

Sea Chains File



This file contains

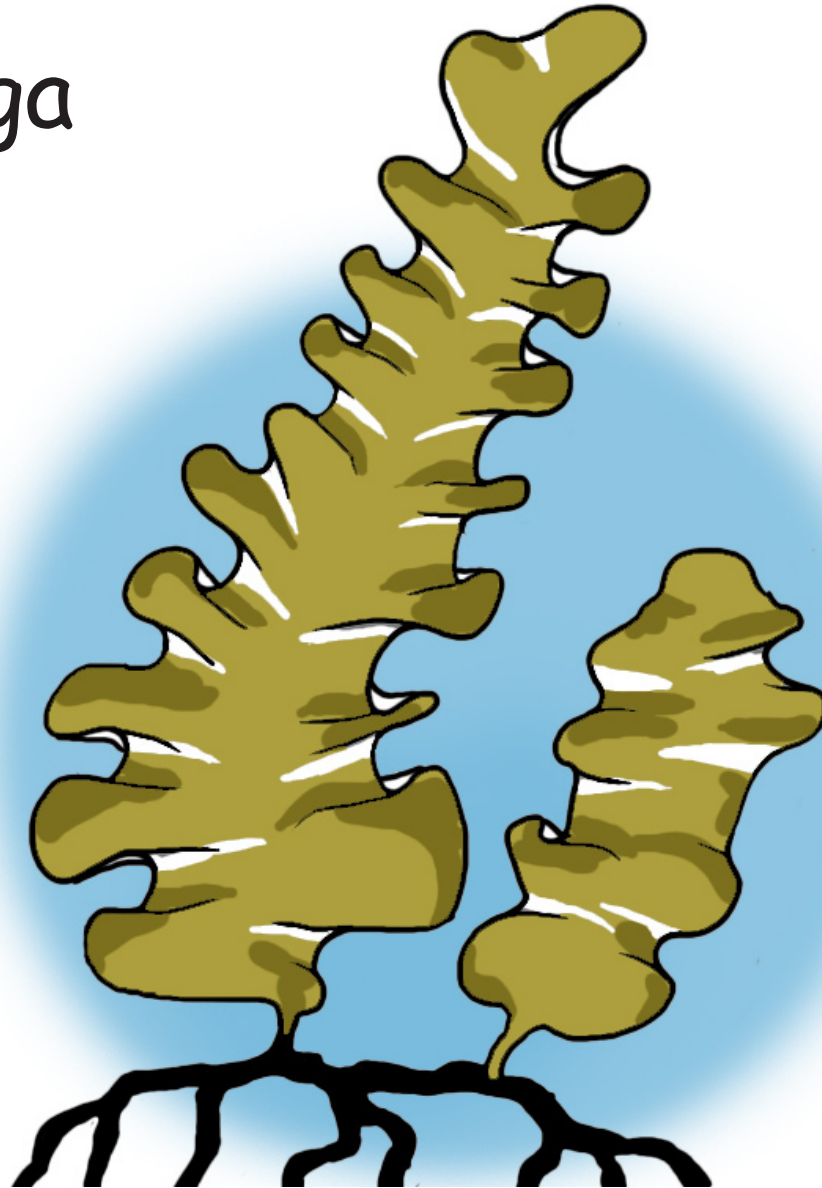
1. Foodchains in the sea (factsheet)
2. 28 sea chains pictures in colour
3. 28 sea chains picture outlines
4. Sea harms: information
5. Sea harms: 4 pictures



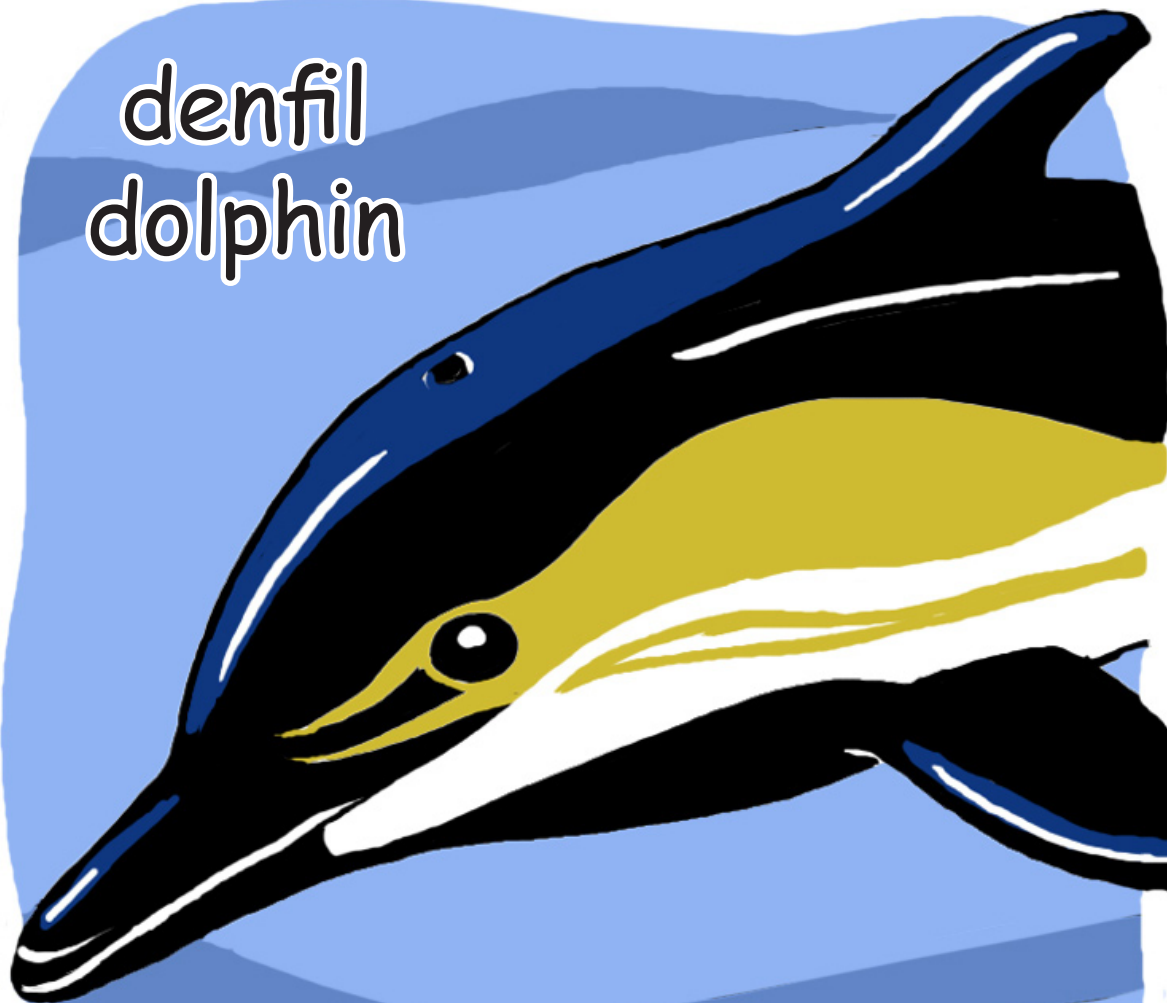
Foodchains in the sea

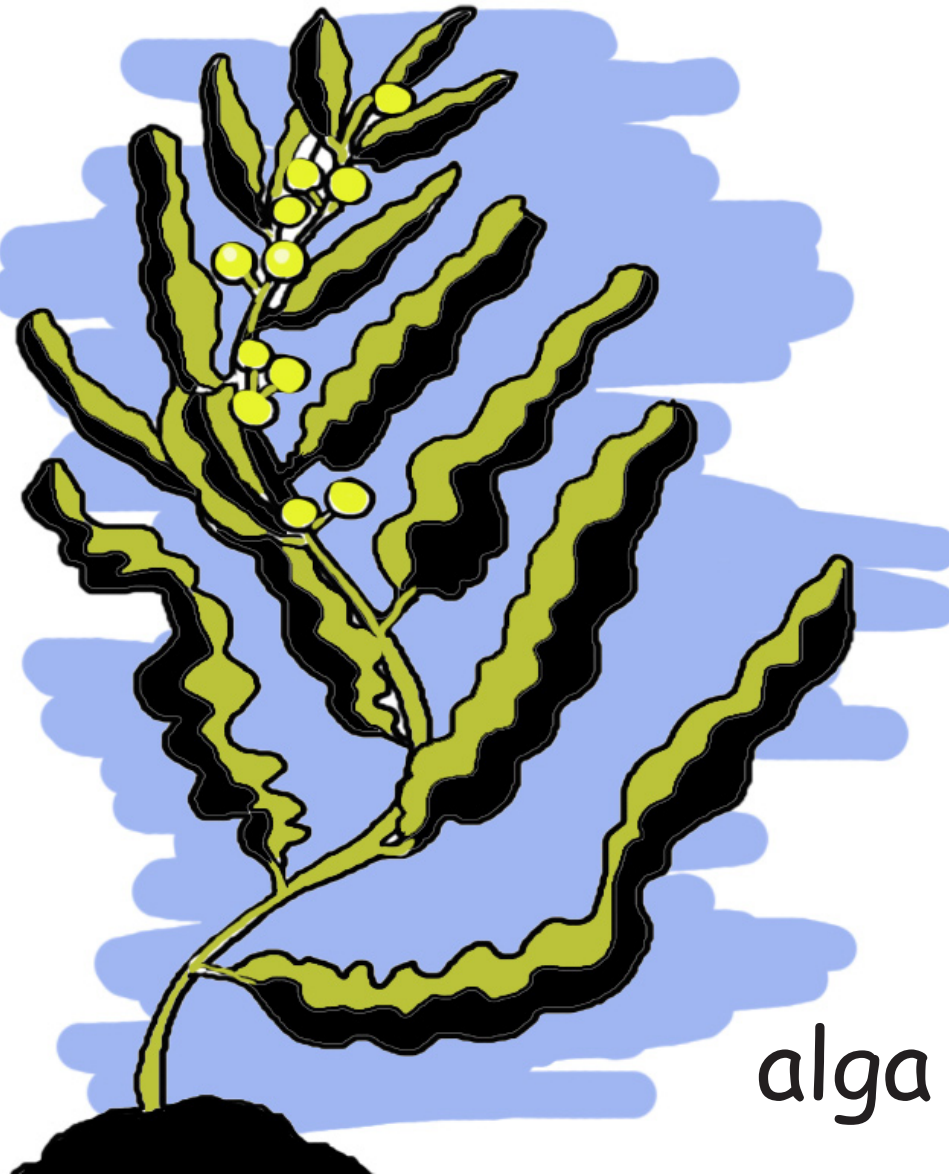
- All living things need to eat. Plants too 'eat' light energy from the sun (which scientists call photosynthesis) in order to produce sugars and starches so as to grow and survive.
- There are foodchains wherever there is life on earth.
- Foodchains are plants and animals connected together in a line according to what eats what, e.g. eagle < snake < chameleon < spider < butterfly < flower < sunlight. With one exception, sunlight and plants are at the base of ALL foodchains on earth.
- When foodchains branch and connect into each other they form foodwebs. Foodwebs can be very complex and they show how dependent species are on one another.
- Foodchains teach us about the relationship among species. They are the reason why an increase or decrease in one species can have an effect on other living things. Foodchains are usually well balanced. When people meddle with species they often damage this delicate balance.
- Seas and oceans are very rich in life, from microscopic plants to the biggest animal on earth (the Blue Whale). Just like on land, there are many foodchains and foodwebs in the sea, and just like on land, they all finally depend on plants and sunlight.
- There are about 12,000 different species of plants and animals in the Mediterranean Sea and they are all connected by foodchains and foodwebs. Being an island, Malta too has lots of marine species, including over 300 species of algae (not including the microscopic ones), over 300 species of fish, about 1000 molluscs (snails, seashells, etc.) and many other creatures.
- All these do not live in the same kind of habitat: some like rocky places, others live in sandy or muddy seabeds, others prefer seabeds with lots of vegetation. Some live at the surface, others on the bottom and others somewhere in between. Some live in deep water, others in areas so shallow that they are often exposed to the air. Some animals (like barnacles and sponges) stay in one place stuck to a rock all their life, others (like blennies and sea-urchins) swim or move about in a small area, others (like dolphins and turtles) travel hundreds of kilometres, and others (like jellyfish and plankton) drift with the current.
- Although they are microscopic, plankton are the most important living things in the sea. This is because they are at the base of many foodchains. There are two kinds of plankton: plant plankton and animal plankton. The plant plankton use sunlight for photosynthesis, and they are eaten by the animal plankton. Plankton are the food of many marine animals, like fish and shrimps, and these in turn are eaten by bigger animals.
- Plant plankton are also very important to all life on earth because they produce most of the oxygen in the air that we breathe, even more than all the trees of the world put together!
- Human activity is often detrimental to sealife. Overfishing makes many fish and other creatures rare and this destroys foodchains; some types of fishing damages seabeds; the discharge of toxic chemicals into the sea poisons many plants and animals; pollution clouds the water and stops sunlight from reaching plant plankton, seagrass and algae; plastic litter is swallowed by seabirds and other animals who mistake it for food; and thanks to climate change – caused by air pollution – the seas are getting warmer and many algae and animals (such as corals) are dying.

