

A DIVER'S GUIDE TO UNDERWATER CLEAN-UPS



The
SEA CLEANERS



HOW TO CLEAN UP YOUR DIVE?

This guide is for any amateur divers who want to get involved in cleaning up during their time underwater. Whether you're a beginner or more experienced, a scuba diver or freediver, a snorkeller or even just a swimmer, a regular or a one-off, this guide is for you.



Diving with The SeaCleaners

The SeaCleaners have been committed to fighting plastic pollution, both on land and in the ocean, since 2016. Cleaning up litter is one of our missions. This way, we can remove litter before it is scattered and broken down, becoming impossible to retrieve from the ocean. We operate at sea with the help of the Mobula and the Manta, our environmentally friendly clean-up boats. With the help of our committed teams of volunteers, we also take action both on land and underwater.

WHY CLEAN UP UNDERWATER?

OUR OCEAN IS IN DANGER

The ocean, lakes, rivers and ports of our planet are now being filled with an astronomical amount of waste, such as cigarette butts, textiles, tyres, glass bottles, vehicles, cans, fishing nets, cardboard boxes, papers and bits of plastic. **Underwater, litter of any kind, shape, weight or age can be found.**

One of the most worrying pollutants is **plastic**. According to a study published in 2021 by the UN Environment Program (UNEP), it accounts for 85% of all marine debris. Every year, **between 9 and 14 million tonnes of plastic waste are dumped into the ocean**. This is **17 tonnes a minute** – the equivalent of a bin lorry. If nothing is done by 2040, this amount could triple.

Because of its physical and chemical properties, marine litter is a **threat to millions of marine plants and animals**. For example, animals can die by ingesting the waste, strangulation or suffocation, while water columns, mangroves, corals and seagrass beds are also affected, disrupting entire ecosystems.



Plastic pollution reduces **water quality** and directly threatens **our own health**.

It also has dramatic economic consequences on the worst affected areas, most notably by weakening tourism, destroying habitats and impacting fishery resources.

WHY CLEAN UP UNDERWATER?

OUR OCEAN IS IN DANGER

As plastic waste can take **more than 450 years** to degrade underwater, it can stay in the ocean for a very long time. For example, in the North Pacific gyre, we can find huge amounts of plastic dating back to the 1970s.

Plastic waste doesn't really disappear, it just gradually breaks down into **micro- and then nanoparticles**, which are invisible to the naked eye and harm aquatic microorganisms at the bottom of the food chain.

It is therefore essential to remove marine litter before it drifts, disintegrates, and becomes impossible to retrieve.

And all you ocean-lovers out there can help us with that!



DIVERS: AMBASSADORS OF THE OCEAN

Professional or amateur divers and swimmers share a common passion for the ocean.

Today, they are key witnesses to what is happening underwater, and are very distressed to see the extent of marine pollution.

Many are battling the relentless tide of pollution by organising dives to clean the ocean, raise awareness and inspire others to do the same.



WHY NOT YOU?

Jean-Christophe and Olivier are two professional divers committed to cleaning the waters of Arcachon Bay (on the southwest coast of France) within the association NSA (Nettoyeurs SubAquatiques), a French organisation.



Jean-Christophe and Olivier created the organisation after arranging an underwater clean-up with around 180 divers in the bay of Arcachon in 2019. Their main activities consist of diving and cleaning up the ocean while scuba diving.

"We collect waste on every single one of our dives. Our members have embraced this concept, and thanks to their enthusiasm, we can keep on going. We obviously dive in the bay, but we also dive in ports and lakes all year round."

WHICH DIVER-CLEANER ARE YOU?



Any diver can help, in any way they can - it all depends on your profile and what type of waste you find. Here are some ideas.

THE SWIMMER



- You may not have a wetsuit or flippers, a mask or snorkel, but you are very motivated.
- You can retrieve non-dangerous, floating litter from the surface of the water.

