

The BLUE Economy: Understanding the Ocean's Role in Our Nation's Financial Future

Feeding a Nation: Sustainable Fisheries Management and Aquaculture

Moderator:

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**Director of Scientific Programs and Chief Science Advisor
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Panel

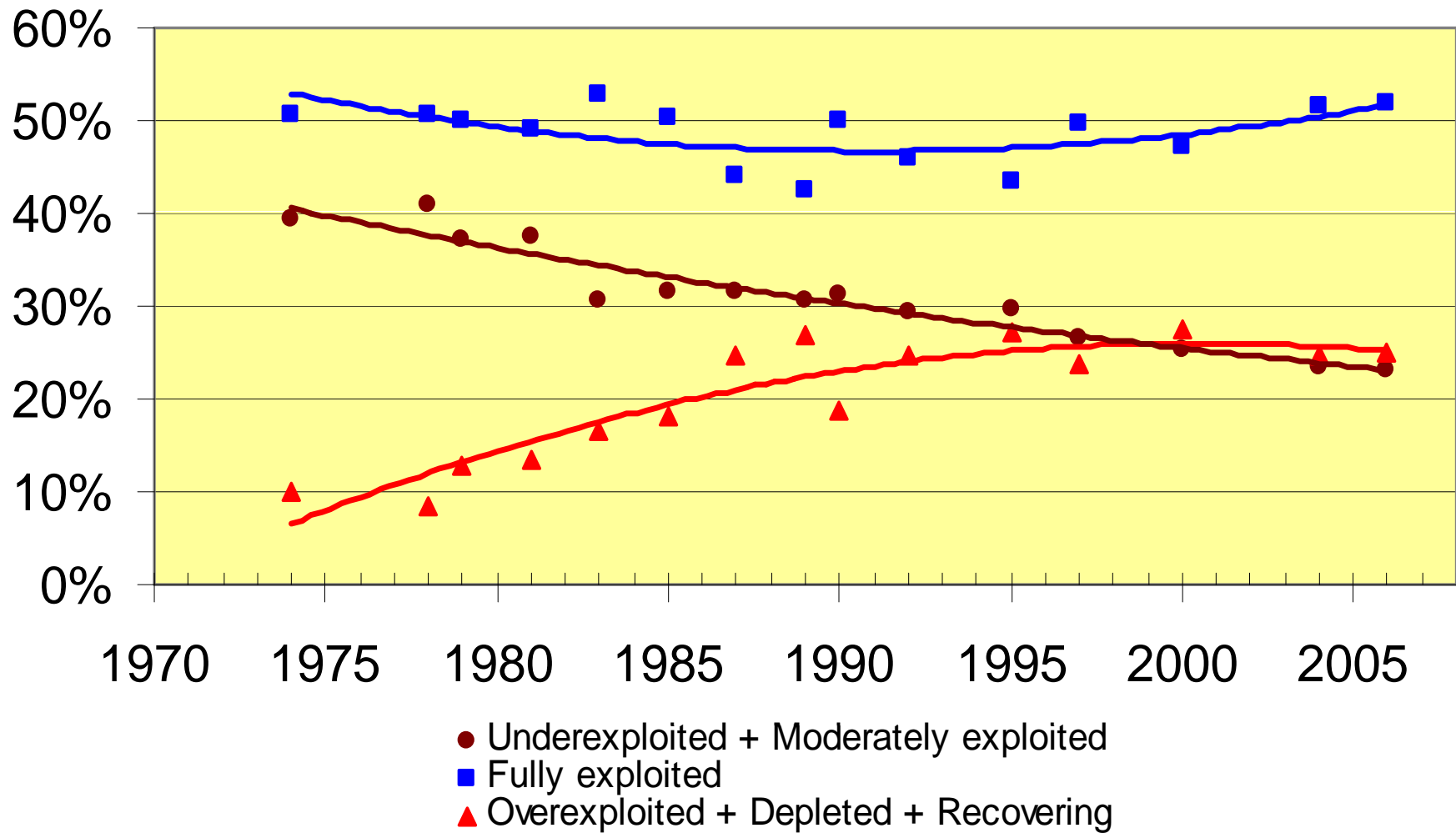
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Eight Regional Fishery Management Councils

