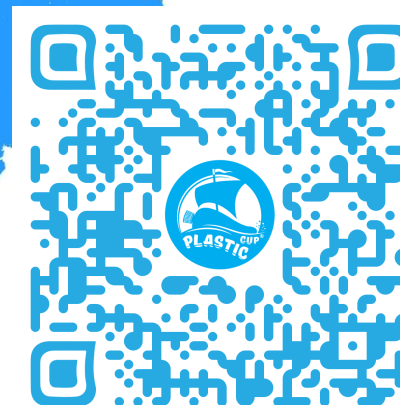
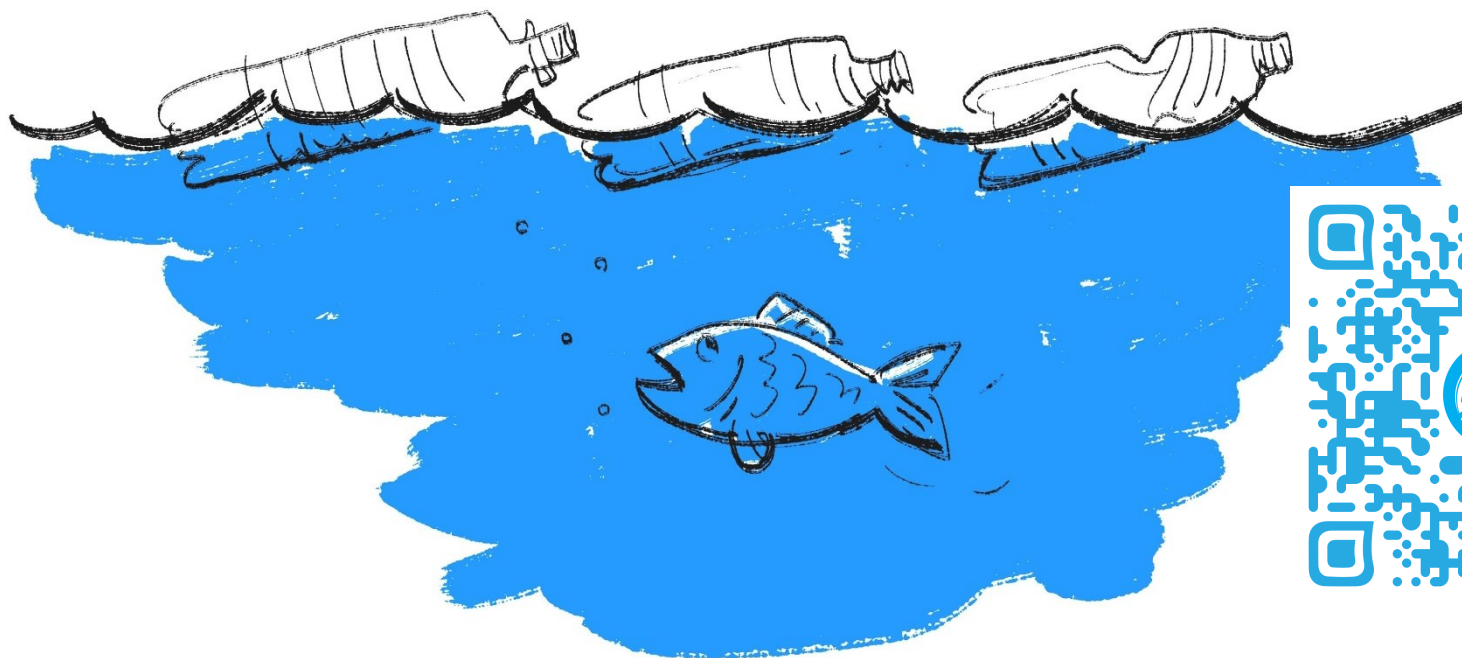




Funded by
the European Union



Plasticpirate LOGBOOK



Do you wonder why there is so much plastic in rivers? Any idea who are the plastic pirates?!
Meet the riverdweller animals, and the riversaver people who are working to clean up the
Tisza River from pollution!

Prepared within the framework of the River Lit(t)eracy - Riversaver Schools 2023 1 HU01 KA220 SCH 000166027 identified Erasmus+ project, with the support of the European Union.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

OUR GOAL

Four books have been written in the framework of the 5 Countries 1 River (5in1) Erasmus+ programme. The first three volumes of the Clean Tisza Textbook Series are for educators, environmental educators and experts interested in the sustainable use and recycling of plastics and who love and protect rivers. Published in all languages of the Tisza River Basin (Ukrainian, Romanian, Hungarian, Slovak, Serbian), the volumes aim to start raising a generation that is plastic literate, loves and protects rivers, regardless of national borders. There is a great need for this at a time when rivers are polluted from many directions, for many reasons, and from many different sources, of which the most important is the all-pervasive plastic pollution.

You are now holding the fourth volume of the Clean Tisza Textbook series, specially designed for children. The aim of the book is to introduce them to the causes of river pollution and possible solutions in a storybook setting. In short, this book is a storybook, not a textbook. If it achieves its goal, it will be read in more and more cities and villages along the Tisza, raising awareness about this beautiful and mysterious river. Read it yourself if you are interested in the story of the heroes from the Clean Tisza Textbook Series! Captain Plastic, Professor Greenheart, P.J. the plasticpiRAT, Lisa, Peter, Petito, Beaver, and Z the Kingfisher are all waiting for you to be part of the story: the cleaning of the Tisza. If you like this book, we recommend the other volumes of the 5in1 Clean Tisza Textbook series, which can be downloaded for free from the Clean Tisza website.

www.tisztatisza.eu

#FMIP

Riversavers' Handbooks:



Important announcement

Your attention please, thank you.

Watch out, a fairy tale is about to begin. Fairy tale danger, fairy tale danger.

We told you! See next page.

the PLasticpiRAte-LogBook

find out who the plastic pirates and riversavers are and
why they write a logbook.

Hi,

Sorry for the formality, but there is no time for formalities. Time is pressing. This book is a plea for help.

