

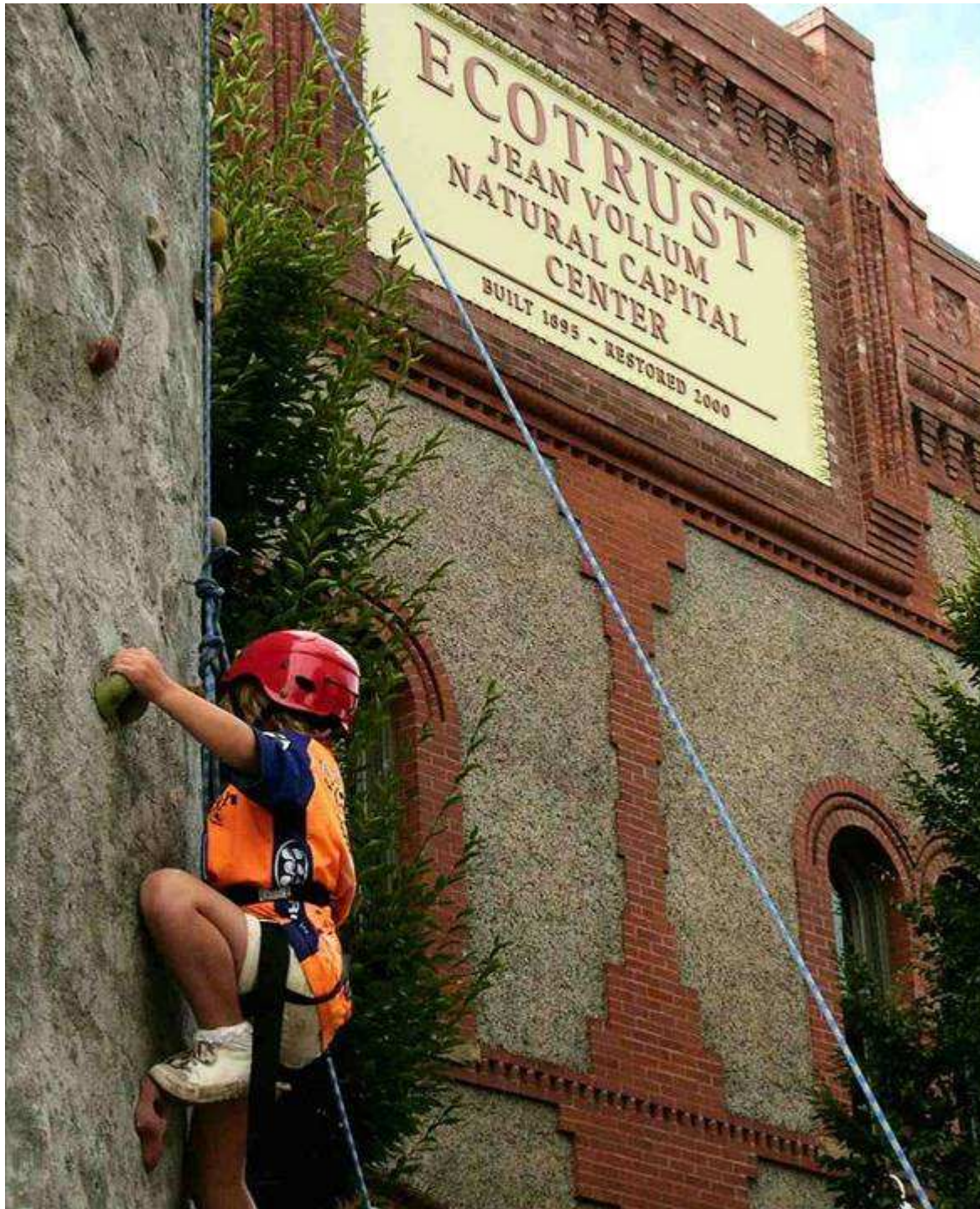
# Restructuring Fishing Fleets for Economic, Social and Ecological Sustainability

An example from the West  
Coast of the United States

Astrid J. Scholz  
Seas At Risk Conference  
Towards Sustainable European Fisheries  
Brussels, 21 October 2009

# Outline

- Introduction to Ecotrust
- Quick primer on US fisheries management
- West Coast groundfish fishery –“Transition to Sustainability”
- Tools for analyzing rationalization measures
  - A tale of two ports
  - Results from scenario analysis
- Communities, quota and beyond