THE EXPERIENCED FREEDIVER

- You are qualified (at least PADI freediver level).
- You are generally quite fit and can dive up to 10m.
- You don't need a tank and can hold your breath for 90 seconds.
- You're able to easily collect some lightweight litter and can swim with a bag without difficulty.
- As you go further away from the shore, we recommend you use a floatation device for pit stops and depositing litter .

THE ADVANCED DIVER (LEISURE)

- You dive regularly and have a level of certification that allows you to be independent (PADI Advanced Open Water level and above).
- With an Advanced Open Water level, you should be able to dive independently up to 20m but must be supervised at 40m. With a Rescue Diver certification, you can dive independently up to 60m.
- When equipped with a tank, you can stay underwater for about 1 hour, depending on the depth.

THE MOTIVATED SNORKELLER

- You usually dive to a depth of 3 to 4 meters, with a light swell and very little current.
- You have flippers, a mask and snorkel, and can collect lightweight litter left underwater along the shore. You may carry a waste bag, without affecting your buoyancy or movement.
- As you go further away from the shore, we recommend you use a floatation device for pit stops and depositing litter .

THE SUPERVISED BEGINNER DIVER (LEISURE)

- You may be either uncertified or have a PADI Open Water level or equivalent, but you have several hours of diving under your belt.
- You must be accompanied by someone more experienced who will be carrying the waste bag.
- You have a scuba tank and can dive 6m if you have no level, or 20 m if you have a PADI Open Water level or equivalent.

THE SCUBA DIVER (PRO)

- You have the qualifications of an advanced diver.
- You have been trained in specific techniques for lifting heavy objects underwater.
- To learn more about weights and associated lifting equipment, check the law of your country and PADI recommendations or contact professional diving schools.

RULE NO.1

DIVER SAFETY

Do not retrieve any litter that could put yourself or others in danger!



SHOULD WE REMOVE ALL MARINE LITTER?

Please note that not all types of marine litter can be collected, for many different reasons! Some are dangerous for the diver because of their nature (they may be sharp or toxic, for example), their position in the water or their weight and/or volume. Others may have been underwater for so long that an entire ecosystem has had time to develop on/around them. In this case, we say that the litter has been 'reclaimed by nature'. **Therefore, removing this litter would have a negative impact on biodiversity.** Please also consider ocean conditions, as strong currents or very little visibility could prevent litter from being retrieved safely, for example, when currents are strong or when there is no visibility. **The important thing is to ask yourself the right questions before removing any sort of litter!**

QUESTIONS TO ASK YOURSELF BEFORE COLLECTING MARINE LITTER

THE TYPE OF LITTER

- What is it made of?
- Is it toxic, sharp, or protruding?
- Is it heavy and/or bulky?
- Is it easy to pick up?
- Is it easy to carry?
- How much waste is potentially present?
- How much has nature reclaimed?



THE AREA

- How strong are the currents?
- How deep is it?
- What is the visibility like?
- How accessible is it?
- What species can you spot on or near the litter?
- What type of terrain will you find?
- Do you have permission to dive?
- Is there any marine traffic?



DIVERS

- How many people are you?
- Are you in good physical condition?
- Can you carry the waste alone?
- Do you respect the safety rules applicable to your diving level?
- Do you have the appropriate equipment?



HOW TO ORGANISE AN UNDERWATER CLEAN-UP?

1) PICK A DATE



The best day to organise a clean-up depends on the weather and the water conditions, the visibility underwater, the currents, the topography, the influx of waste, the necessary authorisations, and the divers' availability. To attract as many participants as possible, you can choose a meaningful day, like World Ocean Day or World Clean-Up Day. However, such initiatives are meaningful all year round.

In fresh water, avoid spring because many living organisms attach themselves to a substrate at this time.

2) PICK A PLACE



Whether it is an underwater clean-up in the ocean, the sea, or fresh water, choose a location that is easily accessible and safe for the participants. You can use buoys to mark the surface and facilitate the dive. If necessary, make sure that you have permission to carry out an underwater clean-up in the chosen location .

