE CAPS

11
FOOD PACKAGING

355
PLASTIC BAGS AND PIECES

58
SWEET PACKAGING

1
LOLLIPOP STICKS

26
MEDICAL WASTE: PACKAGING, CONTAINERS

110
SANITARY WASTES: COTTON SWABS

11
SANITARY WASTES: TAMPONS

400
PIECES OF POLYSTYRENE 2.5-50 CM

120
PIECES OF PLASTIC 2.5-50 CM

15
PLASTIC CUPS

0
PICNIC DISHES

10
STRAWS STIR-STICKS

17
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

0
FISHING: LINES, HOOKS

50
FISHING: NETS, INTERTWINED ROPES

12
SHOTGUN SHELLS

2
TYRES

5
TOYS

30
LIGHTERS

4
BALLOONS

20
SHOES SANDALS

11
SHELFISH AQUACULTURE

0
BIOMEDIAS

GLASS

191
GLASS BOTTLES

30
PIECES OF GLASS

METAL

79
CANS

63
PIECES OF IRON

CLOTH

26
CLOTHING TEA TOWELS

SOME DATA

The items of litter most frequently found on the riverbanks are:

19.06%
BOTTLES
> 0.5 L

15.89%
PIECES OF
POLYSTYRENE
2.5-50 CM

14.10%
PLASTIC BAGS
AND PIECES

LARGE PIECES

During the 4 actions on rivers, large pieces of litter were found (suitcase, fire extinguisher, large trash can, 2 100 liter jerrycans, metal cooker casing, ceramic bidet, etc...).

IN THE VAR AREA...

The organizer of a collection that took place from a boat on a coastal river in the Var area (France) explained that in his collection, the greatest volume picked up (black plastic debris) came from agriculture, followed by fishermen and picnickers (plastic bottles, left-overs from meals), and then by fishing boats (foam, floaters and polystyrene). Some floods may bring plastic waste from towns upstream, which gets stuck in the trees along the banks, but there has been no significant flooding for the last one and half years.

FOCUS ON LAKE GENEVA (SWITZERLAND, FRANCE):

6 379 were picked up and quantified throughout 9 collections carried out in in Switzerland on the banks of Lake Geneva. The Rhone crosses this lake from East to West before flowing into the Mediterranean Sea. **These collection and sorting actions brought together 76 people along a coastline of 14400 meters.** 65 bags and a skip were filled, representing a volume of 17.485 m^3.

TOP 5 OF COLLECTED LITTER

32.4%
CIGARETTE BUTTS

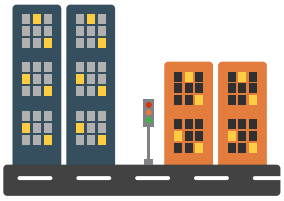
9.69%
PIECES OF POLYSTYRENE 2.5-50 CM

9.14%
SWEET PACKAGING

7.71%
PLASTIC BAGS AND PIECES

4.94%
PIECES OF GLASS

SOME DATA



67%

of the beaches where the actions took place are close to an urban center. On the Swiss side, the banks of Lake Geneva have all undergone urban development.

55%

of beaches are close to agriculture areas.

