



Marine
Resources

ODFW CRAB INDUSTRY MEETINGS

A large, light gray silhouette of a crab is centered in the background of the white box, with its legs and claws spread out.

**We Want to Hear
From You!**

**2020 Oregon Dungeness Crab Industry
Virtual Meetings**

Caren Braby

Marine Resources Program
Manager

Troy Buell

State Fishery Manager

Kelly Corbett

Commercial Crab Project
Leader

Brittany Harrington

Crab Fisheries Management
Fellow

Agenda

Virtual Meeting 1 - Thursday October 8th, 1-4PM

- Introductions, technology and agenda overview
- Recent whale entanglement mitigation regulatory changes
 - Accountability and risk reduction measures
 - 3-yr evaluation
- Conservation Plan and Incidental Take Permit application
 - Overview and timelines
 - Adaptive measures
 - Monitoring plans

Virtual Meeting 2 - Thursday October 22nd, 1-4PM

- Introductions, technology, agenda and meeting 1 overview
- Conservation Plan adaptive management follow-ups
 - Adaptive measures
 - Next steps
- Oregon Dungeness crab Fishery Management Plan

Approach

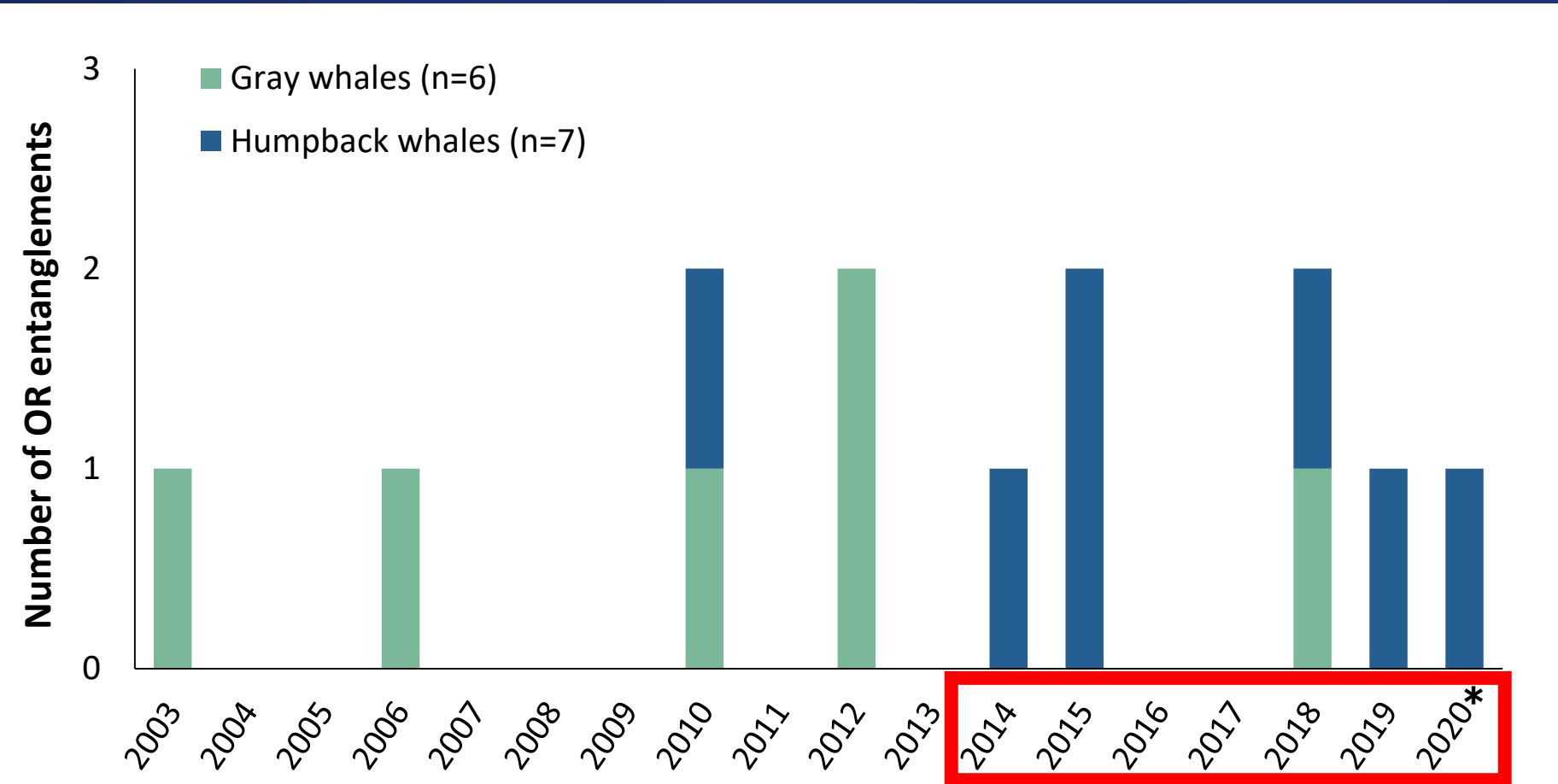


Oregon Vision:

