

## Marine Litter Audit

**EXPLORE THE PLASTIC WASTE GETTING INTO YOUR ENVIRONMENT** 





# Welcome to the Marine Litter Audit toolkit

This is an amazing way to get your community involved in learning about and tackling plastic waste. Operating as 'citizen scientists', you and your volunteers will discover and record what kinds of plastic are littering your coast.

Gather a group of friends or volunteers, choose your beaches using the criteria below, and get going! Ideally, you will repeat audits across the seasons so you can understand more about how and why plastic is getting onto the beach.

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# I learned so much, met wonderful people... I feel part of the solution and now do more environmental projects."

Paros MLA participant

#### **Contents**

#### This toolkit contains:

#### The Marine Litter Handbook,

explaining how to prepare for and conduct marine audits. We recommend you read all the way through before starting!

#### The Marine Litter Handbook

### Preparing for your audit



#### What you'll need:

- 1. A group of people
- 2. A small budget to buy basic equipment, like bags and gloves
- 3. The Marine Debris Tracker app



#### Introduction

# What are marine litter audits?

A marine litter audit is a scientific process that involves:

1. Finding volunteers to take part



2. Identifying suitable sites



3. Collecting litter



4. Recording the amount, type and location of litter



5. Uploading the results via the Marine Debris Tracker app



6. Recycling or safely disposing of the beach litter collected.





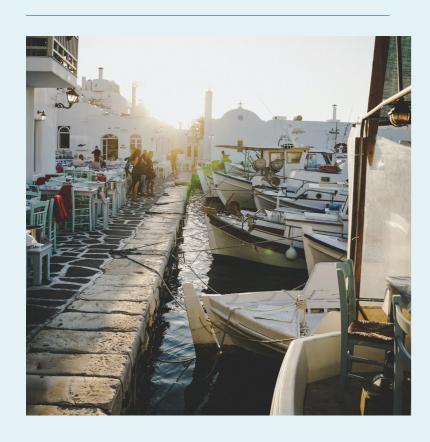
CLEAN BLUE PROMISE

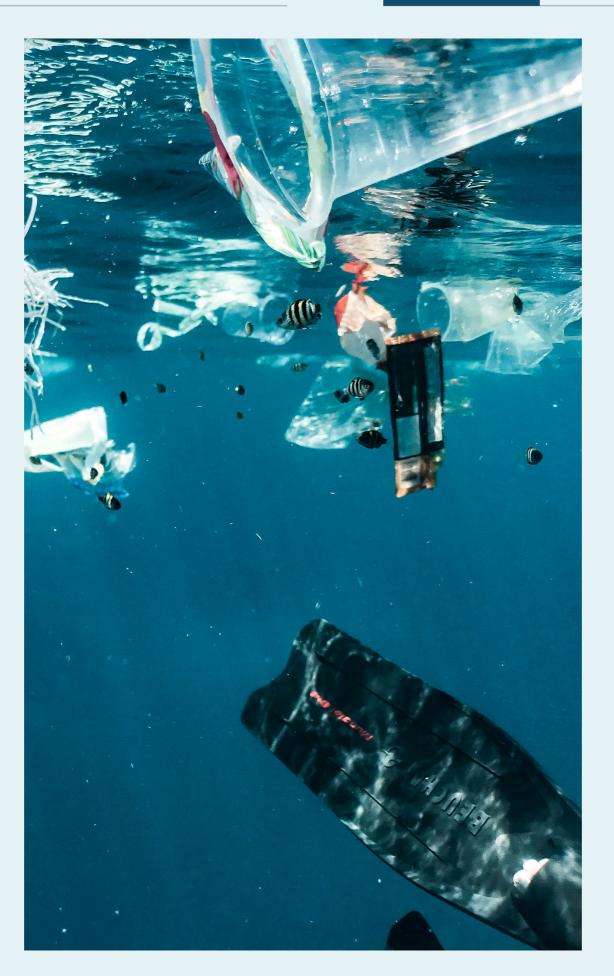
CLEAN BLUE PROMISE

## Why should you do marine litter audits?

Greece has a big problem with plastic pollution, with 35 times more plastic getting into the sea per person than the EU average. There is a huge surge of single-use plastic waste during tourist season.

# 35 times more plastic getting into the sea per person than the EU average





## Common Seas ran marine litter audits to get the people of Paros involved in tackling plastic waste.

The team trained over 150 volunteers to run these audits, and 1,550 people (12% of the island's population) have been involved in some way so far.

As well as engaging the community, our team on Paros used the audits to identify the most common plastics and design better solutions. For example:

- We found lots of cigarette butts, so we installed voting ashtrays around the island.
- We found lots of plastic straws, so we launched Clean Blue Businesses and found better alternatives for them.