*innovate, invest,  
inspire...*

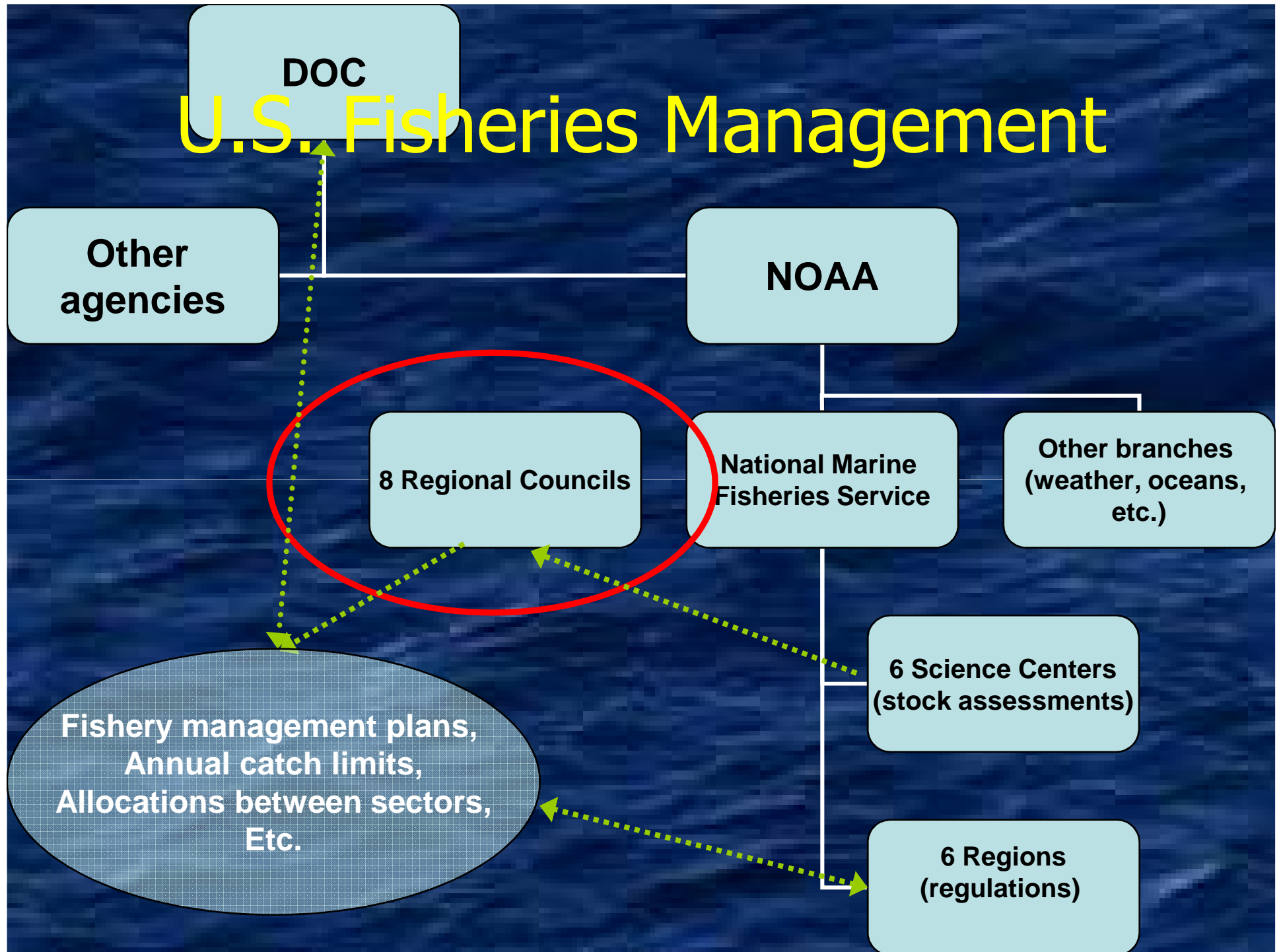
Founded in 1991 to  
foster triple-  
bottom-line outcomes  
in communities from  
California to Alaska  
through knowledge  
and capital

First environmental  
bank, Shorebank  
Pacific

First forest land  
investment fund,  
Ecotrust Forest,  
LLC.

