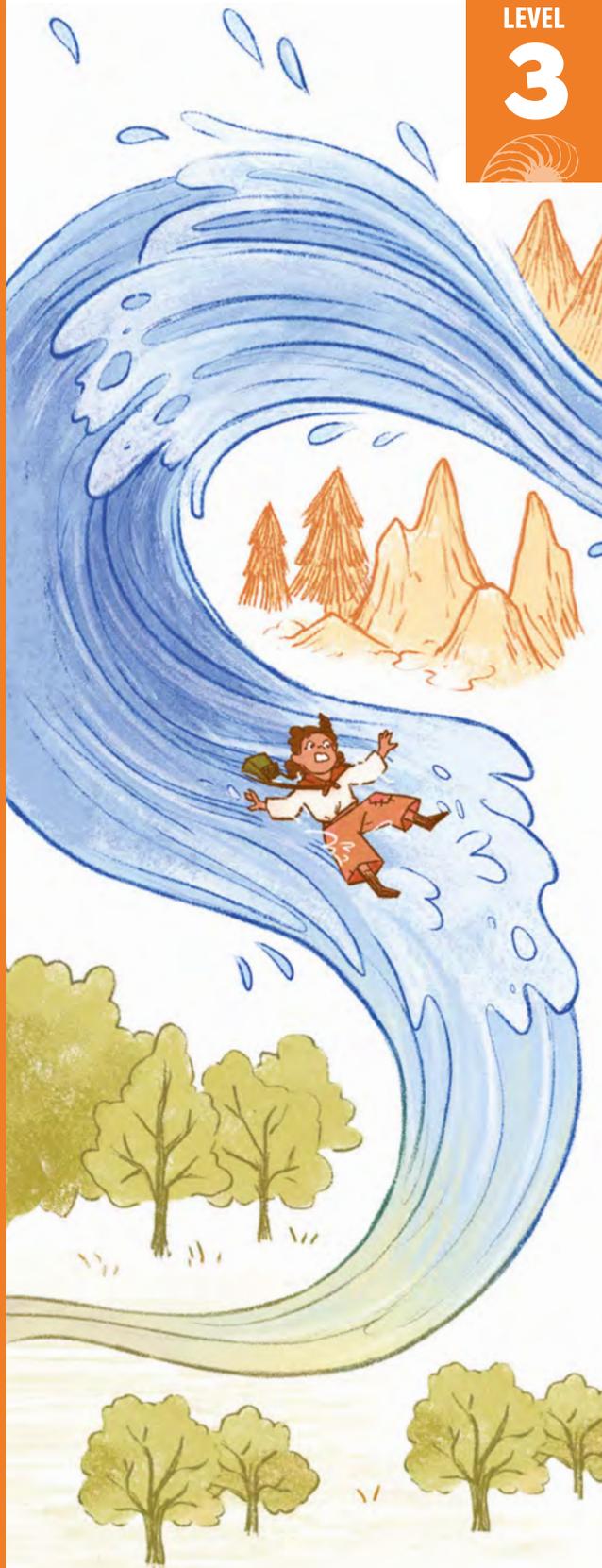


SCHOOL JOURNAL

JUNE 2023



| TITLE | READING YEAR LEVEL |
|---|---------------------------|
| Give Forever: The Life and Philosophy of Zuhaib Abbas Bangash | 5 |
| He Rāhui | 6 |
| Marine Reserves: Protecting Our Big Blue Backyard | 4 |
| The Monster That Swallowed the Moon | 6 |
| Fresh | 5 |
| The Sea and Me | 6 |
| The Stinging Moon | 5 |

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Published 2023 by the Ministry of Education,
PO Box 1666, Wellington 6140, New Zealand.
education.govt.nz

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Publishing services: Lift Education E Tū

ISBN 978 1 77690 957 5 (print)
ISBN 978 1 77690 968 1 (online PDF)
ISSN 0111 6355 (print)
ISSN 2624 3636 (online PDF)

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Paper produced using Elemental Chlorine Free (ECF) and manufactured under the strict ISO14001 Environmental Management System.



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GLEN ED
KEBAAB

Give Forever

The Life and Philosophy of Zuhaib Abbas Bangash

by Anna Bracewell-Worrall

Zuhaib Abbas Bangash knows what it's like to be hungry. That's why, every Sunday, the food at his kebab shop in Glen Eden is free for anyone who can't pay. Zuhaib says it's simple. "These people need food, and I have it."

It started when a man came into the shop and asked for something to eat. Zuhaib said yes. The man came back. Other people came, too. Word spread that Zuhaib gave food to anyone who couldn't afford it. Eventually, he decided to make it a regular thing and help anyone who asked. He began to post on social media – and that's when a few local shop owners complained.

"They weren't happy with what I was doing," Zuhaib remembers. "They worried all the homeless people in Auckland would come, and they didn't want that. They thought their businesses might suffer." The story was all over the news, but Zuhaib didn't want to stop. He couldn't see how giving away food was bad for the local business community. "Hungry people aren't bad people," he says.

JUST MONEY

Zuhaib is a Shia Muslim. Helping others is an important part of his religion. Zuhaib doesn't see the point in hanging on to his money. "It's just money," he says, "and life is short. We don't know what tomorrow will bring. I give to people so they can have happiness now."

Zuhaib has always done things for other people. That's what he did in Pakistan, and it's why he had to flee, leaving his family behind. Zuhaib comes from Parachinar, a small town in a mountain valley on the border between Pakistan and Afghanistan. It's a beautiful place but also dangerous. Taliban soldiers used the mountain pass to hide out. The pass is also an important route between the two countries.



The Taliban targeted tribal groups like Zuhaib's. Most of them were Shia Muslim, a minority in Pakistan. Zuhaib saw some terrible things, and he spoke out. He tried to help people who'd lost their homes. This work put him in danger. "They tried to kidnap me and kill me." Zuhaib had to move around. Then his wife died. Eventually, in 2013, he ran out of places to hide, so he left his five children with their grandmother and came to New Zealand. He wanted to see if it was a good place to bring his family.

CHIPS AT THE MALL

When Zuhaib arrived in Auckland, he had very little money. He slept in a park. It was winter and very cold. During the day, he kept warm in a mall. There was a kebab shop, where a man from Pakistan worked. "I would buy chips," Zuhaib says. "They were \$3 – I still remember because I only had \$20 left. Most days, I ate only chips and drank water from a tap."

A security guard working at the mall noticed Zuhaib hanging around and asked him to leave. Zuhaib tried to explain he needed help, but the man didn't listen. The man at the kebab shop did listen. He told Zuhaib about a mosque in South Auckland where he could sleep at night. Zuhaib was so happy to be out of the park. Then another life-changing thing happened. A lawyer helped Zuhaib bring his family to New Zealand. They could start a new life together, safe from harm.



Masjid Ayesha mosque in South Auckland

WORK

It was difficult for Zuhaib to find work. Eventually he got a job at the kebab shop in the mall. He'd never made kebabs before. There was a lot to learn. Zuhaib had a family to support. He put in long hours, making kebabs during the day and working as a security guard at night. After a couple of years, he'd saved enough money to buy his own kebab shop. Now he has three shops: two in Auckland and one in Pakistan.

Zuhaib's favourite dish on the menu is chicken and chips, and when he has a kebab, the sauces he likes are hot chilli, satay, and garlic mayo. "And always go for the hummus too," he advises. It's this food, kebabs, that Zuhaib gives away to those in need.

MANY NEW FACES

It's hard to know exactly how many people in Auckland are homeless. The best estimate, based on research from 2018, is around five hundred. Many of these people sleep under bridges and in parks. Thousands more sleep in garages and on the couches of family and friends.

Not all of the people who come to Zuhaib's shop for food are homeless. Affordable housing in Auckland is hard to find. "It's expensive to buy a house and expensive to rent," Zuhaib says. "Some of the people I help have jobs, but they don't always have enough money left over for food."

Since Covid, the cost of living has gone up even more. "I've seen many new faces in my shop," Zuhaib says. Although it costs him around \$2,000 a week to feed these people, Zuhaib believes it's important to serve anyone who asks. For rough sleepers especially, it can be hard to get a balanced meal with meat and vegetables. Zuhaib says a lot of people rely on cheap things like two-minute noodles, bread, and chips. Enjoying a hot, freshly cooked meal at one of his shops can help ease the stress of life on the street. Providing the food makes Zuhaib feel good, too.



MORE THAN KEBABS

Giving away kebabs isn't enough for Zuhaib. To reach even more people, he started a charity that supports families in Auckland. During the recent pandemic, the charity gave out hand sanitiser and face masks. Sometimes Zuhaib even lends people his car so they can get around.

Although the Auckland community is important to Zuhaib, his heart's still in the mountains of Pakistan. There he provides yet more free food from his shop in Parachinar. He also helped get an internet connection to his village. All of this work takes time. So why does Zuhaib feel the need to go the extra mile?

“My life in Pakistan was full of danger,” he says. “Every day, I faced challenges and risked my life.” Now that he lives in a safe country, he feels deeply that he should dedicate his life to others. This includes taking a stand against injustice and speaking on behalf of those who don't have a voice. Most of all, Zuhaib hopes his work means other people will experience a little more peace.



THE MONSTER THAT SWALLOWED THE MOON

by Renata Hopkins

Once upon a time, there lived a hero by the name of Finch. Finch wasn't a super-hero kind of hero, with muscles on muscles. Finch was more the everyday kind – the sort that does all they can and hopes it will be enough.

Finch lived with their mother and father on a small farm beneath a high mountain. The sun shone. The river ran clean and sweet. Life was good ... until it was not.

One fateful day, a cloud moved across the sky and blocked the sun. Then the river turned murky and sour before drying up altogether. Without water, the crops withered, and hunger filled every belly. Worst of all, Finch's mother became ill. Though her husband and child nursed her with care, she grew weaker by the day.

"Someone needs to find answers," Finch declared, "and I think that someone should be me." Early the next morning, they left a note and were gone before they could change their mind.





Before long, Finch's stomach was rumbling. They found a bush with small berries and were picking them when they heard a noise. Finch followed the sound and came upon a bird caught in a snare. The bird flapped and flailed, trying to escape.

"Be still," whispered Finch. "I mean you no harm." They gently untangled the bird from the trap, but it didn't fly away. Hoping food might revive it, Finch held out the berries.