PLEASE HELP, aka: S.O.S.

—
—
You may know that our rivers around the world are in big trouble. They are crying out for help, but very few people understand exactly what they are telling us. But we should listen to them, because rivers give us so much. Fresh water, fish, water energy, beauty, places to rest, good air, clean air with the smell of water. When I started writing this story, we hadn't done much to give back to the rivers. As I write these lines, there are still pollutants in the water, still soda bottles floating on the backs of rivers, still children who have never been taken on a canoe trip and therefore don't know the beauty and adventure that whitewater holds.

Curious?

Do you have the courage? Then come with me! But even if you don't. I'm asking you for help, but not for myself. The rivers need all the friends they can get, all the help they can get. If you'll join me, I'll tell you how I turned a bullet-riddled, old and gloomy building into a cheerful

riversaver school

How the children who came here learned to row and swim. How smiles were put on the faces of worried teachers and plastic disappeared from the river. I don't want to tell you who I am just yet. For now, let's just say I'm a friend. And that I am one of the characters in this story who knows personally all the characters in this story, from the first to the last. And by the end, I think we'll be close enough for me to reveal my identity.

So,

as I wrote, my person, my identity, my name is a secret for the time being. In the meantime, so that I can remain incognito, I won't ask you what your name is. I'm very interested: are you an adult or a child? A boy or a girl? Where do you go to school? How many friends do you have? Whatever. I'm glad you're here. I'm glad you're reading. I'm glad you're interested in the river and the mysterious creatures that live in it. By the end of the story, they'll all be your friends. Thank you for floating with us on the waves.

Greetings from your jolly good friends, the river,

and of course me 😊

Chapter I,

in which you can meet P.J., the little plasticpiRAT, find out what a mid-ocean garbage island looks like in the distant future, who discovered the first one in the past, and who lives on it now. You'll also find out how bottle mail travels and what a real cipher looks like.

Really.

Volume1
Chapter1
What makes
a Riversaver?

Volume1
Chapter2
Gifts of the River

Volume3
Chapter4
Riversavers
ON THE WATER

This story began in the distant future. Exactly two hundred years from now, in 2222, on a sunny day, outside in the

Pacific Ocean.

Right in the middle of the open water, right where you look, you can't see the shore anywhere. So at this spot, a slender necked blue glass bottle with a very important message drifted in the water. It had been on its way for nearly two hundred years. That's how long it's been since someone wrote it in neat letters, perfectly spelled. Then that someone neatly rolled up the letter paper, sealed it in a bottle, wrapped it up carefully and trusted it to the river. This particular person was not littering, but was in great distress, and the letter he had written was actually a plea for help. He posted the message with the wish in his heart that the

bottle

- and of course the message inside - will, by some miracle, reach the addressee. And the bottle did its job. It protected the message from wind, rain, cold and heat.



Figure one: this is the
bottle post, or the
message in the bottle.

It has been through a thousand adventures, dangers and trials, through seas, storms and whirlpools.

200 years

after that, it was tirelessly on his way, when suddenly it stopped. it bumped into something. But what would a message in a bottle crash into in the middle of the ocean, where maps show no islands or continents, just endless sea?

A broken bucket.

The bottle hit it. The broken bucket was no longer wanted, it wanted a new owner, but it was detained. It got stuck in a floating plastic soup and hasn't moved forward or back since. Next to it was the plastic crate. Once it used to carry delicious, cold and bubbly soft drinks, but when it cracked a bit, its old owner threw it into the sea. The plastic crate drifted out to sea until it became a prisoner of an old torn fishing net.

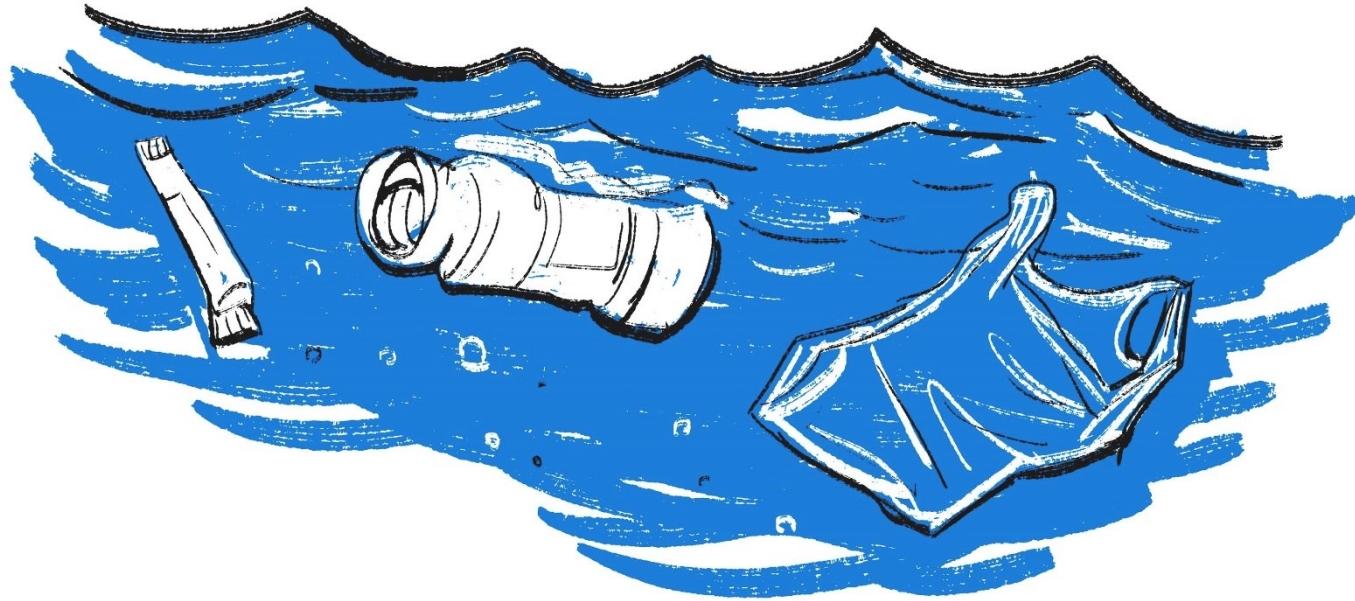


Figure 2: Close-up view of the mid-ocean garbage island. Not very pretty.

