

Ocean Aquaculture

California Issues and Visions

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Outline

➤ The setting

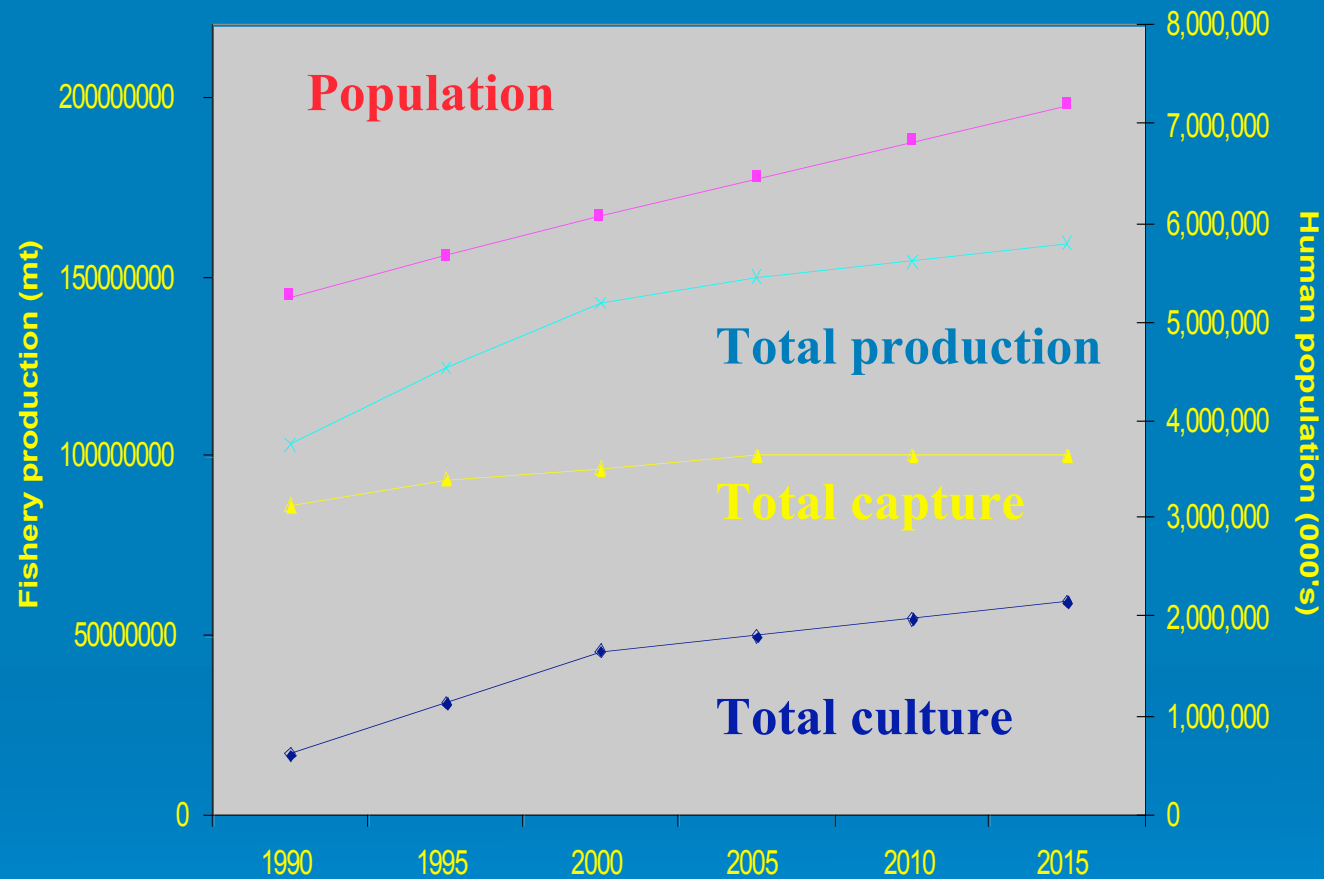
- marine aquaculture is growing, but not in California
- California's coastal economy

