

### **OCEAN INITIATIVES 2014 ENVIRONMENTAL REPORT**



#### THE TEAM



DAVID DADA MANAGEMENT



BENJAMIN VAN HOOREBEKE MOBILIZATION PROJECT MANAGER



AINES ARIZMENDI

MOBILIZATION PROJECT MANAGER



**CRISTINA BARREAU** 

ENVIRONMENTAL CONSULTANT





SURFRIDER CHAPTERS MOBILIZATION





COMMUNICATION





GRAPHIC DESIGN - WEB VIDEO - COMMUNICATION





MOBILIZATION

# # EDITORIAL

**2833** m<sup>3</sup> is the volume of litter collected in lakes and rivers and on beaches and the seabed during the 19th Ocean Initiatives. This staggering figure shows us that the issue of marine litter invading the ocean is far from resolved. In spite of this disheartening analysis, a formidable ray of hope remains: YOU!

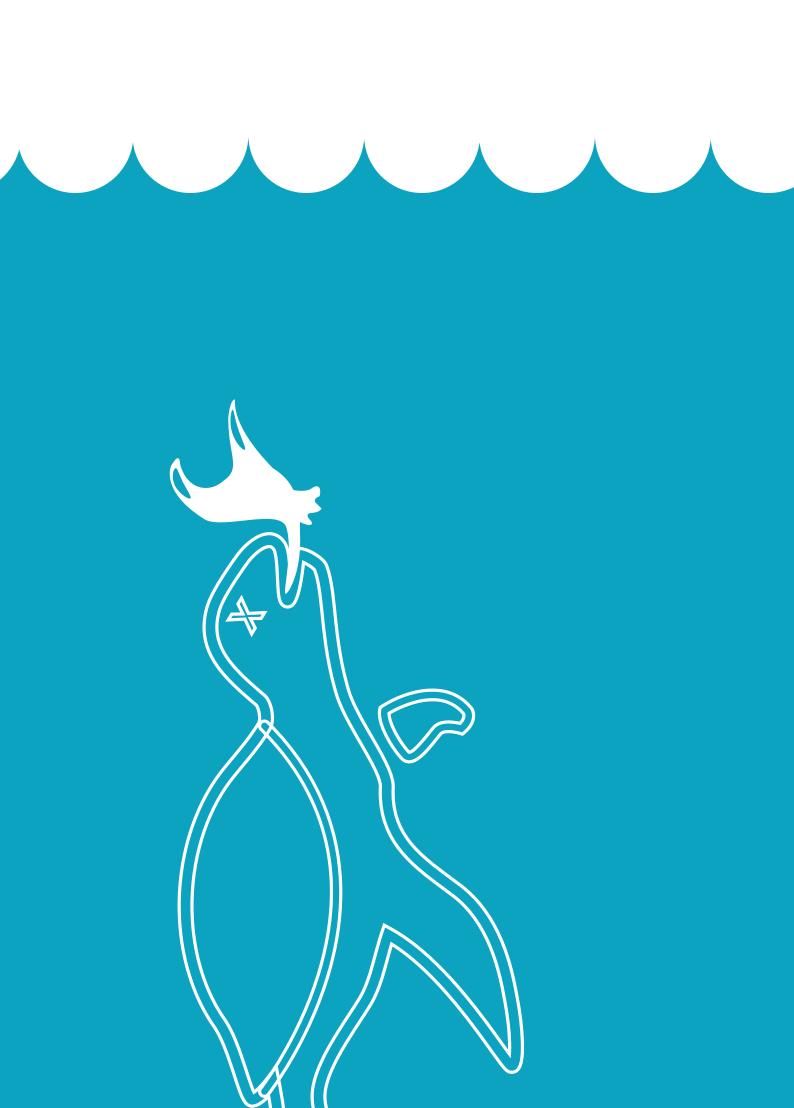
**45 366** Is the number of individuals who took action across the world to fight against this scourge and who participated in recovering the places you love and often visit. It also represents the potential for raising the awareness of 1 million citizens, if each Ocean Initiatives participant informs their loved ones. Thanks to this unprecedented action we were able to reach people upstream of the coastal area, inland, which is the source of over 80% of the waste that ends up in our seas and oceans. Over these 19 years working together, the environmental aspect of the operation has not ceased to develop and our knowledge of marine litter has become more and more precise. This deepened understanding of the issue is due, in large part, to the implementation of a data sheet that is completed by participants which enables us to draft an environmental report for the Ocean Initiatives.

This year, **21 632 citizens** were involved in participative science by filling out the data sheet and giving us precious data on the rivers, lakes, beaches and the seabed. The data was analysed and extrapolated in order to document the current state of pollution caused by marine litter in Europe and the world. In the report we have presented the data based on large maritime areas which have their own characteristics. These areas also correspond to the large maritime coastlines targeted by the Marine Strategy Framework Directive, the first European text recognising marine litter as an indicator of the quality of the environment, aiming to achieve a better environmental status in marine waters by 2020.

This report belongs to you, and the Ocean Initiatives team is delighted to share it with you.

Continue to take action every day and don't forget «if you drop it in the land, it ends up on the sea".

The Ocean Initiatives team

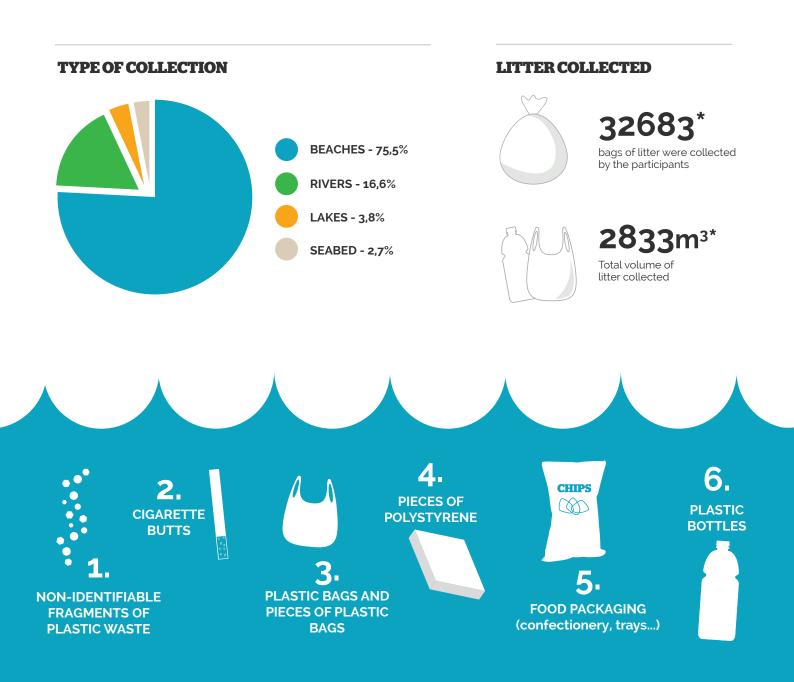


# **#SUMMARY**

01. GENERAL REPORT	
02. REPORT BY SEA AREAS	12
ADRIATIC SEA	14
BALTIC SEA	
BAY OF BISCAY AND IBERIAN COAST	
BLACK SEA	
CELTIC SEAS	26
NORTH SEA CHANNEL	28
IONIAN SEA AND CENTRAL MEDITERRANEAN	
MACARONESIA	36
	38
WESTERN MEDITERRANEAN	40
CARIBBEAN AREA	44
INDIAN SEA	46
SOUTH ATLANTIC	
03. BIOCARRIERS	50
04. FOCUS: RIVERINE INPUT	52