TOTAL VOLUME OF COLLECTED LITTER ON THE BANKS OF LAKE GENEVA

PLASTIC

2 095
CIGARETTE BUTTS

137
BOTTLES < OR = 0.5 L

49
BOTTLES > 0.5 L

178
BOTTLE CAPS

169
FOOD PACKAGING

492
PLASTIC BAGS AND PIECES

583
SWEET PACKAGING

45
LOLLIPOP STICKS

15
MEDICAL WASTE: PACKAGING, CONTAINERS

163
SANITARY WASTES: COTTON SWABS

24
SANITARY WASTES: TAMPONS

618
PIECES OF POLYSTYRENE 2.5-50 CM

315
PIECES OF PLASTIC 2.5-50 CM

59
PLASTIC CUPS

25
PICNIC DISHES

114
STRAWS STIR-STICKS

14
FISHING: CORDS, SMALL CORDS (DIAMETER < 1 CM)

3
FISHING: LINES, HOOKS

12
FISHING: NETS, INTERTWINED ROPES

9
SHOTGUN SHELLS

5
TYRES

18
TOYS

14
LIGHTERS

5
BALLOONS

8
SHOES SANDALS

0
SHELFISH AQUACULTURE

151
BIOMEDIAS

GLASS

306
GLASS BOTTLES

348
PIECES OF GLASS

METAL

252
CANS

85
PIECES OF IRON

CLOTH

68
CLOTHING TEA TOWELS

TESTIMONIAL

VALÉRIE MÉRAT

FROM THE ASSOCIATION SOL À TOUS-TOUS AU SOL, SWITZERLAND

I created the association "Sol à tous - Tous au sol" in March 2011, when I had just begun running and cycle racing. Seeing the roadsides strewn with litter (invisible from a car), it immediately seemed obvious that this litter would be moved by the wind or water, and that its impact on the environment would also be significant both in an aquatic environment and on the ground.

The aim was not particularly to protect the oceans. At the time, we did not talk a lot about integrated management of ocean waste. The impact that waste had on the environment - of whatever nature - was our only concern. This concern is ongoing and our participation in Ocean Initiatives is simply a matter of becoming aware that many of the items of litter that we pick up - even in Switzerland - may potentially end up in the seas. The Initiatives' slogan "throw litter on the ground and it will end up in the sea" played, and still plays, an important part in that. I remember having mentioned the problem of litter being moved from one place to another during an interview with a local television channel. I explained, at the time, that a plastic bag thrown on the ground here could really end up in the Mediterranean Sea. The expression on the journalist's face said a lot to me about the public's disbelief on this question.

It therefore also seemed important to us to provide information to Ocean Initiatives in support of your work in influencing the authorities and public opinion.

If I take into consideration all our outings (a dozen per year, not necessarily on a lake or riverside), it seems obvious that the most recurrent items of waste in terms of volume are PET or glass bottles, aluminum drinks cans and sweet packaging, followed by clothing, however strange this may seem. Whole bags of clothing rot away in the woods around the town of Nyon... is this due to people raiding clothing collection bins or people getting undressed in the bushes? In my opinion, it's a bit of both! The question remains as to how people who leave their clothes behind in the forest get home?

The all-category champion in terms of quantity is, of course, the cigarette butt. We are, in fact, thinking about a way of making smokers aware of the fact that their cigarette butt is a worrying form of water pollution.

We also provide follow-up on a beach (Allaman) in line with the OSPAR protocol. We only find small items of litter there, but there are thousands of them and the winners are without a doubt the sticks for cleaning your ears (Q-tips) and agricultural ties used to install pheromones in the vineyards (I think that is the case, because I saw some in the vineyards, but I have no formal proof).

When we pick up litter in an area where the items are small, it's more difficult to motivate the participants. Most of them remain convinced that a big item of litter pollutes more than a little one. I give them the example of cigarette butts and batteries to persuade them, but picking up the "small fry" remains a difficult exercise to lead. This means that the most difficult part is the choice of the sites to be cleaned.
And then, we must admit that counting litter after an OSPAR exercise requires major motivation of the troops! We have to explain over and over again! This is a necessity, so that the volunteers agree to carry out this long, meticulous, difficult and repetitive action.

On the contrary, with regard to the authorities, it is not difficult to convince the local authority in question to participate in or provide logistics help for the OSPAR action underway.

In general, the local authorities provide considerable support, with one or two exceptions. Sometimes, indeed, they explain to us that we should provide them with a very detailed itinerary to ensure that we do not pick up one piece of litter from another district that should be handled by the neighboring district! I have to admit that I have given up in those cases.

Another, fairly significant difficulty is that of convincing the public that the fact that local authority employees clean public sites does not mean there is no need to pick up litter (or to throw it on the ground). The public, but also volunteers, often tell me that our work is of no use because the public highway services are already doing it. It seems that few people realize that the task is much too big for that.

