

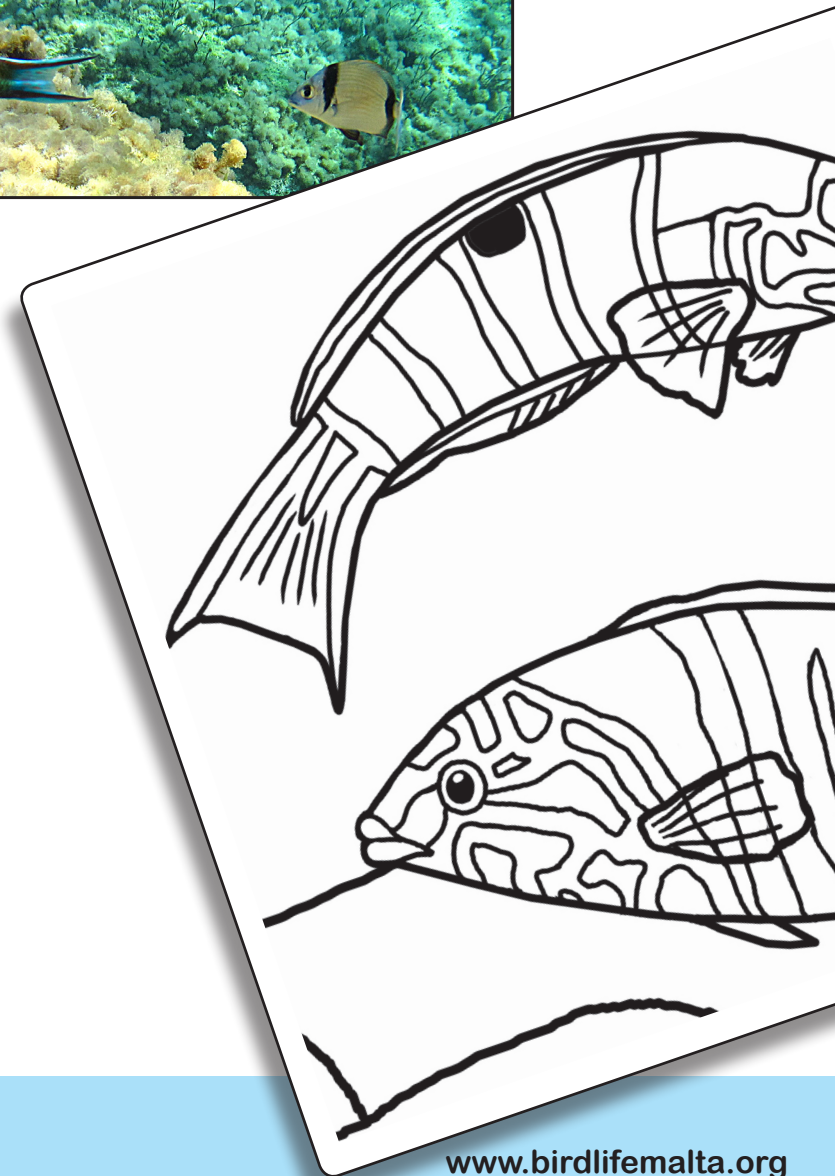


Desirée Falzon

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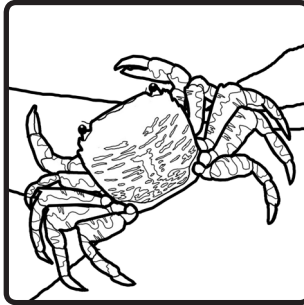
1. Information about 11 living things of our shallow seas

<p>Mediterranean Shore Crab</p> <p>Sea-urchins</p> <p>Painted Comber</p> <p>Hermit crab</p> <p>Two-banded Sea Bream</p> <p>Blennies</p>	<p>Damselfish</p> <p>Ornate Wrasse</p> <p>Anemones</p> <p>Starfishes</p> <p>Neptune Grass</p>
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2. 12 puzzle pieces for the children to colour and piece together to form a large scene of underwater creatures.
3. The 12 picture in colour as colour guide
4. 11 numbered clues to help the children piece the puzzle together.



1. Mediterranean Shore Crab (Granc tax-Xatt)

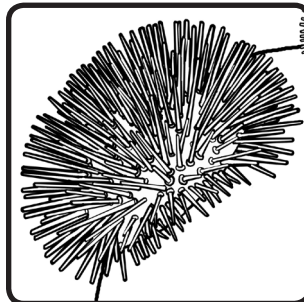
This animal is very shy of people. It moves quite fast and squeezes into tight cracks to hide and avoid capture. The colour of its shell blends in very well with the rocks and algae, providing camouflage and protection from predators. Its camouflage is so good that you could be looking straight at a crab without noticing it unless it moves! It hunts mostly at night, and is perfectly equipped as an omnivore, that is, an animal that eats both flesh and vegetation – pretty much like us really. It can do this because it has mouthparts that can scrape and tear alga as well as claws that can grab and tear flesh off smaller animals (shellfish, snails, etc.) Contrary to what many people believe, crabs do not only walk backwards, they can walk in all directions, but sideways is their fastest.



Several kinds of crabs live in shallow waters around our shores but the Mediterranean Shore Crab is the one we are most likely to see as it often scuttles about out of the water. The others usually stay below the surface.

2. Sea-urchins (Rizzi)

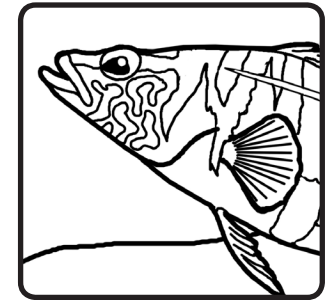
Sea-urchins live among rocks and are covered in spines which protect them from predators. In fact, if something sharp touches their shell they will point their spines towards the offending object to try and push it away. Besides spines, a sea-urchin also has hundreds of very thin tentacle-like tube-feet with suckers at the ends. The sea-urchin uses these special feet to move about. The sea-urchin's mouth is at the bottom. By day, sea-urchins snuggle into holes or cavities that they themselves scrape out with their sharp mouths; at night, however, they move out of these holes to graze on seaweeds (algae) covering the rocks. They can also sting prey such as small fish. If food lands on a sea-urchin's spines, the tube-feet pass the food down to the animal's mouth. A sea-urchin also breathes through its tube feet, so it does not need gills or lungs. Sea-urchins are surprisingly long-lived, and can live up to 30 years without showing any signs of ageing!



We have two common species of sea-urchin around our shores: the **Rock-Urchin** which can be greenish, brownish or purplish, and the **Black Sea-urchin**, which is always black. It is a pity that many beach-goers only see these highly-adapted creatures as a source of casual snacking, bringing them ashore and breaking them open for the tiny orange organs inside, which are considered edible.

3. Painted Comber (Burqax)

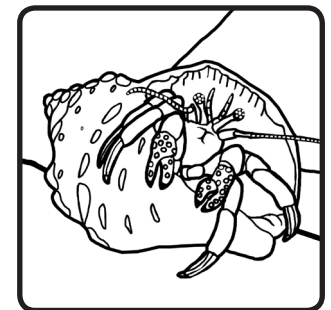
There is a reason for the striking colours and pattern of the Painted Comber: this is a territorial fish that leads a solitary life rather than stay in groups, so the bright blue spot and yellow tail are most likely a message to other Painted Combers to keep away. This fish is easy to see if you look among rocks. It likes to stay still, sometimes tilted upwards, keeping a lookout for other combers as well as for possible food: smaller fish and crustaceans (crabs, shrimps), sometimes worms and snails. You will not see this fish nibbling at the seaweed as it is a carnivore. Sometimes it gets a free snack by eating leftover scraps from octopus meals.



The Painted Comber is a hermaphrodite, which means it has both male and female sex organs. The eggs are laid among the rocks, close to the shore. This beautiful fish is mainly found in the Mediterranean.

4. Hermit Crab (Granc tal-Bebbuxu)

Hermit crabs are fascinating creatures that have a habit of wearing - and living in - old empty snail shells, so it is not surprising that many people mistake them for snails. Hermit crabs take up residence in snail shells in order to protect their soft bodies from predators, since they have no hard protection of their own as other crabs do. It is only the legs and outer parts of the hermit crab's body that are hard shelled. The part hidden inside is soft and curly, and is used as an anchor to hold the snail shell tightly as if it were the crab's own. When the crab grows too big for the

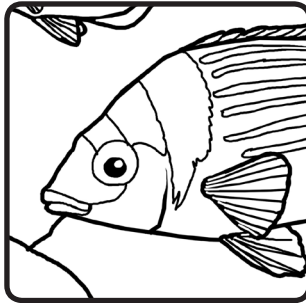


shell, it looks about for a bigger shell, then very quickly slips out of the old one and into the new.

When you see a snail shell moving, look for the tell-tale dark red legs underneath and you will know it's not a snail (a snail doesn't have legs). These animals crawl over rocks eating anything small, even bits of dead fish or plants, and generally help to keep the place clean.

5. Two-banded Sea Bream (Xirgien)

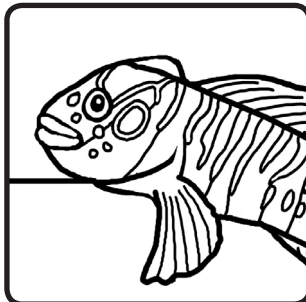
There are several types of sea bream, and all have the characteristic flattish body with a high curved back. The various species can be told apart by the black spots or stripes on their body. As its name says, the Two-banded Sea Bream has two very obvious black stripes, thanks to which it can be easily told from similar species. Sea bream stay alone or in small groups rather than in shoals. They eat small snails, worms and crustaceans (shrimps and crabs).



Sea bream are very edible and some species have been fished to beyond a level where their population can recover. Apart from commercial fishing, this fish is also a target of spearfishers, who do great damage in our small bays where local fish, which are often still young, should be allowed to live, grow and reproduce.

6. Budakkri (Blennies)

These small but amazing fish are perfectly adapted for life in shallow water. Wave action is strong close to the shore but blennies avoid being washed away by gripping to rocks with specialised fins that are modified into thin, almost hand-like limbs. You can see different types of blennies popping out of a hole among rocks and 'sitting' still. They are curious and may check out your outstretched

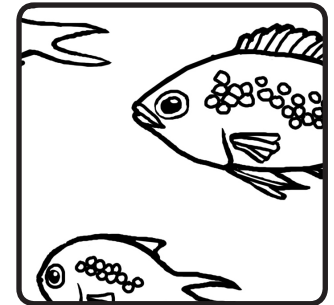


fingers if you approach slowly, especially if those fingers are holding a scrap of bread! Blennies eat invertebrates that they find in shallow water crawling over rocks, as well as seaweed. Blennies that live in rock pools on the shore can even hop out of the water and 'walk' short distances over the rocks to another pool. This happens when a rock pool gets too small, hot or salty due to evaporation.

The blenny in the Fishy Scene is the **Peacock** (or **Crested**) **Blenny** (*Budakkra tal-Għalla*). It is common in rocky and pebbly shores, patrolling the stones and pebbles just below the water line.

7. Damselfish (Ċawla)

This is a dark brown fish (which explains its Maltese name) and has no striking colours of pattern, but it is still unmistakable because of its deeply forked tail and also because it is often seen in shoals - large groups with hundreds of fish - floating about in shallow waters. In summer you can often see them accompanied by hundreds of tiny electric-purple babies. The young lose this vivid colour as they grow.

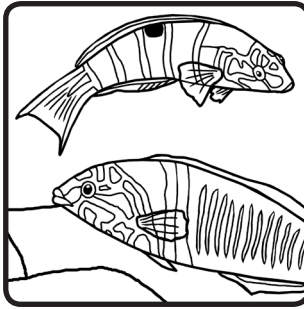


Damselfish occur near the surface in shallow waters near both rocky and sandy shores, as well as over Neptune Grass meadows. Damselfish eat planktonic crustaceans, microscopic animals that float near the surface, where it is well lit. This is why Damselfish swim around the surface rather than among rocks looking for snails. Plankton can be either plant or animal.

Damselfish mate in summer, when the male chooses a location for his 'nest' and lures the female to lay eggs there. As soon as her task is complete, he will chase her away and carefully look after the eggs by fanning water over them and defending them from predators.

8. Ornate Wrasse (Lhudi)

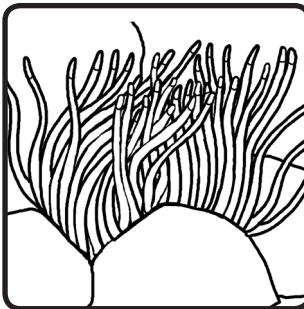
This striking fish has the kind of colours and pattern you would normally associate with tropical fish. In fact, it is the only species of its type that is found in the Mediterranean, while the other wrasses are found in the tropics. It stays mostly in very small groups, but is also often seen alone among rocks, looking for snails and small crustaceans such as shrimps.



The Ornate Wrasse has an interesting life history: when young, this fish is female and it has bright blue borders around orange-yellow squares and a distinctive black spot on its back. But as the wrasse grows older, it becomes a male, loses the black spot and changes the pattern of its blue and yellow colours, while growing two outer points on its tail. It is the females that stay in small groups, because the males become very territorial and chase other males off their patch.

