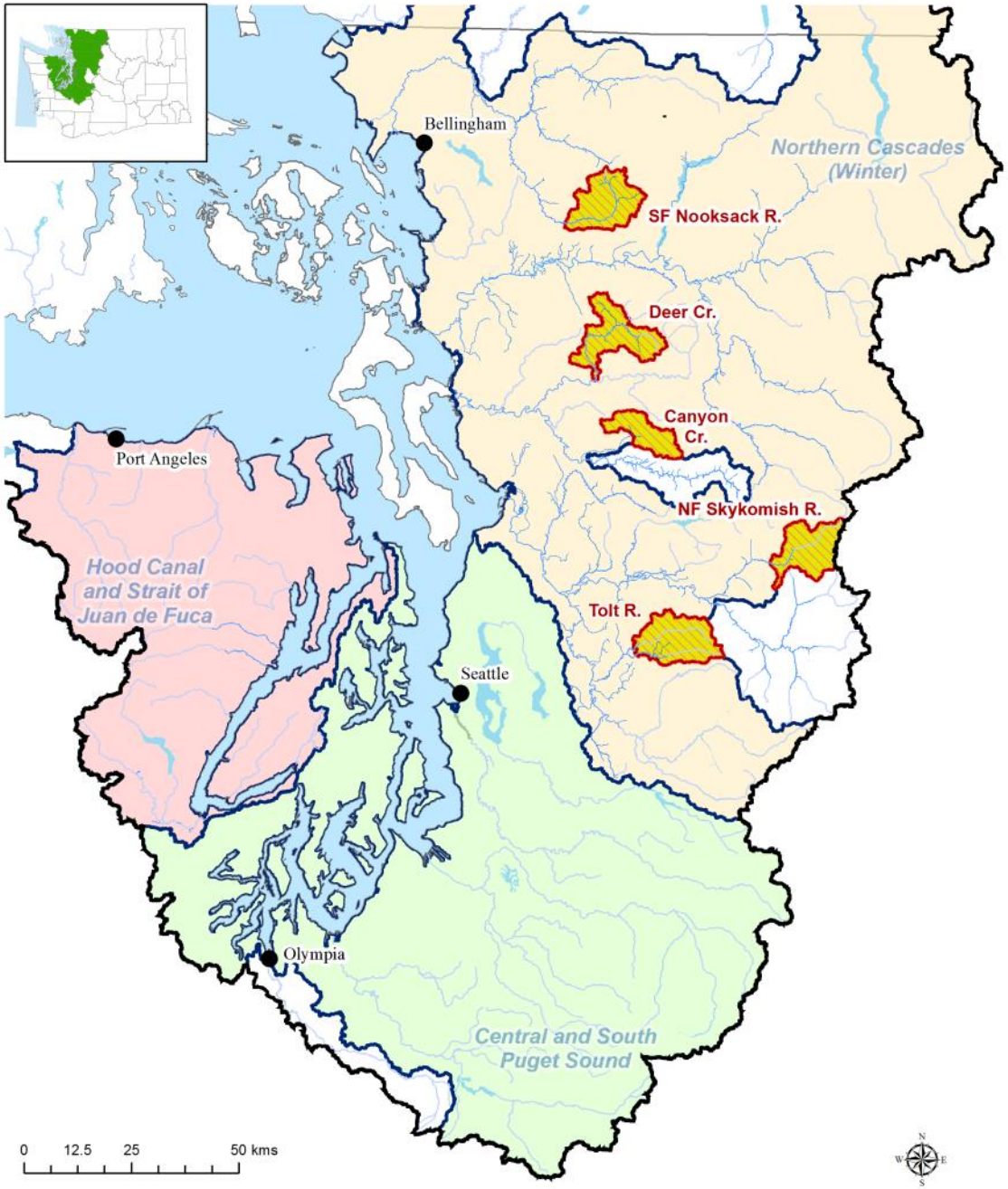
Status of Puget Sound steelhead

Neala W. Kendall, PhD
WDFW Research Scientist

Puget Sound Wild Steelhead Management Zones
Educational Workshop
Seattle, WA
July 13, 2015

