



# Exhibit D

## Commercial Sea Urchin Fishery Management



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Marine Resources Program



# Why are we here?

Background about the urchin fishery

2014 Permit lottery suspension

Issue #1 Reduction of permits

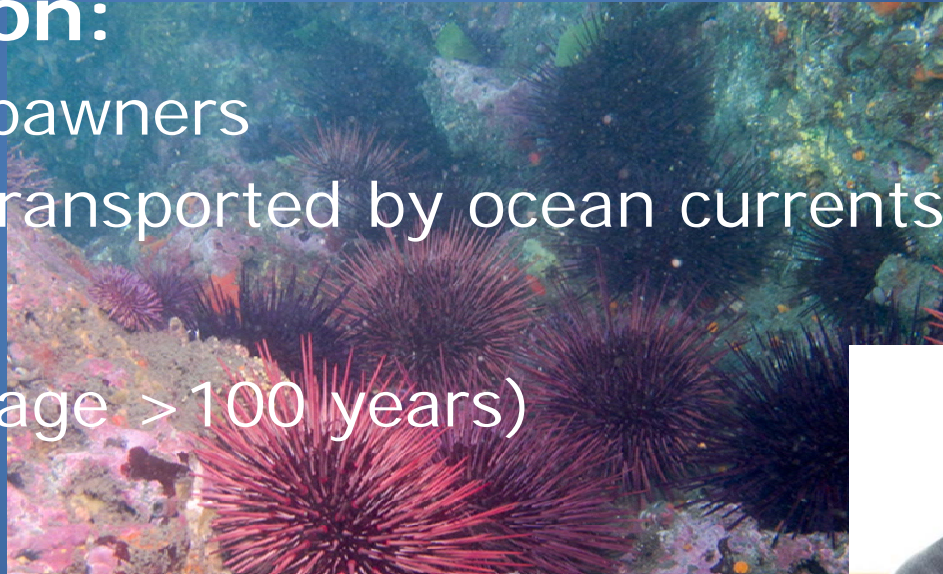
Issue #2 Prohibition of enriched air

Issue #3 Addition of California sea cucumbers



# Biology of red sea urchins

- **Habitats:**
  - Live on shallow vegetated rocky reefs
- **Reproduction:**
  - Broadcast spawners
  - Larvae are transported by ocean currents
- **Longevity:**
  - Long-lived (age > 100 years)





# Fishery Methods

- Dive fishery
- No bycatch
- Focused on southern Oregon coast
- Fishery product is "*Uni*" (urchin gonads)



