

# What Is The Lesser Weever Fish?



**Educational purposes only**

## About Galway Atlantaquaria

**Galway Atlantaquaria is Ireland's largest native-species aquarium. Located in Salthill and overlooking Galway Bay on the Wild Atlantic Way, we care for many native marine and freshwater animals from Ireland's rivers, lakes, canals, and ocean.**

For over 25 years, Galway Atlantaquaria has combined culture, history, and a deep connection to the water - all reflected in our Aquarium presentation and community work. Conservation and education are at the heart of everything we do. Our programmes now reach local, national, and global audiences.

At Galway Atlantaquaria, the National Aquarium of Ireland, visitors can explore the wonders of the aquatic world through interactive exhibits, live talks, and expert guidance, discovering Ireland's diverse marine and freshwater species and habitats.

**Welcome to Galway Atlantaquaria. Our goal is to Engage, Educate, and Inspire.**

# Tell us about the Lesser Weever

## For Educational Purposes only!

The lesser weever fish (*Echiichthys vipera*) is a small but venomous fish that lives in shallow, sandy waters. It lives buried in sandy seabeds close to the shore, with only its eyes and black dorsal fin visible. It does this to ambush prey and avoid predators.

The lesser weever fish is an opportunistic/generalistic predator, with a diet that primarily consists of small bottom-dwelling creatures, like crustaceans—specifically Mysidacea (shrimp-like creatures), Amphipoda, and Isopoda. They also consume larval stages of fish and, to a lesser extent, small molluscs.

Its feeding habits can change based on its size and the availability of prey in its surroundings.

### LESSER AND GREATER WEEVER SPECIES

The Lesser Weever fish is found in the shallow areas of coastal waters and the Greater Weever fish is found in deeper coastal waters. Both prefer muddy and sandy areas to bury themselves in.

### Are they common in Ireland?

Yes, Weevers are found across the Irish coast and most common between May and September when the water temperature rises.

### How to avoid a Weever Sting?

To avoid stings, always wear beach shoes in the water. Shuffling your feet to warn fish may lead to more cuts from shells and stones, so proper footwear is the safest option.

### How do I know it's a Weever Sting? (You will know)

So what can we expect?

**Initial Sensation:** Often mistaken for a sharp rock or shell cut, but the pain intensifies rapidly.

**Pain Duration:** Intense pain usually lasts for 2-24 hours, though irritation can continue for up to two weeks.

**Radiating Pain:** The pain often travels up the affected limb.

**Systemic Effects:** Besides severe localized pain, symptoms can include swelling, itching, numbness, redness, nausea, vomiting, headaches, joint aches, and in rare, severe cases, loss of consciousness. This means that if you are walking along the sand (May-September), and you get a sharp, intense pain it really can only be the weever.

### Is it Poisonous or Venomous?

### Any Remedies if stung?

### HOT WATER WORKS REALLY WELL, WHY?

The reason hot water works so effectively against a weever fish sting comes down to the fundamental nature of the venom. Unlike a bee or snake venom, which are packed with large, complex proteins designed to destroy tissue or cause paralysis, the lesser weever's venom is heat-labile.

### Summary

The lesser weever fish is a small common resident of the sandy shallows, but its venomous spines deliver a sting that can turn a happy beach day into a painful memory. The venom contains toxins that destroy cells, attack nerves, and amplify pain, causing immediate burning, swelling, and in some cases, nausea or dizziness.

However, this knowledge isn't meant to scare you out of the water or from walking along the shore, it is meant to keep you in it.

The solution is wonderfully simple: wear thin-soled beach shoes or water shoes.

This means that you can enjoy the shoreline with confidence, knowing that a small piece of rubber on your feet is all it takes to keep the sand between your toes and the sting at bay.



Watch the Weevers on our YouTube Playlist, scan the QR Code

# Why should we care about the Lesser Weever?

*Echiichthys vipera*, commonly called the lesser weever fish, is a small, sand-coloured marine species that inhabits shallow coastal waters.

It typically buries itself in sandy seabeds, leaving only its eyes and the tip of its dorsal fin visible, which makes it hard for swimmers and shoreline paddlers to notice.

Although relatively small, *Echiichthys vipera* is notorious for its painful sting. Venomous spines located on its first dorsal fin and along its gill covers serve as a defense mechanism.

If stepped on or disturbed, these spines release venom that can cause severe pain, swelling, redness, and occasionally fever or nausea.

While stings are seldom life-threatening, they can be extremely painful.

## PREVENTION

While there are many tips to avoid stings, like 'shuffling feet' while walking through sand to make the weever aware of you. Footwear is the safest option.

Sturdy water shoes or reef sandals create a barrier between your feet and hidden fish in the sand.

For video and images of the weever fish, see:



**Images Top and Bottom**  
The Weever is calm and hidden, yet it can also react with incredible speed.



# Lesser weever fish Sting & Remedy

## What is the sting like?

A sting from the lesser weever fish (*Echiichthys vipera*) causes intense, acute, and often excruciating pain that typically peaks around 30 to 50 minutes after the injury.