Puget Sound DPS: Major Population Groups

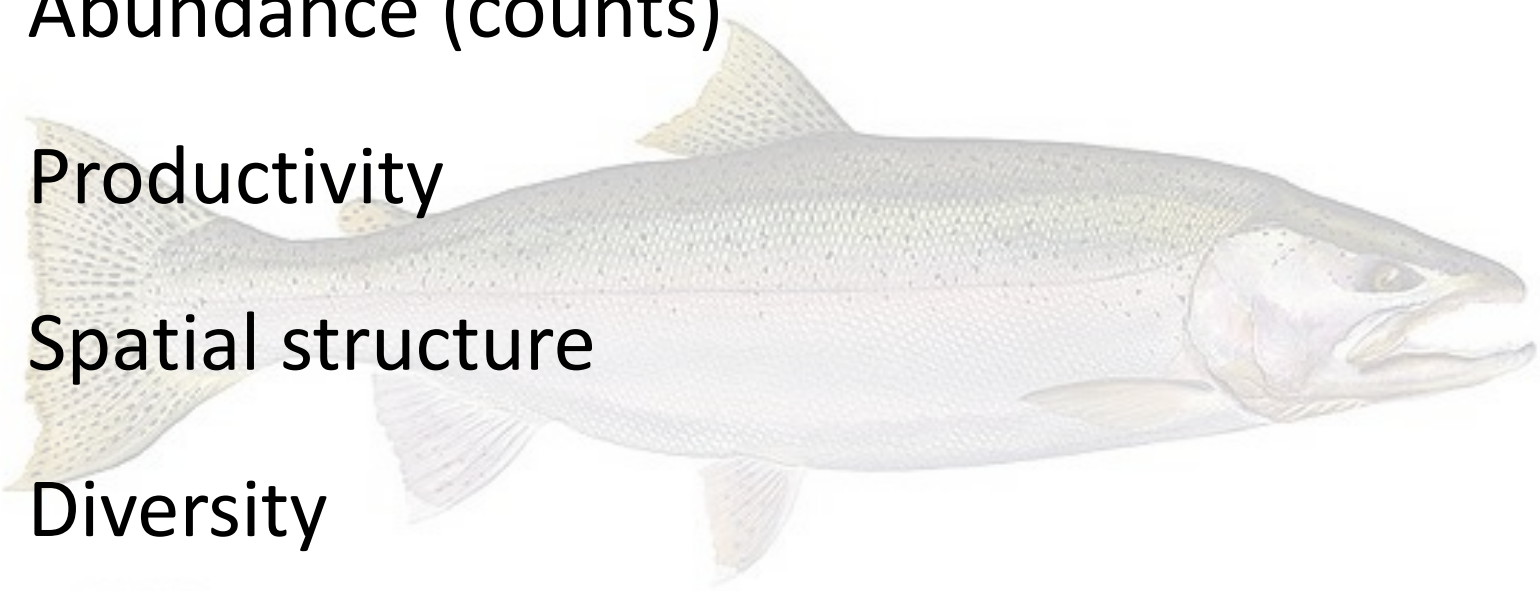
Puget Sound DPS: Summer Steelhead Populations



