



SEA-ING THE PROBLEM: MARINE LITTER CRISIS

Ramona Mercieca



Source: [marine litter](#)



Source: Google Maps (2023)



Source: the author, 2022

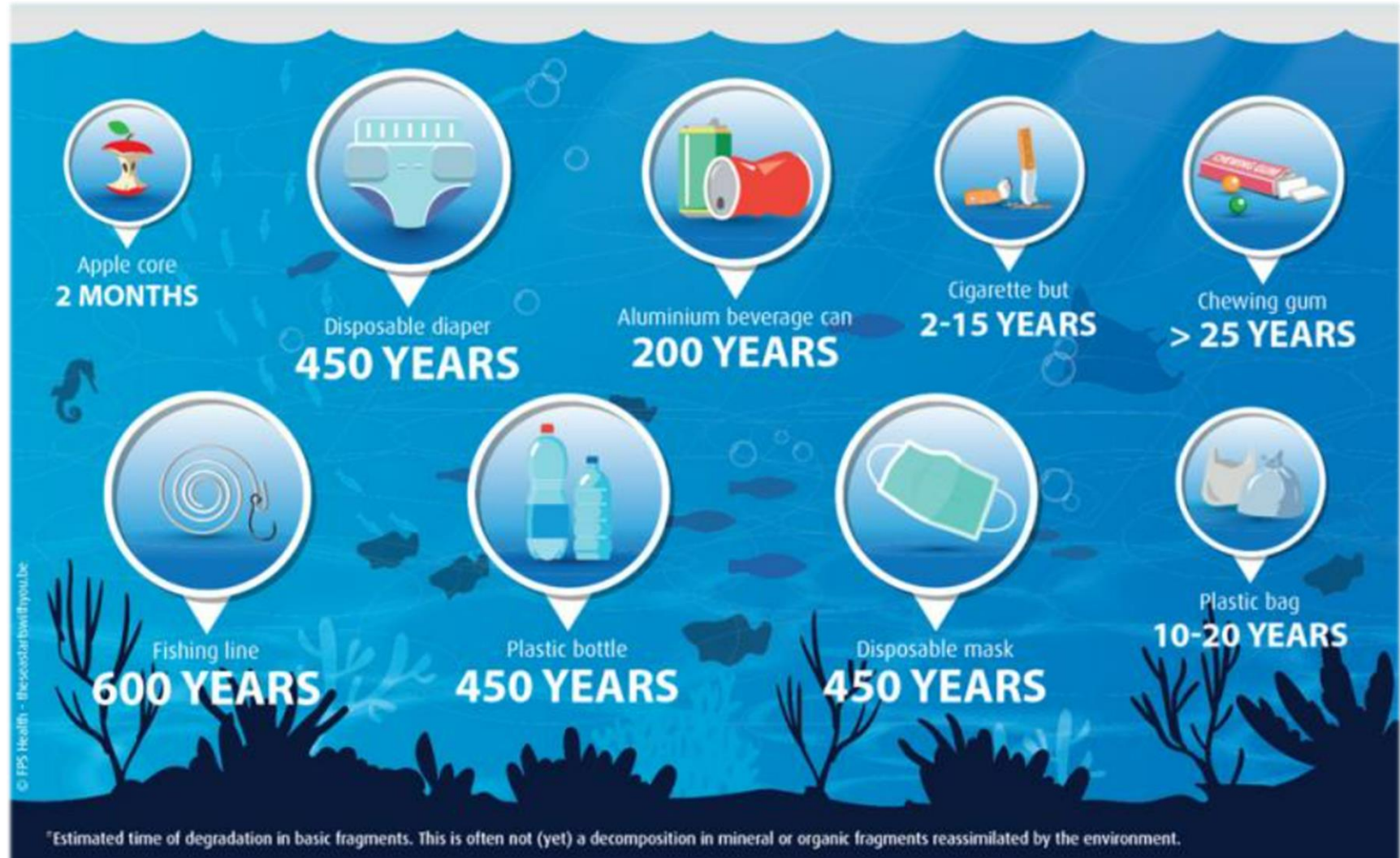


INTRODUCTION

- Ir-Ramla, commonly referred to as Ir-Ramla l-Ħamra, is Gozo's main sandy beach on the North coast of the island.
- Ir-Ramla lies between the two headlands of Nadur and Xagħra at the mouth of a valley system, Wied ir-Ramla.
- A running temporary stream divides the beach during the rainy season, with a freshwater pool forming a marshland community.