Aligned management & conservation goals
allow co-existence of
economically viable commercial crab fishery and
recovering population of whales



Crab gear whale entanglements (Oregon fishery)



* Data for 2020 are incomplete

- 13 confirmed entanglements in Oregon commercial Dungeness crab gear (2003-present)
 - 96 West Coast crab
- Majority of recent entanglements are humpback whales
- Observations of entangled Oregon gear from Mexico-Washington

Why increased whale entanglements?

- Public awareness and reporting
- **Increasing whale population**
- Cascade of ocean condition changes (2014-present)
 - Prey distribution and abundance shifts
 - Humpback foraging locations
 - Crab distribution shifts, biotoxin load
 - Fishery effort shift

*Co-occurrence of humpbacks and fishery
in space & time*

West Coast distribution of humpback whales

Marine Mammal Protection Act

- CA/OR/WA stock: Depleted
 - CA/OR feeding group
 - WA/SBC feeding group

Endangered Species Act

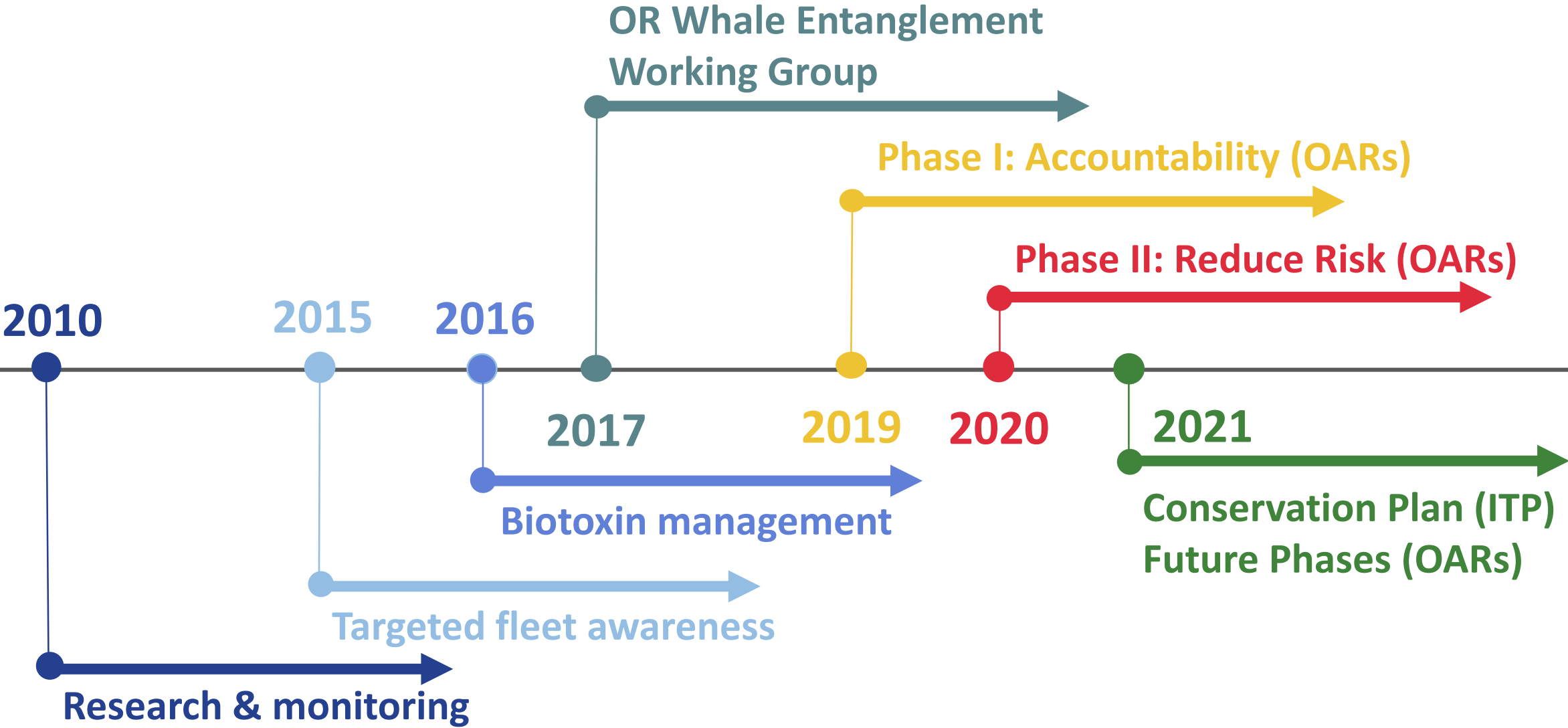
- Distinct population segments (DPSs)
 - Central America DPS: Endangered
 - Mexico DPS: Threatened
 - Hawaii DPS: De-listed