While the fish is small (about 15cm), its venom causes a severe reaction that has been described as "on fire" or feeling like a very bad wasp sting, sometimes leading to temporary, extreme pain.

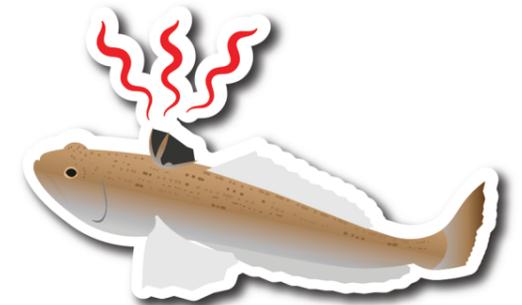
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**Systemic Effects:** Besides severe localized pain, symptoms can include swelling, itching, numbness, redness, nausea, vomiting, headaches, joint aches, and in rare, severe cases, loss of consciousness.

**Treatment:** The venom is protein-based and heat-labile. (means that the venom's toxic components are made of proteins and can be broken down (neutralized) by applying heat.



The recommended treatment is immersing the affected area in hot water 40°C–45°C (104°F–113°F) for at least 30-90 minutes to break down the toxins and relieve pain.

This is why swimming close to a lifeguard station is important, as they would have the facility for heating water.



## WHAT IS A LESSER WEEVER FISH?



Lesser weever fish (*Echiichthys vipera*)

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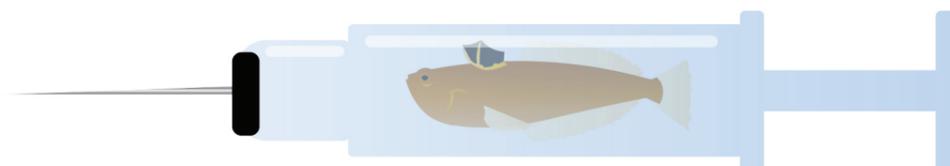


This illustrates why they are difficult to see.

## IS IT POISONOUS OR VENOMOUS?

The lesser weever (*Echiichthys vipera*) is a venomous species.

Venomous animals actively inject toxins via bites or stings (e.g., snakes, spiders, bees).



## ANY REMEDIES IF STUNG?

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# How can I tell I have been stung by a Weever?

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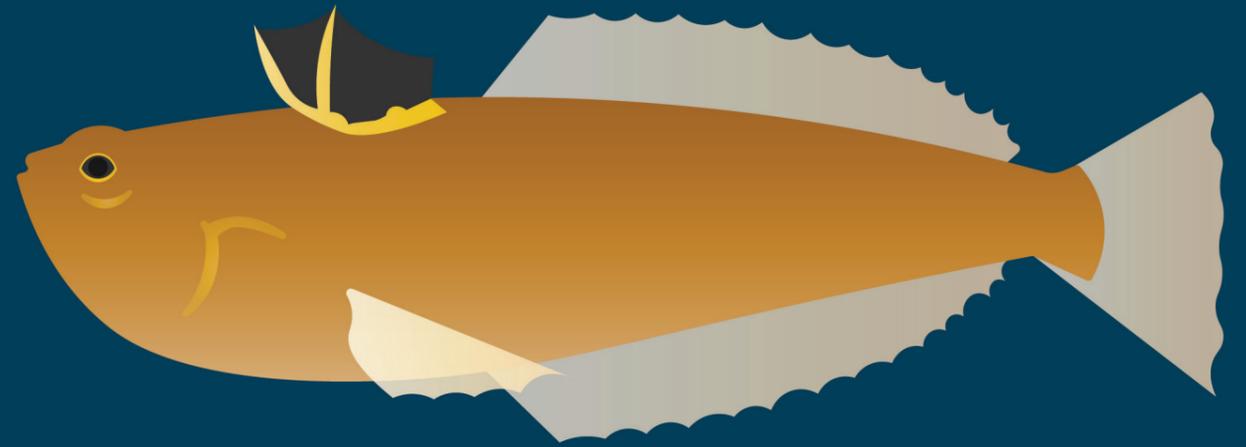
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## How Does The VENOM work?

The venom contains **cytolysin, trachinine, as well as serotonin, histamine-releasing substances and various enzymes.**

### The "Cell Destroyer": Cytolysin

**What it does:** As the name suggests ("cyto" = cell, "lysin" = to break apart), this substance destroys the cells in the area of the sting.

### The "Main Toxin": Trachinine

**What it does:** It attacks the nervous system and blood vessels. It contributes to the severe, radiating pain and can cause dizziness, nausea, and fever in serious cases.

### The "Pain Intensifiers": Serotonin and Histamine-releasing substances

The rush of histamine causes the classic inflammatory response: intense itching, a burning sensation, and rapid swelling.

**It tricks your body into thinking it's having a severe allergic reaction locally.**

**In summary:** The venom is a highly effective three-part attack:

**Neurotoxins (Serotonin)** make your nerves scream in pain immediately.

**Necrotoxins (Cytolysin)** start destroying local tissue.

**Spreading factors (Enzymes)** clear a path for the venom to move deeper into the flesh.

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