The abandoned net used to catch fish, but now only a bucket, a crate and a dented oil drum is entangled in it, which in turn was wedged in thousands of other floating pieces of rubbish, all discarded by people. And so it was that the important bottle post, the glass bottle, the bucket, the crate, the net, the barrel, all met the same fate. Stuck, hopelessly stuck into a

huge garbage island

in the middle of the Pacific Ocean. Plastic bottles, plastic bags, caps, used Lego figures, broken buckets, yoghurt pots were all floating around in great unison. There were so many of them, and they had been together for so long that together they formed a veritable island. It's an island you look in vain for on maps, because it really is:

not there!

The reason it's not there is that when you read these lines, people have only just discovered it. The first person to see this big pile of garbage in the middle of the sea was a ship captain named Moore, and he named the place GPGP, an acronym because sailors like to use acronyms, but it also has a meaning, GPBP stands for Great Pacific Garbage Patch, which roughly means

Great Pacific Garbage Patch.

He called it big in the beginning, but two hundred years ago it was much smaller, but since then it has become really big, because people still throw away a lot of things, and that's why a lot of rubbish has been washed up here, thousands of tonnes. But it's good to know that this place had an older, truer, more mysterious name. Tuta Oana. That was the name given to the place by the brave Polynesian rats who made it here long before humans. They arrived in a canoe carved from coconut shells, and after landing, they immediately sensed that this was not an island like any they had visited before. For the rubbish did not form a solid ground under their feet, but undulated and moved like the sea. Thinking they had landed on the back of a giant turtle, they named the place

Tuta Oana

which means the 'Turtle Backyard'.

Many of the brave Polynesian rats have sailed on to new discoveries. But there were a few rats who decided to stay on the plastic island. Their descendants are now known as:

PlasticpiRATs.

PlasticpiRATs have inhabited the plastic island for centuries, and have earned their name by being able to build agile sailboats from pet bottles. They sail, fish and fish around

Tuta Oana.

They don't navigate any further because they are so used to the wobbly ground that they couldn't really walk straight if they were on land. If the catch is not too good at sea, they scavenge for canned goods and leftovers on the garbage island to get their daily rations. As well as healthy food, they love fast food, such as cream cheese, ketchup and coloured gummy bears. Their coats are much lighter than their ancestors', with bright splashes of colour. They can be not only white, black or brown, but the can shine in all colours of the

Rainbow.

This is from all the gubberies, tins and food colouring they find on the rubbish island. But it's not just the colour of the plasticpiRATs' fur that is worthy of special attention, but also the pattern. Legend has it that the fur of each plasticpiRAT is a

map.

Not a map of the whole world, of course, but of a special place. At night, the good old plasticpiRATs tell their youngsters that each fur coat is an exact map of a corner of the ocean, and that no two plasticpiRATs are alike because each one of them has his or her own map. The look of the map depends on the adventures that await you. If the little rats refuse to fall asleep, the grown-ups also tell us that when all the little plasticpiRATs are placed side by side, the many many-many little drawings merge together and the whole globe is drawn out, with oceans, continents, mountains, rivers, islands - all the wonders of the world.

Figure 3: This is P.J. the plasticpiRAT

Do you know how to pronounce P.J.?

Anyhow you like!



P.J.,

the tough little plasticpiRAT didn't care much for these thousand-year-old tales, he had better things to do. He was interested in modern pop music, touring the hills of Tuta Oana, the big garbage island, from morning till night. He used to say "there is no rubbish, only waste, and waste is a treasure". His diligence was often crowned with success, he found an unopened selection of the best music from the 80s,

had a chrome cassette of something by Vangelis, boasted an impressive vinyl collection, and had a nearly intact CD by Justin Bieber. PJ was usually so immersed in work, or rather in the rubbish heaps, that all you could see of him was his red-tipped tail sticking out of a plastic bottle. When he emerged with something new to discover in his mouth, that's when you could really admire his neck-brown fur. He had several small spots, another red spot on his forehead in addition to his tail, and other blue, green and yellow spots, smaller larger blobs in a tangled mess. PJ's skill as a mechanic was revealed when a sea container that had fallen off a

transport ship in a storm was washed up on the garbage island. He quickly turned PJ's tail into a key to open the container, which contained a pile of soaked radios, tape recorders and record players. So cleverly did the plasticpiRAT that soon every house had a music player, and from then on, wherever you went on Tuta Oana, you could here

happy music

everywhere. The place needed this happiness a lot, because two hundred years later there would be more rubbish in the rivers and seas than there is now. No matter, thought the little plasticpiRAT, as he looked out over the churning sea of rubbish, it would be just as well. And fine it was. All that trash that people carelessly threw away and thought worthless was very important to PJ. They gave him work and something to do. He sorted out the nicer plastic bottles and built his little house out of them, complete with a shade on top and an ingenious rainwater catcher. Then there were all the recordings he found.

Thanks to him, the island has become one of the happiest corners of the world, where the music was always playing. On his first birthday, the clever little plasticpiRAT asked his friends to call him PJ. Back at that time he didn't speak English very well and thought that disc jockey was short for PJ. Later it turned out that disc jockey was ~~actually DJ~~, but it didn't matter, he was already a PJ. So he was happy to find this acronym on an old electronic game. Whatever could be repaired, scoured, polished and displayed: his collection was open to anyone interested in these curious antiques. PJ had, for example, a copper-armed coffee grinder that, when he smelled it, he could still smell the delicious aroma of ground coffee; a cuckoo clock with a green top that could be wound up and ticked and sometimes said

"cuckoo".