**Take-home #1:
Humpback whales feeding off OR are
threatened or endangered (T & E)**

**Take-home #2:
Entanglements are take, which is
prohibited, unless specifically authorized
(incidental take under Conservation Plan)**



2010-present: Efforts to reduce risk of entanglement



Industry/public/academic/peer engagement

Oregon Advisors:

- Oregon Whale Entanglement Working Group (OWEWG) – recommendations**
- Augmented Oregon Dungeness Crab Advisory Committee (ODCAC)
- Ad hoc whale biology/ecology advisory group

Oregon crab fleet and public outreach:

- Public Meetings – 2018 and 2019
- Industry Notices
- Annual Crab Newsletters
- OFWC Briefings & Exhibits – June, Sept 2019; Aug 2020, Sept 2020

Regional:

- Tri-State Dungeness Crab Committee
- CA/WA Working Groups
- Forensics workshop, PSMFC, Entanglement Science Workshop, etc.

Oregon Commercial Dungeness Crab Fishing
Directive to Minimize Whale Entanglement Risk
Last Updated Fall 2018
Recommended by the Oregon Whale Entanglement Working Group

Reasons for Directives
National Marine Fisheries Service has confirmed significant increases in large whale entanglements starting in 2014, and specifically in Dungeness crab fishing gear. This situation threatens the stability of the fishery and coastal fishing communities. By using these voluntary best practices, the Oregon Dungeness crab fleet can take an important step towards reducing the risk of whale entanglements.

The best known way to reduce risk of whale entanglement is to reduce the amount of gear and line in the water during the spring and summer months, when threatened whales are in the area.

Best Practices During Crab Season

- Use the minimum amount of scope required to compensate for tides, currents and weather. Whales are more likely to become entangled with slack lines, which can potentially create a "floating snare".
- When changing set location across depths, adjust the length of pot lines by adjusting shots (i.e., measured length of line) to maintain taut vertical lines.
- No excess lines should be floating at the surface. Floating line should only be between the main buoy and trailer buoy(s).
- Remove any fishing gear you are not actively tending during the season.
- Avoid setting gear in the vicinity of large feeding aggregations of whales, especially humpback whales, whenever possible.
- Communicate the locations of unusually high whale activity to other fishermen.

Keep line between pot and main buoy running taut and as vertical as possible.

Why Report?
Understanding where, when, and how entanglements occur is essential to prevent future entanglements. Timely reporting is critical to facilitate response efforts, when appropriate.