➤ Regulatory environment

- State regulations
- Lack of federal framework

➤ A proposal to move forward

The world



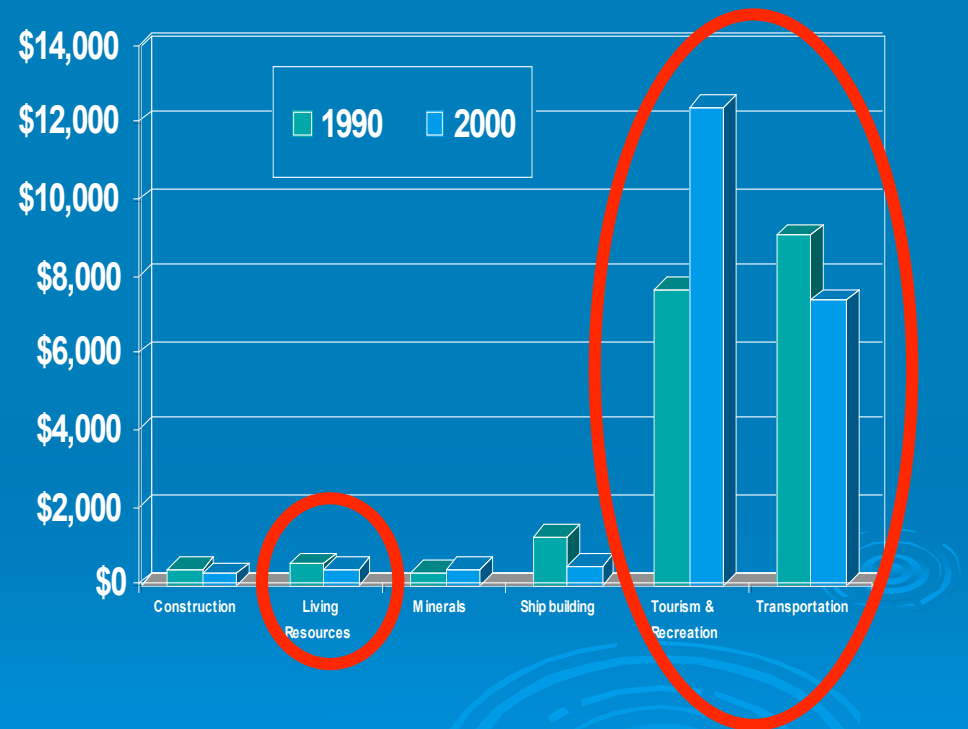
- Increasing human population
- Marine fish production plateau @ 100 Mmt
- Number of depleted & overfished stocks increased
- Aquaculture is fastest growing food production sector
- 44% of fish consumed comes from aquaculture

The country

- 80% of U.S. seafood is imported
 - 4.8/5.8 billion lbs import/consumed
 - China leading exporter to US (400 rejected shipments/yr)
 - Seafood = high risk category by FDA
- 50% of imports is farmed
- The impact to our national trade deficit is approximately \$8 billion, which ranks it #2 next to oil
- U.S. domestic aquaculture production valued at \$1 billion
- US to double aquaculture production by 2025 to 800,000 mt

The California

- Coastline
 - 1100 (as the gull flies)
 - 3400 (as the limpet crawls)
- Largest Ocean economy in the Nation
- CA aquaculture production valued at \$100 million (?)
- Not kept up with global pace of aquaculture
- No commercial marine finfish culture
- New Exotics & Salmon culture prohibited
- No new shellfish leases since early 1990's
- **COMPETING PRIORITIES**



California and aquaculture

- Public Resources Code Section 826. The Legislature finds and declares that it is in the interest of the people of the state that the practice of aquaculture be encouraged in order to augment food supplies, expand employment, promote economic activity, increase native fish stocks, enhance commercial and recreational fishing, and protect and better use the land and water resources of the state.

California State Perspective

- Aquaculture = Agriculture, but regulated by Department of Fish and Game
- Highly regulated, premium on environmental protection
 - Fish and Game Code
 - Title 14 - Regulations
 - California Sustainable Oceans Act (SB201)
 - Leasing of state water bottom
 - Programmatic Environmental Impact Report (PEIR)
 - California Coastal Act
 - Marine Life Protection Act
 - Marine Protected Areas (many kinds)

Sustainable Oceans Act: framework for managing marine finfish aquaculture

- Appropriate areas for siting
- Effects on sensitive habitats
- Effects on marine ecosystems, fishing, and other uses
- Effects on other species, T&E and recovering
- Effect of effluents
- Interaction with birds and mammals
- Cumulative effects
- Effects of fish meal/oil
- Effects of escaped fish
- Design of facilities and practices to avoid adverse impacts



