

How You Can Help Prevent the Spread of Whirling Disease



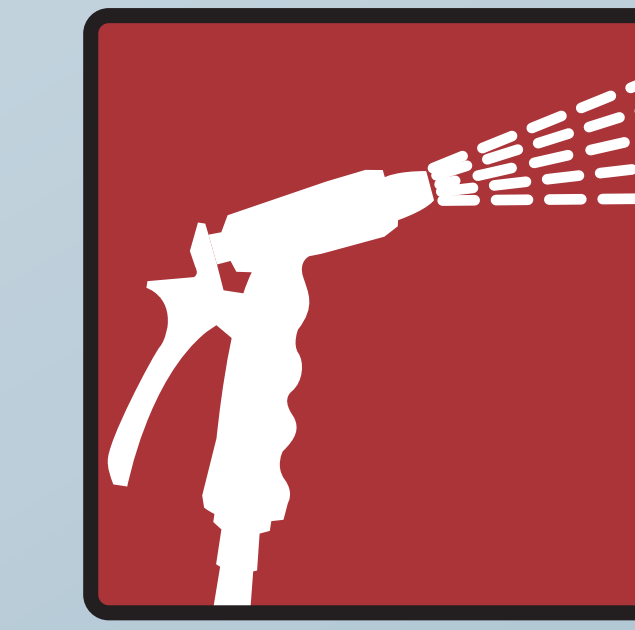
Step 1 - PREVENTION

Never move fish or fish parts

Moving live or dead fish is the most common method for spreading whirling disease as fish may contain both the spore and TAM stages. When harvesting fish, dispose of all waste in the municipal garbage or bear proof garbage bins. Never wash down a sink as the spore stage may enter a new water body.

Did you know?

Moving fish and the use of bait is illegal in national parks.



