



Agenda Item G.2.b
Supplemental Public Comment 4
(Electronic Only)
November 2015

California deserves a 21st century fishery.

Dr. Doug Karpa

Turtle Island Restoration Network

September 12, 2015

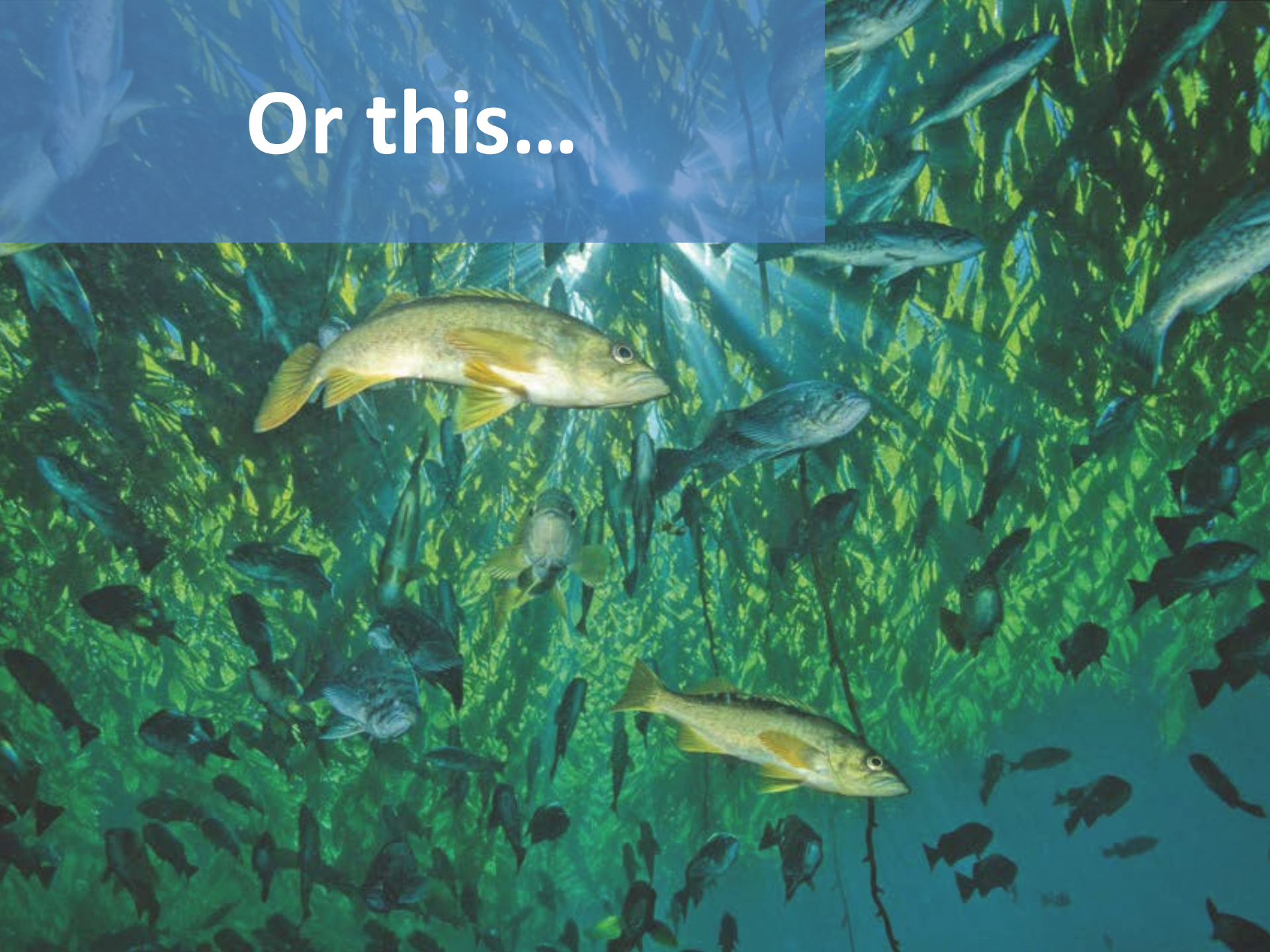


**Indiscriminate gear
is
just not worth it**

Are we going to have this...



