# BIOMEDIA POLLUTION

## HOW TO REPORT IT ?

SURFRIDER FOUNDATION

You have just found strange white, green or black plastic discs while collecting rubbish on the beach, on the banks of a river or lake, or during a walk, and you are wondering what they are and where they come from?

# THEY MAY BE BIOMEDIA !

If that is so, this tutorial will show you how TO SHARE your DISCOVERY with us and help fight this pollution.

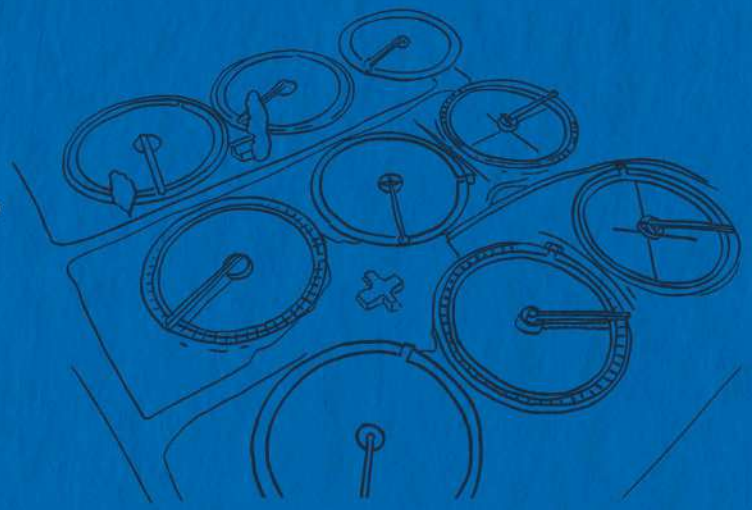
## All will be explained here!

# SO WHAT ARE BIOMEDIA?

Biomedia are plastic media used in certain municipal or industrial wastewater treatment processes (paper production, agri-food industry, pharmaceutical industry, fish farming, etc.).

They improve treatment efficiency, but in the event of malfunctions, biomedia can leak out in large quantities into the environment, into the sea or into rivers.

They then become very difficult to recover, are dispersed by the currents over long distances and pollute the natural environment for hundreds of years.



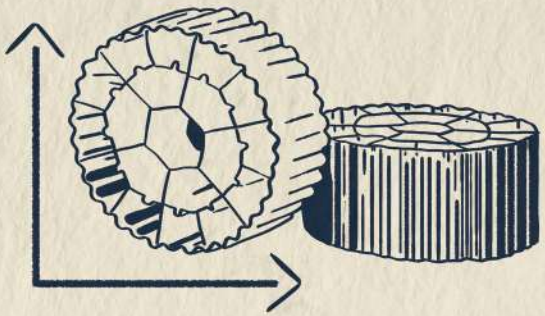
## PLASTIC POLLUTION IN THE OCEAN

The accumulation of plastics in the ocean and on coastlines has become a global problem.

Every year, an estimated 8 to 12 million tonnes of plastic waste enters the ocean. From surface waters to deep marine sediments, plastic is everywhere, threatening marine and coastal ecosystems.

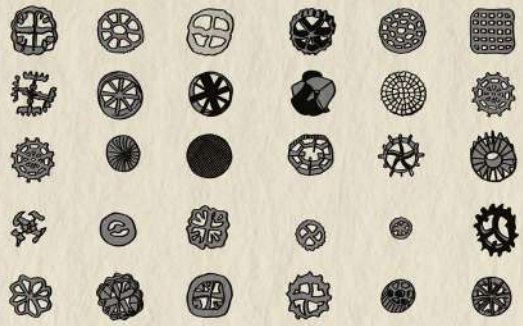
Fifteen years ago, a new form of plastic pollution was identified along the North Atlantic coast : biomedia.

**Since 2010, massive releases of biomedia (from several thousand to several million units) have been observed in Europe's aquatic environments**



# HOW CAN I RECOGNISE THEM?

- **SIZE :** 1 to 5 cm in diameter
- **SHAPE :** flat or cylindrical, often honeycombed
- **COLOUR :** white, green, black



# SO WHAT ARE THE CONSEQUENCES OF THIS POLLUTION?

- The quantity of biomedia dumped in a single operation can be absolutely catastrophic (several million pieces!).

- Dispersal can continue for years, over very long distances, and impact protected areas.

- Biomedia are ingested by marine animals and has harmful effects on marine biodiversity.

- Biomedia can serve as a carrier for chemicals or microorganisms (such as microbes) and spread them into the natural environment.