- Ramla l-Ħamra is one of the three bays in Gozo that carries the Blue Flag status, having a lifeguard on duty, various facilities, and a safety flag system.
- Ramla l-Ħamra is largely unspoiled by humans and offers an undisturbed, peaceful, and full of natural beauty experience.

WHAT'S HAPPENING TO OUR OCEANS?

Every year, an average of 8 million tonnes of plastic waste ends up in the sea; in other words a truck of waste every minute. Plastics remain present for up to 450 years, and the small fragments never truly disappear completely.



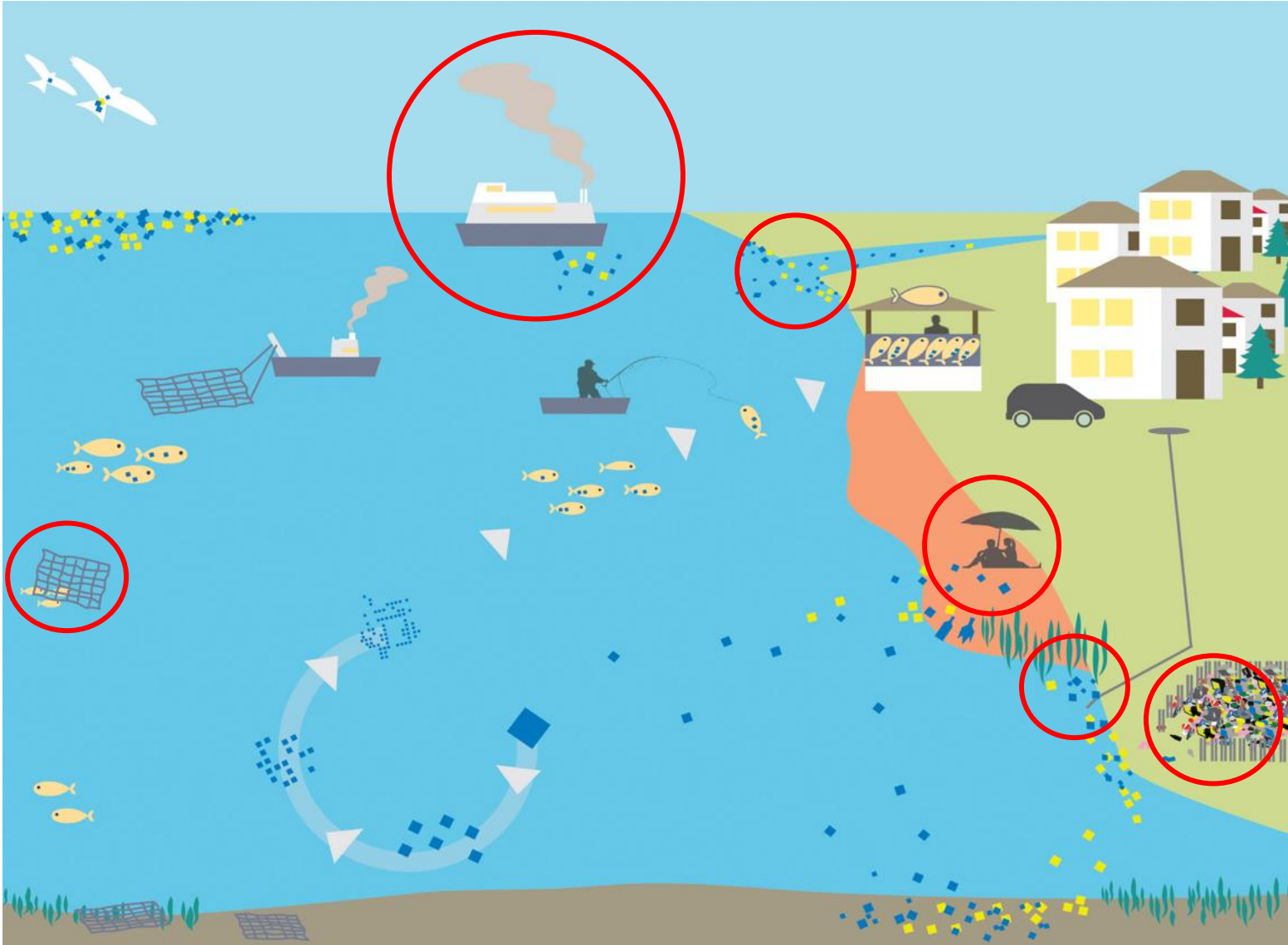
Source: [SPF Santé publique \(belgium.be\)](http://SPF.Santé.publique.belgium.be)

