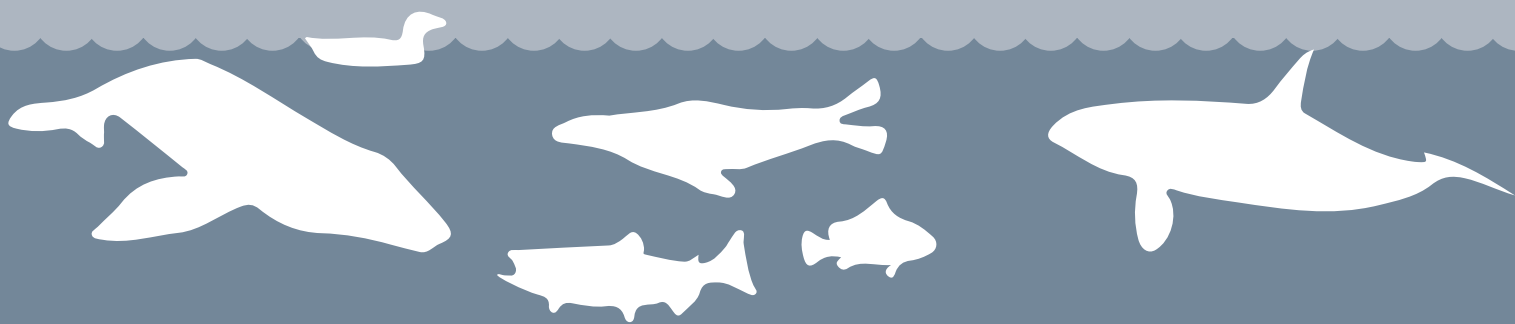


# Forage Fish


AN INDICATOR OF FOOD-WEB HEALTH IN THE SALISH SEA

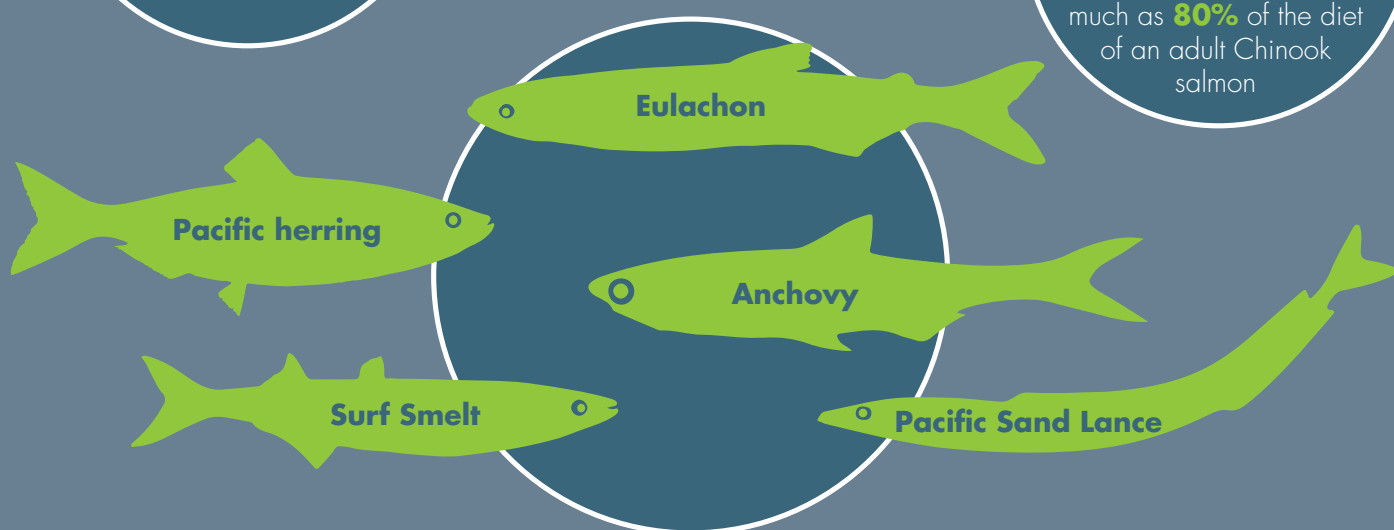


## Small fish. Big deal.

Forage fish are an indispensable part of the marine food-web on the Pacific coast. They are preyed upon by many species of seabirds, marine mammals, and other fish species. They provide important ecosystem functions by transferring energy from primary or secondary producers to higher trophic levels.

  
**Forage fish are an important food source for Humpback Whales, Orcas, Sea Lions, Seals, Salmon, and Rockfish.**

  
Sand lance make up as much as **80%** of the diet of an adult Chinook salmon



## What are forage fish?

Forage fish are small, abundant, schooling fishes. In the Salish Sea, common species include **Pacific herring, anchovies, surf smelts, eulachons, and Pacific sand lance**. Forage fish are an essential component of marine ecosystems. A decline in their populations negatively impacts the entire food-web.



### Diet

Forage fish eat microscopic plants (phytoplankton) and animals (zooplankton).

**6 months**   
sand lance spend up to half the year completely buried under the sand – even if you can't see them, they may still be there!



### Habitat at risk

Forage fish depend on shoreline areas for food and shelter, and many species spawn on Salish Sea beaches with suitable habitat. Forage fish populations are affected by changes to their spawning habitats. Even small modifications can lead to considerable change through time, resulting in the loss or significant degradation of these habitats. Climate change and sea-level rise are major concerns requiring global action, but there are also ways to help forage fish at a shoreline near you.

## How to protect forage fish habitat

### Retain shoreline vegetation

Shade from overhanging vegetation keep fish eggs moist in the summer and insects from overhanging vegetation are a source of food for forage fish. On hot summer days, without shade, eggs may not survive.

### Use soft-shore alternatives to protect waterfronts

Forage fish lay eggs in fine sand or gravel. Alterations of the shoreline can disrupt the flow of sediment. Avoid building breakwaters, riprap, seawalls, docks or pilings near beach habitat.

### Manage storm-water runoff and pollution

Eggs need clean water to incubate. Prevent sediment, chemical or oil run-off from your property. Oiling from boats near beaches can kill incubating forage fish eggs.

### For more information

[Build fish-friendly shorelines](#)

[Forage fish restoration in Puget Sound](#)

[Forage Fish info from the Government of BC](#)

[Forage Fish Habitat Assessments in the Salish Sea](#)

[More on the Salish Sea](#)

[Get involved in citizen science with WWF](#)