- **Representative Robert J. Wittman (VA, District 1)**
- **Steve Murawski, Ph.D.**
Director of Scientific Programs and Chief Science Advisor,
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- **Susan Hanna, Ph.D.**
Professor, Agricultural and Resource Economics, Oregon State
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- **Sebastian Belle**
Executive Director, Maine Aquaculture Association
- **Donald McIsaac, Ph.D.**
Executive Director, Pacific Fishery Management Council
- **Melanie Siggs**
Director, Seafood Choices Alliance

Importance of Marine Fisheries to our Economy

- **World Annual Seafood production (wild & aquaculture): 141 million tons (93 million tons wild - static; 48 million tons aquaculture, - increasing)**
- **20% of the world's human population have fisheries as their major source of protein**
- **Total USA Fish Catch (domestic = Landings in 2007: 9.5 billion pounds (4.3 million metric tons), 1st Sale Value \$4.1b**
- **Total USA Recreational Fish Catch (2006): 257 million pounds**
- **Total Imported Seafood (2006): \$28 billion; Edible \$13.4 billion - Average per capita Seafood consumption (USA) 16.3 pounds**
- **Total USA Fisheries Sales \$185 billion; 2 million American jobs are fisheries-dependent**

Global trends in the state of world marine fish stocks since 1974



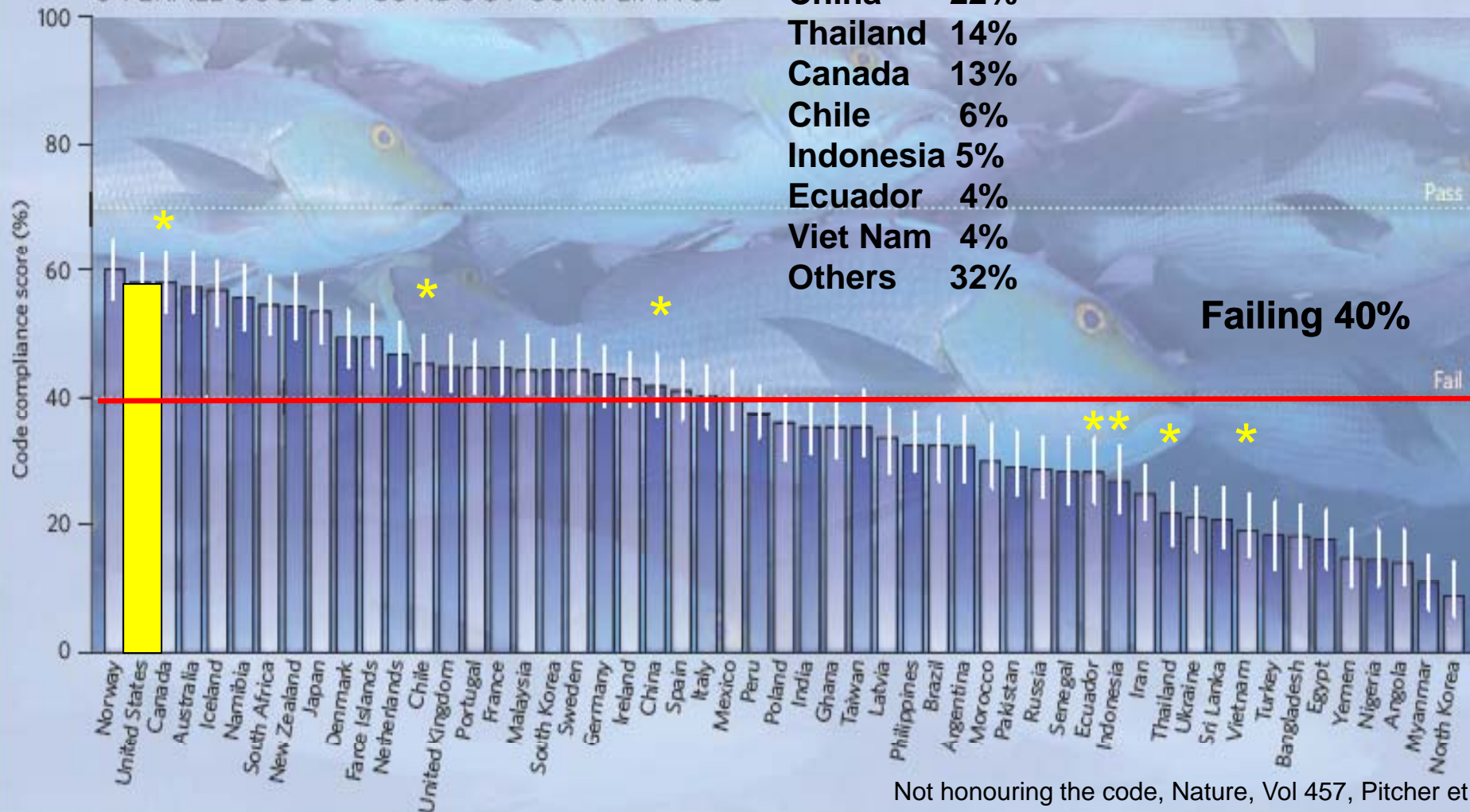
State of Global Fisheries

Figure 1

OVERALL CODE OF CONDUCT COMPLIANCE

Major US Importing Countries

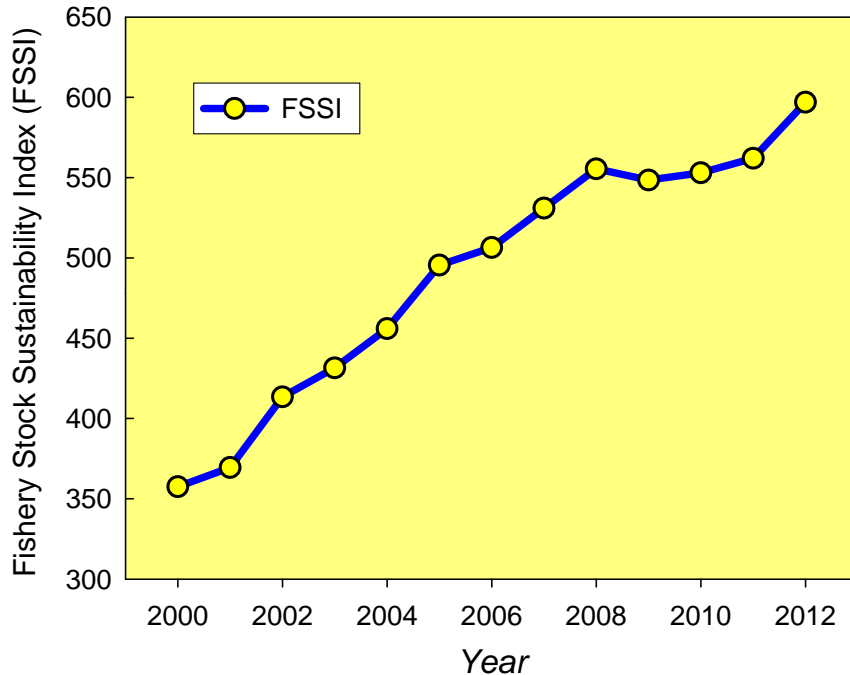
China	22%
Thailand	14%
Canada	13%
Chile	6%
Indonesia	5%
Ecuador	4%
Viet Nam	4%
Others	32%



Not honouring the code, Nature, Vol 457, Pitcher et al

Enhancing USA wild fisheries

Progress on Fishery Stock Sustainability



- **In the USA Steady Progress in meeting the first requirement for sustainable fishery populations**
- **Currently “catch share” programs account for 25% of USA fisheries value (\$1 billion), with 12 programs implemented and 5 additional ones in implementation**
- **Greater transparency and better, more timely information to consumers & suppliers**

