Washington Department of Fish and Wildlife
Proposal to Extend Coastal Forage Fish Survey in 2013
(3/28/13)

Forage fish are recognized internationally, nationally, and regionally for their ecological importance as a key component of the food web that sustains healthy fish and wildlife populations. In addition, many of these species are available for harvest, providing commercial, tribal, and recreational fishing opportunities, upon which Washington's coastal communities are reliant.

In March 2010, the legislature enacted the Marine Waters Planning and Management Act (RCW 43.372), which requires the development of an ecosystem assessment for Washington's marine waters. This assessment would identify key threats to plan goals, analyze risk and management scenarios, and include key ecosystem indicators. Forage fish have been identified as an ecosystem indicator for Puget Sound and other marine waters regionally and nationally; however, very little data regarding Washington's coastal forage fish populations exists.

What Has Been Done?

In recognition of the importance of forage fish, the Washington Fish and Wildlife Commission adopted a policy (C-3012) in 1998, which describes a precautionary approach to forage fish management and prescribes consideration of the role of forage fish in the marine ecosystem during development of fishery management plans. The policy also directs the Department of Fish and Wildlife (WDFW) to seek to document spawning grounds for all forage fish species, including the intertidally spawning surf smelt.

WDFW has been conducting subtidal (herring) and intertidal (surf smelt and sand lance) spawning surveys in Puget Sound for over 30 years, and the Puget Sound Partnership has included changes in herring abundance as one of their ecosystem indicators, but very sparse data exist for Washington's coastal area.

WDFW's data collection on the coast has been sporadic and occurred in the 1994-98 timeframe, and the Olympic National Park produced a survey report for a portion of the coast in 2001.

In the fall of 2012, WDFW initiated a coastal forage fish pilot survey using the Marine Spatial Planning proviso funds and partnered with the coastal Treaty Tribes to conduct this activity. While the data collected previously suggests that the peak spawning period occurs in the March-October timeframe, funding was available to initiate surveys only at the end of this window. Incomplete knowledge of spawning behavior on the outer coast means that the documented window may not capture all spawning events. Thus, we felt it would still be useful to survey during winter months to verify that spawning does not occur during that time, and to help determine when spawning activity may begin.

Identified Concerns

The timing of the expiration of the funding proviso (June 30) is problematic, as this occurs in the middle of the peak spawning period. Extending the current pilot project through the end of October would allow us to survey a complete annual spawning cycle.

In addition, there would be cost savings associated with retaining current staff through the end of the survey, rather than having to let staff go and then hire and train new staff. Sample processing is labor intensive and takes considerable training to conduct effectively.

WDFW Survey Proposal

As part of the survey proposal we submitted in 2012, we proposed to conduct forage fish surveys along the Washington coast from the mouth of the Columbia River north to Cape Flattery each year, for three years (2012-13; 2014; and 2015). Our focus has been on spawning beach surveys as this provides information to support MSP efforts and could also be used to monitor ecosystem changes, if forage fish are identified as an ecosystem indicator for the coast.

For the surveys over the next two years (2014 and 2015), we would propose to narrow the survey season to the February-October timeframe. We would hope to continue to partner with the coastal Treaty Tribes in conducting the field work, and would propose to reach out to the Olympic National Park and the Olympic Coast National Marine Sanctuary to solicit their level of interest in participating in the survey.

In addition, in order to expand our coverage level, we would also like to partner with the Washington Coastal Marine Advisory Council (WCMAC) and the coastal Marine Resource Committees in engaging volunteers to collect samples. We would provide the training, equipment, and sample analysis support with the ultimate goal of conducting as many surveys over as broad a spatial and seasonal scale as possible.

Proposal for WCMAC Project Subcommittee Consideration

WDFW would like the WCMAC Project Subcommittee to consider our request to continue the current survey, which is scheduled to end on June 30, 2013, through October 31, 2013. Note: Field sampling would end on September 30, but sample processing, data entry, and report writing would occur in October. This would result in an additional cost of **$54,000**.