OTHER COASTAL AREAS

In this report, we only present the maritime coastal areas for which we have enough analyzed data for them to be representative. However, the organizers got involved in quantification actions throughout Europe (the Adriatic Sea, Aegean Sea and the Celtic, Baltic and Black Seas) and even at the other end of the world (Caribbean, South Pacific, North Atlantic, South Atlantic, etc.) and we would like to thank them by allowing them to speak.

ADRIATIC SEA

TESTIMONIAL

DOUGLAS GIORGIO RAMBUKWELLA

WE LOVE THE SEA #WELOVETHESEA, SPIAGGIA PANE E POMODORO, ITALY, OCTOBER 16TH, 2017

Without a doubt, the item of litter most frequently found during our collection is the plastic stick (cotton swab) used to clean the ears. In my opinion, they must be old cotton swabs, because I think that nowadays in Italy they are made of cellulose and not in plastic.

In any case, the beaches are full of these sticks at the high water line in areas that are the furthest from the sea. It is very difficult to recover them because of their size and quantity. In second place in the list of items of litter found the most often I would put cigarette butts and in third place plastic bottle caps. For the rest, we have often found plastic bottles, plastic bags, bits of plastic objects, packaging and other food containers, pieces of fishing net, personal hygiene products and tampons/sanitary towels.

The initiative received a warm welcome from passers-by and people using the beach, who started to pick up the litter spontaneously and to put it aside for us to recover it and throw it away with the litter from our collection. Some young people passing by the beach decided to join us and several passers-by asked us questions about our action, asking us if the same initiative could be taken on another beach.

The initiative pleased people and was even reported on national and local television news programs, in particular the "Gazzetta del mezzogiorno" "La Repubblica" and other online magazines. We are sure to organize other collections during the Spring and Summer.

INDIAN OCEAN

TESTIMONIAL

ODUOR NANCY AWUOR

MKOMANI BEACH CLEAN UP KENYA MARINE & FISHERIES RESEARCH INSTITUTE, KENYA, MAY 12TH, 2016

I am a marine scientist, most or all of my work revolves around the oceans. I also study coastal management course for my Masters in Europe where I came to know about Oceans Initiative through a colleague who used to organize various clean ups in Faro, Portugal. Marine litter have been causing havoc to marine environment, most times we have seen aquatic animals stuck in the litter, turtles strangled with the ghost nets etc during our fields works. This is what motivated me and other colleagues to organize for cleanups of beaches in Kenya to at least prevent the impacts of these wastes to the aquatic environment.

In most Kenyan beaches the most content of the wastes are plastic bags and bottles. However, glass bottles, tin cans from drinks, rubbers, clothes and papers also formed huge part of the wastes.

We should note that if we sit back and do nothing towards marine litter, a time will come that we will have more plastics than fish in the ocean. The time is now let's rise up and save our oceans for the generations to come.

NORTH ATLANTIC

TESTIMONIAL

MOHAMED AITBOULAHSEN

HELP US CLEAN LARACHE BEACH !, MOROCCO, JUNE 5TH, 2016

I am a member of the Surfing Association of the town of Larache in Morocco (Association Surf Larache) and our permanent contact with the beach and the ocean make our role and our commitment to its protection essential. Most of our members are aged between 8 and 18 and I can see that awareness of the need to protect the shore and the ocean is an essential, complementary part of their learning the sport of Surfing. Our association has made protection and raising awareness of the need to protect the coast a major objective.

Larache beach (Rass Rmel or "playa peligrosa", its local name) is at the mouth of the Loukouss River, on the right bank. The town of Larache is on the other bank of the river, which means that the beach is neglected by the local authorities (the town's cleaning companies either do not clean it at all or very little.) Some fishermen or surfers clean the beach.

Larache Beach is at the entrance to a significant fishing port. Most of the litter found during our actions is generated by fishing activities (sometimes practiced irresponsibly) or brought to the beach from the town by the wind or the river currents. Litter is also left by people who come to the beach for a party (especially beer and alcoholic drinks bottles). During the Summer, kiosks selling sandwiches, food and coffee open to the public, also generating a great deal of litter thrown directly onto the beach by holidaymakers (results from a survey given to participants during a collection in 2016)

We often meet difficulties with the local urban authorities and the company responsible for litter management. During the last action, we did not receive the plastic bags to collect our litter in, in spite of the fact that we did everything necessary in the procedures and contacted those responsible in ample time. The collected litter was therefore only taken away by the company's lorry 2 days after the action!