Or this...





High quality,
sustainable brand
cannot have this PR:





Two legal obligations:

1) Magnuson Stevens Act

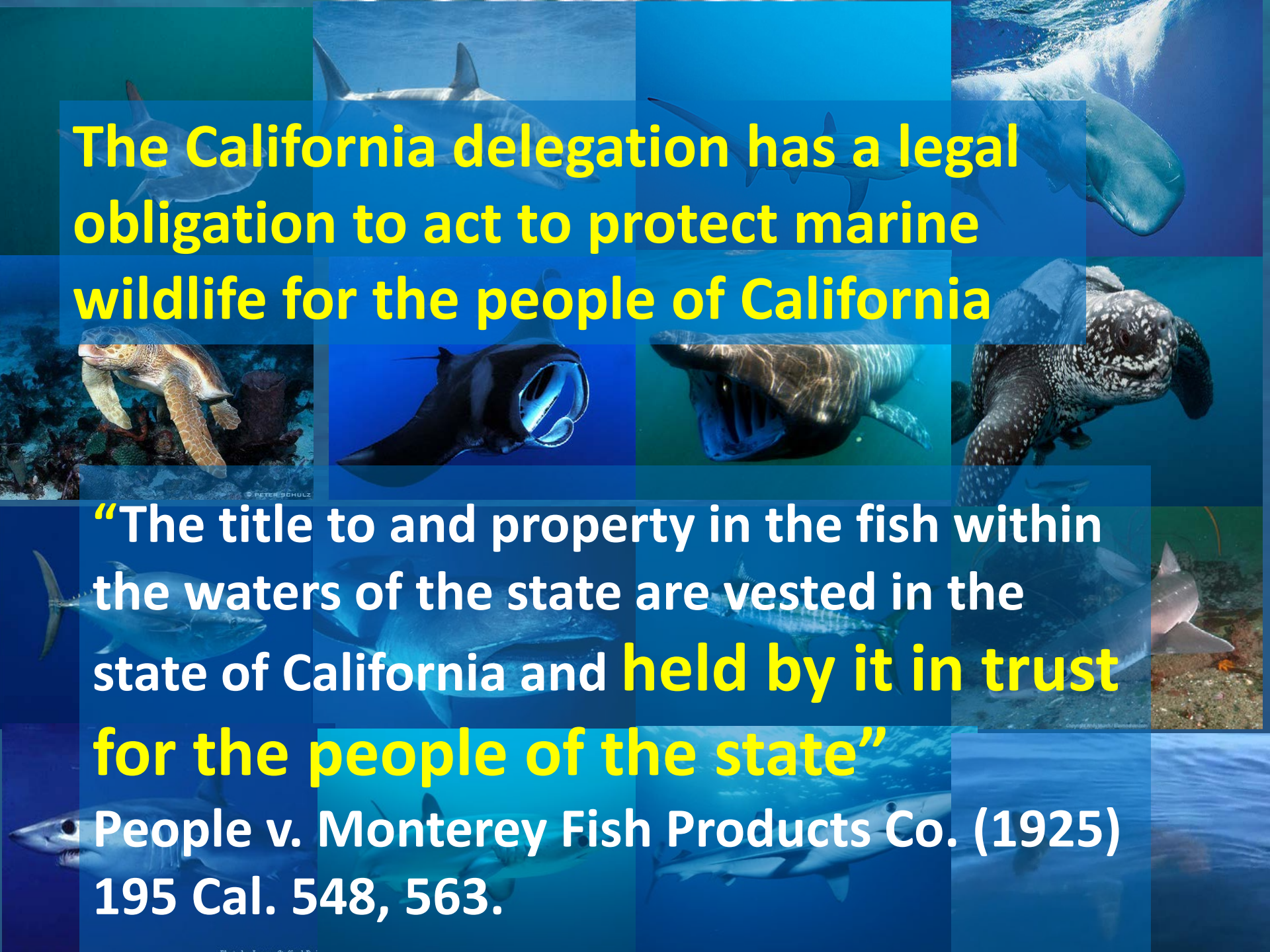
2) California Consitution.