WHAT'S HAPPENING TO OUR OCEANS?



Source: https://youtu.be/71f_uFm9S7g

WHAT ARE THE SOURCES OF MARINE LITTER?

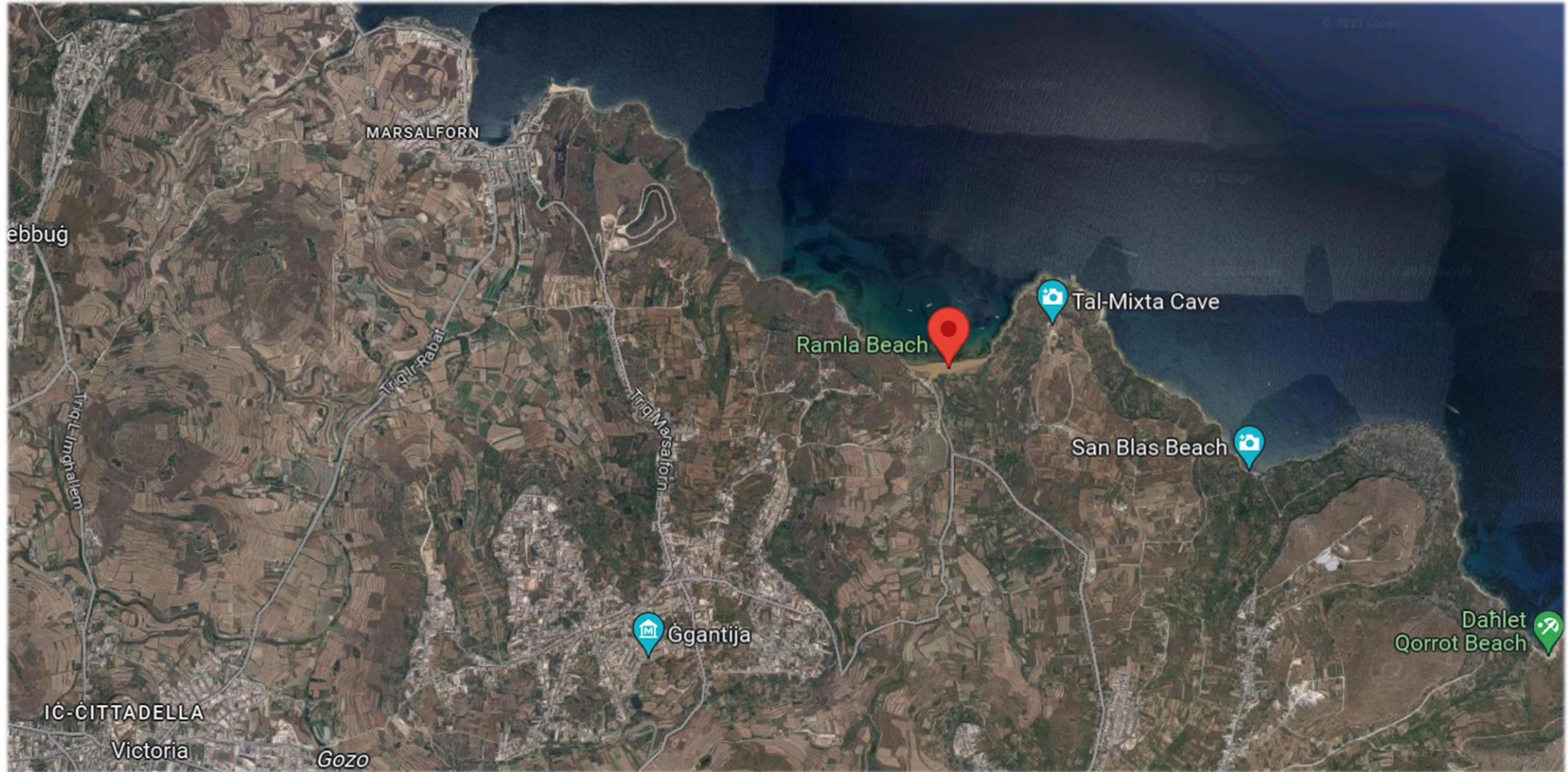


Litter ends up in the sea via rivers