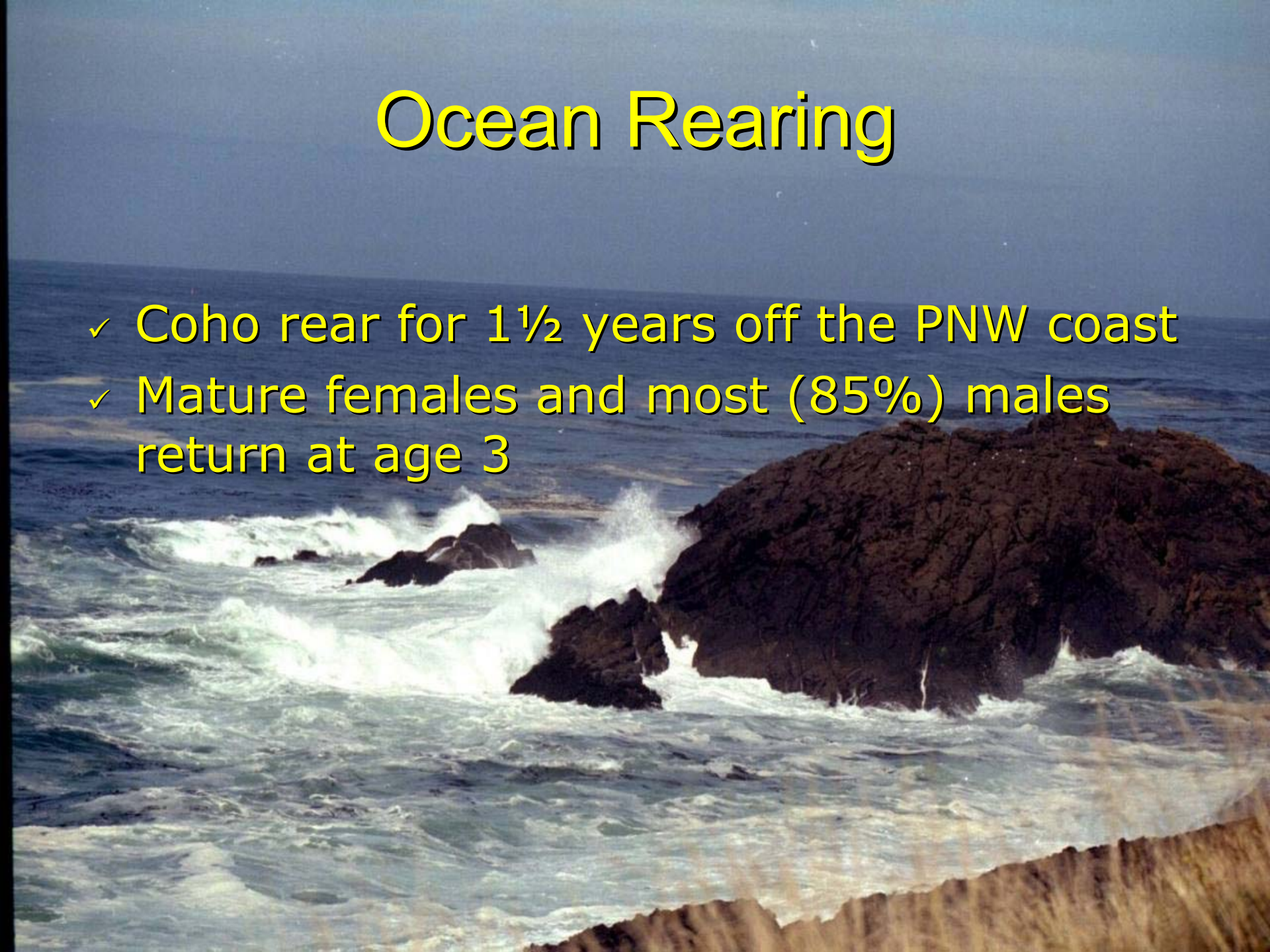
Coastal Coho Biology

Ocean Rearing



- ✓ Coho rear for 1½ years off the PNW coast
- ✓ Mature females and most (85%) males return at age 3

Ocean Rearing

- Jack coho return at age 2
- Mature adults stage near their natal stream in the fall

Spawning

- ✓ Coho spawn in small to mid-sized streams
- ✓ Adults enter spawning streams on freshets