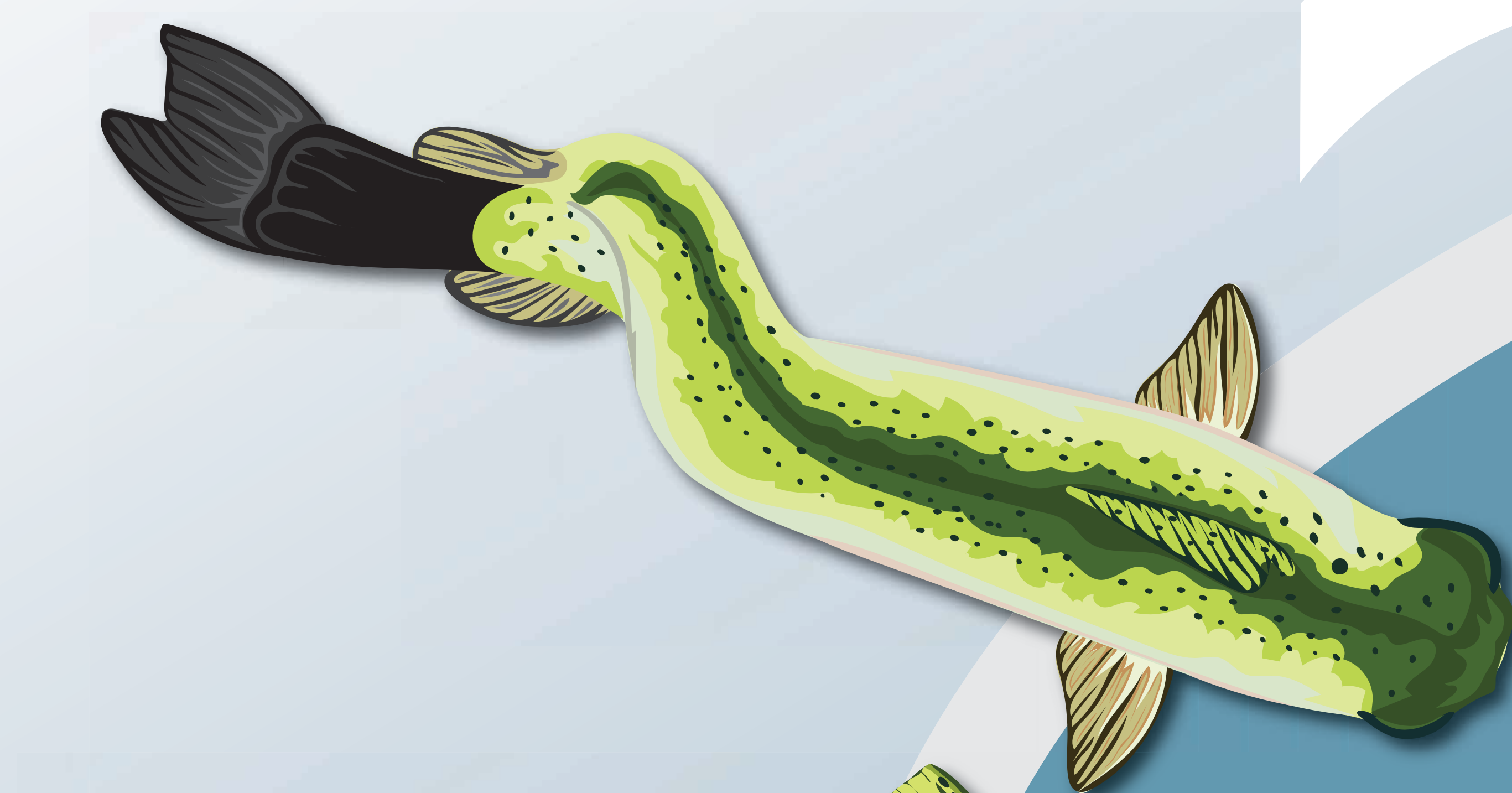
Step 2 - PRE-CLEAN

Remove all mud

The tiny whirling disease spores, along with the tubifex worms that eat these spores, are found in mud. **All mud** must be washed off gear and equipment when leaving a water body. Ensure this wastewater does not enter the sewer system.

Did you know?

Whirling disease spores are less than the diameter of a human hair and are very difficult to destroy. They can live in mud for 30 years.