Report Entangled Whales
1-877-SOS-WHALE

Report entangled whales **IMMEDIATELY** to the NMFS whale entanglement response hotline at 1-877-SOS-WHALE (1-877-767-9425) or call the U.S. Coast Guard on Channel 16. If possible, stand by.

Photograph Entangled Whales

WHALE: side view of dorsal fin (or hump); tail flukes (especially if underside is raised); head; any part of the body where gear may be present.

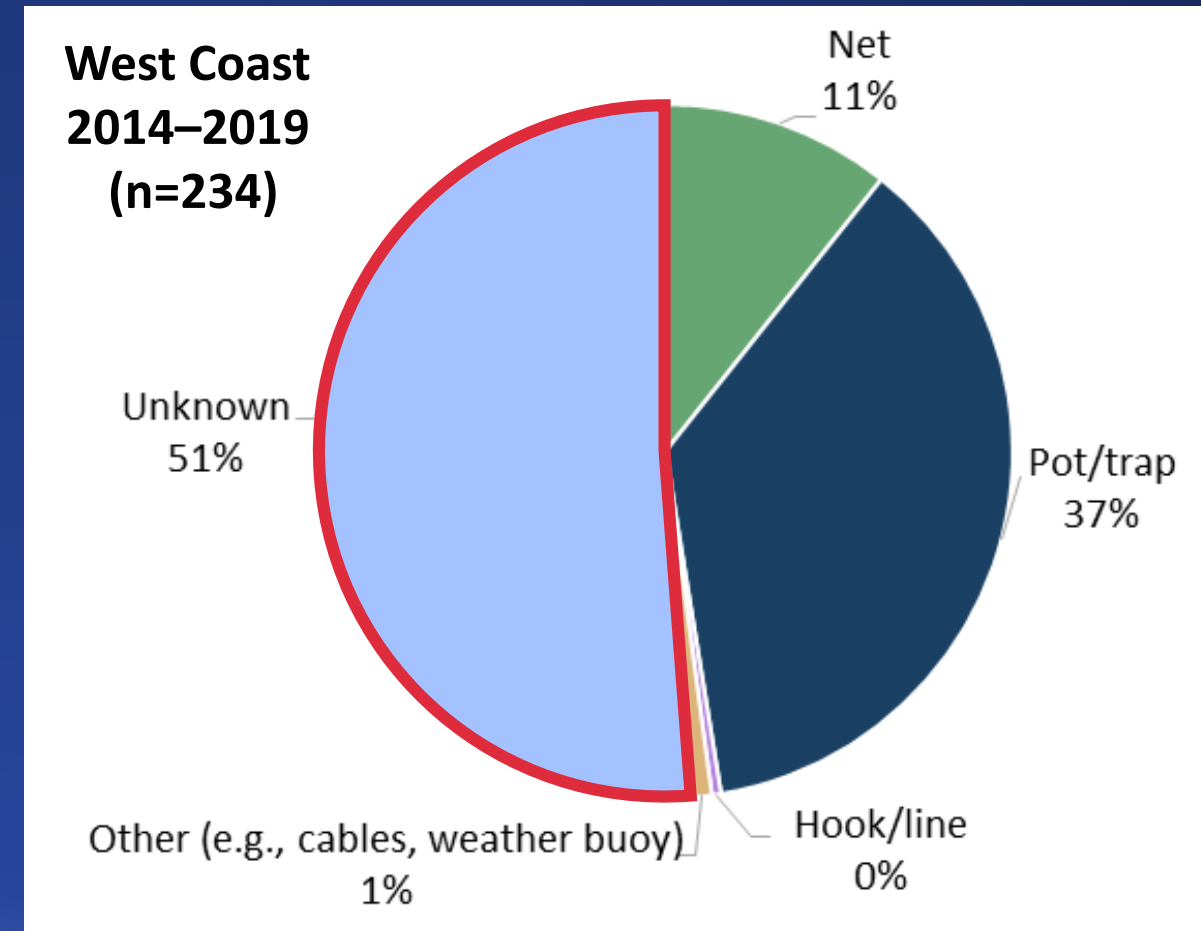
ENTANGLEMENT: buoy(s); tags; lines on the body; trailing lines (including distance from whale); netting (if present); any other gear if present. Do not approach within 100 yards.