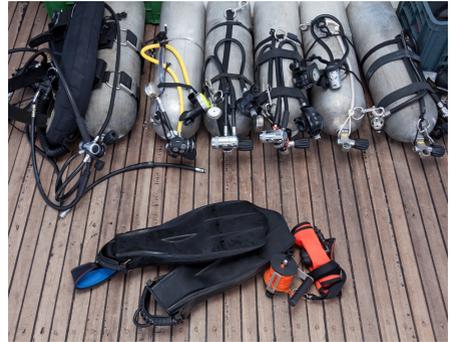
Diving and swimming in ports is prohibited unless you obtain council authorisation. Even so, some locations might have restricted access, as they are protected in order to conserve natural habitats and different species. We recommend that you request further information from the relevant management bodies, such as the city, Natura 2000, nearby nature reserves or nature parks. Once the underwater clean-up is over and the litter has been brought up to the surface, ask for all the relevant information on local procedures regarding sorting and recycling litter.



HOW TO ORGANISE AN UNDERWATER CLEAN-UP?

3) PREPARE THE EQUIPMENT

Besides **standard diving equipment** (wetsuit, flippers, mask, tanks or snorkelling gear), please make sure your equipment will allow you to easily collect underwater litter, bring it to the surface safely and manage it appropriately when back on shore. Make sure your equipment is in good condition and well attached to avoid losing anything underwater. Also pay attention to the weight and size of the bag, which can affect the buoyancy, the balance or the movement of the diver.



RECOMMENDED EQUIPMENT:

GLOVES



To avoid any injuries

MARKER BUOY



To indicate the position of the divers when ascending

SHARP OBJECT



To remove trapped items or to free oneself if trapped

LITTER BAG



To carry litter back to the surface

WATERPROOF BAG



To keep objects dry

TORCH



In case of low visibility

COMPASS



To navigate the area

SURFACE MARKER BUOY



So others in the area are careful of the underwater divers

RECYCLING BAGS AND TARPS



To sort the waste once on the shore

SCALE OR TRAVEL SCALE



To weigh the litter collected

HOW TO ORGANISE AN UNDERWATER CLEAN-UP?

4) TEAM UP

Be safe, dive together!

Invite your fellow divers, your diving club and local ocean conservation groups. In order to raise awareness and invite new participants to take action against plastic pollution, you can promote your event locally, through the press, the town hall news bulletin, word-of-mouth and social networks, by tagging @TheSeaCleaners and using the following hashtags: #plastichunter, #beatplasticpollution and #mantaproject

Before diving as a team, remember to share out responsibilities for a safer and more efficient dive.

One team member can have several responsibilities!

WHO DOES WHAT DURING AN UNDERWATER CLEANUP?



THE LEADER

The most experienced diver, the one who gives instructions for the underwater clean-up



THE RESCUE DIVER

Equipped with a first aid kit and trained to watch over others in order to assist when needed



THE CARRIER

Equipped with a bag, this person carries the collected waste. There may be several carriers per clean-up



THE SORTER

Once out of the water, this person is in charge of sorting the litter by category, and of disposing it according to local recycling rules



THE ANALYST

This person helps the sorter by creating a report on the location, type, weight and volume of waste collected (see the report form to be completed in Appendix 3 p.16-17)



THE PHOTOGRAPHER

Equipped with a dry bag and a camera, this person takes photos and videos of the underwater clean-up and shares them at the end



THE COMMUNICATOR

Along with the photographer, this person is responsible for sharing the results of the underwater clean-up on social media