and sewage pipes or with wind.

Litter from ships and boats often also accumulates in the ocean.

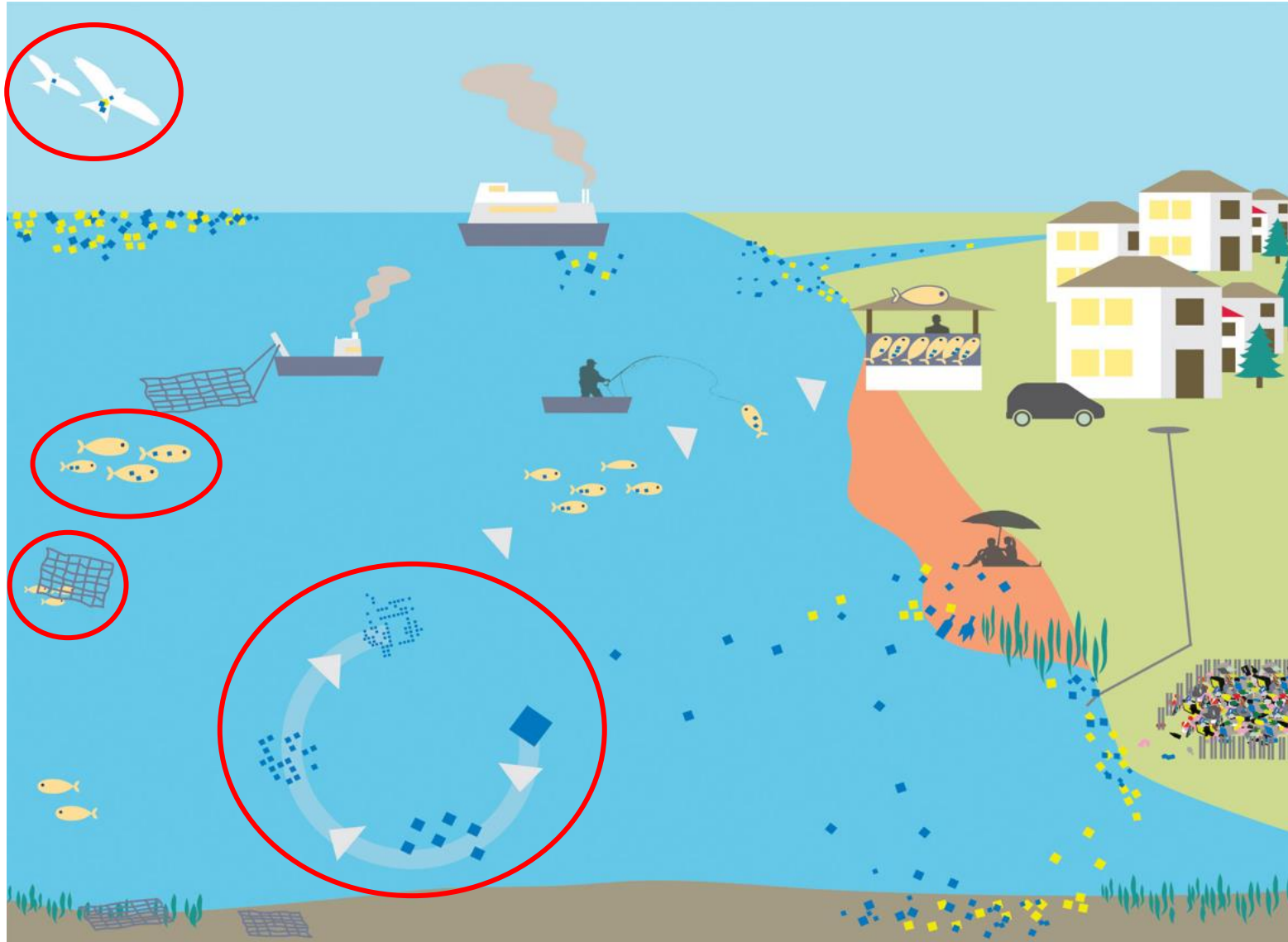
About 10% of marine litter is discarded fishing gear.