He also had a collection of phones - his push-button Nokia, his touchscreen Samsung, his Xiaomi smartphone, his Apple hyperphone, and the Quantumphone, launched in 2200. He also kept a separate catalogue of every bottle post he has ever found in the trash.

You'd be surprised how many people bottle up their secrets, their wishes, and then leave their message to the mercy of the water. These bottles then either made their way to someone or drifted to where the rest of the plastic had accumulated: Tuta Oana, or as people knew it, the GPGP. Bottle mail is a very ancient form of messaging, and PJ treasured them all. He had in his collection a seven hundred year old pirate message with a real treasure map, a funny drawing by a little kid from three hundred years ago. A year-end certificate from the last century, erased in black marker and cut up with scissors. Farewell letters, wishes, love letters. But PJ had never seen a letter like the one he found on that sunny day in 2222.

He was balancing on an oil drum on the edge of the garbage island when he noticed the plastic compartment in the net wrapped around the drum, the broken bucket inside, and the blue glass bottle with the message on the neck. He deftly fished it out, and with his razor-sharp teeth carefully pulled the stopper from the neck of the bottle. The stopper said

'pop'

and let go, and the message slipped obediently into the paw of the plasticpiRAT. PJ untied the string holding the paper together and unrolled the message. He didn't understand a word of it. Since PJ was already fluent in reading and writing, he was pretty sure that the message was in code, in other words, in cipher. "Who will be able to decipher the code and read the message?" he wondered. At that moment an old ship's horn sounded a long, plaintive call from the harbour.

- A new boat! -

PJ exclaimed, and then, with the message in his paw, he quickly scurried away.



Volume1
Chapter3
Our gifts to the River?

Volume2
Chapter3
River Litter Lab 101

Figure 4: This is the L&F, or the Lost & Found, a plastic pirate boat and ocean cleanup and riversaver ship

Chapter 2,

in which it finally turns out how does a real plasticpirate boat looks like. You will learn how to talk any animal language with the Quantumphone, and how to make flower pots from recycled waste from the sea. And of course soon turns out the meaning of

Li'La'.

Tuta Oana

was super-excited. On this island, it was a big event when a new ship arrived. And if a manboat accidentally ended up among the plasticpiRAT boats of pillboxes, it was a celebration. The sight of a small freighter was enough to make anyone take a day off, but when that mournful deep boat horn sounded, the whole garbage island went wild. From all around came a flock of puffins, seabirds, sea turtles, crabs, rats and other islanders. Everyone wanted to see the newcomer. And no wonder the crowd was so excited.

- Is this the LF? - someone asked.
- It's the LF! - someone shouted.
- I know it, it's really the LF - someone else shouted at him.
- "The" LF?! - asked several people in disbelief.
- Yes, no doubt, that's her" they said among themselves on the pier.

There wasn't a sailor on the island who didn't know what or who, because the ships are impersonated by the sailors, so who is:

L&F

Everyone from the tiniest kites to the oldest sea salts has heard of the famous L.F.

'Lost & Found'

(as I told you, the sea folk love acronyms), so on to the exploits of L.F. This was the

plastic pirate flagship,

which has been cleaning the oceans non-stop for twenty years. It was said that it had finished in the Atlantic, cleaned up all the rubbish there, and now it was coming to the Pacific to clean up the Pacific. You should know that by 2222, the surface of planet Earth had become so hot, deserted and slick from all the pollution and litter that most people had left their land-based homes and moved to air-conditioned bubble cities in the ocean. The big plastic islands, the oil and plastic polluted waters, have been largely avoided by boats, trying to ignore the rubbish they have released into the environment.

Fortunately

but there were conscientious, kind, caring, compassionate people who felt sorry for the penguins entangled in plastic bags, the dolphins stuck in nets and the albatross chicks suffering from engulfed plastic caps. Such people could not stand by and watch the planet being polluted and started to make a difference. Some became scientists, some went to work in national parks, or became inventors to reduce the greenhouse effect and climate change. Others took up a job on a plasticirate boat and did everything they could to clean the water and save the lives of distressed creatures. They were helped in this important work by the fact that, two hundred years later, the

quantum phone translator with any species of animal

it was easy to have a conversation. You just turned on the app, put on the headset and you could speak whale, seagull, turtle or even plasticpiRAT. The captain of the L.F. was also fiddling with his quantum phone, and had to put on goggles to do it. His chunky fingers fumbled a little unsteadily on the screen, but then he just selected the right language from the translation app menu.

-Cough, cough. Tuta Oana, this is Lost&Found speaking, here is Captain Plastic, come in," said Captain Plastic into the Quantumphone, which he connected by wire to the ship's loudspeaker.

With the speaker battery exhausted, the crowds listening excitedly ashore could only make out a murmur, a crackle, and then a single

high whistle.

- 'Greetings all dear islanders, I report that both the only men on board, that is myself and Petito the parrot, are as healthy as acorns', the old sailor continued, and the loudspeaker here changed to a low hum.

- I have a hole in the hull of my boat and unfortunately I am running out of drinking water.", he added, which the loudspeaker relayed to the audience:

"...a hole (crackle) in my drinking water..."

A low murmur ran through the ranks of the plasticpiRATs, as they had yet to meet anyone who had given a two-word speech interspersed with whistles and crackles.

-"Asking your permission to land. Over and out." finished Captain Plastic, and the loudspeaker gave one last crack. In the sky a gull cried out.

- Hip hip hooray for LF! - someone shouted from the back, as it seemed that the rant was over.
- Hip-hip Hurray! - the others replied enthusiastically.

The islanders waiting on the beach erupted in cheers. The captain took this as permission, turned off his loudspeaker, which was now discharged, and

dropped the anchor.

The cheers, of course, were not for the fine speech, but for the glorious deeds the Lost&Found had performed, according to the legends that spread through the seaports. In 2222, hundreds of plasticpirate ships worked to clean up the oceans worldwide. Each one was inspired by the L&F. This was the oldest and most famous of all the plasticpirate boats. Exactly twenty years ago

it appeared in the Atlantic Ocean.