\* Numbers with an asterisk are derived from extrapolations made from 576 reports filed before October 27th 2014, from more than 1187 collections.



#### **REDISTRIBUTION OF WASTE BY SEA AREAS**

Sea areas in which the collection was made, in terms of percentage

- ADRIATIC SEA: 1.76%
  AEGEAN SEA: 0.18%
  BALTIC SEA: 1.23%
  BAY OF BISCAY
  IBERIAN COAST: 38,10%
  BLACK SEA: 1.06%
- 6. CELTIC SEAS: 1,59%
  7. NORTH SEA CHANNEL: 26,46%
  8. IONIAN SEA: 0,88%
  9. MACARONESIA: 0,71%
  10. MEDITERRANEAN: 22,57%

#### **OUTSIDE ZONES DEFINED BY THE MFSD: 5.47%**

NORTH ATLANTIC: 32,26% SOUTH ATLANTIC: 16,13% CARIBBEAN: 16,13% GULF OF FINLAND: 3,23% GULF OF MEXICO: 3,23% INDIAN OCEAN: 19,35% NORTH PAC: 3,23% SOUTH PAC: 6,45%



#### **PEOPLE SENSITISED**



45366\* people have been sensitised. 15943' of them were

schoolchildren.

#### **AREA COVERED**





#### **ITEMS COLLECTED**

In 2014, we asked the participants taking part in the Ocean Initiatives to quantify 25 types of litter during their actions in order to help us better understand the pollution created by marine litter around the world. These types of litter correspond to those which were reported most often during the 2013 edition. More than 16,600 people took part in the exercise. **The litter collected on the collections of more than half of the organizers was 75%-100% plastic litter**.

#### Total number of items collected in 478 actions: 50,968 quantified items (excluding industrial plastic granules).



#### **OTHER LITTER IN LARGE QUANTITIES**

Litter that has been encountered in large quantities by our participants in their areas:



#### **EVENTS INFLUENCE**

The organizers of the Ocean Initiatives have identified specific events as factors that may influence the quantity of litter found.



of organizers noted climatic events (floods, storms, large tides) as being a factor that could influence the amount of litter found.



of participants make a connection between the large amount of litter found and a specific event that happened before the collection (party, festival, protest)

6.8%

of the beaches examined were located close to a river or a stream. On the beaches close to the rivers, **202,013 items were collected**, **which is 56.9%** of the total amount of litter collected during the Ocean Initiatives 2014.

#### UNUSUAL OBJECTS - « STREAMS AND OCEANS: THE LARGEST DUMP OF HUMAN ACTIVITY »

**477 large or unusual objects** were found by the participants during the Ocean Initiatives (567 collections).

#### **WELCOME TO THE SCRAPYARD**



3 entire cars and 58 vehicle spare parts were found by the participants during the 567 collections.

#### Among the various spare parts, we found:

- 1 radiator
- 1 damping system
- 1 car axle
- 2 car seats
- 4 engines
- 5 bumpers
- 8 car batteries
- 1 gearbox
- 2 exhaust manifolds
- 1 muffler
- 3 windscreens
- 1 headlight

#### **NEED EQUIPMENT?**



Household Appliances and other electrical devices:

- 17 refrigerators and one refrigerator door
- 1 cooler
- 6 televisions
- 4 washing machines and 4 drums
- 3 computers
- 1 microwave
- 1 toaster
- 1 coffee machine
- 1 vacuum

No need to spend a fortune on equipment before moving in-take a stroll along the rivers to get what you need!

#### AND ALSO...



**7** UMBRELLAS



**14** TROLLEYS



**16** MATTRESSES



6 ROAD SIGNS



**10** BOAT PIECES



**7** BIKES



6 TOILETS AND TOILET BOWLS



6 FIRE EXTINGUISHERS



3 MOWERS



3 SEX TOYS

#### BUT ALSO ...

CONSTRUCTION MATERIAL AND CONSTRUCTION WASTE IN LARGE QUANTITIES	DRUG PARAPHERNALIA	WASHBASINS
STEREOS	ARMCHAIRS	ONE KAYAK
<b>ONE FASHION DOLL</b>	<b>ONE BOWLING BALL</b>	ONE ICE SKATE
<b>TWO PISTOLS</b>	<b>ONE CRUTCH</b>	<b>ONE SAFE BOX</b>



of large and unusual objects are found on the banks of the streams throughout Europe. It seems some people are using the banks as a rubbish dump.



# **OZ REPORT BY SEA AREAS**

#### **ZONES DEFINED BY THE MFSD**

- ADRIATIC SEA (East coast of Italy, Slovenia, Croatia, Bosnia Herzegovina, Montenegro, Albania)
- BALTIC SEA (Germany, Denmark, Estonia, Finland, Latvia, Lithuania, Poland, Russia, Sweden)
- BAY OF BISCAY AND IBERIAN COAST (France from Point Penmarch, and the Atlantic coasts of Spain and Portugal)
- BLACK SEA (Bulgaria, Georgia, Romania, Russia, Turkey, Ukraine)
- CELTIC SEAS (Ireland, Wales, the west of England and Scotland).
- NORTH SEA CHANNEL (United Kingdom, the north of France, Belgium, the Netherlands, Denmark, the west of Germany, Norway, Sweden)).
- IONIAN SEA AND CENTRAL MEDITERRANEAN (Tunisia, Italy, Greece, Albania).
- MACARONESIA (archipelagos located west of Africa: Madeira Islands, Azores, and the Canary Islands)

#### **OUTSIDE ZONES DEFINED BY THE MFSD**

- NORTH ATLANTIC
- WESTERN MEDITERRANEAN (France, Spain, Italy, Morocco, Tunisia, Algeria.)
- CARIBBEAN AREA (Guadeloupe, Martinique)
- INDIAN OCEAN (Mayotte, La Reunion, Madagascar, Mauritius Island)
- SOUTH ATLANTIC (Argentina, Brazil)



## **ADRIATIC** SEA

#### East cost of Italy, Slovenia, Croatia, Bosnia Herzegovina, Montenegro, Albania

52% rate of return. The collections took place exclusively in Italy.