During the most recent actions, we opted for raising public awareness, particularly young children (alternatives, solutions, etc.) because we realized that the majority of citizens were not informed or aware of the issues (they throw litter everywhere without any problem).

SOUTH PACIFIC

TESTIMONIAL

JULIE DÉSERT

INTERCONTINENTAL BORA BORA RESORT & THALASSO SPA, FRENCH POLYNESIA, MARCH 11TH, 2016

La Orana (hello in tahitian)!

Let me introduce myself - Julie Désert, Anthropology research fellow. I do research into dumping, beach cleaning actions and their social, economic, tourist-related, cultural and environmental impact. For my final year work experience period, I was a sustainable development policy officer in the InterContinental® Bora Bora Resort & Thalasso Spa for six months, in Bora Bora in French Polynesia.

The awareness-raising approach was so effective that I felt it necessary to organize an Ocean Initiative amongst the employees. A cigarette butt alone pollutes 500 liters of water. By doing the right gestures to pick up one butt we expect to raise awareness on the issue and to increase the symbolism of the exercise in people's mind.

This litter collection took place "on the reef side" of our establishment, on Motu Piti Aau. A litter collection is organized every two months, focusing on cleaning the reef and the lagoon, alternately. On top of this, the Green Team does "express cleaning" every month.

This March 11th, 2016, around fifteen employees collected 11 100-Liter bags in one hour. The vast majority of the collected litter was plastic.

I then suggested that we describe the characteristics of all the collected litter. I remember the shared enthusiasm and the incredible solidarity amongst the employees and a time of genuine discussion as to how to complete this mission, which all contributed to the success of the awareness-raising campaign. Rather than simply picking up litter, what we were doing was describing and understanding the itinerant process of litter dumping. This helps participants to feel committed to something much more worthwhile and significant than a simple cleaning-up action.

How should we approach cleaning our lagoon, reputed to be a paradise? Picking up litter dumped in the middle of the Pacific gives new life to the feeling that we are dwellers on Planet Earth. Dwelling in the World does not just mean throwing our litter to the winds and letting it flow on the tides, but also thinking about how to reduce waste at the source of world production.

03
BIOMEDIAS

BIOMEDIAS, AS A FOCUS FOR SURFRIDER SINCE 2010

Since 2010, Surfrider noticed the presence of an important number of plastic wheels, called biocarriers, on the beaches and banks of streams in France. These biocarriers are used as bacteria support during the biological treatment phase of the collective and industrial waste water plants.

The proliferation of these plastic washers in the marine environment and on the coastlines increases the amount of pollution from aquatic waste. In order to fight this specific source of plastic pollution, Surfrider investigates, aiming at better understanding the process, identifying the producers and users, searching for the origins of this waste but also in order to to prevent efficiently the pollution of aquatic environments.

During the 2016 edition of the Ocean Initiatives, 1660 biocarriers were found during the 54 waste collections on the beaches, lakes and rivers(every area and shape combined). Biocarriers were found on 27.84% of collection programs.

Over 70.9% of the biocarriers identified by our organizers was found on the beaches of the Bay of Biscay and the Iberian Coasts.10.84% were identified in the Adriatic. 36 biocarriers were found in rivers (mainly in the Seine). We note a decrease in the number of biocarriers found by our organizers in 2016. This can be explained by the reduction in the number of report forms filled in, compared with 2015, but also the milder weather conditions, with less flooding of watercourses and less mobilization of litter out at sea. We received no major notification of litter beaching, which makes us think that leaks from treatment stations were scattered, rather than large-scale leaks.