Magnuson Stevens Act

National Standard 1: Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield (OY)....

Optimum yield: “the amount of fish that will provide **the greatest overall benefit to the Nation**, ...taking into account the protection of marine ecosystems; ... as reduced by any relevant economic, social, or ecological factor

The background of the slide is a collage of various marine animals. At the top, there are several sharks swimming in blue water. Below them, on the left, is a sea turtle resting on a rocky seabed. In the center, a manta ray is shown with its mouth open, revealing its gills. To the right of the manta ray is a hammerhead shark. Further down, there are more sharks, including a large one with its mouth open, and a smaller shark on the far right. The text is overlaid on this collage.

The California delegation has a legal obligation to act to protect marine wildlife for the people of California

“The title to and property in the fish within the waters of the state are vested in the state of California and held by it in trust for the people of the state”

**People v. Monterey Fish Products Co. (1925)
195 Cal. 548, 563.**



CALIFORNIA REPUBLIC

The People have spoken

- Tens of thousands of petitions
- 12 Members of the State Legislature
- 17 members of Congress
- Sens. Feinstein and Boxer

CLIMATE CHANGE

NO room for error



- Climate Change greatly increases uncertainty
- High temperatures destabilize ecosystems
- Mass die offs accelerating
- Climate change reduces biomass of predators

Mass Mortality events increasing

- Fey, et al. (2015) “Recent shifts in the occurrence, cause, and magnitude of animal mass mortality events” PNAS 112: 1083-1088
- McCauley, et al. (2015) “Marine defaunation: Animal loss in the global ocean” Science 347: 247

Auklet Unusual Mortality Event - January 2015

- 100,000 + Birds
- Previous record in US: 11,000
- “We're not seeing a widespread eco-disaster here. We're seeing a spike of (deaths in) one species that's giving us clues, and the **clues don't suggest that the bottom is dropping out of the ecosystem.**”
 - Prof. Julia Parrish, Aquatic and Fishery Sciences professor at the University of Washington, January 7, 2015

Oops!