Photo credit: Gayot





# Key Regulations

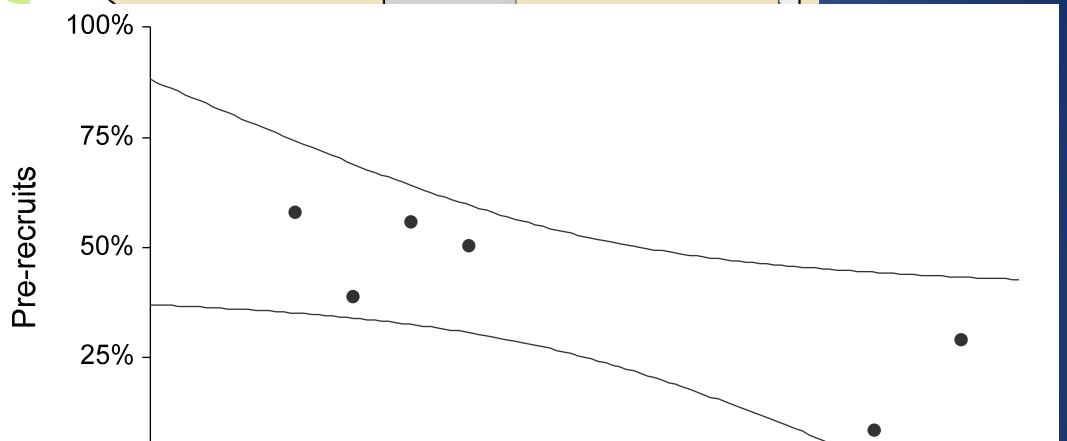
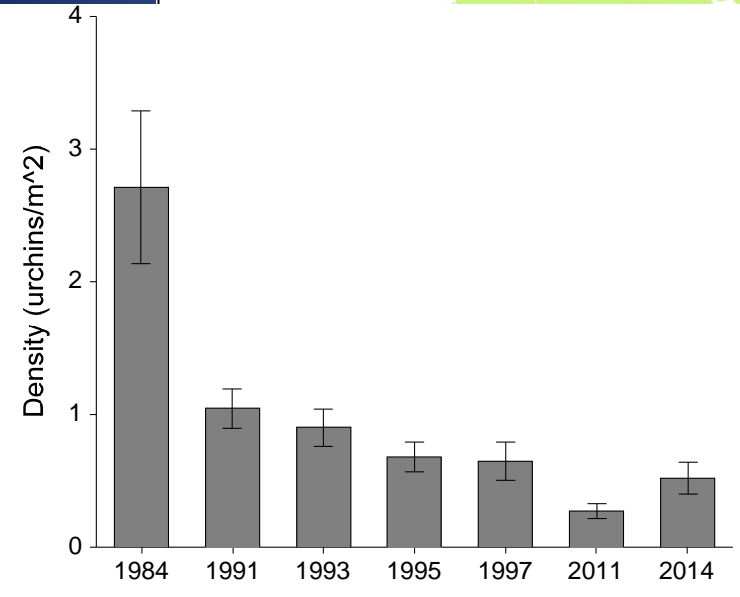
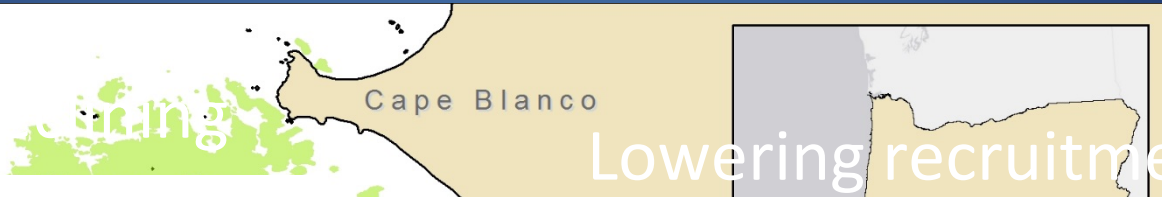
- Individual limited entry permits (30)
- No daily bag limits
- Minimum annual landings (5,000 lbs)
- Some reserve areas along the coast
- Seasonal closure at Orford Reef (summer)