The bird took one, two, three tiny pecks. "Thank you," it said.

Finch's mouth fell open.

The bird blinked its beady eyes. "Are you hoping to catch a fly?"

Finch shut their mouth, then opened it again. "Forgive me," they said.

"I've never met a talking bird."

"The world is full of mysteries," the bird replied.

Finch agreed. "In fact, I am hoping to solve one," they said. Then they explained their plan to start by climbing the mountain.

"Turn back," said the bird. "Your quest is certain death!" The bird told Finch that a monster lived on the mountain's peak – a dragon of endless greed. "It has dammed the mountain lake that fed your river. It cannot bear to share a single drop."

"How can I defeat this monster?" Finch said.

"Don't ask me," replied the bird. "I may be magic, but I can't see the future."

Finch thought of Mother, lying ill, and of Father, half-sick with worry. "Then I will do what I can and hope it's enough," they said before bowing politely and turning to go.

"Wait!" cried the bird. "You came to my aid. Now I shall help you."

The bird flew to a nearby tree. It returned with a green acorn, which it dropped into Finch's hand. Next, it pulled a feather from its wing and placed it beside the acorn. Finally, it flew to a wild rose bush and picked a thorn.

"Whenever the way is hard, speak the following words," the bird advised. "Tiny treasures, hear my plea. Show me all that you can be."

Finch thanked the bird, although they did not see how any of these small things could ever help.

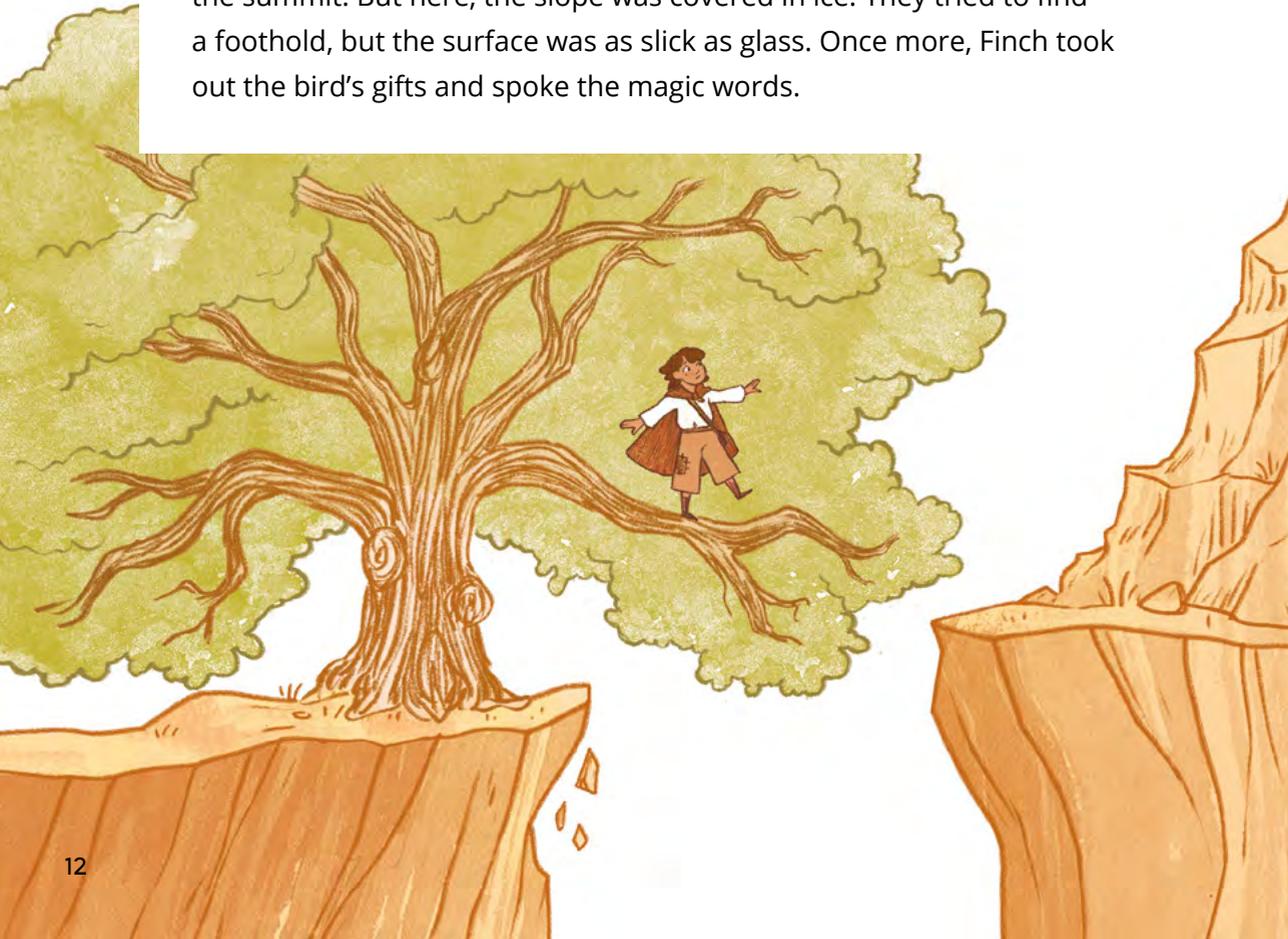
"Size is not power," said the bird, as if reading Finch's mind. "Remember that, and you might surprise yourself." With a flash of wings, the bird was gone.



At midday, Finch reached the foot of the mountain. A wide chasm had been gouged in the earth to prevent people from travelling further. "That chasm is so wide," said Finch, "and so deep. I can't possibly get across." Then they remembered the bird's advice. They took the three gifts from their pocket and spoke the magic words. "Tiny treasures, hear my plea. Show me all that you can be."

The acorn quivered. It rolled off Finch's hand and burrowed into the ground. Instantly, a green shoot unfurled – and in the blink of an eye, the shoot grew from a seedling, to a sapling, to a mighty oak. One branch stretched right across the chasm. Finch climbed the trunk and teetered across. On the other side, the branch lowered them safely to the ground. Finch gave thanks to the magic oak and began to follow the mountain path.

Sure-footed as a mountain goat, it wasn't long before Finch neared the summit. But here, the slope was covered in ice. They tried to find a foothold, but the surface was as slick as glass. Once more, Finch took out the bird's gifts and spoke the magic words.



This time, the feather quivered. The sharp quill jabbed Finch's wrist. "Ow!" they shouted. Immediately, a second feather appeared beside the first – then another and another. The feathers spread until they reached Finch's shoulders, then they continued down their other arm. In moments, Finch had two fine wings.

Finch soared up the glittering wall of ice. "I'm flying!" they sang, looping and swooping. Overcome with wonder, they did not see the mountain moving. They did not see a fearsome head rise up, glaring with blood-red eyes – but when the giant mouth belched fire, Finch saw their magic feathers singe and shrivel. They saw the sharp rocks that surrounded the edge of a lake far, far below. Then they fell ... and were caught in a giant claw.

"Well, well," rasped the dragon.
"What have we here?"

"My n-n-name is Finch."

"Wrong," growled the monster.
"Your name is Dinner."

Finch tried to reach the last gift in their pocket, but their arms were pinned tight. As they struggled, the dragon's mouth opened wide. Poor Finch didn't want those sharp teeth to be the last thing they saw. Looking away, they glimpsed the round moon, reflected on the lake's surface. It gave them an idea.



"Wait!" they shouted. "I'm looking for the most fearsome dragon alive. Can you tell me where to find them?"

"Right here!" roared the dragon.

"But that cannot be," Finch cried. "Such a dragon wouldn't bother with a tiny morsel like me. Why, I imagine a truly fearsome dragon could swallow something truly ginormous."

"Name it!" bellowed the dragon, "and I shall prove my power."

"Could you swallow that moon, swimming in the lake?"

"Watch me." Gripping Finch tight, the dragon bent its snout to the moon's reflection. It took huge, gurgling gulps, only pausing for breath when half of the lake was gone.

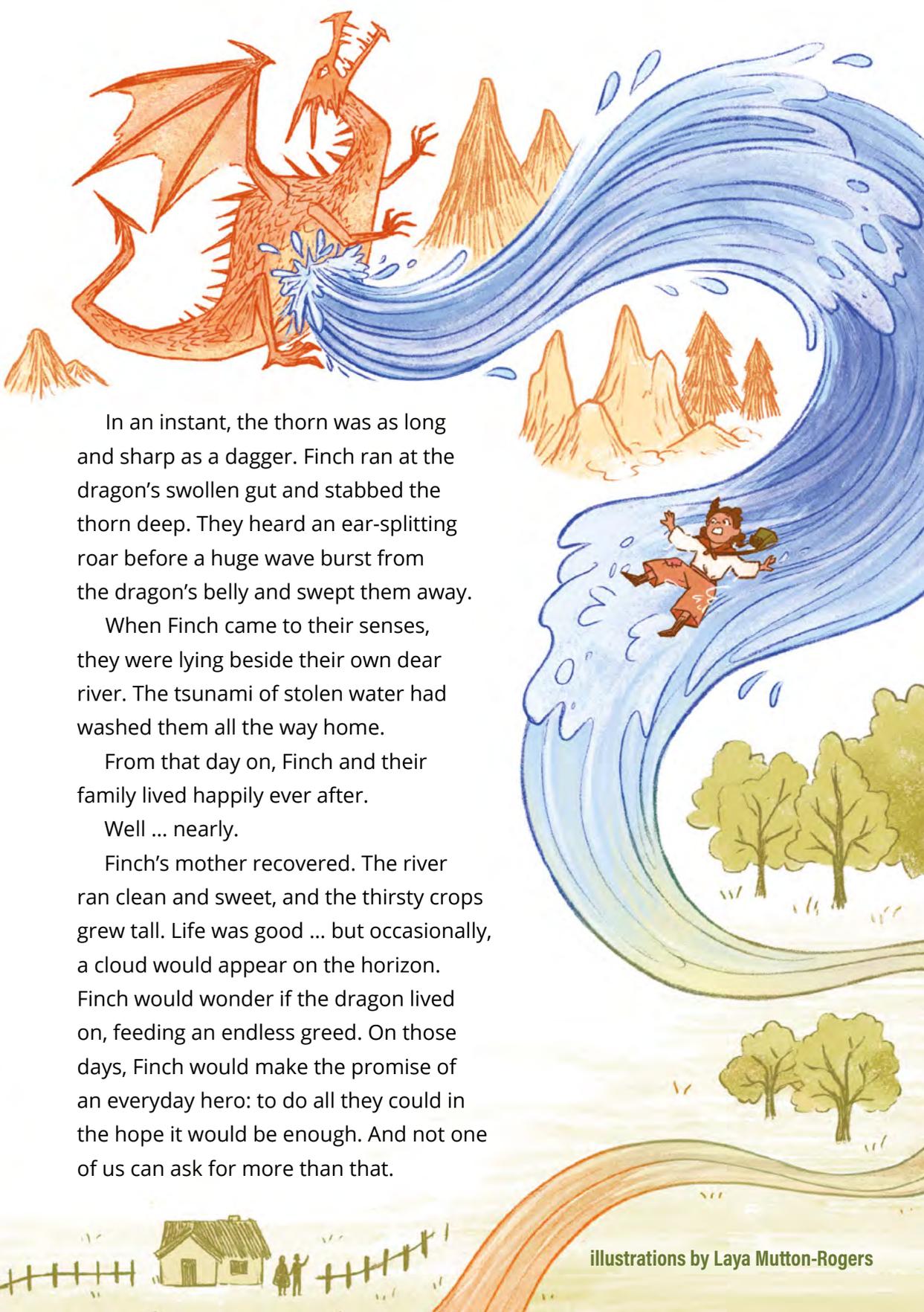
"Good try," Finch said, pityingly. "I suppose the moon cannot be devoured, even by you."