Spawning

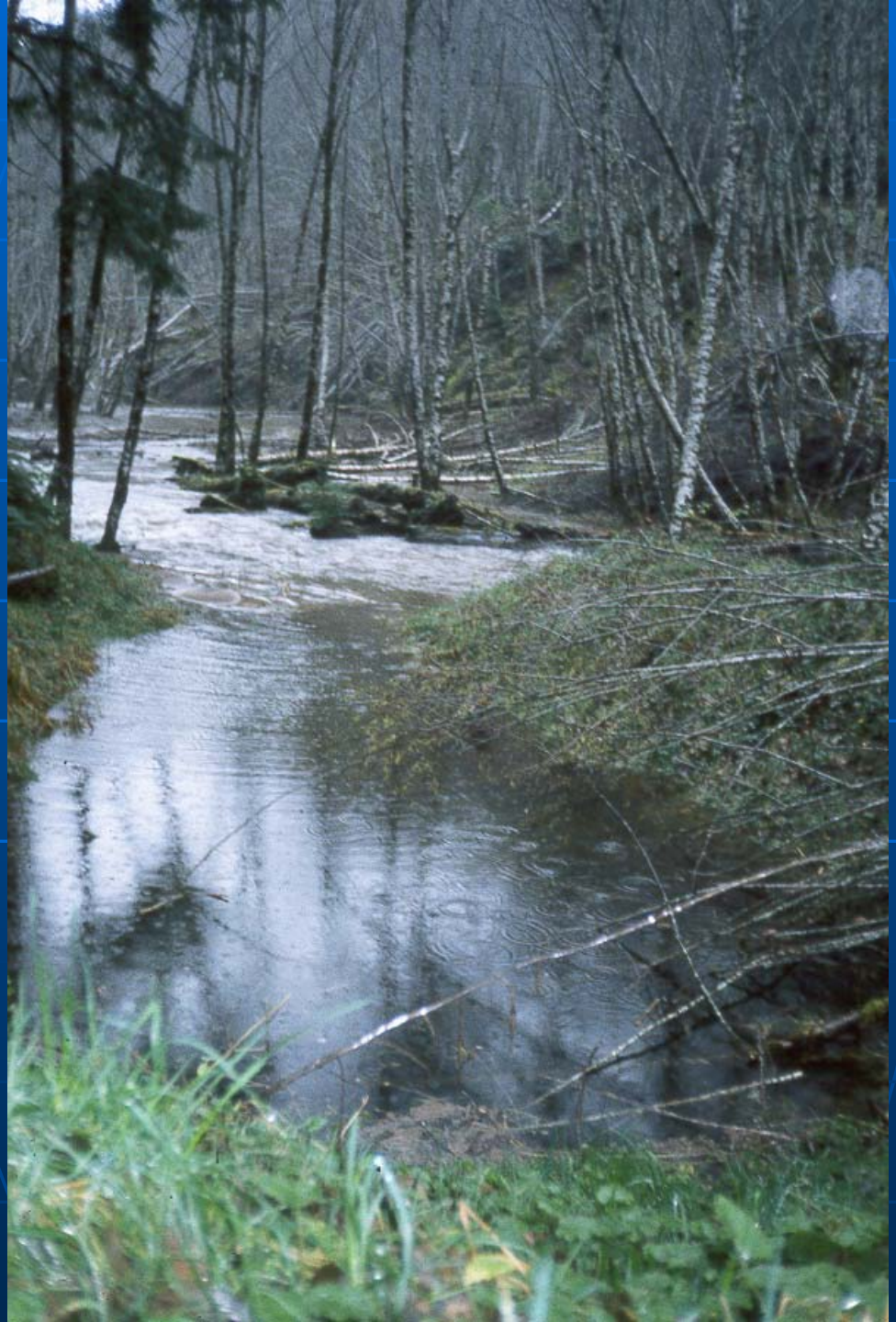
- Spawning peaks in December
- Spawners utilize pea- to orange-sized gravel