Respond Promptly if Contacted

If you are contacted about a whale entangled in your gear, please respond. You can help prevent future entanglements by providing as much information as possible about your fishing gear and practices.

Phase I: Fishery accountability regulations Adopted September 2019

- Additional gear marking:
 - Commercial crab gear buoy color and pattern registration, sport marking, fixed-gear marking
 - Double-sided buoy tags (non-rulemaking)
- Electronic fish tickets with crab harvest areas
- Late-season control date



Risk reduction – management alternatives

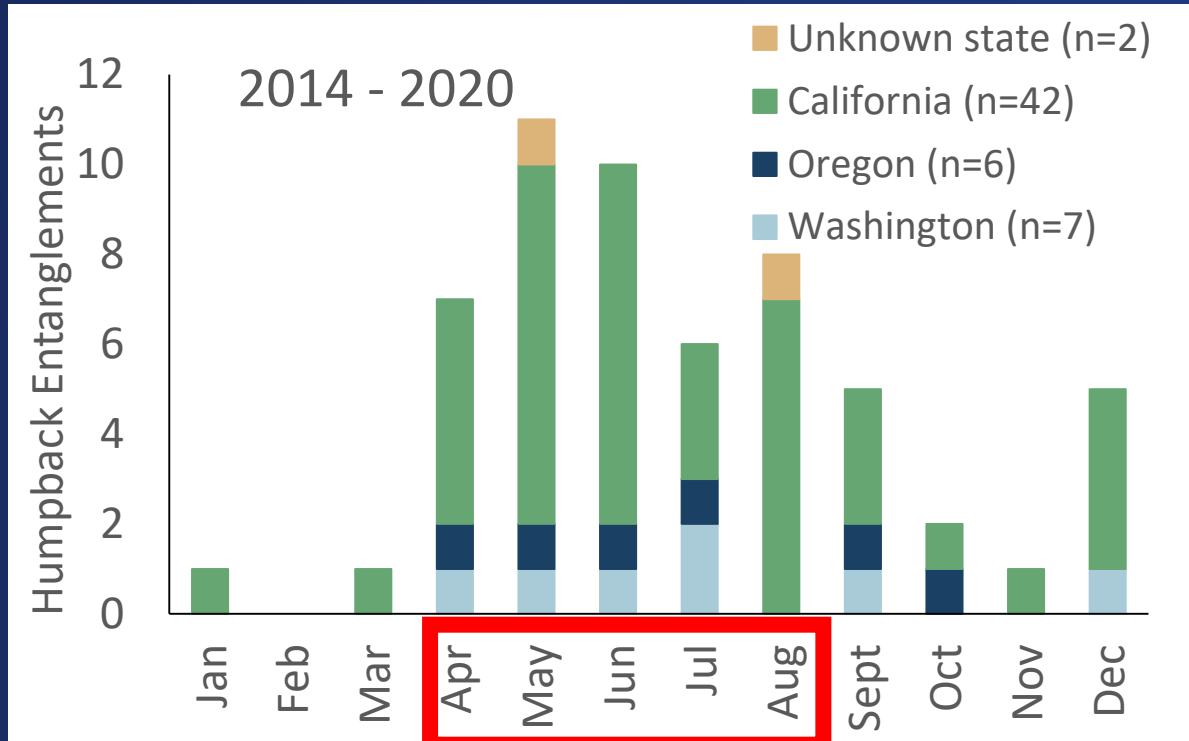
Minimize change to fishery						
Status quo	10%	15%	20%	25%	30%	Closure
	June 1	May 15	May 1	April 15	April 1	
	40 fm	35 fm	30 fm	25 fm	20 fm	
Maximize conservation benefit to whales						