It is another ocean, separated from the Pacific by the large American continent.



Figure 5: Captain Plastic seen from the front. From the side he looks completely different.

At that time, the Atlantic Ocean was barely visible from the bottles, and there were at least ten giant garbage patch floating in the ocean, but this did not scare away the L.F crew. Without hesitation, they attacked the floating debris and, with persistent and painstaking work, cleared the entire ocean of plastic. A huge achievement, even for a boat that is supposed to be made from every last bit of recycled waste. Judging by the L.F.'s appearance, it seemed that this

legend was true,

because the boat could be described as anything but beautiful. Some people thought it was a shipwreck or a ghostship out of control, it was so scruffy looking. The hull itself reminded me of an old Viking war rowing ship, because it had side shields and a nice spiral bow. Under the bowsprit was a beautiful bust, with the words:

"Lost & Found"

On board, the weirdness continued. First there was a beautiful green grove, with fruit ripening in the trees without a break, this time tangerines. Chickens were scratching at the base of the trees. Next to the tree plantation was a small windmill and a huge mast. At the top of the mast, the convention symbol of the plasticpirates - a sail-mounted plastic bottle - flew a large blue flag.

There was also a battered, worn blue container on board with a nice sign saying Li'La'.

Sure just another acronym, because sailors love acronyms. Next to the blue Li'La' was a gleaming greenhouse with lots of flowers, more bees and colourful butterflies. Captain Plastic opened the greenhouse door wide and let the bees and butterflies fly out to explore the island. Petito, the blue and white parrot, went with them just in case something happened to them. The captain then set about unloading the cargo. The Lost&Found was not just a garbage collector, it was a floating plastic processor. Yes, that's right, and on board the ship, it was converting the collected plastic into all sorts of useful things. These things were then shipped all over the world to be sold, given away or collected. One of these useful objects

the recycled material flower pots.

Beautiful pots made from marine litter were used to grow beautiful flower seedlings in a greenhouse. Everybody, seriously, everybody in the world wanted a recycled flower pot like this, and now was the big moment. The LF's on-board crane had placed the precious cargo in large crates on the quay. Captain Plastic then paddled ashore in his lifeboat, and through his Quantumphone told plasticpiRATs that everyone could buy some of the flowers, in return for just some

drinking water,

and, of course, a mechanic to help fix the machines that are broken on the boat. Don't think that in the old days, Captain Plastic couldn't tinker with everything himself. Of course he could! But the time had not passed without a trace, his hands had become calloused, his eyesight had deteriorated, for example he couldn't see the small screws well even with glasses, and even the sailing was not as easy as it used to be. That's why he needed help. If the captain has landed elsewhere, for example

on the island of the notorious Norwegian Rats

he would not put all the flowers on the beach, because they would have been stolen. But here on Tuta Oana, no such precautions were necessary. The PlasticpiRATs are known to be an honest, well-behaved folks. Only those who could give fresh drinking water in return would take flowers. All the islanders made their drinking water from rainwater and put it in carefully washed soda bottles.

In the afternoon, so many bottles of drinking water gathered on the beach that the LF's hombar was full. There were still a few flowers pots on the quay, which Captain Plastic was distributing to the nearby onlookers. The sailor must have been a bit tired from packing all day. It was evening. The last little butterfly had already run home for dinner, all the bees had returned to the greenhouse. Petito the parrot sat on Captain Plastic's shoulder. They watched the sunset in silence for a few minutes, then decided to go for an evening walk. They didn't get far because they were called from a nearby bench.

- Excuse me - someone shyly squeaked in plasticpiRAT language.- Sorry...

The captain turned towards the voice. A young fellow was sitting on the bench with a slender-necked blue bottle under his arm.

-Unfortunately the flower pot is out of stock. Maybe next time, - said Captain Plastic kindly, nodded politely, and went on his way.

- But I'm not here for flowers! said the squeaker again, a little more boldly now.

- Then why? - asked the captain.

- Because I would be the engineer. I'm PJ, - said the little head-haired piRAT, standing up and holding out his little paw in greeting, - **Very nice to meet you.**

Volume1
Chapter4
How can we help
the River?

Volume2
Chapter1
Who are
the Plastic Pirates?

Volume3
Chapter5
Riversavers
AROUND THE
WORLD

Chapter three,

which shows that sometimes it's OK to take the courage to speak up, even if the person you're talking to is a bit big and a bit scary. You'll also learn that plastic must be shredded before it can be recycled, that every decent boat has a logbook that must be kept carefully every day, how cyanide has almost wiped the life out of the Tisza river and where Odessa is. And it goes without saying that you should not connect a coffee grinder to a plastic melting machine, because it can easily lead to a lot of:

trouble.

No wonder PJ didn't dare go straight to Captain Plastic when he was looking for a mechanic. It was enough for him to watch the legendary ship and the old sea bear huddled around it from a safe distance. Based on the legends, PJ thought that the heroic plastic pirate was somehow younger, taller. In reality, he was short, pudgy, balding, with a grey beard, dirty fingernails and a slight limp. What was right was the smile and the kindness. He also found the boat very interesting. All he wanted was to somehow get onboard the Lost&Found. Even at the cost of pretending to be an engineer and addressing the walking, or rather limping, sea legend. If he hadn't worked up the courage, he would never have made it aboard. But because he managed to speak, he found himself on the legendary ship in the evening. Captain Plastic went up front, showed him around and explained everything in great detail. In the bow of the boat was a machine called the Sea Elephant, it was OK. so the captain just briefly introduced it. Then he turned to the first thing to be repaired, which was the

giant Nile Crocodile machine.

At first glance, the machine did look like a big green crocodile with its mouth open. The machine's job was to suck the plastic out of the water and chew it into tiny pieces with its huge teeth.

The captain showed PJ the blueprints of the machine and the broken part.

-But why do we need such a machine?! - asked PJ.

-Why, why, because I don't want to chop it by hand! - replied the captain, indignantly- I mean

with my sword, my pirate sword. The edge goes out. - he added.