WHAT IS THE SOURCE OF LITTER OF RAMLA BAY?



Source: [Google Maps](https://www.google.com/maps)

WHAT ARE THE EFFECTS OF MARINE LITTER?



Many plastics break into ever smaller pieces, which can then enter the food chain.

Ingestion of litter, particularly plastic, is very problematic for marine life who are unable to digest it. Large amounts of plastic ingestion can lead to starvation, as there is no room left for food.

Animals can become entangled in litter, causing injury, reduced mobility and even death.



OUTDOOR SESSION

Exploring Ramla Bay

Source: the author, 2022

Instructions:

Remember to work together as a team and communicate with each other. Share your knowledge and skills to make the process more effective.

Please respect the beach and its natural environment. Avoid disturbing wildlife and plants, and leave the beach cleaner than when we arrived.

For the clean-up activity use gloves, litter pickers, and garbage bags provided.

After we finish, we will discuss the data collected and the impact of our efforts. We will also reflect on what we learned and how we can apply it to future actions.



Litter Survey

EXAMPLE: Plastic Bags: = **TOTAL #** 8

Please DO NOT use words or check marks. Only numbers are useful data.

MOST LIKELY TO FIND ITEMS:	Total		Total
Cigarette Butts:	=	Beverage Bottles (Plastic):	=
Food Wrappers (candy, chips, etc.):	=	Beverage Bottles (Glass):	=
Take Out/Away Containers (Plastic):	=	Beverage Cans:	=
Take Out/Away Containers (Foam):	=	Grocery Bags (Plastic):	=
Bottle Caps (Plastic):	=	Other Plastic Bags:	=
Bottle Caps (Metal):	=	Paper Bags:	=
Lids (Plastic):	=	Cups & Plates (Paper):	=
Straws/Stirrers:	=	Cups & Plates (Plastic):	=
Forks, Knives, Spoons:	=	Cups & Plates (Foam):	=
FISHING GEAR:	Total	PACKAGING MATERIALS:	Total
Fishing Buoys, Pots & Traps:	=	6-Pack Holders:	=
Fishing Net & Pieces:	=	Other Plastic/Foam Packaging:	=
Fishing Line (1 yard/meter = 1 piece):	=	Other Plastic Bottles (oil, bleach, etc.):	=
Rope (1 yard/meter = 1 piece):	=	Strapping Bands:	=
OTHER TRASH:	Total	Tobacco Packaging/Wrap:	=
Appliances (Refrigerators, Washers, etc.):		PERSONAL HYGIENE:	Total
Balloons:		Wet wipes:	
Cigar Tips:		Diapers:	
Cigarette Lighters:		Syringes:	
Construction Materials:			
Fireworks:			
Tires:			
TINY TRASH LESS THAN 2.5CM:		TOTAL =	
Foam Pieces:			
Glass Pieces:			
Plastic Pieces:			
DEAD/INJURED ANIMAL	STATUS	ENTANGLED	TYPE OF ENTANGLEMENT ITEM
	Dead or injured	Yes or No	
ITEMS OF LOCAL CONCERN:			
1.	2.	3.	
MOST UNUSUAL ITEM COLLECTED:			
<input type="text"/>			