Phase II: Primary measures to reduce risk of entanglement Adopted September 2020

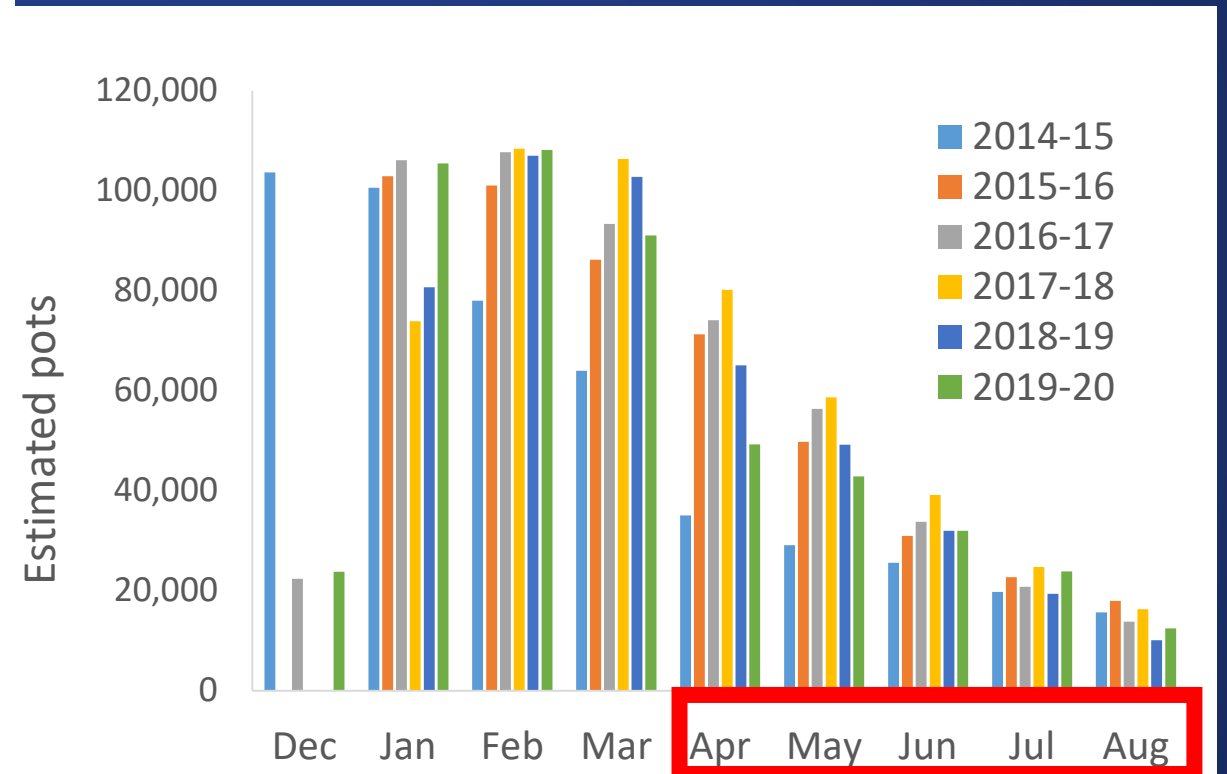
Effective May 1:

- Reduce pot limits by 20%
- Prohibit gear outside 40 fathoms
- Require late season tag
- Set of measures has 3-season sunset, 2023

