

9th International Conference on Sustainable Solid Waste Management

15-18 June 2022

Corfu, Greece



Marine litter management in the city of Corfu



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Introduction

In addition to the huge problem of solid waste management that had already appeared in 2018 on the island, the new municipal authority was faced also with the [problem of treating marine litter and the pollution it causes](#) from the very beginning of its existence in 2019.

For this reason, [Municipality of Central Corfu and the Diapontia Islands \(hereafter MCCDI\)](#) made sure to seek and establish reliable collaborations with similar experienced external bodies that would assist MCCDI in this ambitious goal.

In this search came to light the ambitious [team of Aegean Rebreath](#) which shared the same vision with us and committed to helping the municipality to tackle the problem effectively, applying a holistic model of awareness and education for the [protection of the marine environment but also to achieve integrated management of marine litter aiming at their recycling and reuse.](#)



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AEGEAN REBREATH

Results from the 1st year of cooperation with Aegean Rebreath until today:

1. **Awareness actions** on issues related to the **protection of the marine environment** of the inhabitants and the fishing professionals of the area of Anemomylos - Garitsa.
2. **2 underwater and coastal cleanings** in the Municipality, in collaboration with local volunteer divers:
 - 1 - Windmill - Garitsa Bay and
 - 1- Alypa, Paleokastritsa.
3. **Sampling** from Agios Spyridonas beach of Paleokastrita for **research on microplastics** in Greece.
4. **1st Marine - Coastal Waste Collection Station (SSTHA)** in the area of the Windmill – Garitsa.



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AEGEAN REBREATH - 1st Marine - Coastal Waste Collection Station

The following findings were made as results from the operation of the **1st Marine - Coastal Waste Collection Station (SSTHA)** in the area of the Windmill – Garitsa, by the Municipality until 10th of June 2022 :

**5,504 pieces of recyclable materials
(100,0%)**



Fishing Nets

130 kg



Glass

801 pieces

(14,5%)



Aluminum

1.660 pieces

(30,2%)



Plastic

3.043 pieces

(55,3%)



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AEGEAN REBREATH - Research for microplastics

Sampling from Agios Spyridonas beach of Paleokastritsa for research on microplastics in Greece.

Researchers estimate that 4.8-12.7 million tons of used plastics end up in the sea each year (Jambeck et al., 2015; Kim et al., 2015), and among them, is also a major number of microplastics which is a major source of multiple hazards for marine organisms.

They are transported everywhere in the ocean, either by wind and sea currents or through organisms that have swallowed them, spreading the pollution far away from its original source. Recently, in fact, there was a study on the entry of microplastics into the human body.



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AEGEAN REBREATH - Research for microplastics

Location	Date	Use	Orientation	Length - Width (m)	Substrate quality	Weather condition / Sea condition
Aghios Spiridon Beach – Paleokastritsa – Corfu	23/5/2021	Touristic	South	218 m - 10 m	Fine Sand	Not prevailed winds

Results of medium- and micro-plastics

Beach	Microplastics (pieces / m ²)	Percentage Microplastics	Mesoplastics (pieces / m ²)	Percentage Microplastics	Total Plastics / m ²
Aghios Spiridon Beach – Paleokastritsa – Corfu	58	72,5%	22	27,5%	80

Numbers of mesoplastics (pieces / m²) per morphological type (5mm - 25mm)

pellets	fragments	filaments	foams	films	Others	Total
2	4	0	11	5	0	22

Numbers of microplastics (pieces / m²) per morphological type (1mm - 5 mm)

pellets	fragments	filaments	foams	films	Others	Total
3	5	0	49	1	0	58

Conclusions

- microplastics are more than mesoplastics
- the most abundant category is foam plastics (styrofoam pieces), followed by fragments of hard plastic scraps and films.
- in terms of the type of polymer, in hard fragments as well as in pellets, polyethylene (PE) predominates.