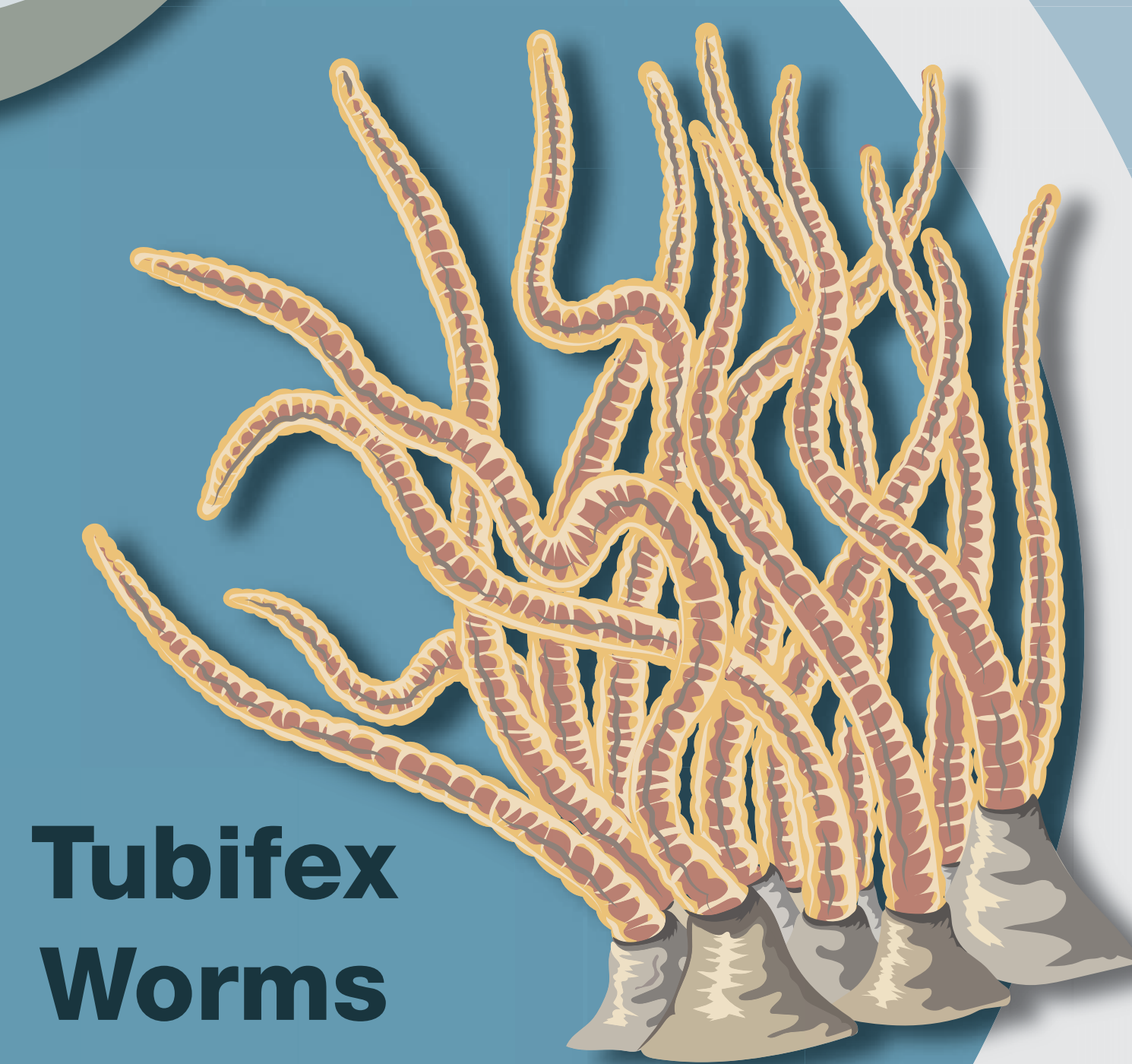
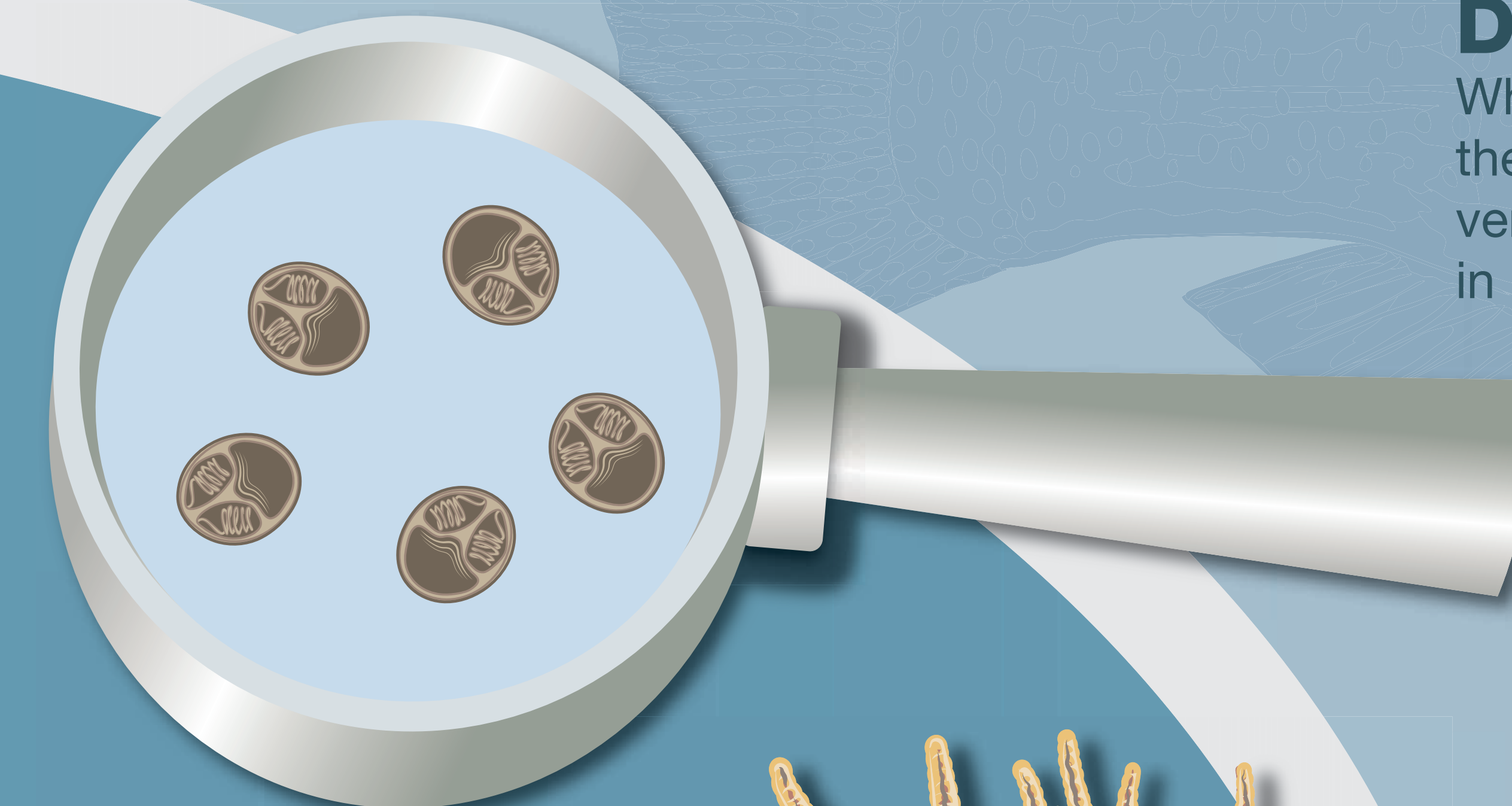
Infected Fish