9. Anemones (Artikli)

Anemones are animals, relatives of jellyfish because, like them, they have stings that they catch their food by stinging small creatures that touch their tentacles. Anemones spend most of their life attached to a rock waiting for small fish to pass close enough to get trapped. We have a few species around our shores, and the most common is the **Snakelocks Anemone** (*Artikla Hadra*) pictured in the Fishy Scene. It is harmless to the touch and will not penetrate the skin of our hands and feet.

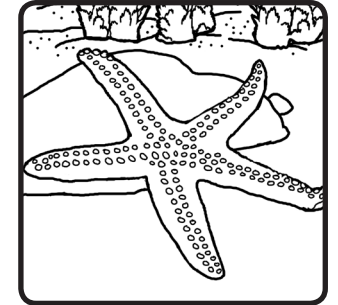


The body of an anemone is made of an adhesive base (or foot), a cylindrical body, and an array of tentacles surrounding a central mouth. The tentacles are triggered by the slightest touch, firing a microscopic

harpoon-like filament into their victim, which paralyses it. The prey is then guided into the mouth by the tentacles. There are many different species of anemones around the world, all with amazing colours.

10. Starfishes (Stilel tal-Baħar)

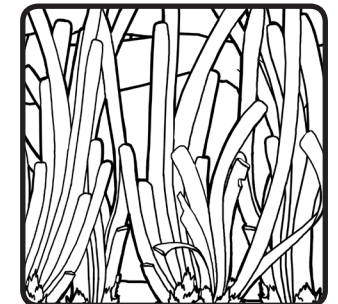
These beautiful icons of shore life are animals but despite their name are not related to fish at all. They are related, however, to the sea-urchins, although they don't very much look like them. They move around by means of tiny suckers on the underside of their 'arms'. Most starfish have five arms, but some have more. The one in the Fishy Scene is the **Common Starfish** (*Stilla Hamra*), which is red and has five arms. Their bright colour makes them very visible to predators, but they are not as soft as they look, as their skin is covered with a layer of tiny hard spines.



Like the sea-urchin, a starfish's mouth is on the underside of its body, and it has the amazing ability to extend its mouth forward. This is a useful trick in order to deal with clams and mussels, which are the starfish's main food. The starfish wraps itself around the shell and forces it to open slightly, then extends its mouth into the opening and eats the soft flesh inside. Starfish can live up to 30 years and can grow back an arm if it is broken off by a predator, though this is a long process that may take a year. At the end of each arm is an 'eye' that can detect light or dark.

11. Neptune Grass or Posidonia (Alka or Posidonja)

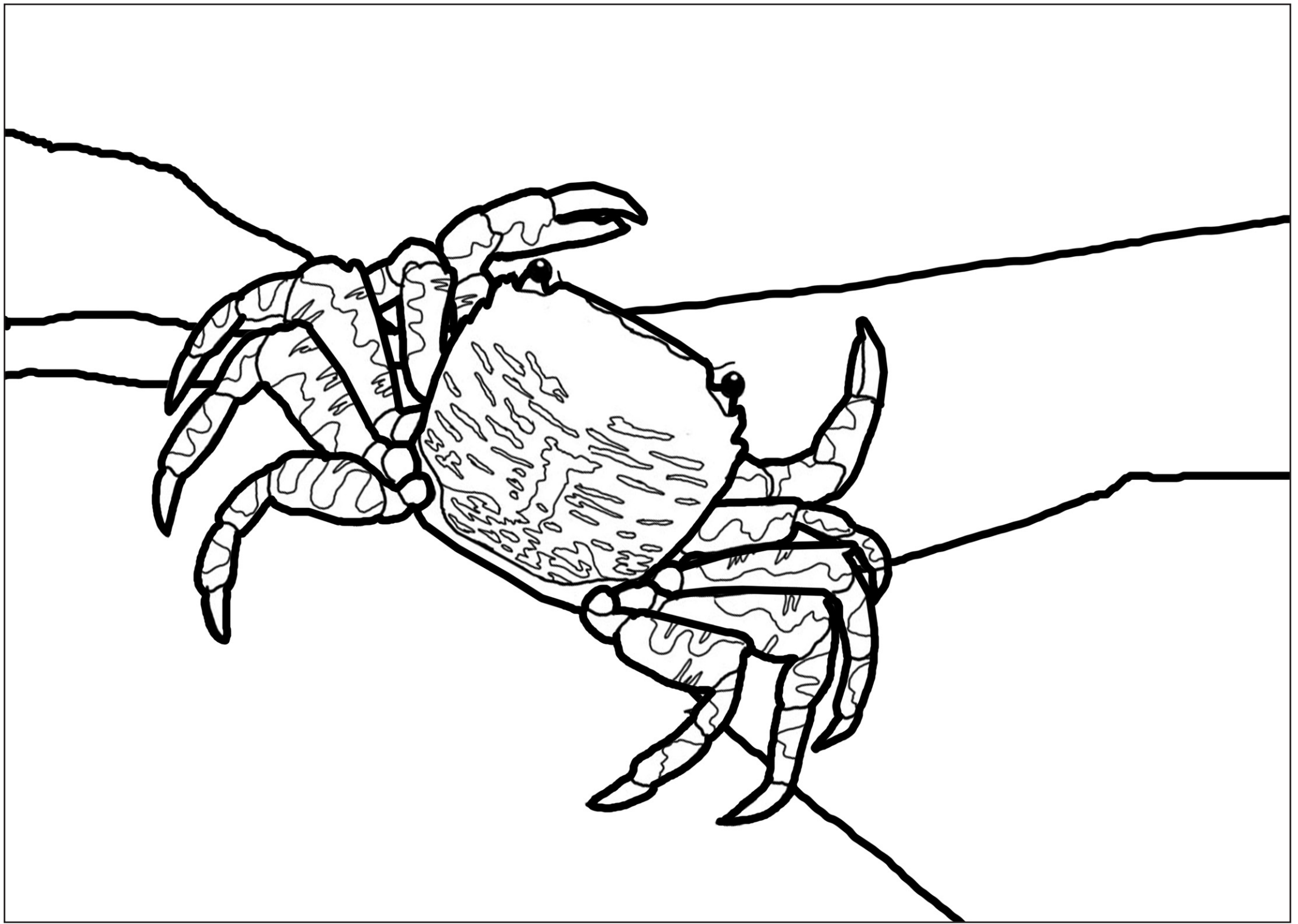
Neptune Grass tends to be disliked by bathers because its dead leaves often pile up on our beaches and stick to our feet. In reality it is a very special plant that is an important part of the sea ecosystem. Its root system stabilises

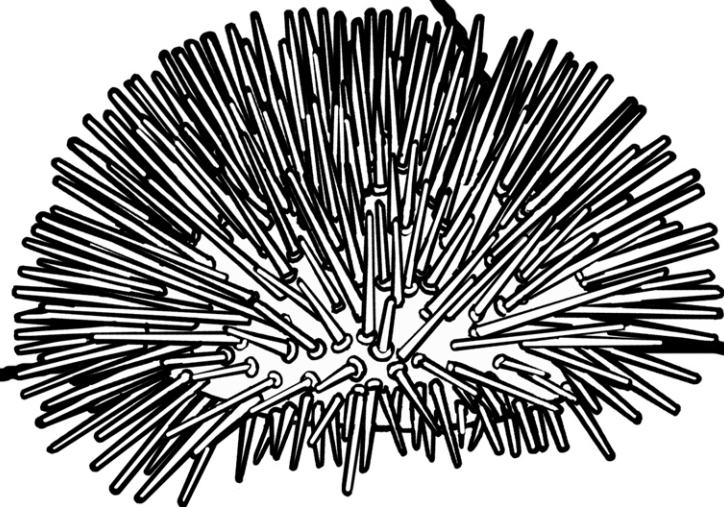
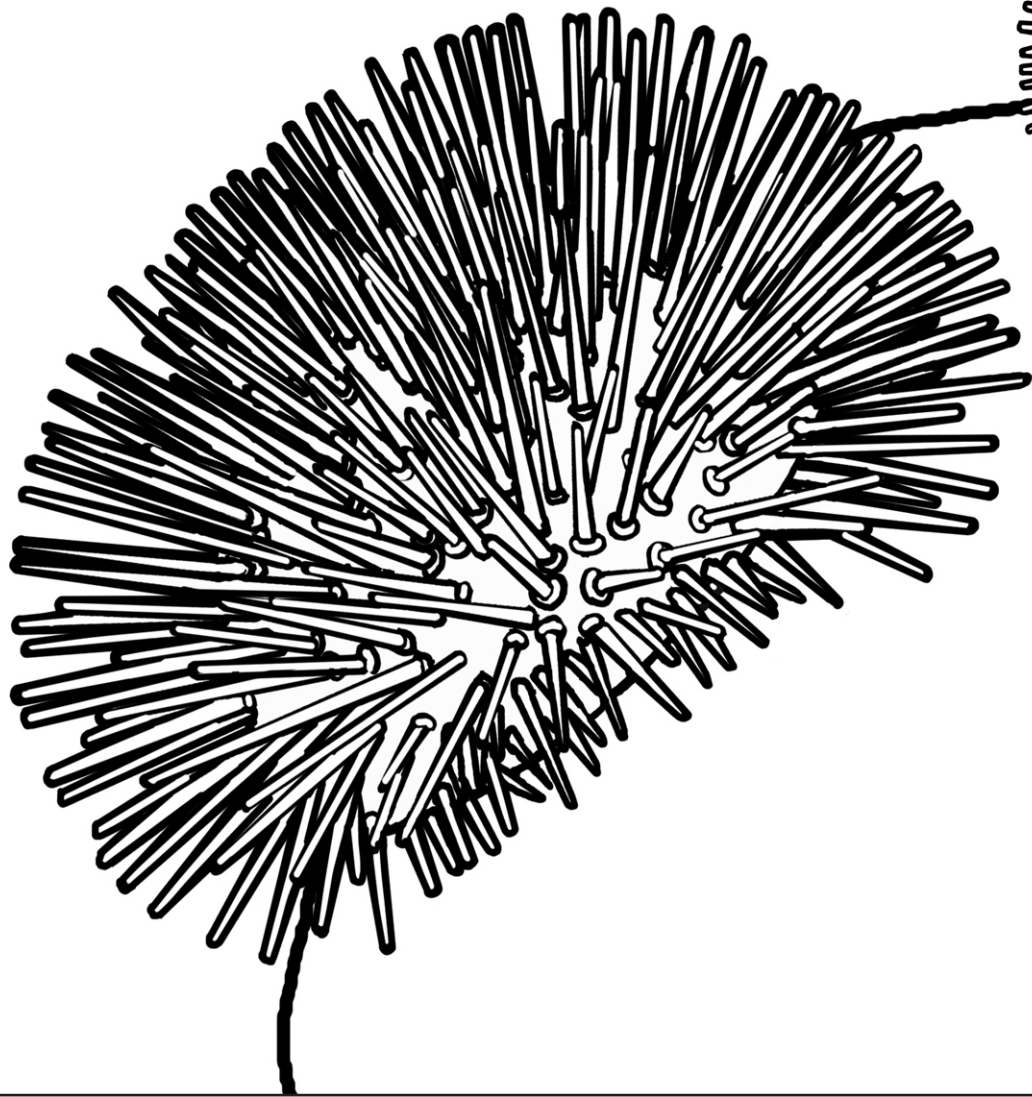