Puget Sound DPS: Winter Steelhead Populations

Viable Salmonid Population indicators

- Abundance (counts)
- Productivity
- Spatial structure
- Diversity

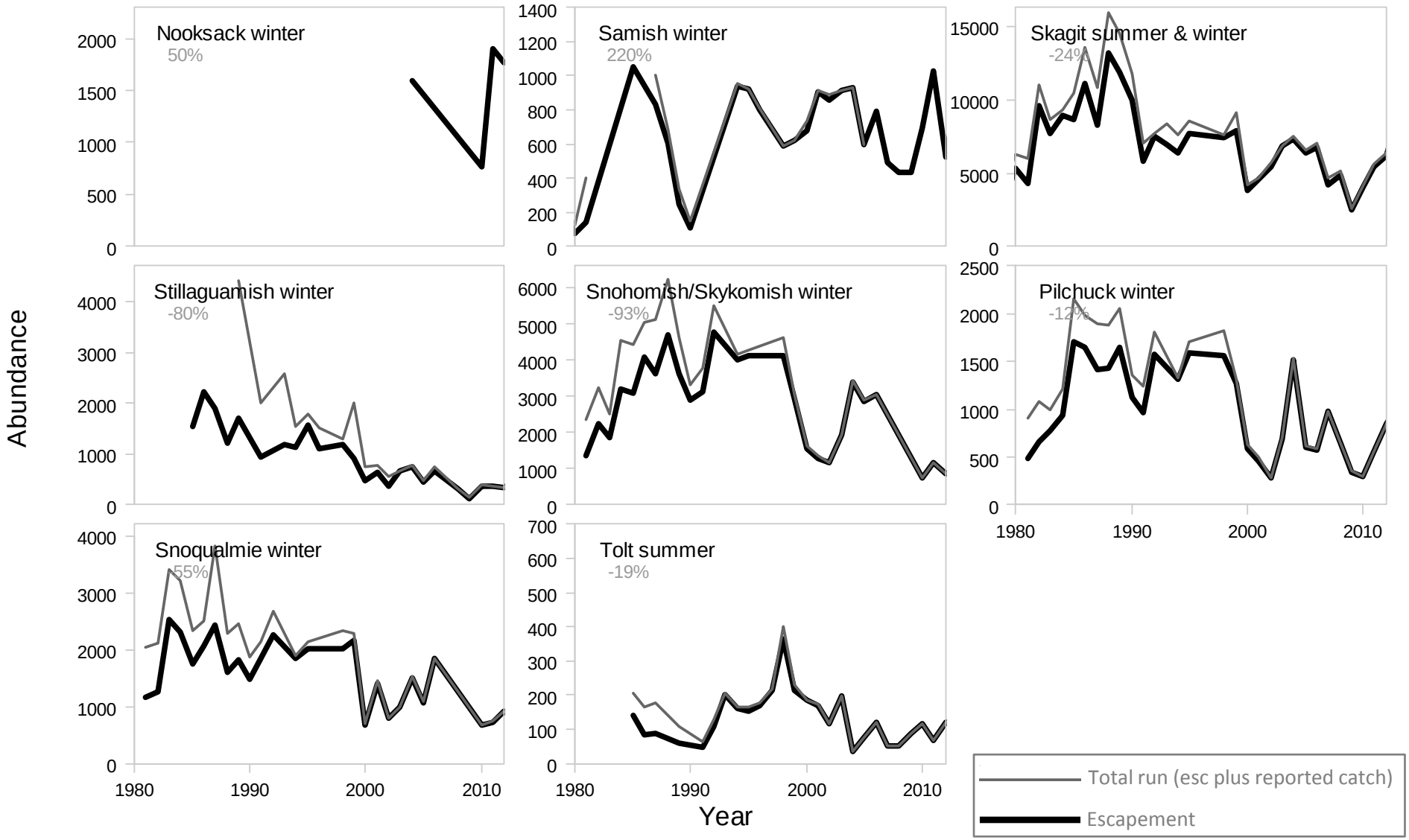


NOAA Technical Memorandum NMFS-NWFSC-42
Viable Salmonid Populations and the Recovery of Evolutionarily Significant Units
June 2000
Paul McElhaney and others