Numbers with an asterisk are derived from extrapolations made from **10 reports** filed before October 27th 2014, from more than 17 collections organized in this area.

#### **LITTER COLLECTED**



747\* bags of litter were collected by the participants.



**59.88** m<sup>3\*</sup> Total volume of litter collected

#### **PEOPLE SENSITISED**





people sensitised, schoolchildren and general public combined.

#### **AREA COVERED**



#### TOP 5

6,547 items were collected during 7 collections (rivers, beaches...) Top 5 most commonly found items in the Adriatic Sea according to the data provided by the organizers:



1430 NON-IDENTIFIABLE FRAGMENTS OF PLASTIC LITTER



1020 SHELLFISH GATHERING LITTER



1009 PIECES OF POLYSTYRENE



790 PLASTIC BAGS and fragments of plastic bags



470 PLASTIC BOTTLES







#### Germany, Denmark, Estonia, Finland, Latvia, Lithuania, Poland, Russia, Sweden

**41% rate of return.** The collections in Germany, Latvia and Denmark took place exclusively on beaches.

Numbers with an asterisk are derived from extrapolations made from **7 reports** filed before October 27th 2014, from more than **17 collections** organized in this area.

#### LITTER COLLECTED



189\* bags of litter were collected by the participants.



**9 m<sup>3</sup>\*** Total volume of litter collected

#### **PEOPLE SENSITISED**





#### **AREA COVERED**



#### TOP 5

2,318 items collected during 6 collections

Top 5 most commonly found items in the Baltic Sea according to the data provided by our organizers:





759 CIGARETTE BUTTS

455 PIECES OF GLASS



326 PLASTIC BAGS and fragments of plastic bags



272 PACKAGES (wrappers...)



250 NON-IDENTIFIABLE FRAGMENTS OF PLASTIC LITTER

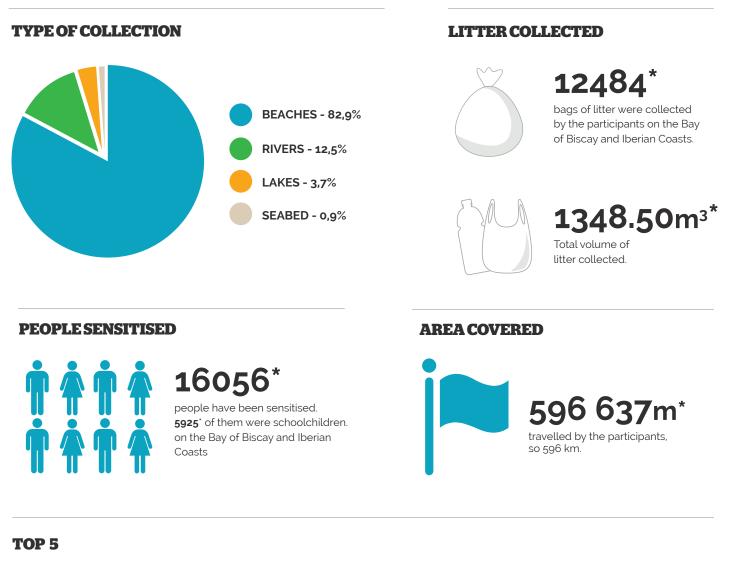


## BAY OF BISCAY AND IBERIAN COAST

France from Point Penmarch, and the Atlantic coasts of Spain and Portugal.

**42% rate of return, so reports from 216 collections.** The collections took place in France (78%), Spain (20%) and Portugal (2%).

Numbers with an asterisk are derived from extrapolations made from **254 reports** filed before October 27th 2014, from more than **515 collections** organized in this area.



207662 items collected during 178 collections.

Top 5 most commonly found items in the Bay of Biscay and Iberian Coast according to the data provided by our organizers:



33205 PIECES OF POLYSTYRENE



29 034 COTTON SWABS



28 219 NON-IDENTIFIABLE FRAGMENTS OF PLASTIC LITTER



25082 PLASTIC BAGS and fragments of plastic bags



**17 435** FISHING-RELATED LITTER (nets, hooks, lines...)

#### FOCUS: RIVER AND LAKES - BAY OF BISCAY AND IBERIAN COAST

947 bags were collected during 35 quantification collections carried out on the rivers and lakes of the Bay of Biscay and Iberian Coast area. The total volume collected was 47.815 m<sup>3</sup>.

#### **21388 ITEMS COLLECTED**



### 100%

of the rivers monitored by our organizers are fishing areas.

61%

of the rivers monitored by our organizers are areas where a lot of hunting occurs.

#### ORIGIN

We asked the organizers to explain to us, in their opinion, the origin of the litter found:



of the people questioned think that the litter that they found is abandoned on the spot and linked to certain individuals (parties, illegal dumping...)



of the people questioned think that the litter they found can be explained by the presence of one or more towns or villages upstream from the area. 18%

of the people questioned made a connection between the floods from the river and the excess of litter found, either because the floods eroded old dumps or because they affected recycling centres in the villages.

#### TESTIMONIAL

#### Tulles Kayak Club, boat clean up on the River Corrèze

«During spring clean-up actions from boats on the River Corrèze the discovery of a washing machine, 2 trolleys, a plastic sink and even a cast iron cauldron really made an impact! We also gathered over 40 tyres, 8500 litres of plastic bottles, 2000 litres of glass bottles, 8m<sup>3</sup> of scrap iron and 6 parts of car bodywork.

With the marine litter we found on the Corrèze we created a sculpture of a whale which was displayed in the town for a week to raise awareness among the local population. A second picture which is quite impressive: a raft which has barely enough space for the helmsman.

We will of course be on board for 2015 even if we hope and fight for greater action on the part of the local authorities. We cleaned up 1/2 a tonne of marine litter from the river again yesterday with students...»



a satisfies in

all states in the states

A Ship

12

1 10 31

#### FOCUS: BEACHES AND SEABEDS - BAY OF BISCAY AND IBERIAN COAST

**4287 bags were collected during 35 quantification** collections carried out on the beaches and seabed of the Bay of Biscay/Iberian Coast area. **The total volume collected was 282.109 m<sup>3</sup>**.



