



EXPLORERS WILD ABOUT WILDLIFE on the

Seashore

WORMS

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*Foras na Mara
Marine Institute*

WORMS

INTRODUCING MARINE WORMS

There are many different worms that live on our seashores. They can be found in mud and sand, under rocks, and sometimes even living on other animals!

Most of the worms on our shores belong to a group called **Polychaetes** or **Polychaeta**, which means **bristle worms**. Poly = Many, Chaete = Bristles or hair. Polychaeta have been spotted in the deepest parts of the ocean, as well as on the seashore, and in all habitats in-between.

SPECIAL FEATURES

The worms that stay in the same place for their whole lives are called **sedentary**, such as coiled tube worms or keeled tube worm. Many are **filter feeders**, using tiny **tentacles** to gather floating bits of food from the water around them.

The worms that can move around freely are called **errant**, and are usually **scavengers** or **predators**. These worms include the ragworm and lugworm. They usually have **eyes** and **jaws**, for spotting and grabbing food.





Photography by H. Helen on iStock

QUICK FACTS

SCIENTIFIC NAME

Spirorbis spirorbis

SIZE: 1-4 mm across

COLOUR: White tube with orange-reddish worm

LIFESPAN: 1 and a half years.

WHERE YOU WILL FIND ME:

	SPLASH ZONE	
	Upper Shore	INTERTIDAL ZONE
✓	Middle Shore	
✓	Lower Shore	
✓	SUBTIDAL ZONE	

COILED TUBE WORM TIÚBPHEIST CHORNTHA

WHAT TYPE OF SEA CREATURE AM I?

The coiled tube worm is a polychaete.

WHERE WILL YOU FIND ME?

Coiled tube worms can be found in plentiful numbers on our seashores. They are often seen encrusting the fronds (leaves) of seaweeds such as bladder wrack and serrated wrack. They can also be found on the underside of rocks in rockpools.

WHAT DO I LOOK LIKE?

The worm itself is bright red-orange but lives its entire life inside a smooth white spiralled tube.

HOW DO I PROTECT MYSELF?

The coiled tube worm builds its own spiral tube around itself using special glands. This tube is rigid and helps to protect the worm from being eaten. They also have an 'operculum', which is a sort of trapdoor that it can close over the front of its tube to hide away.

WHAT DO I EAT?

These worms are filter feeds and use little tentacles to catch small particles of food drifting past.

WHAT LIKES TO EAT ME?

Fish and sea slugs are the main predators of the coiled tube worm.

Did you know?

The coiled tube worm has a sinistral (left-handed) coiled shell!



Photography by H. Helen on iStock

HOW DO I REPRODUCE?

Females give off a pheromone (scent) to let the males know they are ready to lay their eggs. Once the eggs have been fertilised by the male, the young coiled tube worms remain either inside or on top of the mother's tube. They stay there until they are past the 'plankton' stage and can start forming a tube of their own.





Photography by Cushla Dromgool-Regan

QUICK FACTS

SCIENTIFIC NAME

Arenicola marina

SIZE: Up to 20 cm

COLOUR: Reddish, greenish-yellow or black

LIFESPAN: 5-10 years

WHERE YOU WILL FIND ME:

	SPLASH ZONE	
	Upper Shore	INTERTIDAL ZONE
✓	Middle Shore	
✓	Lower Shore	
✓	SUBTIDAL ZONE	

LUGWORM LUGACH

WHAT TYPE OF SEA CREATURE AM I?

The lugworm is a polychaete.

WHERE WILL YOU FIND ME?

Lugworms (also known as blow lugs) live in selfmade burrows in the sand. They are found on the sandy or muddy seabeds and also in sand or mud on the shore. When the tide is out, you can often spot little piles of sand in a squiggly wormlike shape. These sand piles are called 'casts' and they are the sand that the lugworm has pooped out! Wherever these casts are found, you should be on the lookout for a hole in the sand a few centimetres away. The cast shows you the back end of the lugworm's burrow, and the hole is the front-end.

WHAT DO I LOOK LIKE?

Lugworms vary in colour from reddish to greenish-yellow and even black. The lugworm has six bristles close to its head and another 13 bristles down its body that act as its gills (which are on the outside of the body). They have no eyes but they do have a proboscis (long mouth) that can be extended outwards to search for food above the sand.

HOW DO I PROTECT MYSELF?