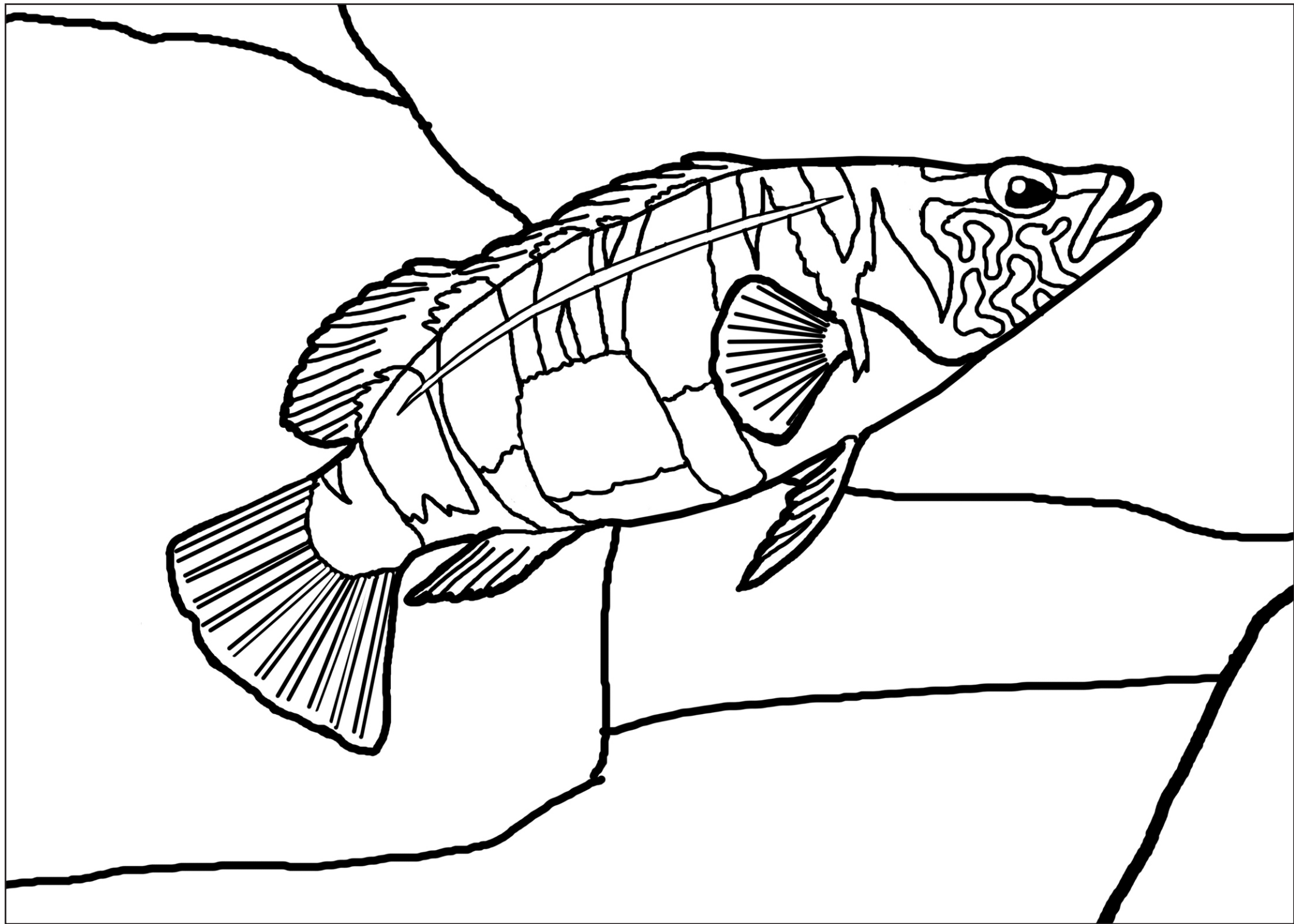
the seabed, holding the sand in place and creating a habitat in which many marine organisms live. Neptune Grass or Posidonia meadows, as they are called, can be compared to tropical rainforests, as they produce oxygen, and provide a habitat and food for many species of fish and invertebrates, especially larvae and young fishes.

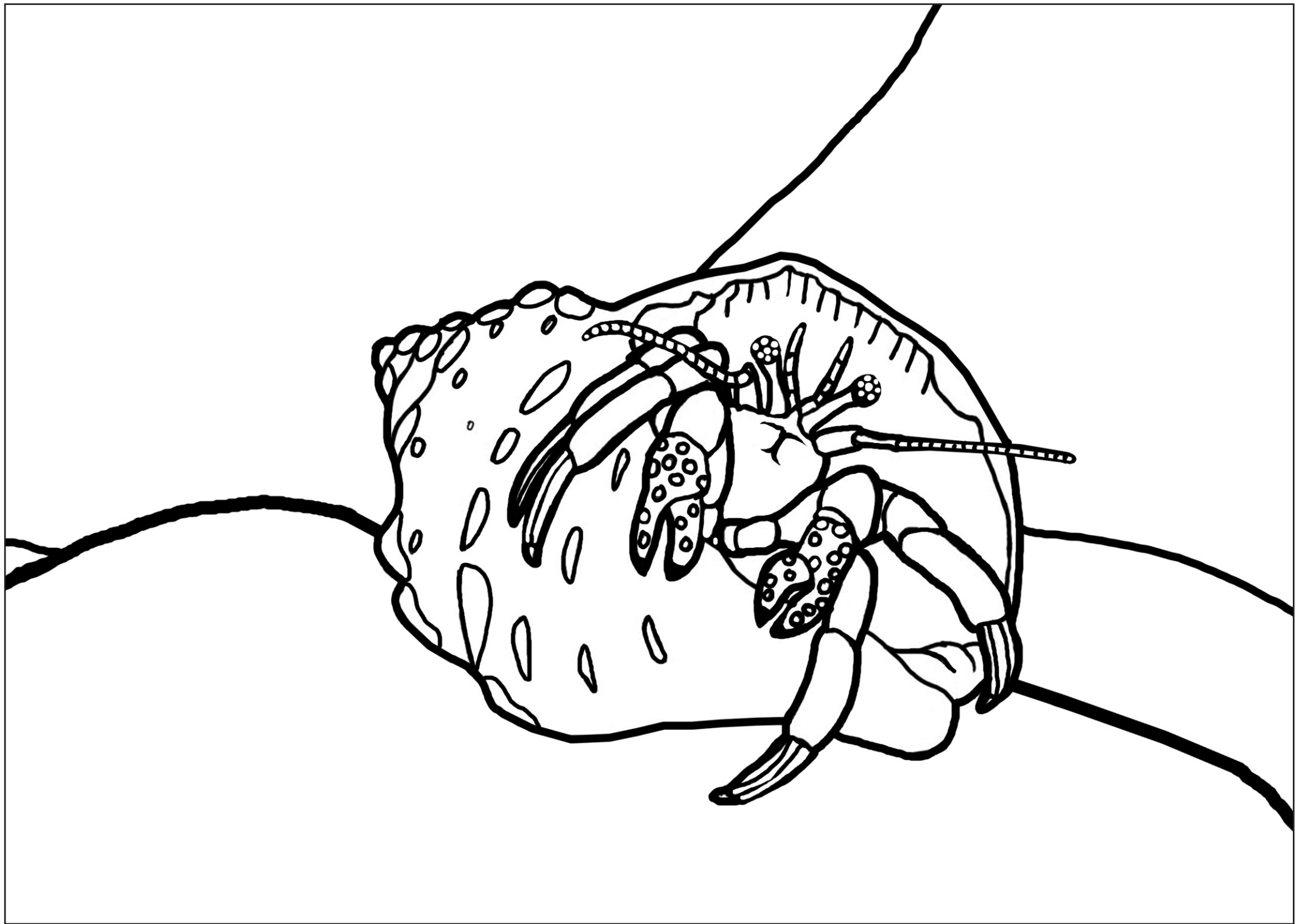
Following a storm, large amounts of dead Neptune Grass are often washed up on our beaches. Although they may look unsightly or annoy us, these mounds of washed-up vegetation are important in reducing beach erosion as they break the impact of the waves and protect the sand underneath. In fact in several Mediterranean countries it is nowadays illegal to remove these accumulations (known as banquettes) from beaches. Unfortunately in Malta they are still considered litter and their removal considered beneficial to the beach or, more exactly, to the humans visiting the beach!

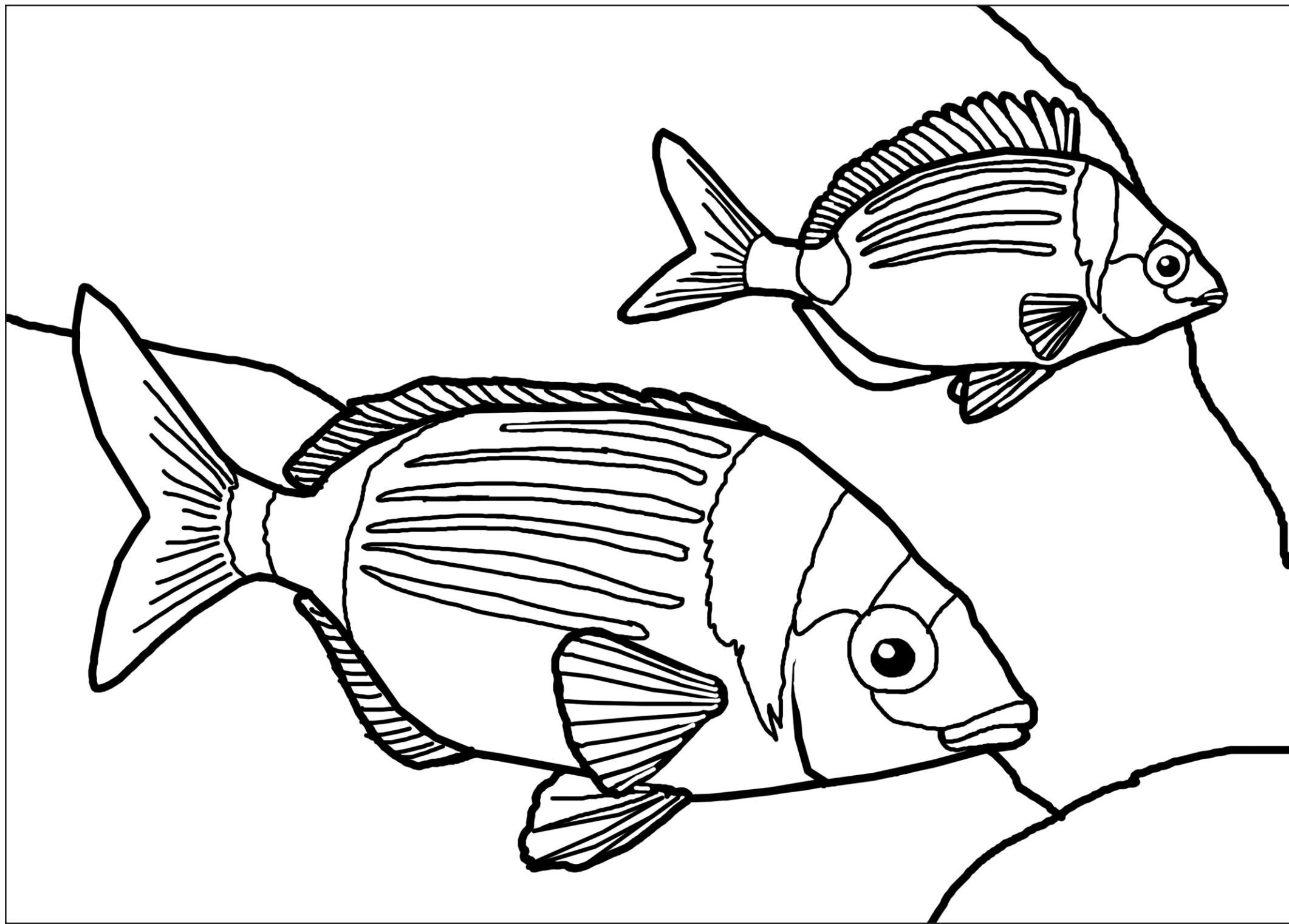
Although we call it *alka* in Maltese, Neptune Grass is not an alga but a flowering plant – algae don't produce flowers. Neptune Grass is also special to the Mediterranean Sea as it only grows in this sea and nowhere else – it is known as endemic. As a community, Posidonia meadows are among the largest, slowest growing, and longest-lived organisms in the world: the oldest meadows may be as old as 100,000 years old! Unfortunately, Posidonia meadows are a threatened habitat today, mostly because of coastal construction, trawling, fish farming, pollution, dredging and climate change.