Among the most representative activities of the area we find:

- Nautical activities (leisure, surf, kayak...)
- 2. Fishing activities
- 3. Port activities
- 4. Shellfish gathering activities

74.6% of the Biscay in the

of the beaches monitored in the Bay of Biscay and Iberian Coast area are located in the vicinity of a city.

38.5%

of the organizers mentioned exceptional natural events from the beginning of the year (storms, king tides, tidal waves, and heavy rainfall which caused floods and spates...) as factors that could aggravate the presence of litter.

#### **TESTIMONIALS**

#### AINES ARIZMENDI, SAN SEBASTIÁN (SPAIN)



«As part of the Ocean Initiatives, we began a study on aquatic litter on three beaches in the Spanish Basque Country thanks to clean-up activities, quantification and characterisation of the marine litter in line with the OSPAR protocol.

The endeavor was carried out by various volunteers from the Red Cross participating in a social reintegration programme in San Sebastián, by individuals from the Atzegi association (victims of cerebal palsy) in Zumaia and by an association of retired people in Mutriko.

The aim of these actions undertaken on a monthly basis is to promote participative science (involving citizens in scientific research) in order to collect the necessary data to better understand the circulation of marine litter in the Bay of Biscay and to further social integration of individuals excluded from certain types of activities»

#### FRANCISCO VÁLGA, TORREIRA BEACH PORTUGAL

«This is what the ocean deposits on the beach in winter. Outside of the summer period, we become aware of marine litter pollution as the beaches are not cleaned.»

#### **INTERESTING FACTS**:

During winter storms (end of 2013/beginning of 2014), more than 600 transport containers fell into the sea. Besides being a danger for other carriers on the water, some were ripped open by the waves and dispersed large quantities of unusual waste on the coastline of the Bay of Biscay. Thus, in the south of Brittany, thousands of syringes, fish food packages, bottles of anti-aging skin cream and hotel slippers were found on beaches during the following months.





#### Bulgaria, Georgia, Romania, Russia, Turkey, Ukraine

**37.5% rate of return.** The collections in Bulgaria took place exclusively on beaches, and two collections were carried out in Germany on the Danube River that flows into the Black Sea.

Numbers with an asterisk are derived from extrapolations made from **6 reports** filed before October 27th 2014, from more than **16 collections** organized in this area.

#### LITTER COLLECTED



557<sup>\*</sup> bags of litter were collected by the participants.



**37.52 m<sup>3\*</sup>** Total volume of litter collected

#### **PEOPLE SENSITISED**





#### **AREA COVERED**



#### TOP 5

**4351 items were collected during 6 collections (rivers, beaches...)** Top 5 most commonly found litter items in the Black Sea according to the data provided by our organizers:



BUTTS



PLASTIC

BOTTLES



526 PACKAGES (wrappers...)



440 PLASTIC BAGS and fragments of plastic bags



PIECES OF GLASS

13.K

(All Kap)



Ireland, Wales, West of England and Scotland

**47% rate of return.** The collections mostly took place in Ireland (on both beaches and rivers). One collection was carried out on the West Coast of England.

Numbers with an asterisk are derived from extrapolations made from **8 reports** filed before October 27th 2014, from more than **17 collections** organized in this area.

#### LITTER COLLECTED



378\* bags of litter were collected by the participants.



26.11 m<sup>3\*</sup>

Total volume of litter collected

#### **PEOPLE SENSITISED**





#### **AREA COVERED**



#### TOP 5

**3206 items were collected during 7 collections (rivers, beaches...)** Top 5 most commonly found items in the Celtic Seas according to the data provided by our organizers:



594 PACKAGES (wrappers...)



434 PLASTIC BOTTLES





**310** NON-IDENTIFIABLE FRAGMENTS OF PLASTIC LITTER



**308** COTTON SWABS

#### **TESTIMONIAL**

#### AGNIESZKA PIWOWARCZYK, NORTH BULL ISLAND, (ISLAND IN DUBLIN BAY, IRELAND)

«I organized three clean-up actions this year on Bull Island which is a UNESCO-designated biosphere reserve. The marine litter washed up on the beach and in the area is connected to the high tides and/or storms this spring. The majority of the litter found was household marine litter but we also found non-identified litter. We even collected blue balls that are used in nuclear power stations. It is difficult to identify the origin of the litter collected as it can travel long distances in the ocean.»



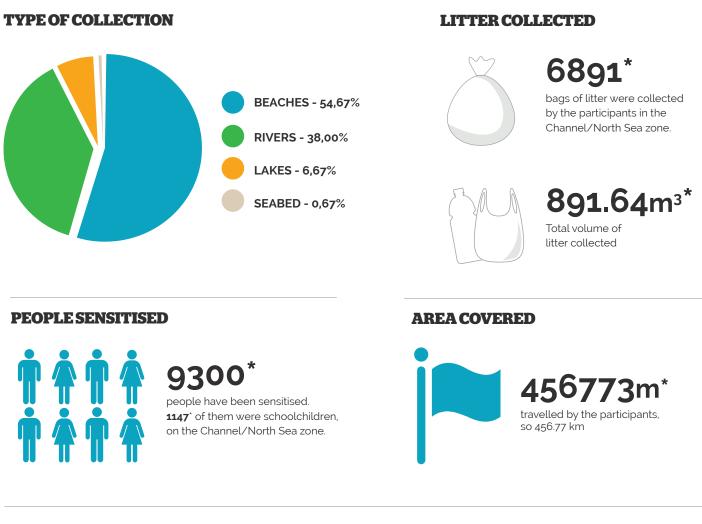
**INTERESTING FACTS**: In the past few years, mysterious blue foam balls have been appearing on beaches in the United Kingdom. After research led by NGOs such as Surfers Against Sewage, the mystery has been solved. They are "Taprogge Balls" used in power plants, nuclear power plants and other industrial installations to clean pipes. **www.sas.org.uk/** campaign/ufos

## NORTH SEA CHANNEL

#### United Kingdom, North of France, Belgium, Holland, Denmark, West Germany, Norway, Sweden

**52.2% rate of return, so reports from 152 collections**. The collections took place in France (75.33%), Belgium (12.67%), Germany (6%), Holland (5.33%) and Norway (0.67%)

Numbers with an asterisk are derived from extrapolations made from **172 reports** filed before October 27th 2014, from more than **291 collections** organized in this area.