- I mean, why do you have to grind the plastic? - asked PJ, a little more cautiously now.

- Why, why, because otherwise I can't put it in the Dragon!! - said the captain, as if it were a matter of course. PJ rather pretended to know what a dragon was and why anything had to be put in it. He just nodded and they went on their way. There was also talk of a rattling seawater desalinator and a contact-failure solar sail,

- ...and I think there might be something wrong with my loudspeaker,- the captain said, scratching his beard, to which PJ nodded, a very telling nod indeed. By the time they had finished all the list of repairs, it was late in the evening. The L&F's lamps turned on.

- Are you hungry? - asked the old sea salt.

- Dinnertimeeeeeee -

shouted Petito the parrot, the L&F's boatman.

Figure Six: Captain Plastic
very angrily chops plastic
bottles with his sword.



A steep

staircase led into the belly of the boat. A long corridor led to the ship's dining room, with bookshelves on either side, and PJ caught a glimpse of something rat-like out of the corner of his eye. He took it out. On the front cover it read:

Rumini.

- I'll lend it to you, if you haven't read it, - said the captain. I smell onion beans. I love onion beans.

The ship's dining room was like a miracle. The polished, smoothly varnished ship's floor gleamed in the yellow light of the ship's lamps. At the far end of the room was a fireplace with a cosy fire blazing. The walls were decorated with photographs, paintings, drawings and pressed plants. Large round windows on either side looked out to the sea, which glistened silvery in moonshine. In the centre of the room stood the mast itself, firmly fixed, with a familiar machine beside it.

-What a nice coffee grinder! - remarked PJ.

-How is that? It's not a coffee grinder, it's a **time grinder**. - said the old plasticpirate, wearily. -A thousand whirlpool, I forgot that this one was broken too. Now, to the table! - he clapped.

The three of them ate dinner together, the captain, Petito and PJ. They drank tangerine syrup with nice fresh water. After eating, the captain got up and showed PJ his cabin where he could sleep. He then searched for his glasses for a long time and, not finding them, asked PJ if he could help him write the log before he went to sleep. PJ happily sat down at the table and opened the huge, leather-bound book, which had the words in large letters on the cover:

PLASTICPIRATE LOGBOOK

A plastic pen was attached to the diary with a thick rope. PJ took the pen in his hand and waited patiently while the captain settled himself in his large reading chair by the stove.

- May 1st, 2222 - the captain dictated, stuffing a pillow under his head - Position latitude 5 degrees 12 minutes north, longitude 176 degrees 11 minutes west. Docking at Tatu Oana. A warm welcome.

At this point

he pulled a blanket over his knees and gave a big moan, and when Petito flew over his shoulder into his open-door cage.

-400 recycled pots and planters issued. 550 litres of drinking water stocked. One newcomer on board. PJ, plasticpiRAT , occupation: ship engineer....

This was followed by a deep sigh. PJ waited in silence for a while for a follow up, but when it didn't come, he looked over his shoulder stealthily towards the fireplace. No doubt, Captain Plastic had fallen asleep while taking dictation. PJ closed the logbook and went back to the cabin. He had never been in a bed so soft, yet he couldn't fall asleep. His head was pounding from everything.

Dragon, Crocodile, Desalinator, Time grinder....

He had so many questions that he couldn't sleep. He got up and went back to the dining room. He went to the logbook. The chair gave a loud creak as the parrot opened his eyes.

-May I? - whispered PJ to Pepito.

-Yes- chirped the parrot, then ruffled its feathers and stuck its head under its wing. PJ opened the diary to the first page and began to read.

Soon

it turned out that the logbook not only contained all the L&F's voyages, but also Captain Plastic's entire life. Somehow the dates were wrong, because the logbook started in the previous millennium. It was full of pasted papers, messages, pressed plants, drawings, photographs and interesting descriptions. The first entry was from 1989, which would make Captain Plastic several hundred years old. PJ looked at the captain, who was snoring loudly. He didn't look more than 60. PJ shrugged, read on. It turned out the captain was born in a small mountain village, his mother a schoolteacher and his father a fisherman. His mother had several sayings in her diary, such as 'you only really own what you read' and so on. Her dad taught her other wisdoms, like:

"undersized fish must be thrown back all times!"

As a boy, the captain was quite a good student - you could tell by the report cards he had glued into the loogbook - and he had notes of a mysterious friend he called 'K'. Their favourite playground was on the waterfront. They swam a lot, built rafts out of scrap wood, had a little island where they built their own hut. They developed their own cipher so that adults couldn't read what they were saying to each other. And when night fell and they went home tired.

fresh fried fish

waiting for them on the table, which his father had caught that day in the river. And so their lives passed in great happiness and peace until one terrible day, when a lot of cyanide spilled into the river. The toxic substance spilled from a nearby mine, turning the water red and killing the fish. From then on, the captain's father cast his net in vain and caught nothing. His mother's salary as a teacher was too little to support the whole family, so they moved away. The young captain, called Misu was very sad when she said goodbye to K. They paddled downstream in his dad's fishing boat until they reached the Danube, Europe's mightiest river. They paddled on, for days and weeks, and that's how they reached

to the beautiful city of Odesa, on the Black Sea coast of Ukraine.

Misu's dad got a job here, becoming a fisherman on a seagoing boat. When he grew up, Misu became an engineer. He learned the tricks of the trade. By that time, the Black Sea was not only filled with cyanide, but also with many other pollutants, such as plastics. This bothered Misu a lot. He had grown up near a river with a tidal flow and did not want to look at the polluted sea all day. In his spare time he started to build a water purification boat. He built it with whatever he could find. From the wrecks of old boats, used and discarded things. It became the Lost&Found, the first to pick up plastic in the Black Sea. It had many innovations, all invented and patented by Misu.