The dragon saw the moon floating unchanged on the lake. It roared with fury and began, once more, to drink. The water sank. The greedy creature's belly swelled. When the lake was almost gone, it paused again.

"So close!" Finch said. "But alas."

Looking down, the dragon saw the moon's reflection, whole and round in the small puddle. As it writhed with rage, it loosened its grip. Sliding to the ground, Finch pulled the thorn from their pocket. "Tiny treasures, hear my plea. Show me all that you can be."





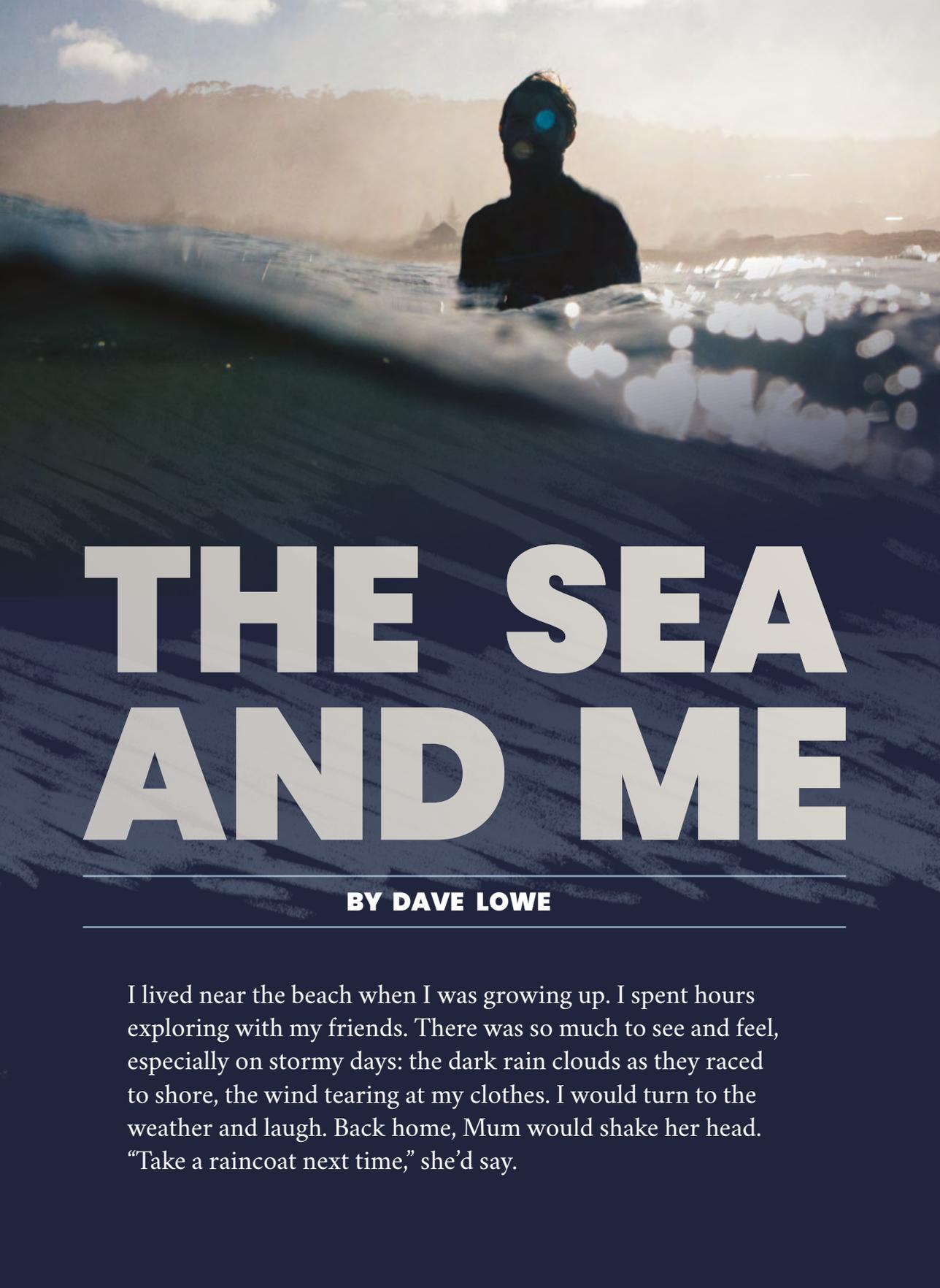
In an instant, the thorn was as long and sharp as a dagger. Finch ran at the dragon's swollen gut and stabbed the thorn deep. They heard an ear-splitting roar before a huge wave burst from the dragon's belly and swept them away.

When Finch came to their senses, they were lying beside their own dear river. The tsunami of stolen water had washed them all the way home.

From that day on, Finch and their family lived happily ever after.

Well ... nearly.

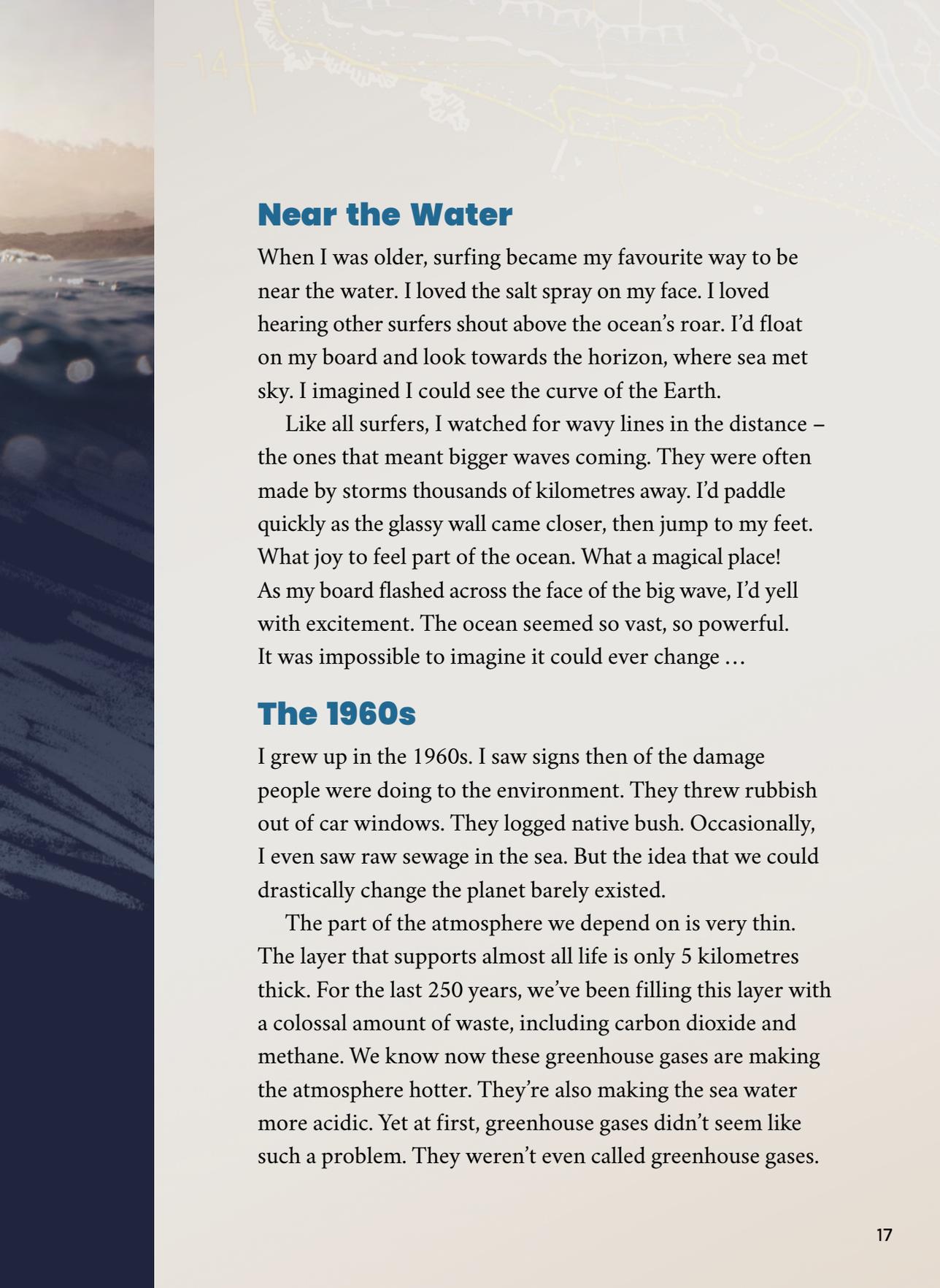
Finch's mother recovered. The river ran clean and sweet, and the thirsty crops grew tall. Life was good ... but occasionally, a cloud would appear on the horizon. Finch would wonder if the dragon lived on, feeding an endless greed. On those days, Finch would make the promise of an everyday hero: to do all they could in the hope it would be enough. And not one of us can ask for more than that.