### How many marine litter audits should you conduct?

It's up to you! But ideally, you will run audits:

- At four different beaches (at least) so you can see how factors like wind direction affect your findings.
- Four times a year, so you can see how seasonal changes, like tourist numbers, affect plastic pollution.

#### The Marine Litter Handbook

## Preparing for your audit



#### 1. Build a community

Marine litter audits are all about helping people in your community get involved in tackling plastic waste.

**Coordinator:** It's your job to build a community around the project. You'll take the lead on getting people involved and running the actual audits.

Volunteers: people love to improve their neighbourhood, so you'll have no problem finding volunteers. Put the word out wherever you can - via parent's associations, sailing clubs, through your friends and colleagues, and the local radio.

Beach Godparents: Ask residents, businesses or regular visitors if they'd like to become a 'Beach Godparent' and be responsible for auditing their favourite beach. A network of trained and committed volunteers will mean more and more people get involved. This worked really well on Paros!





PAROS



Panagiotis Kefalas & Cecilia Kathleen Lee PAROS

#### **Preparation checklist**

1. Build a community



2. Choose your locations



3. Get some dates in the diary



4. Contact the authorities



5. Sort out your kit list



6. Download the app



7. Make it safe



8. Final checks





#### 2. Choose your locations

Once you've recruited a few volunteers into your team, work together to identify which beaches to conduct your audits. This table shows the characteristics of an ideal survey site. Match as many as you can!

**Best Avoided** 

Rocky bay

Steep

Cramped

Isolated or hard to get to

Freshly litter-picked

A busy tourist spot near a historic monument

#### Great audit site

#### Sandy beach





Spacious - at least 100m long by 10m wide



Safe and easy access year-round



Away from popular venues and archaeological sites



Not recently cleaned by a nearby business or clean up scheme





- · Choose sites that are convenient to get to.
- Touristy beaches are often cleaned by local businesses.
- · Choose larger beaches so there's plenty of space to avoid disrupting people or wildlife.
- On islands, it's best to choose beaches facing different directions.

#### 3. Get some dates in the diary

The dates of your audits depend on the weather and time of year. We recommend you avoid times when the weather is too hot or stormy, or the beach is too busy.

#### 4. Contact the authorities

You might want to inform the local authorities of your plans. If you're expecting to pick up a lot of waste, ask for some advice on how best to dispose of it.

Check whether any of your chosen beaches are part of the NATURA network. If they are, contact the organisation to see if they have any specific instructions.





#### 5. Sort out your kit list

We've included our equipment checklist below. Share the volunteers' checklist with them well before the audit! For Coordinator to bring

- Burlap bags for all volunteers
- Non-plastic hardware gloves for everyone
- Charged smartphone with Marine Debris Tracker app installed
- The beach form

#### For Volunteers to bring

- Reusable water bottle
- Hat
- Sunscreen
- Closed shoes



#### 6. Download the app

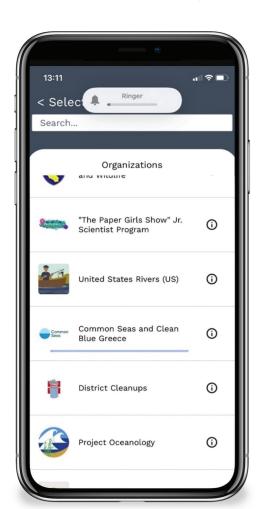
The Marine Debris Tracker app will help you conduct a high-quality scientific audit.

wa global database of marine litter, which will then be available to scientists for further research.

Download the app, create your own account and select our organisation – 'Common Seas and Clean Blue Greece'

The app is intuitive to use, but if you'd like to some extra help, there's a 'User Guide' in the toolkit folder, and lots more information (including a simple tutorial video) on the Marine Debris Tracker app website.

We recommend you explore the app before your first marine litter audit so there are no surprises on the day.

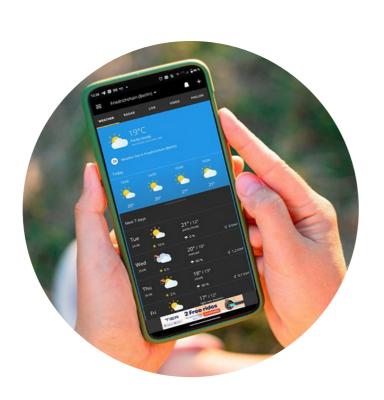


#### 7. Make it safe

Have a think about the risks involved in your audit. We wrote down everything that might go wrong and then thought about how to reduce the risks. You can then share anything useful with your volunteers.