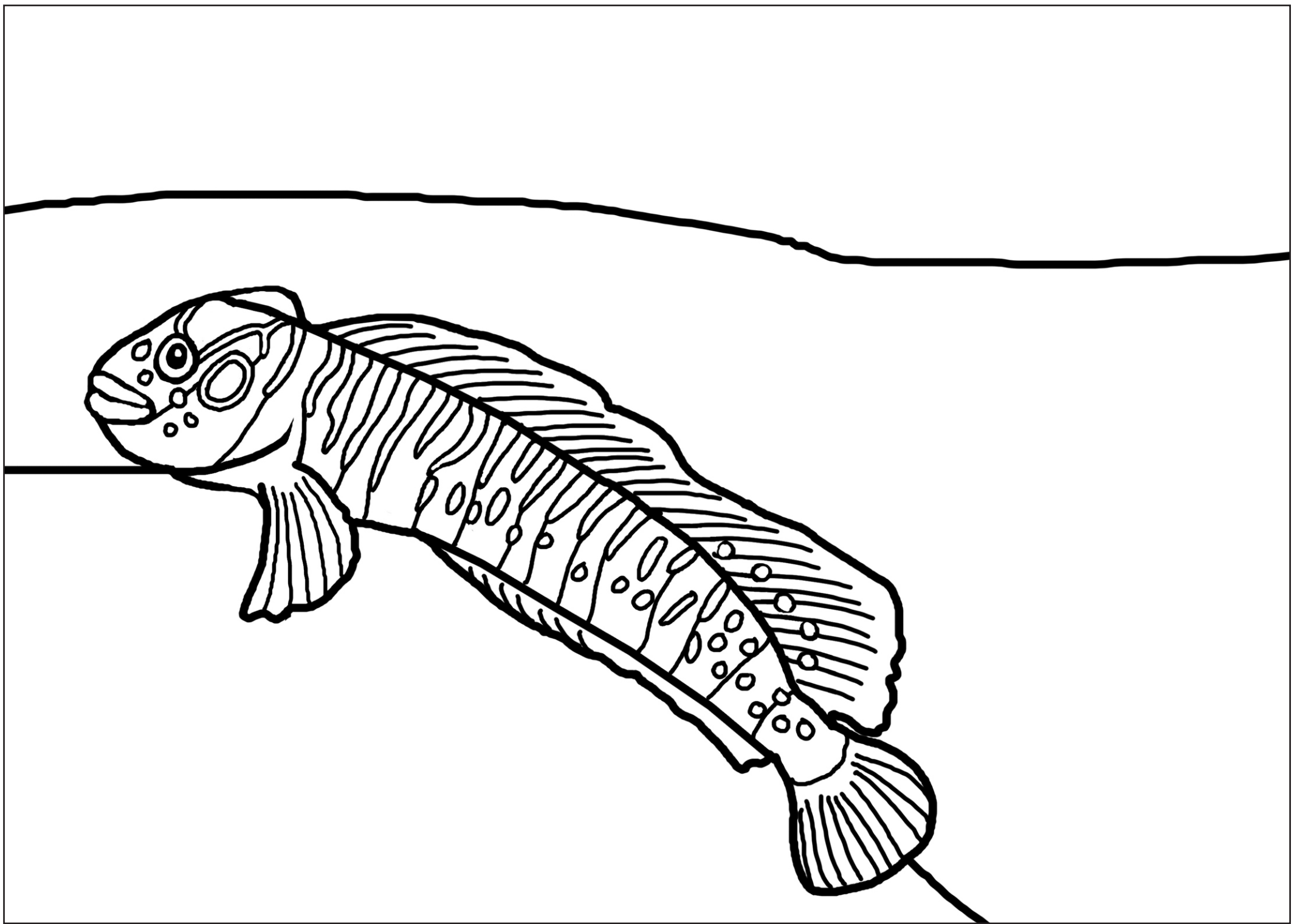


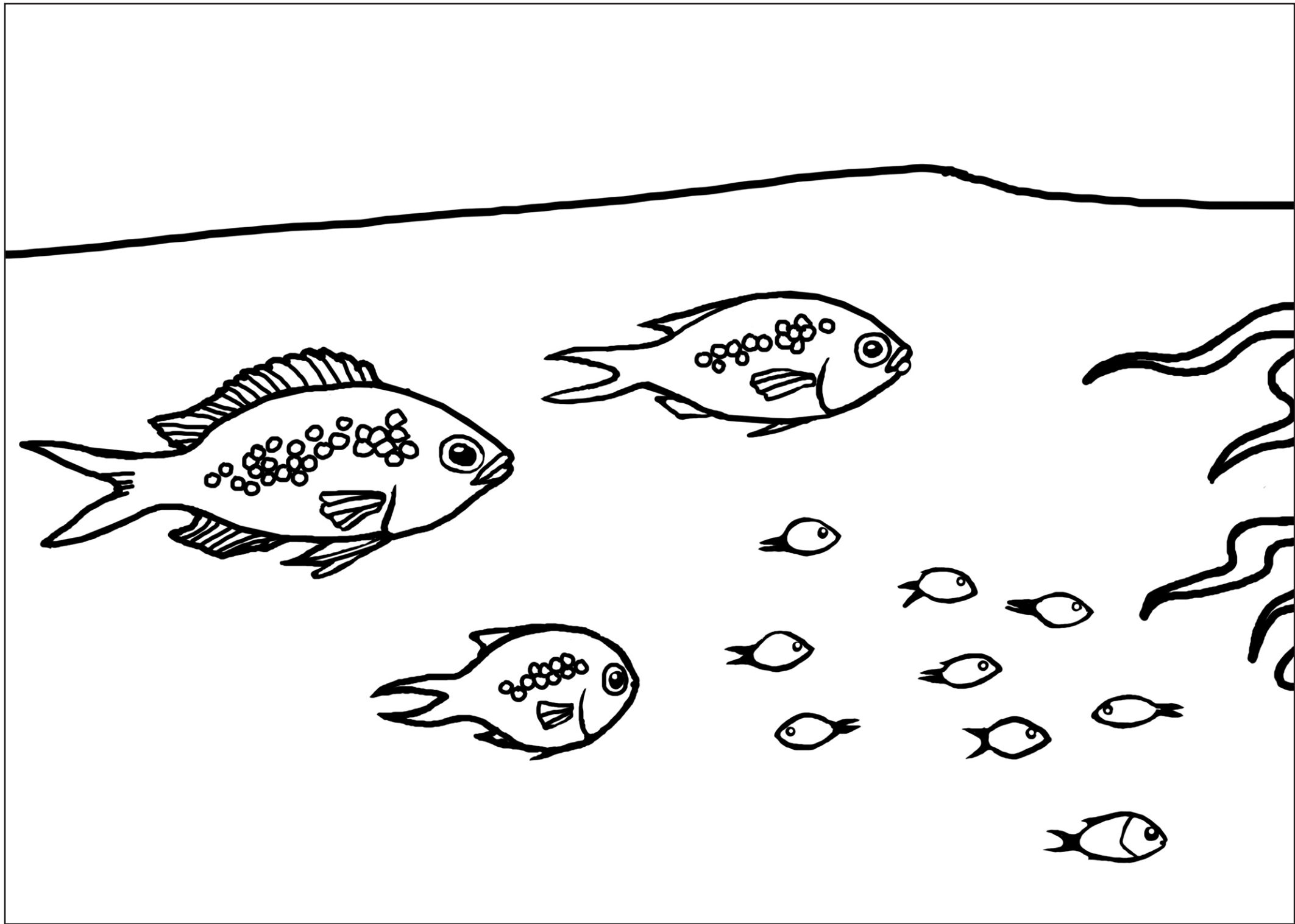


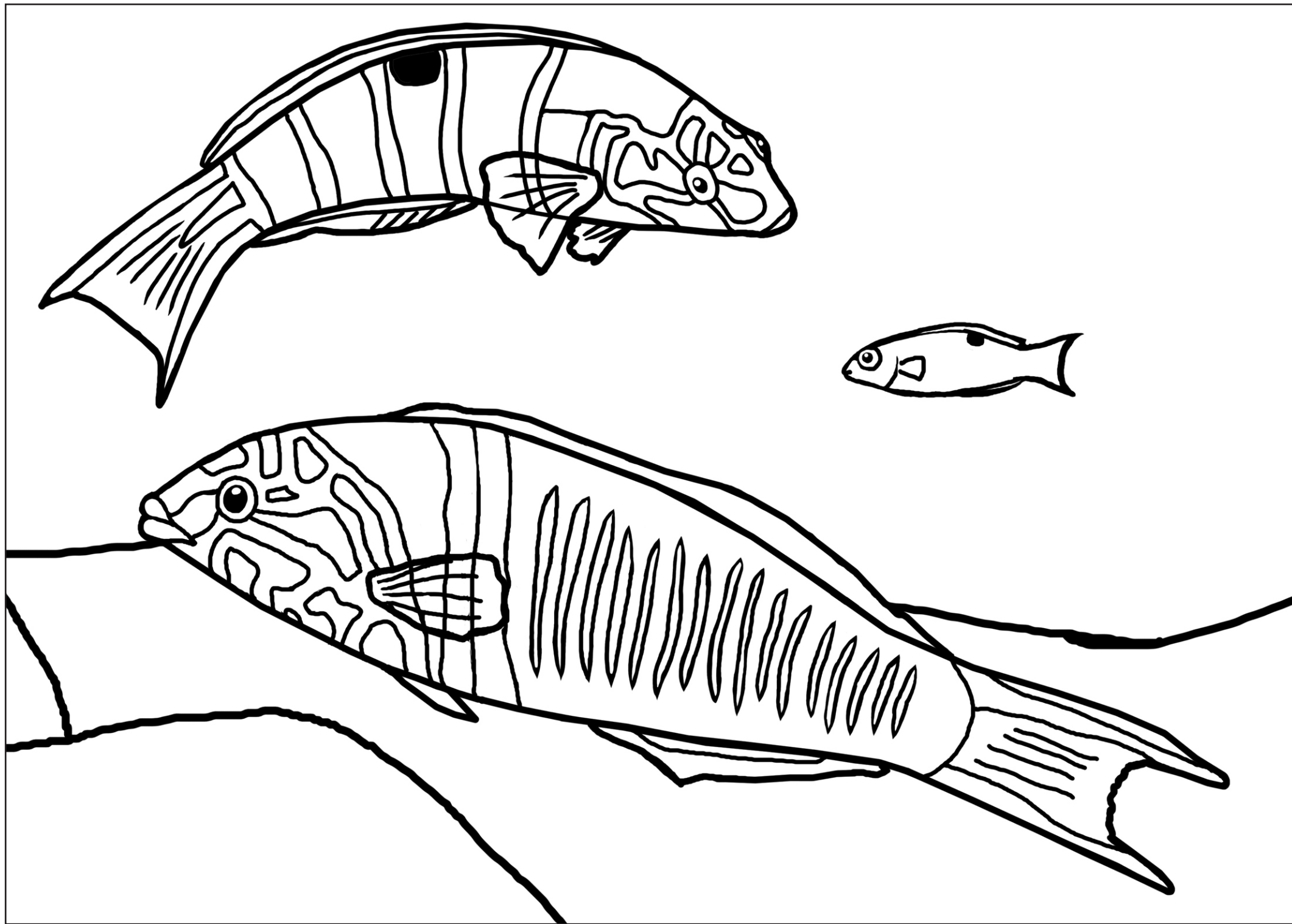


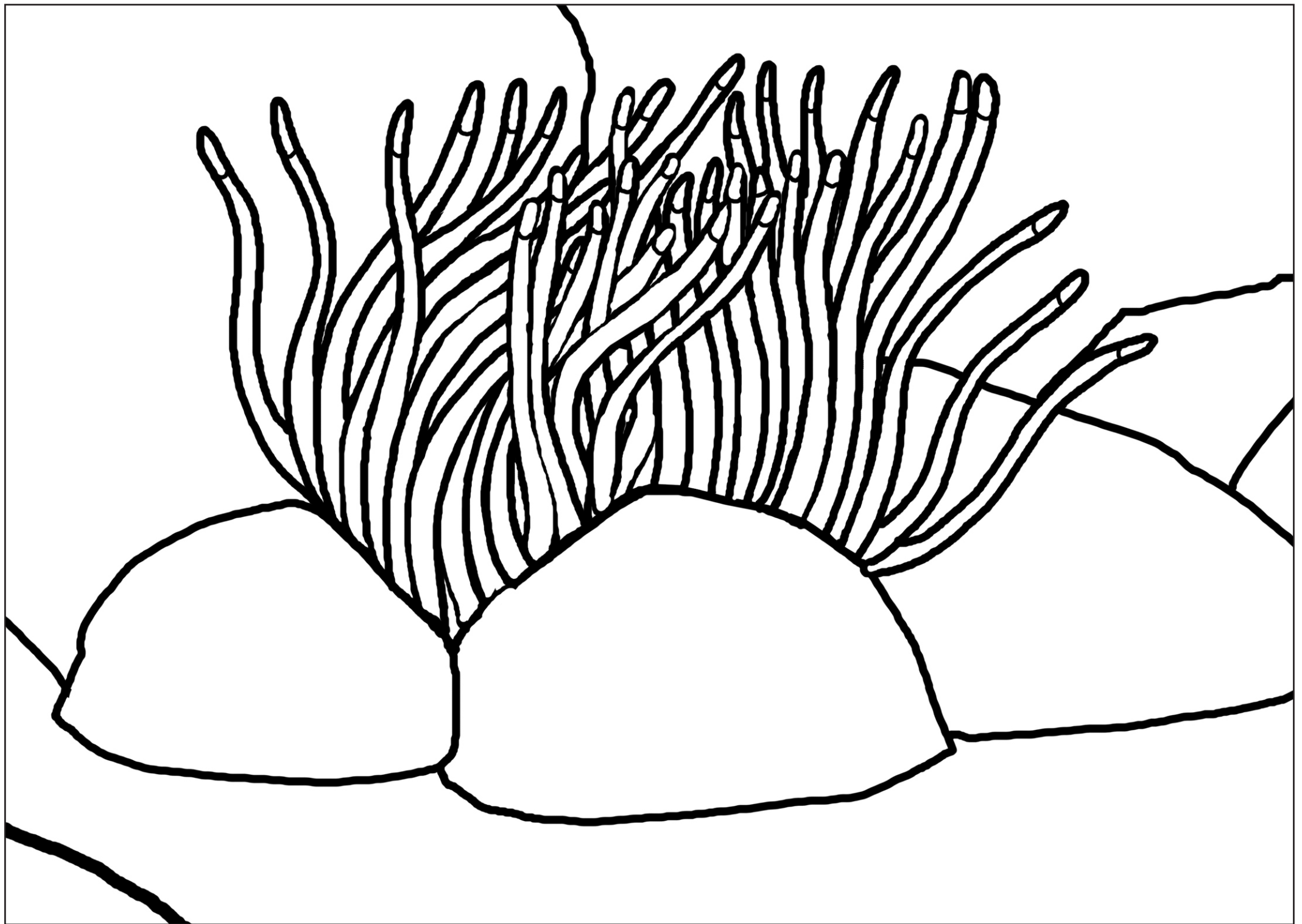


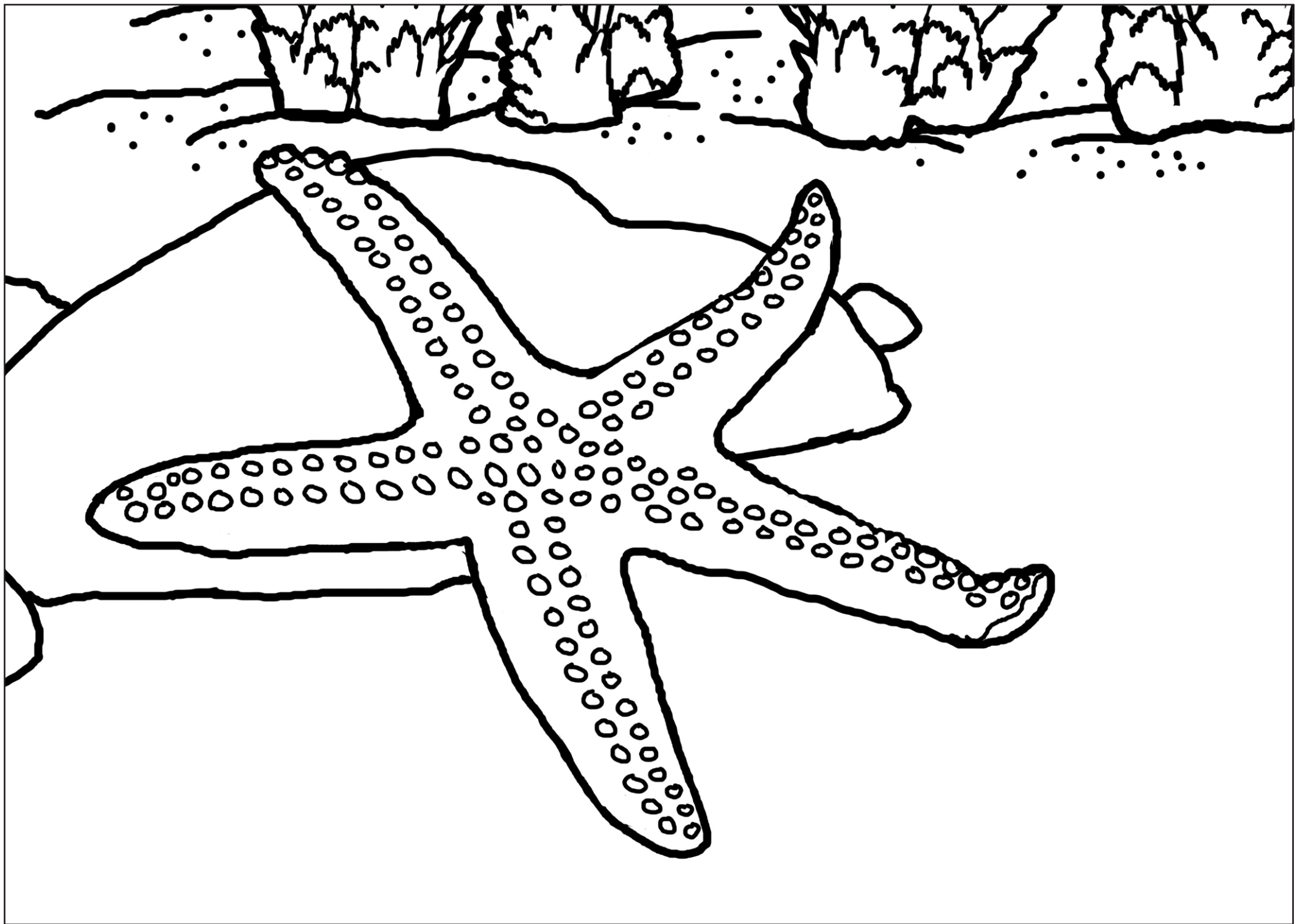


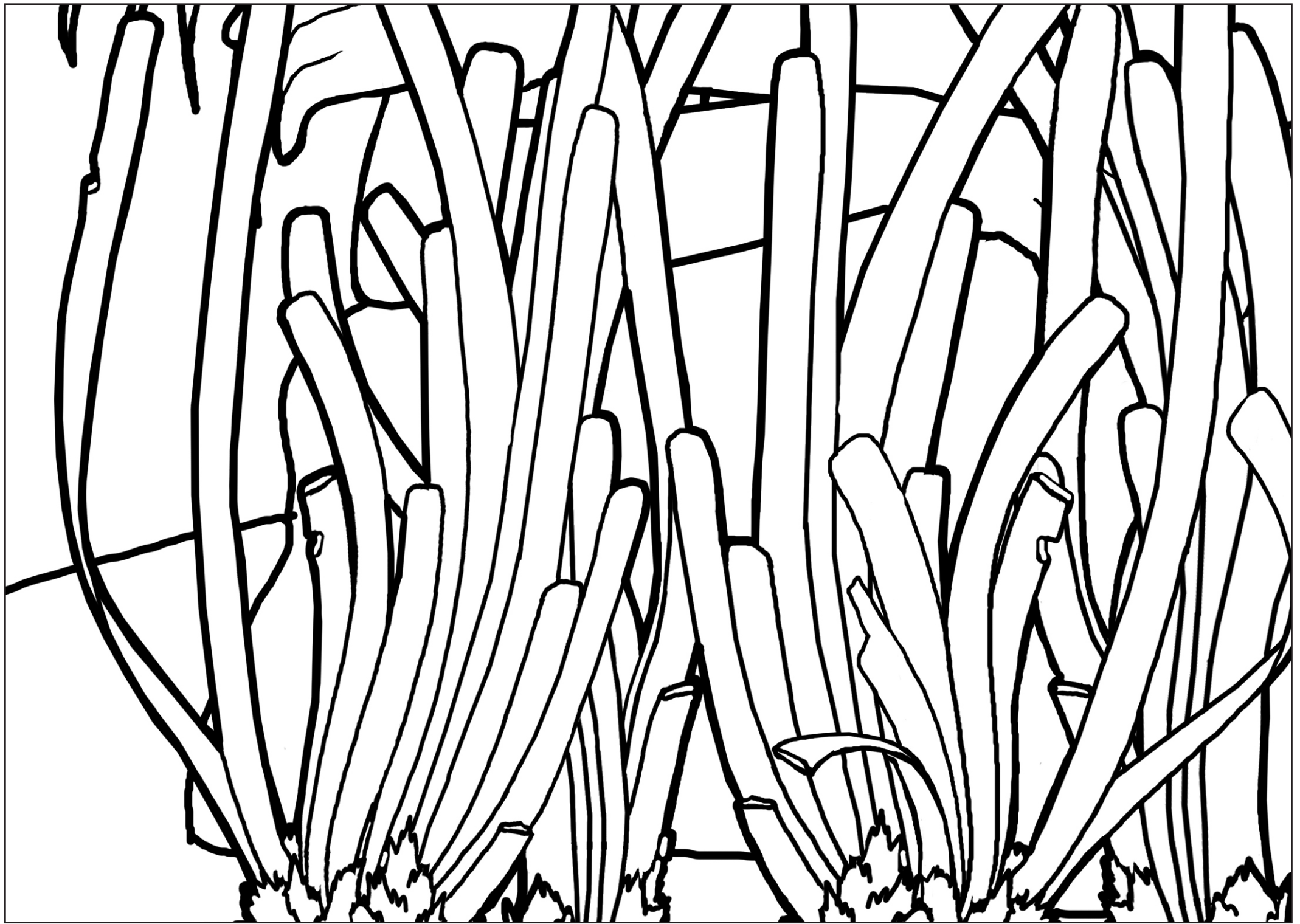


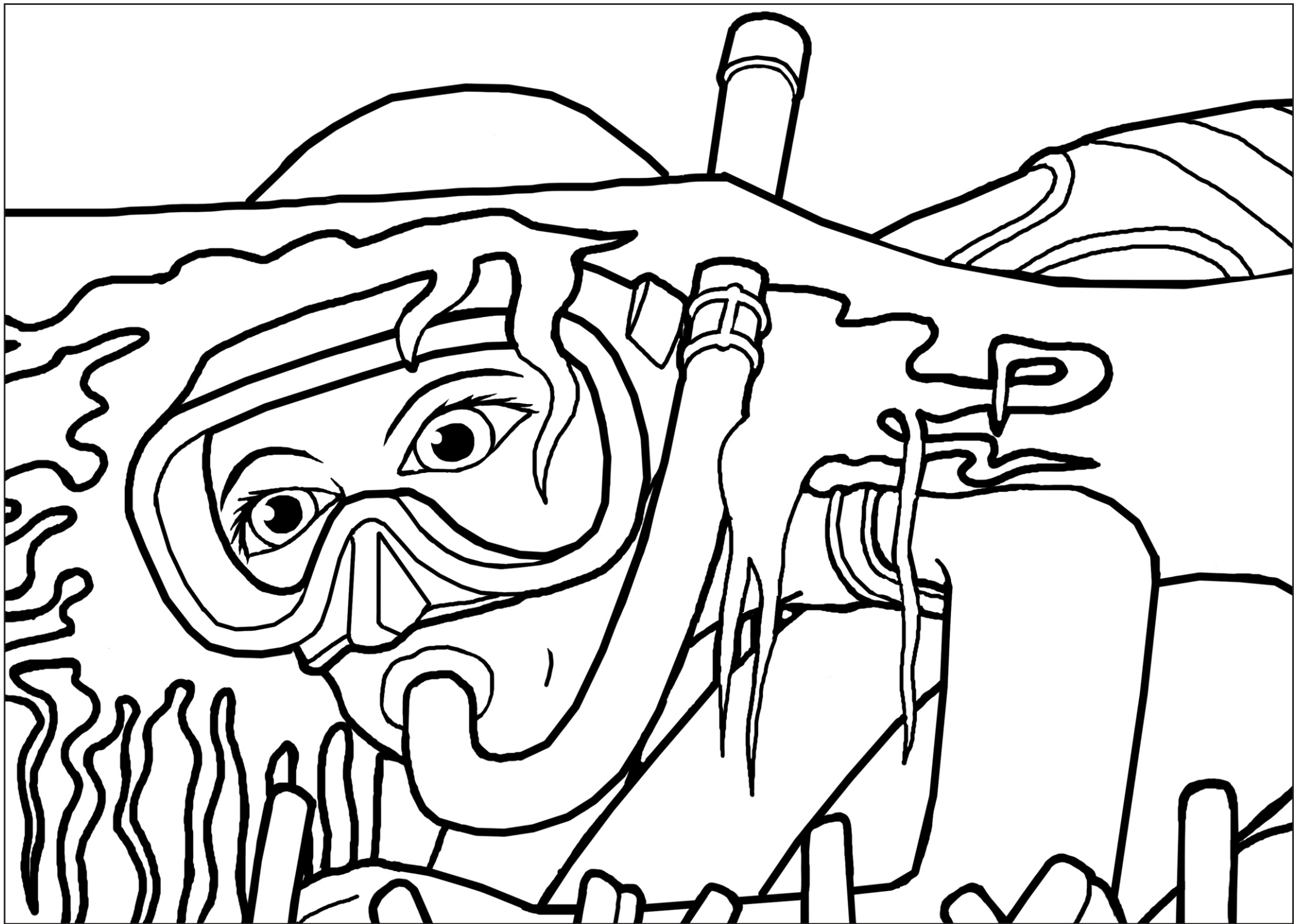


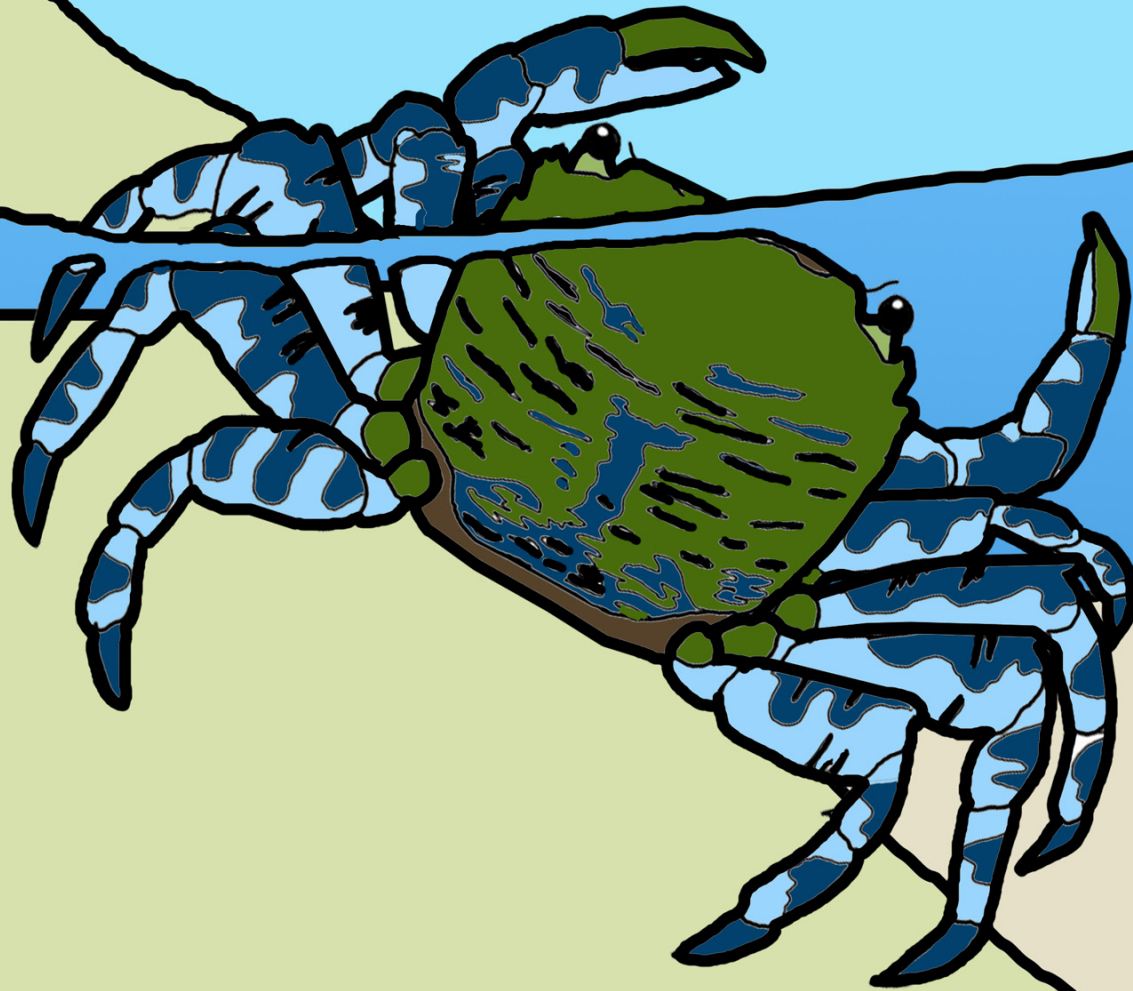


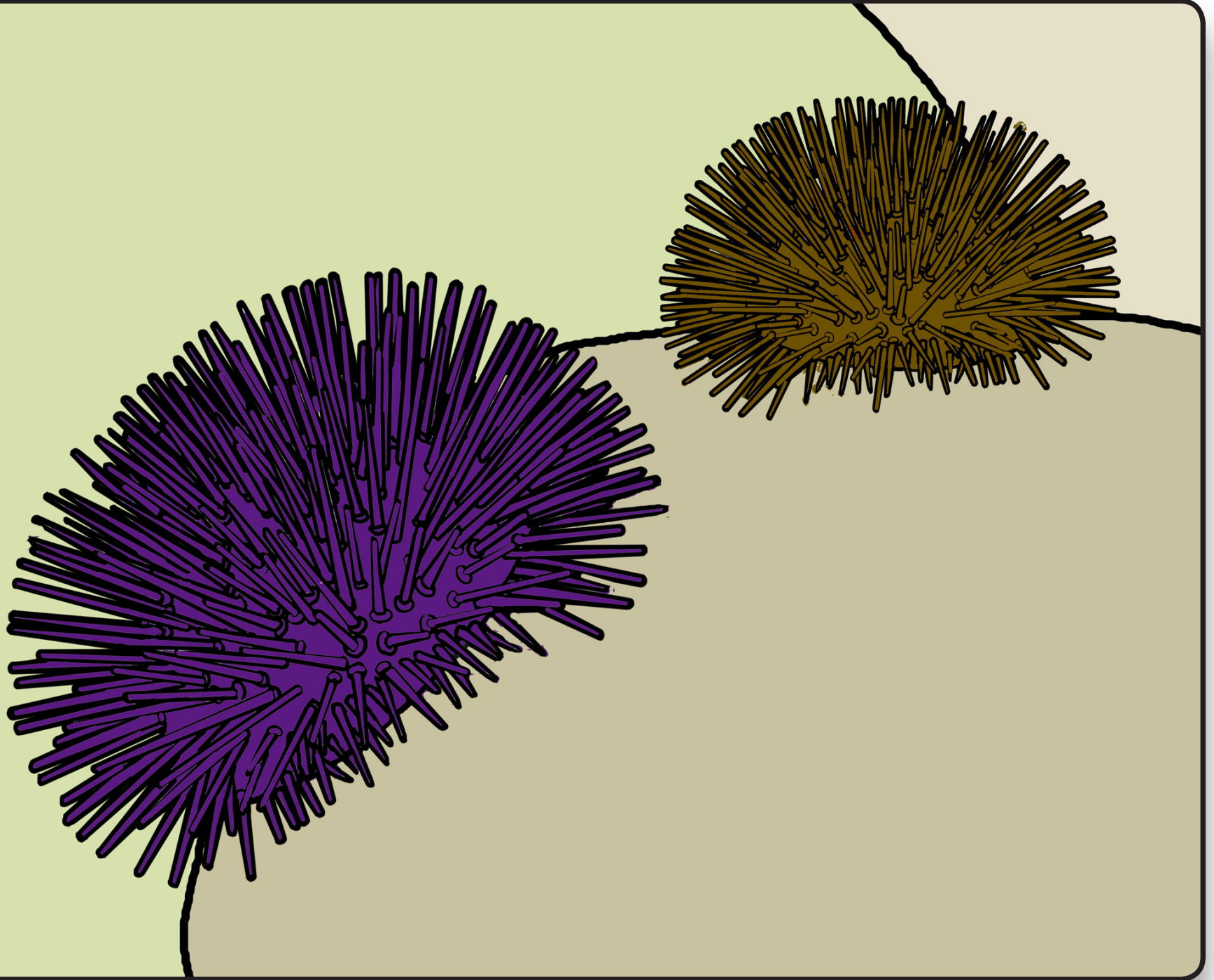


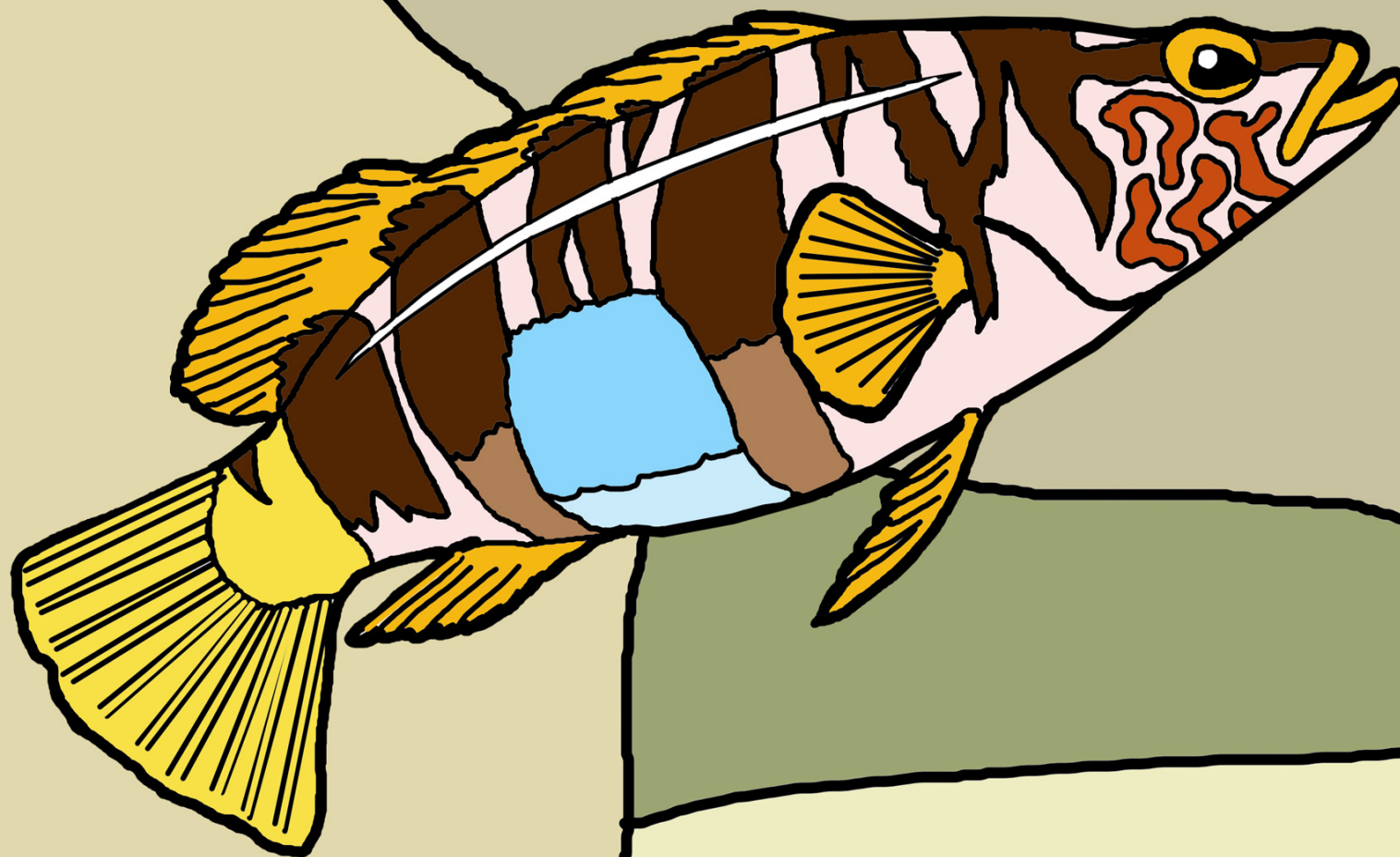


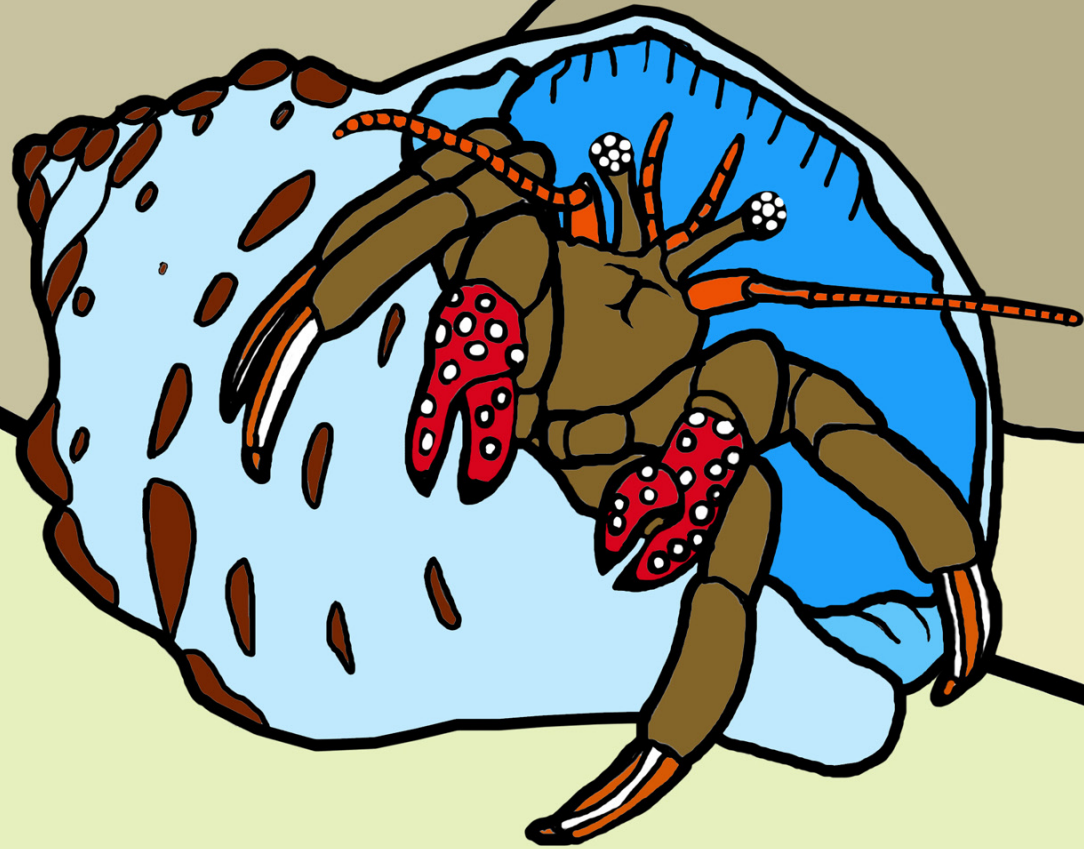


