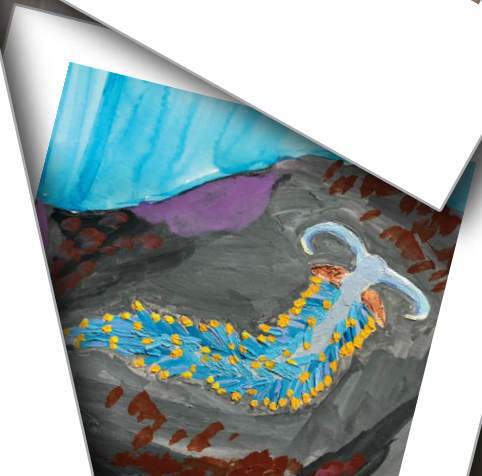


**Underwater**



**Paradise**



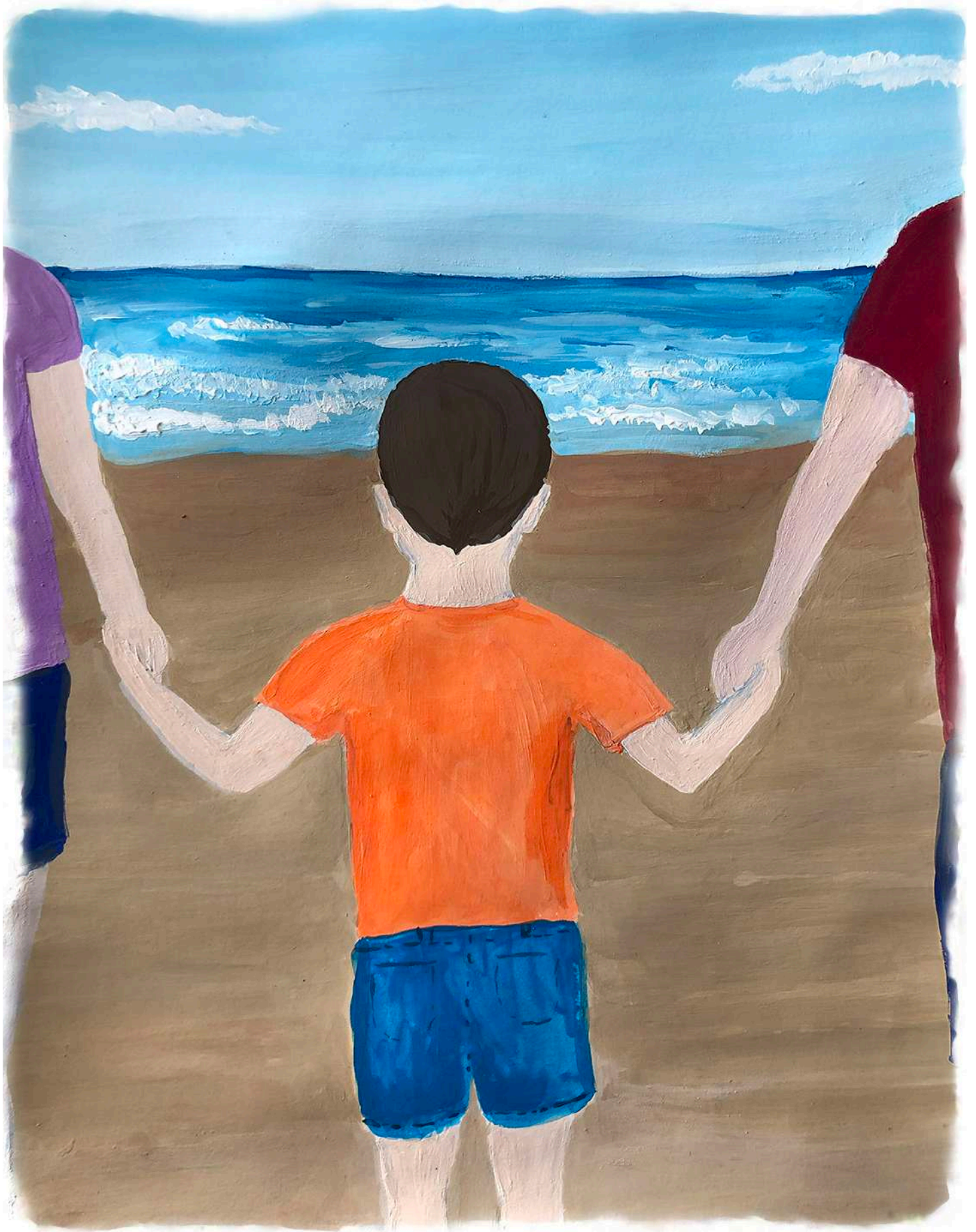


# Underwater Paradise

Written for Anè·lides,  
Serveis ambientals marins

Illustrated by Roxane Taillefer





*A*lex hops along the shore; his excitement rises with the crashing sound of the waves. It's finally summer, and this means countless beach days are on the horizon. He grabs both his mom and his dad's hand, pulling them forward onto the Barceloneta beach. Today he'll make the tallest sandcastle with his mom, then he'll play chase the waves with his dad, and they'll end the day with their usual picnic. It'll be the perfect day.

"We have a new activity planned for today," his dad announces, and Alex's perfect day sunk below the sand.

"What sort of activity?" Alex asks.

"We are going snorkeling!" his mom exclaims.





“Snorkeling? Here? But there’s nothing interesting to see here, only loose plastics and floating garbage from the neighboring city,” he says in a deep sigh.

“There are tons of things to see! With the proper equipment and patience, the underwater paradise will unveil itself to you,” his mom says smiling.

They walk to the *Anè·lides* sign parked on the beach and the staff provides them with all the equipment needed for today’s snorkeling. In exchange, they ask Alex and his parents to take pictures of every living creature they see. Alex changes his shorts and t-shirt for a wetsuit, then his sandals for a pair of water shoes. He throws on the goggles and grabs the waterproof camera needed to take pictures. Now ready for the excursion, he enters the water with his parents at his side.







To his surprise, he spots a spiky looking starfish resting on the rocks! How many arms does this starfish have? He swims up close for a better look and counts a total of seven arms!

Alex snaps a picture. Click!

This starfish can have up to 10 arms. Due to their ability to regenerate, their offsprings are created from the arms that they release. Thus, they do not need a partner to reproduce.