alga



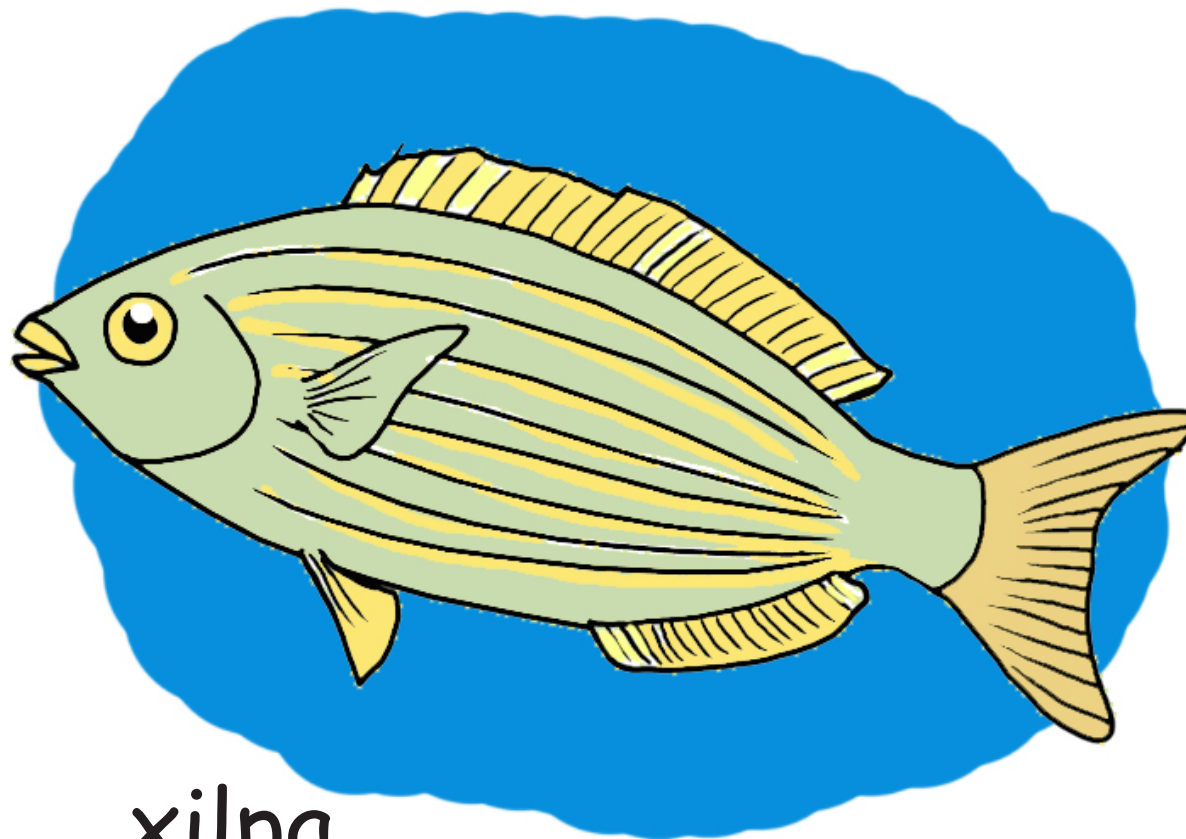
denfil
dolphin





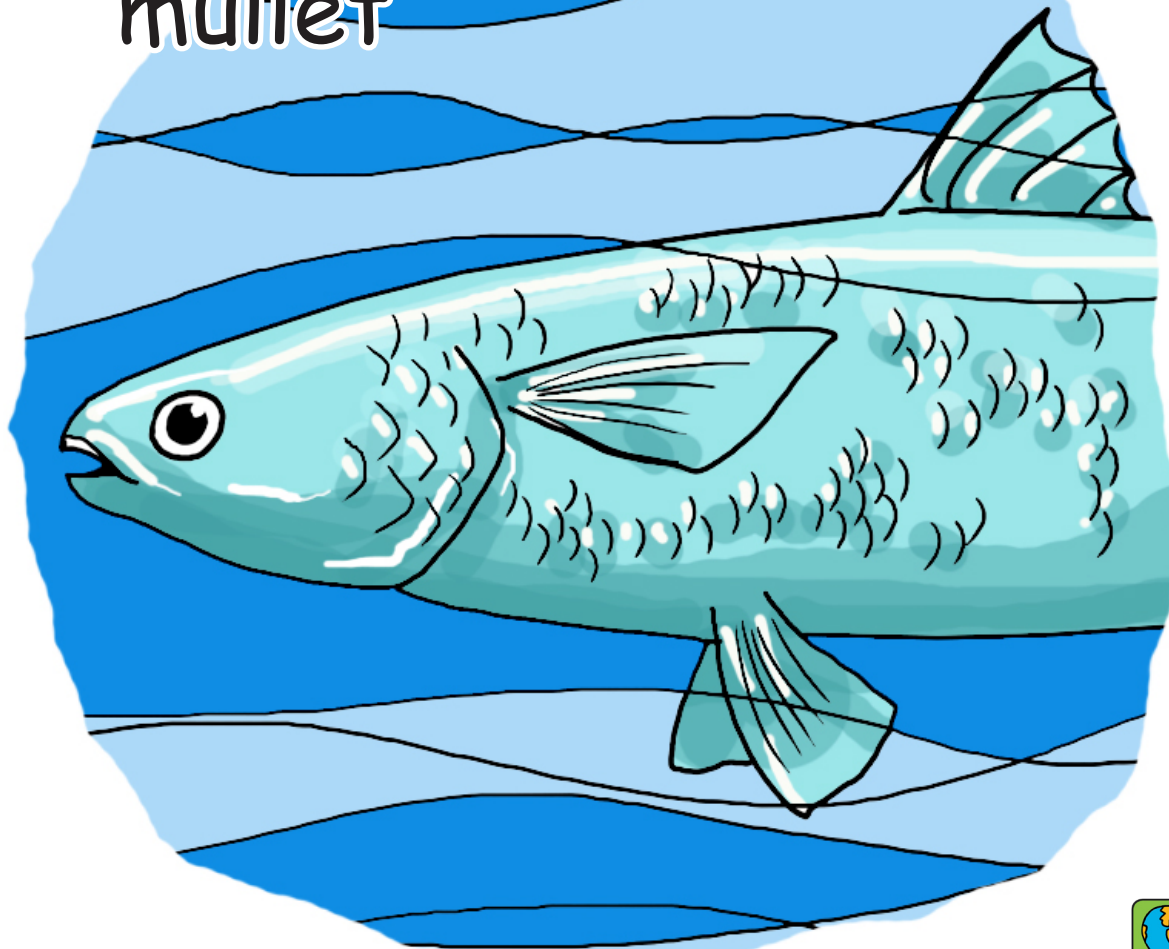
alga



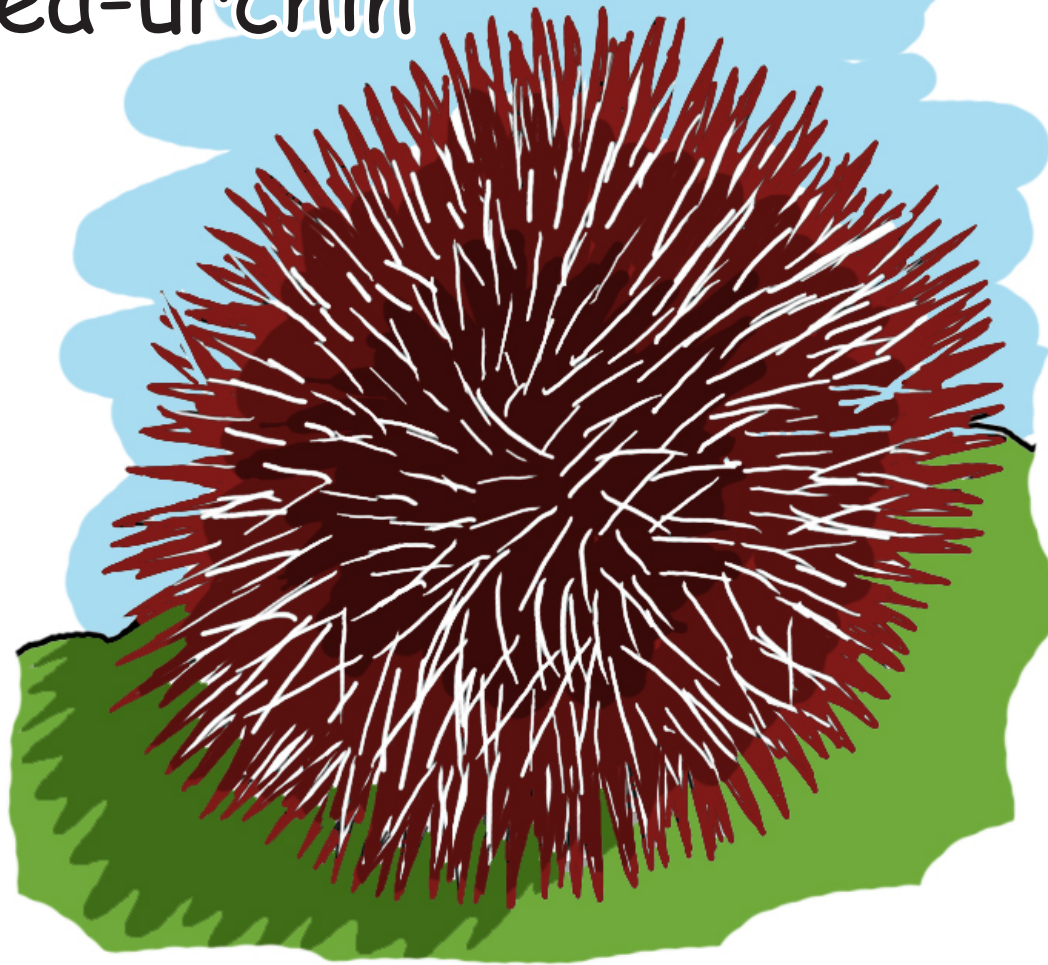


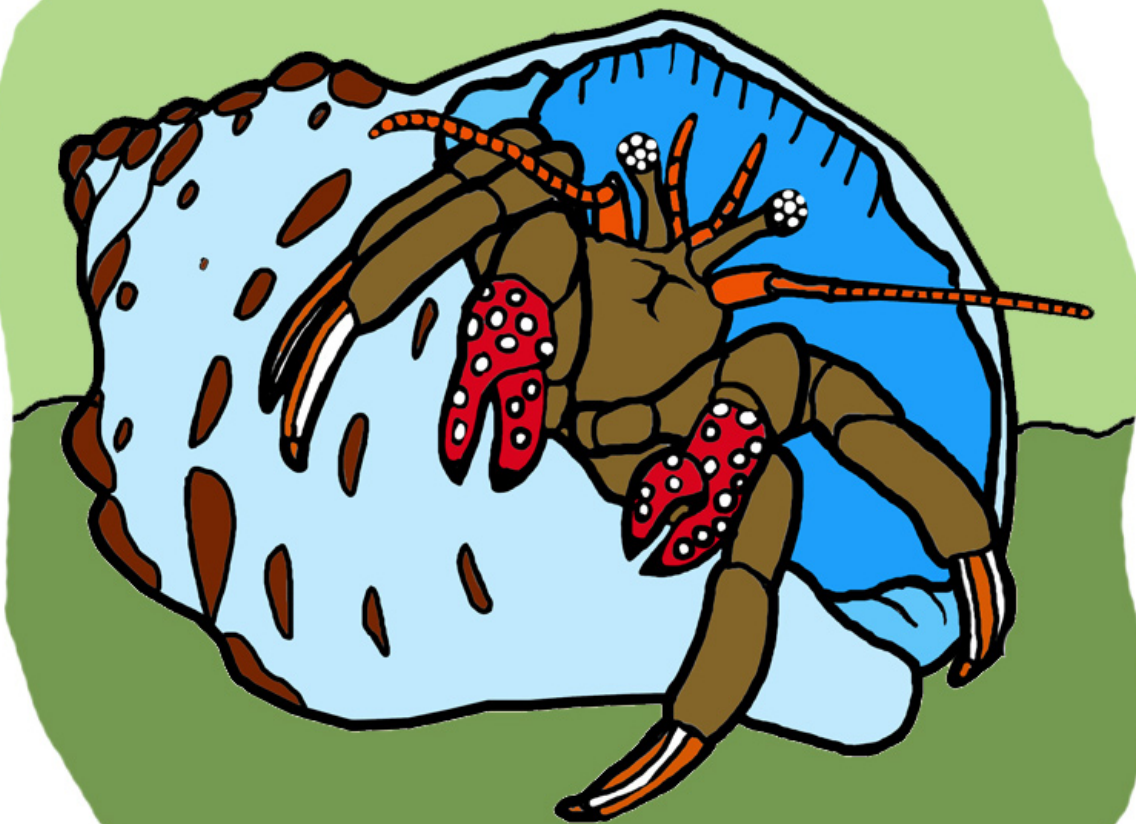
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salema

mulett
mullet



rizza
sea-urchin

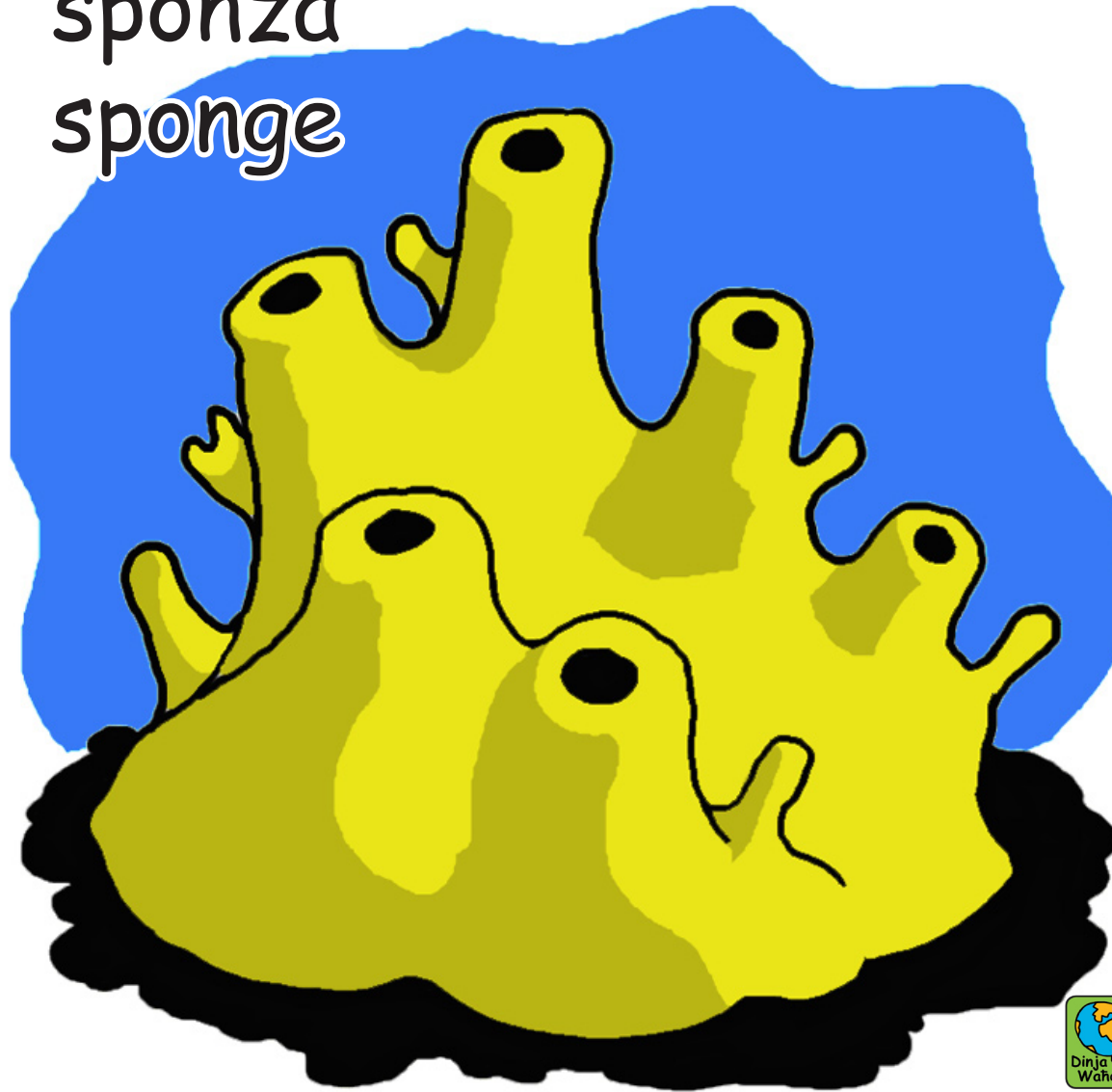


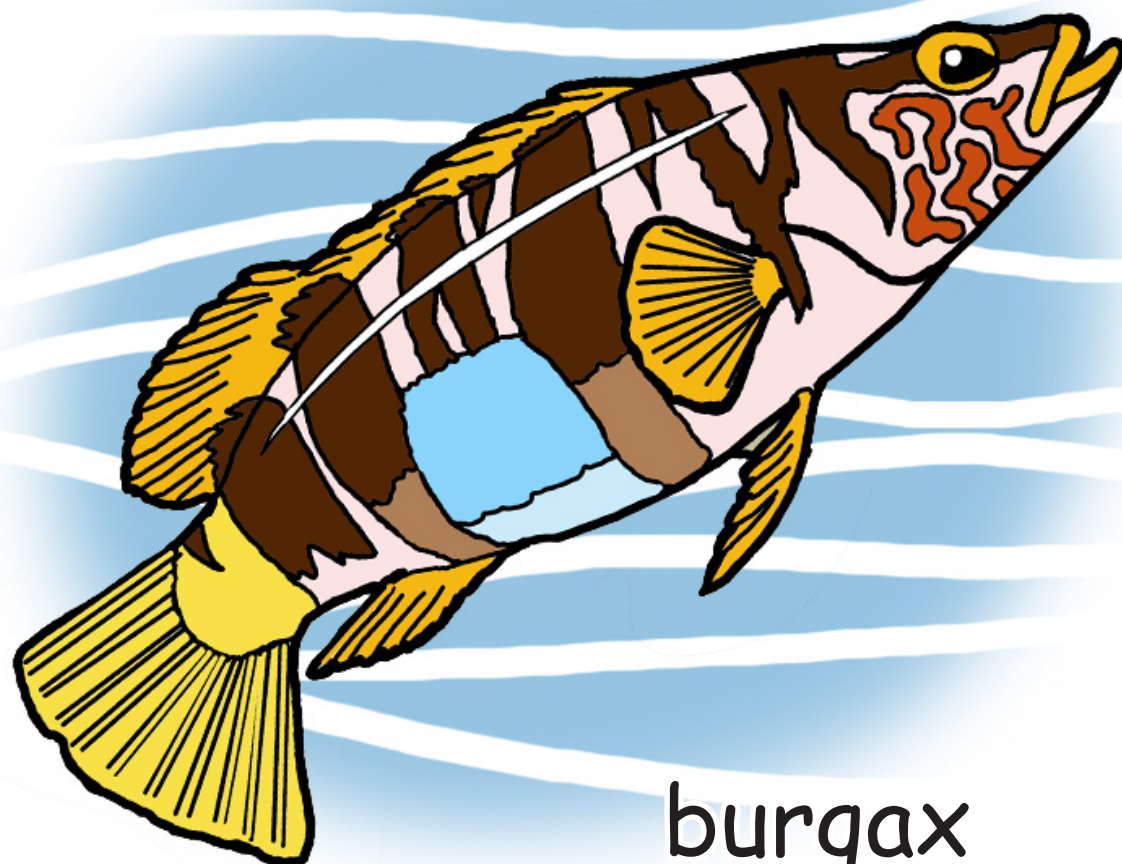


granċ tal-bebbuxu
hermit crab



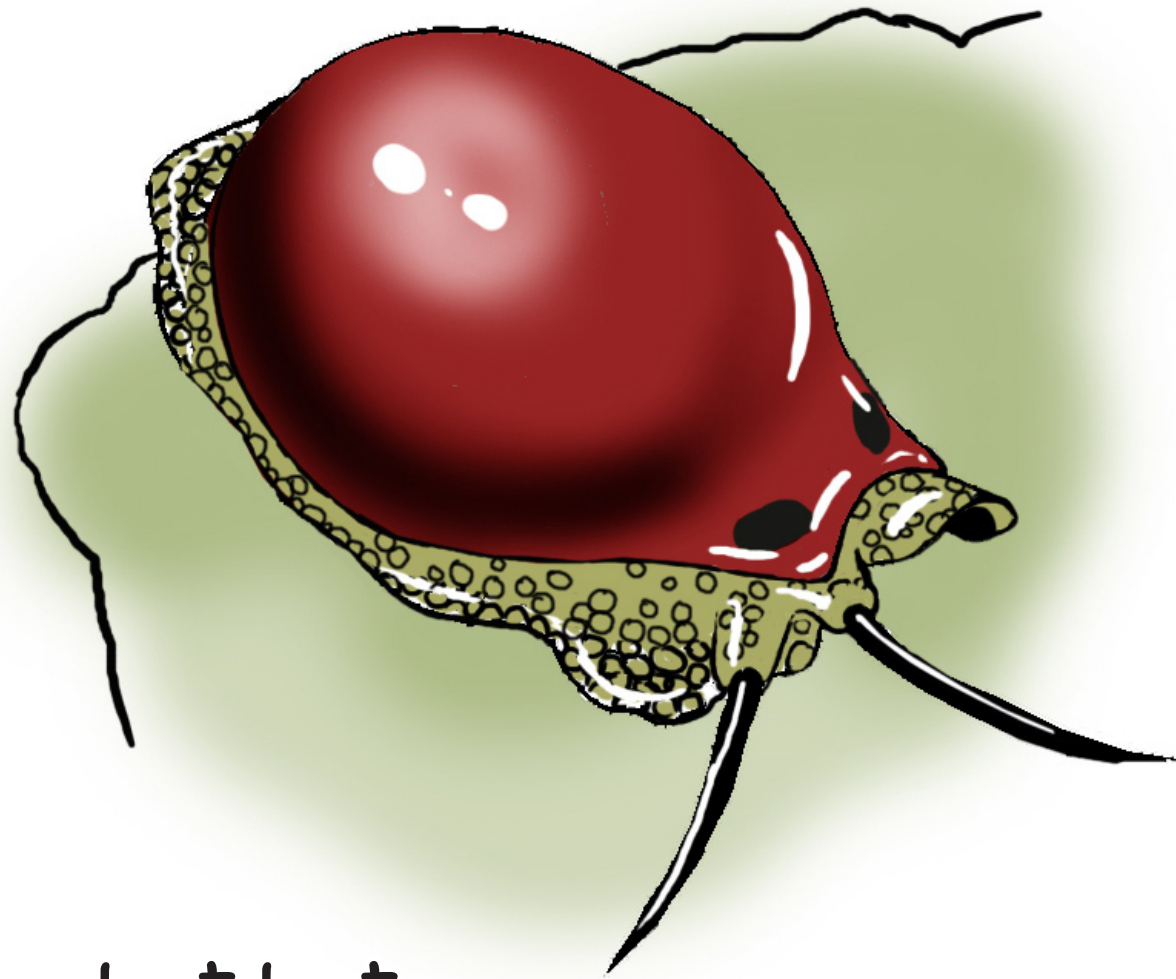
sponža
sponge





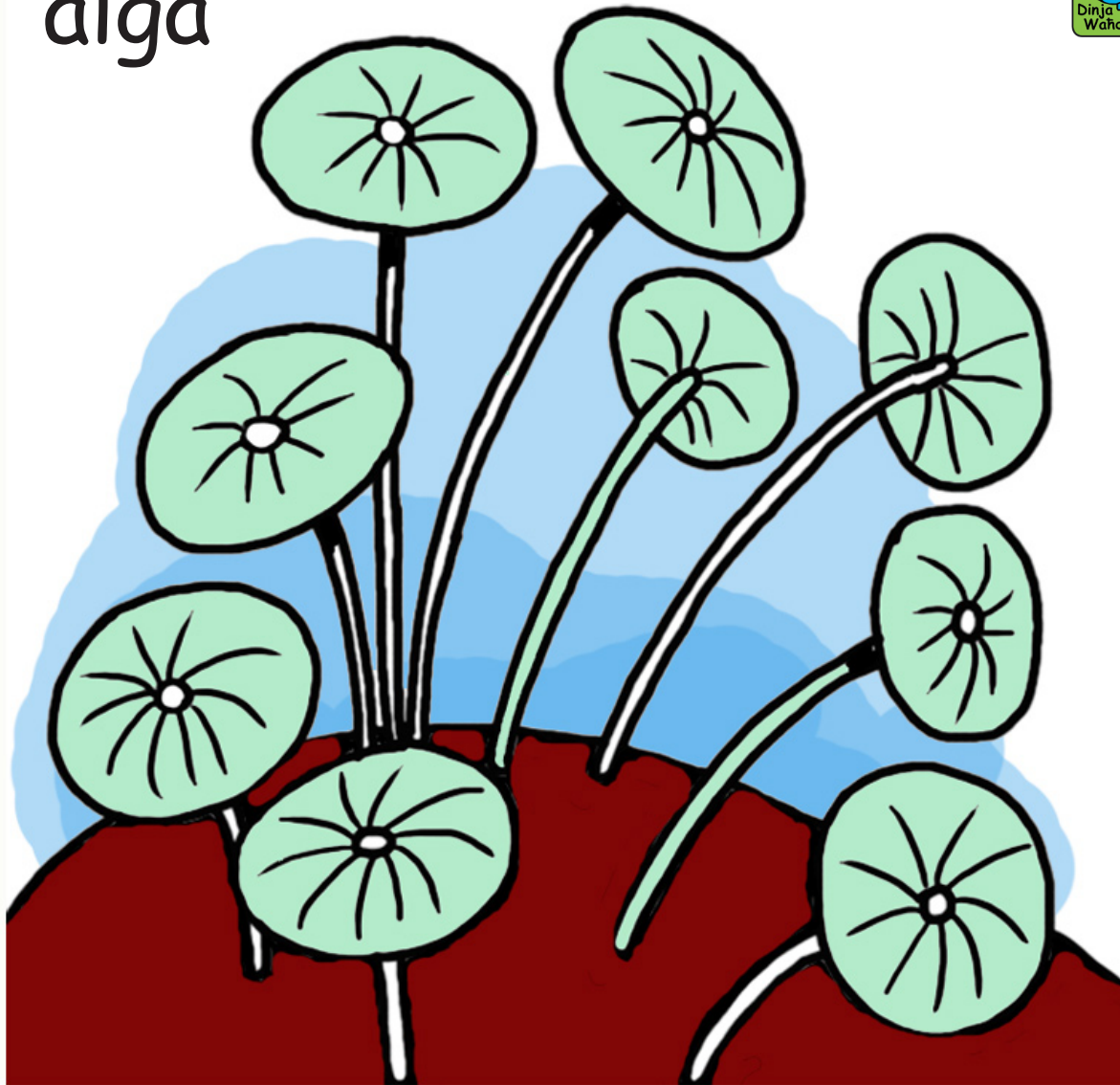
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painted comber