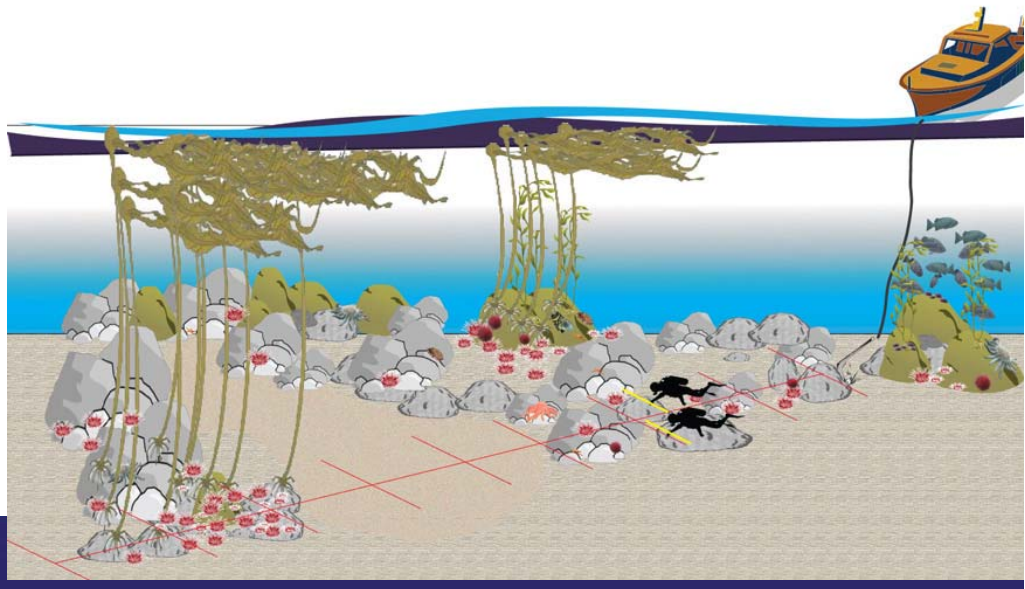


# Stock Condition

D

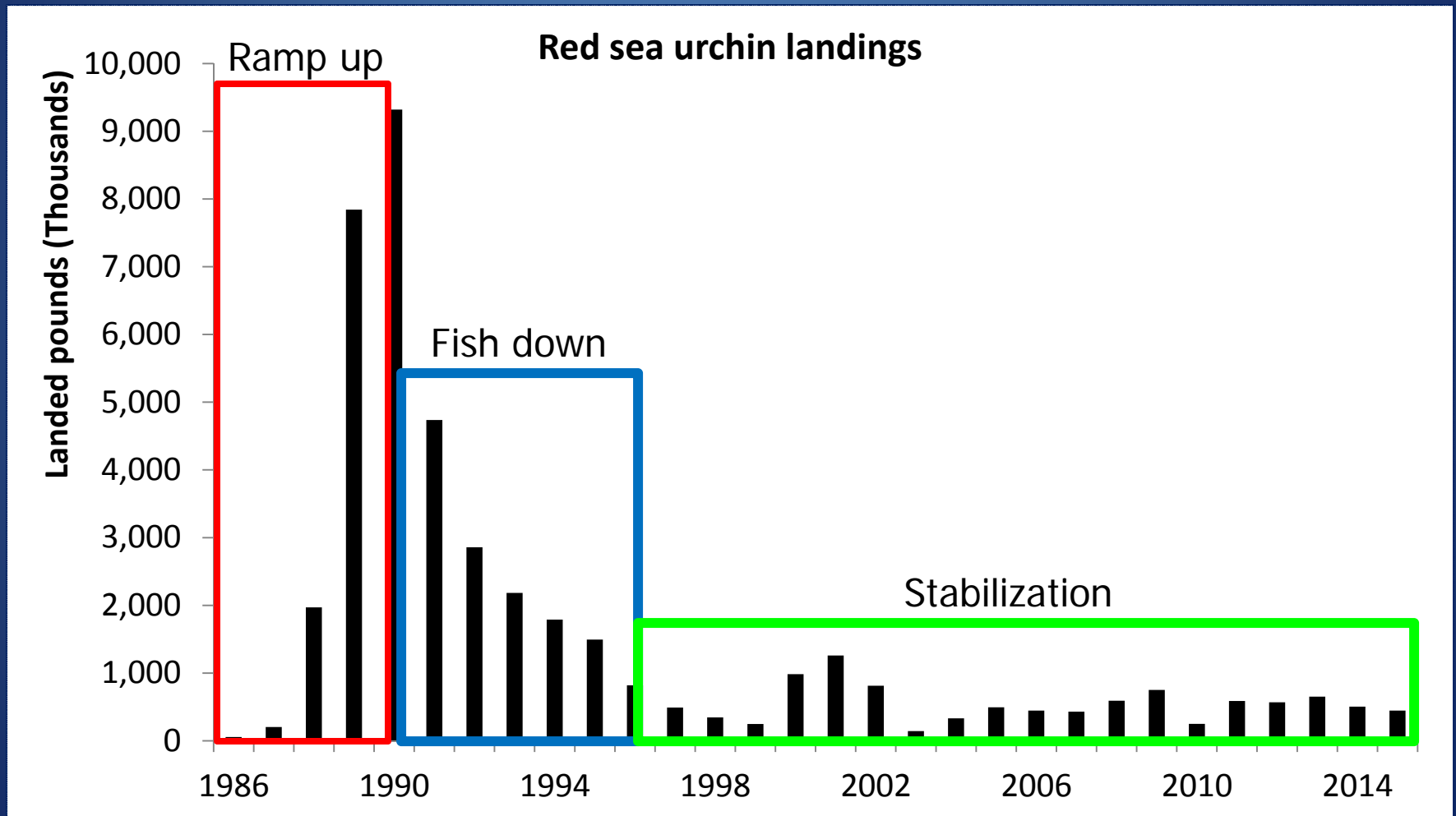


- Survey sites
- Kelp bed





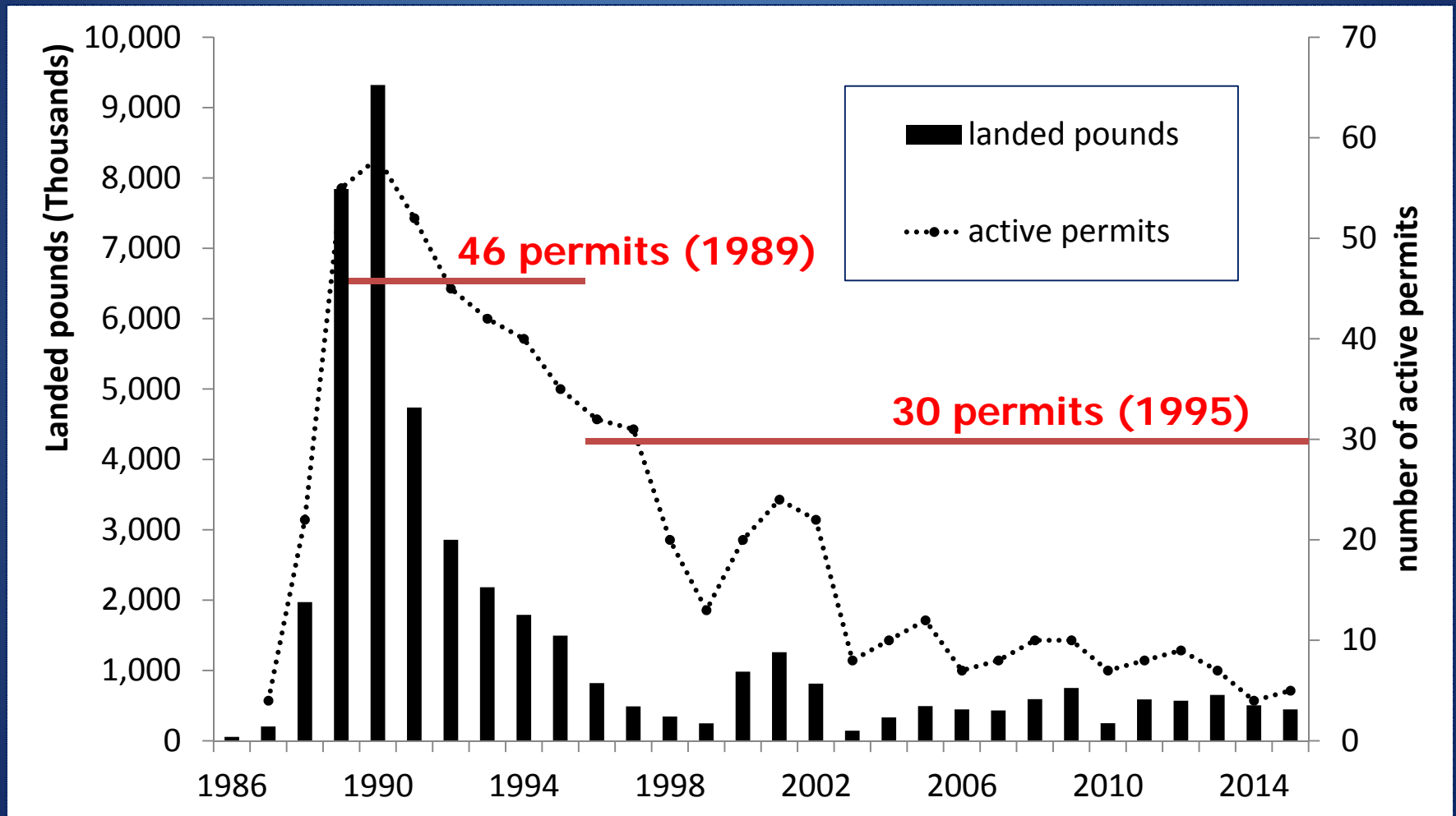
# Fishery History





# Fishery landings and permits

— 92 permits  
(1988)







# Sea Urchin Permit Lottery

## What is a permit lottery?

- Permits issued to reach target number (30)

## What were concerns in 2014?

- Many permits in lottery every year
- Resource concerns

## OAR 635-005-0825(10)

- The Commission may suspend the lottery for up to two years based upon its assessment of the condition of the resource and recommendations of the Sea Urchin Permit Review Board .

Note: OFWC took action to suspend the lottery for new permits in March 2014



# 2015 Industry Meeting

- Discussed management, building on momentum of new survey work and 2014 commission exhibit
- Industry members present (6 active members, 1 inactive permit holder)
  - reached consensus on the 3 issues to recommend to the OFWC
  - Considered maximum depth





# Issue #1

Reduce the number of permits required to activate the lottery (from 30 to 12)

- *Currently suspended (March 2014 OFWC meeting)*
- *14 permits right now (not affected)*