Award-winning

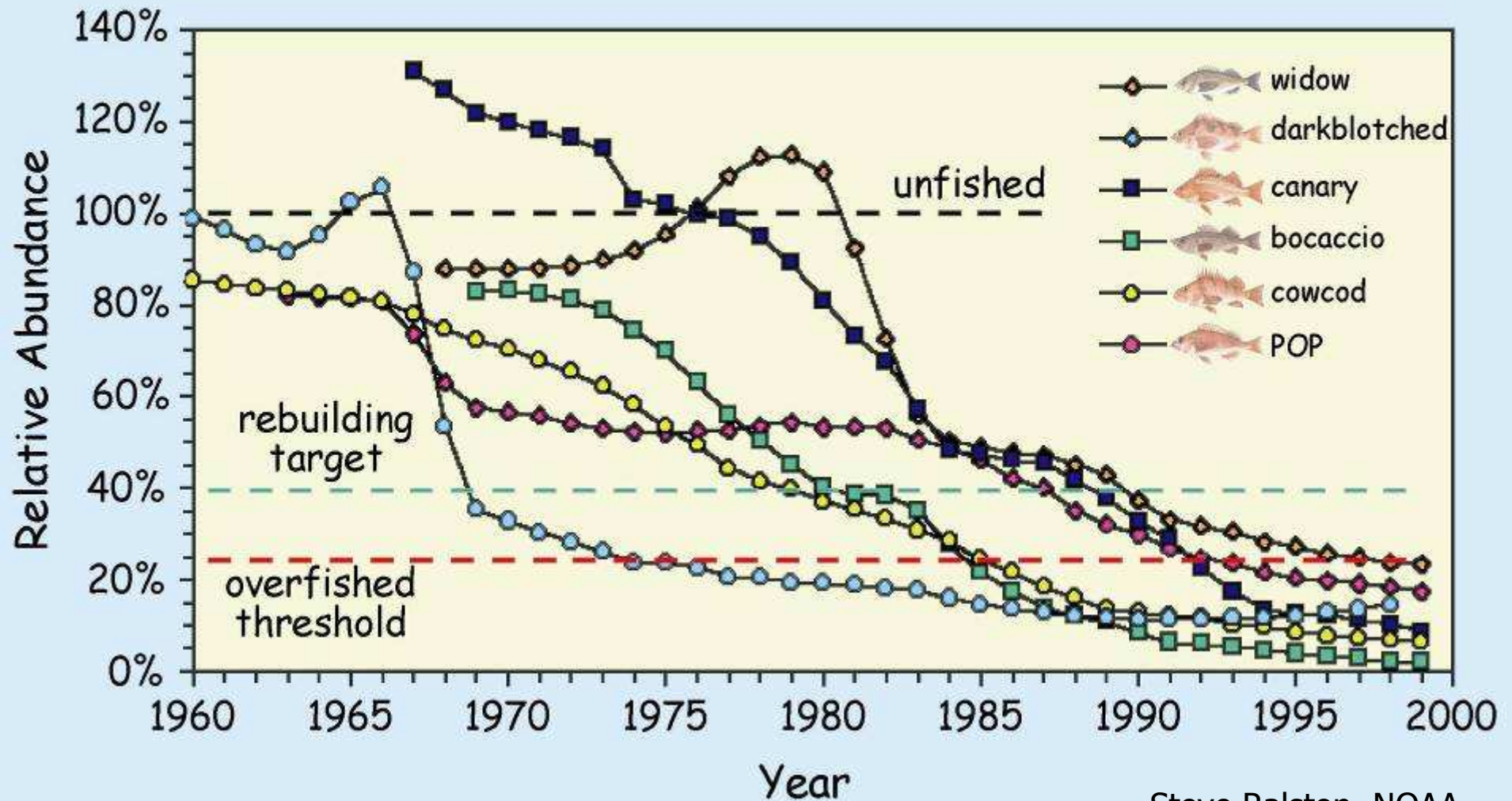
# U.S. Fisheries Management



# West Coast groundfish

- 90+ species of flat, round and rockfish
- Multiple gears – trawl and fixed gear
- Multiple fisheries – commercial, tribal, recreational
- Some open access, some limited entry
- Some stocks overfished, others healthy
- Recent history of planned and *de facto* rationalization

# Decline of West Coast Rockfishes (aka "snapper")



Steve Ralston, NOAA

# Timeline of rationalization

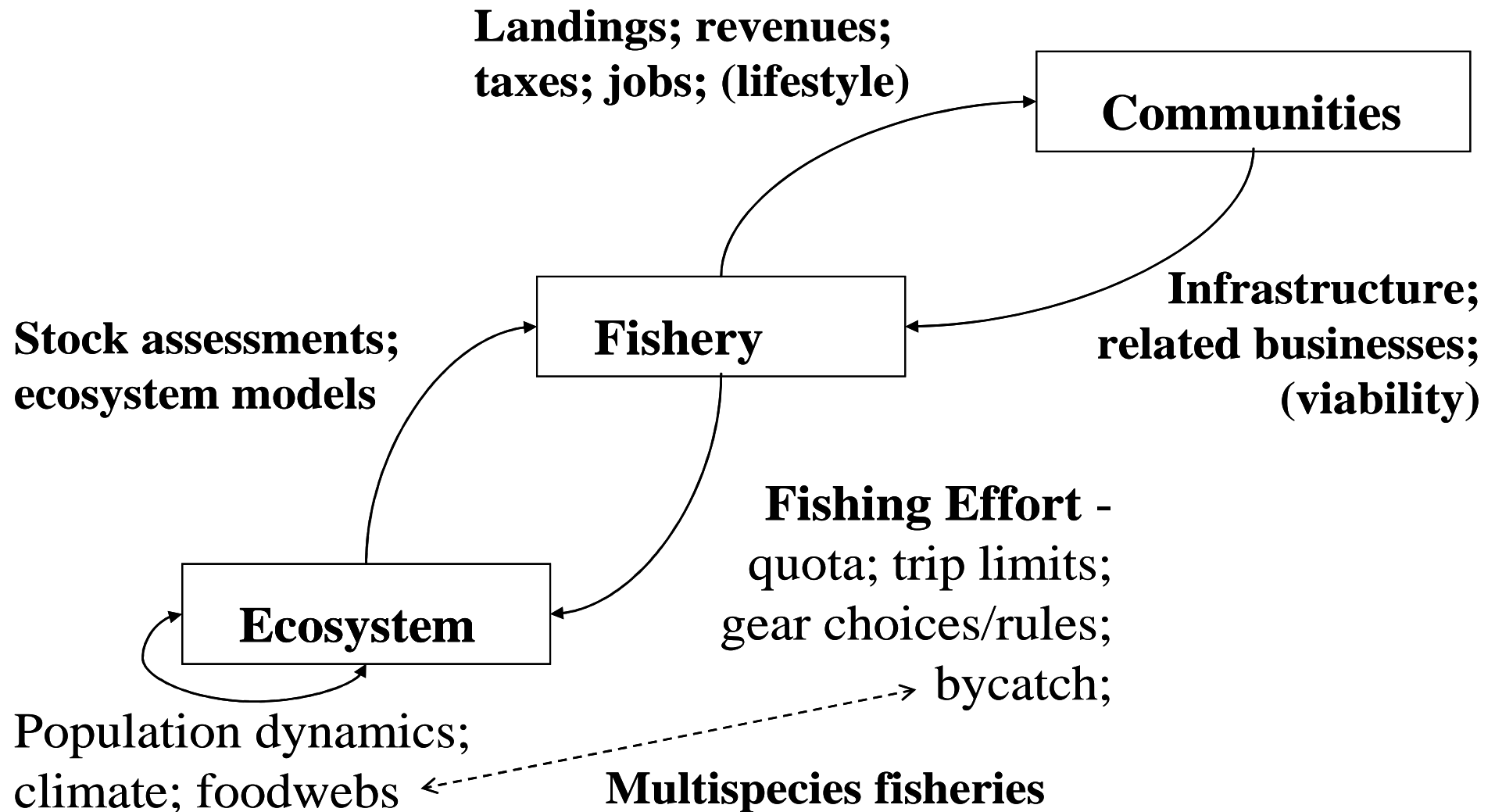
1976	Magnuson Stevens Act establishes 200-mile EEZ and 8 regional fishery management councils
1990s	Most fisheries managed under limited entry permits, MSA reauthorized (1996 Sustainable Fisheries Act)
2000	PFMC Strategic Plan “Transition to Sustainability” <ul style="list-style-type: none"><li>• Permit stacking—implemented for fixed gear only</li><li>• Vessel buyback—trawl only</li><li>• IFQ program—trawl only</li></ul>
2002-present	Coast-wide rockfish closure areas <ul style="list-style-type: none"><li>• <i>de facto</i> fleet rationalization effect</li></ul>
2003-04	Trawl vessel buyback: from 174 to ~85
2006	Magnuson Stevens Act reauthorized—IFQ moratorium lifted
2007-present	Trawl IFQ program design and implementation