Sustainable Oceans Act: Lease requirements - finfish

- **Fish and Game Commission & State Lands Commission**
 - Site is OK by PEIR
 - BMPs
 - Monitoring (annual), reporting and site inspection;
 - Commission may take remedial action
 - Baseline surveys by lessee to regional water quality control board
 - Identifying product as coming from aquaculture in an agreed way
 - Design facilities to prevent escapes
 - Report escapes
 - Commission to assess liability
 - Adhere to State Water Resources Control Board and regional boards
 - Test and report
- **Filing fee of \$500 –Maximum 10 yr term with 5 yr renewal**
- **Rent to highest qualified bidder, \$2/acre minimum or 10\$/acre < 10acres**
- **Upon termination – restore site, Commission to assess damages**

PEIR

- To evaluate the impacts of marine aquaculture under current regulatory framework;
- Tier 1 CEQA document
- Provide a framework for managing marine finfish aquaculture
- Guidelines for BMPs and Siting
- Being prepared by private consulting company with support from the Ocean Protection Council and oversight by Department of Fish and Game and Ocean Protection Council.

Ready to go with species and technology

➤ Offshore aquaculture

- White seabass
- California halibut
- California yellowtail
- California sheephead
- Striped bass
- Rockfishes
- Cabezon



Regulatory framework missing

- If America is to take the lead in this new industry, as it can and should, it is essential to provide a regulatory framework now that will allow a period of experiment and innovation to begin

(J. Forster in NOAA 2008).



A proposal to move forward

- An offshore facility would have to conform to a large degree with a facility in California waters.
 - Coastal Zone Management Act
 - Transport of fish into the State and through State waters
- In the absence of a structured federal regulatory system, California would register and regulate an offshore facility with existing legislation, policies and staff.

COB*

- The following information is intended as advisory research only and does not constitute legal representation of California Sea Grant or the California Department of Fish and Game or their constituents. It represents our interpretations of the relevant laws and cases.

*Covering our backsides

Justification

- Coastal Zone Management Act: Federal activities in the EEZ that have “reasonably foreseeable effects” on California coastal resources need a “Consistency” certification from the California Coastal Commission.
 - Debating whether or not an activity has “reasonably foreseeable effects” on coastal resources is difficult;
 - Best management practices should address any impact concern.

Enforceable Policies

- Section 30230 California Resources Code
 - Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.”
- Clean Water Act Section 401 – states may review federal permits that might result in discharge of pollutants to state waters and certify; EPA can not grant permit w/o certification.
 - State Water Resources Control Board

Justification

➤ ***Extraterritorial Application of State Law***

- “In matters affecting its interests a state may exercise extraterritorial jurisdiction where there is **no conflict with federal or international law.**”
- As long as California does not attempt to regulate the siting of offshore structures which does come under federal jurisdiction, there is no conflict with federal laws.

Effects doctrine

- A state may exercise extraterritorial jurisdiction over conduct outside the state that has or is intended to have a substantial effect within the state so long as the exercise of jurisdiction does not conflict with federal law and is otherwise reasonable.
 - California wishes to ensure that fish are farmed sustainably, of high quality, do not escape, are transported safely and benefit the people of California
 - Florida sponge fishermen convicted in Florida for using techniques prohibited in Florida while fishing in federal waters

Constitutional limits

- Fishery Conservation and Management (Magnuson-Stevens) Act – reduced but did not eliminate state authority. State may regulate a fishing vessel if it is registered in the state, no conflict w/FFMP, and the state has an interest.
- State registration of aquaculture facilities would not conflict w/federal policies, i.e. comply w/ both.
 - California fishermen convicted in California of using illegal techniques to spot swordfish in EEZ.