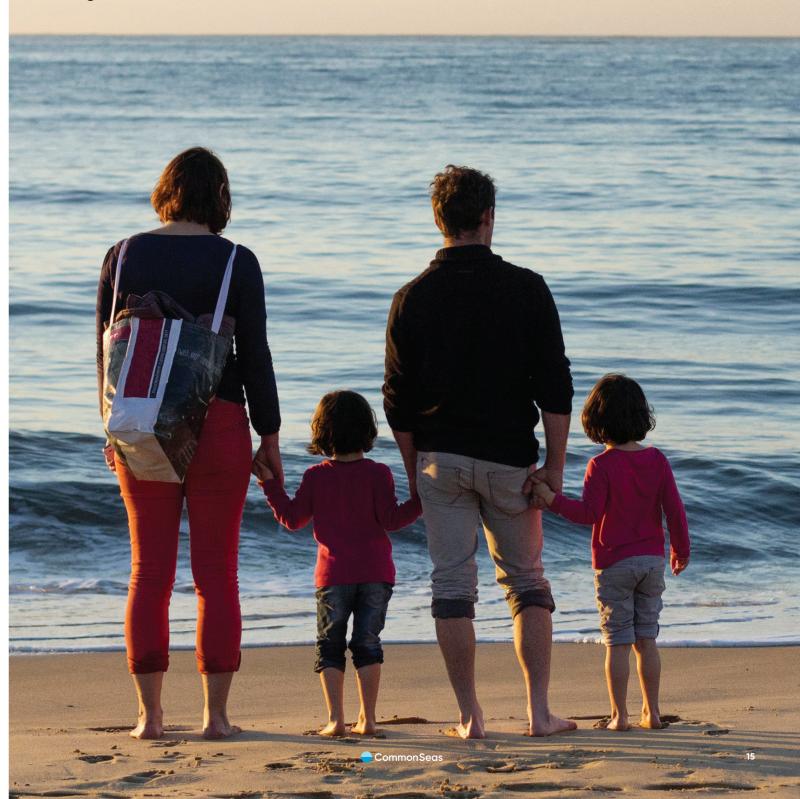
#### 8. Final checks

- Check the weather forecast before going out.
   If there's a heat wave, high winds or storms,
   consider postponing.
- If everything is going ahead, let your volunteers know.
- Use the kit list above to check you've got everything.
- Make sure your smartphone has storage space and a fully charged battery.



## Marine litter audits are really fun family events.

If you're inviting younger volunteers to come along, be sure to check you have enough adults to go round!



#### The Marine Litter Handbook

# Conducting a marine litter audit



#### Today's the day – your first marine litter audit!

You've arrived at the beach in plenty of time, with all your equipment. Once everyone has arrived, start by giving a quick talk about the plan for the day.

## 1. Give a quick introduction

Of course, it's up to you how you introduce your event, but we recommend covering the following:

Start by thanking people for coming along, and let them know they only have to stay as long as they like.

Tell people you'll begin by measuring the sampling area – and ask for a few volunteers to help.

Next, explain how the collecting works: everyone gets a bag and a pair of gloves, and needs to 'zig zag' through the sample area following the methodology outlined below.

Finally, let people know you'd love them to take photos and videos for social media, and that there'll be more audits happening soon.

All of this is covered in more detail in the steps below.



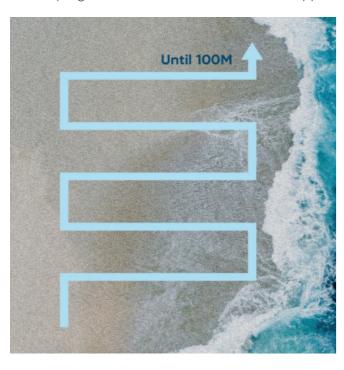
# **Marine Litter Audit** checklist: 1. Give a quick introduction 2. Mark the sampling area 3. Collect and record items 4. Take photos and video 5. Dispose of the litter 6. Explore your results 7. Celebrate and repeat



## 2. Mark the sampling area

The sampling area is where you will collect the litter items. It should be rectangular, and 100m long by 10m wide. To measure the 10 metres, start at the water's edge and walk up the beach. If you know roughly how long your footstep is, you can measure this out by pacing it.

Mark the border of the sampling unit using sticks, stones or other beach detritus. You can even just make a cross in the sand. Enter the GPS coordinates and details of the sampling area into the Marine Debris Tracker app.



## 3. Collect and record items

Inspect the sampling area by walking in a zig zag pattern perpendicular to the water line.