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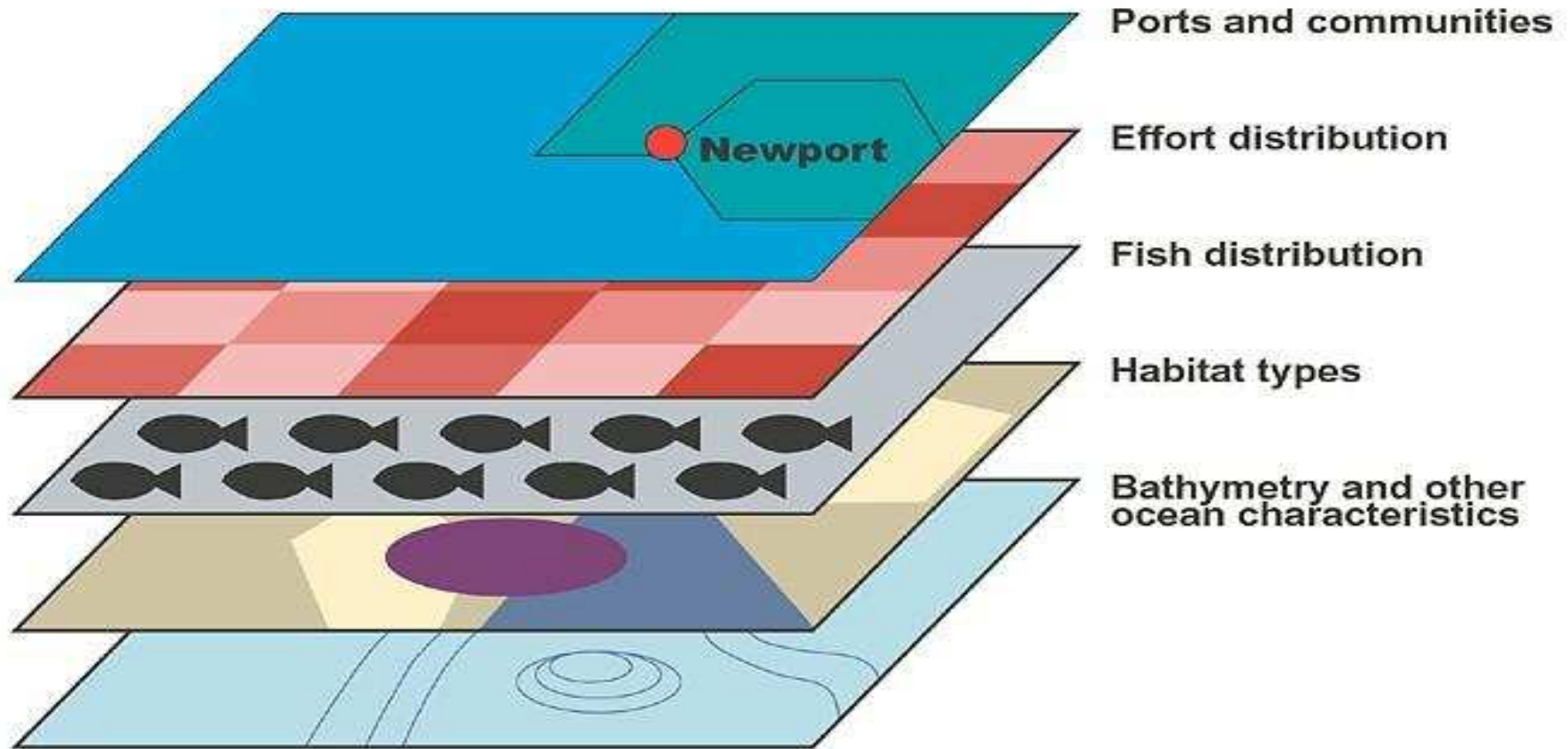