Incubation

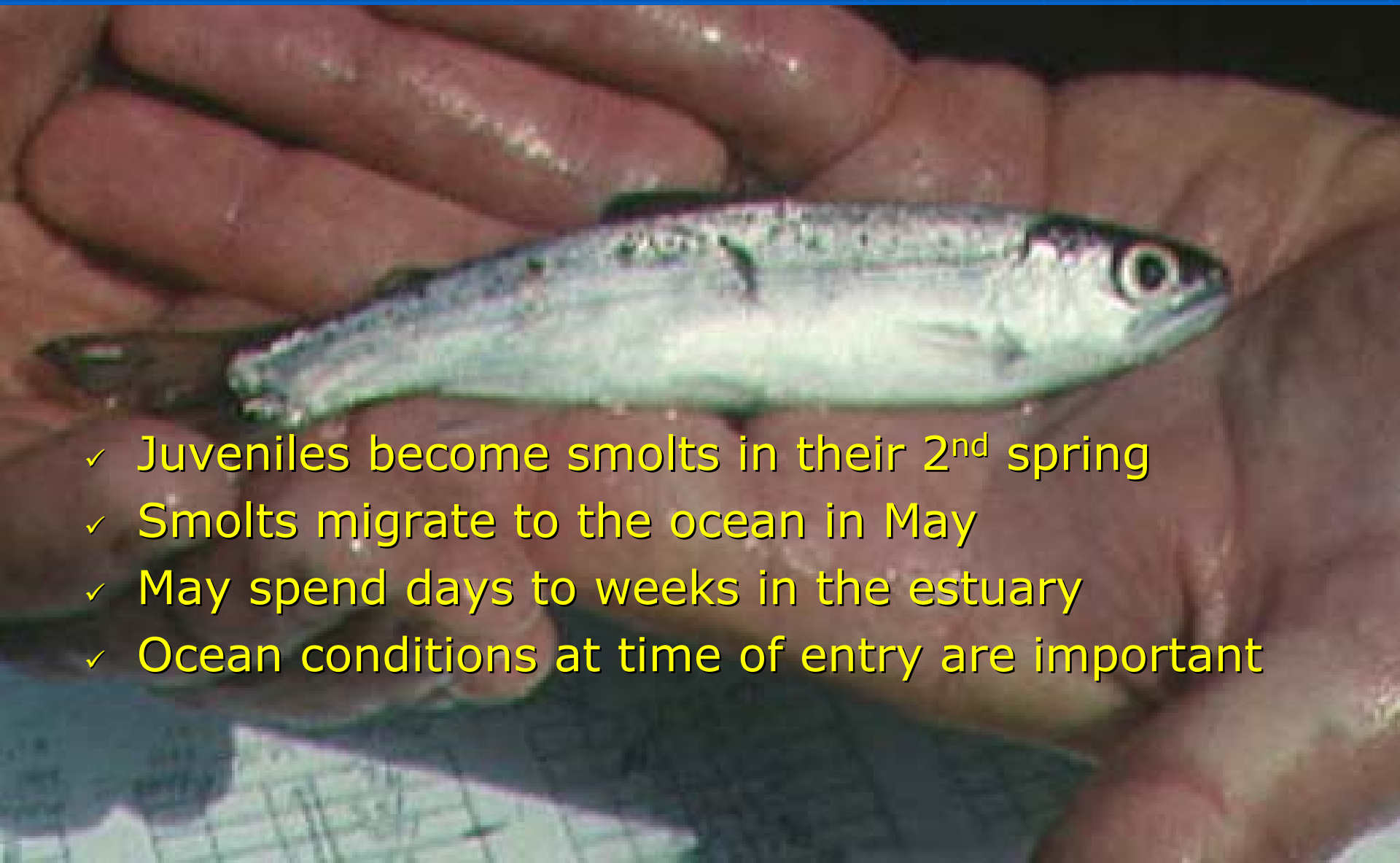
- Eggs incubate in clean gravel
- Fry emerge in 3 months
- Fry move to the stream margins after emergence

Juvenile Rearing

- Coho juveniles rear in freshwater for 1 year
- Prefer complex pool habitat
- Summer habitat is important
- Protective over-winter habitat is also important



Migration to the Ocean



- Juveniles become smolts in their 2nd spring
- Smolts migrate to the ocean in May
- May spend days to weeks in the estuary
- Ocean conditions at time of entry are important

Biological Attributes of Coho Populations

Applying criteria from the Native Fish Conservation Policy to the Oregon Plan Assessment

Native Fish Conservation Policy

- ✓ Developed to be consistent with NOAA Fisheries' "Viable Salmonid Populations" concept
- ✓ Based on measurable criteria
- ✓ These criteria are being used in assessing the coastal coho species management unit (SMU)

Measurable Criteria

1. Distribution of Populations
2. Abundance for Constituent Populations
3. Within and Among Population Diversity
4. Population Connectivity
5. Survival Rate to Critical Life History Stage
6. Standardized Rate of Population Growth
7. Forecast Likelihood of SMU Persistence Near and Long Term

