

The Tale of a Tongue Eating Parasite

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Cymothoa exigua, or the tongue-eating louse
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NATURE is the best architect and it reflects even in the perfectly designed love-hate relationship of parasites and their hosts, an outcome of their long co-evolutionary history. Here is the story of a tongue-eating louse, yeah you read it right...a parasite living truly up to its name, that may sound gruesome but is also the only known case of a parasite, operationally replacing a host organ. Curious to meet the devil and know more about this love-hate relationship? Let's dive in and get to know it better!

It's a fine morning and the sea looks so calm. A tiny creature swimming slightly ahead of its "all males" group gets lucky and stealthily infiltrates the gills of a fish as the water washes the delicate surface.

It's an isopod, a male *Cymothoa exigua* (or tongue-eating louse as it is commonly called) larva, to be more precise. This parasite is a protandric hermaphrodite, i.e., starts its life as a male and is capable of changing its sex to female, later. The young male stays there until a few days later another such male enters the gills, encouraging the first invader to undergo sex transformation and make its way further in, towards the mouth and get anchored to the fish's tongue with its seven pairs of legs perfectly designed for the purpose. Each leg is tipped with a powerful spine that helps it to get firmly attached to the tongue.

Once settled in its new location it's time to party for the newly turned female. It starts sucking blood from the same