Commerce Clause

- Congress has authority “to regulate commerce with foreign Nations, and among the several States, and with the Indian Tribes.”
- California would not be able to require registration of offshore facilities if such registration placed an undue burden on interstate commerce.
 - Registration would facilitate commerce
- States regulate “in state” transport and commerce, i.e. to and from fish cages. Registration would be viewed as an exercise of that authority.
- Permits to transport species and place in federal waters
 - Lacey Act – violation to take, possess, transport or sell species in violation of State law or regulation = federalizes State laws

Outer Continental Shelf Alternate Use Rights-of-Use and Easements

- Minerals Management Service may approve activities e.g. aquaculture, that use facilities that are or were used for other authorized activities, e.g. oil platforms.
- DFG confirms that aquaculture is an appropriate activity
 - Repeats many of the above concerns
 - Change in rules
 - environmental concerns,
 - compensating fish farms if farming is suspended for reasons beyond their control,
 - includes consideration of ancillary benefits of offshore aquaculture, e.g. fishing and diving opportunities when assessing fees.

“Grey” area

- Intent may be necessary for extraterritorial application of state laws
 - Did California have the intention when legislation was passed to apply state laws extraterritorially?
 - We are examining the issue

Conclusion

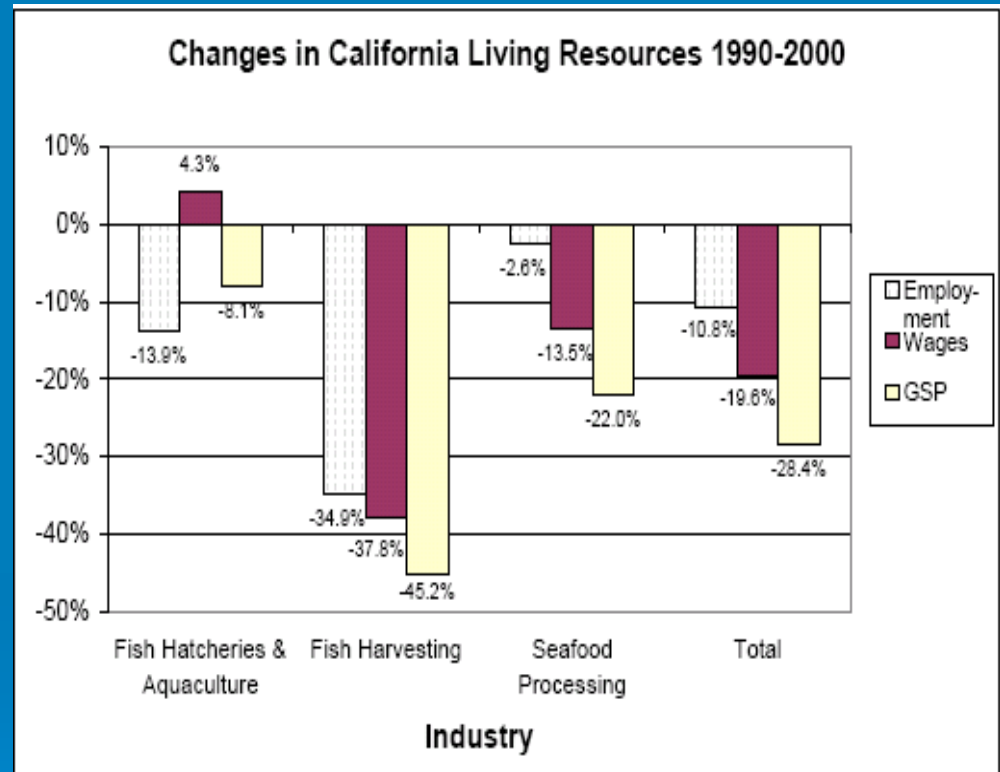
- Until Congress enacts aquaculture legislation and evidences an intent to preempt state authority with respect to registration, California should be able to apply its registration law extraterritorially.

Some concerns from neighbors et al.

- Conflict between States
 - All States would perform a consistency review. If States' laws conflicted and burdened interstate commerce, then application of either States' law would be prohibited.
- Competition w/capture fisheries
 - Retrain fishermen
- Failure to contribute to state revenues
 - Just the opposite
- Ownership
 - Federal leases; State registration
- Environmental safeguards – US Offshore Aquaculture Act not enough
 - California registration = California compliance
- **THESE ARE MANAGEABLE CONCERNS**

Some California thoughts

- DFG reported that 2.6 million pounds of fish were caught off the coast of San Diego County in 2006, for a combined value of \$7.1 million.
- Estimated value of 3,000 t of offshore aquaculture product could be about \$22 Million (\$6.50 - \$8.50/kg dockside value of striped bass)





It is time for “the period of
experiment and innovation
to begin”





Thank you for your
attention