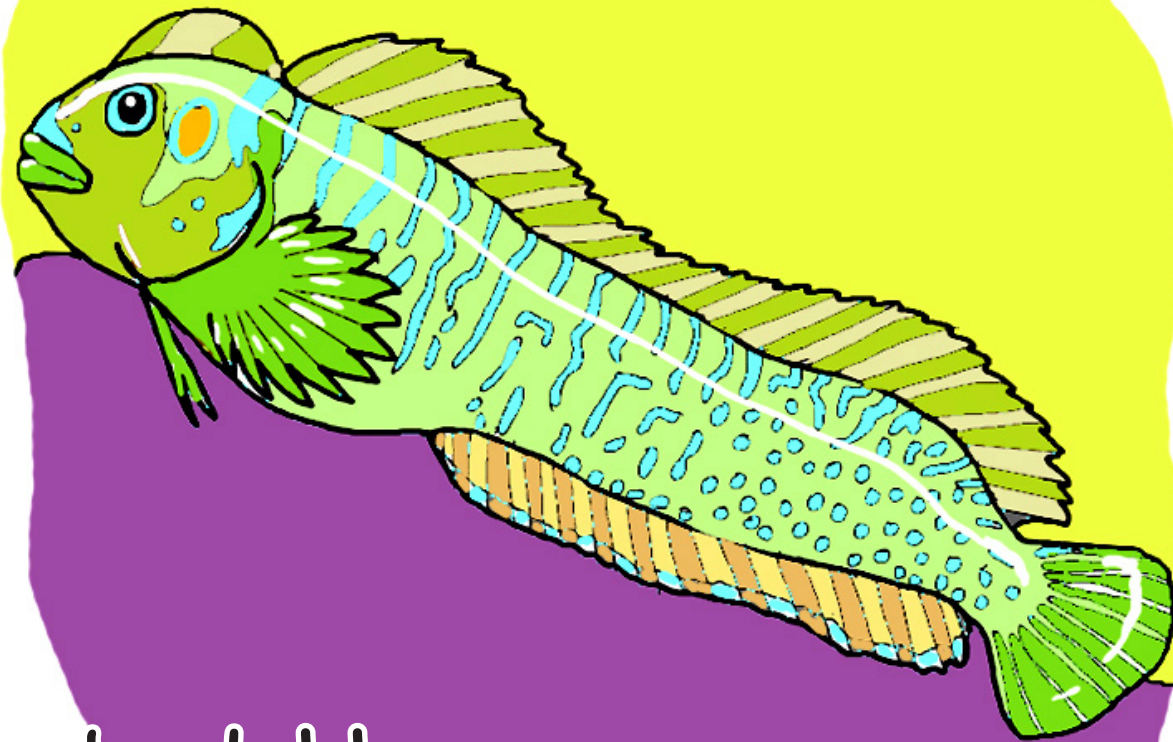




baḥbuḥa
cowrie

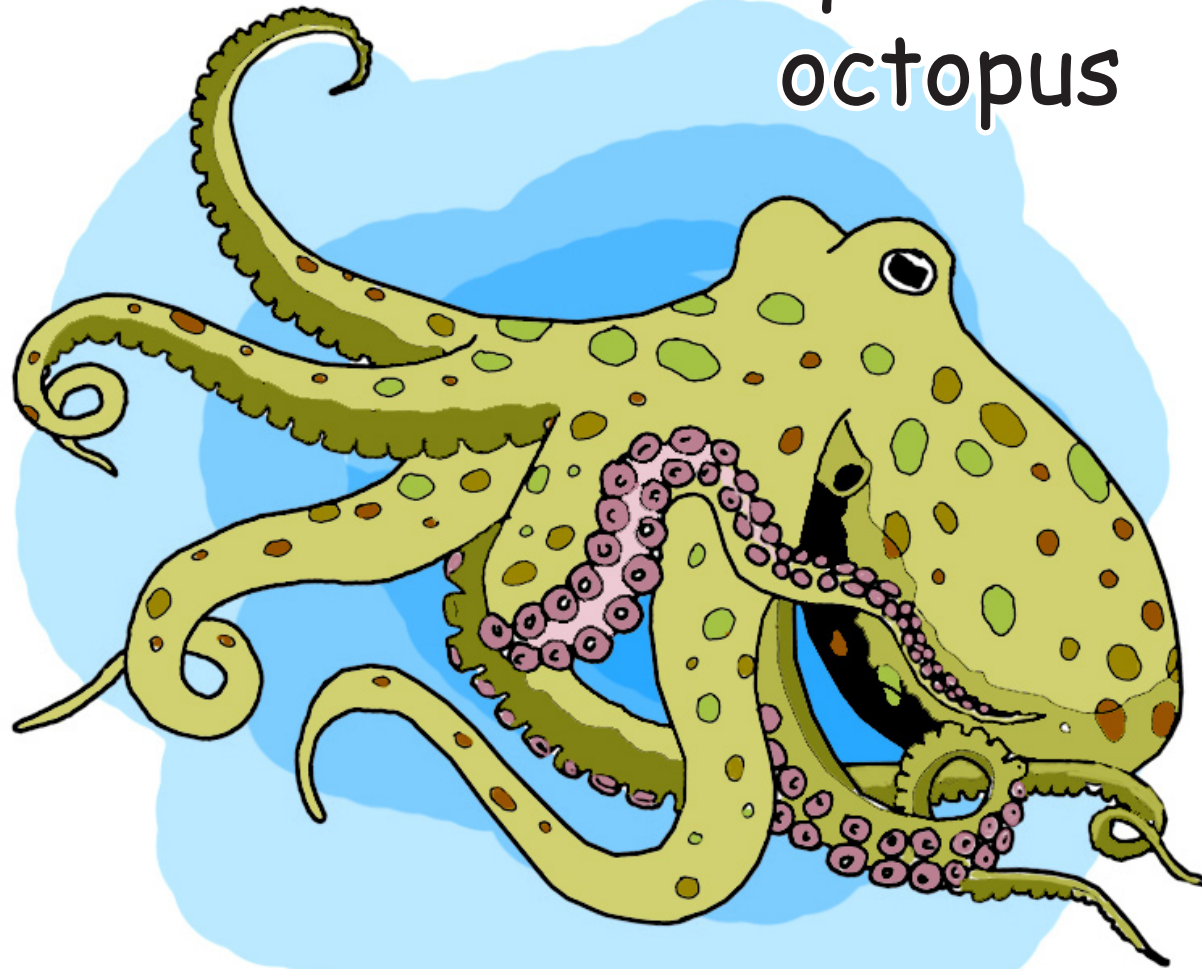
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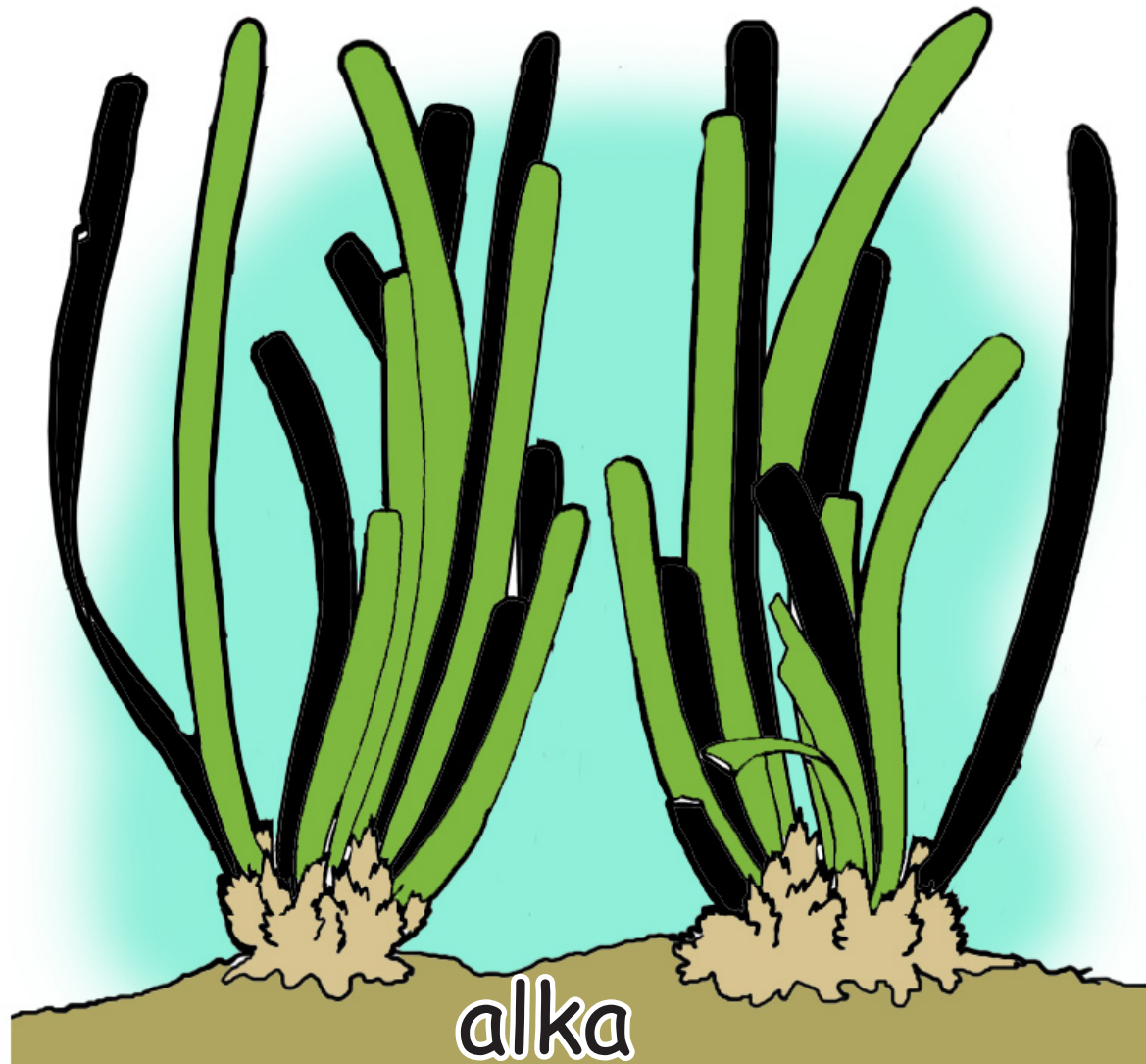
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blenny