(source: *Hellenic Centre for Marine Research – HCMR*)

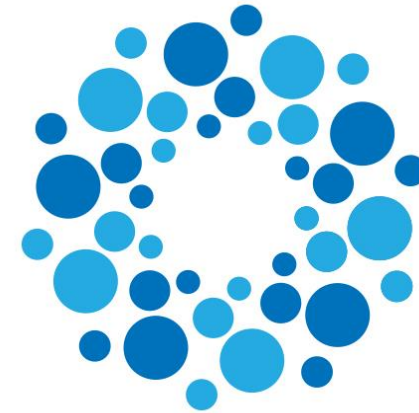


“BLUE MUNICIPALITIES NETWORK”

- ✓ **Participation of the Municipality of Central Corfu and the Diapontia Islands in the first network of Municipalities for the protection of the marine environment in Greece.**
- ✓ The aim of the members is to **plan, organize, implement, and exchange good practices** for the **protection of the marine environment.**
- ✓ The network is under the auspices of the Ministry of Environment and Energy.

Actions and interventions are sought at local and national level for the:

- **decontamination** of the Greek seas,
- **protection and ensuring the sustainability** of marine resources,
- **raising of public awareness,**
- **promotion of environmental democracy**



BLUE
MUNICIPALITIES
NETWORK
AN INITIATIVE
BY AEGEAN REBREATH



International Coastal Cleanup Day 2021

- ❑ Municipality of Central Corfu and the Diapontia Islands, on the occasion of the International Coastal Cleanup 2021, **hosted the project "Greece without Single-Use Plastics"**, which was conducted by the "Lidl Hellas", the "A. C. Laskaridis Charitable Foundation" and the Environmental Organization "DiveInAction".
- ❑ 10th-11th of September 2021: **2 underwater cleanings** with parallel inspection of the seabed in the Old Port of Corfu (10/09) and at the Ipsos Fishing Shelter (11/09) while during the second action, **coastal cleaning** was also carried out in the area of Ipsos
 - **300 kilos of marine litter** were removed from all cleaning activities, mostly consisting of **vehicle tires, single-use plastics** (disposable cups and straws, bottles, bags, etc.), **glass and metal packaging, etc.**
 - **next big underwater cleaning actions** at the Old Port of Corfu on 28th of October 2022.

