

## Oregon Coast Coho Conservation Plan Annual Report Card – 2008

The Oregon Coast Coho Conservation Plan (OCCCP) was adopted by the Oregon Fish and Wildlife Commission (OFWC) in March 2007. The plan serves as the State of Oregon's management plan for coho salmon in the Oregon Coast Evolutionarily Significant Unit (ESU). As part of the adaptive management component of the OCCCP, state agencies are expected to annually review coho monitoring data and actions and report to the Oregon Plan Regional Implementation and Management Team on the status of Oregon Coast coho. This report fulfills this annual obligation.

### Summary Regarding Overall Status of this ESU

Based on the review of monitoring data and implementation efforts, ODFW concludes after two years that the OCCCP is being implemented and the status of the ESU is within the range of what should be expected.

#### Data Review

- Coho adult counts (ODFW) – Adult distribution and abundance are monitored by ODFW. Figure 1 provides a summary of the current status of Oregon Coast coho in comparison to the desired status criteria for abundance defined in the OCCCP. As expected after two years of plan implementation, desired status abundance has not been achieved. Adult returns for the ESU in the fall of 2008 were up from last year and were similar to what had been seen in the previous six years (two coho generations). However, adult returns to the southerly populations within the ESU showed a smaller increase in 2008 (vs. 2007) than was seen in the northerly populations. In 2008, coho spawners in the Mid-South Coast strata were only 61% of what had been seen in the previous six years, compared to 82% to 134% for the other four strata. This pattern was seen uniformly in the southern populations. This suggests that marine survival conditions for the southerly populations were poorer than experienced by the northerly populations, and does not suggest a problem with freshwater survival. Poorer marine survival had been associated with the northern populations during the development of the OCCCP. The 2008 returns continue the reversal of this pattern that started in 2007. This may be the beginning of a trend, and corresponds to a very poor 2008 return of wild coho to the Rogue River in the Southern Oregon-Northern California Coast Coho ESU.
- Coho juvenile monitoring data (ODFW) – Juvenile distribution and abundance are monitored by ODFW and are summarized in Figure 2. No trend is indicated in the Umpqua or Mid-South strata, but the North and Mid Coast strata have small positive trends.
- Habitat data – ODFW assesses trend in aquatic habitat data collected as part of a long-term monitoring effort in coastal drainages of Oregon. We estimated trend in pool habitat, fine sediments, and large wood in five coastal monitoring areas (MA). Of the 15 possible trends, the only significant trends were fine sediment (- 1.8% per year) and large wood (-4.9% per year) in the North Coast MA, and fine sediment (+1.0%) in the

Mid-south MA. Site (i.e., spatial) variability accounted for most of the overall variation (72 – 88 % of the total), while year (i.e., temporal) variability was minimal (0.18 – 0.75 %). High site-to-site variability and low year effect improved our power to detect trends over the past 10 years.

Restoration projects are also monitored on an annual and 5-year basis. Monitoring of 5-year projects (implemented 2000-03) indicates that the restoration was effective at increasing the amount of pool habitat and volume of large wood over the 5-year period. Approximately 80-90 % of the projects maintained or improved their quality over the 5-year period. At this point, we cannot detect the signal of the instream (large wood) restoration at the monitoring area scale.

- Coho harvest impact data – ODFW monitors impacts from ocean harvest on wild Oregon Coast coho. These have been within the guidelines of the PFMC's Amendment 13, as called for in the OCCCP (Table 1).
- Coho hatchery survival data – Program-specific survival of hatchery fish is measured by ODFW and gives a rough indicator of ocean survival for naturally-produced fish. Recent survival is within previously observed and/or expected values, although summary tables have not been produced for returns since 2003.
- Coho natural fish survival rates data – ODFW monitors marine survival (from outmigrants to returning adults) at seven life cycle monitoring sites within the Oregon Coast ESU. Adults returning in 2007 experienced average marine survival on the North Coast, low survival on the Mid Coast and Umpqua, and very low survival on the Mid-South Coast. Adults returning in 2008 experienced above average marine survival on the North Coast and Mid Coast, below average survival on the Umpqua, and very low survival on the Mid-South Coast. ESU-wide survival was below average in 2007 and slightly above average in 2008. The 2007 and 2008 trends of lower marine survival moving from northern to southern management areas is consistent with the declining trends for spawner abundance in southern populations and increasing trends for northern populations. Monitoring is planned to continue to determine the significance of trends.
- Information from local entities and landowners – e.g. *Rapid BioAssessments; restoration efforts; and results of effectiveness monitoring.*
- Conservation project implementation data – Table 2 summarizes ODFW's progress in meeting commitments described in the OCCCP.