**Blue Spiny Starfish**

*Coscinasterias tenuispina*







Alex, so focused on the starfish, hadn't even noticed the tiny little hermit crab staring at him from a crevice in the rocks!

Ready with his camera, he takes a picture. Click!

These tiny hermit crabs claim and then inhabit the empty seashells abandoned by gastropods. The female can also live in holes formed in the rocks or vacant tubes left behind by annelids.



**Hermit Crab**

*Calcinus tubularis*







A sudden flash of colours steals his attention! It's a fish zooming past him! Its body is green covered with faint orange stripes and his head a lavender colour tinted with an orange pattern.

Alex raises his camera and snaps a picture. Click!

Like the rainbow wrasse (*Coris julis*), they are colourful, very common and appreciated in the Mediterranean. While the male can be identified by his green colour, the female is much more colourful and wears all the colours of the rainbow. They are proterogenic hermaphrodites; this means that the female will eventually turn into a male.



**Ornate Wrasse**

*Thalassoma pavo*





Alex continues to swim farther but stops to admire the sudden cluster of black fishes surrounding him. They all seem so relaxed, floating slowly in his vicinity.

He takes a photo. Click!

This fish will become black when they reach adulthood. However, during their juvenile stage, they are the colour electric blue. They tend to form large groups near the coast, calmly swimming together as one.



*Damselfish*

*Chromis chromis*







Alex then looks down below and sees a fish sweeping the sandy floor of the sea with its mustache! He takes a deep breath and plunges down for a closer look.

He snaps a picture. Click!

This fish lives in rocky and sandy zones and tracks their hidden preys in the sand with their two large whiskers. Thanks to their gregarious behaviour, they tend to gather with one another, forming groups of friends and coexisting.