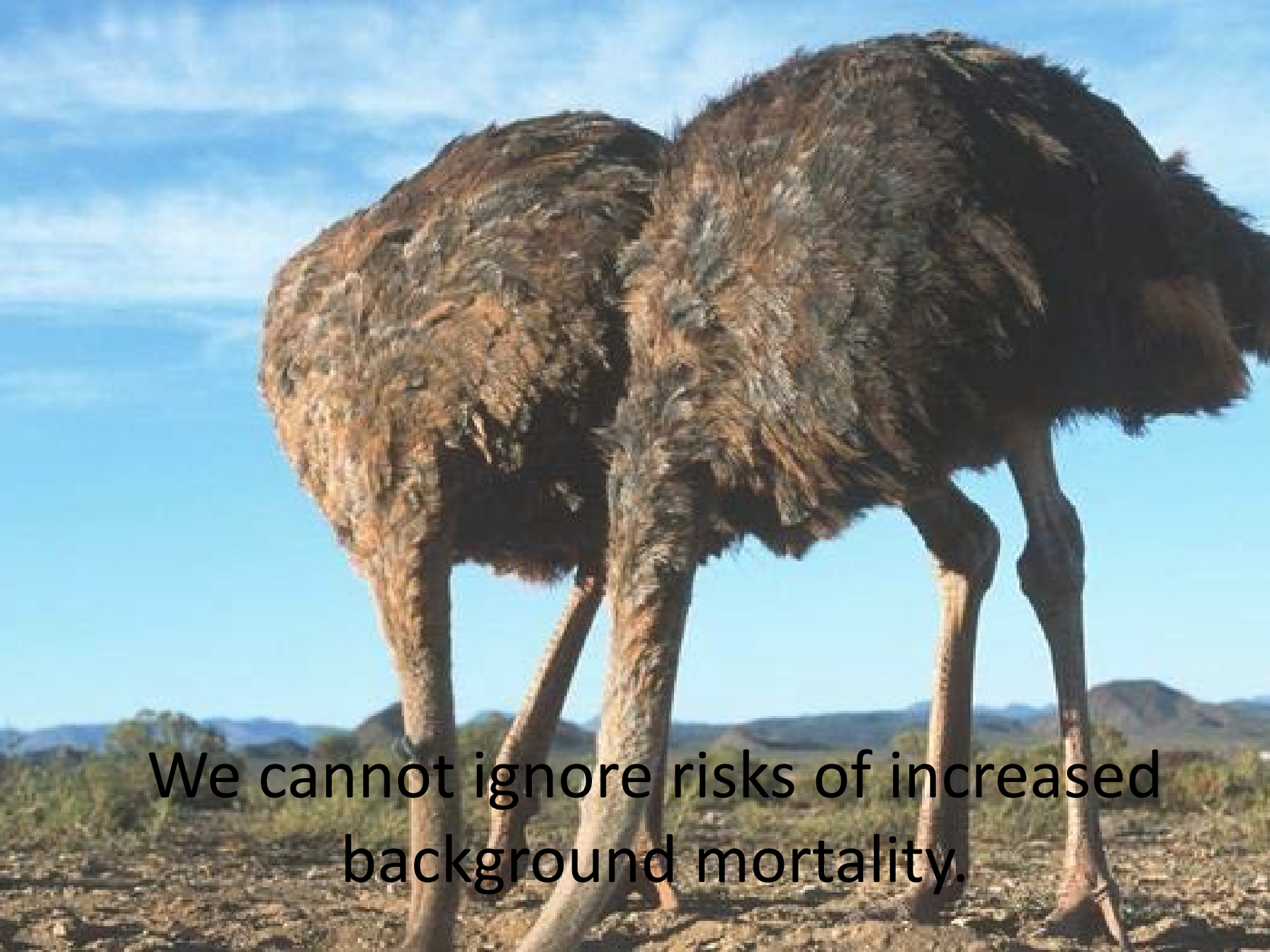
Predator, Fish biomass decreasing

- Nagelkerken and Connell (2015) “Global alteration of ocean ecosystem functioning due to increasing human CO₂ emissions”
PNAS 142: 13272–13277



SCRIPPS and CalCOFI

- More than 72-78% decline in larval fish populations since 1970s in the California Current.
- Koslow, Miller, McGowan (2015) **Dramatic declines in coastal and oceanic fish communities off California MEPS 538:221-227 (2015)**



We cannot ignore risks of increased background mortality.



