



Fact Sheet on Surf Smelt (*Hypomesus pretiosus*) in the Salish Sea



Prepared by the SeaDoc Society (www.seadocsociety.org)
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Why smelt and other forage fish are important:

- Surf Smelt are delicious to eat
- They provide a fun recreational fishing opportunity for residents of the Salish Sea
- Provide income to 9 licensed commercial fishermen (average annual total catch value of \$46,748)
- Surf Smelt and other forage fish play a key role in the ecosystem by converting energy produced by plankton to fat needed by predatory fish (e.g., lingcod, salmon), seabirds and marine mammals
- Approximately 1/3 of forage fish populations are thought to be needed to sustain seabirds
- Forage fish populations are vulnerable and don't always recover from depletion
- Forage fish are worth 2x as much in the water as in the net because they serve as prey for other commercially important fisheries
- Many marine fish, bird and mammal species that eat Surf Smelt and other forage fish are threatened

Cury, P. M., et al., 2011. Global seabird response to forage fish depletion – one-third for the birds. *Science* 334:1703-1706
Pikitch, E., et al., 2012. Little Fish, Big Impact: Managing a Crucial Link in Ocean Food Webs. Lenfest Ocean Program. Washington, DC. 108 pp.

Biology:

- Year round residents; relatively short lived; spawn year round on some mixed sand-gravel beaches
 - A small number of spawning sites are disproportionately important for spawning and impacts at these site could greatly reduce surf smelt reproduction
 - Shoreline modifications can reduce Surf Smelt spawning success by half at some locations
- Bargmann, G. 1998. Forage fish management plan. Washington Dept. of Fish and Wildlife 66 pp. & POL-C3012
Quinn, T., K. Krueger, K. Pierce, D. Pentilla, K. Perry, T. Hicks and D. Lowry. 2012. Patterns of Surf Smelt intertidal spawning habitat use in Puget Sound Washington State. *Estuaries and Coasts* 35:1214-1228.
Rice, C. A. 2006. Effects of shoreline modification on a northern Puget Sound beach: microclimate and embryo mortality in Surf Smelt (*Hypomesus pretiosus*). *Estuaries and Coasts* 29:63-71.

Distribution:

- Gulf of Alaska, south to Long Beach, California
- Widely distributed throughout the southern part of the Salish Sea: from Burrard Inlet at the southern end of the Strait of Georgia to as far south as Olympia

Pietsch, T. W., and J. W. Orr. In Press. *Fishes of the Salish Sea: A Compilation and Distributional Analysis*. NOAA Professional Paper NMFS 00, U.S. Department of Commerce, 313 pp.

Similar species in the Salish Sea:

- Within the Salish Sea, there are 9 other species of small schooling forage fish
- Smelt: Capelin (*Mallotus villosus*), Eulachon (*Thaleichthys pacificus*), Longfin Smelt (*Spirinchus thaleichthys*), Night Smelt (*Spirinchus starksi*), and Whitebait Smelt (*Allosmerus elongates*)
- Herring and Sardines: American Shad (*Alosa sapidissima*), Pacific Herring (*Clupea pallasii*), and Pacific Sardine (*Sardinops sagax*)
- Masked Sand Lance (*Ammodytes personatus*), recently distinguished from Pacific (*A. hexapterus*)

Pietsch, T. W., and J. W. Orr. In Press. *Fishes of the Salish Sea: A Compilation and Distributional Analysis*. NOAA Professional Paper NMFS 00, U.S. Department of Commerce, 313 pp.

Surf Smelt (and other forage fish) Management in Washington:

- Commercial and recreational Surf Smelt fisheries each estimated at 100,000 pounds annually
- No recreational fishing license is required to engage in recreational harvest of Surf Smelt
- No estimate of biomass for Surf Smelt (we are not sure how large the population is)
- Forage fish plan emphasizes the role of forage fish in the ecosystem and considers catch secondary
- Forage fish plan calls for the precautionary approach to use caution when faced with a decision; reducing fishing or other activities if there is a reason to believe the activity will cause significant harm (even if such a link has not been established by clear scientific evidence)

Bargmann, G. 1998. Forage fish management plan. Washington Dept. of Fish and Wildlife 66 pp. & POL-C3012

Pietsch, T. W., and J. W. Orr. In Press. Fishes of the Salish Sea: A Compilation and Distributional Analysis. NOAA Professional Paper NMFS 00, U.S. Department of Commerce, 313 pp.

Lowry, D., K. Stick, A. Lindquist, and Y. W. Cheng. In Review. Estimating recreational surf smelt harvest by combining access point and roving creel count surveys. North American Journal of Fisheries Management

How to Comment on the Current Puget Sound Smelt Rulemaking Process

- The Washington Department of Fish and Wildlife (WDFW) is seeking public comments on proposed options for commercial and recreational fishing regulations that could increase protection and conservation for smelt in Puget Sound.
- It is the policy of the department (C3012) to maintain healthy populations of forage fish species and individual stocks, while assuring the integrity of the ecosystem and habitat upon which marine resources depend. If insufficient information exists or the condition of the resource is poor, a conservative approach to fisheries will be taken.
- WDFW is reviewing three options for commercial and recreational smelt fishing regulations:

Option 1 - No change

Under current state rules, commercial fishing for smelt in Puget Sound is open from 8 a.m. Sunday to 8 a.m. Friday during seasonal openings. Recreational smelt fishing is open year-round, except in Hood Canal where it is closed. The use of dip nets is allowed from 8 a.m. Friday to 8 a.m. Wednesday. Jig gear can be used seven days per week.

Option 2 - Reduce both commercial and recreational use

Reduce both commercial and recreational use: Commercial smelt fishing would be closed Sundays and would be allowed only from 6 a.m. to 10 p.m. Monday through Thursday during seasonal openings in each area. Inactive commercial smelt fisheries, including dip bag and purse seine, which have not been in use for at least 10 years, would be closed. Recreational smelt fishing would be closed overnight except for the use of jig gear, which could be used seven days per week. Dip nets would be allowed for recreational use from 6 a.m. to 10 p.m. Friday through Tuesday.

Option 3 - Close commercial fishing, reduce recreational use

Close commercial fishing, reduce recreational use: All commercial fishing for smelt in Puget Sound would be closed. Recreational smelt fishing would be closed overnight except for the use of jig gear, which could be used seven days per week. Dip nets would be allowed for recreational use from 6 a.m. to 10 p.m. Friday through Tuesday.

How to comment (you can do either or both of these):

1. Submit your comments to The Fish and Wildlife Commission on-line by April 11th:

<http://wdfw.wa.gov/fishing/regulations/smelt/comments.html>

This is a relatively simple process. You enter in your name and contact information, select which of the 3 options you prefer, and can provide written comment (up to 1,000 characters).

2. Attend the Fish and Wildlife Commission meeting in April and provide verbal testimony. They will hear public testimony on April 11 or April 12. Check with the Commission as to which day you should attend (<http://wdfw.wa.gov/commission/>)

Note: if you intend to provide public comment, see <http://wdfw.wa.gov/commission/>; briefly, complete a public testimony form when you arrive; you will have 3 minutes to speak; address the commission not the people in the audience; share your preferred option; and give the facts and personal reasons why you choose this option.