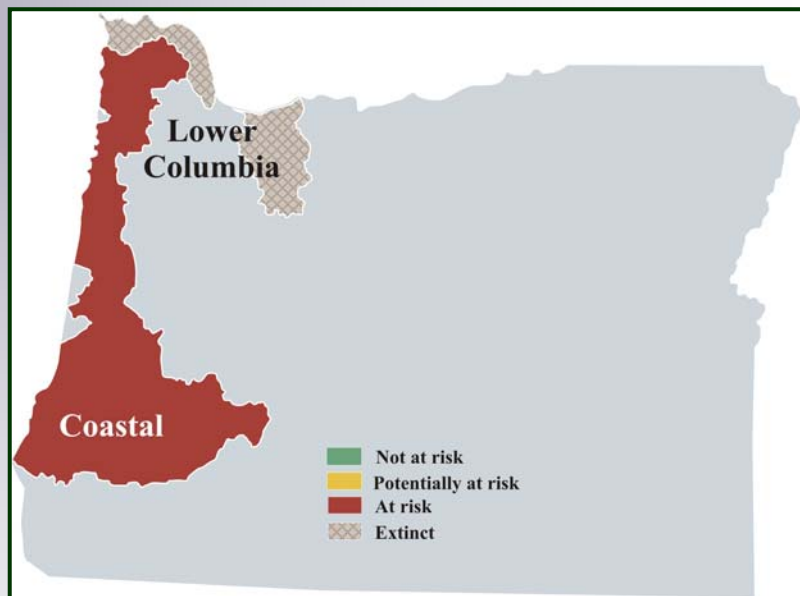


# Chum



Chum salmon return to the lower reaches of small to moderate-sized streams and rivers of the Oregon coast and lower Columbia. Oregon populations are near the southern limits of the chum salmon range. Chum salmon enter freshwater and spawn during late fall on stream gravel bars and side channels just upstream from tidewater. Juveniles migrate seaward soon after emergence from the gravel. Chum salmon return at 3-6 years of age and average 10-15 pounds. Two chum SMU's contain a total of 20 populations.



Population data are extremely limited for chum which are not subject to extensive fisheries or significant hatchery programs. Lower Columbia chum numbers have declined from the hundreds of thousands to just a few thousand fish and this SMU is considered to be extinct. Coastal chum are at risk because of the loss of populations and low returns and productivity.

# Coastal Chum SMU

ESA Designation:  
*Not Warranted 1998*

State Status:  
*Critical*

Interim Assessment:  
*At Risk*

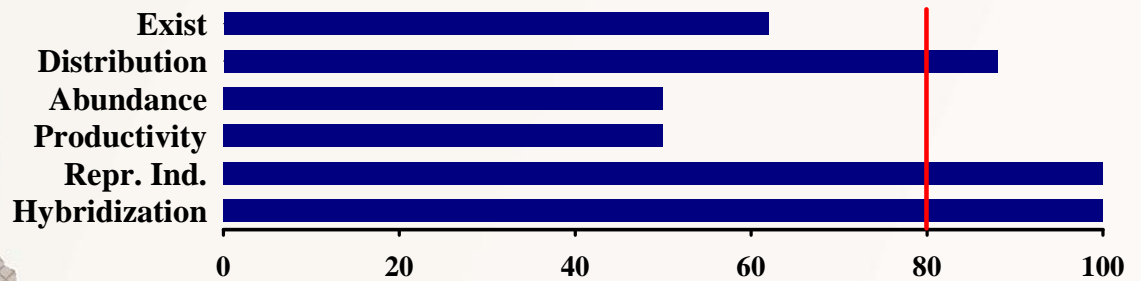
The Coastal Chum SMU is comprised of 13 historical populations. Eight populations continue to exist, two are presumed to be extinct, and three are extinct. The SMU met three of six interim criteria so the near-term sustainability of the SMU is at risk. ODFW speculated in the 1995 Stock Status Review that the historical populations south of the Nestucca were naturally small. Suitable data and other information on populations in this SMU provide a moderate level of confidence in the assessment of the interim criteria.

Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Necanicum	Pass	Pass*	Pass	Pass*	Pass*	Pass
Nehalem	Pass	Pass*	Pass	Pass	Pass*	Pass
Tillamook	Pass	Pass*	Pass	Pass	Pass*	Pass
Netarts	Pass	Pass*	<i>Fail</i>	<i>Fail</i>	Pass*	Pass
Nestucca	Pass	<i>Fail</i> *	<i>Fail</i>	<i>Fail</i>	Pass*	Pass
Salmon	Pass	Pass*	<i>Fail</i> *	<i>Fail</i> *	Pass*	Pass
Siletz	Pass	Pass*	<i>Fail</i> *	<i>Fail</i> *	Pass*	Pass
Yaquina	Pass	Pass*	Pass	Pass	Pass*	Pass
Alsea	<i>Fail</i> *		<i>Presumed Extinct</i>			
Siuslaw	<i>Fail</i> *		<i>Extinct Population</i>			
Umpqua	<i>Fail</i> *		<i>Extinct Population</i>			
Coos	<i>Fail</i> *		<i>Presumed Extinct</i>			
Coquille	<i>Fail</i> *		<i>Extinct Population</i>			

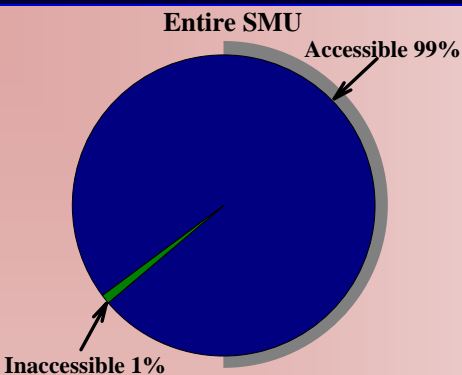
\* *Inferred*



Percent of Existing Populations Meeting Criteria

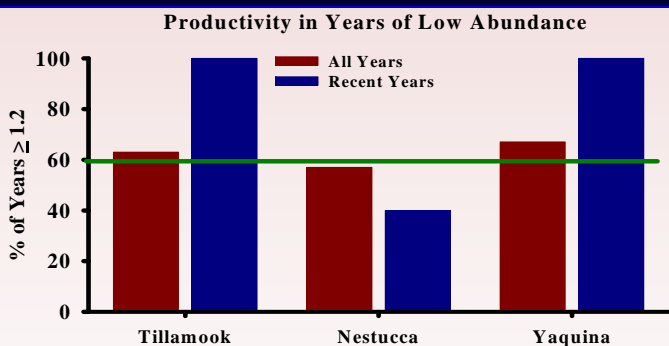


## Distribution - Pass



- All of the existing populations passed this criterion except for the Nestucca.
- Nearly all (99%) of the historical habitat within the SMU is still accessible today.
- The Necanicum is the only population to have lost accessible habitat (11% of historic habitat).
- The Nestucca failed the criterion because returns have been so low in recent years to indicate that 50% of historical habitat has not been utilized.

## Productivity - Fail

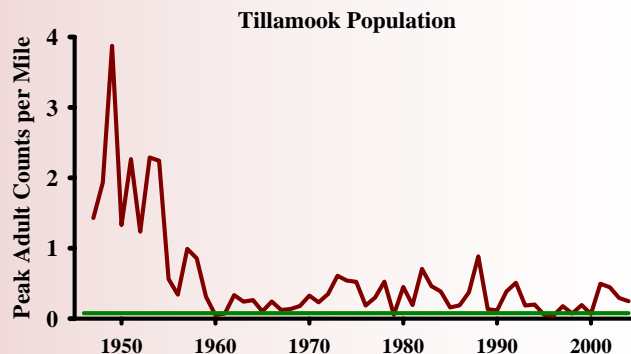


- Four of eight populations passed the criterion.
- Productivity in the Netarts and Nestucca has been very low in recent years. Recruits per spawner could only be estimated in five years in the Netarts, so it is not displayed above.
- The Siletz and Salmon failed the criterion because abundance levels in those populations have been chronically low.

## Additional Information

- Chum are occasionally observed in basins with populations that were thought to be extinct. The origins of these fish is uncertain and more work is needed to clarify relationships among Oregon coastal populations.