The lugworm digs a U-shaped or J-shaped burrow for itself. The burrow is usually 20–40 centimetres deep in the sand or mud. It will only pop out a tiny portion of its rear-end when making casts. This is to avoid being caught by predators.

Did you know?

Lugworms often have their tails nipped off when they pop them out of the sand. They can regrow their tails in just a few days. It's estimated that the tail of the lugworm is nipped off 2–4 times a month!



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WHAT DO I EAT?

Lugworms feed on tiny animals and detritus (waste particles) that they filter from the sand that they ingest.

WHAT LIKES TO EAT ME?

Shorebirds, crabs, and flatfish love eating lugworms. They are also sought after by anglers to be used as bait for a huge variety of fish.

HOW DO I REPRODUCE?

The lugworm spawns in October to November when the temperatures get colder. The female lays her eggs in her burrow and the male leaves his fertiliser outside the female's burrow. When the tide comes back in, it washes the fertiliser into the burrows and fertilises the eggs. After a few weeks of growth, the tide takes the juvenile lugworms out of the burrows and they wrap themselves in a cocoon to survive the rest of the winter. When spring comes, they leave their cocoons and settle into the mud or sand.





Photo courtesy of Alamy Stock Photo

QUICK FACTS

SCIENTIFIC NAME

Aphrodita aculeata

SIZE: 10–20 cm

COLOUR: Grey-brown with a green-gold and blue iridescence

LIFESPAN: Unknown

WHERE YOU WILL FIND ME:

	SPLASH ZONE	
	Upper Shore	INTERTIDAL ZONE
	Middle Shore	
✓	Lower Shore	
✓	SUBTIDAL ZONE	

SEA MOUSE LUCH MHARA

WHAT TYPE OF SEA CREATURE AM I?

The sea mouse is a polychaete.

WHERE WILL YOU FIND ME?

Sea mice can be found in the subtidal zone up to depths of 1,000 metres. Their favourite seafloor type is muddy sand. They can sometimes be found on the lower shore if they were washed up after a storm.

WHAT DO I LOOK LIKE?

The sea mouse is a 'furry' creature that looks similar to a mouse. It is covered in grey-brown bristles called 'chaetae' that resemble fur. Some of the bristles on the edges shine with a beautiful green-gold and blue iridescence. The underside of the sea mouse is flat and is segmented into 40 clearly visible sections. Despite the sea mouse's appearance, it is more closely related to the earthworm in your garden than to a mouse.

HOW DO I PROTECT MYSELF?

Sea mice are covered in bristles for protection, but these bristles also trap mud from the muddy seafloor, which helps the sea mouse blend into its surroundings. They can also move surprisingly quickly for a worm.

Did you know?

The bristles of the sea mouse are being used in scientific experiments to create 'nanowire'. Nanowires can be used to make electronic health sensors that are so tiny they can be placed within the human body! This could help a lot of humans to live longer, happier lives.

WHAT DO I EAT?

Sea mice are predators. They hunt small crabs and other worms on the seafloor.

WHAT LIKES TO EAT ME?

Sea mice are eaten by fish that often live on the seabed, such as rays, skates, and flatfish.

HOW DO I REPRODUCE?

Sea mice can be male or female. They reproduce by releasing eggs and fertiliser into the water at the same time. Not much else is known about how juvenile sea mice grow into adults. More research is needed in this area.