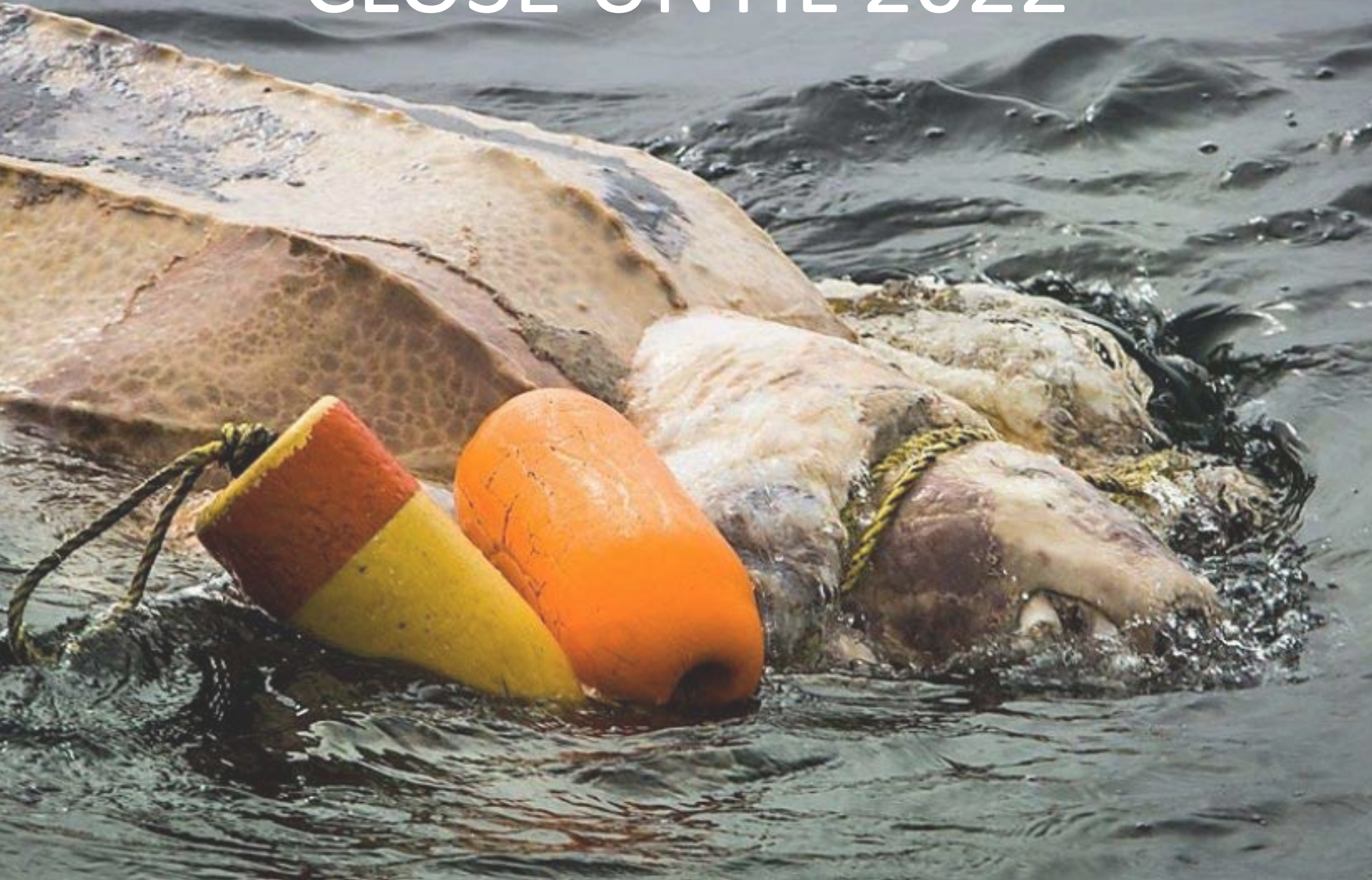
“Not accounting for [the effects of climate change] leads to quotas that are too high. The resulting fishing mortality rate was thus above the intended levels, contributing to overfishing even though catches were within prescribed limits. Socioeconomic pressures further compounded the overfishing. In order to minimize the impact of the quota cuts on fishing communities, the New England Fishery Management Council elected to defer most of the cuts indicated for 2012 and 2013 until the second half of 2013.”

- Pershing, *et al.* (2015) Slow adaptation in the face of rapid warming leads to collapse of the Gulf of Maine cod fishery. Science DOI: [10.1126/science.aac9819](https://doi.org/10.1126/science.aac9819)

Leatherbacks

- Limit reference point to not delay recovery:
- **1 turtle every six years**
- Curtis KA, Moore JE, Benson SR (2015) Estimating Limit Reference Points for Western Pacific Leatherback Turtles (*Dermochelys coriacea*) in the U.S. West Coast EEZ. PLoS ONE 10

CLOSE UNTIL 2022





Cannot ignore climate change in the 21st century

ZERO Bycatch of high priority species

For what?