THE SEA AND ME

BY DAVE LOWE

I lived near the beach when I was growing up. I spent hours exploring with my friends. There was so much to see and feel, especially on stormy days: the dark rain clouds as they raced to shore, the wind tearing at my clothes. I would turn to the weather and laugh. Back home, Mum would shake her head. “Take a raincoat next time,” she’d say.



Near the Water

When I was older, surfing became my favourite way to be near the water. I loved the salt spray on my face. I loved hearing other surfers shout above the ocean's roar. I'd float on my board and look towards the horizon, where sea met sky. I imagined I could see the curve of the Earth.

Like all surfers, I watched for wavy lines in the distance – the ones that meant bigger waves coming. They were often made by storms thousands of kilometres away. I'd paddle quickly as the glassy wall came closer, then jump to my feet. What joy to feel part of the ocean. What a magical place! As my board flashed across the face of the big wave, I'd yell with excitement. The ocean seemed so vast, so powerful. It was impossible to imagine it could ever change ...

The 1960s

I grew up in the 1960s. I saw signs then of the damage people were doing to the environment. They threw rubbish out of car windows. They logged native bush. Occasionally, I even saw raw sewage in the sea. But the idea that we could drastically change the planet barely existed.

The part of the atmosphere we depend on is very thin. The layer that supports almost all life is only 5 kilometres thick. For the last 250 years, we've been filling this layer with a colossal amount of waste, including carbon dioxide and methane. We know now these greenhouse gases are making the atmosphere hotter. They're also making the sea water more acidic. Yet at first, greenhouse gases didn't seem like such a problem. They weren't even called greenhouse gases.

Two Important Things

For a long time, very little was known about the carbon dioxide in our atmosphere. Then an American scientist named Dave Keeling discovered two important things. First, there was less carbon dioxide in late spring and much more in late autumn. Trees and plants grow quickly in spring, using a lot of carbon dioxide. By autumn, this growth has stopped and the trees and plants release their carbon dioxide back into the atmosphere. This natural process has been happening for millennia, yet Keeling finally understood that atmospheric carbon dioxide levels were seasonal. He'd found proof that our planet was breathing.

Keeling's second discovery was the opposite of natural. Over time, carbon dioxide had been *increasing* in the atmosphere, and he proved that this was caused by people using coal, oil, and gas – all fossil fuels that release carbon.

In the South

Keeling lived in the northern hemisphere. He'd taken measurements in Hawai'i, which is in the top half of the planet. He wondered what was happening in the south. His best guess was that the trend was the same. He also thought that a lot of carbon dioxide was probably dissolving in the Southern Ocean. But scientists don't like to guess. They like proof. Keeling needed help from scientists in the southern hemisphere – and one of those scientists was me.

Becoming a Scientist

I left high school because I was bullied, but I didn't want my education to stop. So I went to the library to read about the ocean I loved. I learnt how waves form. What makes the weather. How the ocean, land, and atmosphere are connected. Learning these things made me realise I wanted to be a scientist. I wanted to understand how our planet was changing, so I returned to school to study physics, chemistry, and maths. Then I went to university to get a degree so I could become a climate scientist.

Working on a Headland

Ōrua-pouanui/Baring Head is a piece of land that pokes into the sea near the entrance to Te Whanganui-a-Tara (Wellington Harbour). The wind screams in from the Southern Ocean – its force leaves you breathless. My equipment had to be bolted down to survive the southerly storms, which sometimes lasted a week or more.

In the 1970s, I spent many days on that headland. The measurements I took would confirm what's now considered to be fact: the increase in atmospheric carbon dioxide has been worldwide. Dave Keeling got his proof. The story *was* the same in both hemispheres.



Crystal Clear

Back in the 1970s, very few scientists understood what caused climate change. Now there are thousands of us – and almost every country agrees: people are responsible for the speed of rising temperatures. The evidence is crystal clear. Since I took those first measurements at Ōrua-pouanui fifty years ago, the concentration of atmospheric carbon dioxide has increased by more than 30 percent. Each year, our oceans are becoming warmer and more acidic, a huge problem for coral and sea creatures that have shells. In my lifetime, I've watched the situation become more serious.

Filled with Colour

I no longer surf, but I still live near a beach. It doesn't have the sand dunes from my childhood, the ones we'd slide down on pieces of cardboard. There was a rocky foreshore at the bottom, the tidal pools filled with colour: red, purple, green, and blue – it all depended on the creatures living in them.

We loved exploring those rock pools, but we never forgot the ocean. The constant roar of the waves as they broke over the reef. The salt spray. I remember the way the bright sun dazzled our eyes, the way the black sand burnt our feet if we stood in one place for too long.

NOTE: *Dave Keeling and Dave Lowe were the first people to measure carbon dioxide in the atmosphere. Dave Lowe was one of the lead authors on a report that won the Nobel Peace Prize for the United Nations Intergovernmental Panel on Climate Change in 2007.*

He Rāhui

by Arielle Kauaeroa Monk (Muaūpoko, Ngāti Raukawa ki te Tonga)

*Me tiaki e tātou te tipa. Me tiaki e tātou te taiao – ki uta, ki tai.
We must care for the scallops. We must care for our natural
world – from the mountains to the sea.*

We're a country known for our clean beaches and sparkling waters. Our coastline is a special place, where people like to spend time – and gather kaimoana. Every stretch of the coast, including the marine species that live there, deserves our care.





Opito Bay

Protecting the tipa

At Opito Bay and Kūaotunu Bay on the Coromandel Peninsula, Ngāti Hei are doing all they can to protect their tipa (scallops). People are concerned about the effects of pollution, **sedimentation**, and climate change – but they are especially worried about the problem of overfishing. As **mana whenua**, this small iwi says it's their job to care for the environment, including the sea and all its creatures.

Tipa have always been an important source of food for Ngāti Hei. Kaumātua

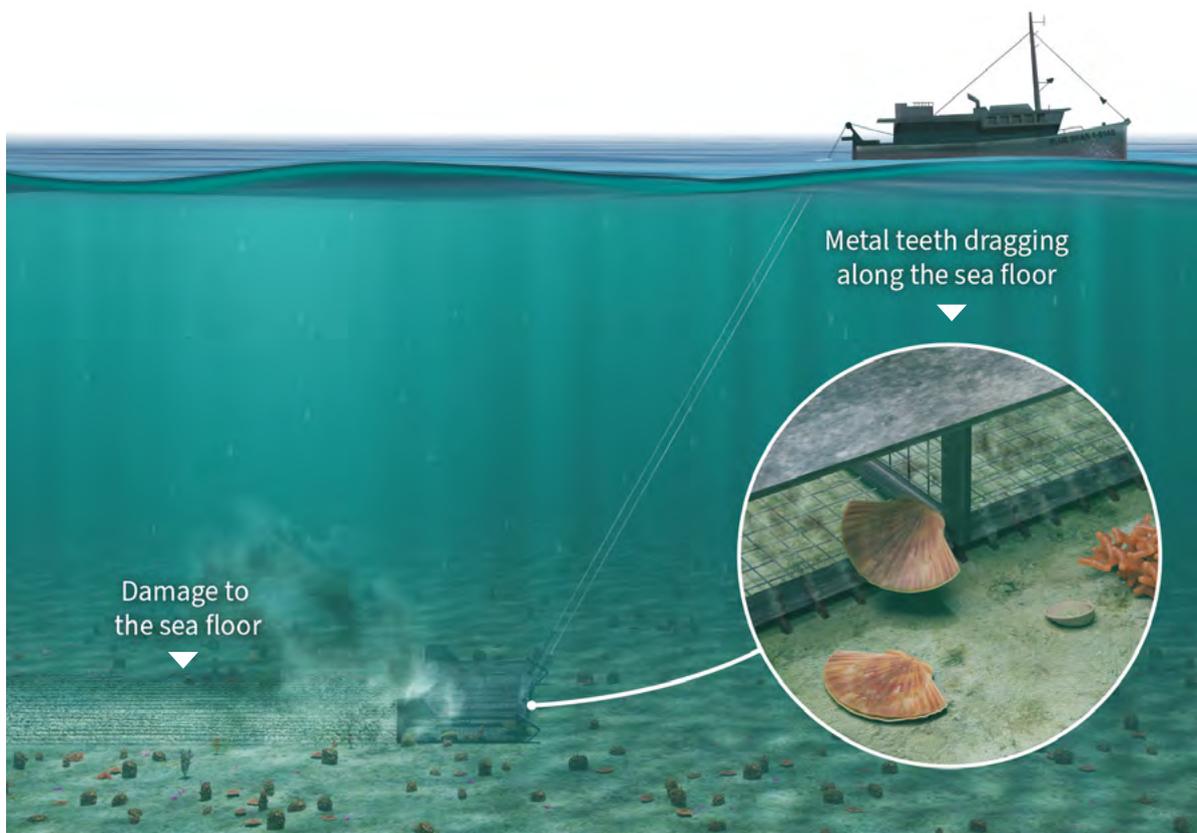
remember a time when they could scoop up handfuls of the shellfish with ease – there were so many of them. But over the last five years, the people of Ngāti Hei and many others in the area have struggled to even *find* tipa, let alone collect them. Each time they went out to gather kaimoana, it was getting harder and harder to find enough tipa for tangihanga or hui – or even for just a feed.

sedimentation: when debris settles at the bottom of a body of water, such as a river or the sea
mana whenua: people with the authority to speak for the land they stand on

Metal teeth

Tūpuna Māori always collected tipa by hand, and they took only enough for a feed. Then, in the 1980s, some big **commercial** fishing companies began to dredge large numbers of scallops to sell. By 2020, Ngāti Hei kaumātua Joe Davis had real concerns about the **sustainability** of tipa fishing. The shellfish were being dredged over and over. It felt like a precious resource was dwindling away.