To find out more about the causes and consequences of this pollution, visit
* https://biomedia.surfrider.eu/en/biocarriers-pollution-throughout-europe/

## WHY REPORT IT?

- TO MAP polluted sites
- TO TRACK their dispersion in the environment
- TO IDENTIFY cases of major pollution
- TO INITIATE new field investigations and trace the source of pollution
- TO CHANGE corporate practices
- TO ALERT local authorities
- TO LIMIT the extent of pollution ... and even get laws passed!

EACH OF YOUR REPORTS WILL BE CAREFULLY REVIEWED BY THE SURFRIDER TEAM.

BY REPORTING BIOMEDIA, YOU ARE DIRECTLY CONTRIBUTING TO THE FIGHT AGAINST PLASTIC POLLUTION IN THE OCEAN!

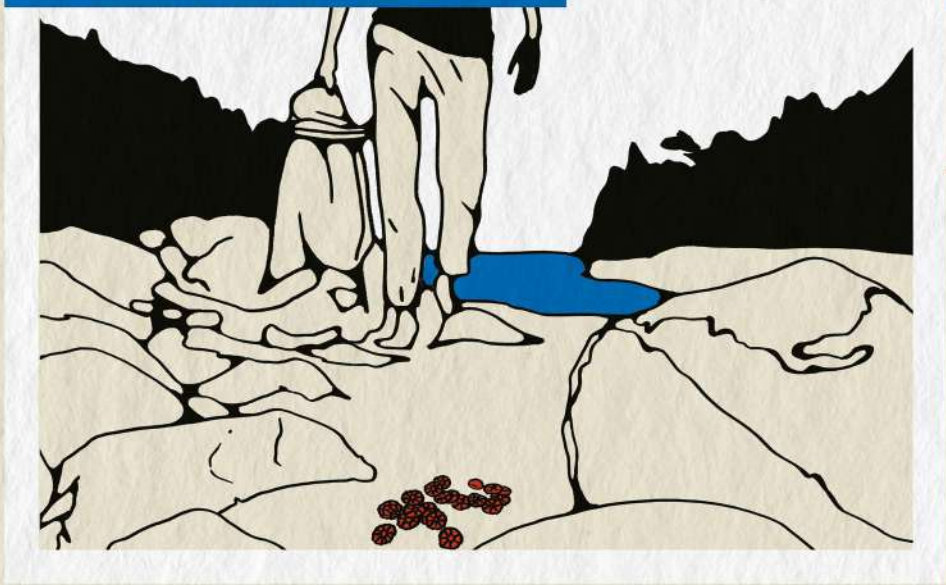
ALERT

ACCIDENTS

**MORE THAN 200 CASES OF BIOMEDIA POLLUTION ARE REPORTED EVERY YEAR!**

**43 POLLUTION INCIDENTS HAVE BEEN IDENTIFIED** since 2010
All coastlines are affected!

# HOW TO PARTICIPATE



More than 15 years ago, the mobilisation of citizens and Surfrider volunteers was what led to biomedia pollution being identified, and to the start of our action.

In this tutorial, we explain the two main ways in which everyone can contribute to this fight.

## 1- COLLECT DATA

Data collection is at the heart of our programmes. This usually involves sending us your observations of biomedia in the field.

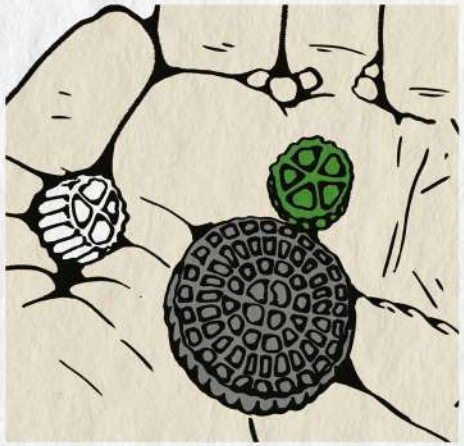
## 2-ALERT

When reports suggest that major pollution is occurring (several thousand pieces of biomedia dumped), other actions can be considered to identify the source of the pollution and alert people to its environmental impact.

Together, we can implement a tailor-made action plan in which Surfrider provides existing tools (letter templates, technical resources, contact lists, etc.) as well as feedback from its experience. You can then contribute your knowledge of local issues and the area. Investigating the pollution will be a great piece of team work!