You may continue to report back throughout the year, helping us to identify sources of emissions of filter materials into the environment: www.gardiensdelacote.com/temoignage-medias-filtrants/. We need you to supply information for our investigative work. A study on pollution by filter material will be published in March 2017, based on data collected since 2010. This study has a preventive objective. Therefore, through a status report and a constructive consultation with the different players, we are seeking to understand the origin of the problem and the scope of the issues, in order to avoid emissions towards aquatic environments, particularly through the use of good practices.

COASTLINE / SHAPE	1	2	3	4	5	6	7	8	9	10
Adriatic Sea	0	40	0	20	50	0	10	0	30	8
Bay of Biscay	77	47	29	127	158	65	109	254	255	40
Lake Geneva	0	0	0	0	0	0	0	0	0	0
Celtic Seas	0	0	0	0	0	0	0	0	2	0
Greater North sea	30	0	0	25	1	4	0	0	0	0
Western Mediterranean	0	19	2	0	0	1	16	0	0	1
TOTAL	107	106	31	172	209	70	135	254	287	49

NUMBER OF BIOMEDIA FOUND ACROSS 1000 METERS PER MARITIME COASTAL AREA

COASTAL AREA	NUMBERS OF BIOMEDIA / 1000M BEACH
Adriactic Sea	**30.3**
Bay of Biscay	**2.6**
Lake Geneva	**7**
Celtic Seas	**0.1**
Greather North Sea	**2.6**
Western Mediterranean	**0.3**

TYPES OF BIOMEDIAS PER MARITIME COASTAL AREA

Models 3, 4, 5, 6, 7, 8, 9, 10 and 18 were mainly found in the Bay of Biscay, whilst 10 11 and 12 were mainly notified on Lake Geneva. In 2012, 3 Swiss treatment plants (Evolène, Saillon and Saint Prex) were subject to malfunctions and discharged this filter material into the waters of Lake Geneva. 4 years later, these biocarriers can still be found on the lakeside.

11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	0	10	0	10	2	0	0	0	0	0	0	0	0
0	6	1	0	2	0	1	5	1	0	0	0	0	0
86	33	32	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	5	0	3	0	0	0	0	10	10	0	0
5	1	2	0	0	0	3	0	2	1	4	2	0	1
91	42	45	5	12	5	4	5	3	1	14	12	0	1

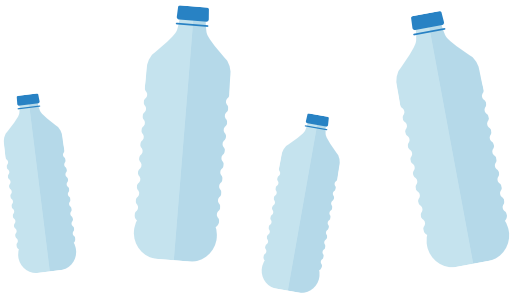
04
FOCUS ON PLASTIC BOTTLES

PLASTIC BOTTLES, IN THE TOP TEN OF MARINE LITTER

Plastic bottles and their caps are amongst the ten items of litter most often found on the beaches and in the rivers. These are single-use plastic objects which, when they are found in the environment, become real predators for aquatic fauna and flora. Alternatives do exist, however, making it possible to reduce this pollution at source.

Surfrider has developed the "Ban on plastic bottles" campaign as part of the fight against marine litter. Its objective is to reduce consumption of the plastic bottles that pollute the shore and the marine environment. In order to do this, the campaign aims to promote alternative solutions in order to stimulate change in consumer habits with regard to single-use drinks bottles.

Politically speaking, Surfrider will benefit from a favorable European context, with the work of European institutions on the circular economy, and will then fight to create opportunities on the question of plastic bottles. It will take advantage of the discussions on plastic bottles initiated in several European countries such as Belgium, the Netherlands or Germany.



9.85%

Plastic drinks bottles (of all sizes) and other items of litter related to bottles (plastic caps) represent 9.85% of litter collected during Ocean Initiatives in 2016.