Source: www.marlisco.eu



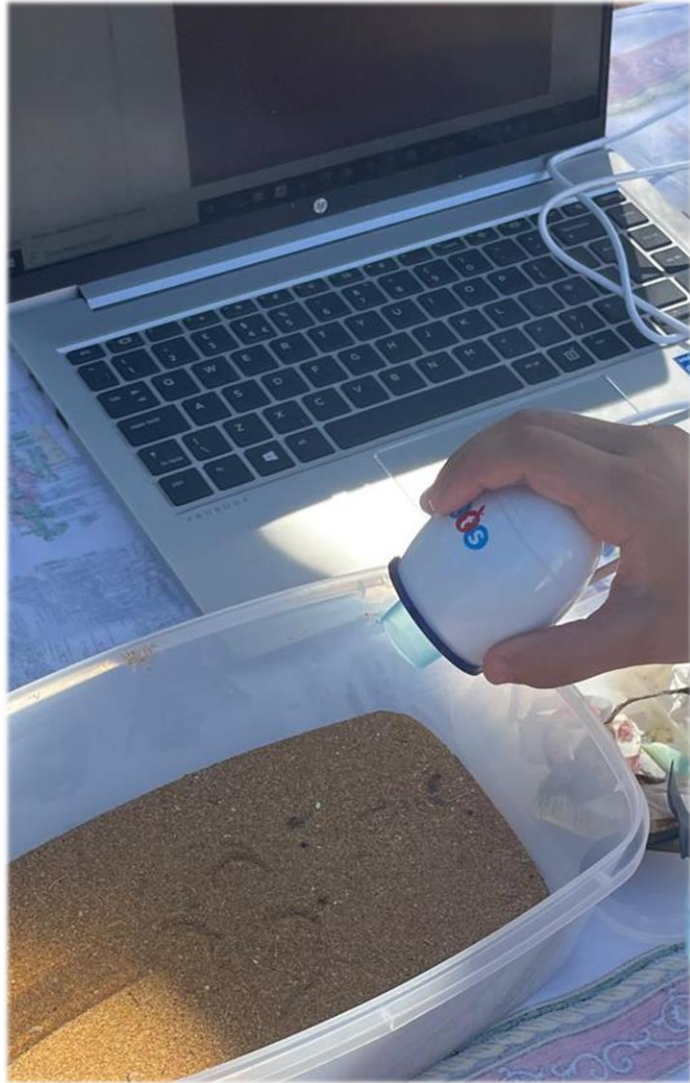
MICROPLASTICS




Microplastics are a serious environmental issue. They are plastics that have broken up into pieces less than 5mm, as well as pieces that enter the environment this size like microfibres or plastic nurdles, which are the small plastic pellets used in the production of plastic products.



SAMPLING SAND FOR MICROPLASTICS

Refer to the following chart to distinguish between the different types of microplastic (less than 5mm in diameter) found in your sample.



Type	Picture	Description	Commonly Found
Fibre		Small, hair-like strands. Often coloured	Polyester clothing or products will shed small fibres every time they are washed.
Fragment		Small pieces of plastic with one or more rough corner or area	Pieces of microplastic that have broken off a larger piece of plastic. Over time fragments will produce many smaller fragments.
Pellet / Nurdle		Small, round and smooth pieces of plastic.	Used in many household and commercial products.

Source: the author, 2022

WAY FORWARD



Source: the author, 2023


Each one of us can contribute in keeping our Mediterranean Sea free of the waste we produce. Be a responsible citizen. We all need to do our bit to reduce litter in the environment.

How?

- rethinking how we shop and what we use in our daily lives,
- refusing unnecessary plastic and other materials,
- reducing the number of products we consume,
- repairing rather than replacing

These are all important actions we can take to make a difference.