## Abundance - Fail



- Four of eight populations passed this criterion.
- The Tillamook and Nestucca had the longest trend of data. Returns dropped through the 1950s and 1960s and have yet to recover. Recent returns to the Tillamook were high enough to pass the criterion.
- Abundance trends in Yaquina and Nehalem surveys initiated in 1981 and 1990 respectively have not shown a consistent increasing or decreasing trend.
- Returns to the Netarts in the 1990s and early 2000s are far lower than returns in the 1950s and 1960s.
- The Necanicum has had low abundance levels since surveys were initiated in 1991, but recent years have been high enough to pass the criterion.

## Independence - Pass

- All of the populations passed the reproductive independence criterion.
- Oregon has never had a significant chum salmon hatchery program, and no programs, public or private, currently exist.
- One private hatchery released chum into the Nehalem between 1981 and 1993, but releases were terminated in 1994.
- Based on the absence of hatchery releases within the SMU, it was presumed that all extant populations passed the reproductive independence criterion.

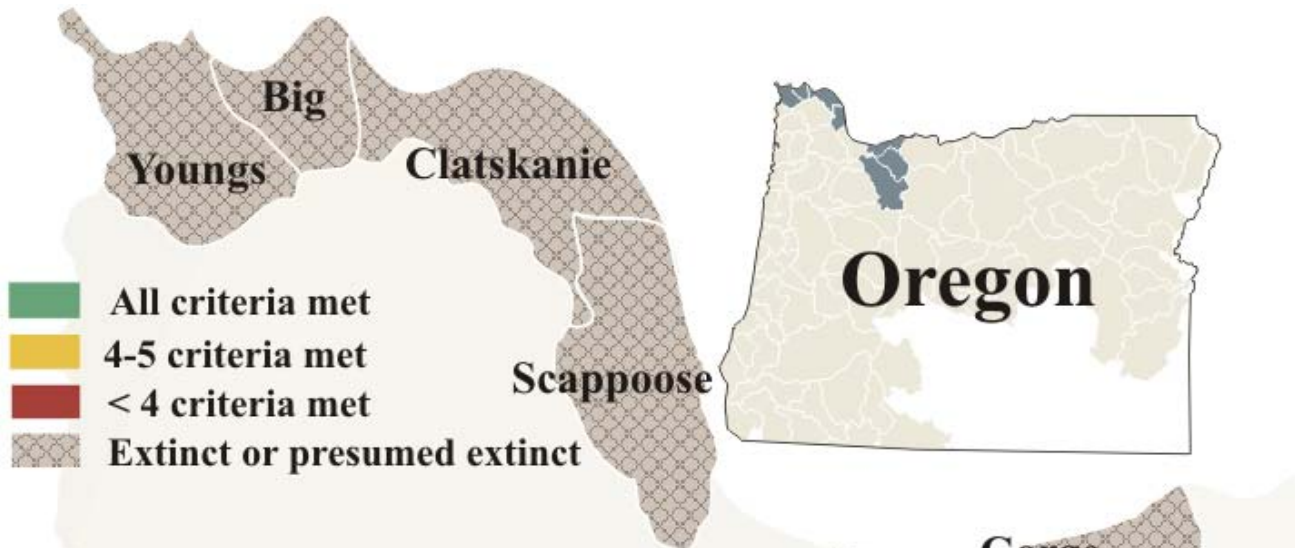
# Lower Columbia Chum SMU

ESA Designation:  
*Threatened 1999*

State Status:  
*Critical*

Interim Assessment:  
*Extinct*

This SMU includes seven populations in tributaries between the Columbia River mouth and Herman Creek in the Gorge. Historically, annual Columbia River harvest of chum reached 500,000 fish. Today, these populations are extinct. Extensive chum spawning surveys by ODFW in 1999-2001 yielded a total of three live chum and one dead chum. It is believed that the few fish observed in Oregon are strays from runs returning to the Washington tributaries of the lower Columbia. Estuarine and lower river habitat degradation have been implicated as likely causes for the decline of this SMU.



Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Youngs	Fail					Extinct Population
Big	Fail					Extinct Population
Clatskanie	Fail					Extinct Population
Scappoose	Fail					Extinct Population
Clackamas	Fail					Extinct Population
Sandy	Fail					Extinct Population
Gorge	Fail					Extinct Population

*\*Inferred*