Work together and use the burlap bags to collect every piece of litter you find (with a few exceptions, outlined below). Make sure everyone is wearing protective gloves. Don't worry if you lose phone signal, you can always input the data on the beach and upload later.

On Paros, we normally collect all the litter in our sampling area, then go somewhere more comfortable nearby to sort the items and add them to the Marine Debris Tracker app. Only one person needs to use the app to record items.

Follow the below auditing methodology, which was created by the United Nations Environment Protection Agency.

- · Make sure you make a note of the GPS coordinates.
- $\cdot$  Record all items that are longer than 2.5cm. This includes caps and lids, and cigarette butts. No upper size limit is set.
- · Do not collect any sharp or rusty items. If you find heavy or unusual objects, photograph and record them in notes, and then notify the local authority.
- · Include unrecognisable items or things not included in the app's 'Common Seas – Greece' list as 'other' and give a short description. If possible, keep a photo record.
- · Do not count or collect any natural materials, including animals (dead or alive), nests, driftwood or seaweed.

## 4. Take photos and videos

Encourage everyone to take photos and videos for social media.

Remember to include hashtags, such as #cleanbluegreece #[name of beach] #marinelitter #beachclean #citizenscience #plasticwaste #beachgrandparents #commonseas

#### 5. Dispose of the litter

At the end of the audit, please make sure to dispose of all collected litter responsibly:

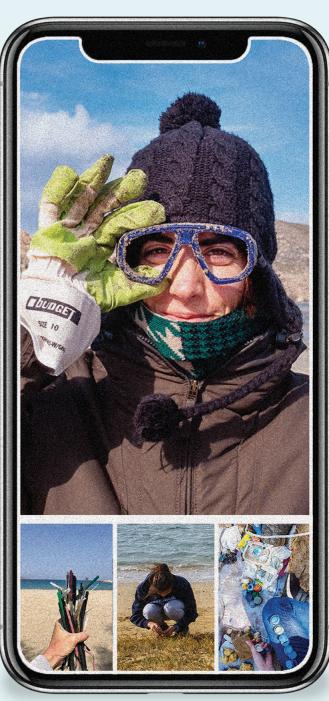
·Put recyclables in the blue recycling bins or separated by type if required.

 $\cdot \text{Use}$  dedicated bins for glass and fishing gear if they are available in your area.

·Put general waste in the landfill bins.







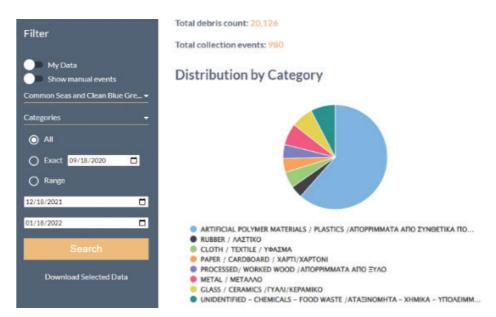




#### 6. Explore your results

You'll be able to explore your results as soon as they're uploaded via the app. Head to www.debristracker.org/data to for diagrams showing the types of litter you found.

You can use the findings of the report to understand which are the most problematic plastics in your area and think about how to stop them getting onto beaches.



#### A couple of tips

- This project is very media-friendly! You might want to let the press know what's happening to help publicise future audits and other plastic-reduction activities.
- Sharing the findings of your report is also a great way to attract and motivate volunteers.

#### 7. Celebrate, and repeat

Once your first audits are done, it's time to celebrate! Get everyone together for some refreshments and reflect on what you have accomplished.

This is the perfect opportunity to ask people to become Beach Godparents and agree dates for the next round of audits.





#### Appendix

#### First aid kit list

Paracetamol	Sterile gauze boxes of 5, 10 and 15cm
Antihistamine tablets	Triangular bandage
Cortisone tablets (prednisolone 4mg)	Bandage 2.50m X 05cm
Anti-diarrhoea tablets - Loperamide	Bandage 2.50m 10cm
Ophthalmic washing solution	Haemostatic bandage
Antihistamine ointment	Antibiotic soaked gauze (Fusidic acid)
Ointment for burns	Cotton and disposable cups – paper or plastic
Medical gloves	White wound tape roll (width 8cm)
Hand disinfectant	Platinum sterilized gauze
	250 or 500ml saline water
	Pharmaceutical solution of Hydrogen peroxide
	Antiseptic solution
	Tongue depressor

#### **Emergency contact numbers**

Police department Town 1	
Police department Town 2	
Port authority	
Coast Guard	
Health centre	
Medical centre	
Emergency services	
Fire department	



# Thank you

