

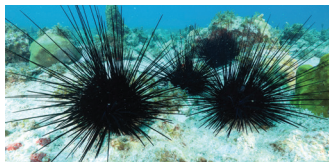
ECHINODERMS



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What is it? ◀◀

Sea urchins are echinoderms, with round bodies and venomous spines. Echinoderm means spiny skin in Greek.

What parts are preserved? ▶▶

Occasionally we see the spines, but mostly we find the hard shells which can be globular or flattened, round or heart shaped, bumpy or with a pattern on top.



Habitat/Biome

Urchins thrive from the shallows at the shoreline down to 5,000 meters.

What did I eat? ◀◀

Urchins are omnivores. The young eat algae and clean coral reefs. Adults feed on algae, sea cucumbers, mussels, marine worms, sponges, brittle stars, and crinoids.

What ate me? ▶▶

Sea otters, birds, lobsters and crabs, octopuses, foxes, horn sharks, starfish, wolf eels, trigger fish, and humans enjoy a meal of sea urchin.



Fun Fact

Most echinoderms like sea urchins can't swim. They move using their spines or on special tubes called podia.



SAND TIGER SHARK TOOTH



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What is it? ◀◀

The sand tiger shark is the oldest still living species of shark, having existed for 65 million years.

What parts are preserved? ▶▶

Sharks have bodies made of cartilage, like our ears. Only the teeth and vertebrae are preserved. Teeth are very common but vertebrae are rare.



Habitat/Biome ▶▶

Coastal sandy shores, estuaries, sand bars and tropical reefs are where they have existed for hundreds of millions of years.



What did I eat? ◀◀

Teeth are narrow and pointed to hold onto prey including bony fishes, rays, crabs, lobsters, and other sharks.

What ate me?

Larger sharks eat young sand tiger sharks but adults have no major predators.



Fun Fact

Sand tiger sharks gulp water from the surface and hold it in their stomachs allowing them to hover motionless in the water.



SAHARA GASTROPOD



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What is it? ◀◀

This mollusk is a gastropod, which means “stomach foot” in Greek. It is related to snails and slugs.

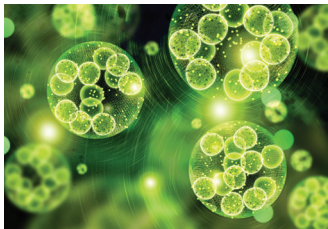
What parts are preserved? ▶▶

The interior void is preserved. The shell has eroded away leaving only the impression of the original gastropod.



Habitat/Biome ▶▶

They can be found in fresh water, brackish water, in marine environments, and on land in almost all environments.



What did I eat? ◀◀

Gastropods scrape small particles from algae and kelp, detritus, plants, and even slow moving animals. Some are active carnivores.

What ate me?

Crustaceans, fish, birds, and mammals enjoy a gastropod meal.



Fun Fact

Gastropods can be found everywhere on Earth, including Antarctica.



PINK GASTROPOD



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What is it? ◀◀

This mollusk is related to snails and slugs.

What parts are preserved? ▶▶

The interior of the shell is preserved. The outside might have been a flattened spiral, a long pointy spiral with spines, or many other shapes we see in modern gastropods.



Habitat/Biome ▶▶

Gastropods can be found on land and in fresh and salt water. Fossils occur on all continents.



What did I eat? ◀◀

Their diet is mainly plants and decaying matter in forests and water. Several dozen marine and terrestrial gastropods are predatory carnivores.

What ate me?

Crustaceans, fish, birds, and mammals all eat gastropods.



Fun Fact

Gastropod comes from the roots gastro and poda, meaning stomach foot.



BIVALVES



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What is it? ◀◀

This mollusk is a bivalve, meaning two hinged shells like a clam with two mirror image shells.

What parts are preserved? ▶▶

The two shells remain, often still connected.

Habitat/Biome

Clams can be found buried in sand or mud in almost all freshwater and marine habitats. Some deep ocean clams are free swimming.



What did I eat? ◀◀

Bivalves filter plankton, algae, and detritus and help keep the oceans clean.

What ate me?

Fish, birds, crayfish, frogs, and mammals have developed unique ways of opening bivalve's hard shells to get to the edible flesh inside.



Fun Fact

Bivalves coat shells with nacre and the nacre can make a pearl. The shells are often used in crafts.

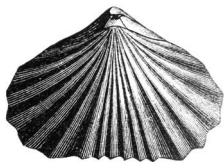


BRACHIOPOD



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***What parts are preserved?* ►►**

Only the shell remains to be fossilized as the soft tissue decays.

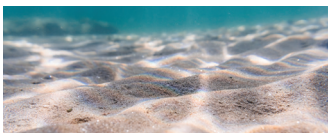
Habitat/Biome

Brachiopods are mostly found buried in the sea floor and fossils are found around the world.



***What is it?* ◀◀**

Brachiopods slightly resemble mollusks like bivalves, but they are an older group and are symmetrical side to side rather than top and bottom.



What did I eat?

Brachiopods are filter feeders, eating detritus and plankton.

***What ate me?* ◀◀**

Snails, starfish, crustaceans, fish, cephalopods, and many ancient creatures enjoyed crushing brachiopods for the tender insides.



Fun Fact

Brachiopods do not occur in fresh water. They are entirely marine.



CRINOID



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What is it? ◀◀

Crinoids are also called sea lilies because they resemble underwater flowers. They are animals in the echinoderm group and are related to sea stars and urchins.

What parts are preserved? ▶▶

Our sample is part of the stem.



Habitat/Biome ▶▶

They originally existed in both deep sea and coral reefs, but species alive today only live in the deep ocean.



What did I eat?

They filter water for detritus that falls from above.

What ate me? ◀◀

Crinoids have been attacked since the Ordovician by predators, including fish, echinoids, gastropods, and possibly cephalopods and arthropods.



Fun Fact

The largest crinoid stem ever found was 40 meters long. That is as long as a blue whale!



SKATE TOOTH



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What is it? ◀◀

Skates and rays are fish related to sharks. Instead of bones, they have cartilage which doesn't preserve as well as bone.

What parts are preserved?

Skate skeletons are mostly cartilage so we mostly see their very hard teeth. Skates had a lot of teeth for crushing animals with hard shells.

Habitat/Biome ▶▶

Skates hunt the bottom in marine and fresh water settings.



What did I eat?

Skates prey on animals including muscles, shrimp, crab, and small fish.

What ate me? ◀◀

Skates are eaten by large bony fish, sharks, and gray seals.



Fun Fact

Skates lay egg cases that are often found in the beach. Some call them mermaid's purses.



TRILOBITE



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What is it? ◀◀

Trilobites are one of the earliest marine arthropods.

What parts are preserved? ▶▶

Like crustaceans today, trilobites have to shed their outer skin to grow larger. Many of the trilobite fossils we find are only the shed skins, not the animal.

Habitat/Biome

Most trilobites hunted on the sea floor.



What did I eat? ◀◀

Trilobites ate marine worms and other invertebrates. Primarily, they were scavengers but some were predators.

What ate me? ◀◀

Predators included worms, nautiloids, sea scorpions, crustaceans, and the long extinct anomalocaris known as the Terror of the Trilobites!



Fun Fact

Trilobites could roll into a ball to defend against predators, much like current day pill bugs.