qarnita
octopus



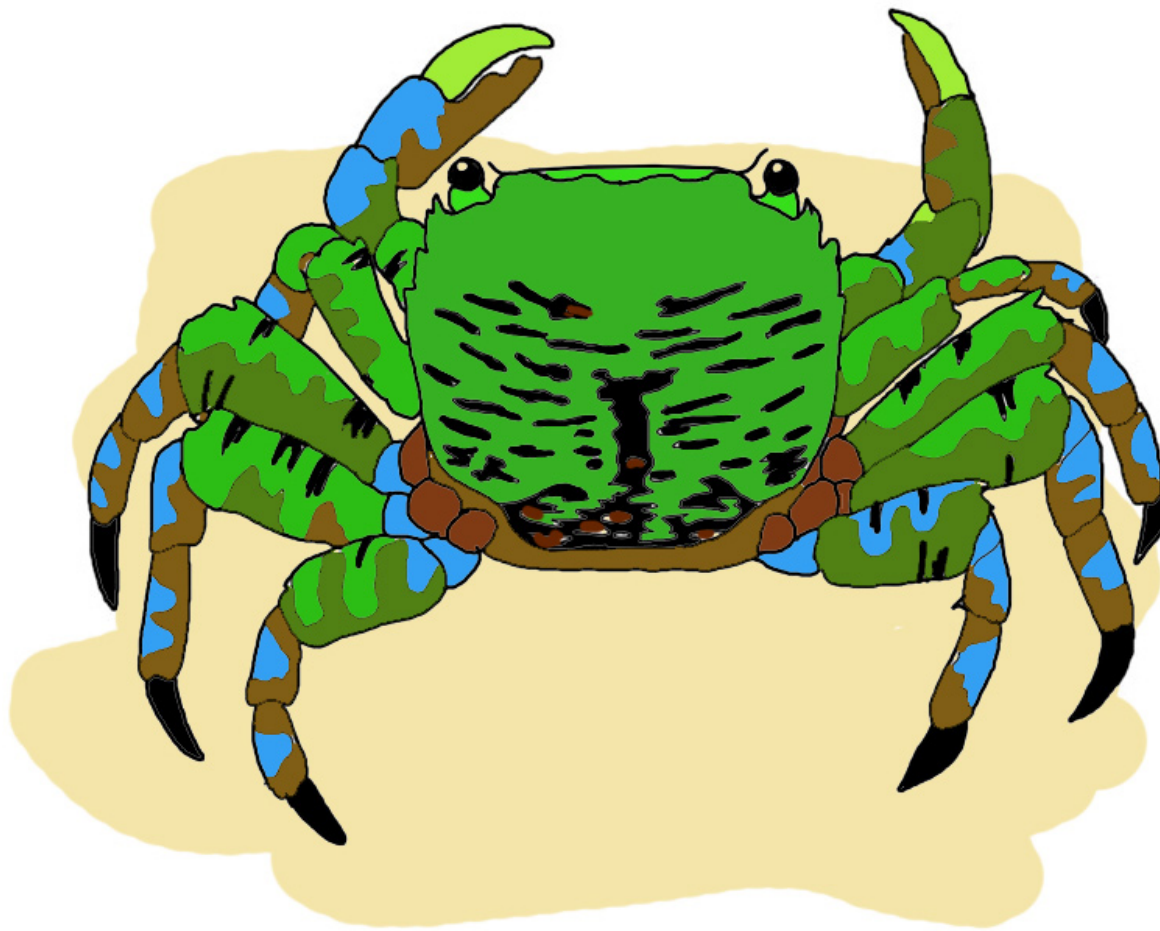


Ihudi
wrasse



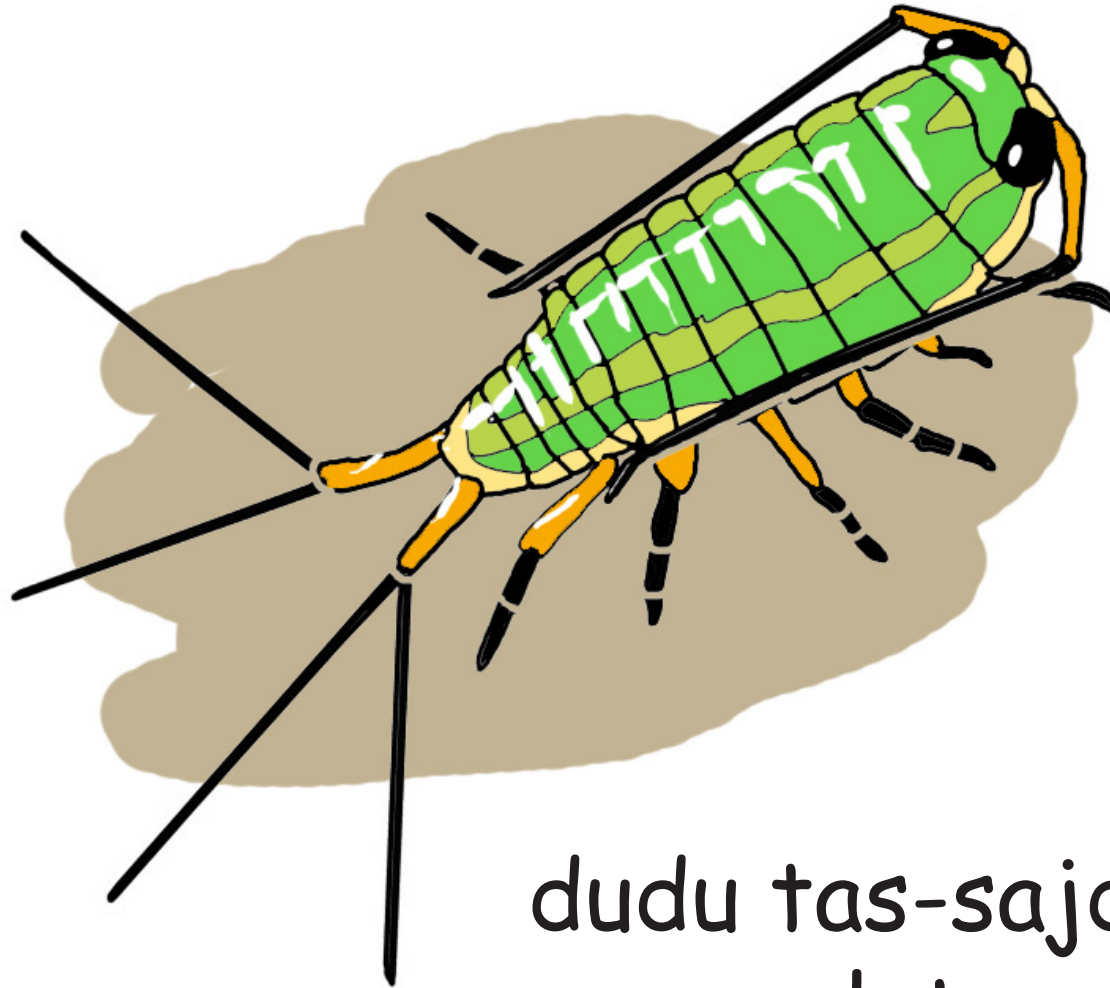
alka
seagrass



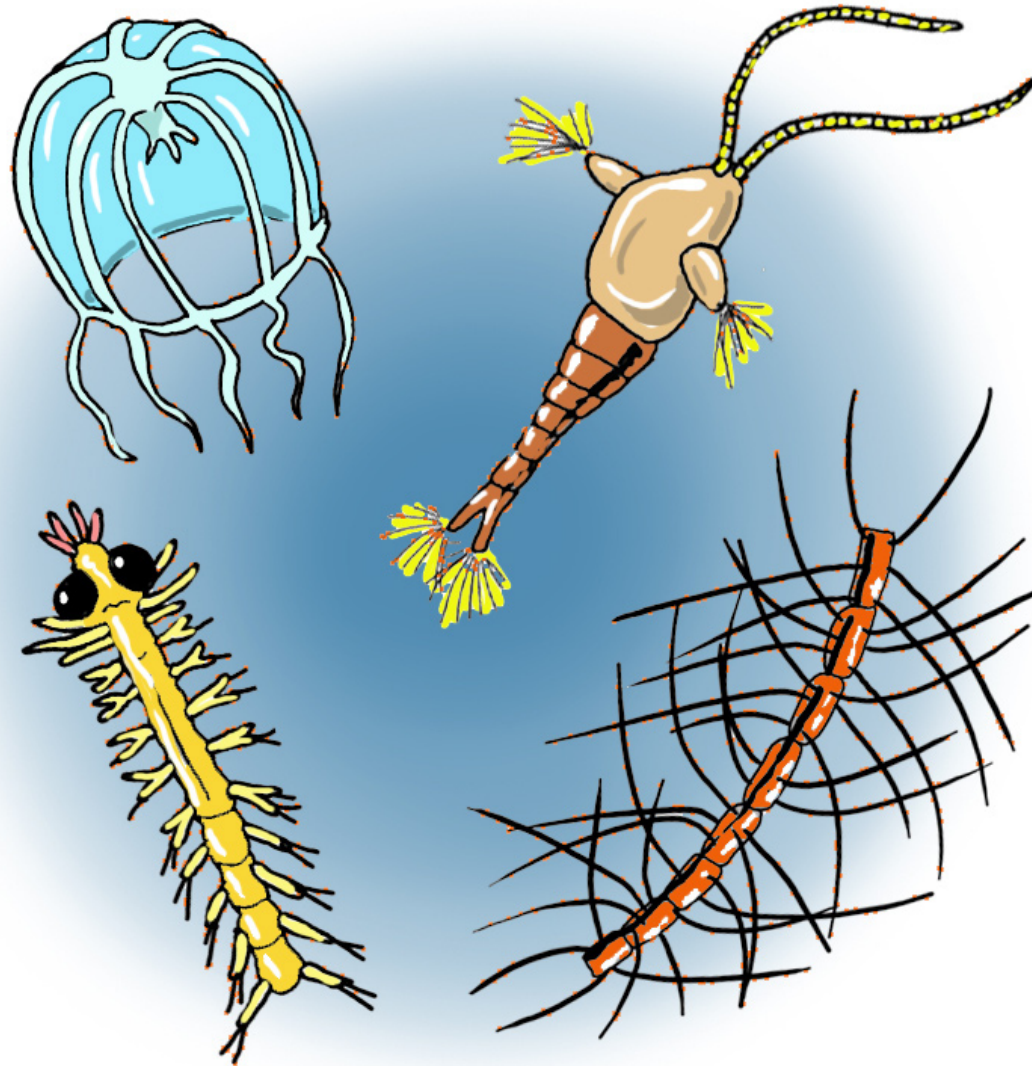


granc tax-xatt
shore crab





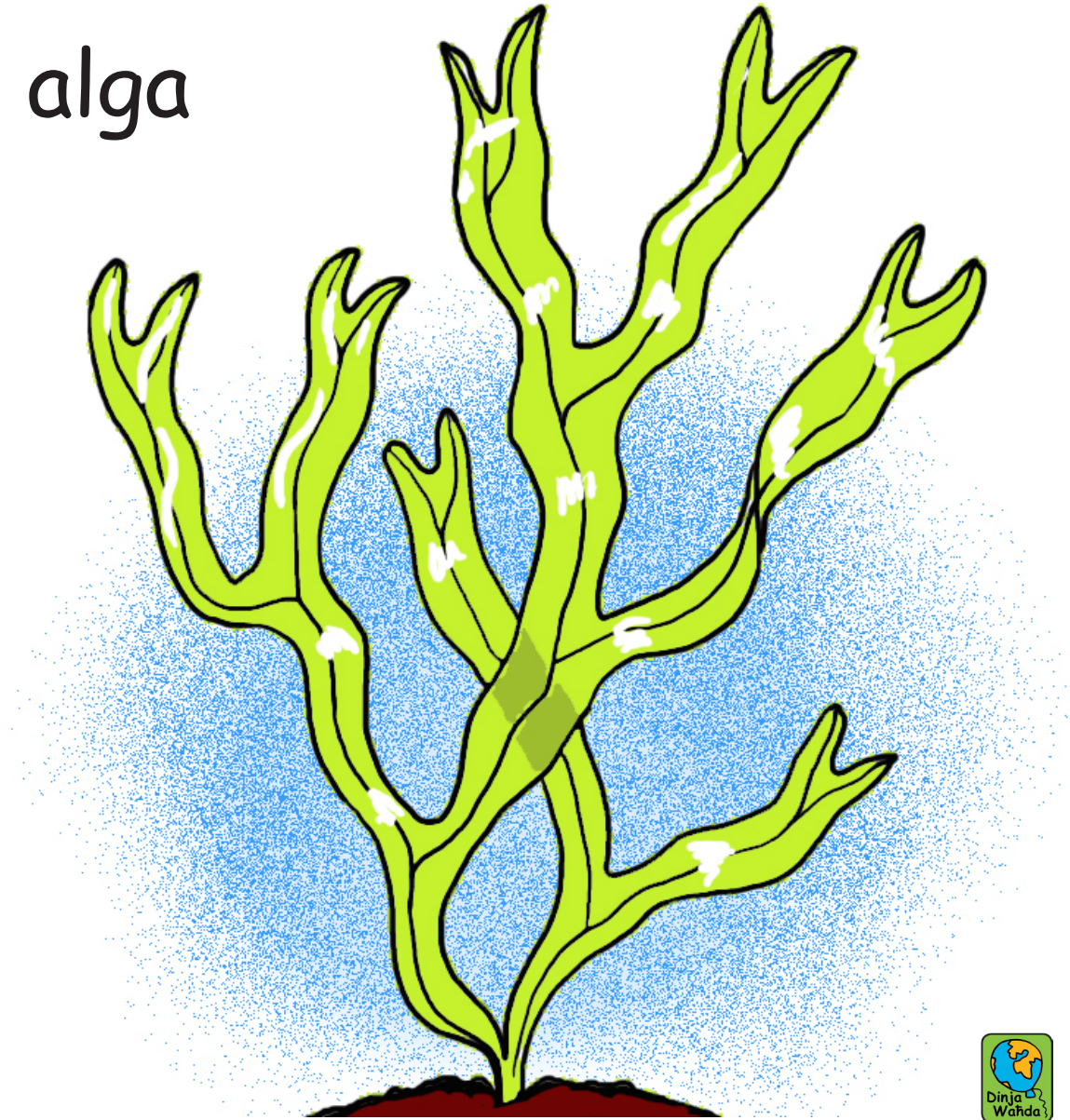
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sea-slater

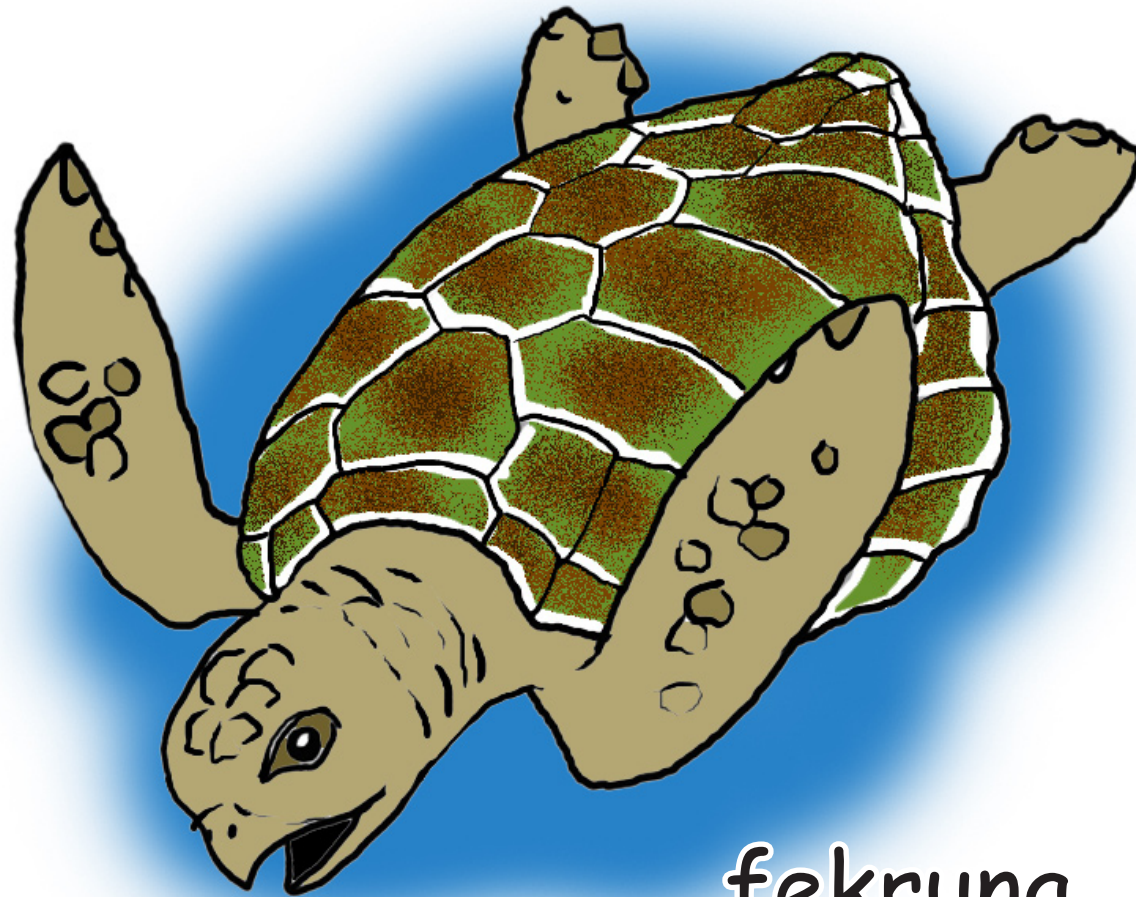


animal plankton



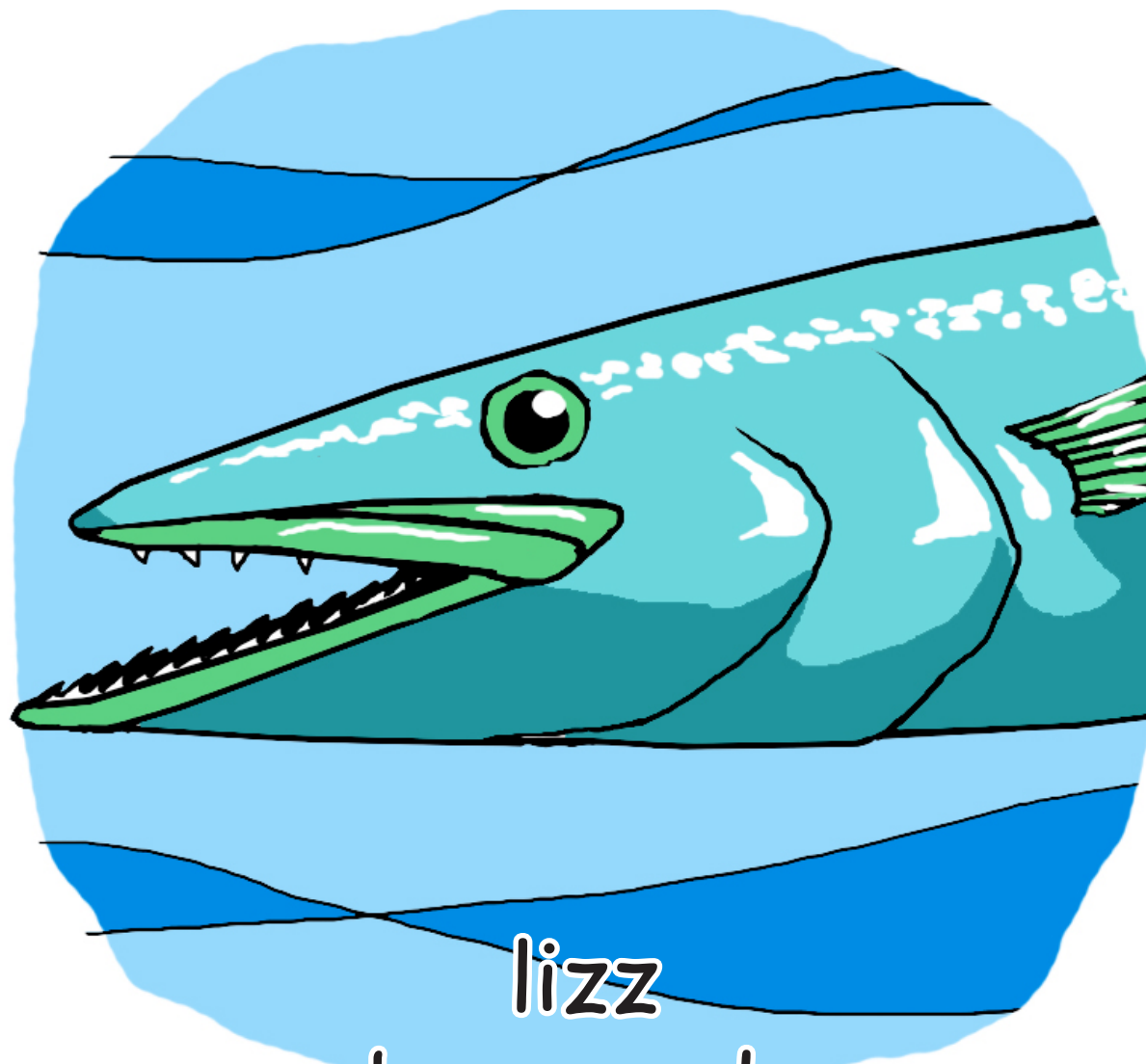
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fekruna
turtle