25 744

bottles of every size were picked up by participants

13 672

BOTTLES
less than or equal to 50 cl

12 072

BOTTLES
of over 50 cl

27%

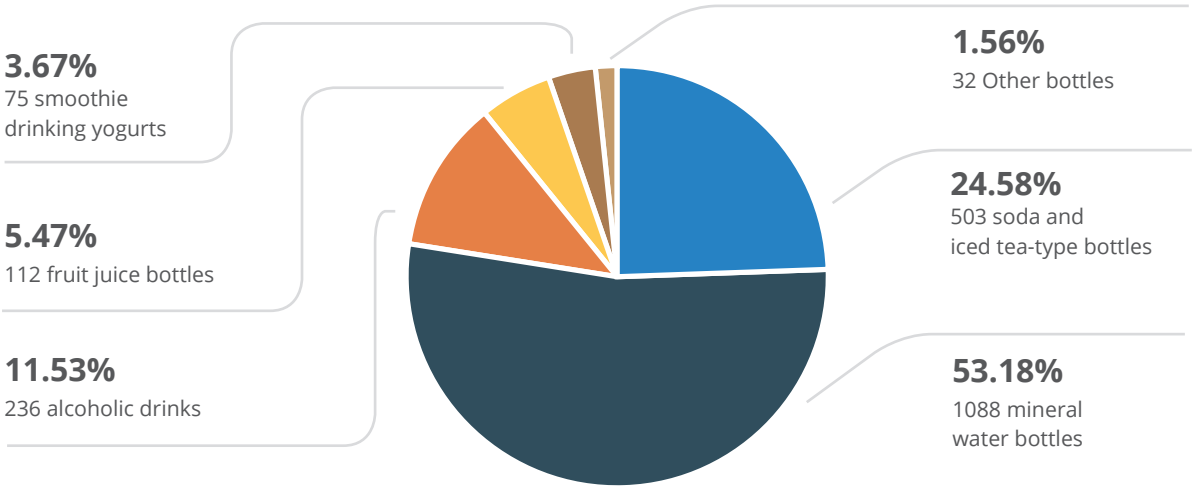
of the bottles were picked up in rivers.

73%

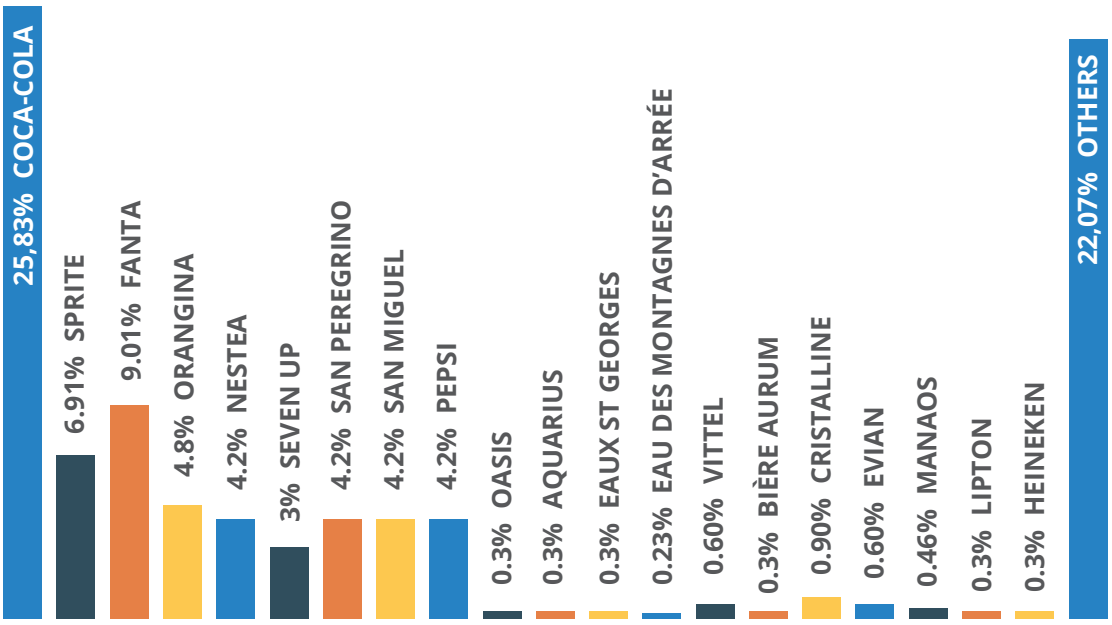
of the bottles were picked up in the marine environment.