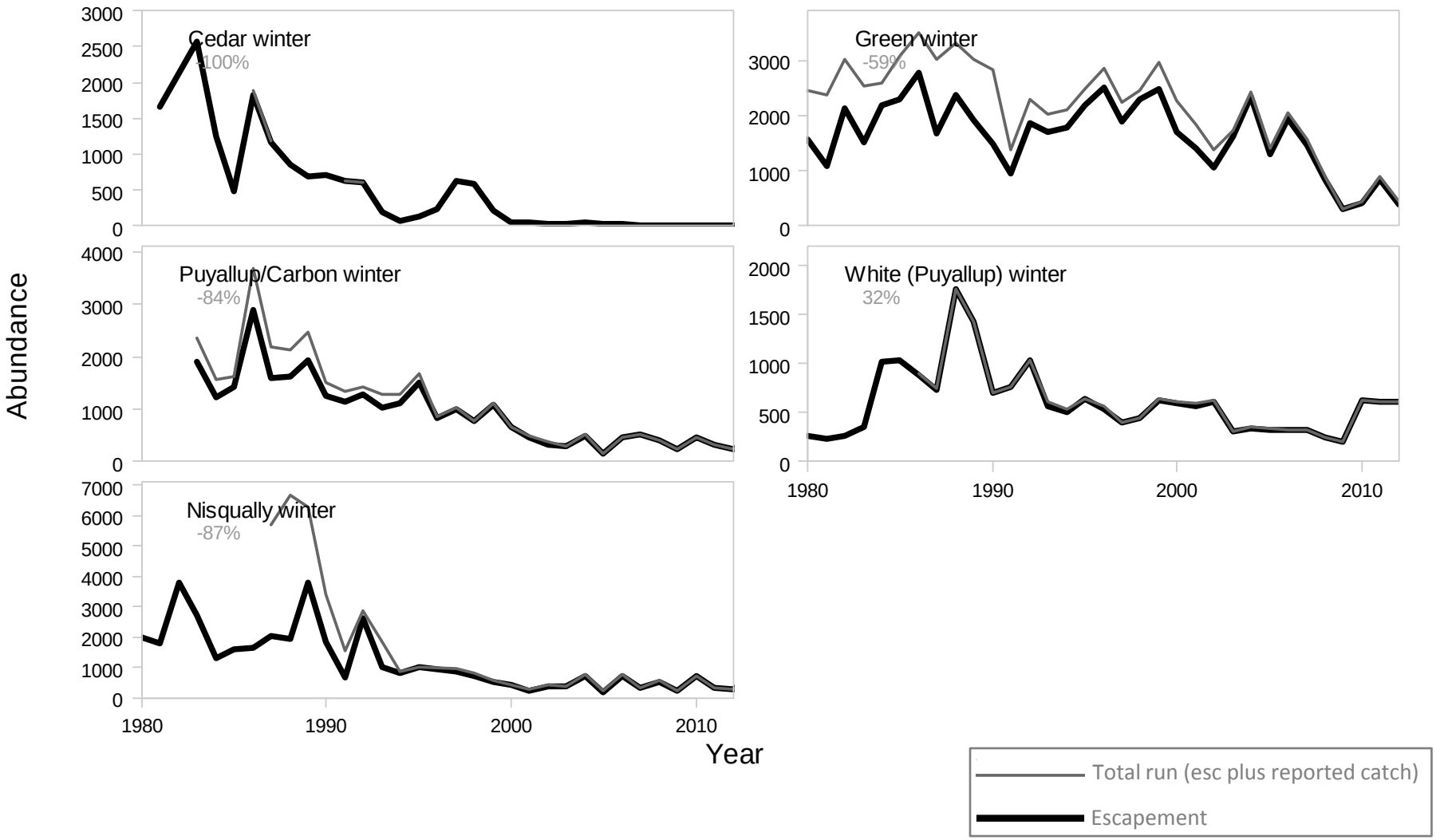
Viable Salmonid Population indicators

- Abundance
- Productivity