After several weeks, infected fish may exhibit spinal deformities, a black tail, or a "whirling" behaviour which prevents the fish from eating. These symptoms may result in the fish becoming easy prey. Some infected fish may carry the parasite but show no visible symptoms.

When a fish dies, the tiny myxospores are released into the water and settle to the bottom.



Myxospores

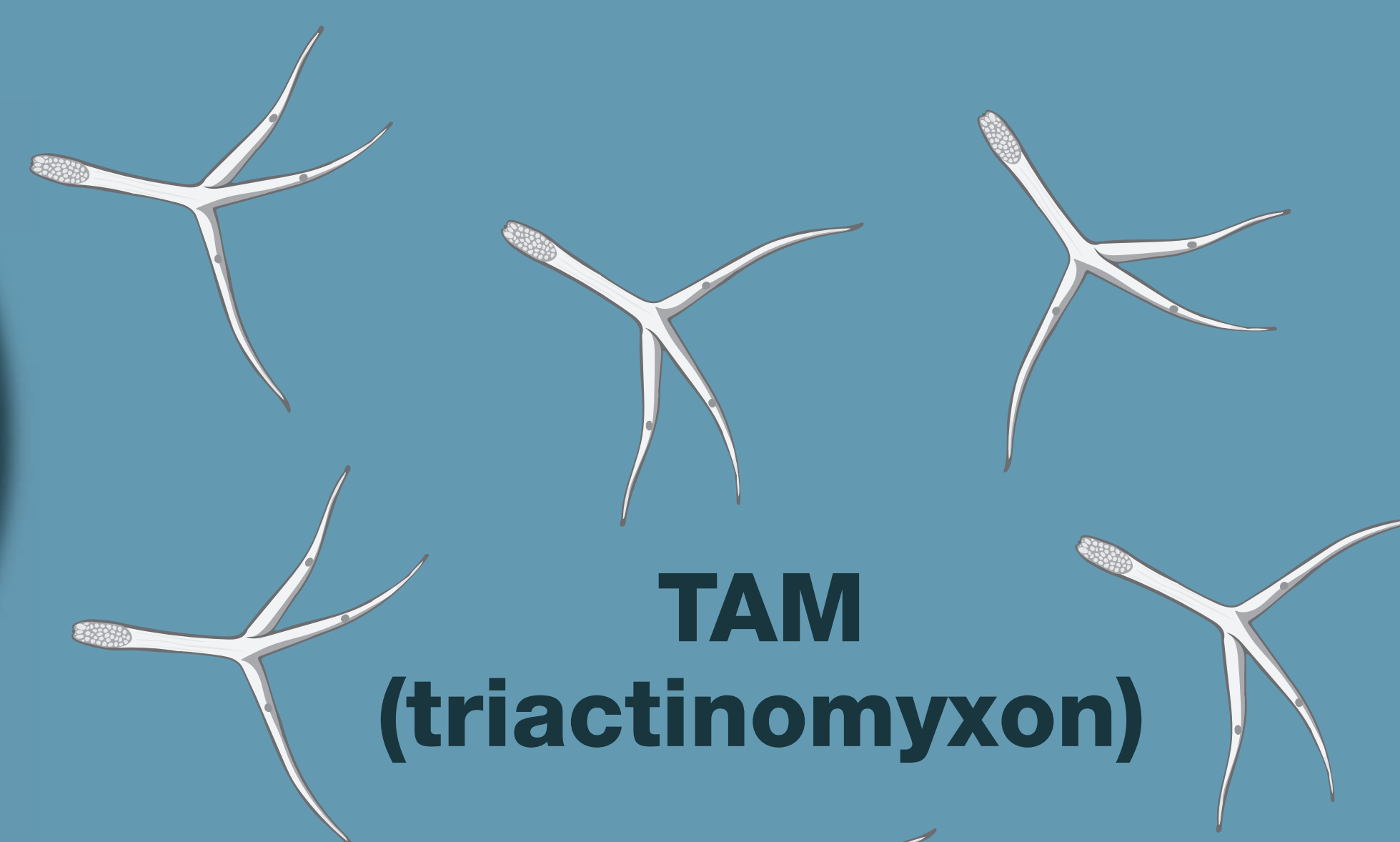
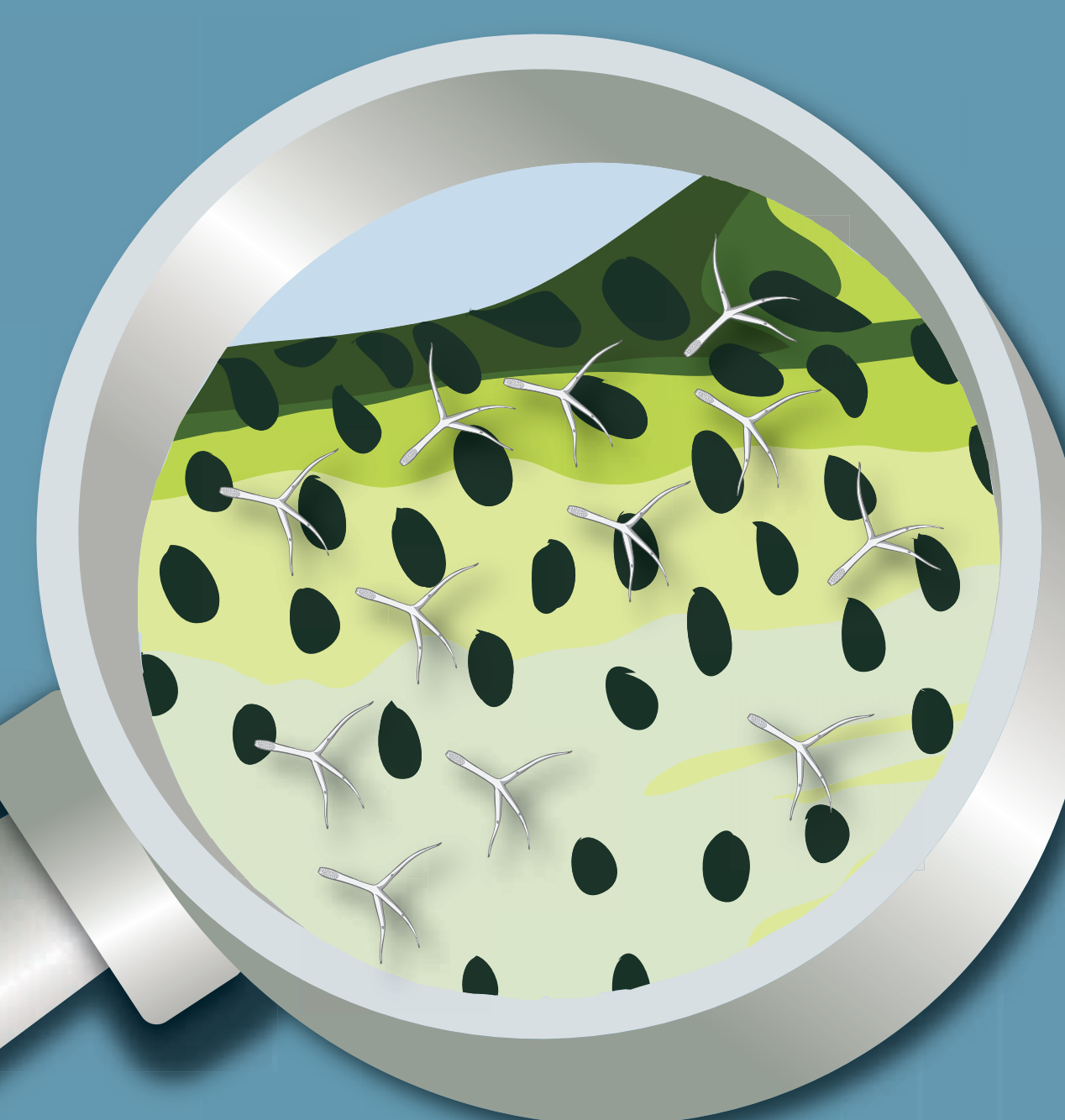