## **Expected result of this action:**

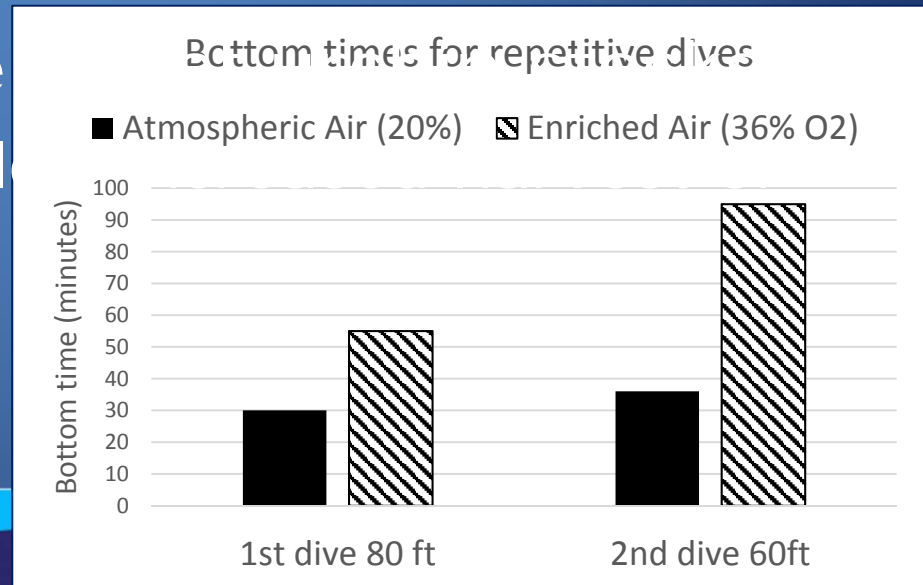
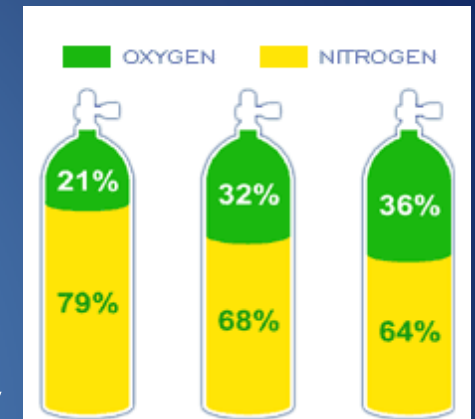
- Reduce the chances of overfishing
- Increased investment of divers



# What is Enriched Air?

- More oxygen
- What is the benefit of enriched air?
  - Longer dive times, particularly 60-100'
- Would enriched air use
  - New gear type would allow deep water stocks

Atmospheric      EAN 32&36

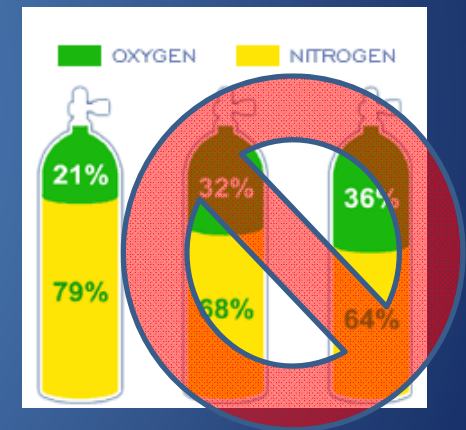




## Issue #2

Prohibit the use of enriched air while diving for sea urchins or sea cucumbers

- Enriched air is likely to adversely affect stocks
- Not used currently or historically
- Increased use in neighboring states



**Expected result of this action:**

- Status quo to maintain low harvest of deep water stock



# California sea cucumbers (in Oregon)



Year	Pounds	Value
1993	5,148	\$6,643
1994	10,534	\$21,068
1997	7,266	\$6,995
2000	291	\$509
2001	35	\$70
2003	688	\$960
2004	266	\$266
2005	890	\$267
2012	769	\$1,921
2013	3,127	\$10,155
<b>Total</b>	<b>29,014</b>	<b>\$48,853</b>





# Issue #3



## Addition of California sea cucumber to the sea urchin permit

- Nearly all harvest has been by sea urchin divers
- Neighboring states fisheries have resource concerns

## **Expected result of this action:**

- Transition management of this potentially sensitive stock from open access to limited entry permit system



# Summary

Thank you to Commission!

## Issue 1: Reduce permits

- Will not affect current users or recent stability

## Issue 2: Prohibit enriched air

- Assure continued protection of deep water stocks

## Issue 3: California sea cucumbers

- Transition to limited entry permit system

Overall = maintain small, stable, valuable fisheries





# Questions?