**Striped Red Mullet**

*Mullus surmuletus*





A movement buried in the sand then catches his eye and his curiosity peaks. Alex swims closer and to his surprise, realizes it's not sand! It's a sea creature and its surface resemble the sand.

He takes a picture. Click!

This flat-shaped fish lives in the sandy bottoms; to better camouflage themselves, their skin is the same colour as the sand. Their eyes, located on the same side of their back, provoke them to swim sideways above the sand in a wavelike motion.



**Wide-Eyed Flounder**

*Bothus podas*

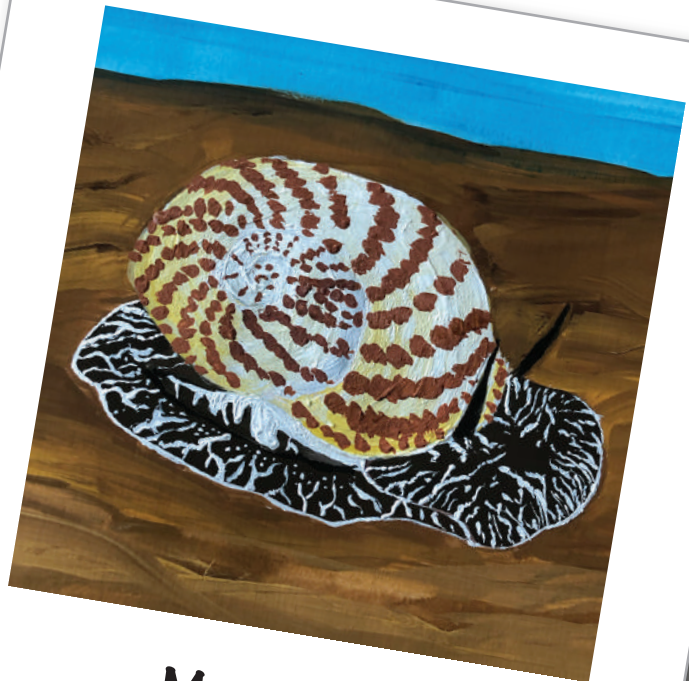




Not too far away, a sparkle on the ground demands his attention. What is that? Alex dives closer and he can't believe his eyes! The sparkle in the sand is a snail dragging its brilliant shell!

He snaps a photo. Click!

The moon shell is commonly seen on our coasts. To feed itself, it uses its radula to drill through the shell of other molluscs, then dissolves it and feasts. This explains the little holes often seen on vacant seashells stranded on our beaches.



**Moon Shell**

*Naticarius hebraeus*





Alex continues with the excursion, swimming further away from the shore. He notices something resembling a flower, swallow all its petals inwards, hiding them from any passing visitors. He stands still for a moment eyeing the mysterious hidden flower, when suddenly, its petals crawl out into a full bloom.

Alex seizes the opportunity to take a picture. Click!

This is an annelid, a marine worm. Their gills, the assemblage of feathers that emerge from its body, grant them a flowery appearance. They're also the largest tube worm in the Mediterranean Sea.



**Spiral Tube-Worm**

*Sabella spallanzanii*







Next to the mysterious flower, a face appears in the rocks! What is that? Confused, Alex approaches it. Its fishy eyes and pouting lips reveal its hidden identity; It's a fish!

He snaps a picture. Click

The large-scaled scorpionfish is a peculiar-looking fish, covered of spines and lumps, they can measure up to half a meter. They camouflage themselves between the rocks during the daytime and are active at night. Their dorsal spines are venomous, an interesting fact worth noting