### **Recommendations regarding the ESU**

ODFW Recommendation #1: ***Continue implementation of all agency actions.***

ODFW Recommendation #2: ***Identify and secure alternative sources of funding for agency actions.*** Given the recent economic situation, funding for ODFW's Oregon Plan

and OCCCCP activities is declining. RME (spawner surveys, water quality monitoring), Western Oregon Stream Restoration Program staff, and Watershed Council coordinators have been proposed for reduced funding in 2009 and beyond. Funding for coded-wire tags to monitor hatchery fish survival (an early warning measure) has been lost, and the data provided from this early warning measure of ocean survival will currently be lost after 2010 returns. Additional funding is needed to move forward with outreach and Beaver Workgroup products. Funding for all of these actions is vital in order to make and gauge progress toward the desired status of Oregon Coast coho defined in the OCCCCP.

**Date OCCCCP adopted:** March 16, 2007

**Date OCCCCP reviewed:** March 3, 2009

**Table 1.** Comparison of allowable harvest impact under the revised Amendment 13 harvest matrix and the actual harvest impact estimated post-season from 2004 – 2008.

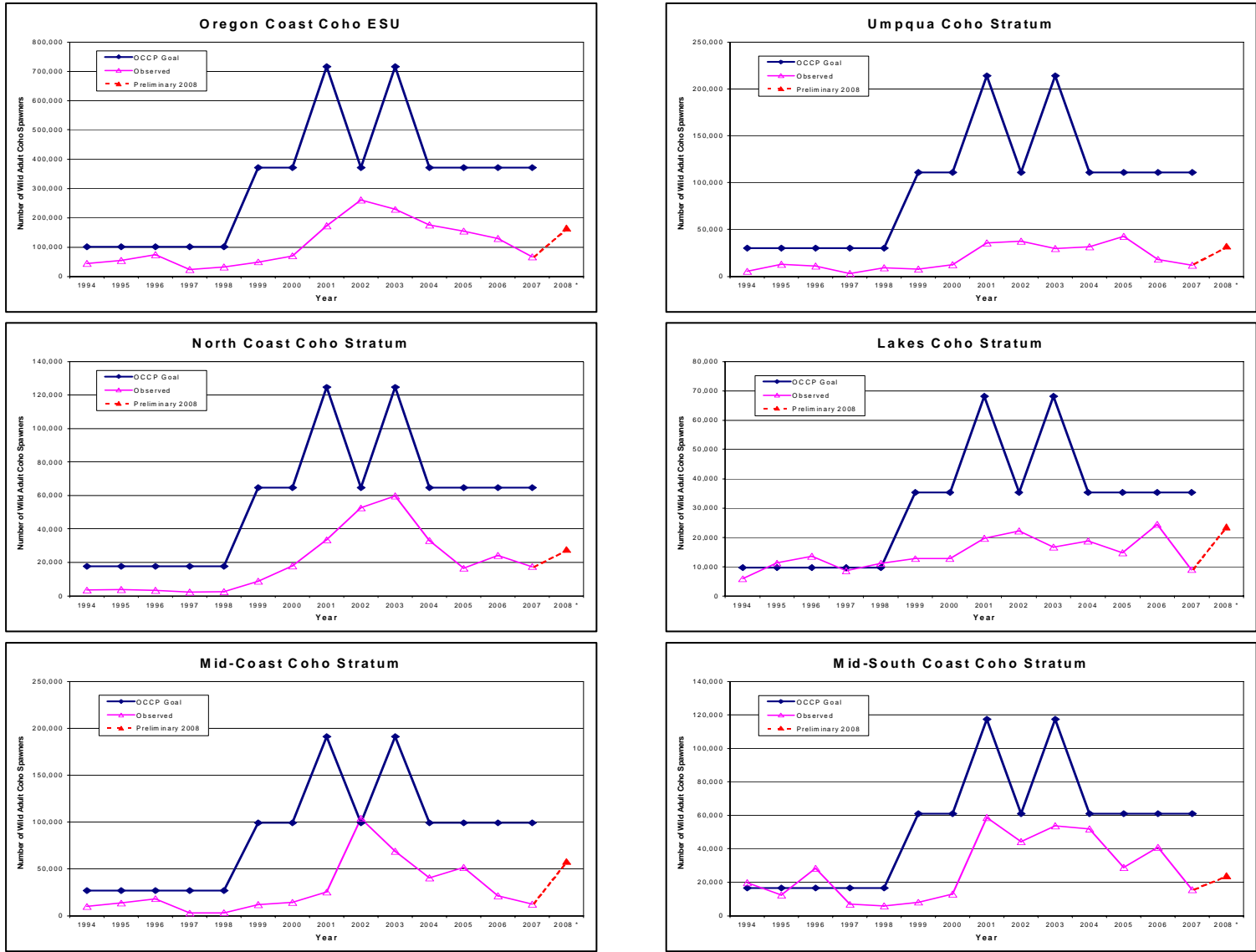
Year	Amendment 13 allowable impact	Post-season actual impact
2004	15%	15%
2005	15%	11%
2006	15%	6%
2007	20%	11%
2008	8%	3%