# Groundfish Fleet Restructuring Project (2000-01)



# OCEANI

Ocean Communities Ecology Analysis Network  
Equity  
Economy



# A tale of two ports

- Newport, OR
- One of the largest fishing ports on West Coast
- Major processing capacity and other infrastructure
- Diverse commercial fleet, both day boat and distant water
- 85 million pounds of groundfish (2000), mainly whiting and flatfish
- Typical vessel is a 20-25 m trawler



# A tale of two ports

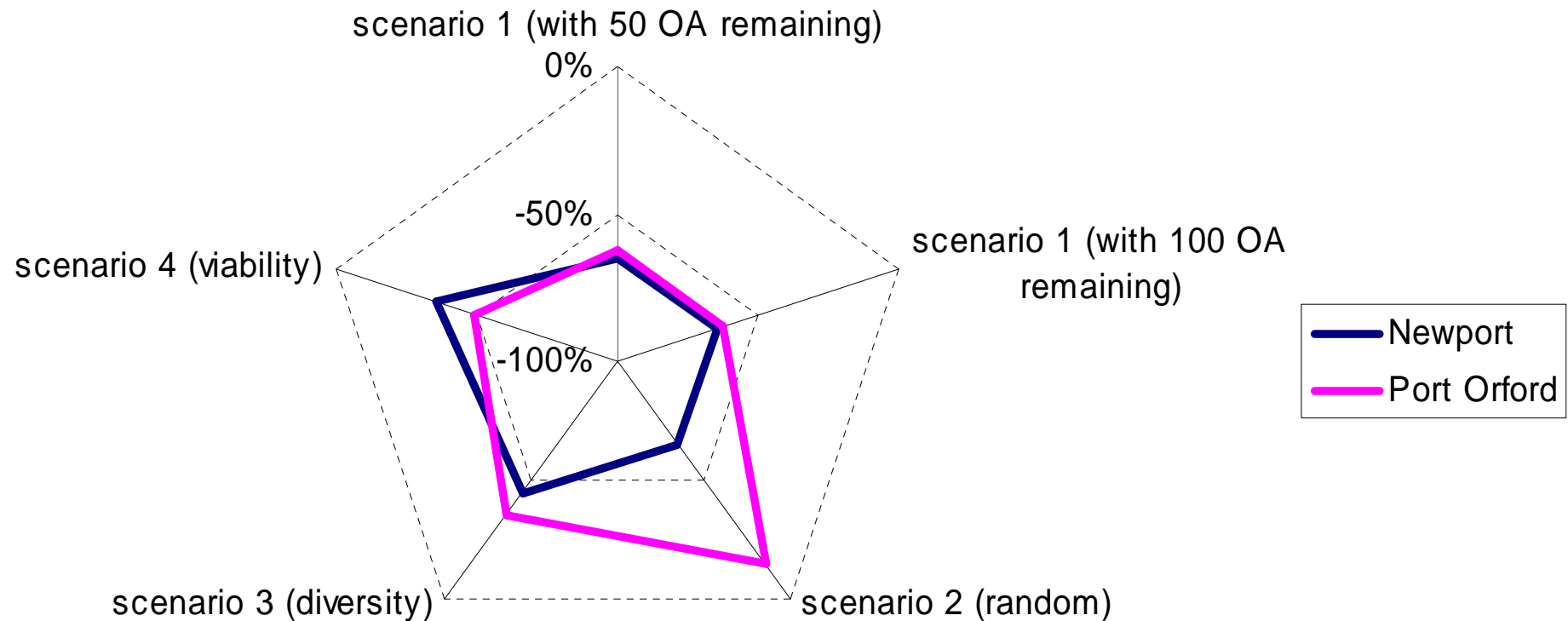
- Port Orford, OR
- No natural harbor, remote location
- No processor, little infrastructure
- 500,000 pounds of groundfish (2000), mainly hook and line rockfish
- Resident fleet of ~40 boats
- Typical vessel is a 13 m day boat



# Scenario analysis

- Considered 4 scenarios that approximated potential policy approaches
  - Eliminating all excess capacity, with 50 and 100 open-access vessels remaining
  - Reducing 50% in each fleet sector at random
  - 50% reduction while maintaining fleet diversity
  - Eliminating unviable vessels
- Next slides: income and fleet composition
- Project details at [www.ecotrust.org/gfr/](http://www.ecotrust.org/gfr/)