**Large-Scaled Scorpionsish**

*Scorpaena Scrofa*



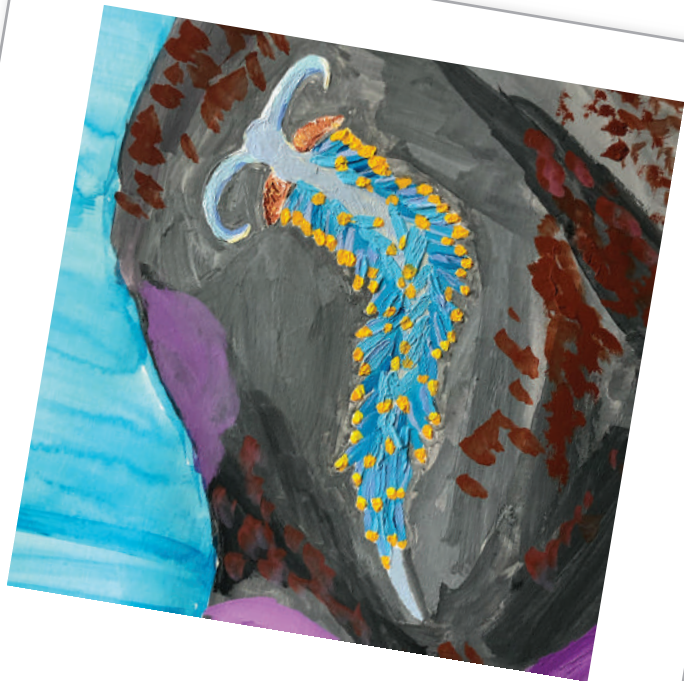




On the rocks surrounding the fish, a tiny mollusc and its vibrant colours capture his attention! Its tropical look and odd-looking shape draw him in closer.

He takes a picture. Click!

Very vibrant and small in size, these colourful nudibranchs are part of the mollusc family. When they feed off an anemone, they acquire its stinging cells, and store these in their blue and yellow cerata on their backs to protect themselves against predators.



*Berghia coerulescens*







Alex reaches the floating buoys, and there, with its tail twisted around a rope, is a seahorse!

Before swimming back to shore, Alex snaps a picture. Click!

Seahorses live and hide in the seaweeds near the shore and can easily be found if one knows where to look. They're excellent hunters. Their eyes move independently, a trait that permits them to survey two separate areas at once. Furthermore, the male seahorse is the one tasked with incubating the eggs and giving birth.



**Long-Snouted Seahorse**

*Hippocampus guttulatus*







Just as Alex thought the snorkeling couldn't get any better, something down below starts changing colours at the speed of light! It's an octopus!

Alex quickly takes a photo. Click!

The octopus is a very intelligent animal, with three hearts and blue blood. They're very difficult to spot in the day due to their ability to rapidly change colours and hide in spaces much smaller than their size. They can also generate ink to throw off and confuse their predators.



**Common Octopus**

*Octopus Vulgaris*







He continues his swim back to land, admiring the bottom of the sea but immediately halts when seeing five mesmerizing blue circles in the sand. It's a ray! Immobile and motionless, it appears to be asleep.

Alex snaps a photo. Click!

This is a flat-bodied ray, often seen and easy to locate on the Catalan coasts. The blue circles on their backs detect light the same way primitive eyes do. They are nocturnal and bury themselves for protection, but they can also emit electric shocks.



**Cramp Ray**

*Torpedo torpedo*





Suddenly, the queen of camouflage appears in sight! A cuttlefish!

Alex takes a picture. Click!

The cuttlefish most often reside just above the sand and with their ability to change colours, they blend and almost completely disappear in their surroundings. To mislead their predators, they expel black ink. This tactic is also used to protect their eggs, hence the reason why these are black.



**Common Cuttlefish**

*Sepia officinalis*





When he finally arrives near the shore, he bumps into a jellyfish floating just below the surface! To his surprise, this colourful jellyfish doesn't sting!