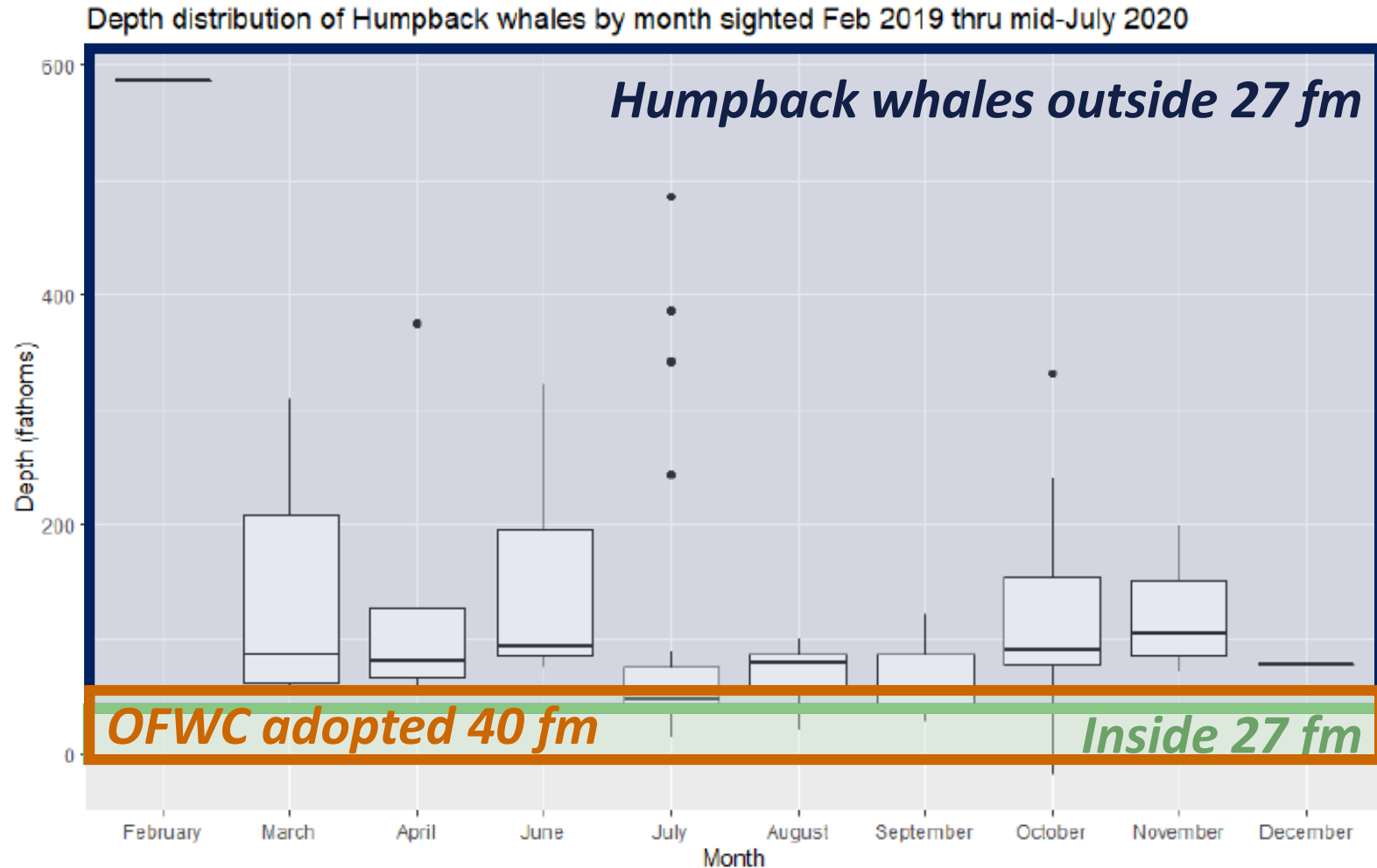
Risk reduction – why May 1?



- West Coast entanglements
 - April – season end
- Estimated pots decreases through season
 - May 1 - ~50% of season start