# Projected income reductions

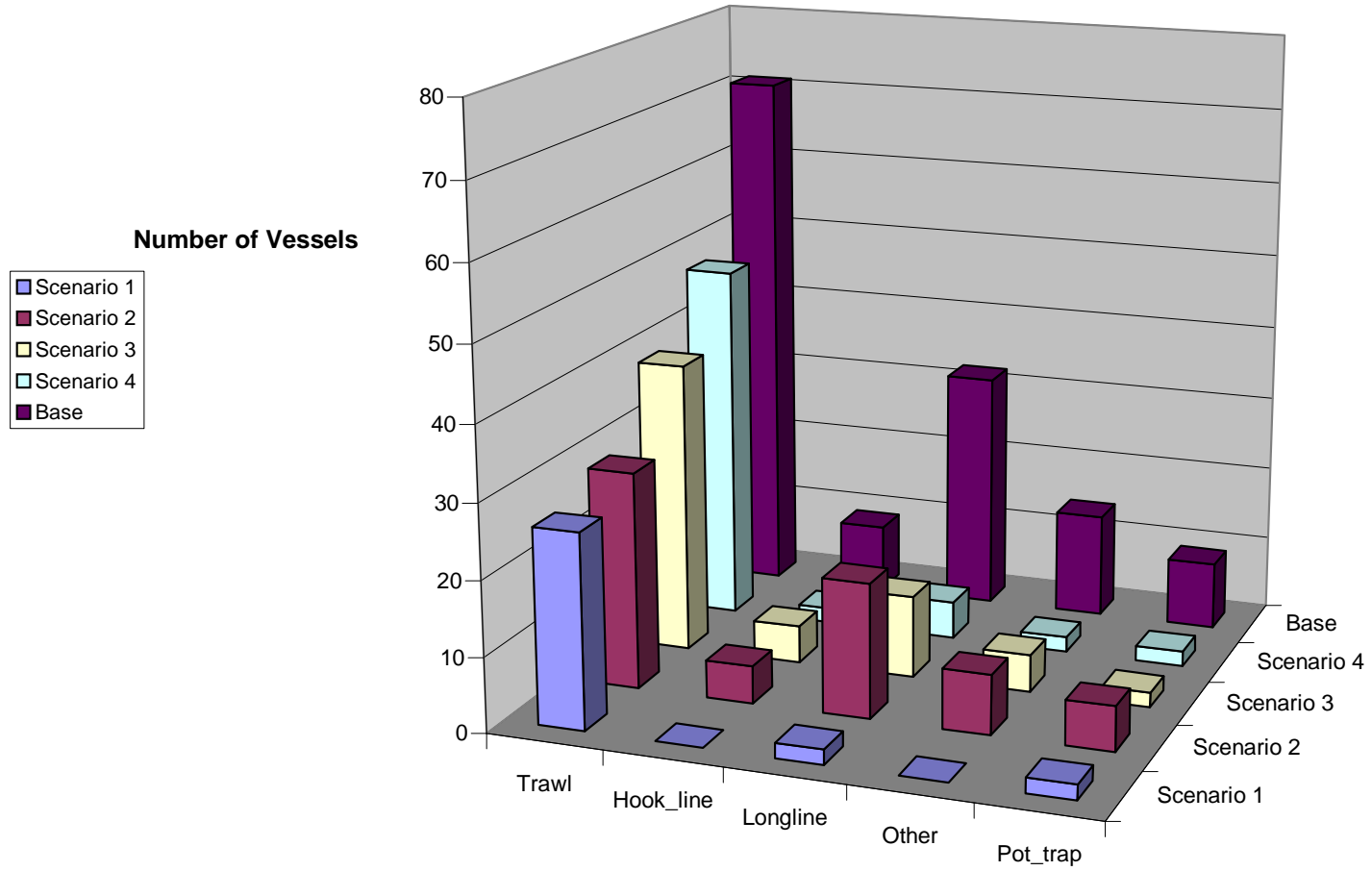


*What's good for Port Orford is bad for Newport, and vice versa. But there are OK outcomes for both...*

# Consider fleet composition

- Can be an indicator of social and ecological sustainability:
  - gears used and their habitat impacts
  - Social/cultural practices associated with different fishing techniques