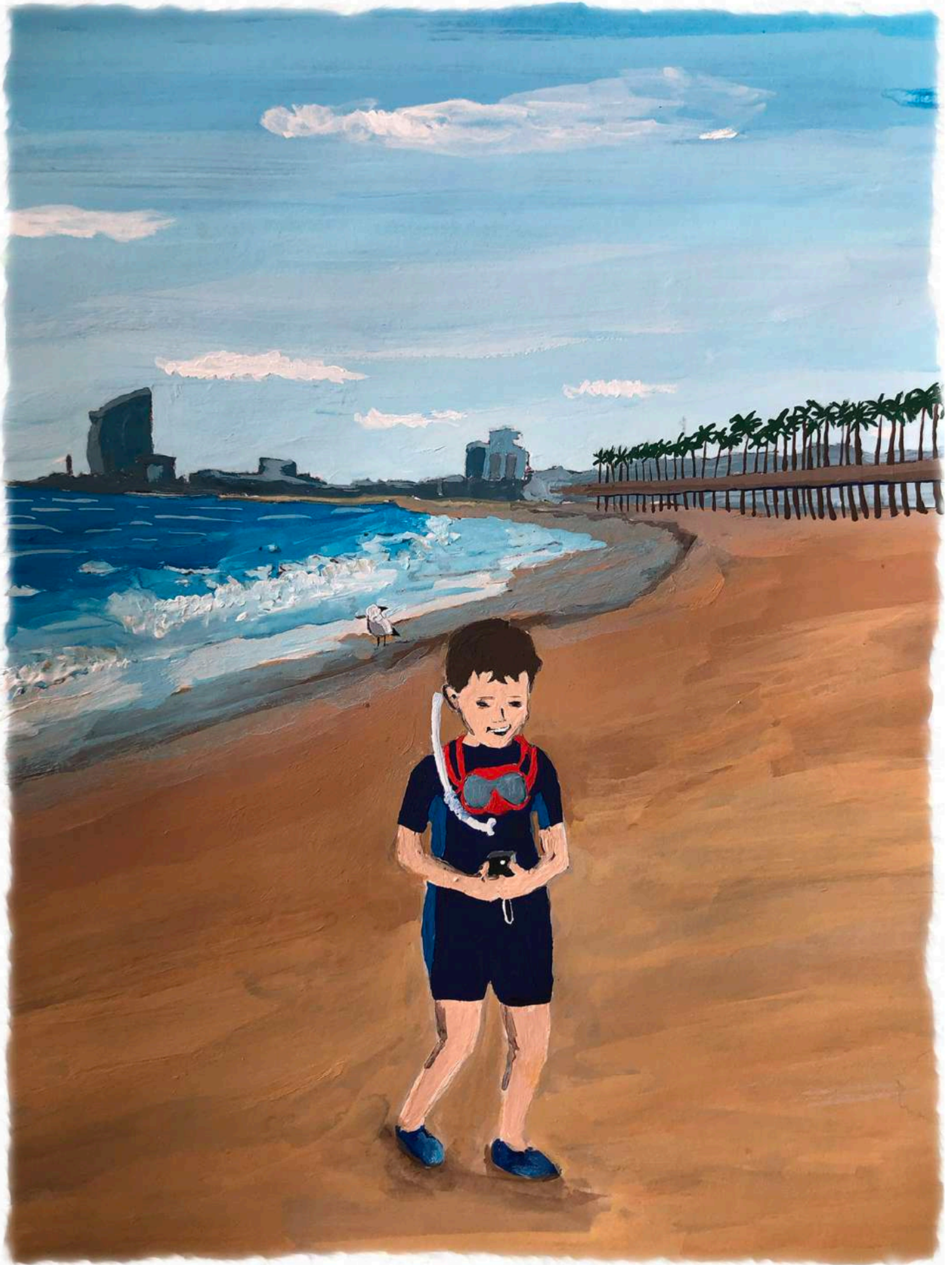
He snaps one final picture. Click!

Distinguished by their shape and precious colours, this species of jellyfish shares a strong resemblance to a fried egg, and therefore are commonly known as such. Their tentacles, so small, cause almost no effect when in direct contact with a person.



**Fried Egg Jellyfish**

*Colyborhiza tuberculata*





Alex runs out of the water; he can't believe how much life exists in Barcelona's waters! Fishes, crabs, octopus, annelids, starfish... They're all his underwater neighbors. Before today, he thought none of these animals could live here by a big city. But now he knows that our waters have no boundaries, no frontiers; they are all interconnected. And to protect his underwater neighbors that live and travel below, it's important to respect and take care of the sea.