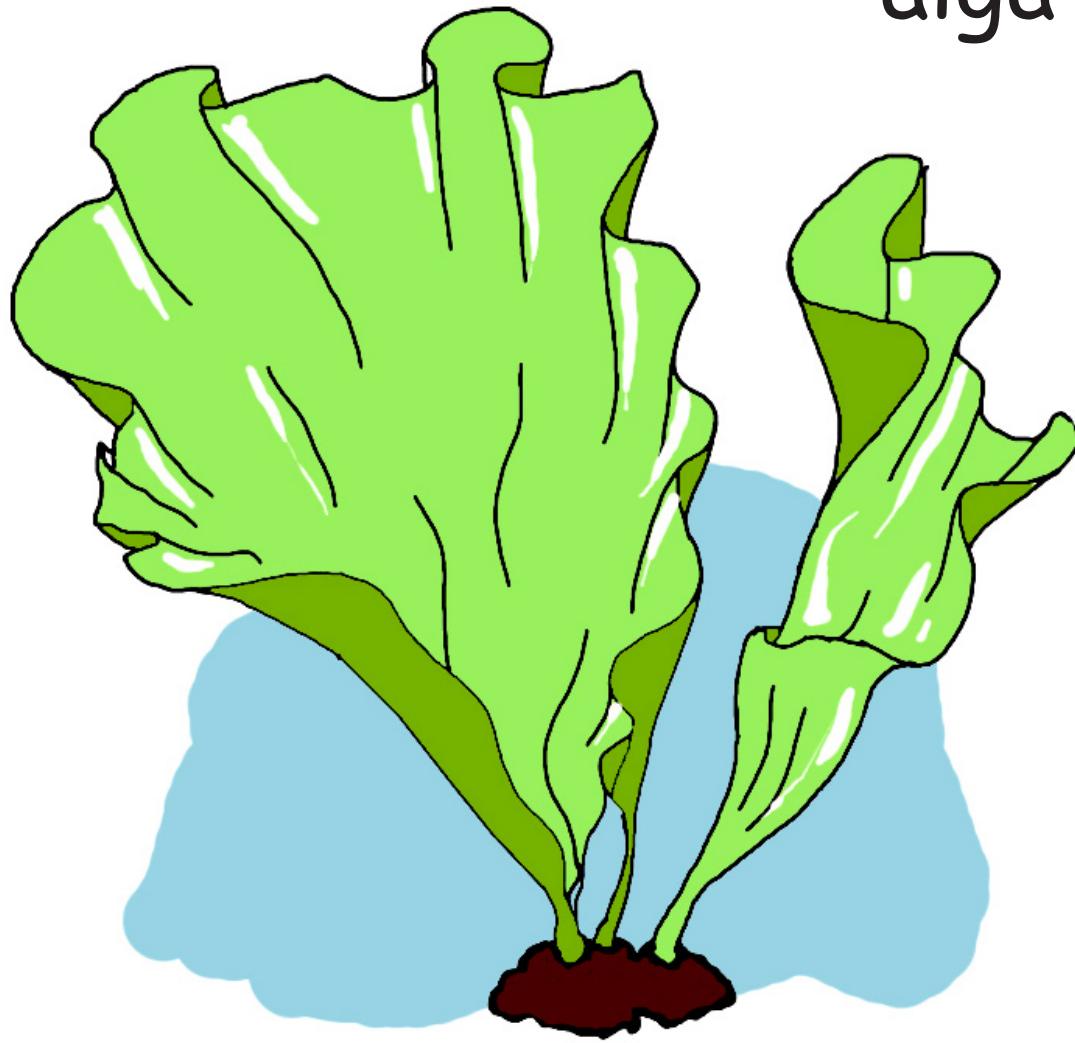


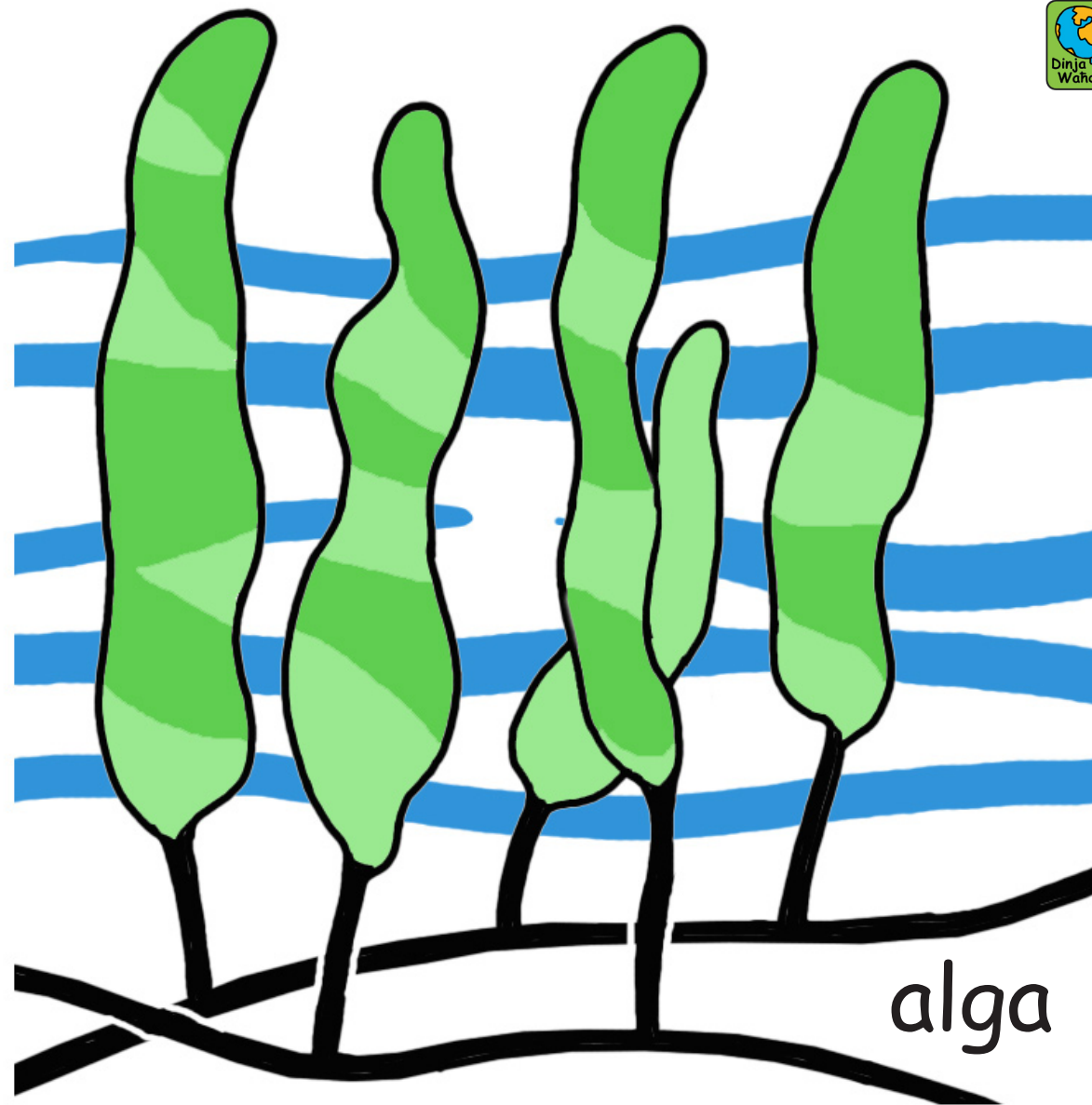


lizz
barracuda

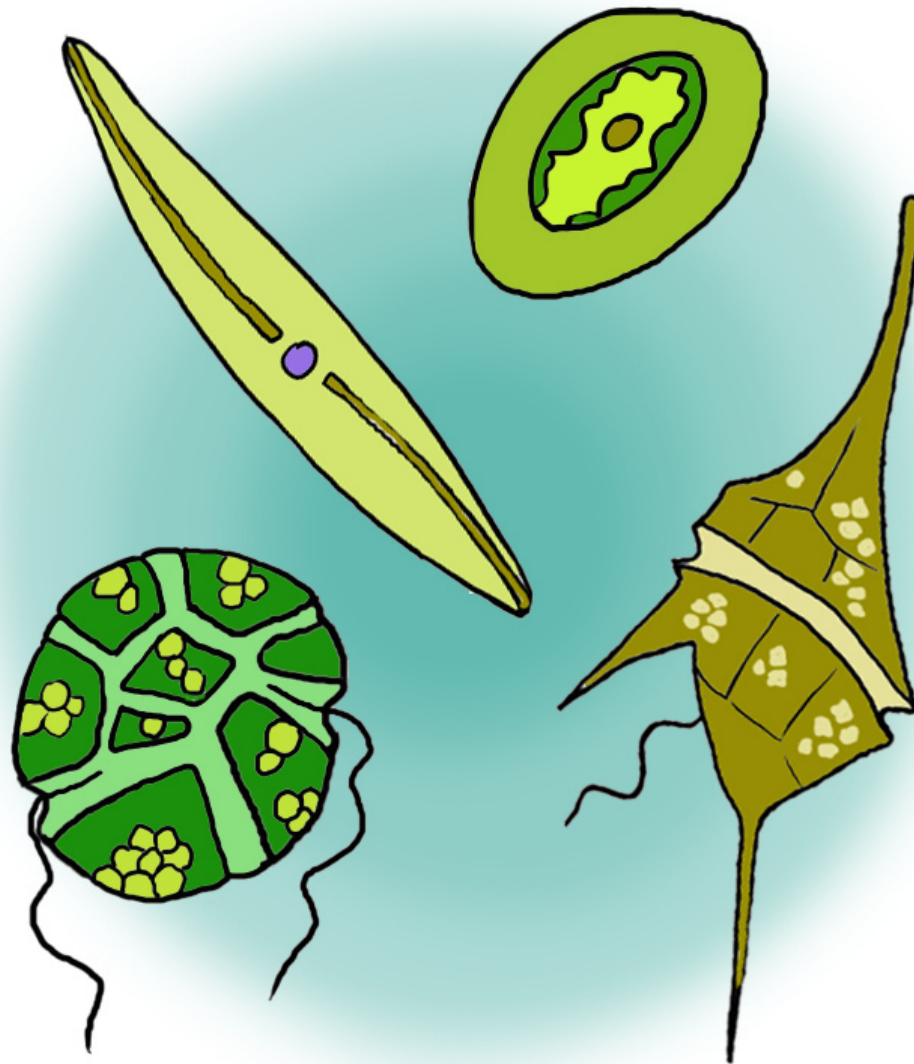


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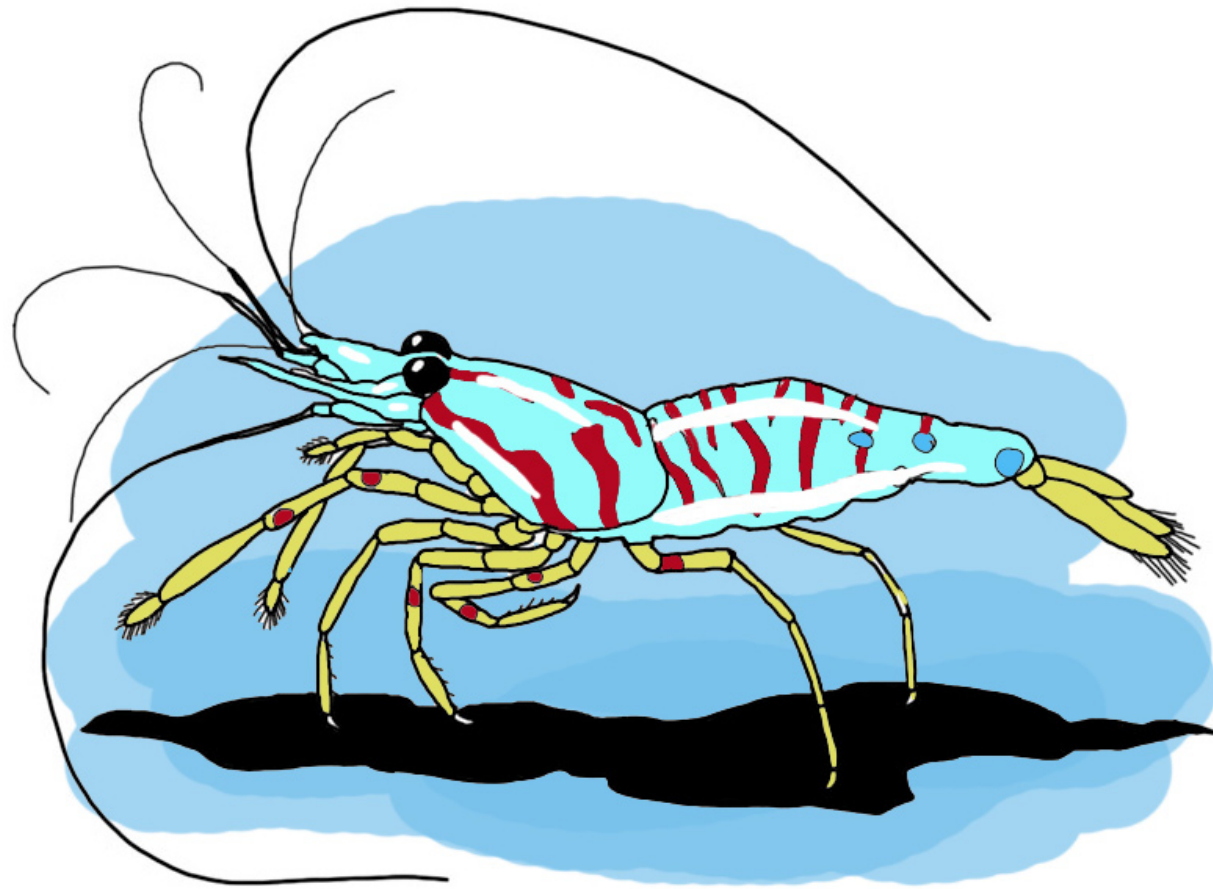


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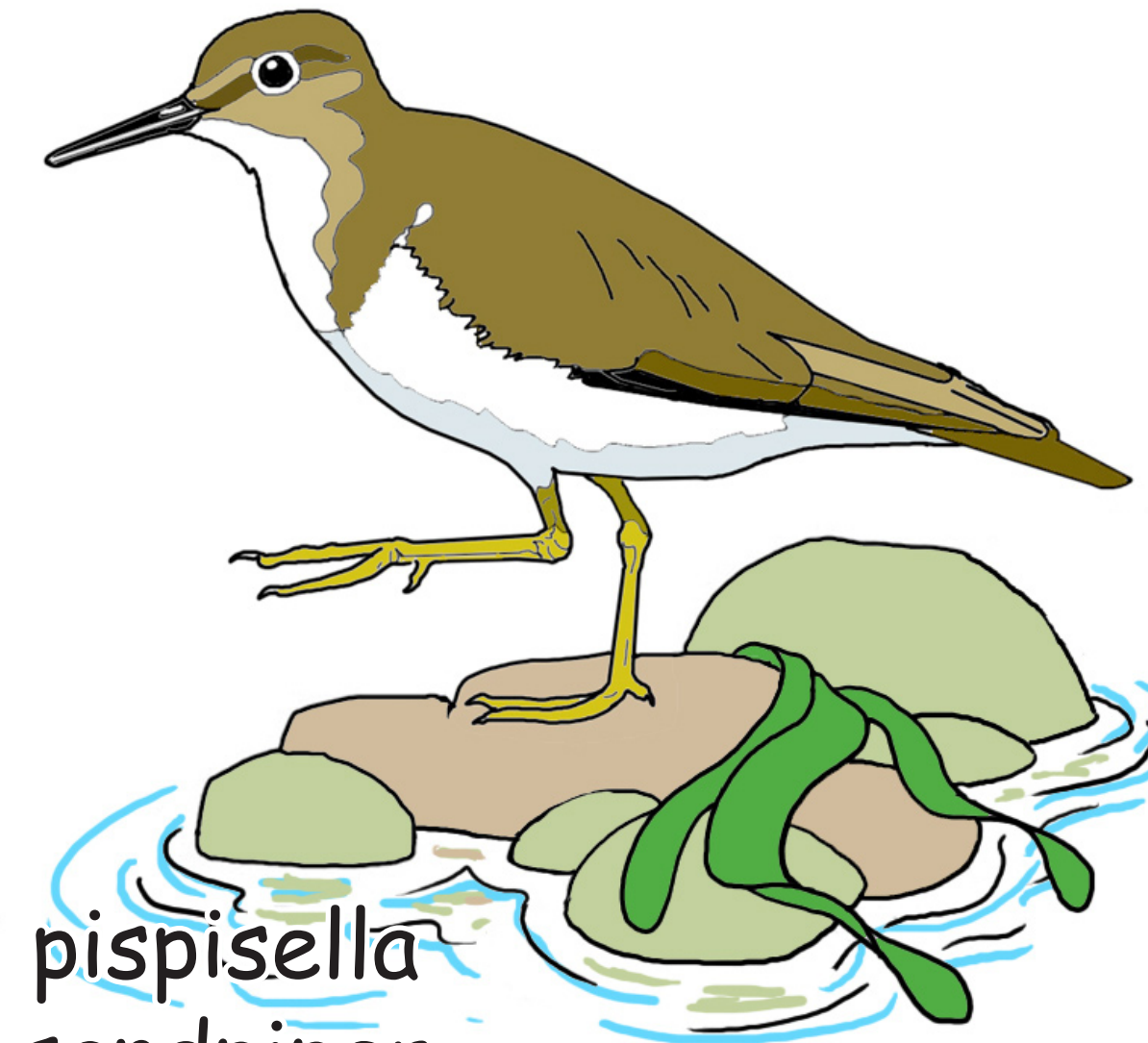