Photo courtesy of Alamy Stock Photo

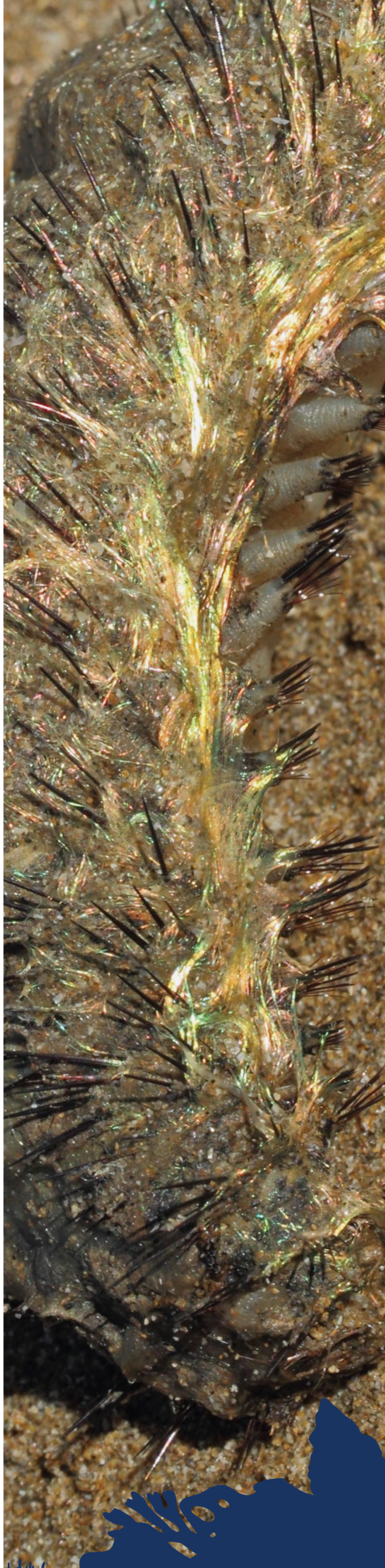




Photo courtesy of Alamy Stock Photo

QUICK FACTS

SCIENTIFIC NAME

Pomatoceros triqueter

SIZE: Up to 2.5 cm

COLOUR: White or pinkish

LIFESPAN: Up to 4 years, but most keel worms die shortly after breeding, at around 1 and a half years old.

WHERE YOU WILL FIND ME:

	SPLASH ZONE	
	Upper Shore	INTERTIDAL ZONE
✓	Middle Shore	
✓	Lower Shore	
✓	SUBTIDAL ZONE	

KEEL WORM CÍLPHÉIST

WHAT TYPE OF SEA CREATURE AM I?

The keel worm is a polychaete.

WHERE WILL YOU FIND ME?

The keel worm lives its entire life attached to hard surfaces such as rocks. It can be found on the middle and lower shores, as well as in the subtidal zone.

WHAT DO I LOOK LIKE?

The worm itself (which is white or pinkish) lives within a chalky white cocoon. This cocoon has a ridge (or 'keel') along the length of it, which is where the keel worm gets its name. At high tide, the keel worm pokes its head out of the cocoon and opens its beautiful feathery gills to catch food.

HOW DO I PROTECT MYSELF?

When the tide goes out, or when the keel worm senses a predator nearby, it will plug the entrance to its cocoon with an 'operculum' (lid). This stops water being able to escape the cocoon, and it also stops predators being able to pick out the worm inside.

WHAT DO I EAT?

Keel worms are filter feeders. They eat plankton and tiny particles of detritus that float in the water.

Did you know?

Keel worms can grow so quickly over rocky surfaces that they can create problems for other species. In Bantry Bay, Co. Cork, the keel worms grew so fast that they stopped scallops being able to regrow after they were collected by fishermen!

WHAT LIKES TO EAT ME?

Keel worms are the prey of crustaceans and fish.

HOW DO I REPRODUCE?

Keel worms are either male or female. They will release eggs and fertiliser into the water at the same time. Fertilised eggs will grow into larvae and will remain this way for 11–30 days before growing into a juvenile keel worm.





REFERENCES

There are lots of lovely books and websites for children to find information about the animals that live on the seashore. The following books are some that have helped us and are very useful to have at the seashore when exploring.

Challinor, H., Murphy-Wickens, S., Clark, J., Murphy, A. (2001) A Beginners Guide to Ireland's Seashore, Sherkin Island Marine Station, Cork, Ireland

Fish J. D., and Fish, S. A. (2011) A Students Guide to the Seashore (3rd edition), Cambridge University Press, Cambridge, England

Sterry, P., and Cleave, A. (2012) Collins Complete Guide to British Coastal Wildlife – A photographic guide to every common species, HarperCollins Publishers, London, UK

Taylor, L. and Nickelsen, E. (2018) Ireland's Seashore A Field Guide, The Collins Press, Cork, Ireland

USEFUL LINKS

<https://exploreyourshore.ie/>

<https://www.fishbase.se/search.php>

<https://kids.britannica.com/>

<https://marinedimensions.ie/>

<https://www.marlin.ac.uk/>

<https://www.nationalgeographic.com>

www.wildlifetrusts.org

COILED TUBE WORM • TIÚBPHEÍST CHORNTHA

<https://species.nbnatlas.org/species/NHMSYS0021048574#overview>

<https://www.sealifebase.se/summary/Spirorbis-spirorbis.html>

<https://bg.copernicus.org/articles/15/1425/2018/bg-15-1425-2018.pdf>

LUGWORM • LUGACH

<http://evolutionbiology.com/articles/life-history-traits-of-the-lugworm-arenicola-marina/>