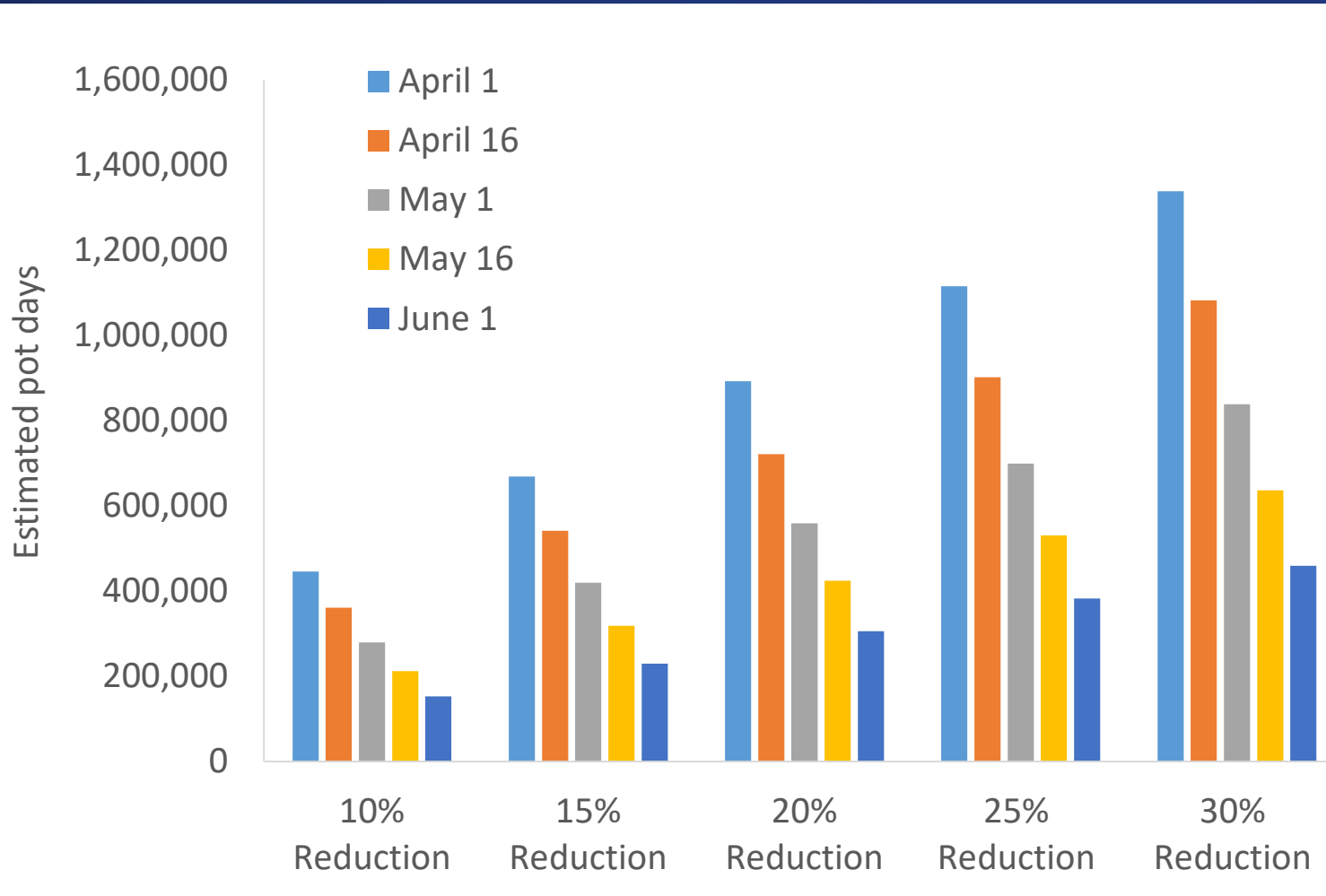


Risk reduction – why depth exclusion?



- Humpback observations in deeper waters
 - Crit Hab 27 fm
 - Research 30 fm
- Fishermen advocated to use depth
- Both 30 fm and 40 fm are currently used management lines

Risk reduction – why 20% reduction?



- When used in combination with depth, pot reduction
 - Reduces lines in water
 - Reduces gear crowding potential in shallow
- Fewer pot days = fewer lines
 - Economic impact
 - Conservation benefit
- Recent years fishery has stayed deeper

Phase II: Additional measures to reduce risk of entanglement Adopted September 2020

- Additional measures to reduce co-occurrence:
 - Elimination of replacement tags
 - Elimination of 2-week gear clean-up period (post-season)*
 - Taut line provisions*
 - Reduction of meat yield criteria – revised Tri-State agreement 2020
- Additional accountability measure:
 - Prohibit gear markings from other states

Questions?

* 2019-20 *temporary rule in place*

Three year evaluation period – Input needed

- Entanglements – number confirmed entanglements, month, location, late-season tag presence/absence
- Effort – permits, estimated pots, number of buyers
- Economic impacts – % ex-vessel value by pot tiers, vessel size, ports, month
- Enforcement issues – number and type of violations

What else should we plan to monitor?