**Table 2.** Implementation status of ODFW actions identified within the OCCCP (see Appendix 3 of the OCCCP for a full description of agency actions).

Action	Status	Details
Hatchery Management	Implemented (on-going)	<ul style="list-style-type: none"> <li>• the last hatchery coho releases into the North Umpqua River occurred in May 2006</li> <li>• the last hatchery coho releases into the Salmon River occurred in May 2007</li> </ul>
Harvest Management	Implemented (on-going)	<ul style="list-style-type: none"> <li>• impacts from harvest on wild Oregon Coast coho have been within the guidelines of the PFMC's Amendment 13 (see Table 1)</li> </ul>
Western Oregon Stream Restoration Program (WOSRP)	Implemented (on-going)	<ul style="list-style-type: none"> <li>• high priority habitat restoration and access projects continue to be implemented</li> <li>• technical support to landowners, Watershed Councils, SWCDs, NRCS, ODF, and other groups is being provided</li> <li>• innovative and improved habitat restoration techniques continue to be developed</li> <li>• monitoring of WOSRP now includes both an annual and 5-year panel of restoration projects</li> </ul>
Habitat Protection	Implemented (on-going)	<ul style="list-style-type: none"> <li>• biologists continue to consult with state and federal agencies on a variety of habitat-related activities</li> </ul>
Promote Beaver Dams and Associated Habitat	Partially Implemented	<ul style="list-style-type: none"> <li>• internal Beaver Workgroup consisting of fish and wildlife biologists formed in September 2007</li> <li>• external stakeholders, including state and federal natural resource agencies, the wood products industry and conservation organizations, were added to Beaver Workgroup in Spring 2008</li> <li>• the Beaver Workgroup's purpose is to identify research and information gaps to help improve understanding of beaver ecology and beaver management, in order to maximize the ecological benefits that beaver provide (especially for ESA-listed coast coho) and minimize any negative economic (or other) impacts</li> </ul>

		<ul style="list-style-type: none"> <li>• the internal and/or external Beaver Workgroup has produced an annotated literature review, a proposed landowner incentives survey, a proposed genetic research study, a proposed beaver trapping/no trapping study, a proposed beaver relocation survey, draft beaver relocation guidelines, a landowner beaver survey and more</li> </ul>
Research, Monitoring and Evaluation (RME) Program	Implemented (on-going)	<ul style="list-style-type: none"> <li>• research proposal has been funded to study the effects of removing the hatchery coho program in the Salmon River; the study considers life-stage specific survival of naturally produced fish and benefits of restored habitats</li> <li>• monitoring sample design modified to provide better estimates at population level</li> <li>• ODFW and State of the Salmon/EcoTrust have partnered and obtained funding to develop an interactive web tool to update and make accessible RME efforts</li> <li>• trend detection models have been improved</li> </ul>
Oregon Plan Outreach Program	Implemented (on-going)	<ul style="list-style-type: none"> <li>• ODFW's Oregon Plan Communications Coordinator has been working on Oregon Plan activities statewide, especially with respect to Recovery Plans outside of the Oregon Coast coho ESU, participating on the Oregon Plan Outreach Team relative to the OCCCP, and coordinating news releases on specific actions and projects related to the OCCCP</li> <li>• ODFW's two half-time Oregon Plan Communications Coordinators (Roseburg and Newport) continue to coordinate media information on specific actions and projects related to the OCCCP</li> </ul>

**Figure 1.** Comparison by ESU and strata of observed wild adult coho spawner abundance to conservation plan desired status.  
 \* **Note:** 2008 abundance numbers are preliminary and subject to change. 2008 goals are expected to be the same as 2007.