- Spatial structure
- Diversity

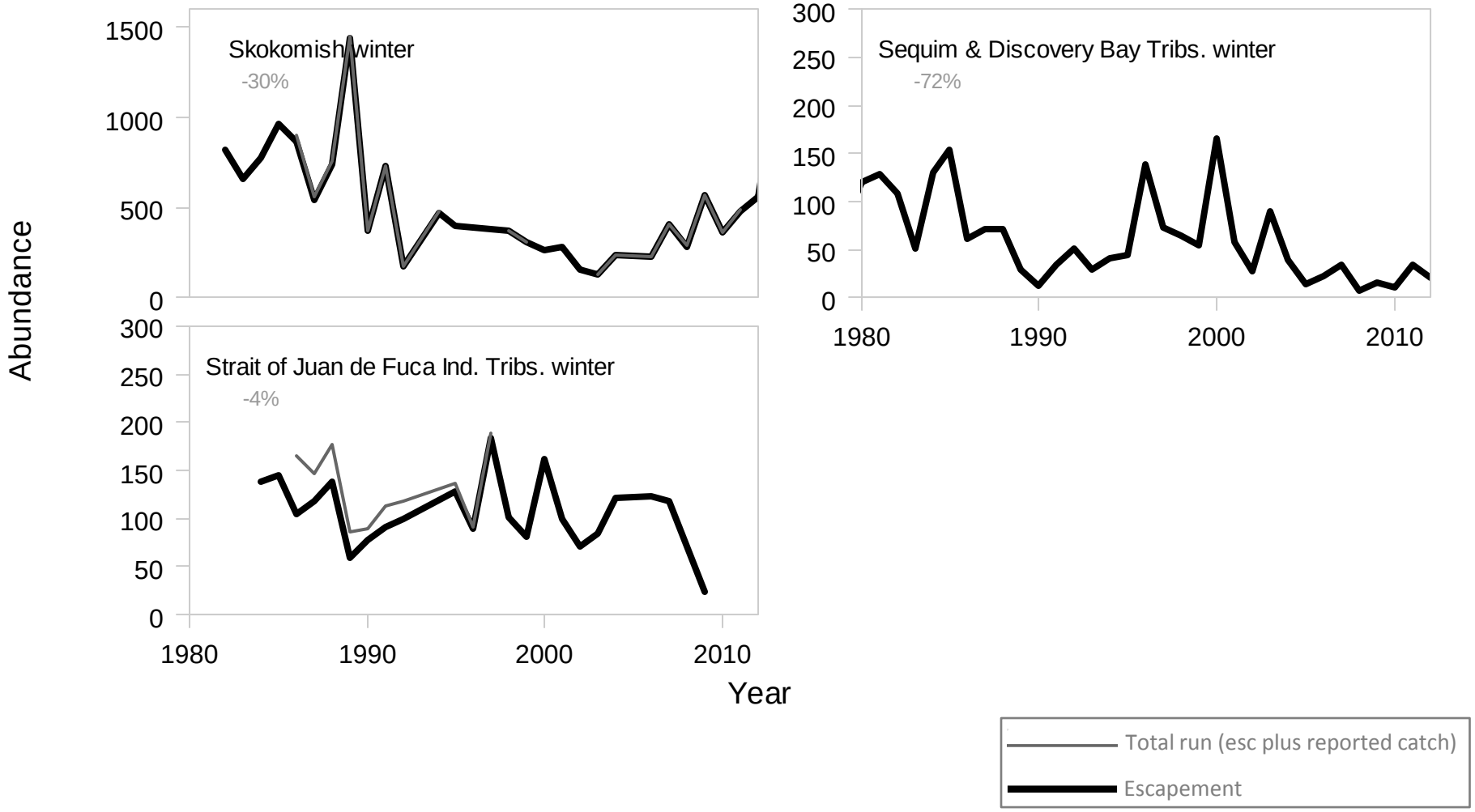
Population abundance data—Northern Cascades MPG