He thought he'd never have an idea as big as the giant vacuum cleaner called the Sea Elephant - a machine that could suck the plastic out of the water while leaving the floating trees and turtles and fish alone. He got his name then: Captain Plastic. But then, quite by accident, he created an even more ingenious machine. He made a working time machine out of a copper coffee grinder he bought in an antique shop in Odessa, and he didn't know how. The machine started working when he accidentally connected the coffee grinder to a machine called the Tisza Dragon. From that moment on, every time he turned the grinder's lever, he flew one day forward in time. And if he turned one backwards, he went one day back in time. He named his invention the

Time Grinder.

PJ looked up from the diary and glanced at the old coffee grinder standing in the middle of the dining room. It looked just like his at home. Could it really be a working time machine? Or was it all a fairy tale? He read on. Because Captain Plastic was young and curious, a sudden thought made him fast-forward two hundred years. He wanted to see what the future would bring. Yes, he did, but all that reeling had caused something to go wrong with the grinder, and the machine stopped working. So the captain found himself and the ship in the future, in 2200 to be precise.

Unfortunately, the world has turned out exactly as scientists predicted long ago. They said that if people didn't stop polluting, poisoning the rivers, the air and the land, there would be big trouble. Unfortunately, people didn't listen to the scientists, and big trouble ensued. Two hundred years later, all the forests had been cut down and plastic trash floated in every river and sea.

What else could he do, the captain sighed and continued what he had started. He cleared the Black Sea with the Lost&Found, then the Mediterranean, and finally sailed out into the Atlantic. By then he was famous far and wide, known to all sailors as the Plasticpirate, as he called himself. He was nicknamed Captain Plastic. It took him twenty years to clear the entire Atlantic of its waste. When he was done, he took a short break in Barbados. There, in an antiquarian bookshop, he found a particularly important volume about a sea rat called Rumini. With the 150-year-old volume under his arm, he then sailed through the Panama Canal to the Pacific, where there was still a lot of rubbish. Here he was forced to stop cleaning the sea because several machines on board had broken down. So the captain decided to ask for help. He had to choose between the Galápagos, inhabited by giant turtles, Easter Island, inhabited by carnivorous rabbits, or the GPGP, or better known as Tuta Oana.

After reading out the Rumini, the captain thought he would give the modern descendants of the ancient polynesian rats, plasticpiRATs, a try. So he headed for Tatu Oana. By the time he got here, PJ could barely keep his eyes open. With the last of his strength, he read the end of yesterday's entry, which he had written down with his own hand because the captain couldn't find his glasses. PJ smiled once more, then laid his head down on the logbook and fell asleep. From that moment on, the three of them were snoring onboard the Lost&Found. Petito, Captain Beard, and PJ the Beard, whose occupation was now officially:

ship's engineer.

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Our gifts to the River?

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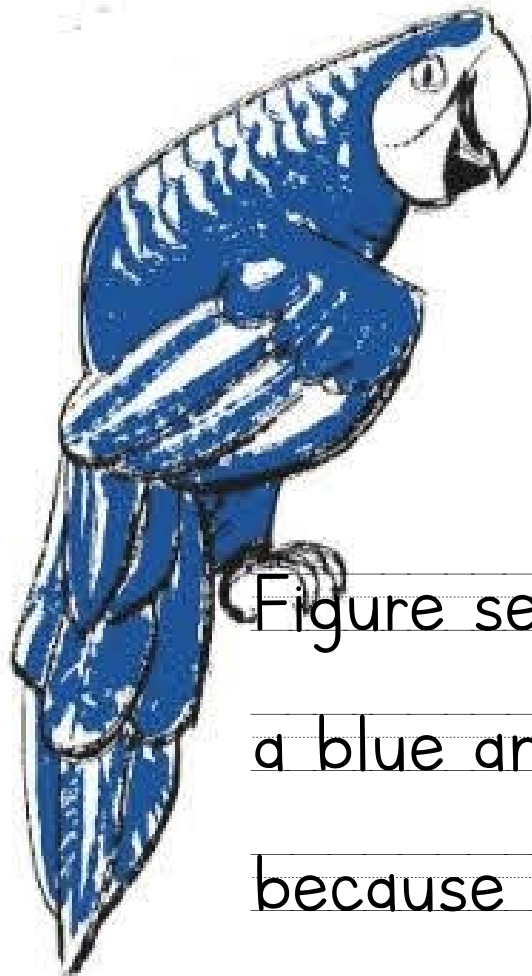


Figure seven (or 8?): Petito, the found
a blue and white parrot with a curved back
because he's always cooking. Figure seven, I think.

Chapter Four,

which will tell you that you should read every book you can, and that there is a bird in the world that looks like a blue streak when it flies, and that you can hear it zzzzzzzzzzzz, but you will also find out who the little girl is who was born on the riverbank a long time

ago.

Little Petra Greenheart was born on the other side of the world, in a big city in old Europe. She was born in an age when adults didn't care about nature at all, didn't care about plants, animals or even themselves, only about money. That's why the chimneys of the factories in the town where Petra lived were emitting yellow smoke, which

painted the clouds yellow.

In winter, the children built snowmen out of yellow snow, and in summer, after it rained, they could hardly wash the yellow stains out of their clothes. The bad air seemed to have entered people's souls. At school there were two children, the Bakats brothers, who got on everyone's nerves. When the two Bakáts were teasing a little boy in the lower school, Petra intervened. She managed to chase the brothers away, but her dress was torn and the little bottle she was holding her water bug in was broken. Petra's parents knew about this, but were even more worried about air pollution. To keep their child healthy, they decided to leave the city.

They have moved to a small mountain village in the cool shade of the Maramures mountains. There was an old, ruined schoolhouse, which had been shot into with a lot of bullets by "stupid soldiers" during the last big war. It was a saying of the school caretaker, Mr. Alexander, that if someone did something he didn't like, he said 'stupid'. Little Petra learned to read and write here, in a school on the banks of the Lápos river. That she loved to read is an understatement. She had

read every book she could lay her hands on.