HOW CAN WE DO OUR PART?

easy = 

make an effort = 

do your best = 

Don't throw your garbage on the street, because even a short rainfall is enough to carry it to the sea!



Participate in beach clean-ups and urge others to do the same.



Never leave your garbage on the beach, even if there is no rubbish bin. Collect it and take it with you.



When traveling by boat, never leave your garbage on deck, because the wind may blow it off to the sea.



Say NO to the use of plastic bags! When going shopping, take with you a reusable bag.



Say NO to the purchase of seafood products that were fished illegally with the use of non-environmentally friendly practices.



Ask your relatives and friends engaged in fishing not to throw into the sea their old fishing gear because it causes injury or death to marine animals.



BECOME AN AGENT OF CHANGE



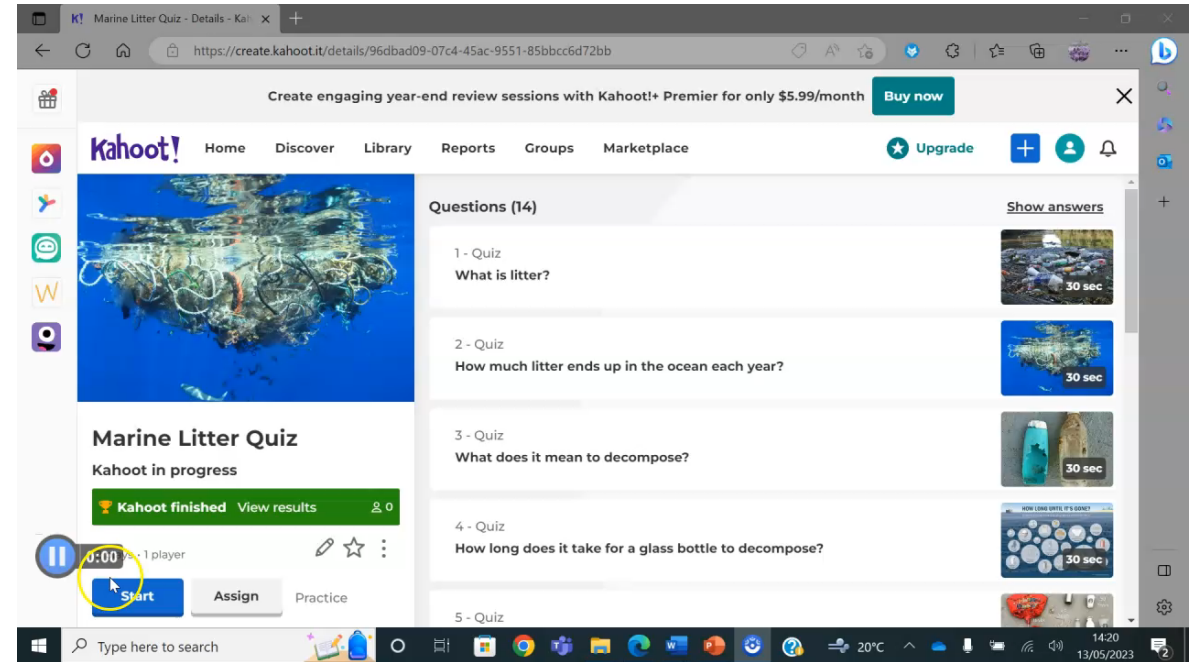
Source: the author, 2023

REVIEW



Go to www.kahoot.it

Enter Game Pin



REFLECTION – CREATE A JOURNEY STICK



- What are the main takeaways from this educational session?
- What emotions or feelings (joy, peace, anger, sadness) do you want to capture with your journey stick?
- Think about litter and the outdoor session at the beach (the sights, sounds, and smells).
- Will you write anything on your journey stick to record your thoughts on the topic of marine litter?
- What do you want to remember most about this educational experience, and how can you capture that memory on your journey stick?
- How will you display or use your journey stick once it is completed? Will you hang it on the wall as a decoration, or will you use it as a reminder of your experience?

Source: nigelwalking.blogspot.com



THANK YOU

Ramona Mercieca



Source: the author, 2022