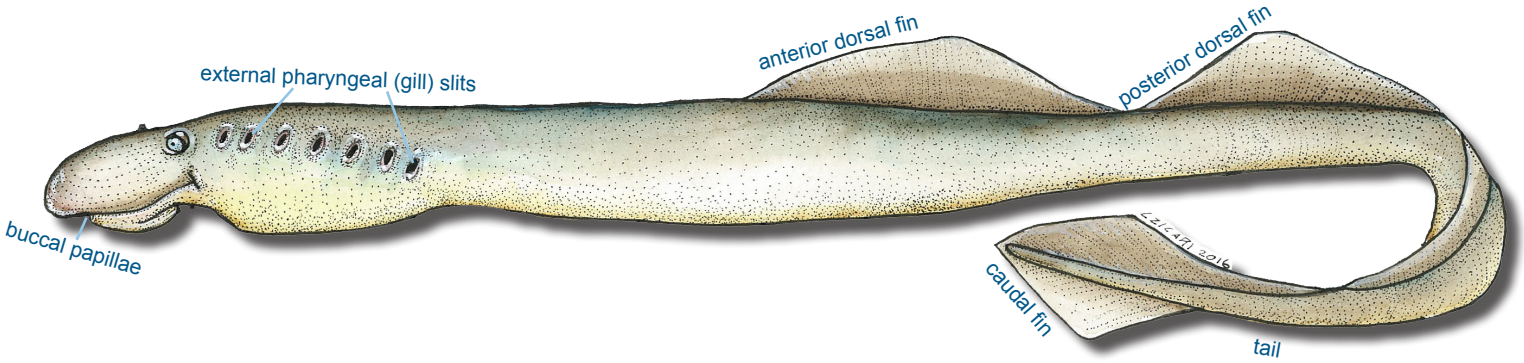

PACIFIC LAMPREY

MY SCIENTIFIC NAME

Entosphenus tridentatus

BY THE NUMBERS

As adults, we lamprey range in size from about 15 to 25 inches. We have been caught in depths ranging from 300 to 2,600 feet, and as far as 62 miles off the west coast of the United States!

HOW TO IDENTIFY ME

I belong to a primitive group of fishes that are eel-like in form but that lack the jaws and paired fins of true fishes. I have a round, sucker-like mouth, no scales, and seven breathing holes on each side of my body instead of gills. I also don't have any bones; my backbone is made of cartilage, like the stuff that makes up your ear!

WHY I MATTER AND WHAT'S BEEN HAPPENING

I am an important food source other fish, birds, and marine animals. I am also part of the Columbia River tribal culture, and I am used in 'first fish' ceremonies and celebrations. The distribution of my species has been reduced in many rivers throughout Washington, Oregon, and California. Luckily scientists and conservation groups, including tribes and the U.S. Fish and Wildlife Service, are working hard to help rebuild lamprey populations and restore our habitat.

MY STATUS

Some of the best ways to conserve and protect my species include installing special Lamprey Passage Systems that allow us to pass over dams, since we can't use the traditional fish ladders designed for jumping fish. Protecting habitat for larval lamprey --like being careful not to dredge areas where larval lamprey might be living in river bottoms, or making sure stream channels have plenty of water and places for lamprey to hide, is also really important.

DID YOU KNOW?

- Pacific lampreys spawn between March and July. Males and females both construct nests--known as redds-- by moving stones with their mouths. Adults typically die within 3-36 days after spawning.
- After larval lamprey (**ammocoetes**) hatch, they drift downstream to areas with slower water velocity and fine sand for them to burrow into. Ammocoetes will grow and live in riverbeds and streambeds for 2 to 7 years, where they mainly filter feed on algae.
- The metamorphosis of Pacific lamprey from ammocoetes into macropthalmia (juveniles) occurs gradually over several months. That's when they develop eyes, teeth, and emerge from substrate to swimming. This transformation typically begins in the summer and is completed by winter.
- Juvenile lampreys drift or swim downstream to the estuaries between late fall and spring. They mature into adults during this migration and when they reach the open ocean.
- Adult Pacific lampreys are parasites: they use their sucker-like disc mouth to feed on a variety of marine and anadromous (migrating to the ocean and back) fish species.

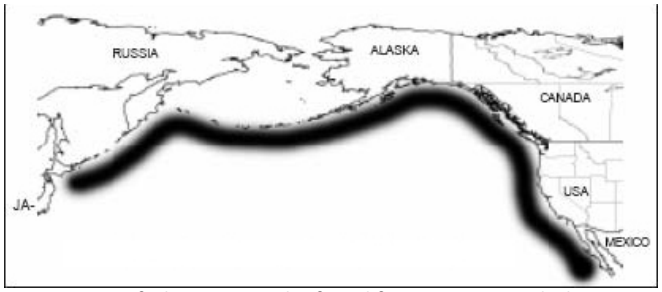

Figure 1. Pacific lamprey can be found from Mexico to Alaska.

- After 1 to 3 years in the marine waters, Pacific lampreys stop feeding and migrate to freshwater between February and June. They overwinter in freshwater habitat--shrinking in size by up to 20 percent-- before they resume their spawning journey.
- After spawning adult lampreys die, but their bodies provide valuable food for insects and macroinvertebrates that other species--and lamprey – use for food.
- Lampreys are some of Earth's oldest residents; fossil records indicate Pacific lampreys may be up to 450 million years, twice as old as dinosaurs!

Fish illustration by Laury Zicari, USFWS, Retired.

MORE ABOUT US

Ammocoetes (larval lamprey) spend their first 3 to 7 years buried in sand in rivers and streams. They are blind, toothless, and eat by filter-feeding.

Juvenile Pacific lampreys (macropthalmia) can grow between 4 to 7 inches long before migrating to the ocean.

Pacific lampreys can be identified by three large anterior teeth and many posterior teeth primarily used for parasitic feeding.

This adult Pacific lamprey is constructing a nest. It's using it's mouth to move large rocks out of the way. Pacific lampreys have breathing holes instead of gills, along the sides of their bodies.

YOU CAN HELP ME

Get to know me, if you don't already. Help make me visible to people who don't have the chance to see me by sharing your stories about me. Get involved in efforts to help conserve my habitat and maintain my populations into the future.

Learn more about Pacific lamprey!
On the Web: www.fws.gov/Pacific/fisheries/sphabcon/lamprey/index.cfm
Facebook: www.facebook.com/PacificLamprey
YouTube: www.youtube.com/watch?v=dkwfDVAoSXk