plant plankton



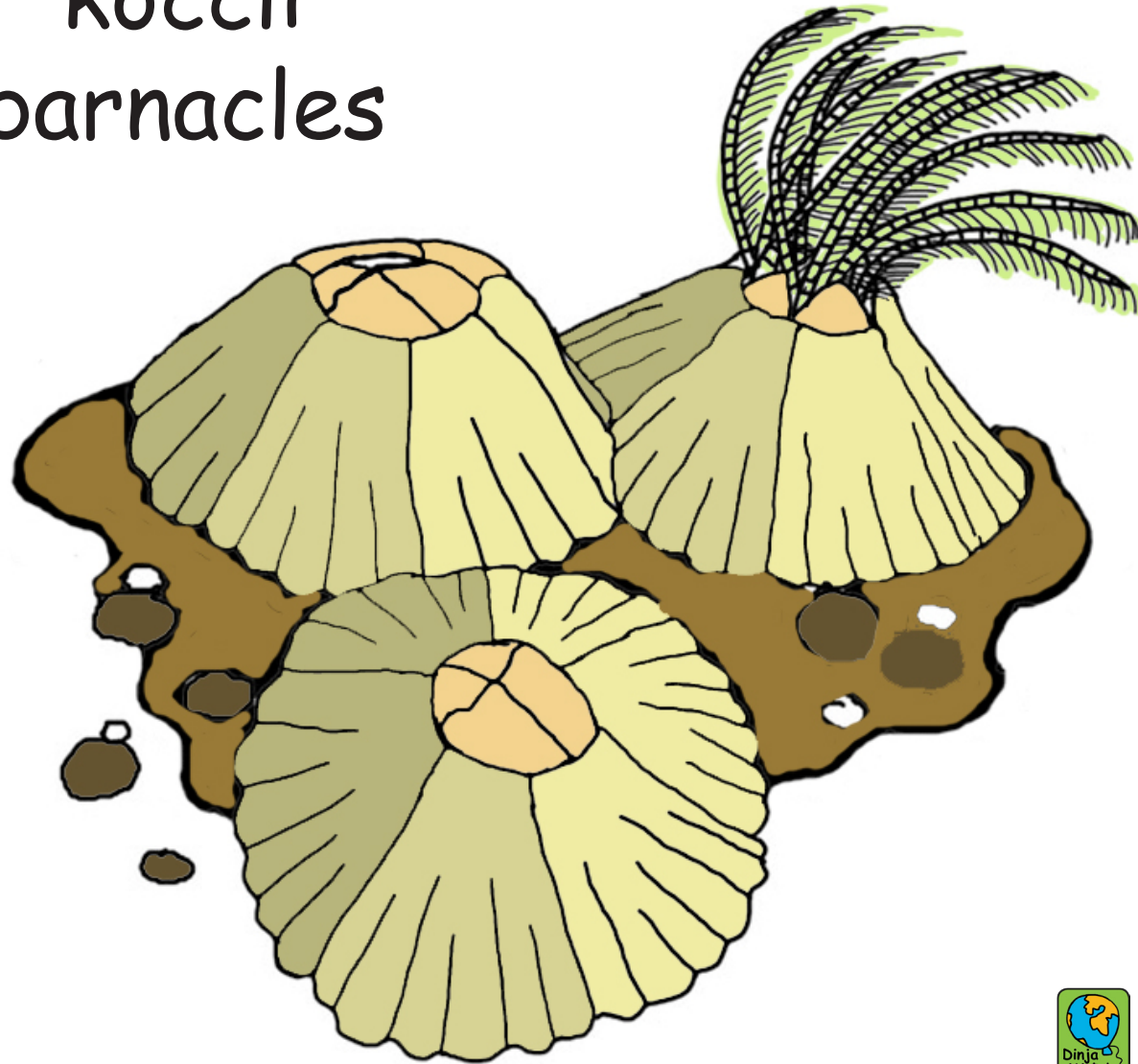


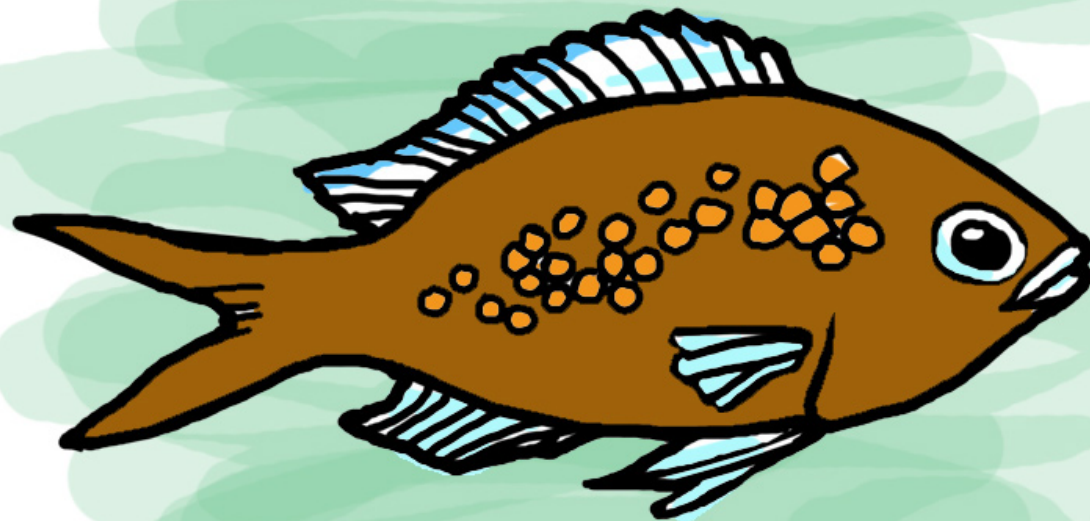
gambler
shrimp



pispisella
sandpiper

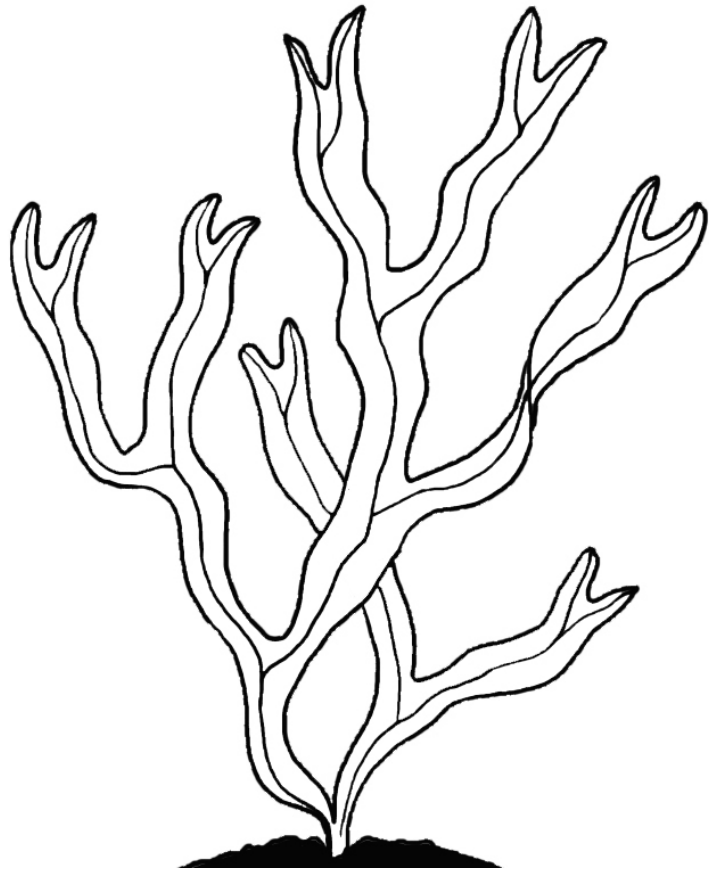
koččli barnacles



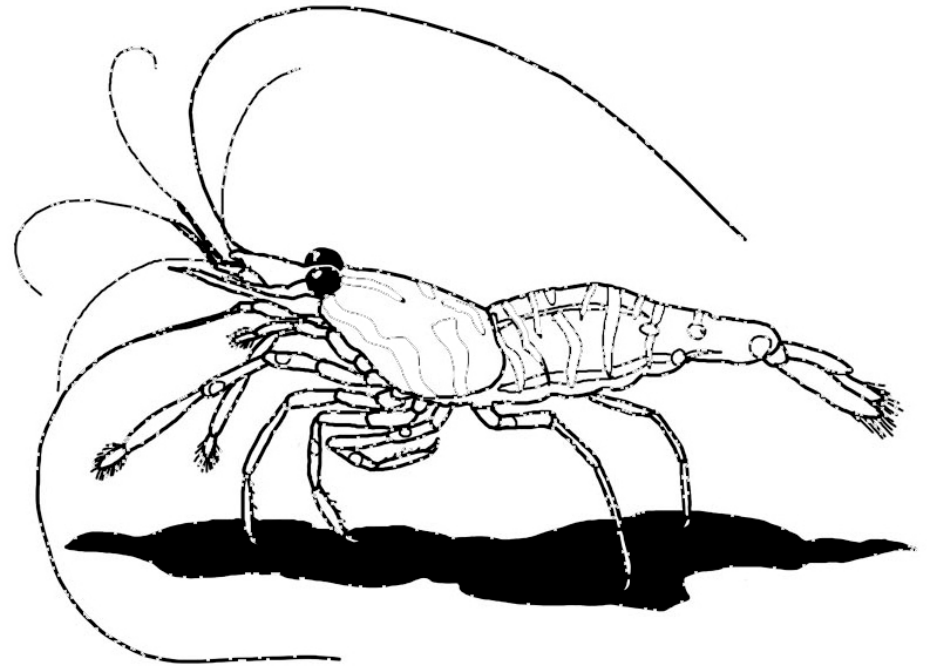


čawla
damselfish

alga

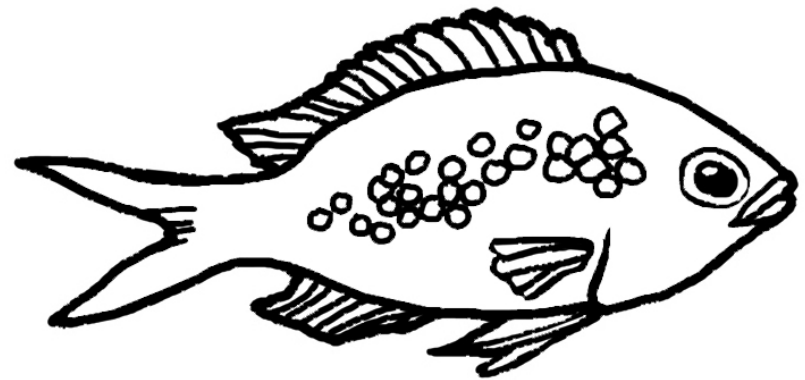
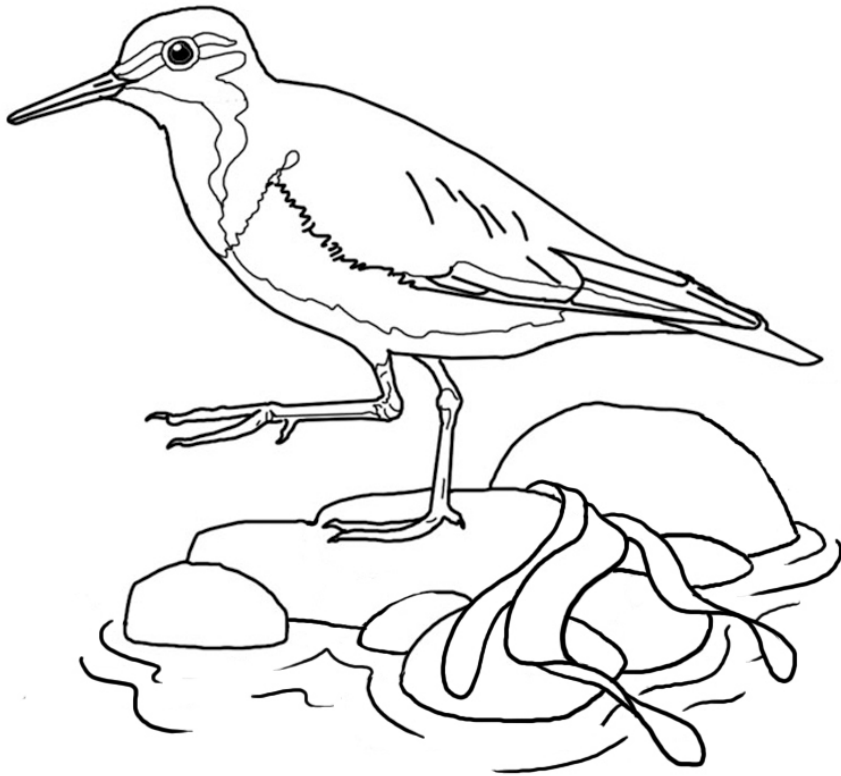


gamblu
shrimp



pisapisella

sandpiper

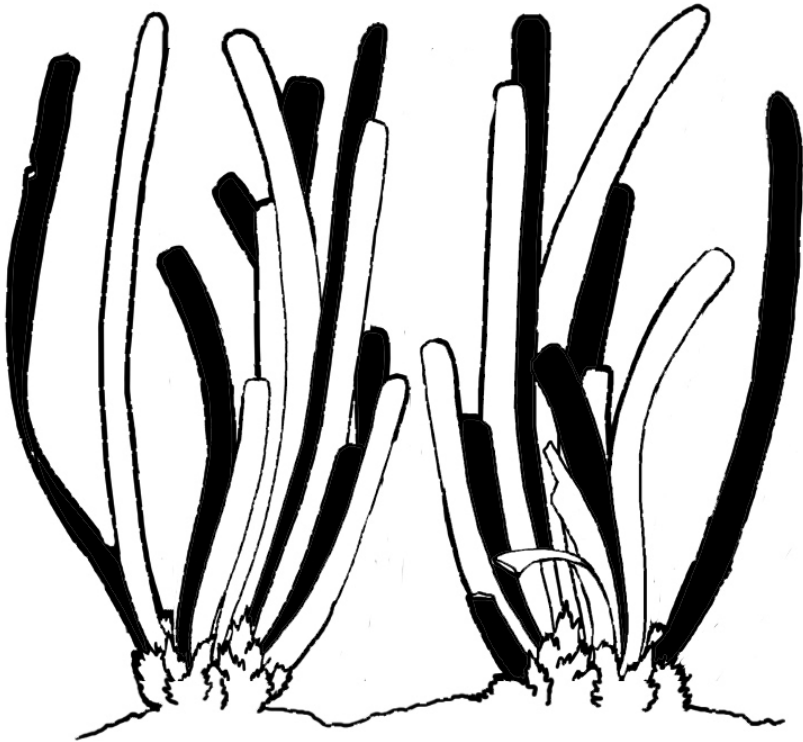


čawla

damselfish

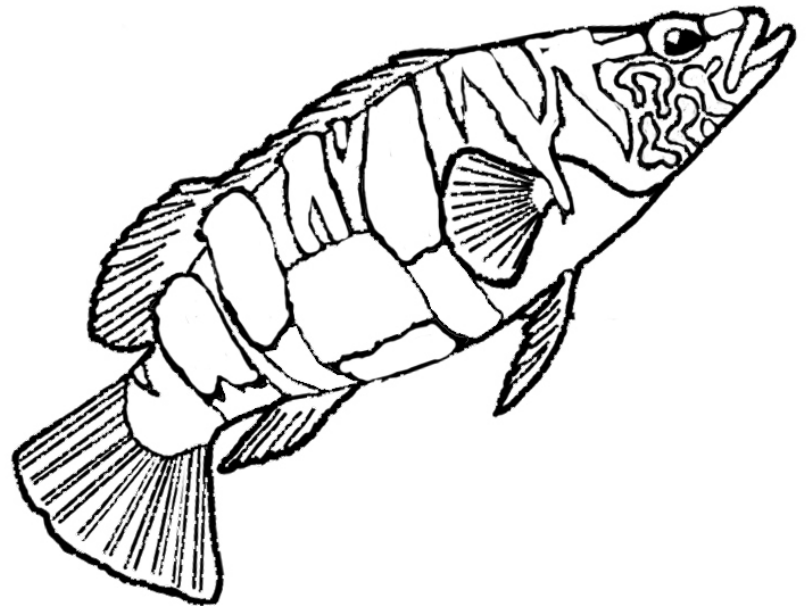
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seagrass



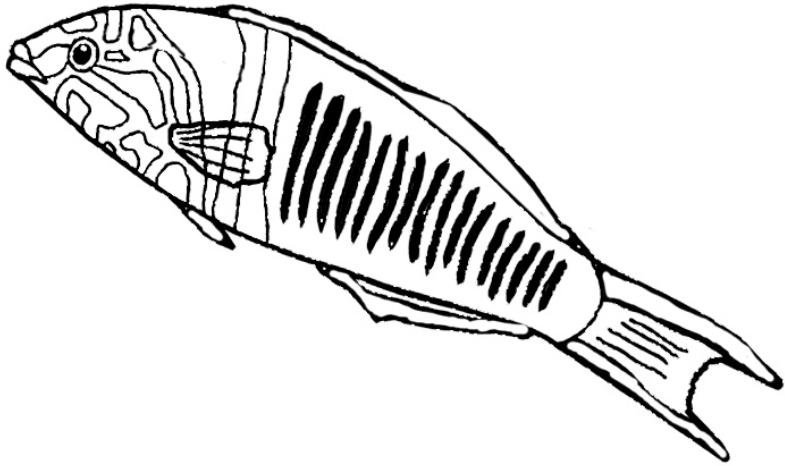
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painter comber



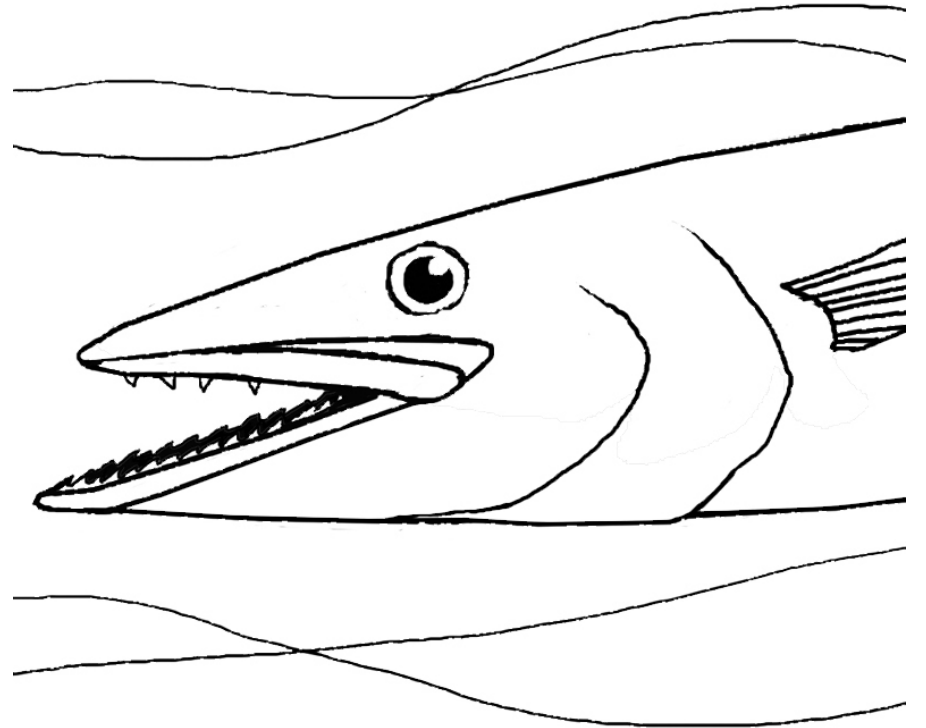
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wrasse



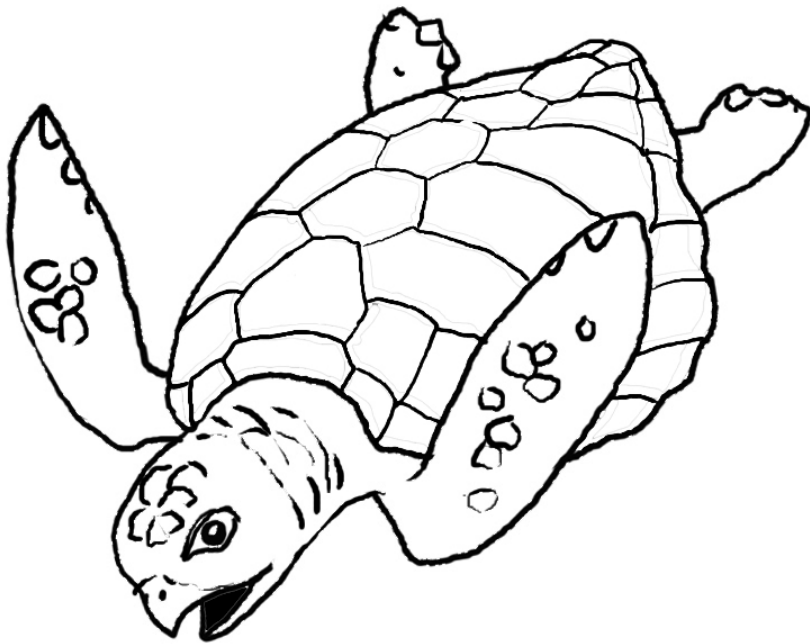
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barracuda