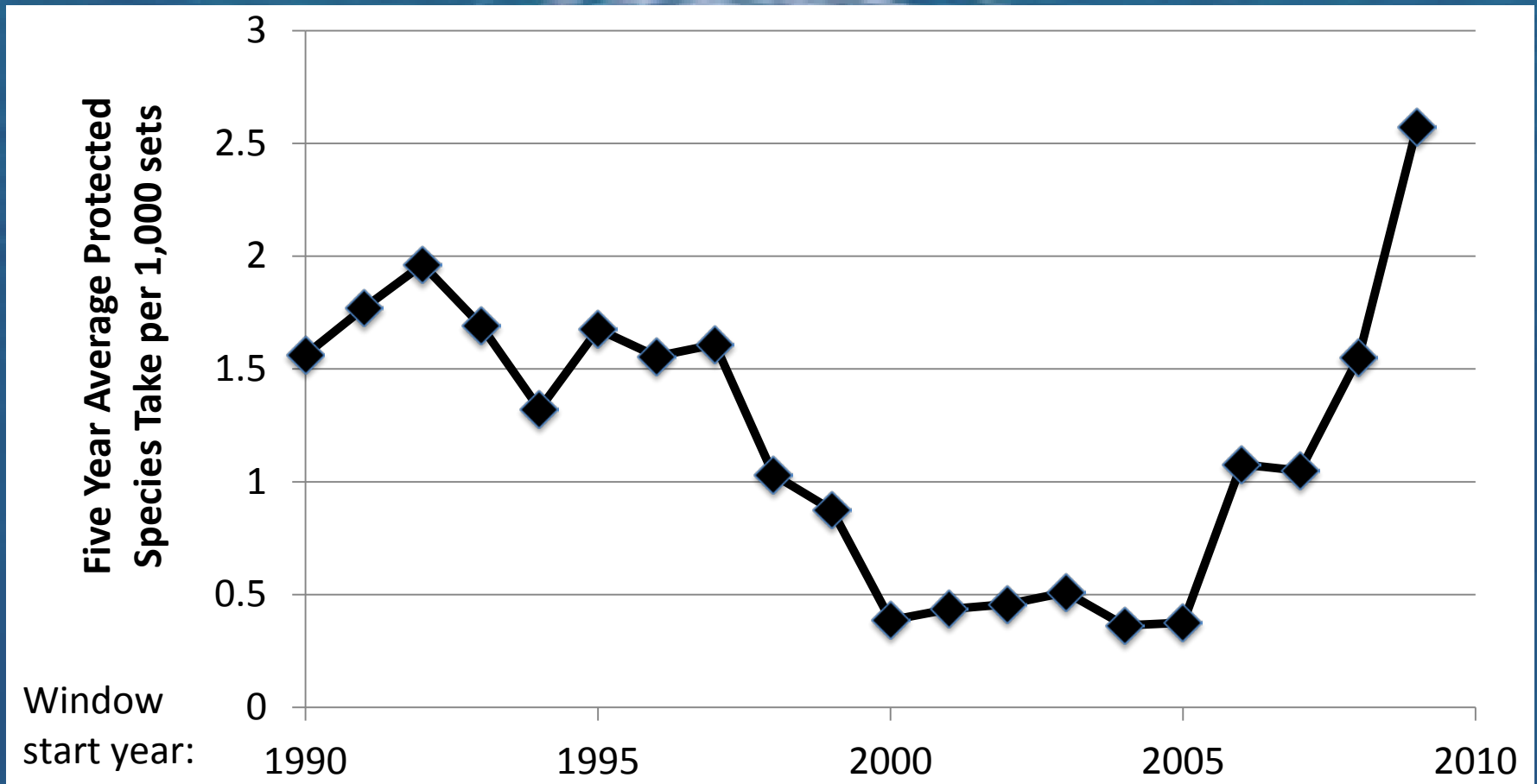
DGN:\$553,000

- 0.12% of California fishing industry
- 0.3% of jobs

Whale Watching: \$20,000,000



Hard cap protected species: take rate is not lower



Future of the California Current

- Zero bycatch gear only
- No DGN
- No SSL
- Conservative approach



THANK YOU!