Dredging is when metal-framed cages are dragged along the sea floor. These cages have rows of metal teeth that dig into the sand, then flip the tipa into the cage. Joe says the shellfish don't stand a chance. Dredging can take thousands of tipa at a time. It also damages the sea floor, where the tipa breed and grow. The people who had harvested this kai for generations were missing out.



commercial: when a person or company aims to make a profit (money)
sustainability: when there is enough of a resource left for future generations



A desolate scallop bed

A scallop

Time to get political

Joe and whānau of Ngāti Hei decided it was time to take action to support the recovery of tipa in their **rohe**.

They united with other groups in the community to call for change – and they began by taking action with the power of the pen.

In 2020, the groups wrote a letter to the Minister for Oceans and Fisheries. They explained the harm they felt dredging was causing in their rohe and asked the government to stop it. The community wanted time for the seabed to rest and the tipa to recover.

Kaumātua met with whānau, and they agreed to put a rāhui (ban) in place. Joe explains that although this rāhui was voluntary, “the **tikanga** was something we asked whānau, **hapori**, and commercial fishers to respect”.

The rāhui raised public awareness, especially over the summer. People in the area on holiday understood what was at stake. But still, Ngāti Hei wanted the rāhui to be made official. It wanted the government to support a two-year ban on taking any tipa from the rohe, before it was too late.

rohe: territory or area

tikanga: the correct way of doing something, a Māori customary practice

hapori: local community



Rāhui

A rāhui is a temporary ban that prevents people from using a resource or going into a certain area. It is tikanga that has been passed down through the generations. Each iwi and hapū has its own way of using rāhui, but it is always to protect people, the water, the land, or taonga species.

Conservation rāhui are put in place to manage a natural resource. For example, a hapū might notice fewer kōura (crayfish) several years in a row or a disease affecting a certain kind of tree, such as kauri. When this happens, mana whenua can use a rāhui to ensure a season of rest so the species can recover.

Sometimes rāhui are used to set aside an area or resource for an important occasion. This might be a big hui or a special project such as weaving a cloak for a rangatira. During this kind of rāhui, only certain elders are allowed to enter the area.

Rāhui can also be put in place after a drowning. To respect grieving whānau, people can't go into the affected area or fish or gather shellfish until the rāhui has been lifted.

Rāhui are put in place by the mana of an iwi, hapū, rangatira, or whānau. They end when people agree the right amount of time has passed. All rāhui are lifted using a special karakia.

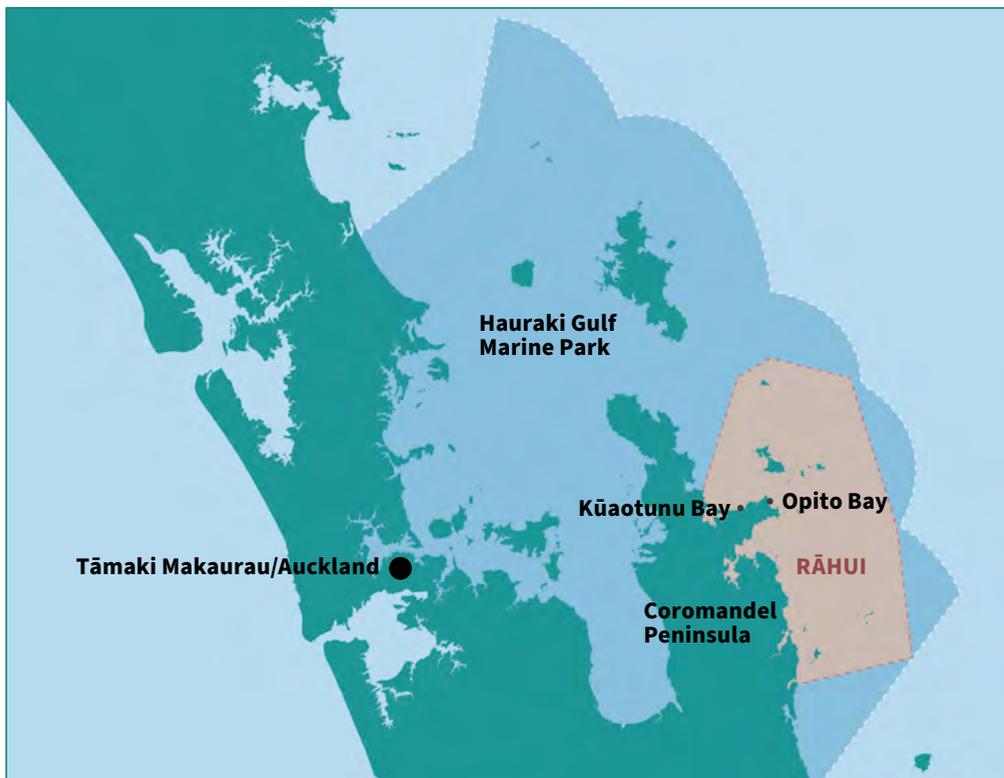


The whole community

The government encouraged everyone to have their say about the rāhui that Ngāti Hei wanted. People made around two thousand submissions, mostly in support of the ban. In September 2021, the government made the rāhui official. It would be illegal for anyone to take tipa from the rohe for two years. This included both commercial and recreational fishers.

The ban covers a big area (almost 2,500 square kilometres) off the Coromandel Peninsula's east coast. In September 2023, the government

will meet with Ngāti Hei and other community groups to discuss how the tipa are doing. These groups include LegaSea – an organisation that represents the views of recreational fishers. “It’s important to remember that the rāhui isn’t just a Māori thing,” says Sam Woolford, who works at LegaSea. “The ban is something the wider community supports. It’s sensible – and the best choice for our natural world. We all need to embrace Māori perspectives and practices. It’s time to adapt.”



Joe Davis with the rāhui sign at Opito Bay



Active kaitiaki

Both Sam and Joe want people to rethink their behaviour when it comes to taking food from the sea, especially tipa. “We need to ensure there is kaimoana for future generations,” says Sam, “and that might mean a permanent ban on dredging.”

Joe always hoped a rāhui in his rohe would spark kōrero in areas close by. “Our rohe isn’t the only place suffering from overfishing and dredging,” he says. Sure enough, other iwi in Tīkapa Moana (the Hauraki Gulf) also called for a rāhui on local tipa beds – and now, there’s a total ban on commercial fishing and

recreational harvesting, backed by the government, across all of the Hauraki Gulf Marine Park.

All around the motu, iwi, hapū, and whānau are using tikanga to protect Tangaroa. They are showing us that Māori customary practices have an important role to play if we want to care for te taiao – the natural world. Joe says rāhui are a way for **tangata whenua** and **tangata Tiriti** to be active kaitiaki. “We need to take responsibility for te taiao and work side by side. There’s still a lot of mahi to be done,” he says.

tangata whenua: people of the land (Māori)

tangata Tiriti: people of Te Tiriti o Waitangi (non-Māori)

The Stinging Moon

In the evening
I searched the sand
for something to own
 the perfect shell
 a dropped coin
 a ring.

I found
 a big bubble
 a jiggly bobble
a crystal wobble
 a circle of snot
 an ink blot
 a sea sack
 an injured
 flat-pack
 planet.

I wanted
to peel it off
 the sand
 like a thrilling scab
to feel the weight
of its wobble
to cover my whole face
with its chilly flab.

I cast
my voice
out over the waves.

*Hey, sea,
 you dropped
this thing
 can I have it?*

She said
 Don't touch
 that moon
still stings.





LISA BAUDRY



by Matilda Hutterd (aged 11)

A rumble announces a massive metal monster, its giant teeth suspended over rolling black tracks. A young pūkeko stops in fear, and the beast squishes it flat. The rest get the message – this creature is not something to be messed with.

The pūkeko scatter to the far corners of the field, all indigo feathers and orange feet. From the safety of the trees, they watch a neon-orange vest get out of the monster and survey the area. Then the orange vest gets back into the monster and drives it forward. The claw descends and cuts into the soft mud, forming a large trench.

Then a different monster arrives – this one bigger, with a grey tube on its back. More orange vests get out, and one takes the tube. They feed one end into the muddy hole and push the other out a gap in the fence. One of the pūkeko stretches her wings and signals for the rest to follow. She takes to the air and flaps over the fence. Soon they are all airborne, specks of blue and purple in the sky. The pūkeko glide over roads and houses, searching.

The birds spy a swampy field, but when they land, three new pūkeko appear and squawk at the newcomers, driving them away. The group takes to the air again and continues its search for a new home. Swamp to field, field to swamp, they are driven away.

Finally, when the sun is setting, they find a spot next to a shallow pond. Bushes of harakeke line the pond, and a pair of swans glide across the surface. The pūkeko land and search for any signs the pond has been claimed by others. The swans aren't bothered, and the pūkeko settle in. They finally have a place to call their own ... until something comes to drive them away again.

**illustrations by Maite Calla Moret
(aged 14)**



The title 'MARINE RESERVES' is written in large, yellow, bubbly letters. The letter 'M' has two purple starfish on it. The letter 'A' has a green seaweed sprig. The letter 'R' has two small blue fish. The letter 'E' has a pink jellyfish. The letter 'S' has a blue fish jumping over it. The background is a light blue water surface with a green grassy bank at the top.