By the age of ten, she had read all the children's books in the library, and from then on - with parental permission, of course - he could borrow books from the adult section. She travelled the world. Not really, because she didn't have enough money to really travel. But in her imagination she went everywhere, because she read and remembered everything. Novels, science books, travelogues, stories. And not for nothing, because through the pages of these books she travelled to Africa, Greenland, Papua New Guinea and even Antarctica. If you read a lot, you see the world like no one else. If she closed her eyes, the whole universe appeared before her eyes. The Earth and all its many creatures appeared in her imagination at once. All these strange creatures were vibrating, singing, flying, running, swimming. It was great.

100% figure eight: aunt Petra
aka Professor Greenheart
is shown in this figure.



Petra's imagination was so powerful that she could be anywhere in a moment. She liked to think that she could converse with any creature. If she wanted to, she could dive to the depths of the sea in a flash of thought. Or, if she felt like it, she could fly high. Then she could see animals, plants, rivers and seas, the moon and the stars all melting into one great living being. So it makes sense that when Petra grew up, she became a teacher. In the same school she attended as a child, she taught biology, physics, chemistry, environment and mathematics. Many people find these subjects boring, but not so her students. It's good to know that

a teacher, if she tries, can make everything interesting.

And Aunt Petra, was trying. She was thin and tall, and wore her short black hair in a bob hairdo. She moved nimbly, her two dark eyes twinkling merrily above her pointed nose, and nothing could escape her attention. She had no husband or children, always saying that school was her family. And she really did devote all her time to teaching. If one of the children had a problem, she could run to her. Then Aunt Petra would crouch down by the little pupil and listen to what was being said. She was so good with children and loved her job so much that after 25 years of teaching, when she became a professor, she was asked to become the school's principal. Aunt Petra, who by then had grey locks in her hair and a pair of small round glasses pinned to her nose, said yes without a second thought.

Professor Greenheart

knew from the beginning that administration would be difficult, because she would have less time to teach and more time to administer. Because there was plenty of work around the school. On one hand, the school itself. There were beautiful trees in the garden and the view was wonderful, but that bullet-riddled building! There was no money for renovation. And then there was the problem of the school caretaker, Mr. Alexander. Sure enough, it was still Alexander, the same Alexander whom even little Petra used to try to avoid because he looked so stern. Back then, little Petra and her classmates had started calling him Susi, and the name had stuck, she could hear it half-eared in the corridor, and today's students use it too. Susi, by the way, is short for something nasty, because not only sailors but also students like mysterious names. The caretaker was a ginger, horned man, with long arms and legs resembling a reaper spider grown to nay. He wore thick glasses on his nose, in which his eyeballs glistened like two fried eggs. As he grew older, Alexander the Caretaker grew grumpier and more complaining. He didn't like children, but he couldn't stand garbage.

-Why these selective waste collectors, DirectorPlease? I wait weeks for them to be taken away and they're going to pour it all together, - he often asked.

If there was one thing that could upset Aunt Petra, it was this:

"they're going to pour it all together".

But she took a deep breath and answered patiently.

-So, dear Alexander, that the children learn how to dispose of their waste properly - he pressed the word "nice" on purpose, although he didn't think Alexander was nice at all, and the caretaker replied.

-Those who even drink water from plastic? Excuse me, but what's next? Bagged air? - he scoffed - In my day, we even returned the milk bottle, these kids have never returned anything in their stinking lives, they are spoiled, they throw everything away, the fact is, Director, please, it's a stupid world, stupid.

When Aunt Petra got tired of her work, she always went for a walk on the banks of the river. Here she felt a little relieved, as if the river had washed away her troubles. As a child, she used to play here a lot after school. She looked around, but there was no one there. She couldn't blame the kids today for spending their free time elsewhere. Somehow the river had changed colour and smell.

It was not so fresh like before.

Where once there were snails and shells to collect, now there were torn plastic bags and discarded plastic bottles. But seriously, what kind of world is it where water is drunk out of plastic? When little Petra got thirsty as a child, she simply ran to the tap, turned it on and drank. She still remembers how cold and delicious the tap water was. But since the waterworks were sold, the tap water has changed in colour and smell. Professor Greenheart had it tested as a director and the results showed that it was no longer fit for drinking, only for washing hands. Parents feared for their children's safety, so they packed bottles of mineral water for everyone with their snacks. There were many children at school who didn't even know how to drink from the tap. The professor wrote letters to the water company and the mayor's office on behalf of the school, but there has been no reply to date. It cannot be, she told herself, that Mr. Alexander was right and the situation was hopeless.

-There must be a chance, a glimmer of hope, somewhere - sighed the professor

At that moment there was a buzzing sound and a blue streak flashed across the river. Aunt Petra was delighted to recognise Z, the kingfisher. She and one of her classmates called him Z, because when the kingfisher flies, his wings beat very fast, making him hum like a big bumblebee. It often happened to little Petra that while she and her friend were looking for snails on the beach, the kingfisher would fly by nearby. "Zzzzzz", they would hear.

Zzzzz

- they said to each other afterwards, smiling. Z, as usual, took a seat on a tree branch. The poplar tree to which the branch belonged was just opposite Professor Greenheart, who quickly took off her reading glasses - she could still see perfectly well from a distance. Z looked at the water and then deftly struck. He dived into the water and returned with a small fish in his beak. But just as he sat down on the branch, the fish slipped out of his beak and fell back into the water. Strange, thought the professor. She had seen Z fishing many times before, but so far he had always swallowed his prey with skill. The kingfisher tried again, but again he dropped his prey. Aunt Petra squinted, thinking her eyesight was failing. Z's lower beak was stumpy. It was possible that

something can brake

the beak of a kingfisher? And if so, what happens to it? If a bird cannot eat, it will soon starve to death. Z tried a third time, without success. That was too much for Professor Greenheart. She jumped up and hurried back to school.



Figure 9: Z,
the kingfisher,
sitting in a tree.

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Volume3
Chapter1
Riversavers
in the SCHOOL

Volume3
Chapter2
Riversavers
AT HOME

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