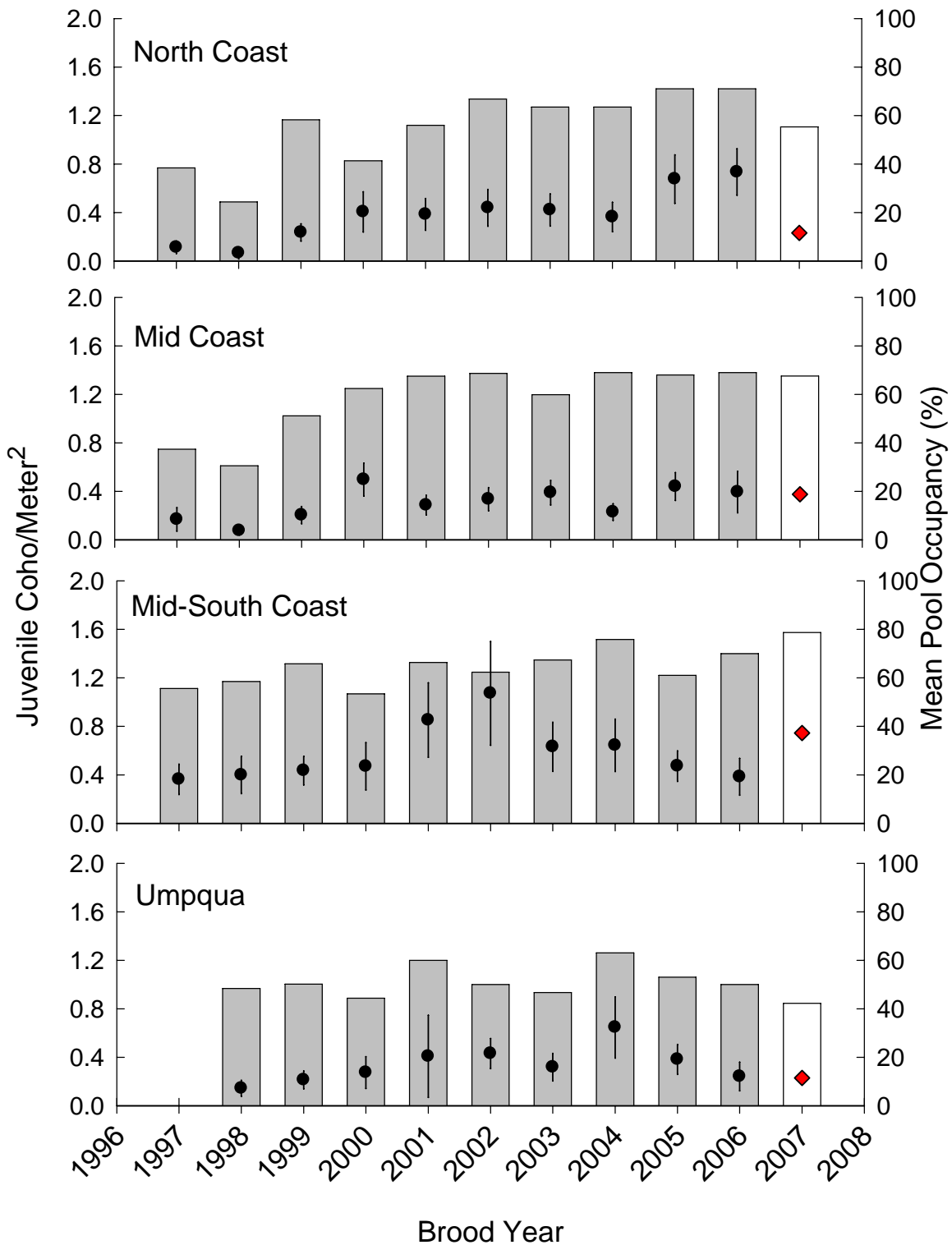


Figure 2. Annual abundance and occupancy metrics for juvenile coho salmon in the Oregon Coast Coho ESU based on snorkel surveys in 1<sup>st</sup>-3<sup>rd</sup> order stream reaches. Panels are organized by monitoring strata. Symbols with 95% CI are for mean density (coho/meter<sup>2</sup>) and bars are for % pool occupancy. 2007 brood year data are preliminary and subject to change.