Tubifex Worms

Bottom-dwelling tubifex worms eat the spores.

Life Cycle of Whirling Disease (*Myxobolus cerebralis*)

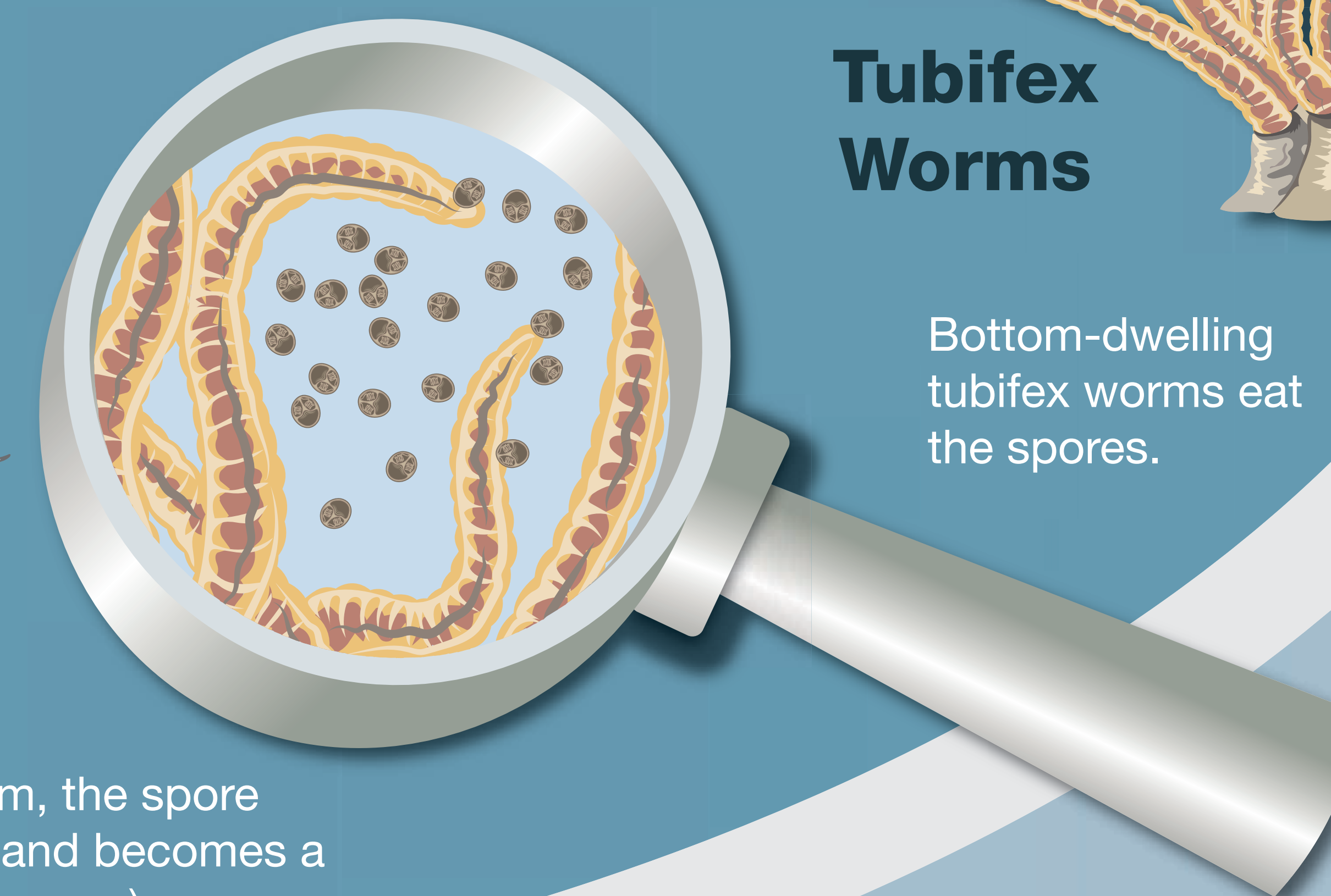
TAMs attach to the fish using three miniature harpoons called "nematocysts". Once attached, the parasite is injected.