#### TOP 5

**180 887 items were collected during 130 collections (all collections combined).** Top 5 most commonly found items in the North Sea Channel zone, according to the data provided by our organizers (lakes, rivers, beaches and seabed):



14846

NON-IDENTIFIABLE FRAGMENTS OF PLASTIC LITTER



8883 CIGARETTE BUTTS



8203 PLASTIC BAGS and fragments of plastic bags



7326 PIECES OF POLYSTYRENE



7337 PLASTIC BOTTLES

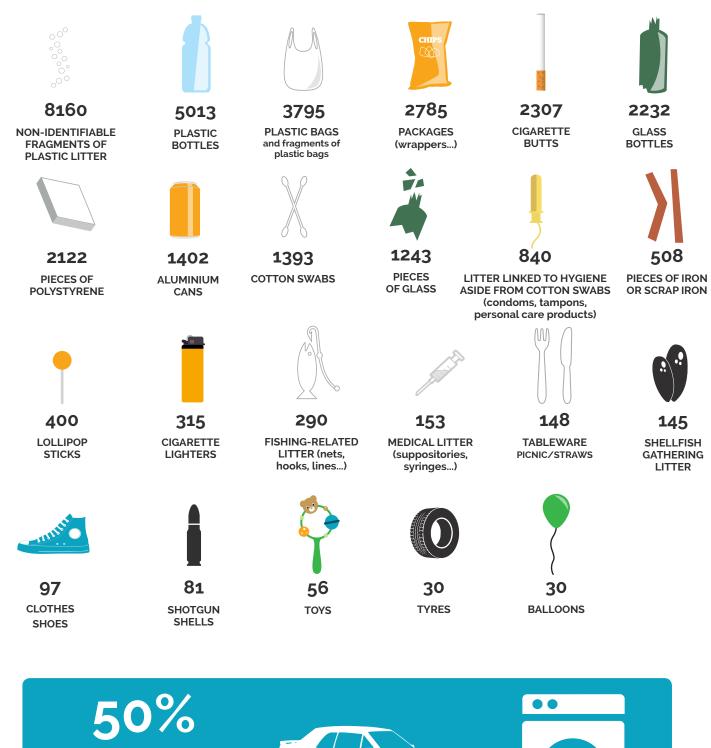
Large amounts of litter (bulky refuse) were found in more than

50% of the collections undertaken on the banks of streams of the North Sea Channel area.

#### FOCUS: RIVER AND LAKES - NORTH SEA CHANNEL

1,445 bags were collected during 67 quantification collections carried out on the rivers and lakes of the North Sea Channel. The total volume collected is 246.52 m<sup>3</sup>.

#### **33 645 ITEMS COLLECTED**



29.

#### ORIGIN

We asked the organizers to explain to us, in their opinion, the origin of the litter found:

#### ABANDONED ON THE SPOT OR UPSTREAM

According to the organizers, the litter found in the rivers is abandoned on the spot or upstream in the cities and towns and is linked to thoughtless and indifferent actions. Many elements of the lake and river areas can explain, in part, the great amount of litter found: leisure activities (fishing, tourism, swimming), the presence of homes or schools close to the river, large cities upstream, parties and gatherings (barbecues)... **FLOODS** 

The floods of the streams in the area have increased the amount of litter found and its dispersal towards the marine environment.

#### TESTIMONIAL

#### Ann-Laure Furnelle, Huldenberg, Dyle Valley Belgium.

For the past two years, Ann-Laure sorts and recycles waste on a volunteer basis in the Dyle Valley in Belgium.

«In addition to cans and bottles, in general, you can find anything. Containers filled with motor oil, medication, fire extinguishers,, USB sticks, mobile phones, bank cards that are most likely dumped by thieves, broken toys, etc. Hundreds of flower pots, half a Citroën, ventilation tubes from a cannabis plantation in a nature reserve, snack packaging with a 1983 best before date. In total in the month of October I gathered 22.5kg of iron and aluminium cans over 16 km of road. We are always driven to consume more but consumers are never told "Attention, dispose of it properly". We never think about the end of its journey.»

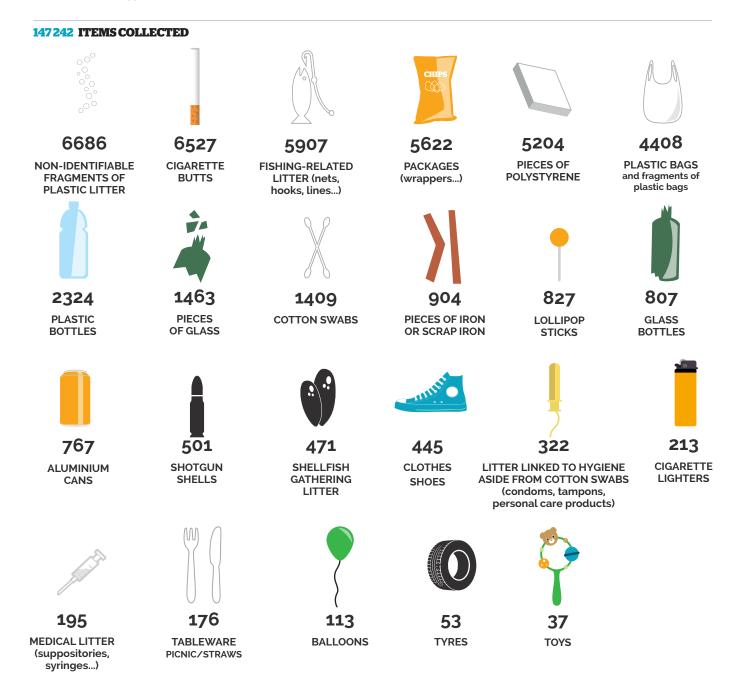
Extract of report (in French): http://www.rtl.be/info/vous/temoignage/1136812/ne-pas-publier-ann-laure





#### FOCUS: BEACHES AND SEABEDS - NORTH SEA CHANNEL

2,107 bags were collected during 83 quantification collections carried out on the beaches and seabed of the North Sea Channel area. The total volume collected was 212.99 m<sup>3</sup>.





of the beaches monitored in the North Sea Channel area are located in the vicinity of a city.

### 19.28%

of the organizers mentioned exceptional natural events from the beginning of the year (storms, king tides, tidal wave, and heavy rainfall which caused floods and spates...) as factors that could aggravate the presence of litter.

#### TESTIMONIAL

#### Laurent Colasse, Association Mal de Seine, Normandy (France)

**«Coastal pollution by industrial plastic resin pellets is present along the whole west coast.** This river pollution becomes maritime pollution and for the most part drifts towards the north, while spreading out and being dispersed on the coastline under the effect of tides, wave action and wind (they fly towards land!). Road transport losses cannot be downplayed: the pellets found along the coastline are Polyethylene or Polypropylene, they can easily float from ditches to rivers and then drift to the sea. As industrial pellets are mainly white to transparent the background noise is barely visible in sediment or in the water for the uninitiated. Nevertheless this type of pollution is alarming as it is impossible to clean up: http://vimeo.com/46594524 Big One - Hong-Kong 2012

In the area covering the Channel and the North Sea from Mont Saint-Michel Bay to the Cotentin Peninsula, the pellets mix with shellfish farms. From Cherbourg to Dunkirk (and Texel island in the Netherlands), the characteristic strange black pellets are well detected in the supralitoral zone (except in shingle). It is the greatest detectable maritime loss.