Population abundance data—Central and South Puget Sound MPG



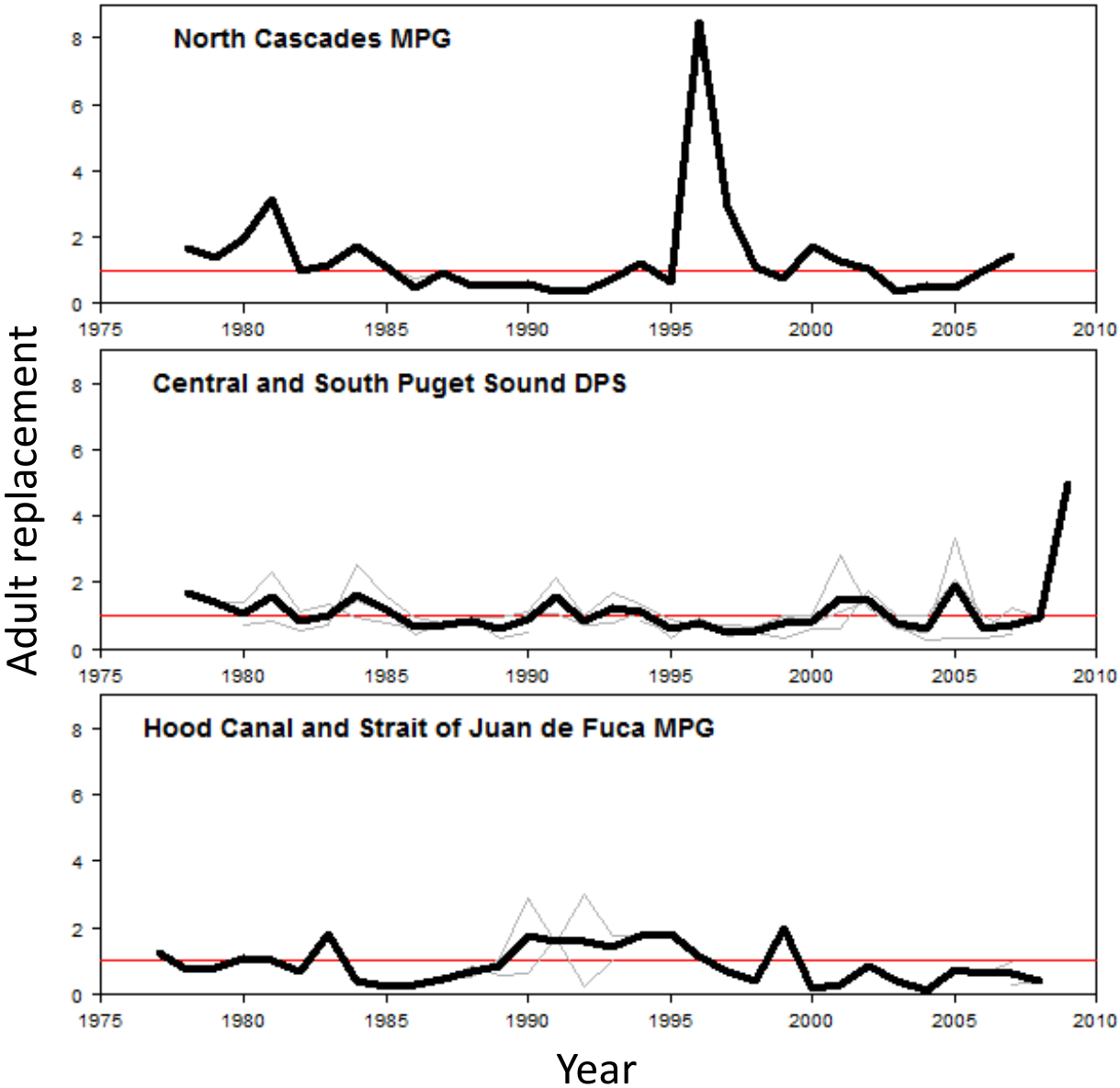
Population abundance data—
Hood Canal and Strait of Juan de Fuca MPG



Viable Salmonid Population indicators

- Abundance
- Productivity
- Spatial structure
- Diversity

Adults per adult: replacement



Skagit River winters

Green river winters

Nisqually River winters

Puyallup/Carbon River winters

Elwha River winters

Snow Creek winters
(Sequim and Discovery Bay Tributaries)