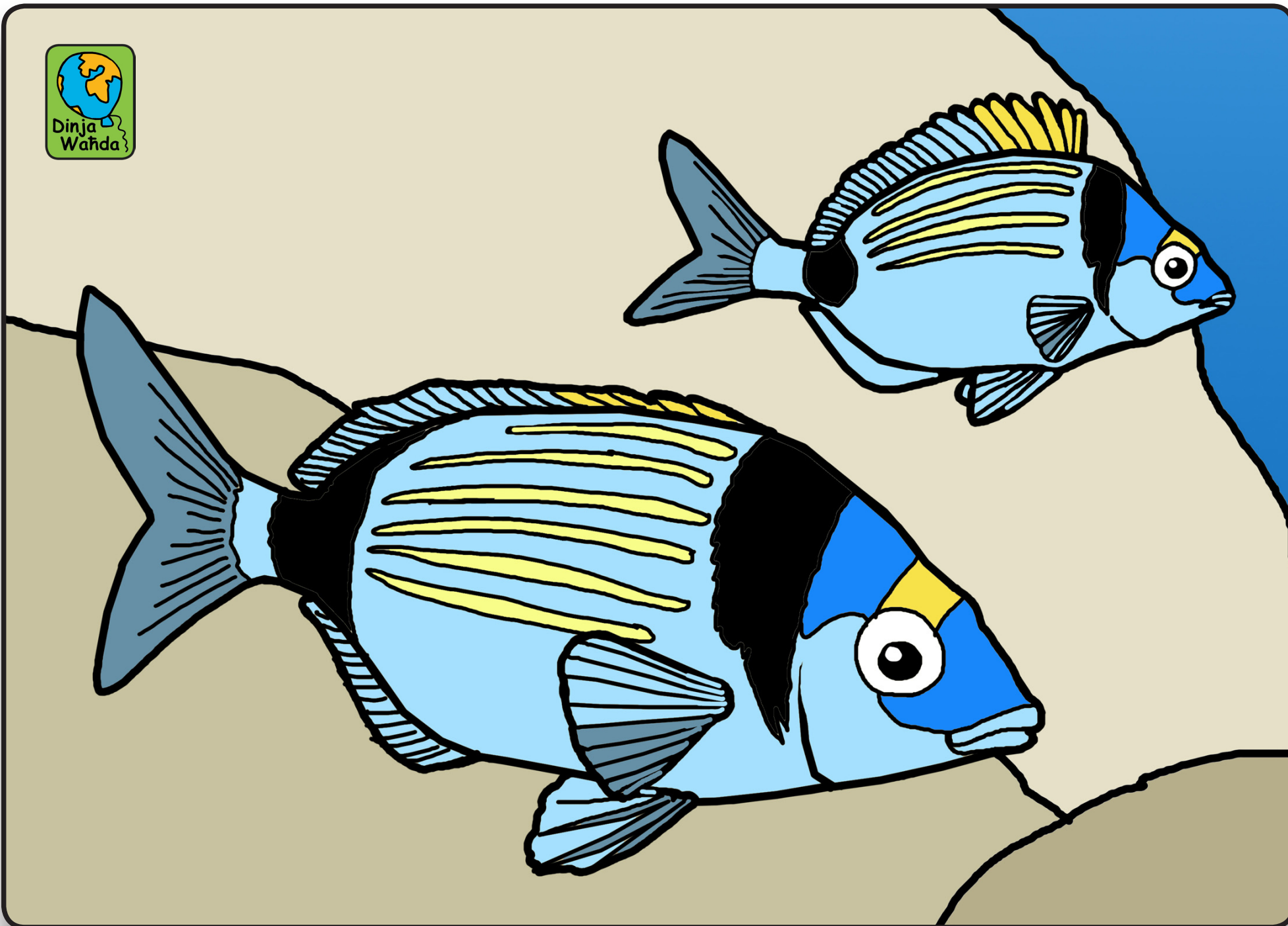


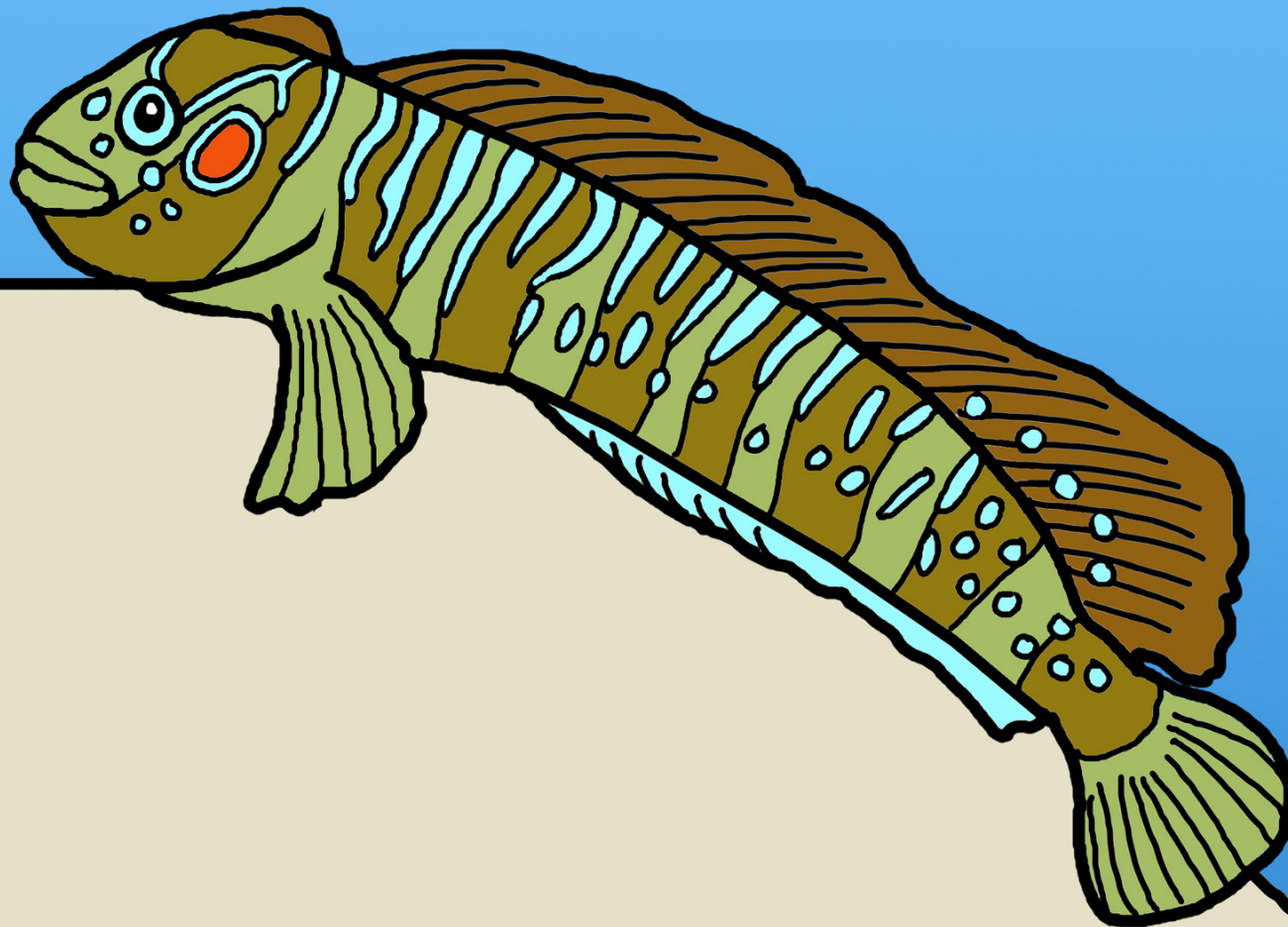


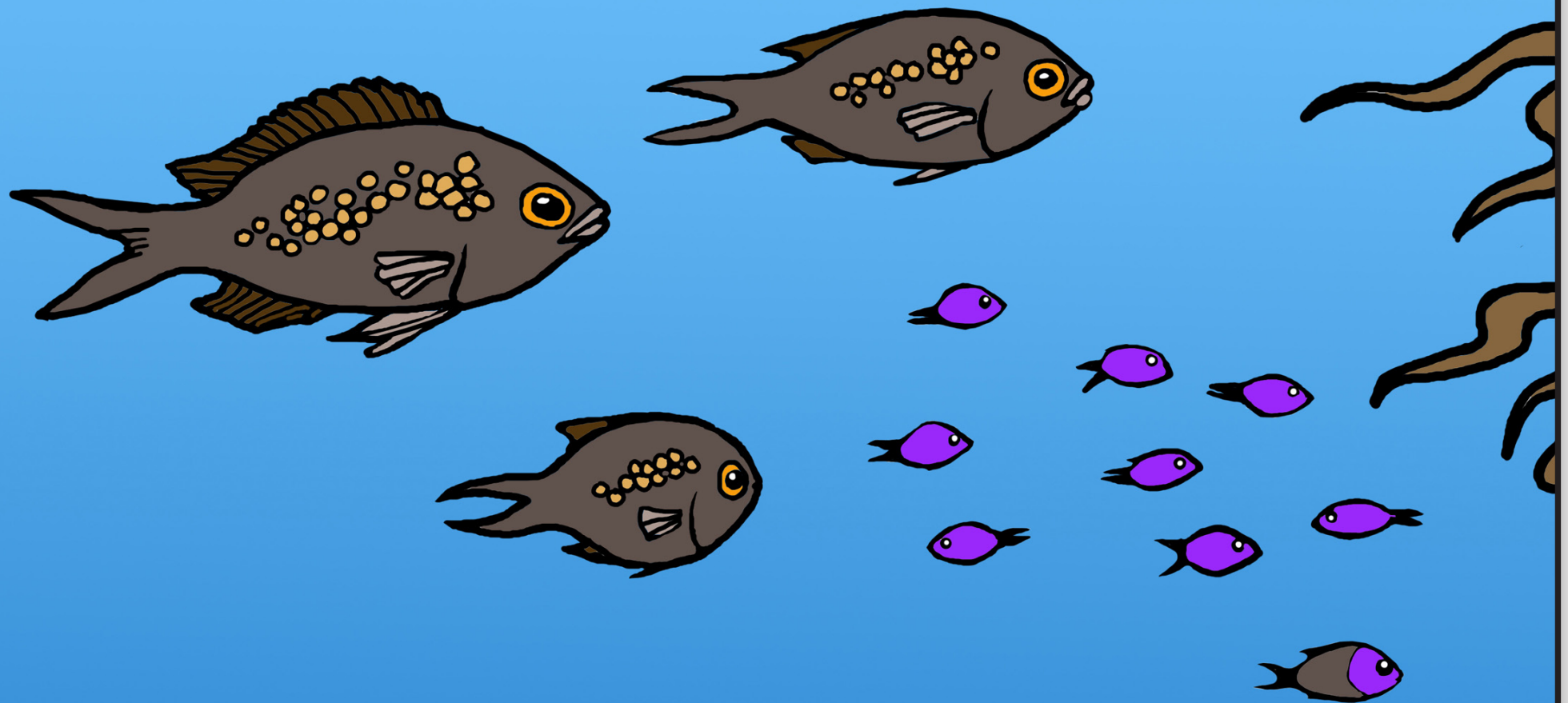


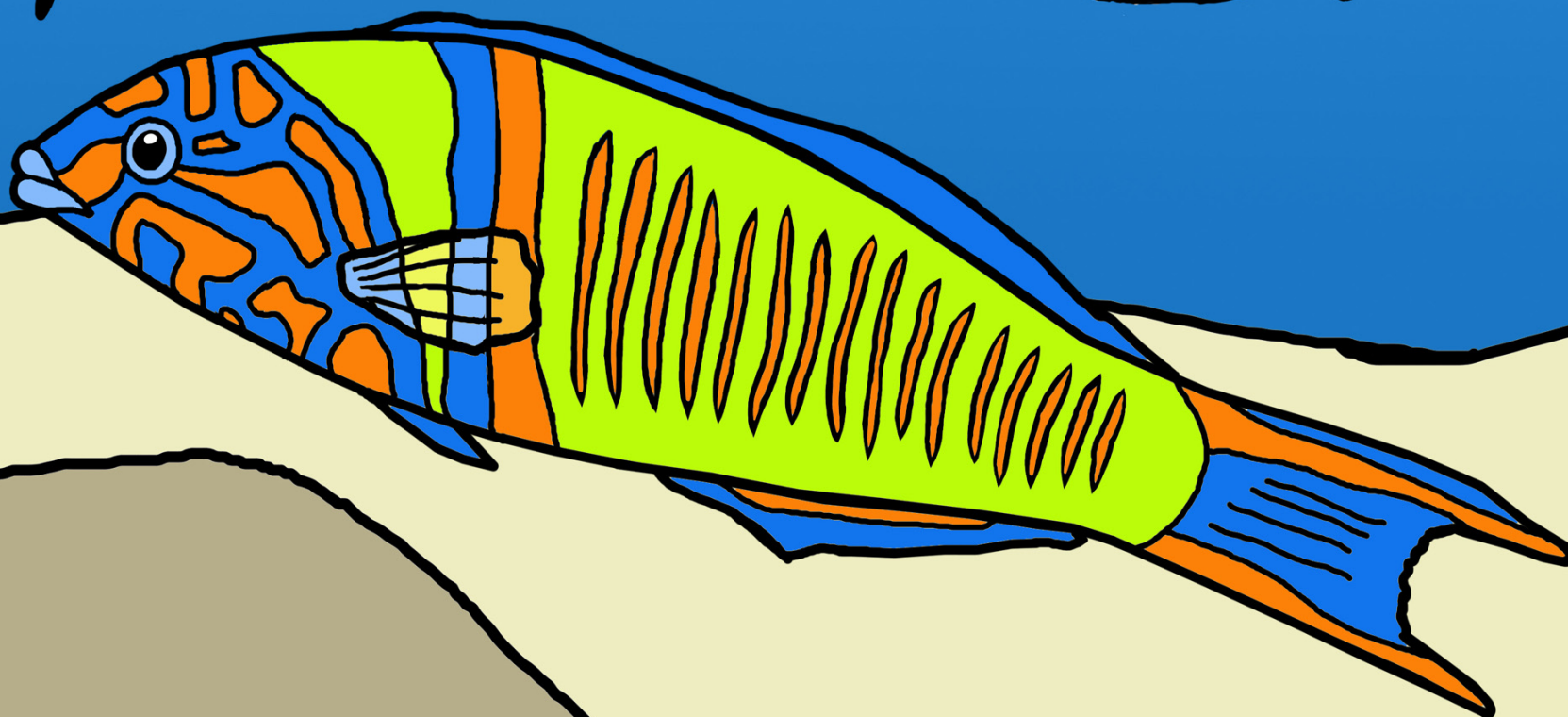


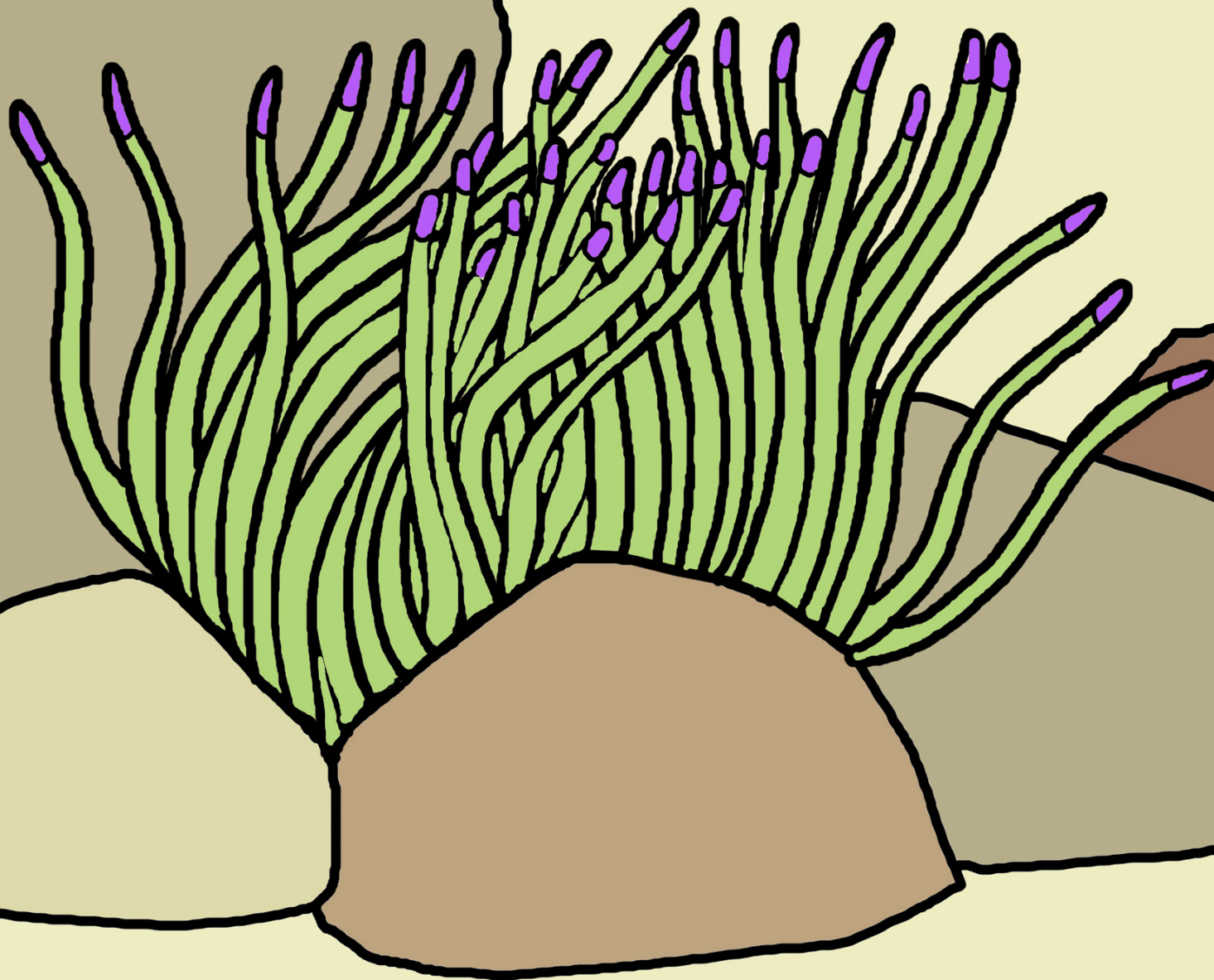


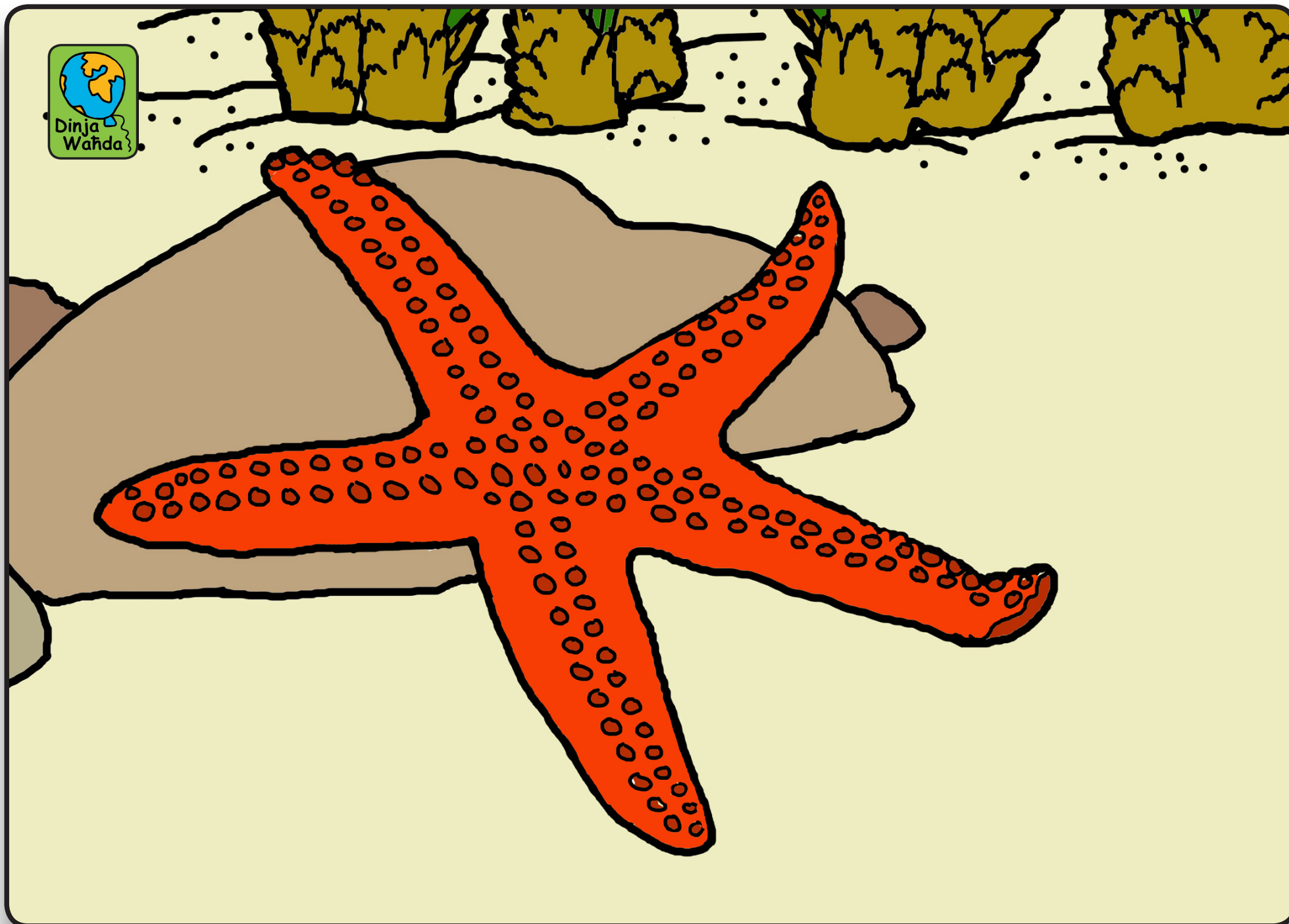






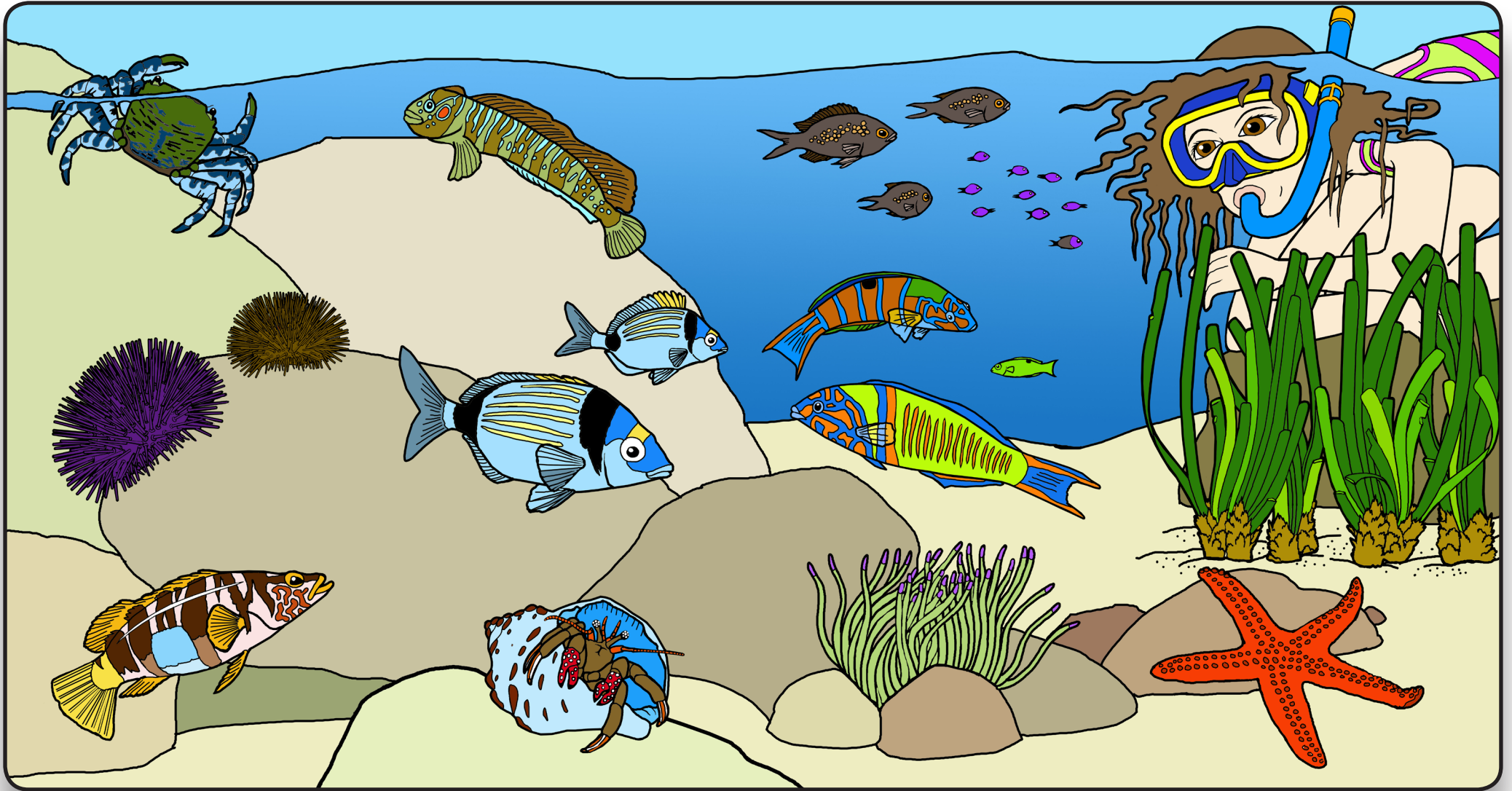












Something Fishy

1

I am a small animal with ten legs. I am very shy and when I see people I hurry away sideways. I eat bits of seaweed and other scraps from among the rocks.

2

I look like a ball of spines. I eat seaweeds that I scrape from the rocks. You can't see my mouth because it's on the underside of my body, among my spines.

3

I like to stay alone so I can catch small fish for myself. I like to live among rocks. I have brown stripes and a yellow tail.

4

I live in a snail's shell but I am not a snail. Look well and you will see my legs peeping out of the shell! I live in shells because my body is soft.

5

I have a bright silvery body and two black stripes. I like to live alone or in small groups. I eat small snails and worms.

6

I am small but I am cool! I live in very shallow water and I can use my fins like hands! I hold the stones with my fins so the waves don't pull me off.

7

I like to stay in big groups because we feel safe that way, with many eyes to look out for danger. I am dark brown but my babies are bright purple.

8

I am a very pretty fish. I have lots of colours and patterns on my body: green, orange, blue, yellow, black. I eat snails and shrimps.

9

I look like a plant but I am an animal. I have lots of arms and I live stuck to a rock. I eat very small animals, and I catch them with stings on my arms.

10

I have five arms and many children like to draw me. I can climb over rocks and even burrow in the sand. My mouth is on the underside of my body.

11

I am a plant and I have long thin leaves. I grow in big patches on the bottom of the sea. Many fish and other creatures hide among my leaves.