**TODAY, IT IS ONCE AGAIN THANKS TO YOU, THAT WE CAN CONTINUE THE FIGHT AGAINST THIS LITTLE-KNOWN FORM OF PLASTIC POLLUTION !**

# FIELD OBSERVATIONS



## SO, READY TO RAISE THE ALARM?

- **NOTE THE DATE, TIME AND EXACT LOCATION OF THE OBSERVATION**
(GPS coordinates, site name, landmarks).
- **NOTE DOWN THE WEATHER CONDITIONS**
(rain, wind, etc.).
- **TAKE CLEAR PHOTOS OR VIDEOS**
- **WEAR GLOVES TO COLLECT THE BIOMEDIA**
- **LOOK FOR ANY OTHER SIGNS OF POLLUTION**
(smell, foam, abnormal water colour, dead fish).

## A FEW SAFETY RULES:

- AVOID UNPROTECTED CONTACT WITH WATER WHICH SHOWS SIGNS OF BEING POLLUTED (presence of odorous foam, fecal matter, hydrocarbons or other visible chemical substances)

NB: ONCE IN THE NATURAL ENVIRONMENT, BACTERIA ATTACHED TO BIOMEDIA CAN SURVIVE FOR ONLY A FEW HOURS. HOWEVER, IT IS ADVISABLE TO WASH YOUR HANDS AFTER COLLECTION.

- NEVER ENTER A TECHNICAL SITE (WasteWater Treatment Plant, basin) OR A PRIVATE SITE WITHOUT AUTHORISATION

- FOLLOW THE INSTRUCTIONS OF EXPERTS AND TECHNICIANS

## TOOLKIT

# REPORT THE POLLUTION

## HOW TO REPORT YOUR FINDINGS

LETS MEET AT WWW.BIOMEDIA.SURFRIDER.EU

to record your findings online and identify the different types of biomedia found.

**1) SORT AND IDENTIFY THE BIOMEDIA BY SIZE, SHAPE AND COLOUR,** using the models known to Surfrider (step 2 of the report form).

**2) COUNT THE NUMBER OF BIOMEDIA** for each of the shapes collected

**3) TAKE A PHOTO OF THE SORTED BIOMEDIA**

**4) FINISH COMPLETING THE FORM**

**ON THE INTERNET:**

To fill out the form:
**WWW.BIOMEDIA.SURFRIDER.EU**

To find the names and contact details of the affected areas:
**WWW.GOOGLE.FR/MAPS**

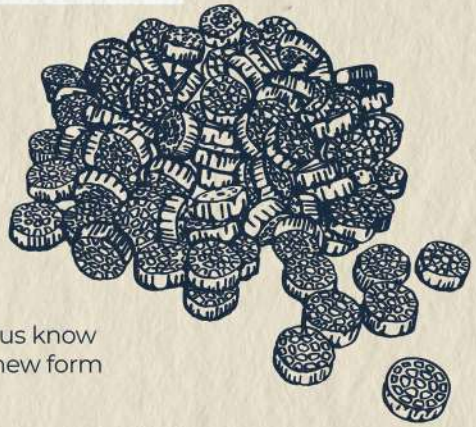
Contact :
**PBENCIVENGO@SURFRIDER.EU**

DON'T FORGET TO LEAVE US YOUR CONTACT DETAILS SO THAT WE CAN GET BACK TO YOU.

IF YOU HAVE ANY QUESTIONS, PLEASE DO NOT HESITATE TO CONTACT US AND WE WILL HELP YOU FILL OUT THE FORM.

# ASSESS THE EXTENT OF THE POLLUTION

If you have found a large number of biomedia (more than 50 over a 10-metre stretch), it would be useful to explore neighbouring beaches/areas to get a better idea of the extent of the pollution.



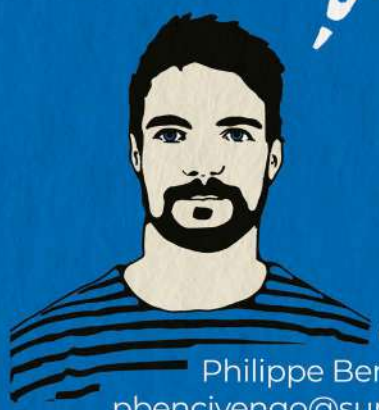
If you find biomedia on other beaches, please let us know about it by filling out a new form

## THANK YOU FOR TELLING US ABOUT IT!

**Surfrider will then review your report to assess the level of pollution.**

**If the amount of biomedia found suggests that there has been an incident at a wastewater treatment plant and that major pollution is occurring, then it's time to take action!**

To continue the investigation with us and try to find the source of the pollution, please go on to the next section and find out about the missions that can be carried out.



Contact :
Philippe Bencivengo
pbencivengo@surfrider.eu
Marine litter Project Manager

# HOW TO TAKE ACTION IN CASE OF POLLUTION

Your report has alerted us to a new case of biomedia pollution, and you would like to continue the investigation with us.

