



**Protection status:** *Priority species in Washington State*

**How to identify:** *Olive green to gold stripe along the back, silver or yellow band on sides*

**Life history:** *Up to 5 years, up to 9 inches in length. Hatches, matures, and lives nearshore.*

## Surf Smelt

*(Hypomesus pretiosus)*

The surf smelt is a small silver fish that plays an important role in the Puget Sound food web.

**Spawning** takes place on **coarse sand and fine gravel beaches** near the high tide line, often during winter months but year-round in some locations.



Male and female smelt gather at extreme high tide to release eggs and sperm in a wriggly dance. Individuals may spawn multiple times per season, and females can produce thousands of tiny, sticky eggs per year.

Fertilized surf smelt eggs attach to sand or gravel, and the lucky ones are buried by wave action. This protects them from predation by shorebirds and other small fishes.

**Incubation** lasts from two to five weeks depending on water temperatures, taking longer when it's cold.

**Overhanging vegetation** regulates temperatures during summer months and prevents eggs and embryos from drying out at low tide.

**Priority species** like the surf smelt require protective measures due to their tendency to congregate in large numbers during spawning, sensitivity to habitat alteration, and recreational, commercial, and tribal importance.



*The surf smelt grows by feeding on plankton.*



*It becomes a nutrient-rich superfood for salmon,*



*which in turn are prey for killer whales.*





**Essential habitat:** Reliant on mixed sand and gravel upper intertidal beaches for spawning

**Essential habit:** Spawning takes place in large numbers near the high tide line

**Fun fact:** Smells like cucumber for several hours when removed from the water

## Surf Smelt (*Hypomesus pretiosus*)

The surf smelt is one of several relatively small **forage fish** that have a large impact on other species around the Puget Sound. Forage fish consume and capture the energy of some of the smallest plants and animals in the marine food web. When preyed upon, forage fish transfer that energy and essential nutrients to more than 100 other species, both marine and terrestrial!

**Did you know?** Surf smelt has historical and contemporary significance for Native Americans in the Pacific Northwest as an important social and ceremonial food.



Dip netting is a traditional practice that continues to this day.

Surf smelt and other forage fish also serve another important role: as a **prey buffer** for juvenile salmon! Predators consume fewer juvenile salmon when schools of surf smelt are readily available.



Adult Surf Smelt

**Removing shoreline armor restores critical spawning habitat for Surf Smelt.**

Surf smelt are delicious! There are both commercial and recreational surf smelt fisheries in Washington. Most catch is harvested using seines or other types of nets.



Besides humans, salmon, marine mammals, and many seabirds enjoy a meal of surf smelt.