The Seine bay is a hot spot for pellet escape due to upstream losses along the Seine and in coastal rivers (Production -Transport - Processing - Recycling waste). The pellets mix with those from the industrial and port area in Le Havre to visibly pollute the Bay of Somme and the Opal Coast (they are not immediately visible in the shingle in the Pays de Caux area). Heavy maritime traffic in the Calais strait and the tides in the area also explain their abundant presence. (Portel Beach). http://maldeseine.free.fr/granules\_plastiques\_industriels\_page\_speciale.html (in French).»



### •••• IONIAN SEA AND CENTRAL MEDITERRANEAN

#### Tunisia, Italy, Greece, Albania

**50% rate of return.** Most of the collections took place in Italy, exclusively in marine environments (one collection underwater). One collection took place in Tunisia.

Numbers with an asterisk are derived from extrapolations made from **5 reports** filed before October 27th 2014, from more than **10 collections** organized in this area.

#### LITTER COLLECTED





bags of litter were collected by the participants.



**22.94 m<sup>3\*</sup>** Total volume of litter collected

#### **PEOPLE SENSITISED**



620\* people sensitised, schoolchildren and general public combined.

#### **AREA COVERED**



#### TOP 5

**5641 items were collected during 5 collections (beaches, underwater...)** Top 5 most commonly found litter items in the Ionian Sea according to the data provided by our organizers:



650 NON-IDENTIFIABLE FRAGMENTS OF PLASTIC LITTER



520 PIECES OF IRON OR SCRAP IRON



518 FISHING-RELATED LITTER (nets, hooks, lines...)



PIECES OF GLASS



500 PLASTIC BAGS and fragments of plastic bags

#### **TESTIMONIAL**

#### MARC, TARA EXPEDITION, AIN MARIEM RESORT BEACH, TUNISIA.

«I was shocked by the quantity and nature of the marine litter collected» stresses Marc, «almost a tonne of refuse of all kinds was gathered in barely 2 hours: hundreds of dirty nappies buried in the sand, cigarette butts, lighters, glass, clothes, plastic bottles and bottle tops. We filled 100 large rubbish bags.»

http://oceans.taraexpeditions.org/









#### Archipelagos located west of Africa: Madeira Islands, Azores, and the Canary Islands

**57% rate of return.** The collections mostly took place on the beaches of the archipelago of the Canary Islands (Spain)

Numbers with an asterisk are derived from extrapolations made from **4 reports** filed before October 27th 2014, from more than **7 collections** organized in this area.

#### LITTER COLLECTED



228\* bags of litter were collected by the participants.



**9.48 m<sup>3</sup>\*** Total volume of litter collected

#### **PEOPLE SENSITISED**





#### **AREA COVERED**



#### TOP 5

#### **4580 items were collected during 3 collections (beaches).** Top 5 most commonly found items in Macaronesia according to the data provided by our organizers:



1250 NON-IDENTIFIABLE FRAGMENTS OF PLASTIC LITTER





CIGARETTE

BUTTS

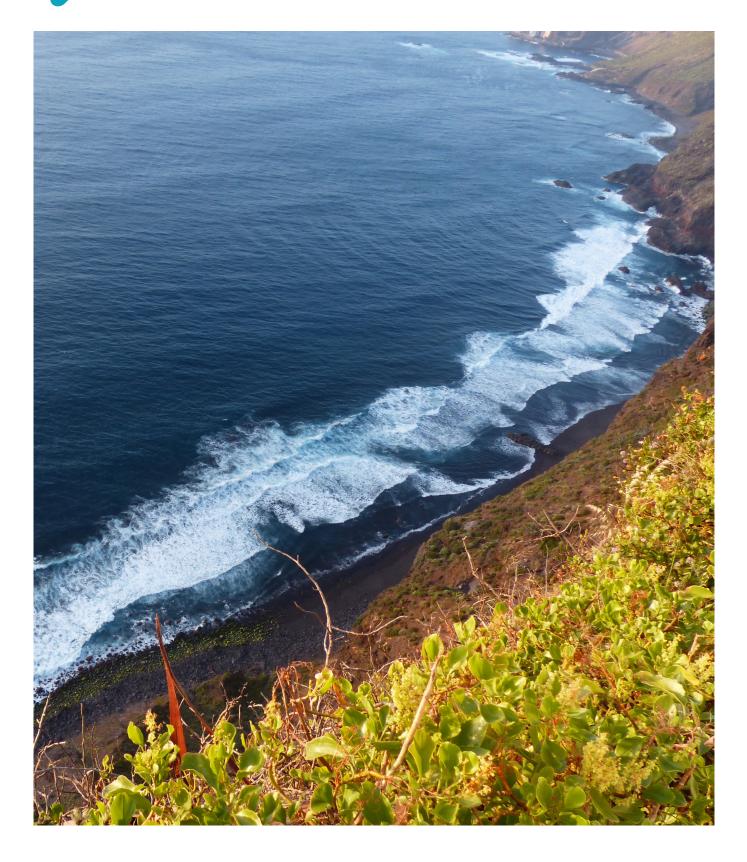




ALUMINIUM CANS

### **INTERESTING FACTS**

Plenty of industrial plastic granules or «mermaid's tears» have been found in the Canary Islands.



## NORTH ATLANTIC

Guyana, Morocco

50% rate of return. The collections mostly took place on the Moroccan beaches and one in French Guyana.

Numbers with an asterisk are derived from extrapolations made from **10 reports** filed before October 27th 2014, from more than 20 collections organized in this area.

### **LITTER COLLECTED**





bags of litter were collected by the participants.





Total volume of litter collected

### **PEOPLE SENSITISED**





people have been sensitised. 1446<sup>\*</sup> of them were schoolchildren, on the Atlantic North zone.