CHECKLIST

- ✓ **Locate the clean-up site in advance** and estimate how much litter there is .
- ✓ **Get permission** to do an underwater clean-up from local authorities.
- ✓ **Make sure the litter is collected** according to local waste management rules and within the guidelines of the relevant organisations.
- ✓ **Make sure everyone knows the plan:** the day before, remind them of the time and pick an easily accessible meeting point, so that all goes smoothly.
- ✓ **Prepare snacks:** it is important to eat well and to stay hydrated before a clean-up dive. Drink water and eat slow-release foods. Do not drink alcohol or eat fatty foods.
- ✓ **Remind the team of the distribution of tasks and the safety measures in place.**
- ✓ **Never dive alone, regardless of your level!**
- ✓ **Specify which litter to collect and which to leave,** according to the type of dive and the extent to which it has been reclaimed by nature.
- ✓ **Check the equipment needed for a safe clean-up dive.** Whether you are using a tank or not, mark your presence with a dive flag.
- ✓ **Clean up and enjoy the dive:** a successful clean-up is not about the amount of waste collected. The mere fact of cleaning up what you can is already a great success!
- ✓ Keep in mind that **some waste cannot be cleaned up** because it is too heavy, too colonised by fauna and flora, too dangerous or too deep down.
- ✓ **Identify and sort the litter collected:** once back on land, identify, sort and weigh each type of litter collected. Fill out the collection report in appendix 3, page 16 to send your collection results to The SeaCleaners team.
- ✓ **Celebrate and share:** congratulate the team on a job well done and share the results of your clean-up online using the following hashtags: #plastichunter, #beatplasticpollution, #mantaproject.



APPENDICES

#1 - DIVIDING THE TASKS BY EXPERIENCE

WHO PICKS UP WHAT?

This information is provided as a reference only. It should change depending on sea conditions and the divers' physical condition.

FOOD PACKAGING

Plastic waste, masks, small metal objects (cans, etc.)

TEXTILES

Clothing, small pieces of fabric, small banners, bunting, flags, etc.

SMALL FISHING OR AQUACULTURE WASTE

Small containers, cups, etc.

ELECTRONICS

Batteries, phone batteries, etc.

OTHER LARGE WASTE

Anchors, signs, bicycles, scooters, tyres

LARGER FISHING OR AQUACULTURE WASTE

Pots, nets, etc.

	The swimmer	The motivated Snorkeller	The experienced freediver	The supervised beginner diver (Leisure)	The advanced diver (Leisure)	The scuba diver (Pro)
FOOD PACKAGING Plastic waste, masks, small metal objects (cans, etc.)	✓	✓	✓	✓	✓	✓
TEXTILES Clothing, small pieces of fabric, small banners, bunting, flags, etc.	✓	✓	✓	✓	✓	✓
SMALL FISHING OR AQUACULTURE WASTE Small containers, cups, etc.	✓	✓	✓	✓	✓	✓
ELECTRONICS Batteries, phone batteries, etc.	✓	✓	✓	✓	✓	✓
OTHER LARGE WASTE Anchors, signs, bicycles, scooters, tyres	✓	✓	✓	✓	✓	✓
LARGER FISHING OR AQUACULTURE WASTE Pots, nets, etc.	✓	✓	✓	✓	✓	✓

GLASS: TAKE IT OR LEAVE IT?



It may seem contradictory, but it is often better to leave glass where it is on the seabed, for the following reasons:

- Safety: glass can be sharp and dangerous to handle
- Conservation of marine organisms: over time, glass can become a habitat for marine fauna and flora
- Not as toxic: glass pollutes less than other types of litter

#2 - WHAT TO LEAVE BEHIND?

When litter has been underwater for many years, an entire ecosystem may have had time to develop inside, outside or even around it. It is said that the waste has been "reclaimed by nature". Although there is no precise data on this topic, here are some things to consider before deciding what to pick up!