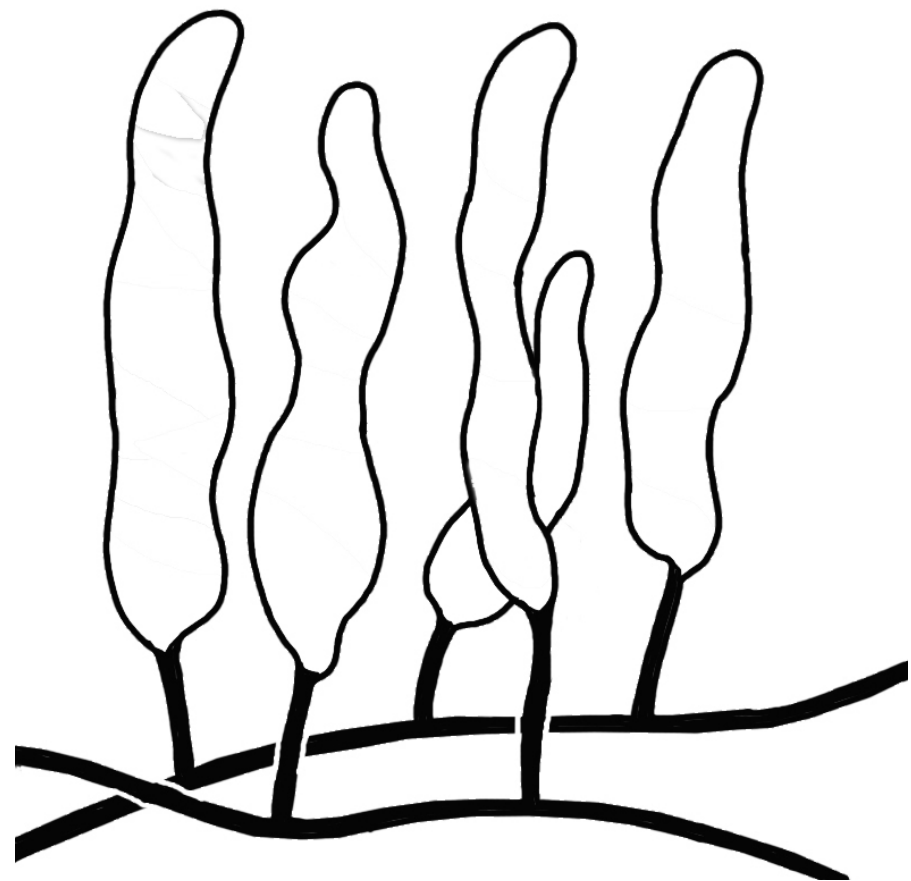


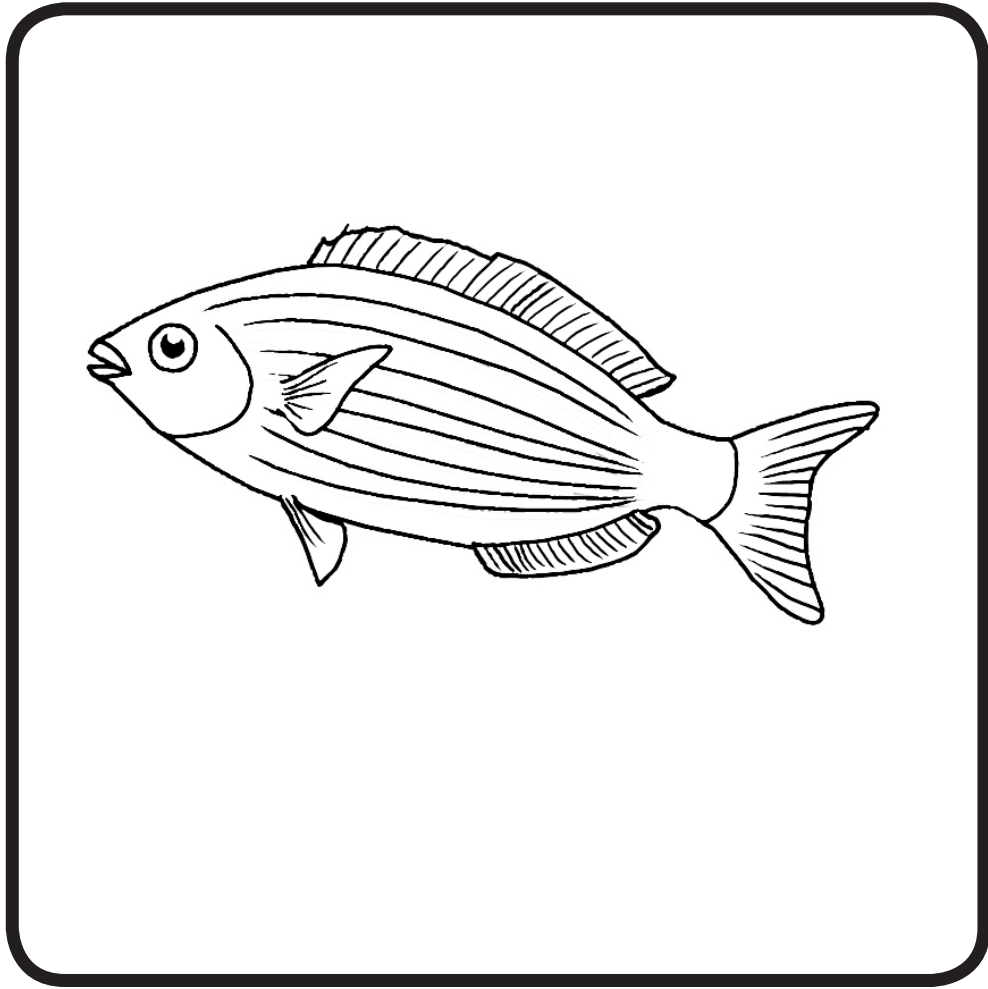
fekruna

turtle



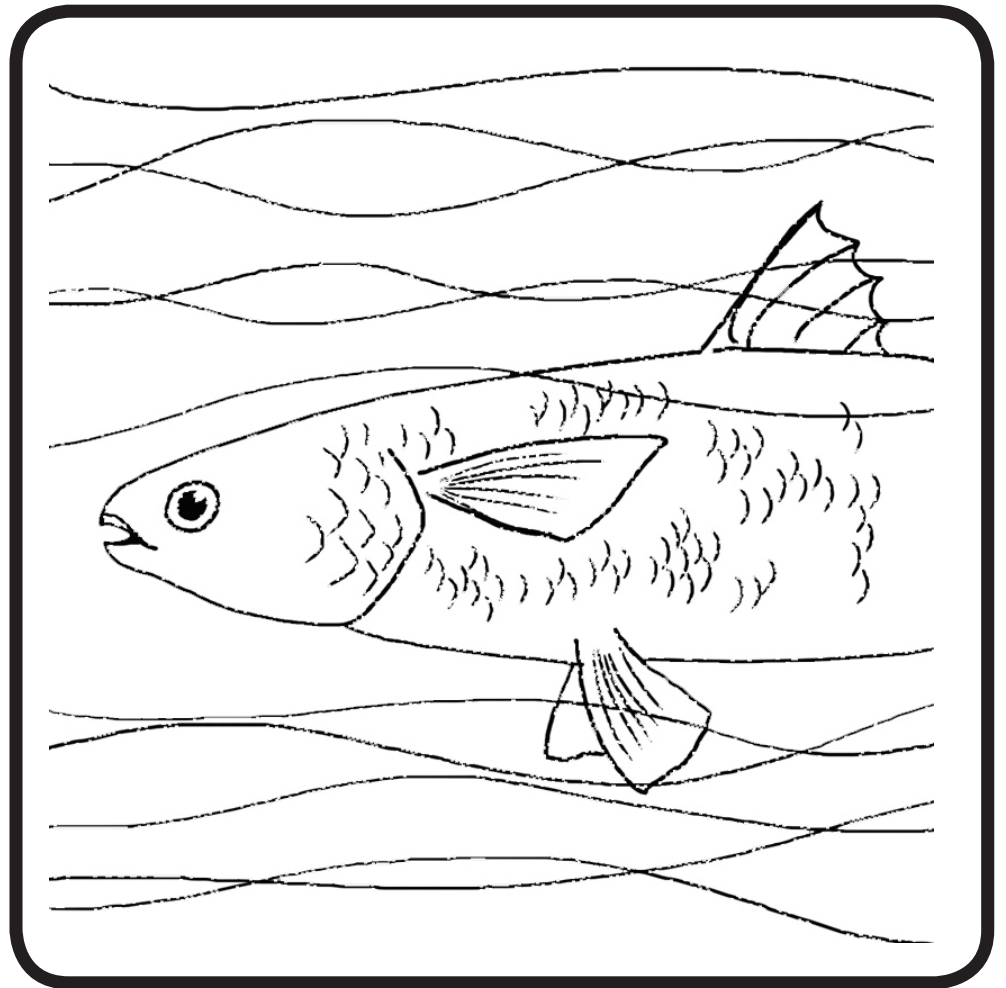
alga





xilpa

saup

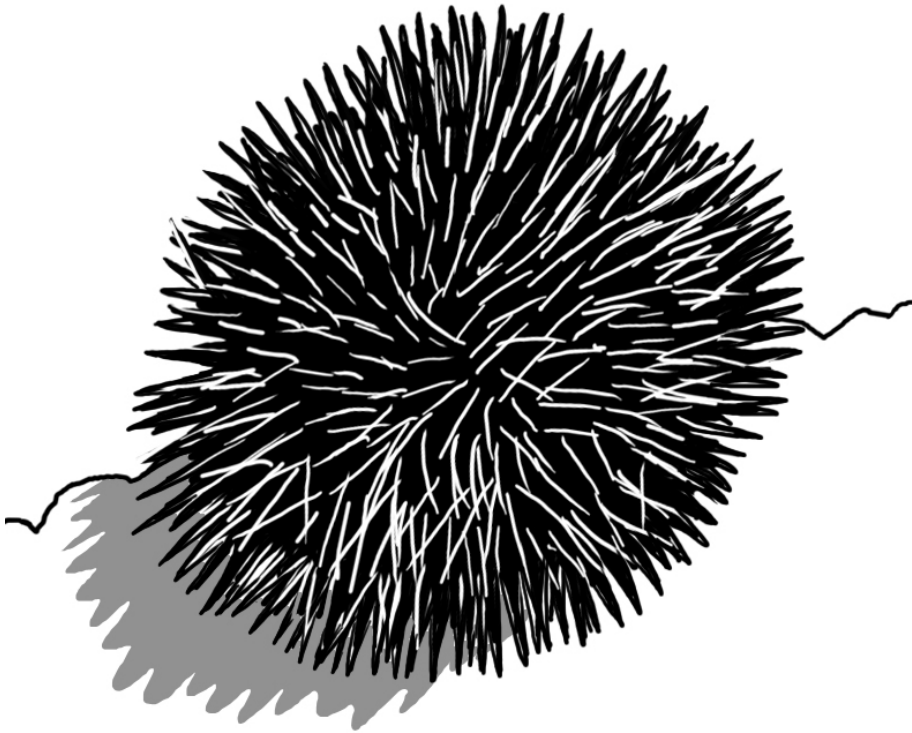


mulett

mullet

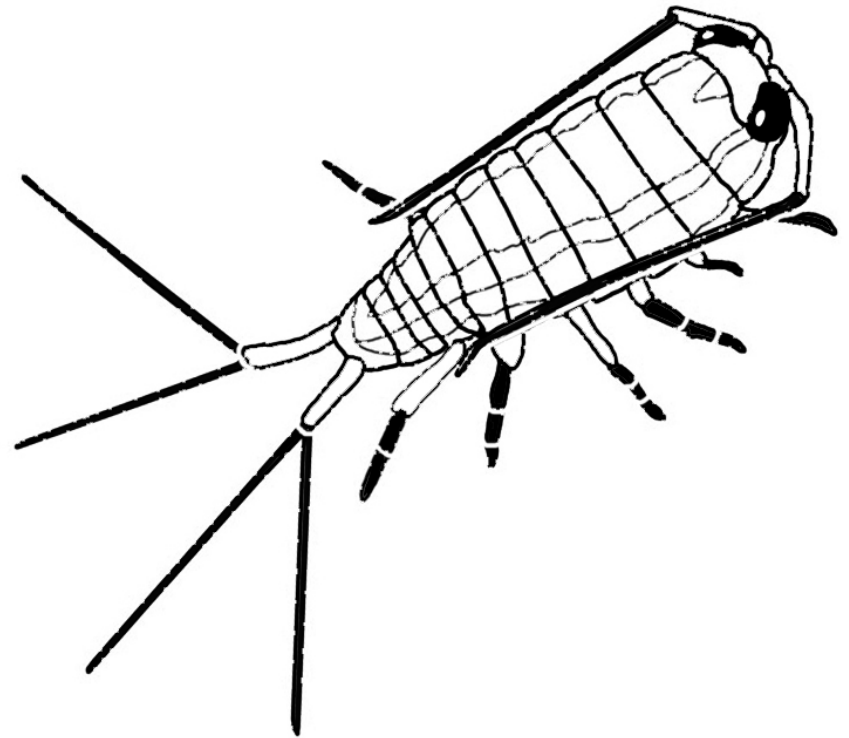
rizza

sea-urchin



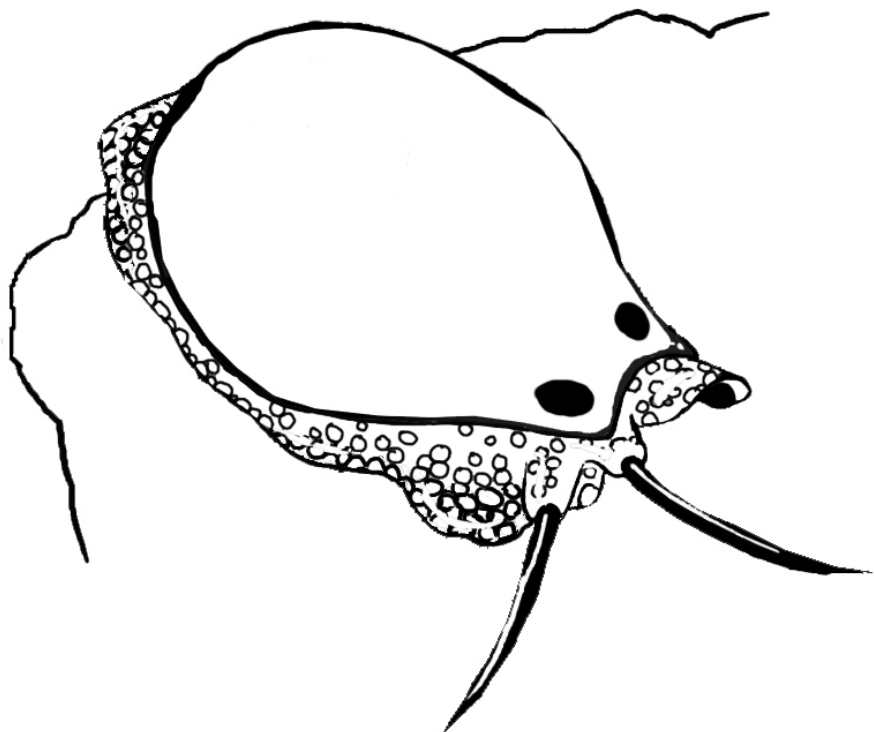
dudu tas-sajd

sea slater



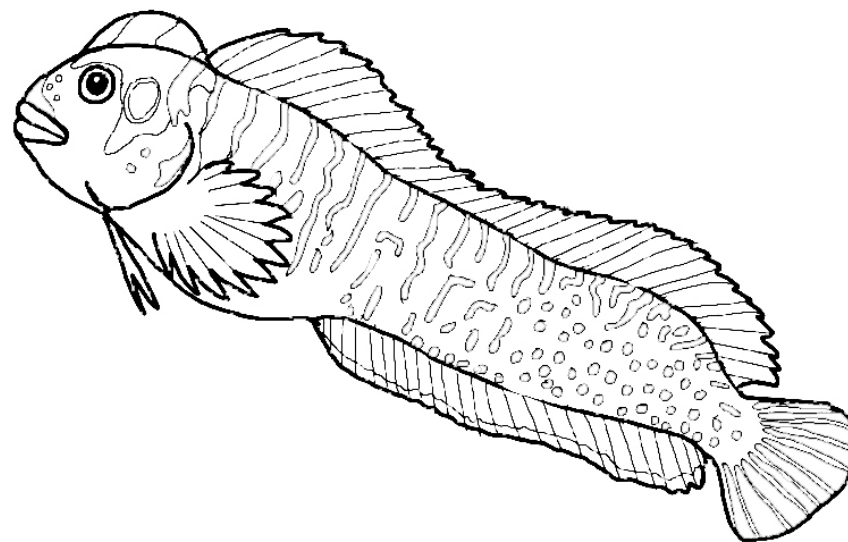
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cowrie



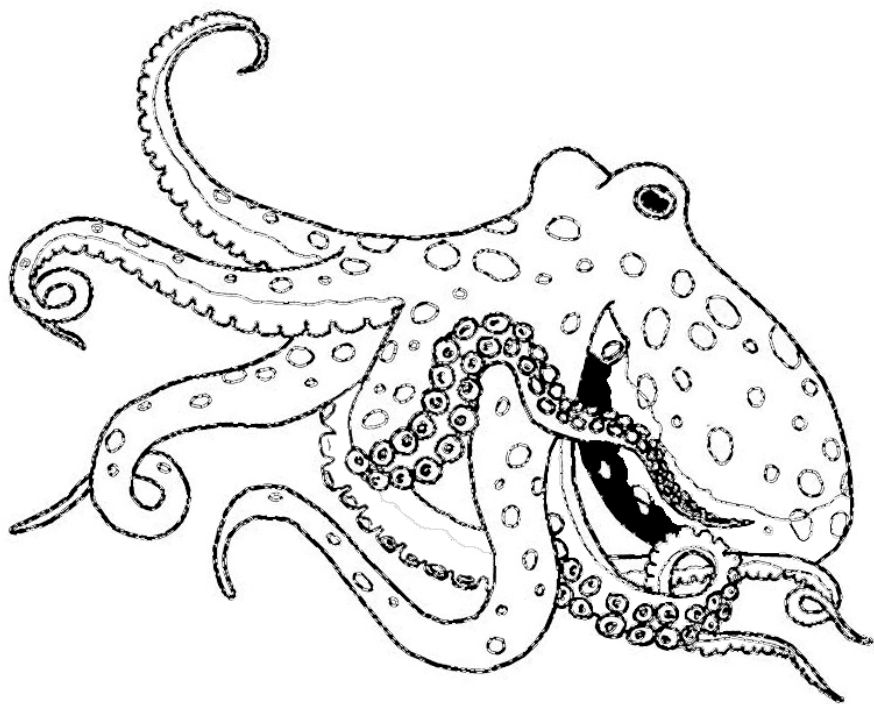
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blenny