### **AREA COVERED**



### TOP 5

10 689 items were collected during 8 collections (beaches) Top 5 most commonly found items in the North Atlantic according to the data provided by our organizers:



BUTTS



1736 CIGARETTE FISHING-RELATED LITTER (nets, hooks, lines...)



1631 PLASTIC BAGS and fragments of plastic bags



1045 NON-IDENTIFIABLE FRAGMENTS OF PLASTIC LITTER



658 PACKAGES (wrappers...)



### •••• WESTERN MEDITERRANEAN

### France, Spain, Italy, Morocco, Tunisia, Algeria

**44.24% rate of return, so 129 collections.** The collections took place in France (62.79%), Italy (18.60%), Spain including the Balearic Islands (9.30%), Switzerland and the Rhone watershed (3.88%), Algeria (3.10%) and Tunisia (2.33%)

Numbers with an asterisk are derived from extrapolations made from **147 reports** filed before October 27th 2014, from more than **278 collections** organized in this area.

### **TYPE OF COLLECTION** LITTER COLLECTED 7706.42\* bags of litter were collected **BEACHES - 73,64%** by the participants on the Western Mediterranean Gulf. **RIVERS - 18,60%** SEABED - 5,43% 540.31 m<sup>3\*</sup> LAKES - 2,33% Total volume of litter collected **PEOPLE SENSITISED AREA COVERED** 10 44 226 494.57 m\* people have been sensitised. travelled by the participants, 3698\* of them were schoolchildren, so 226,494 km. on the Western Mediterranean Gulf. TOP 5

**154,584 items were collected during 111 collections (all collections combined).** Top 5 most commonly found litter items in the Western Mediterranean zone, according to the data provided by our organizers (lakes, rivers, beaches and seabeds):





37292 19216 CIGARETTE BUTTS PLASTIC BAGS and fragments of plastic bags



18033 PIECES OF GLASS



**17116** PACKAGES (wrappers...)



16891 NON-IDENTIFIABLE FRAGMENTS OF PLASTIC LITTER

### FOCUS: RIVER AND LAKES - WESTERN MEDITERRANEAN

1,436 bags were collected during 27 quantification collections carried out on the rivers and banks of rivers and lakes of the Western Mediterranean. The total volume collected was 121.615 m<sup>3</sup>.

#### **17319 ITEMS COLLECTED**



### 18.5%

In 18.5% of the collections, the participants have signalled specific events (exceptional natural phenomena or gathering of individuals linked to an event) as being an aggravating factor for the presence of litter on the banks of rivers and lakes of the Mediterranean zone.

### \_\_\_\_

of the rivers and lakes examined are located in the immediate vicinity of a city.

7 spare parts from a car and 5 dumped scooters and bicycles were found in the rivers and lakes of the Mediterranean zone.

### FOCUS: BEACHES - WESTERN MEDITERRANEAN

2,026 bags were collected during 94 quantification collections carried out on the beaches of the Western Mediterranean. The total volume collected was 121.08 m<sup>3</sup>.

**136 082 ITEMS COLLECTED** 16900 9891 34508 15929 14148 17333 PLASTIC BAGS PIECES OF CIGARETTE PIECES NON-IDENTIFIABLE PACKAGES BUTTS OF GLASS and fragments of FRAGMENTS OF POLYSTYRENE (wrappers...) plastic bags PLASTIC LITTER 3176 1982 4563 2713 7570 827 COTTON SWABS ALUMINIUM GLASS PLASTIC TABLEWARE LOLLIPOP BOTTLES CANS BOTTLES PICNIC/STRAWS STICKS 461 413 1417 1330 685 451 LITTER LINKED TO HYGIENE CLOTHES PIECES OF IRON SHELLFISH **FISHING-RELATED** CIGARETTE **OR SCRAP IRON** LITTER (nets, GATHERING ASIDE FROM COTTON SWABS LIGHTERS SHOES hooks, lines...) LITTER (condoms, tampons, personal care products) 351 239 108 145 134 SHOTGUN MEDICAL LITTER BALLOONS TOYS TYRES SHELLS



(suppositories, syringes...)

of the beaches monitored in the Western Mediterranean are in areas that are frequently visited by tourists.

### 31.6%

With regards to the marine activities taking place in the area, 31.6% of the organizers noted a development of recreational boating (marina, port, anchorage...) in the area.

### FOCUS: SEABEDS - WESTERN MEDITERRANEAN

It is in the Western Mediterranean that we find the most seabed collections (7 collections, one including diving). The divers came back to the surface with **114 bags filled** with litter, representing a total volume of 8.025 m<sup>3</sup>.



The divers also found a shipwreck, a car battery and pieces of a mobile home.

### **TESTIMONIAL**

SOFIANE BENHARIGA BARBAROUS ASSOCIATION, ORAN ALGERIA



«During the collection of the seabed, which is carried out regularly, some unusual objects are sometimes found. One day I found a diving mask and an old telephone covered in concrete. The funny thing is that I lost my brand new Samsung Galaxy S4 overboard in a watertight bag, it must have made someone's day. As the saying goes: «one man's trash is another man's treasure» but the telephone I found doesn't work that well!»

# CARIBBEAN AREA

Guadeloupe, Martinique

**31.25% rate of return.** The collections took place mostly in a marine environment on the beaches of Guadeloupe and Martinique (two collections onshore and one seabed)

Numbers with an asterisk are derived from extrapolations made from **5 reports** filed before October 27th 2014, from more than **16 collections** organized in this area.

### LITTER COLLECTED



**1139**\* bags of litter were collected by the participants.





### **PEOPLE SENSITISED**



**1366**\* people sensitised, schoolchildren and general public combined.

### **AREA COVERED**



### TOP 5

In total, 3079 items were collected by our participants on 5 collections. Top 5 most commonly found items during the quantification undertaken in the Caribbean area:



1310 PLASTIC BAGS and fragments of plastic bags



620

PLASTIC

BOTTLES

**300** FISHING-RELATED LITTER (nets, hooks, lines...)



**170** Pieces

OF GLASS



**170** PACKAGES (wrappers...)

### TESTIMONIAL

### NOÉMI FROM THE SURFRIDER MARTINIQUE BRANCH, SOUTHERN MARTINIQUE

«We organized a clean-up action on the south of the island in partnership with a tourism stakeholder who offers excursions at sea in an idyllic setting, the participants all know the site but they don't suspect that this dream location hides 2.4 tonnes of all kinds of litter! A really great experience for all those people who know the area without realizing the extent of the damage!»





## INDIAN OCEAN

### Mayotte, La Reunion, Madagascar, Mauritius Island

**40 % rate of return.** The collections took place exclusively on the beaches of La Reunion (3 collections), Mayotte (one collection), Madagascar (one collection) and Mauritius Island (one collection).

Numbers with an asterisk are derived from extrapolations made from **6 reports** filed before October 27th 2014, from more than **15 collections** organized in this area.

### LITTER COLLECTED









### **PEOPLE SENSITISED**





people have been sensitised. **300**<sup>\*</sup> of them were schoolchildren, on the Indian Ocean.