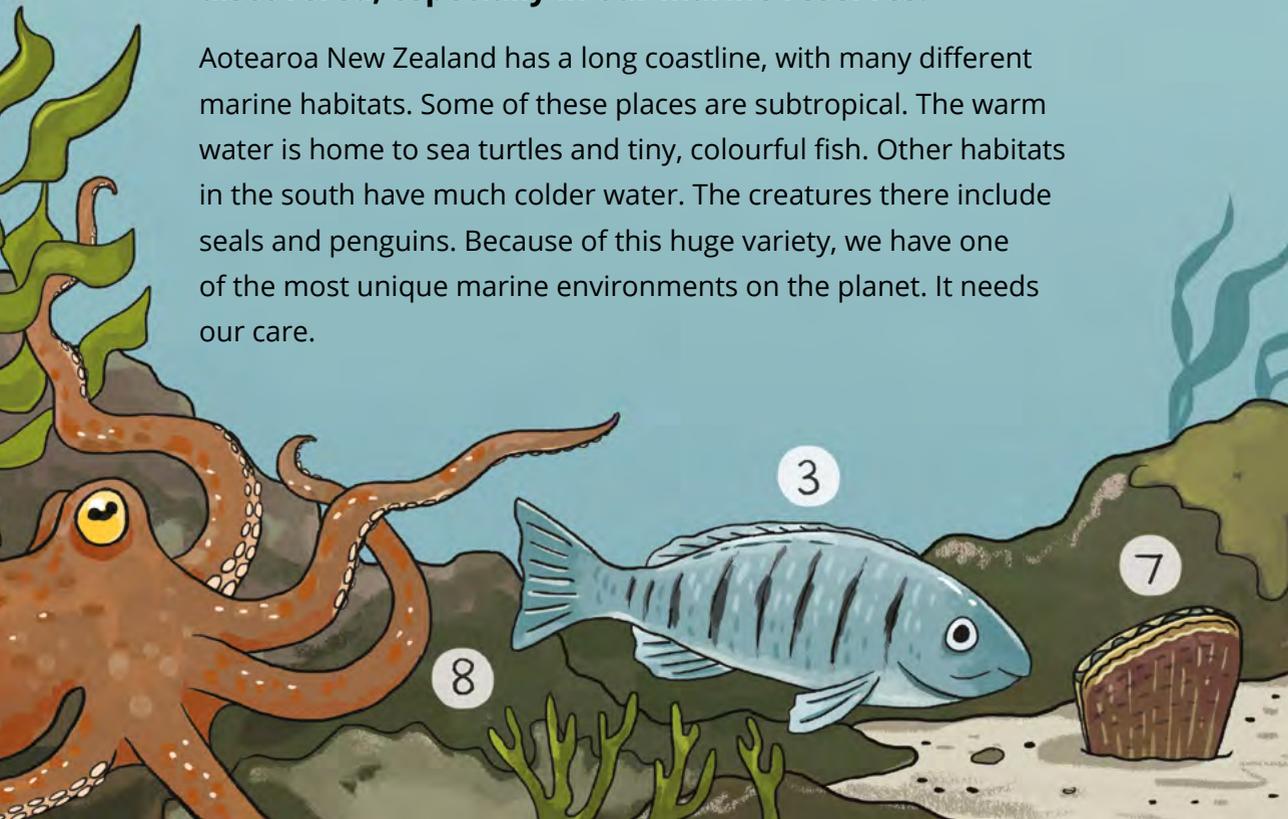
MARINE RESERVES

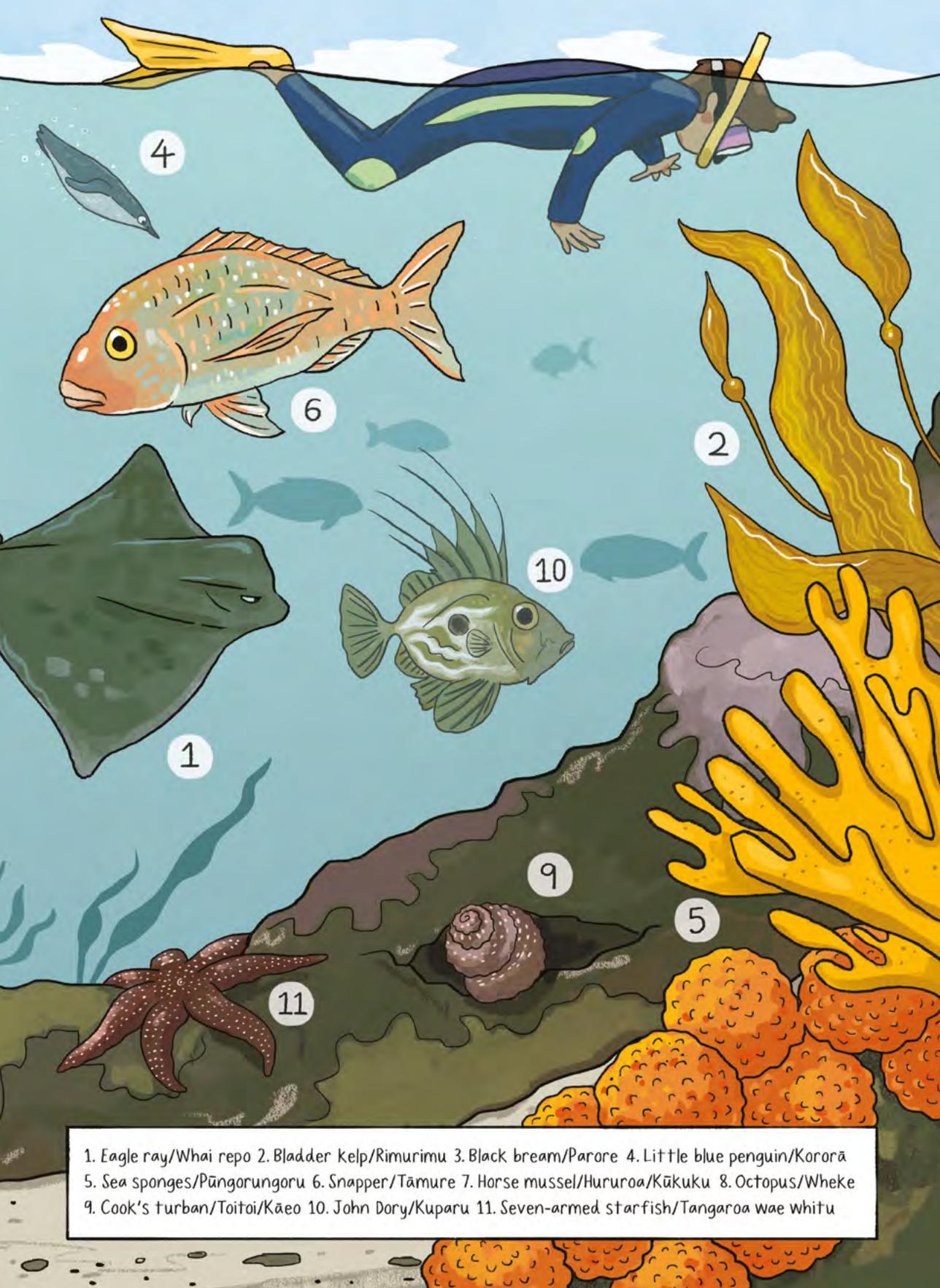
PROTECTING OUR BIG BLUE BACKYARD

by Laura Goodall

You might think there's not much to look at in the sea. Well, think again! There's a whole world waiting to be discovered, especially in our marine reserves.

Aotearoa New Zealand has a long coastline, with many different marine habitats. Some of these places are subtropical. The warm water is home to sea turtles and tiny, colourful fish. Other habitats in the south have much colder water. The creatures there include seals and penguins. Because of this huge variety, we have one of the most unique marine environments on the planet. It needs our care.





1. Eagle ray/Whai repo 2. Bladder kelp/Rimurimu 3. Black bream/Parore 4. Little blue penguin/Kororā
5. Sea sponges/Pūngorongoru 6. Snapper/Tāmure 7. Horse mussel/Hururoa/Kūkuku 8. Octopus/Wheke
9. Cook's turban/Toitoi/Kāeo 10. John Dory/Kuparu 11. Seven-armed starfish/Tangaroa wae whitu

WHAT IS A MARINE RESERVE?

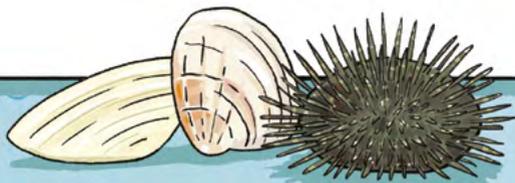
A marine reserve is any part of the sea or shore that's protected by law. People aren't allowed to take living things (fish, shellfish, seaweed, sponges) or non-living things (sand, rocks, shells, driftwood). Everything in a marine reserve is protected, whether it's on the beach, in the water, or on the sea floor.



MAHINGA MĀTAITAI

Mahinga mātaimai are marine reserves that are managed by iwi and hapū. Many mahinga mātaimai are in places where Māori have always gathered kaimoana. People can still take fish and shellfish from mātaimai reserves, but big fishing boats are banned, and no one can sell kaimoana taken from the reserves. Mahinga mātaimai laws ensure that tangata whenua can protect the sea and its creatures for future generations.

The first mātaimai reserve, Rāpaki Bay mātaimai reserve in Whakaraupō/Lyttelton Harbour, was established in 1999. There are now fifty mahinga mātaimai around the country.



WHAT'S IN OUR SEA?

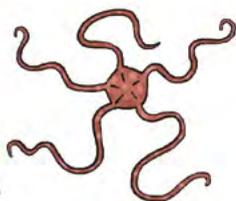
Our marine habitats are world famous because they contain so many kinds of animals and plants. This is called biodiversity. No one knows exactly how many marine species we have in Aotearoa New Zealand. So far, scientists have named around seventeen thousand. They think there are thousands more. People are finding new marine species all the time, but they need our care. Overfishing, climate change, and pollution are causing serious problems. Many of our marine habitats are no longer healthy places.

A DEEP DIVE

Most of the wildlife in Aotearoa (around 80 percent) is found in the ocean. If you explore our waters, you'll find:

600

different kinds of starfish and other creatures with spines



1,000

different kinds of seaweeds

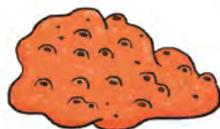


1,100

different kinds of jellyfish, anemones, and corals

1,400

different kinds of fish



1,500

different kinds of sea sponges



2,600

different kinds of crustaceans



3,600

different kinds of molluscs

WHY ARE MARINE RESERVES NEEDED?

HEALTHY POPULATIONS

Marine reserves are special places where marine species can live and grow and be safe from harm, especially overfishing. The Cape Rodney–Okakari Point marine reserve has become a safe haven for baby tāmure (snapper). And the Tonga Island marine reserve has seven times more kōura (crayfish) than it did in 1996, when it became a “no take” area.

UNIQUE SPECIES

As well as everyday species like tāmure and kōura, marine reserves are home to unique species, including the ones only found here. We need to make sure these species survive – or they’ll be lost forever. But it’s important to protect everything in the ocean. This includes seaweeds and animals we don’t know much about. That’s because all living things help other living things to survive and keep a habitat healthy.