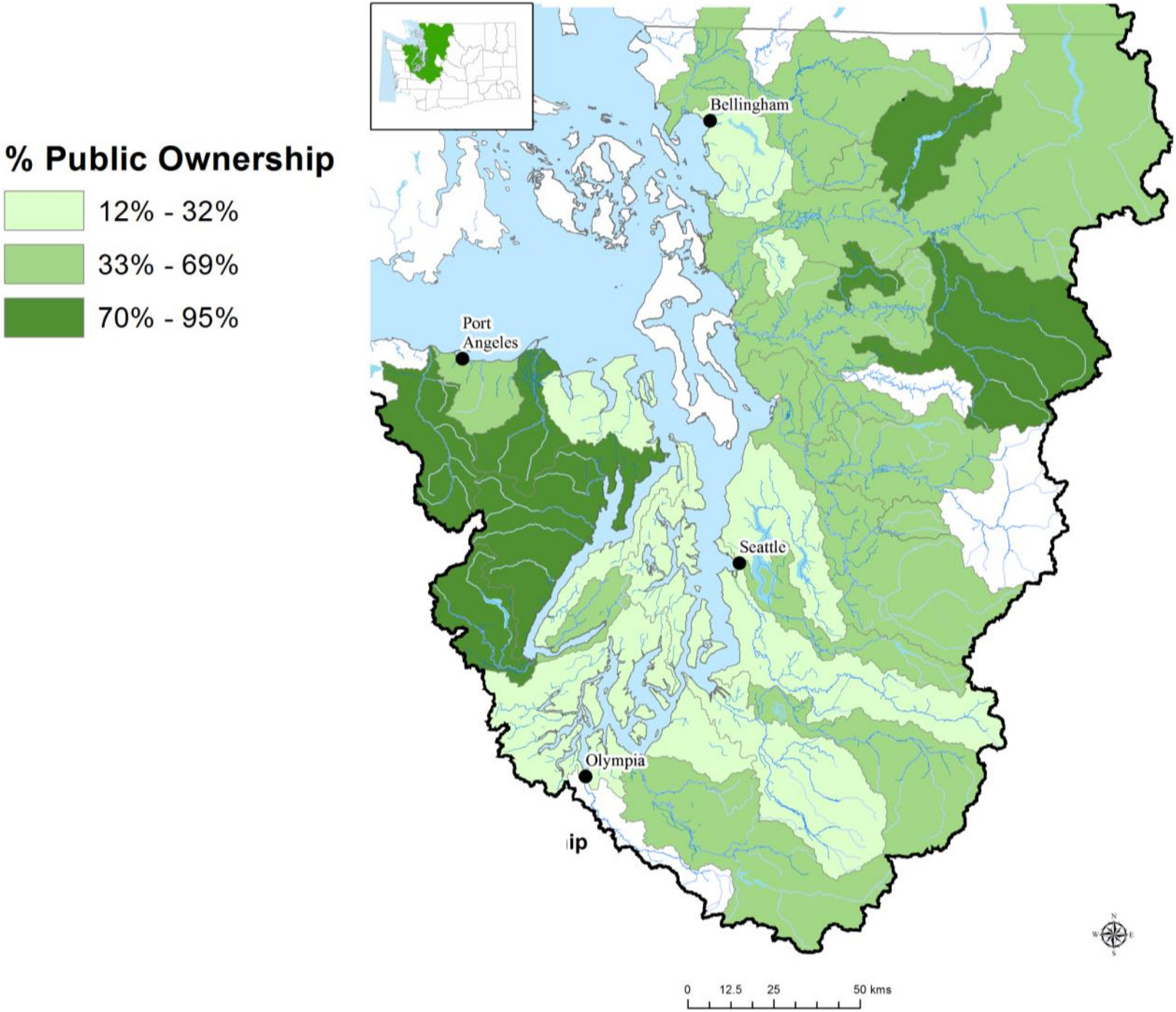
Big Beef Creek winters
(East Hood Canal)

Viable Salmonid Population indicators

- Abundance
- Productivity
- Spatial structure
- Diversity

Spatial structure indicators

- Public land ownership and habitat protection


% Public Ownership
12% - 32%
33% - 69%
70% - 95%
Bellingham
Port Angeles
Seattle
Olympia
ip
0 12.5 25 50 kms

Viable Salmonid Population indicators

- Abundance
- Productivity
- Spatial structure
- Diversity

Diversity

- Life history
- River basin hydrology

Life history characteristics

- Summer vs. winter run timing

River basin hydrology

- Highland

River basin hydrology

- Lowland

River basin hydrology

- Rain dominated

River basin hydrology

- Snow dominated

River basin hydrology

- Rain/snow dominated

Questions?