### **AREA COVERED**



### TOP 5

In total, 2452 items were collected by our participants on 6 collections. Top 5 most commonly found litter items during the quantification undertaken in the Indian Ocean area:







418 CLOTHES SHOES



330 PLASTIC BAGS and fragments of plastic bags



269 PACKAGES (wrappers...)



268 PLASTIC BOTTLES

### **TESTIMONIAL**

#### YVON SERY (ADIPE), ST LEU BEACH, RÉUNION ISLAND

«The action was carried out during the 2014 sustainable development week. It was focused on the painstaking clean up of cigarette butts, over 70% were collected under the filao trees and close to rondavels (snack bars). Litter linked to tourism is omnipresent once again. It is mostly found after weekends, despite regular clean-up of marine litter by the local authorities.

The 24,000 cigarette butts gathered over 3 days really show that raising public awareness of litter pollution must remain a priority in society.»



## SOUTH ATLANTIC

Argentina, Brazil

**45 % rate of return.** The collections took place exclusively on beaches in Argentina (3 collections) and Brazil (2 collections).

Numbers with an asterisk are derived from extrapolations made from **6 reports** filed before October 27th 2014, from more than **11 collections** organized in this area.

### LITTER COLLECTED



**484**\* bags of litter were collected by the participants.



**11.748** m<sup>3\*</sup> Total volume of

litter collected

### **PEOPLE SENSITISED**





people have been sensitised. **209**<sup>\*</sup> of them were schoolchildren, on the South Atlantic zone.

### **AREA COVERED**



### TOP 5

In total, 6017 items were collected by our participants during 5 collections. Top 5 most commonly found items during the quantification undertaken in the South Atlantic area:





2000 1030 GARETTE NON-IDENTIFIABL BUTTS FRAGMENTS OF PLASTIC LITTER



555 TABLEWARE PICNIC/STRAWS



476 PACKAGES (wrappers...)



PLASTIC BAGS and fragments of plastic bags

### **TESTIMONIAL**

#### ARIEL FIOCO SANTA TERESITA, ARGENTINA

«Beaches in the area covered by the action in cooperation with numerous educational institutions are less impacted than other beaches on the Argentinian coastline as there are fewer polluting industries.

However the same types of litter are found (cigarette butts, all kinds of plastic, metal, construction debris etc.). Unusual litter has also been collected: a butcher's saw, mobile phones, a computer screen, knives etc. A leatherback turtle (one of the major species of turtle in the area) was found during the action. It enabled us to better explain the impact of plastic debris on the oceans.»





# **O BIOCARRIERS**

Since 2010, Surfrider has noticed the presence of a great number of plastic wheels, called biocarriers, on the beaches and banks of streams in France. These biocarriers are used as bacterial 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 overall aquatic pollution. In order to fight against this specific source of plastic pollution, Surfrider conducts investigations with the aim of better understanding the process, identifying the producers and users, searching for the origins of this litter, and preventing in an effective manner the pollution of aquatic environments.

During the 2014 edition of Ocean Initiatives, 9,313 biocarriers were found on the beaches, lakes and rivers. The organizers of 28% of the collections recorded the presence of biocarriers in their area.

More than 90% of biocarriers reported by our organizers were found on the beaches of the Bay of Biscay and the Iberian Coast. However, it is in the Western Mediterranean that models 10 and 16 have been found in greatest number (76% and 83% respectively). This data tends to demonstrate that there were waste water treatment plant effluents linked to a dysfunction, which could explain their presence on the beaches of the French and Italian Mediterranean.

### NUMBER OF BIOCARRIERS/100M BEACH



### **DETAIL OF THE BIOCARRIERS BY SHAPE**

You can protest all year long and help us stop the dispersion of biocarriers in the environment. http://www.gardiensdelacote.com/temoignage-medias-filtrants/

#### **TYPE OF BIOCARRIER**



SHAPE	Adriatic Sea	Bay of Biscay Iberian Coast	North Sea Channel	Western Mediterranean	Caribbean Sea	TOTAL
1.	10	874	141	7	0	1032
2.	10	1066	69	213	0	1358
3,	0	1637	25	1	0	1663
4,	0	2479	21	7	0	2507
5,	4	1101	3	5	10	1023
6,	0	6	1	0	0	7
7,	1	897	10	42	0	950
8,	0	33	2	0	0	35
9,	15	9	0	2	0	26
10,	0	31	0	103	0	135
11,	0	29	0	22	0	51
12,	0	199	9	5	0	213
13,	0	2	0	0	0	2
14,	0	107	0	53	0	160
15,	10	49	2	12	0	73
16,	4	9	0	65	0	78

# 04 FOCUS: RIVERINE INPUT

For the 19th edition of the Ocean Initiatives, the emphasis was placed on the importance of the link between upstream and downstream events in the proliferation of litter in the marine environment, with the campaign "If you drop it on the land, it ends up in the sea". The interest of Surfrider concerning the movement and dispersion of marine litter through the water cycle is not new and resulted, in 2013, in the creation of the project Riverine Input.

Although the rivers have been identified as an important introduction vector of litter from inside the land towards the marine environment, at the present moment, there is very little research on the quantity and the composition of litter originating inland and carried by the streams. One of the only known figures has been a major concern of ours: according to the UNEP, 80% of marine marine litter comes from land-based sources.

Taking these conclusions into account, we created a quantification and qualification protocol of transposable marine litter that can be applied on the scale of a watershed. The principle is to follow, evaluate and characterise the pollution of the watershed and the contribution of marine litter by the streams in the marine environment. The project, officially launched in October 2013, enabled the implementation of the protocol beginning February 2014 on the Adour watershed. At five control points monitored on a monthly basis we collected 30,000 pieces of litter, the majority being made of plastic. After 3 years of applying this protocol, the data accumulated has enabled conclusions to be drawn on the quantities and types of litter in the watershed.

Beyond this scientific aspect, the project has other scopes: educational, awareness-raising, legislative and in dialogue. The results that we will obtain are as important as the application of the protocol that, during the course of the project, enables us to involve citizens, associations, institutions, and businesses both upstream and downstream.

The data collected during the Ocean Initiatives will also be analysed in the framework of the Project Riverine Input. For more information: http://riverineinput.surfrider.eu/.



# OCEAN INITIATIVES

Ocean Initiatives is a programme aimed at reducing marine litter at the source. Through local clean-up actions around rivers, lakes, oceans and the sea bed, Surfrider is targeting societal change. The data collected during these actions enables a general appraisal, enabling the adaptation of the European regulatory framework.

www.oceaninitiatives.org