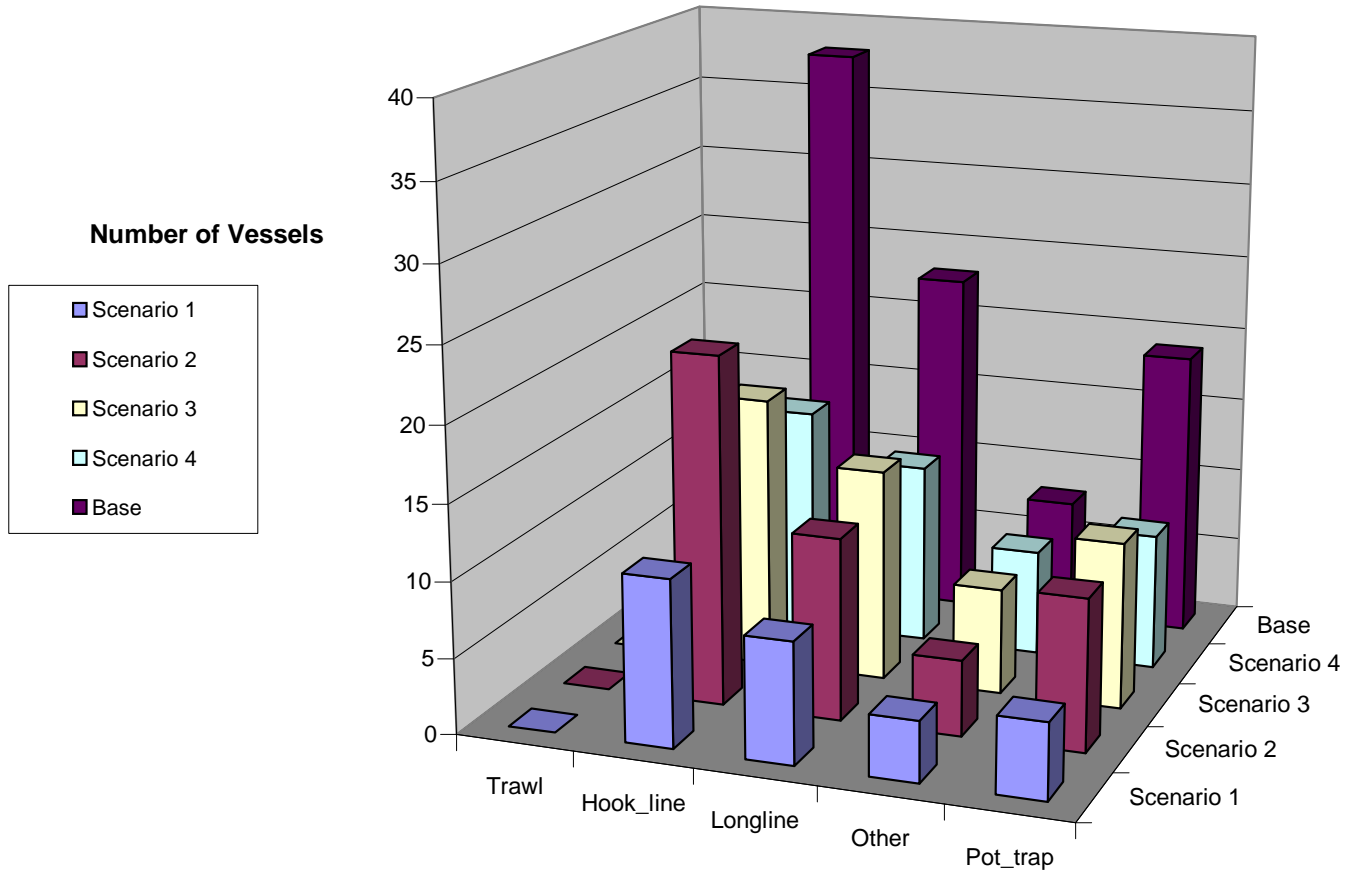
# Newport



	Trawl	Hook_line	Longline	Other	Pot_trap
Scenario 1	26	0	2	0	2
Scenario 2	29	5	18	8	6
Scenario 3	39	5	11	5	2
Scenario 4	48	2	5	2	2
Base	71	9	32	14	9



## Port Orford



	Trawl	Hook_line	Longline	Other	Pot_trap
Scenario 1	0	11	8	4	5
Scenario 2	0	23	12	5	10
Scenario 3	0	18	14	7	11
Scenario 4	0	15	12	7	9
Base	0	38	23	8	19

# *Quo vadis West Coast?*

- Trawl IFQ system being designed ignores community, gear and species interactions...
- Lessons from Alaska and BC:
  - Effects of leasing: high capital costs, debt loads, changing crew compensation structure
  - Price/earnings ratio inflation
  - Fixed terms and/or initial allocation by auction can alleviate intergenerational equity and community concerns
- Ecotrust approach:
  - Community Trusts as partial solution
  - Capacity building and capital raising for new community-based fisheries management