✓ PICK IT UP IF:

- It is a single piece of waste
- It is on the surface or in a water column
- It is on the seabed but looks clean and recent
- It appears to have nothing growing on, in or around it
- It has no historical value

✗ DON'T PICK IT UP IF:

- A sea creature or plant is entangled in the litter (for example, it is better to ask a professional diver to free trapped creatures)
- It looks like it has been on the seabed for several years
- There seems to be plant life growing on it
- The waste is dangerous

Of course, all this is at the divers' discretion! Please bear in mind that marine life doesn't like to be disturbed twice: first when the litter encroaches on their environment, and then when it is removed from their ecosystem at their expense.

#3 - COLLECTION REPORT

THANK YOU FOR PARTICIPATING IN THIS UNDERWATER CLEAN-UP!

Why is your feedback so important? What you see will help us understand the extent of marine pollution and pinpoint our targets. Recording the different types of litter will also help us introduce measures designed to restore ecosystems and, more importantly, reduce pollution at the source by raising awareness.

Please complete this form and email it to:
international.volunteers@theseacleaners.org

CONTACT DETAILS

Your last name:.....

Your first name:.....

Your email:.....

CLEAN-UP DETAILS

Date of clean-up (dd/mm/yyyy):...../...../.....

Clean-up location (place/postcode/city/country):
.....

Time spent on clean-up:.....

Number of participants:

Adults

Children

What did you collect most of?.....

What did you collect least of?.....

#3 - COLLECTION REPORT

DETAILS OF LITTER COLLECTED

Number of full bags:.....

Total weight:.....

TYPE AND WEIGHT

PLASTIC

Bottles, plastic bags, food packaging, etc.

Number of bags (50l)

Weight

PAPER, CARDBOARD

Number of bags (50l)

Weight

GLASS

Number of bags (50l)

Weight

METAL

Cans, capsules, tins, etc.

Number of bags (50l)

Weight

TEXTILES

Clothing, rags, canvas, sails, towels, shoes, backpacks, etc.

Number of bags (50l)

Weight

RUBBER

Elastics, balloons, tyres, boots, etc.

Number of bags (50l)

Weight

MANUFACTURED WOOD

Number of bags (50l)

Weight

CIGARETTE BUTTS

Number: total weight/0.22
(one butt = 0.22g)

Weight

COVID MASKS

Number of masks

Weight

OTHER

Sanitary waste, medicines, batteries, etc.

Number of bags (50l)

Weight

TELL US EVERYTHING!

Give us your feedback on the clean-up! Was anything you needed missing? Can we improve anything?

.....
.....

#4 - BEING AN ECO-FRIENDLY DIVER

THE BASIC RULES OF A RESPONSIBLE DIVER

*“Underwater, we are guests.
Like any guest, we must behave politely.”*

**Jean-Michel Cousteau,
Oceanographer and founder of the Ocean Futures Society**

BEFORE THE DIVE

- Get informed about the diving zone, its ecosystem, its endemic species, etc.
- Make sure that you have the necessary permits to dive in this zone.
- If you are diving from the shore, ensure that there is a place to transfer waste without disturbing the environment.

ON THE BOAT

- Keep your waste with you! No litter should be thrown overboard.
- Please make sure that there are bins available on deck.
- Kindly ask any smokers to use closed ashtrays.

DURING THE DIVE

- Avoid any physical contact with marine life.
- Do not feed marine animals.
- Admire and take pictures, but do not take anything other than the waste you picked up.
- Keep calm and respect your surroundings, especially any ecosystems.
- Make sure you have your equipment - nothing should get lost in the water.

AFTER THE DIVE

- Sort the litter you collected underwater according to local waste management rules.
- Choose to use collected rainwater to rinse your equipment.

WWW.THESEACLEANERS.ORG



*Special thanks to the NSA organisation (Nettoyeurs SubAquatiques)
for their help in writing this guide.*



*Thanks to Maria Kyriakidou, Kaoutar Zouarhi, Joan Simpson and Mathilde Gillard
from L.U.K. Junior Conseil, but also Mathilde Fradin and Alisha Brehaut for
translating and reviewing this guide.*