<http://www.nmfs.noaa.gov/fishwatch/>

Fisheries Requiring Additional Restrictions to Meet MSRA Requirements

Stocks "Subject to Overfishing" (41) – 2008



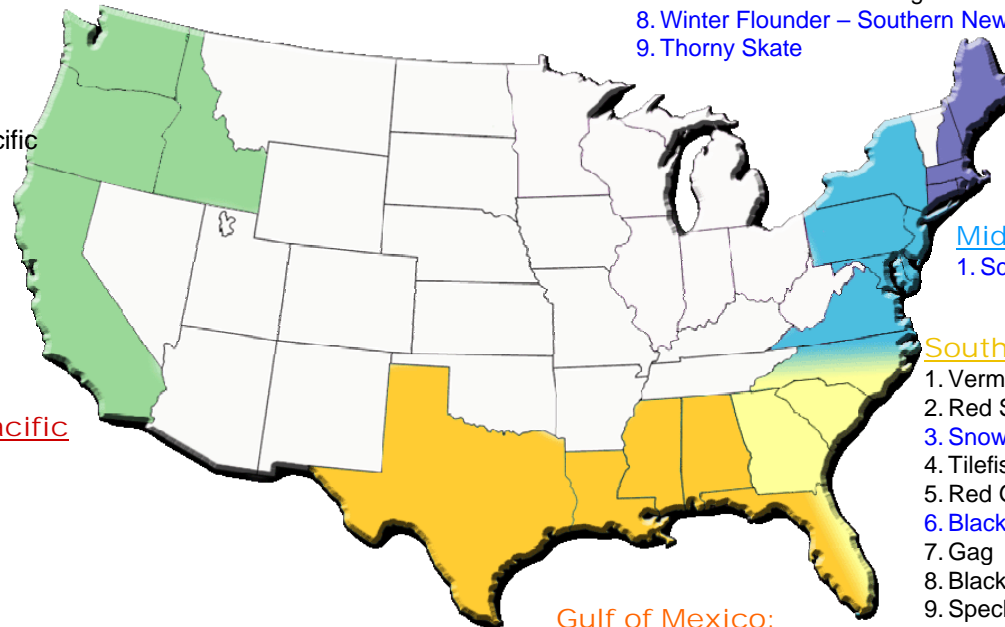
North Pacific:
None

Pacific:

1. **Yellowfin Tuna – Eastern Pacific

Pacific and Western Pacific

1. **Bigeye Tuna – Pacific



New England:

1. Cod – Gulf of Maine
2. Cod – Georges Bank
3. Yellowtail flounder – Georges Bank
4. Yellowtail flounder – Southern New England/Middle Atlantic
5. Yellowtail flounder – Cape Cod/Gulf of Maine
6. White Hake
7. Winter Flounder – Georges Bank
8. Winter Flounder – Southern New England/Middle Atlantic
9. Thorny Skate

Mid-Atlantic:

1. Scup

Highly Migratory Species:

1. **Blue Marlin – Atlantic
2. **White Marlin – Atlantic
3. **Sailfish – West Atlantic
4. **Albacore – North Atlantic
5. **Bluefin Tuna – West Atlantic
6. Sandbar Shark
7. Dusky Shark
8. Blacknose Shark
9. Shortfin Mako - Atlantic

South Atlantic:

1. Vermilion Snapper
2. Red Snapper
3. Snowy Grouper
4. Tilefish
5. Red Grouper
6. Black Sea Bass
7. Gag
8. Black Grouper
9. Speckled Hind
10. Warsaw Grouper

Gulf of Mexico:

1. Red Snapper
2. Greater Amberjack
3. Gag
4. Gray Triggerfish
5. Pink Shrimp – Gulf of Mexico

Caribbean:

1. Snapper Unit 1
2. Grouper Unit 1
3. Grouper Unit 4
4. Queen Conch
5. *Parrotfishes

Aquaculture's Potential

With increasing demand for seafood:

- Aquaculture can satisfy rising demand, reduce trade deficit, enhance food security and health
 - Current US production: 500,000 mt (live weight)
 - Current US consumption: 6m mt
 - 2025 gap: **2m mt minimum**
- Who will fill the supply gap: domestic or foreign aquaculture?
- How will standards for environmentally sustainable aquaculture be developed and implemented?



Meeting Seafood Demand – Creating More Value

- Rebuilding currently overfished populations (47) could increase domestic ex- vessel value by about 50% - and another 500,000 jobs in the seafood sector
- Enabling a business culture for environmentally sustainable domestic aquaculture to fill the gap
- Creating more asset value for domestic fisheries – new business instruments, risk reduction strategies -- Catch Shares (e.g., LAPPs, ITQs, DAPS), alternative markets, price premiums for sustainable fisheries through certification