TAM (triactinomyxon)

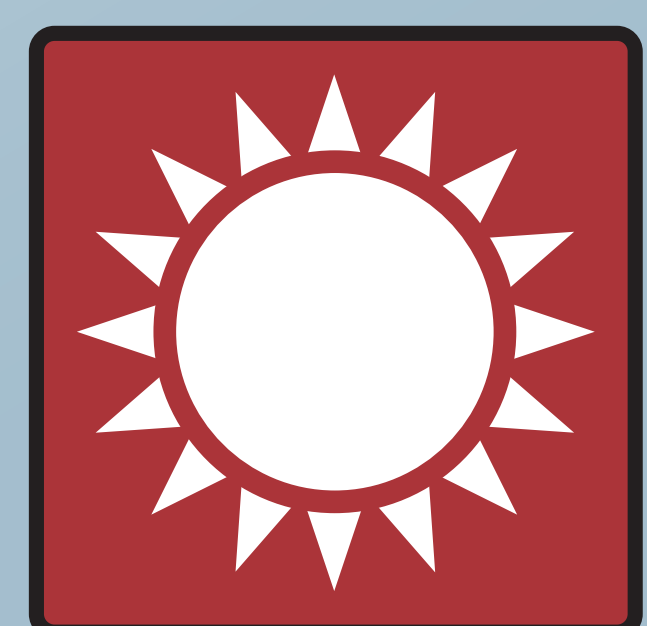
The TAMs are released from the tubifex worms into the water.

Inside the worm, the spore changes form and becomes a TAM (triactinomyxon).



Did you know?

Additional information on whirling disease can be found on the Canadian Food Inspection Agency's website.



Step 4 - DRY

Destroy the TAMs

All gear and equipment must be dried thoroughly to ensure any remaining TAMs are destroyed.

Did you know?

TAMs are found in the water column, floating in search of a new host – a freshwater fish from the trout or char family.



Step 3 - WASH WITH WATER AND AN EFFECTIVE CLEANER

Destroy spores and TAMs

Before entering another water body, or upon arrival home (whichever occurs first) clean all gear and equipment.

To effectively kill the spores and TAMs, soak all gear and equipment in an ammonium chloride-based cleaner (such as Fantastik® All Purpose Cleaner, or Pine-Sol® Cleaner and Antibacterial). Soak for 10 minutes, wearing rubber gloves and safety glasses to provide protection from the cleaning solution. Rinse with water (preferably hot water). For items too large to soak, try to achieve similar results with a sponge. Wastewater containing cleaner can be flushed into the sewer system in amounts less than 5 litres. For larger amounts, contact your local wastewater treatment plant for proper disposal method.



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