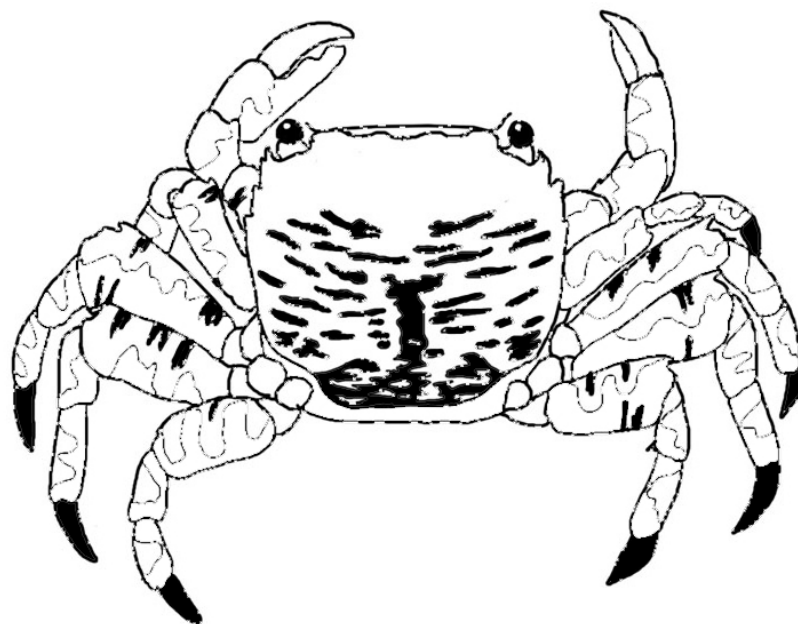
qarnita

octopus



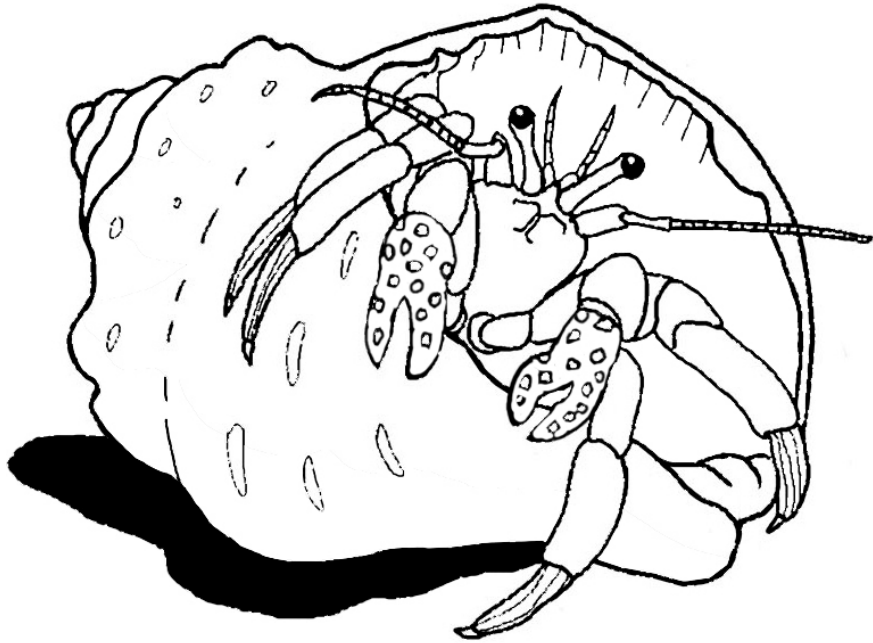
granċ tax-xatt

shore crab



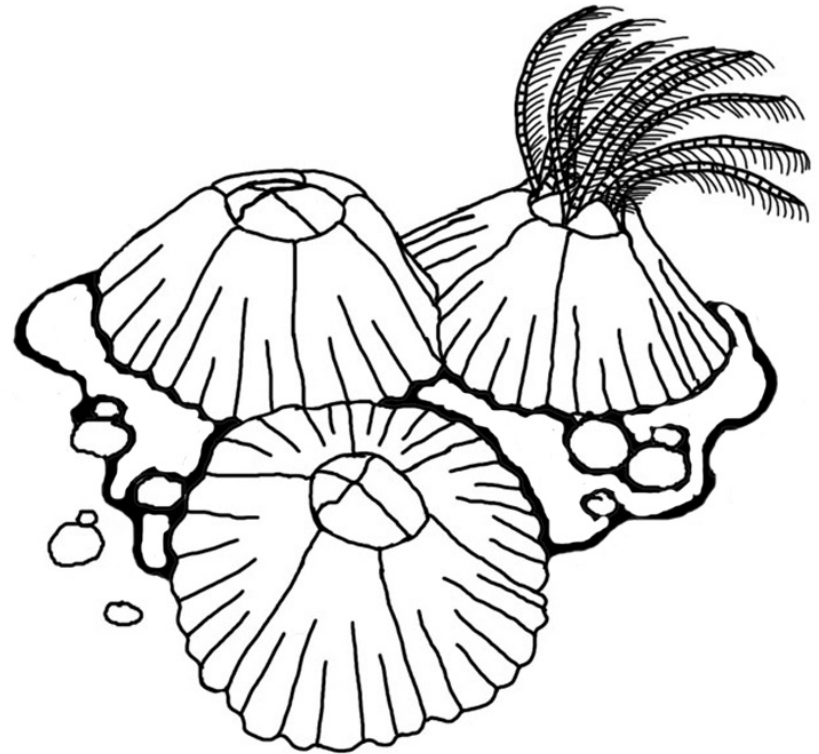
granċ tal-bebbuxu

hermit crab

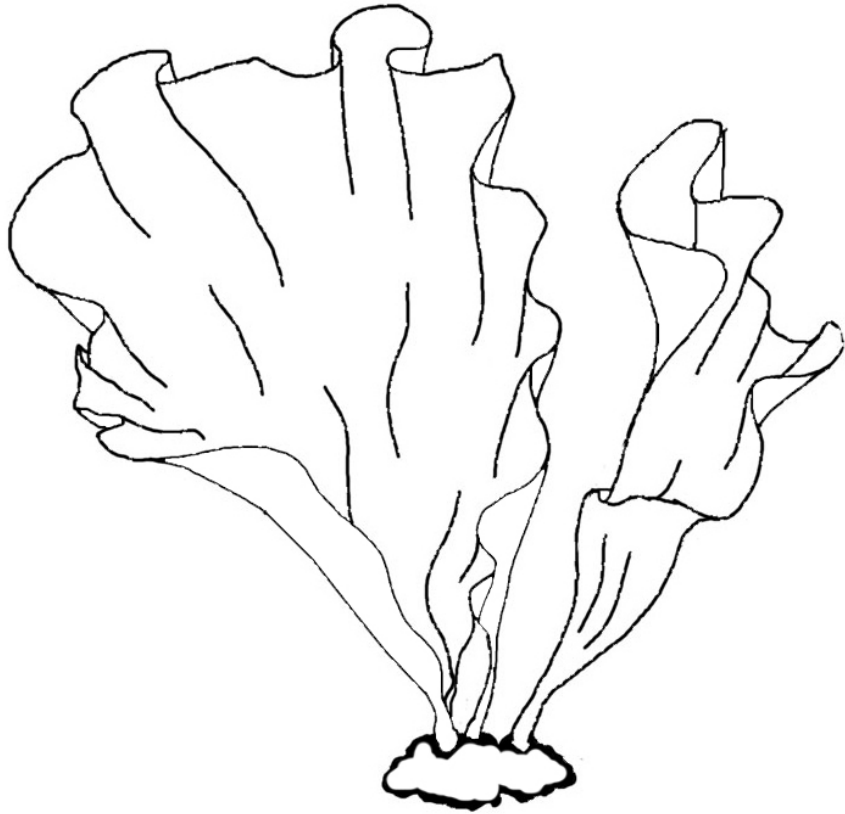


koċċli

barnacles

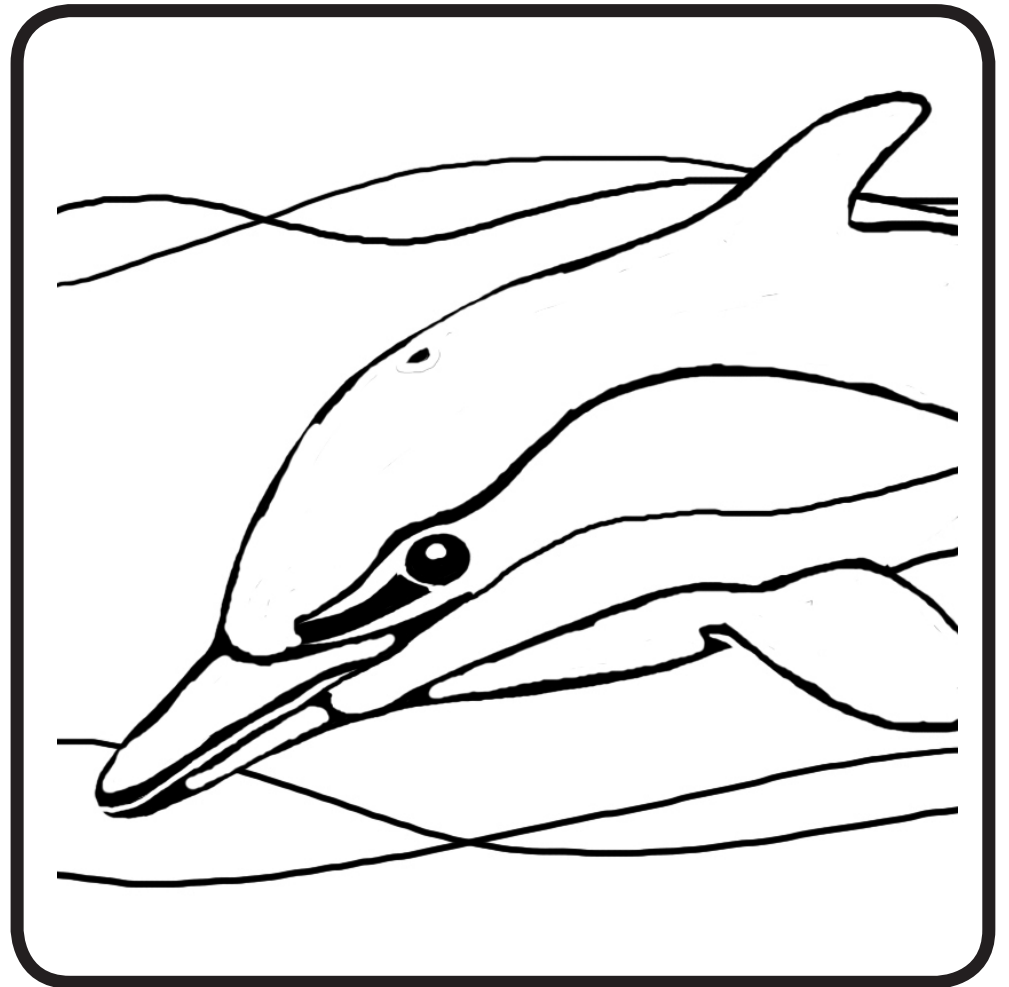


alga



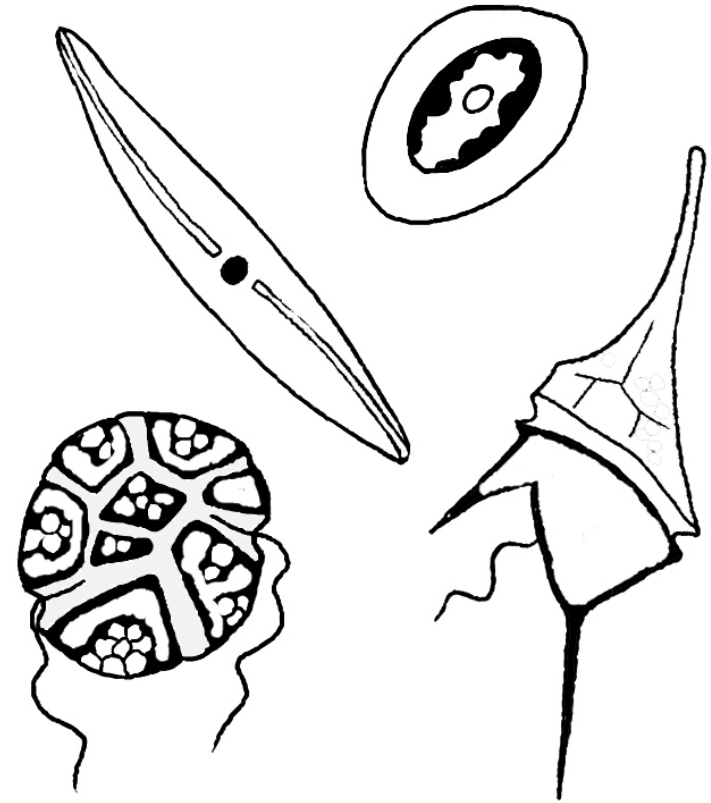
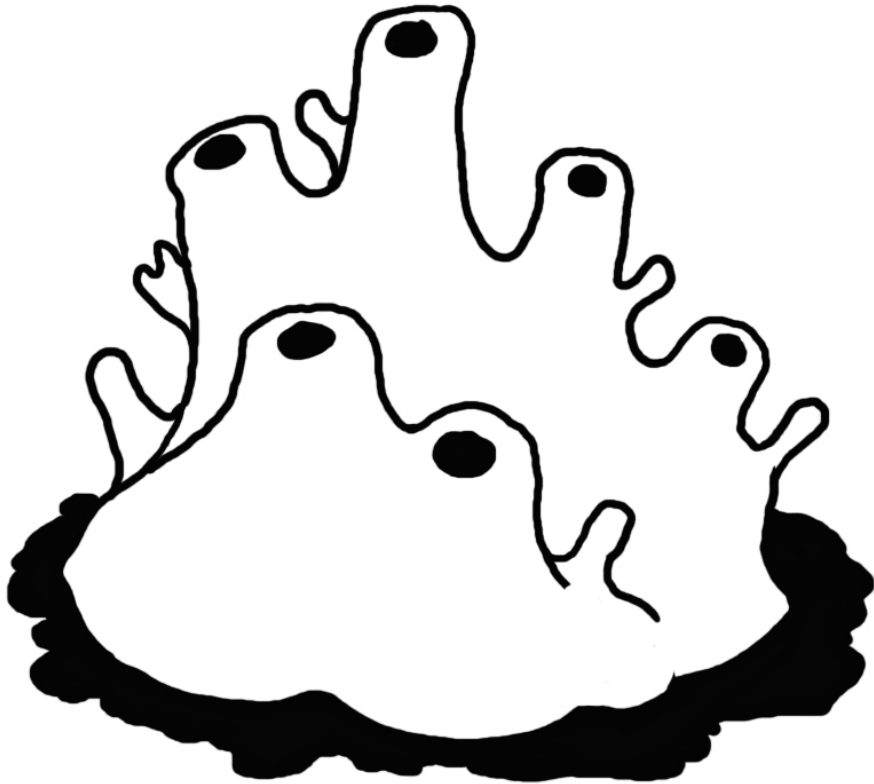
denfil

dolphin



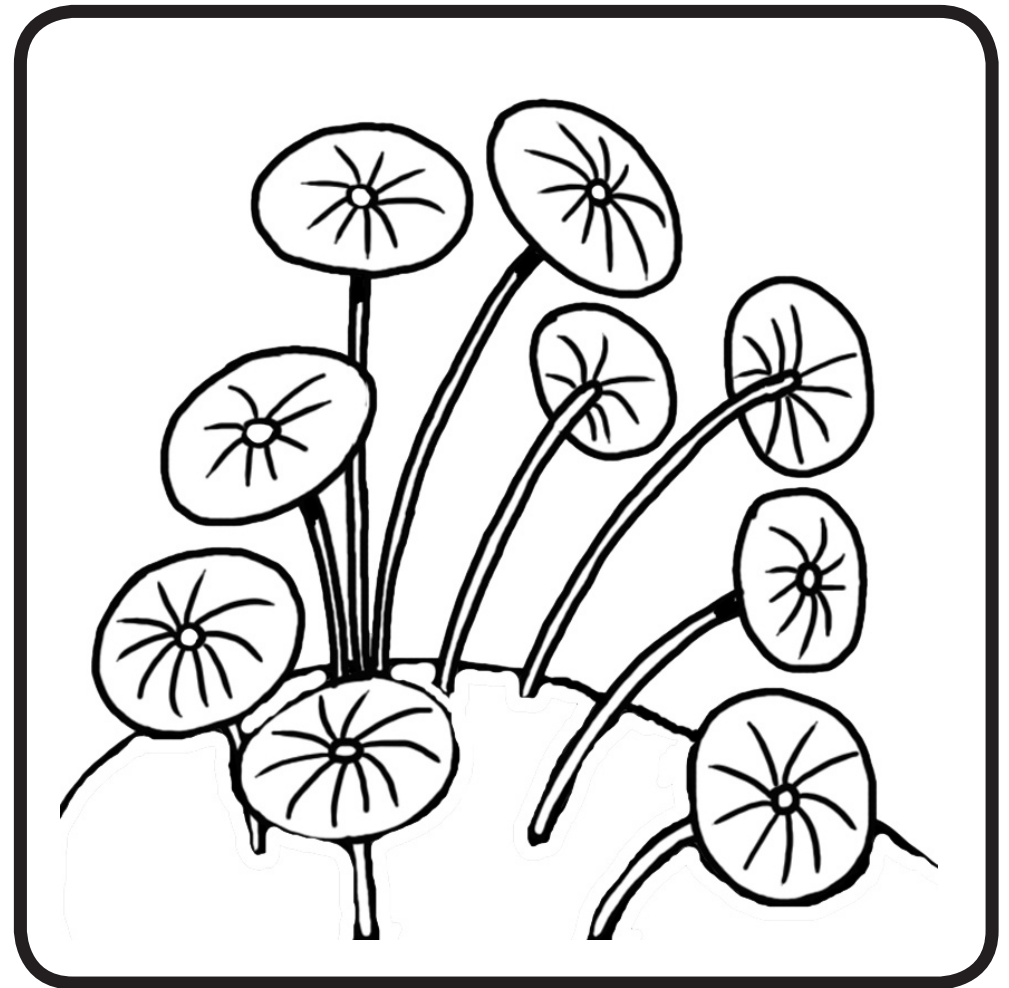
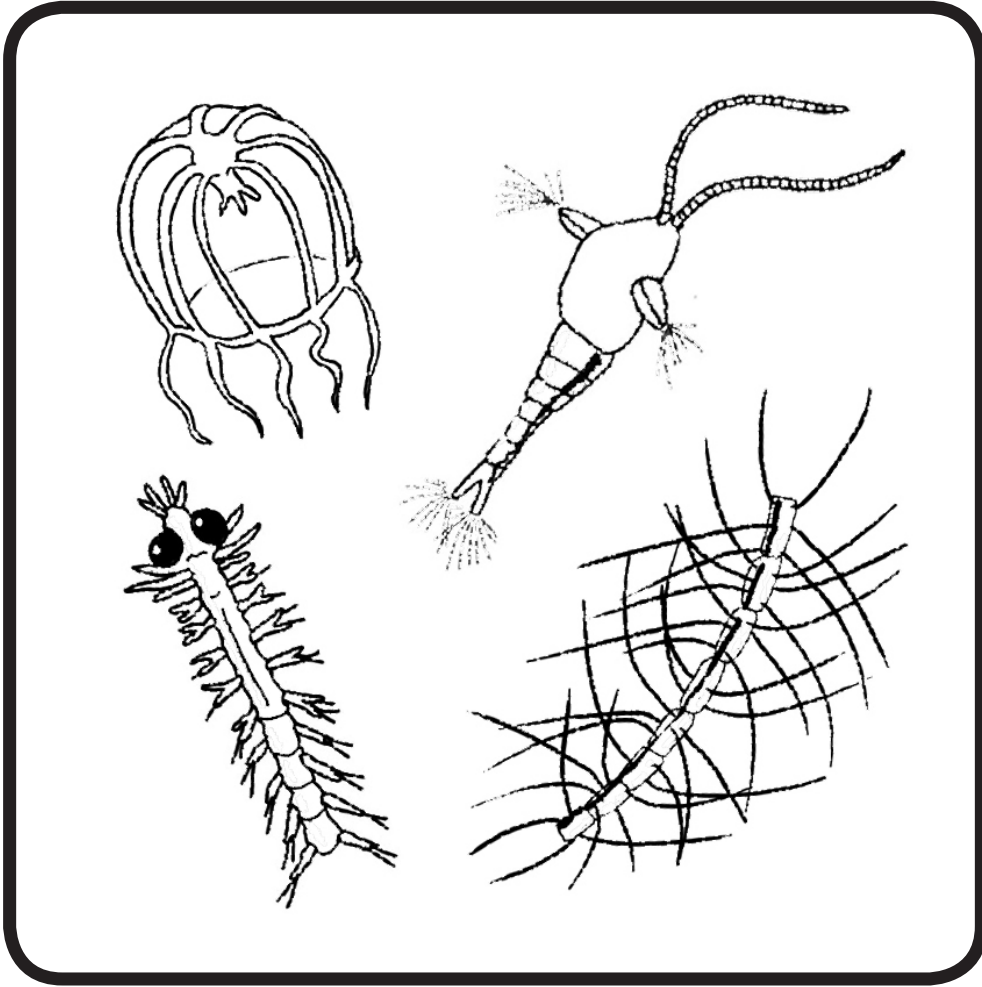
sponža

sponge



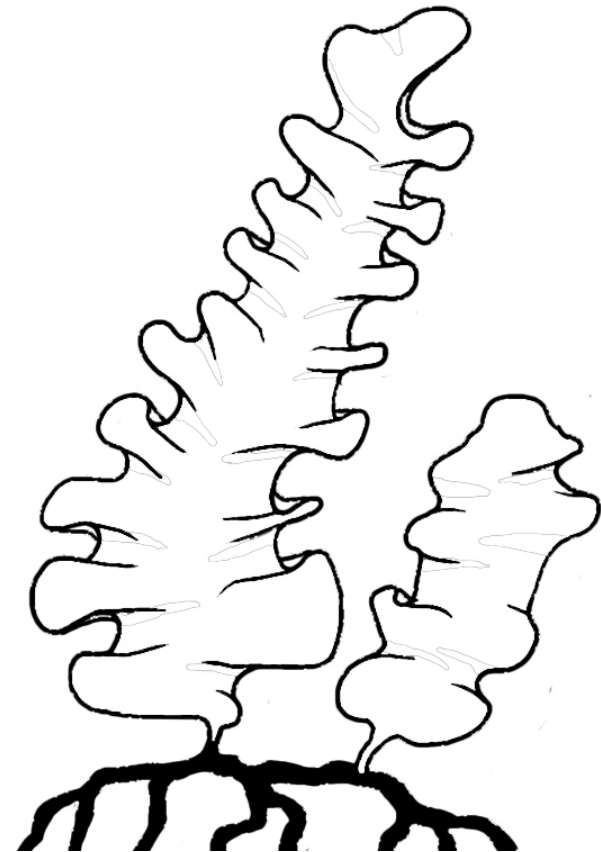
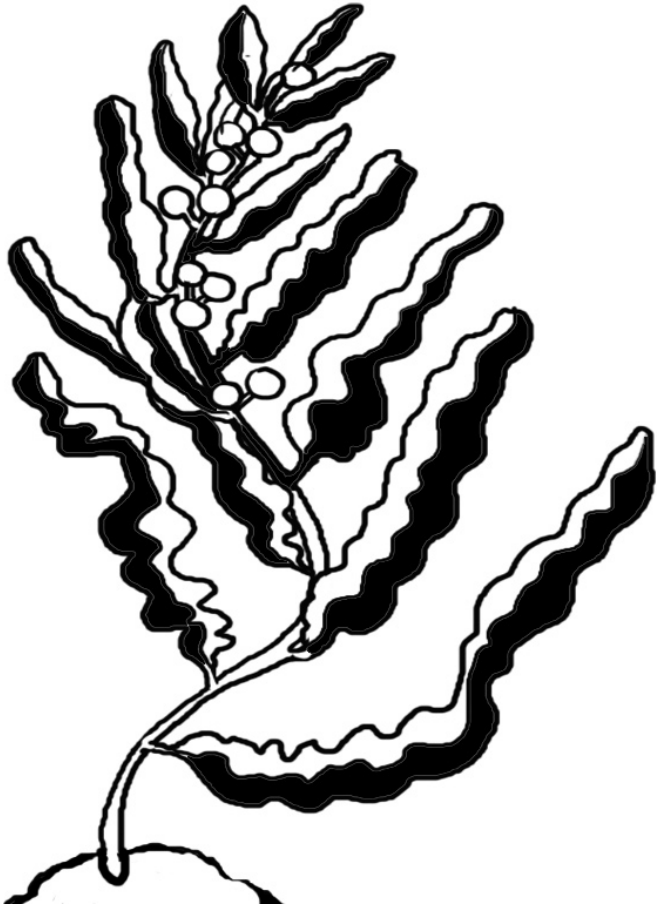
plant plankton

animal plankton



alga

alga



alga

Sea Harms

The sea looks indestructible because it is so huge. But it is being damaged just as much as any other habitat on the planet. The biggest danger to the sea today is global warming, the result of too much pollution in the atmosphere. Rising sea temperatures will have disastrous effects not just for people, but it will also drive thousands of species to extinction. Governments are not taking the problem seriously enough and they keep putting the solution off for tomorrow. But while governments drag their feet and procrastinate, we can still do our bit by using renewable energy, smaller cars, energy efficient appliances, etc. Apart from climate change, marine life is facing many other man-made problems, four of which are the following:

Oil pollution

Oil pollution is the result of shipping and oilrig accidents at sea, leaks from pipes or vessels, etc. Oil is poisonous to wildlife. When oil spills happen many thousands of seabirds get oil in their plumage and die from swallowing the oil while trying to clean their feathers. Oil also kills fish, algae, invertebrates, plankton and sea mammals.

There isn't much we as common citizens can do to stop oil pollution. Most of the oil carried by these tankers, however, is used to fuel power stations, so the best we can do is save as much as we can on electricity by using cleaner energy (like solar panels and solar heaters), eco-friendly lamps and appliances, fuel-efficient cars (petrol/diesel is also produced by the oil industry), reduce wastage of water (produced at great energy expense) and simply switch off electric things when we finish using them.

Overfishing

People are always building ever-bigger fishing vessels that use longer and wider nets to catch even more fish. We act as if the number of fish in the sea is infinite. For many years scientists and naturalists warned governments that at the rate we are catching them, the fish will not last. In recent decades many fisheries have in fact ran out of fish and closed down. Other fisheries didn't learn the lesson, and they still send out mega-trawlers to catch more and more fish.

There is little we as common citizens can do to stop overfishing but there are many ways in which governments can control the problem, e.g. ensuring that illegal nets or fishing methods are not used, ensuring that fishermen observe certain seasons, ensuring that they don't fish in areas where fish spawn (lay eggs) or young fish are growing.

Casual catches

When they go to the beach, many people are not happy to just enjoy the swim. They kill time by picking and catching small living things they can eat. Granny picks limpets (imhar) from the rocks while Dad swims about and brings ashore bagfuls of sea-urchins (rizzi) for Mum to break open for that tiny orange pinch of edible matter; big brother patrols the shore with his harpoon shooting stingrays and octopuses, while Grandad sits with his fishing rod catching wrasses and young breams from the shallows.

All this activity is not necessary because these people don't really need to catch anything, as they already have plenty of food. It is a wasteful habit that is damaging the foodchains and ecosystems of our coastal waters. Catching young fish and young octopuses is wrong because that way they won't grow up and lay eggs to produce more animals.

Plastic litter

Our bays are evidence of how much plastic we throw away and how much of it ends up in the sea. Plastic bags, bottles, cups, six-pack holders, discarded fishing line, etc. Even though they are small items, these things take many years to degrade because plastic is made of a chemical compound that nature cannot easily tackle. The entire metal hull of the Titanic will disintegrate long before a single disposable diaper will! If La Valette had thrown a plastic cup at the fall of St Elmo in 1565, bits of that cup would still be there today, buried in the silt of Grand Harbour.

Floating plastic objects pose a danger to animals who mistake them for food, eat them and die. Young turtles, fish and dolphins also get entangled in plastic rings or straps and as they grow up the plastic cuts into their body and kills them.

Relevant pictures in the following pages...