DIFFERENT TYPES OF BOTTLES

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



TYPES OF BOTTLES BY BRANDS



PERCENTAGE OF ITEMS RELATED TO DRINKS BY MARITIME COASTAL AREA

6.06% BAY OF BISCAY
14.33% GREATHER NORTH SEA
17.62% WESTERN MEDITERRANEAN

510

plastic drinks bottles (362 with a capacity of less than 0.5 L and 148 of more than 0.5 L) were found during a single collection in Kenya. These were, for the most part, mineral water bottles from the Dasani brand and Coca Cola bottles.

05 MARINE LITTER WATCH

29 ORGANIZERS JOIN THE MARINE LITTER WATCH APP

In 2016, Surfrider continued its collaboration with the European Environment Agency in order to share data from collections organized during Ocean Initiatives and to supply the European data base with information. It is of paramount importance that the institutes/associations working on ways of fighting the increase in marine litter understand the situation in the field and that they all base their work on the same information to suggest measures to be adopted to fight against this scourge.

The organizers of Ocean Initiatives, who are more experienced or who wish to invest more time in the collection and feedback of information have had the opportunity to take part in a complete quantification action, in line with standard European protocol, through the application Marine Litter Watch.

29 organizers took part in this adventure in Italy, Germany, the Netherlands, France, Spain and Portugal. They quantified all the waste on their beach along a 100-meter coastline, basing their work on a list of 213 items, divided into 9 categories for the purposes of sorting and counting.

To view all the data from the Marine Litter Watch application, click onto this link : http://www.eea.europa.eu/themes/coast_sea/marine-litterwatch/data-and-results/marine-litterwatch-data-viewer-1

44 857

items of litter were found during these actions

96%

of the recovered litter is made of plastic

TOP 5 OF COLLECTED LITTER

28%
CIGARETTE BUTTS

12%
PIECES OF PLASTIC 2.5-50 CM

8%
PIECES OF POLYSTYRENE 2.5-50 CM

7.71%
SANITARY WASTE: COTTON-SWABS

6%
BOTTLES > 0.5 L

4 ORGANIZERS DECIDE TO GO FURTHER

4 Ocean Initiatives organizers have decided to go further and have committed to monitoring their beach 4 times a year to gain a better understanding of the type and distribution of marine litter, taking into account seasonal variations.

Monitoring of waste on the beaches according to scientific protocols (protocole OSPAR or the standard European protocol "guidance on monitoring of marine litter") helps to identify and quantify the beached litter, but also to define the human activities causing this litter. In fact, the probable source of the litter washed up on the coasts may sometimes be identified, which has proved to be essential for the objective of reducing waste at source. Essentially, what is involved is litter from fishing activities (nets, cords, bait boxes) or shellfish aquaculture (swarm collectors used in shellfish farming, thick elastic bands, fish tags) or litter from treatment systems (tampons, cotton swabs etc.)

Identification of this litter helps us to improve our understanding of the sources and the ways in which litter may be introduced into the marine environment (e.g. fishing litter thrown directly into the sea or into toilets, with regard to cotton swabs). The origin of some litter cannot, however, be determined with any certainty. This means that a bottle of water for example, can come from a user on the beach who left it there, have been thrown away upstream in a town or thrown straight into the sea by a pleasure boat user. Identification of the litter does not, in this case, allow for any traceability.

Analysis of the composition of the litter on the coastlines may also contribute to determining the degree of impact of this litter on the marine environment.

In order to promote the work done by volunteers from the associations that are partners of the European Environment Agency in terms of beach monitoring, Surfrider took part in Marine LItter Watch Month. The aim was to share our experience of monitoring marine litter with European citizens by inviting them to join us on the beaches for a month. This pilot scheme aims to develop a European network of volunteers who want to get involved in monitoring their beach.

OCEAN INITIATIVES

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

www.oceaninitiatives.org