Using the NFCP for Near-Term Persistence

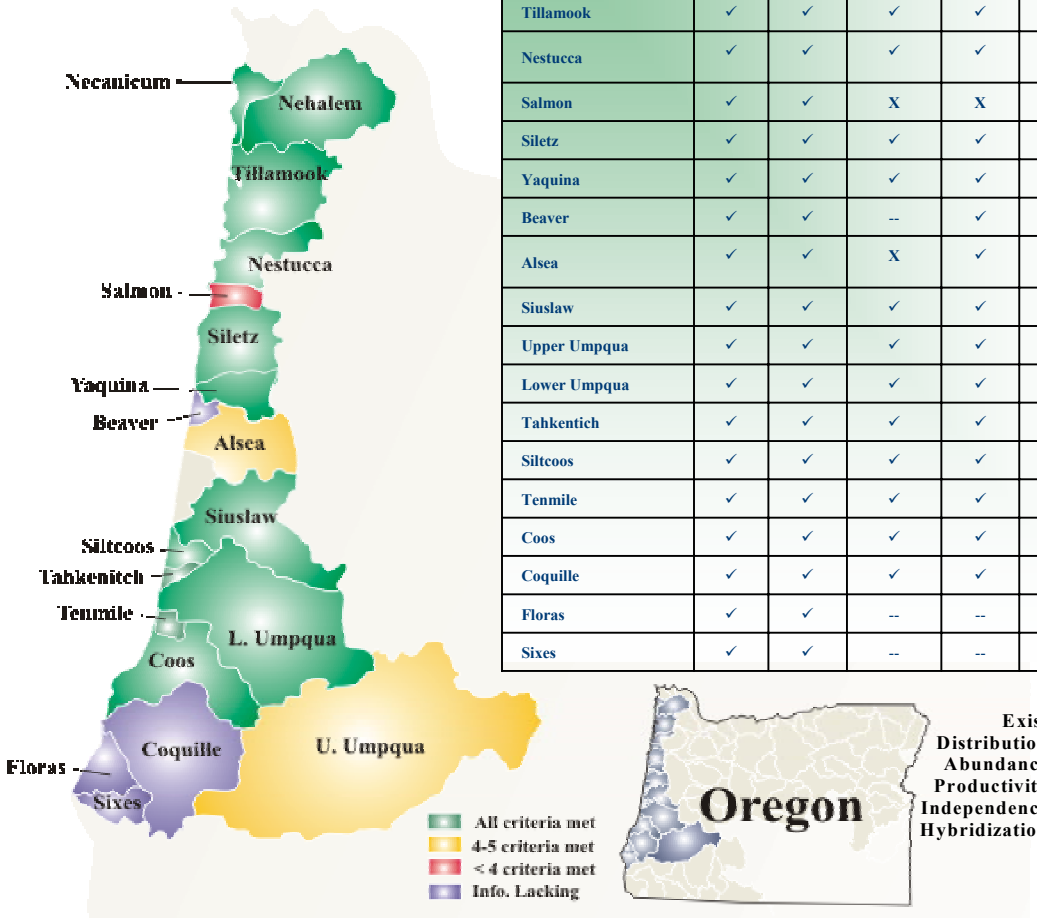
- ODFW Stock Status Report under development
- NFCP Interim Criteria developed to give a "snap shot" of population and SMU health
- Criteria look at population performance for the last five years
- Meant to identify species management units that need immediate attention

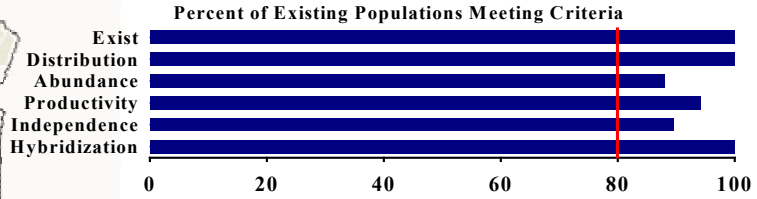
Coastal Coho SMU

ESA Designation: Proposed Threatened 2004 ***NFCP Interim Assessment: Not at Risk***

The Coastal Coho SMU extends from the Necanicum River south to the Sixes River. The SMU includes 19 populations in ocean tributaries that were assessed for this report. Each of the interim criteria were met by at least 80% of the populations. Recent escapements have been at or near record lows. However, numbers, distribution and productivity have rebounded for most populations in the last four years following improved ocean productivity. These improvements are encouraging, but it is not clear whether all underlying factors for the recent decline have been addressed or if this is just a result of improved ocean conditions.

Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Necanicum/Ecola	✓	✓	✓	✓	✓	✓
Nehalem	✓	✓	✓	✓	✓	✓
Tillamook	✓	✓	✓	✓	✓	✓
Nestucca	✓	✓	✓	✓	✓	✓
Salmon	✓	✓	X	X	X	✓
Siletz	✓	✓	✓	✓	✓	✓
Yaquina	✓	✓	✓	✓	✓	✓
Beaver	✓	✓	--	✓	✓	✓
Alsea	✓	✓	X	✓	✓	✓
Siuslaw	✓	✓	✓	✓	✓	✓
Upper Umpqua	✓	✓	✓	✓	X	✓
Lower Umpqua	✓	✓	✓	✓	✓	✓
Tahkentich	✓	✓	✓	✓	✓	✓
Siltcoos	✓	✓	✓	✓	✓	✓
Tenmile	✓	✓	✓	✓	✓	✓
Coos	✓	✓	✓	✓	✓	✓
Coquille	✓	✓	✓	✓	✓	✓
Floras	✓	✓	--	--	✓	✓
Sixes	✓	✓	--	--	✓	✓





Stock Status Doesn't Address Viability

- ✓ Only looks at recent years of improved ocean survival
- ✓ Does not assess the long-term fitness of populations