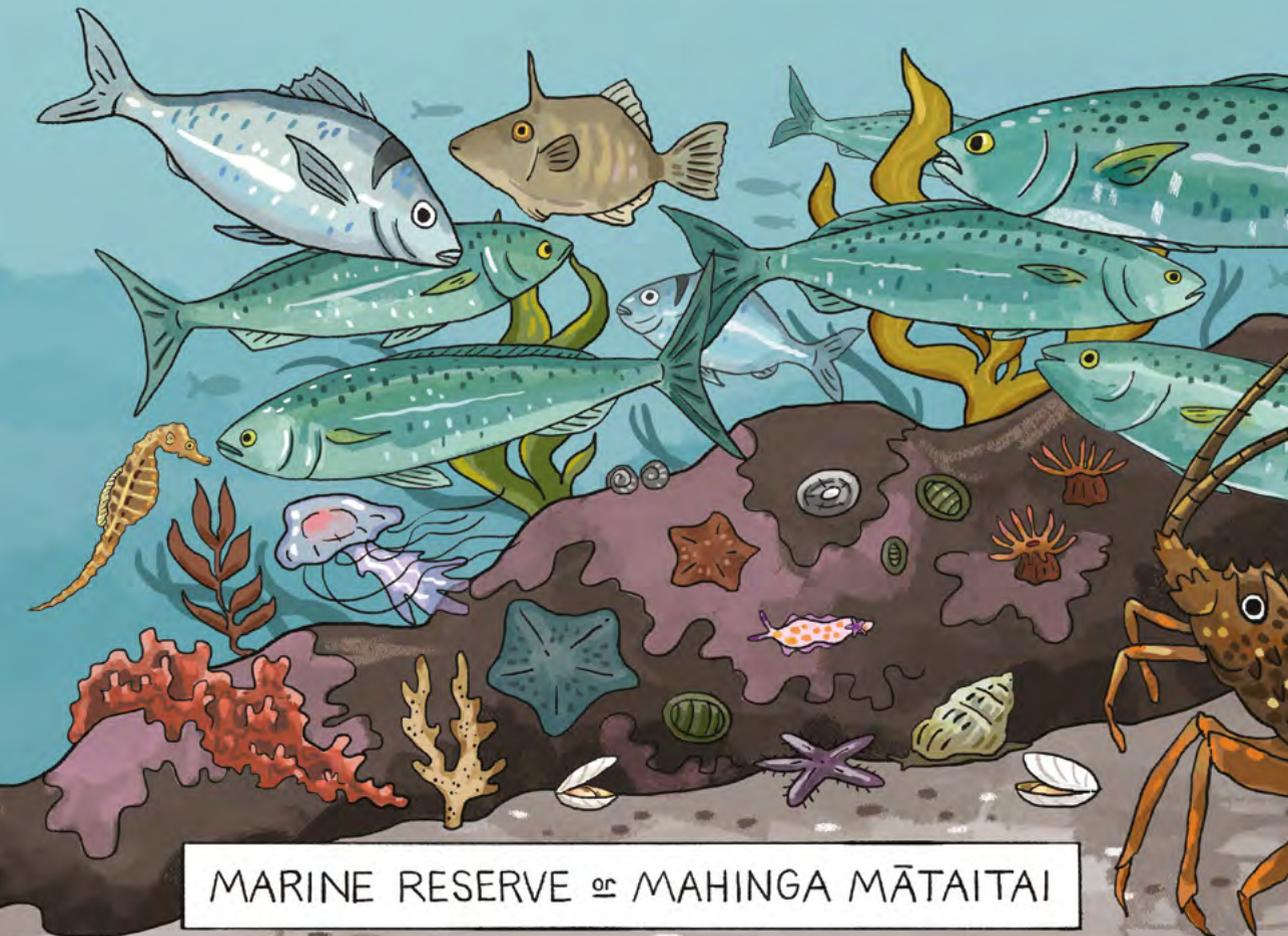


BIODIVERSITY

When a habitat is protected, it becomes more biodiverse. A biodiverse habitat is healthier than one with fewer species. It copes better with change and is more likely to survive challenging events, such as storms or heatwaves.

SCIENCE

Marine reserves are places where scientists can study what happens when a habitat isn't disturbed by people. They can compare what they see in a marine reserve with what they see in unprotected areas. Scientists also study marine reserves over time. How do they change? What species do well and why? Answering questions like these helps us better understand sea life. The more we know, the more we can help.



MARINE RESERVE or MAHINGA MĀTAITAI

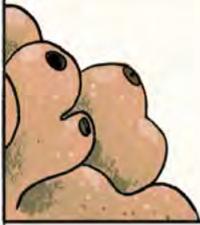
WHERE ARE OUR MARINE RESERVES?

Aotearoa was one of the first countries to protect parts of its sea and coastline. There are now forty-four marine reserves, five of which are around our off-shore islands. Te Papa Atawhai/Department of Conservation looks after our marine reserves. Check out the map to find one close to you.





MARINE RESERVE CURIOSITIES

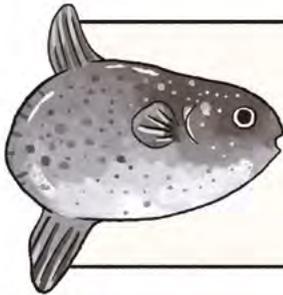
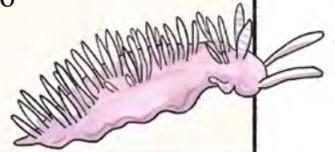


MYCALE SEA SPONGE/PŪNGORUNGORU

The sea sponge *Mycale hentscheli* has a chemical scientists think might help to treat cancer. The sponge can grow up to fifteen times its original size in one year. *Found in Tāwharanui marine reserve, Auckland*

JASON'S NUDIBRANCH/KIRI TARATARA

This odd-looking, very large sea slug is only found in Aotearoa. It feeds on stinging hydroids – small creatures related to jellyfish. The sea slug is able to reuse some of its prey's stinging cells to defend itself. *Found in Parinihihi marine reserve, Taranaki*



SOUTHERN SUNFISH/RĀTĀHUIHUI

The rātāhuhui or southern sunfish can grow to be the size of a car. Scientists still have lots to learn about this species, which only lives in the southern hemisphere. *Found in Poor Knights Islands marine reserve, Northland*



AMBUSH STARFISH/PEKAPEKA

This starfish has a clever way of catching food. It pulls its body away from a rock to create a kind of cave underneath. When prey passes through, it's ambushed by the starfish and eaten. *Found in Horoirangi marine reserve, Nelson–Tasman*

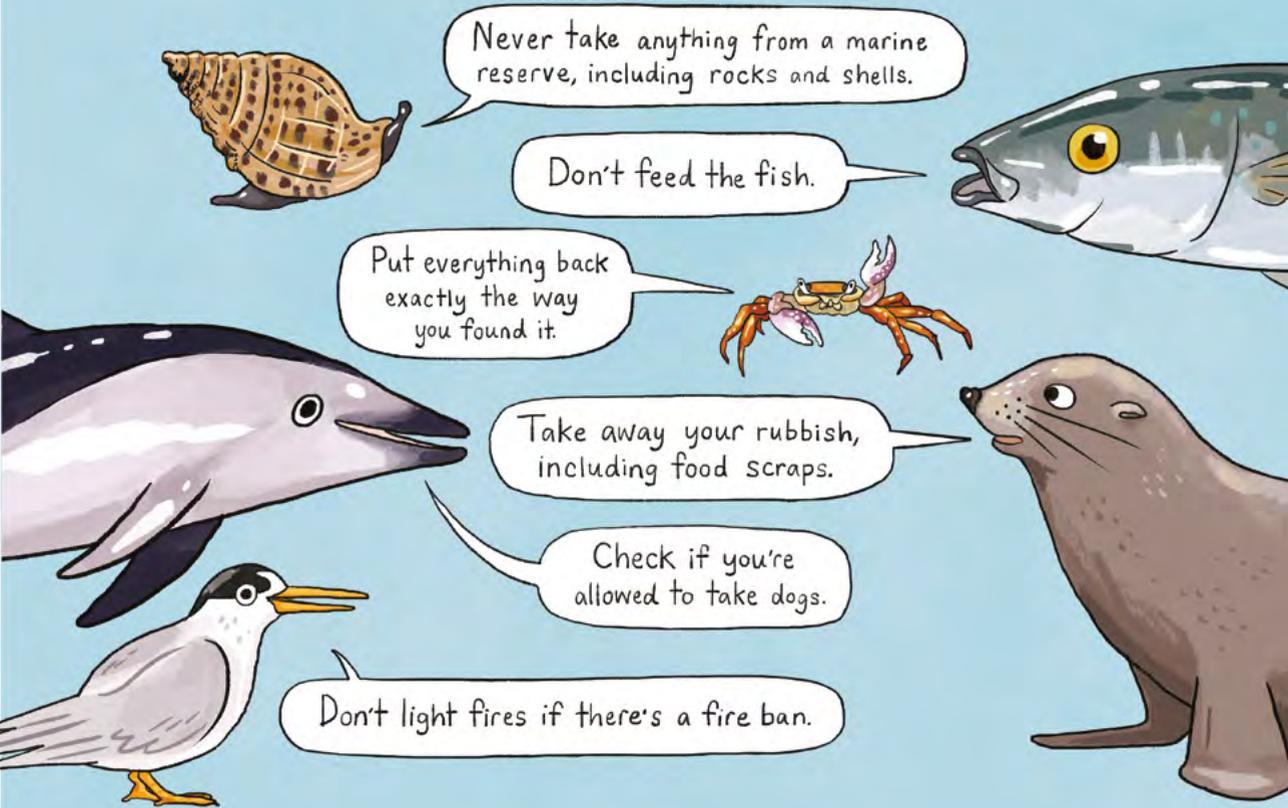
SOUTHERN BULL KELP/RIMURAPA

Southern bull kelp is very tough. It's sometimes used by Māori to make pōhā. These containers store food and hold water. *Found in Ulva Island–Te Wharawhara marine reserve, Rakiura*



MARINE RESERVES: WHAT CAN YOU DO?

Marine reserves are important for science, but they're also great places to be amazed and have fun. People can swim, snorkel, kayak, and scuba-dive – or just enjoy the beach. There's a good chance you'll see marine creatures up close. It could be a giant, sixty-year-old snapper, a rare Hector's dolphin, or a school of blue maomao. If you spend time in a marine reserve, you need to follow the rules. These help us to be good visitors and do no harm.