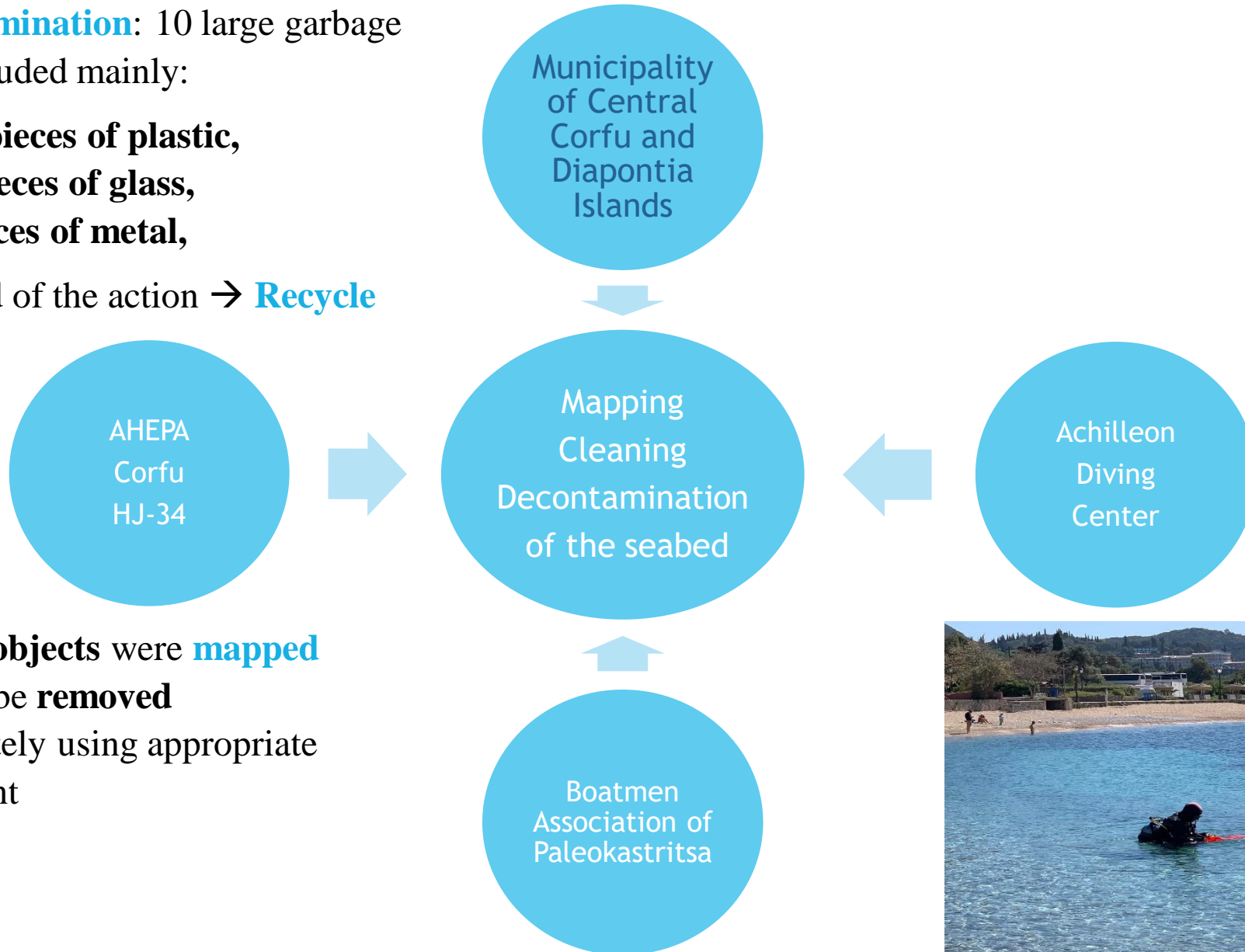


Cleaning of Paleokastritsa's central bay

Decontamination: 10 large garbage bags included mainly:

- **200 pieces of plastic,**
- **30 pieces of glass,**
- **5 pieces of metal,**

After end of the action → **Recycle**



5 bulky objects were **mapped** and will be **removed** immediately using appropriate equipment



Total recyclable materials collected

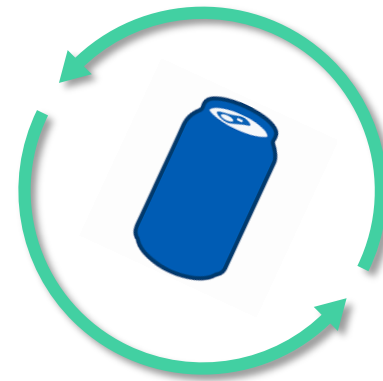
**5,739 pieces of recyclable materials
(100,0%)**



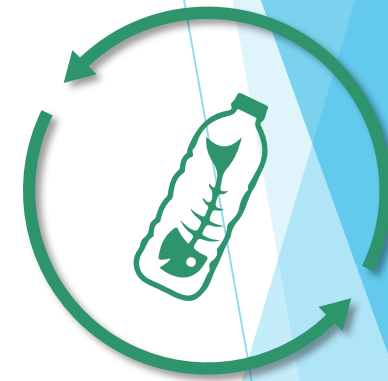
Fishing Nets
130 kg



Glass
831 pieces
(14,5%)



Aluminum
1.665 pieces
(29,0%)



Plastic
3.243 pieces
(56,5%)

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“NEXT DAY”

- **Municipality + local High School** (School of Skripero) → **Application** in a pan-Hellenic school **competition** for Sustainable Development.
- **Idea:** Each school unit of the municipality to **adopt a nearby beach and takes care** of its cleaning and maintenance, at least twice per year, from its students.
- **Installation** of **special collection bins** (big metal fishes) by the Municipality.
- **Attract** more people’s **attention + continuous visual contact** of the public with the findings from the cleaning.



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GREEK GREEN AWARDS

Municipality of Central Corfu and the Diapontia Islands, as the culmination of its overall efforts until today to protect the island's environment and especially the marine and coastal environment, was **honored** with the

"Best Practice for the Marine Environment" Award

at the **"GREEK GREEN AWARDS 2022"**





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MUNICIPALITY
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Thank you
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attention...



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