IN THIS DOCUMENT, WE WILL OUTLINE THE VARIOUS ACTIONS WE CAN TAKE TOGETHER!

First, we will contact you to set up a tailor-made action plan to combat this pollution affecting your area!

## THE OBJECTIVE :

Find the source of the pollution and demand that solutions be implemented to limit its extent.

Through its COASTAL DEFENDER programme, Surfrider Foundation will support you every step of the way, providing you with documentary resources, feedback and any other practical tools that may be useful.

## HOW DO I GET STARTED?

Below are some examples of actions that could be implemented with your help.

**DON'T PANIC, WE WILL BE THERE EVERY STEP OF THE WAY TO GUIDE YOU AND PROVIDE YOU WITH OUR EXPERIENCE, MODELS AND IDEAS.**

# KNOW YOUR TERRITORY

## IDENTIFY THE GEOGRAPHICAL AREA AFFECTED AND THE SOURCE OF THE POLLUTION

- Map the affected site
- Determine whether it is an isolated (one-off) event or a regular occurrence (several times a week or month)
- Check on meteorological and other recent events ( storms, floods, repair works etc.)

## IDENTIFY THE KEY PLAYERS

- **Who is responsible for this pollution?**

- Identify whether there are any wastewater treatment plants and companies/factories nearby and their discharge points

- **Who should be warned about it?**

- The local authorities
- Departmental services (water police)
- The relevant wastewater treatment plant (if known); also find out about any incidents, emptying, spills or clean-ups

- **Set up your local action group**

- Other citizens or local actors may well want to join you!
- Friends, local associations, etc.

# ALERT/MOBILISE

## ALERT KEY ACTORS IN THE AREA TO THE CAUSES AND CONSEQUENCES OF THIS TYPE OF POLLUTION.

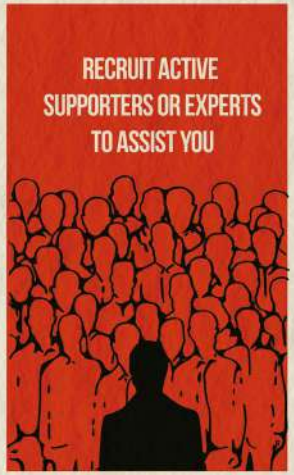
Surfrider can provide you with sample letters and reference documents for this purpose.

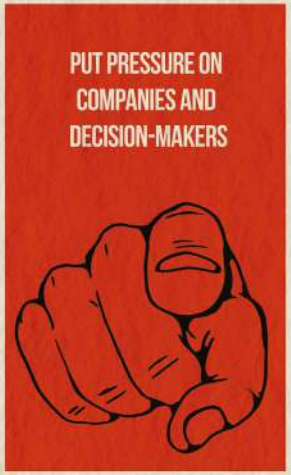
- Dialogue with local authorities
- Dialogue with sanitation managers
- Organising a gathering
- Launching a petition

# COMMUNICATE

Good communication is one of the key factors in raising awareness about your issue! Here too, you will need to define your strategy: what message? what target audience? what means ?

## THIS WILL ENABLE YOU TO:

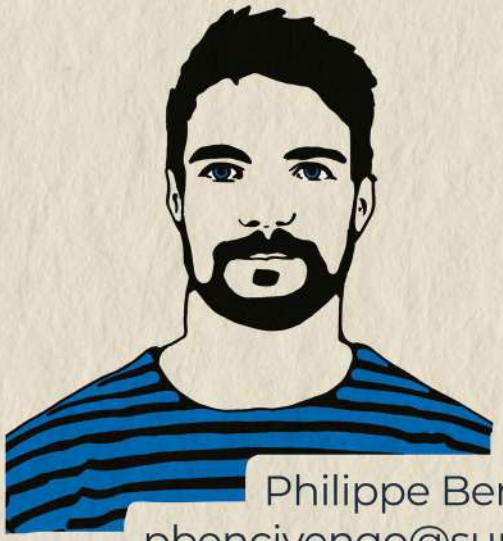


**Mobilising volunteers** has enabled us **to gather a wealth of data on biomedia strandings,** to respond quickly to pollution incidents, to alert the authorities, to meet with wastewater treatment plant operators and to raise awareness about the importance of securing facilities that use biomedia **in order to put an end to this pollution!**

New regulations are expected to be introduced in Europe, but as long as this pollution continues, we must continue to raise the alarm whenever biomedia disrupt the environment.

## AND FOR THAT, WE NEED YOUR HELP!



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SURFRIDER FOUNDATION

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