WHAT IS THE FUTURE OF MARINE RESERVES?

Every year, we discover new species that need our protection. Te Papa Atawhai plans to create more marine reserves. In the meantime, the reserves we already have mean our sea plants and creatures have a safer future. And Aotearoa will always be a good place to see and learn about our unique sea life.

illustrations by Giselle Clarkson



FRESH

by Amy McDaid

When my friend Lana went to Rarotonga, she brought home shells and a plastic album filled with photos. There were photos of her in a turquoise lagoon and photos of dogs trying to catch fish. I couldn't imagine my māmā swimming in those lagoons when she was a girl. I couldn't imagine her as a girl at all.

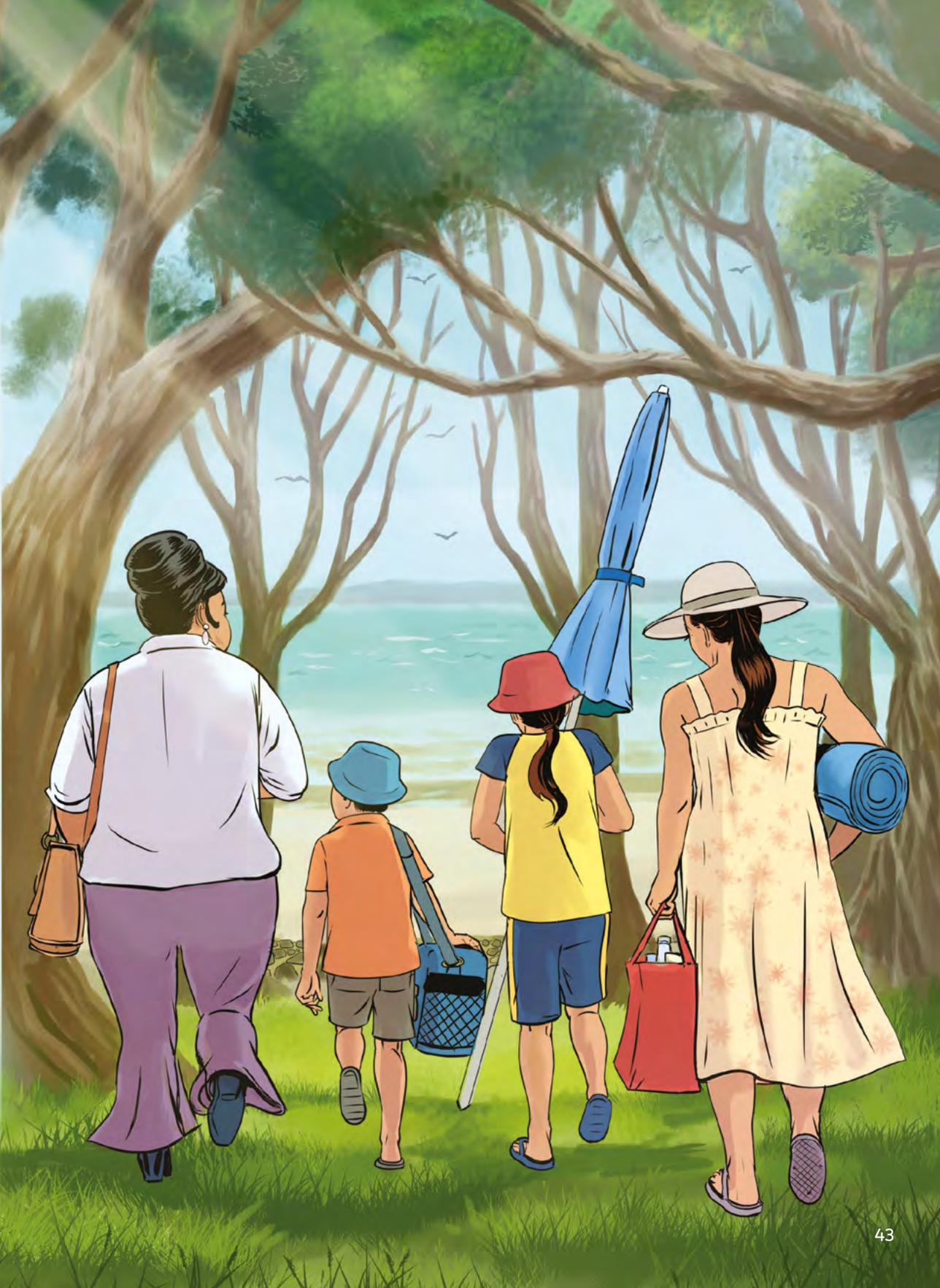
I told Māmā about Lana's holiday. She said we should go on a beach trip, too. She wanted to go to Point Chev. "You don't need a plane to get there," she said. "You can pick me up on the way."

My māmā doesn't dress like other people's grandmothers. She always looks like she's off to a fancy restaurant. She came out of the house wearing purple flared trousers and a blouse. Her black leather shoes had big heels, and her dark hair was piled high on her head like a beehive. She carried a big umbrella, her handbag, and a blue chilly bag.

"Have the children been behaving, Agnes?" she asked Mum as she climbed into the car. It was her usual question.

Mum turned and gave us a wink. "Of course," she said. "They always behave." Māmā looked doubtful and clicked her teeth.

We were surprised to get a park right by the beach. Point Chev is super-busy on the weekends. Most of the time, you have to park miles away. We got our stuff from the boot and followed the path through the pōhutukawa.



When we saw the beach, we realised why we'd got the park. The tide was way out, and beyond the thin strip of brown-looking sand was a lot of mud. The rubbish bins were overflowing, and a bunch of seagulls were fighting over some chips on the grass. Worst of all, the air smelt like a long drop.

"Isn't this lovely," said Mum, wrinkling her nose.

"It's yuck," said Micha. "And there's no water."

Mum squinted. "I can see some. You just need to walk out a bit."

"That's the shipping lane," I said. "We'll get hit by a boat."

Māmā clicked her teeth. "Your mother's right. Be a good girl and take your brother out. He wants to paddle."

"I *don't* want to paddle," Micha said. He began to cry.

To make things worse, a big family arrived. A big, *happy* family. There were adults and teenagers and little kids and babies. The women had flowers in their hair, and the kids had a cricket set and a rugby ball. They were noisy.



I suggested we move down the beach, but Mum said that would be rude. They might think we're avoiding them.

"But we are," I whispered.

"Emily!" Māmā said. "E Kūki 'Āirani, rātou. They're Cook Islanders."

I hadn't heard Māmā speak Māori Kūki 'Āirani for a while. When Mum was young, people decided it was better to speak English. She never really learnt her language – and neither did we. So how was I meant to know?

I left Micha digging in the sand and walked out to the water. Maybe being hit by a boat wouldn't be so bad. My feet sank deep in the mud. Quicksand! Even better. Mum and Māmā would look out and see my lonely red sunhat lying there. That would teach them.

When I turned to see if anyone was watching, Mum waved me in. She was with one of the men from the noisy group. Did she want me to swim or not?



“No swimming,” the man said when I got back, “or you’ll spend the rest of the week on the pōtera, and you won’t enjoy that!” He showed us a website called Safeswim. We could see little red crosses all over the city.

“My cuz was swimming here the other day,” he said. “You’ll never guess what he saw floating past.”

We *could* guess.

“Meitaki ma’ata,” said Māmā after we told her what the man had said. “We’ll still enjoy the day.”

Māmā said she might have a nap before we ate lunch. She lay with the sun on her legs and her face in the shade – her favourite position. “You kids go for a walk,” she said. “I don’t want you waking me.”

“Good idea,” said Mum, reaching for her book. “Don’t go too far.”

I rinsed my muddy feet under the tap, then helped Micha drop mouldy shells in his bucket. He was happy – he liked collecting things – but what was the point of a beach where you couldn’t swim?

The next thing was the noisy family set up a speaker. A fast type of ukulele music blasted out. The seagulls took off, squawking, and Māmā got up and stood between their mat and ours with her hands on her hips. “This will teach them,” I thought. I looked away. I don’t like a scene.

“Tāku vaiata, kāore atu ei!” Māmā shouted.

“Ura!” some of them shouted back.

They all laughed. Then – I couldn’t believe it – Māmā lifted her hands and began to dance. The others started clapping and whooping and cheering, which only encouraged her to carry on.

After a minute, Māmā pulled Mum up to dance. Mum thought she had some good moves, too. I could guess what would happen next and ran.

“Aere mai, Emily,” Māmā shouted.

“Micha, you too. Come and ‘ura!”



Micha came and got me. He grabbed my hand and pulled me over. I stood there, super-awkward, wishing I could disappear.

“Not like that!” Māmā said, not that I was even trying. She grabbed my hips in her strong brown hands and showed me how to move them while I kept my arms and torso still. By then, everyone was dancing.

“It’s just like home!” Māmā shouted above the music. I looked around at the disappointing beach and back at my grandmother. She was still laughing.

It’s hard to explain, but the music kind of got inside me after that. I actually *wanted* to dance. Besides, everyone else was dancing. It would’ve been more embarrassing to just sit there.



Eventually we collapsed on the mat, hot and exhausted. While we danced, the sea had crept back in. The beach almost looked pretty with the sun reflecting off the water. If only we could swim! I noticed a few of the adults looking out with sad expressions.

Mum put her hand on my knee. “Shameful, isn’t it?”

Māmā nodded in agreement. She unzipped her chilly bag and pulled out a big container of ika mata. Tiny cubes of fish, chopped cucumber, and red onion floated in thick coconut cream. “‘Ē reka te kai,” Māmā said. “I made our favourite. And there’s some bread ... and a watermelon.”

The family next door were eating, too. They’d cooked sausages on a grill. “Māmā?” I said.

She looked at me suspiciously. It must’ve been the way I said her name. “Yes, Emily?” she said.

“I like it when you speak your language. And dancing suits you.”

“Auē! Cheeky girl.” She tried to look cross, but I could see her lips twitch, and instead of clicking her teeth, she pulled my ear.

There was enough ika mata to share with our neighbours. Everyone said it was the best fish they’d ever tasted. I agreed. It tasted fresh – like how the ocean should be.



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Designer: Jodi Wicksteed

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