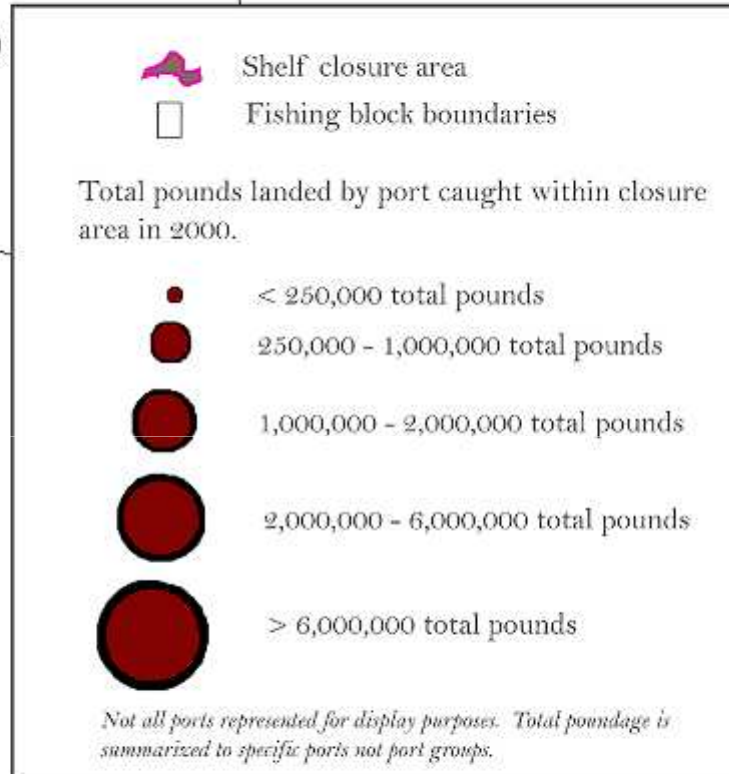
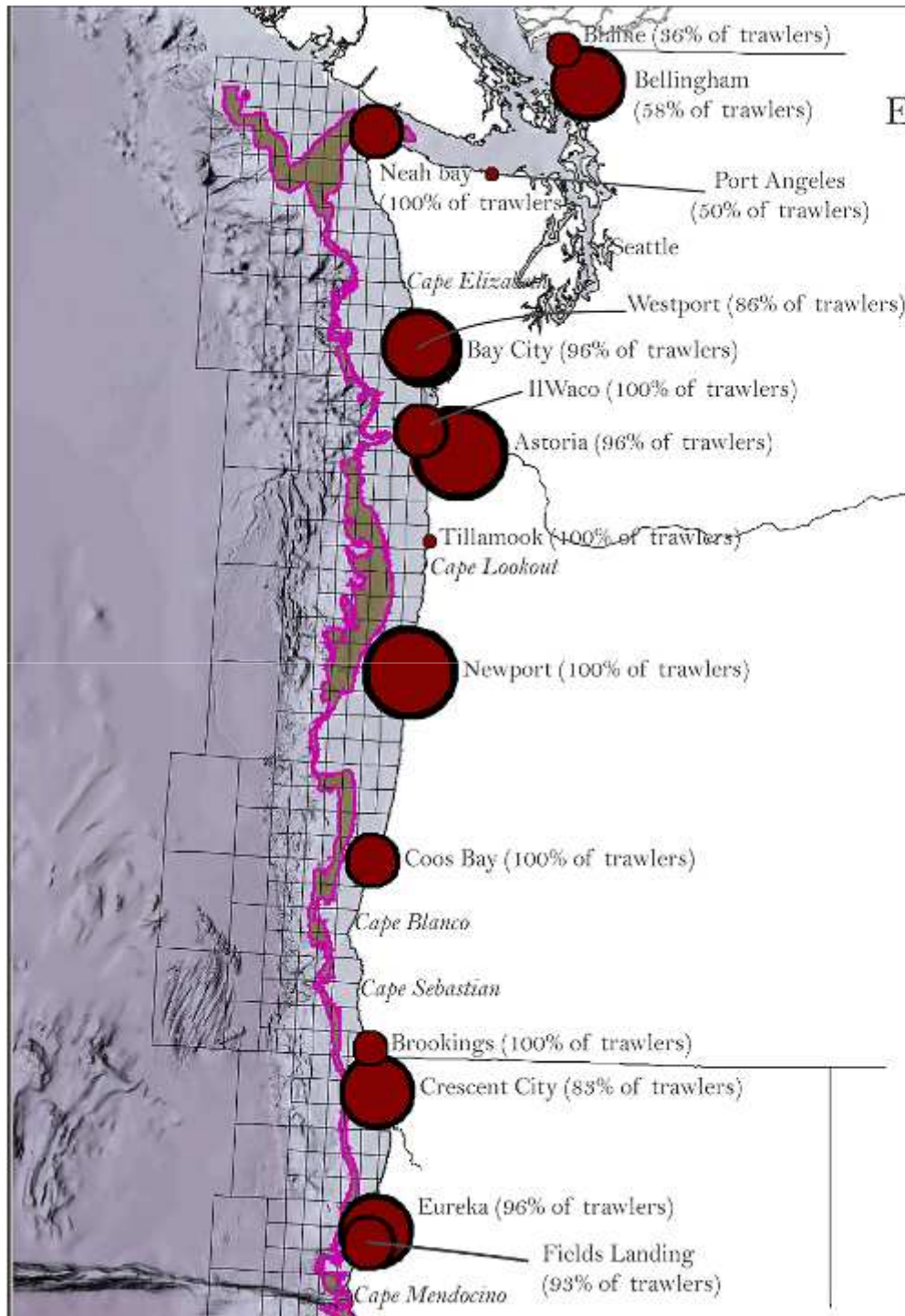
Any questions?

Extra slides

# Example: effects of shelf closure

- Ports had very different utilization of shelf areas that were closed
- Bathymetry and location are key drivers
- Composition of ports and fleets matter, too.

## Effects of 2002 In-season Shelf Closure Area on the Pacific Coast Trawl Fishery



# Reliance on shelf closure area

