

Fixed Gear Marking and Entanglement Risk Reduction: Final Action

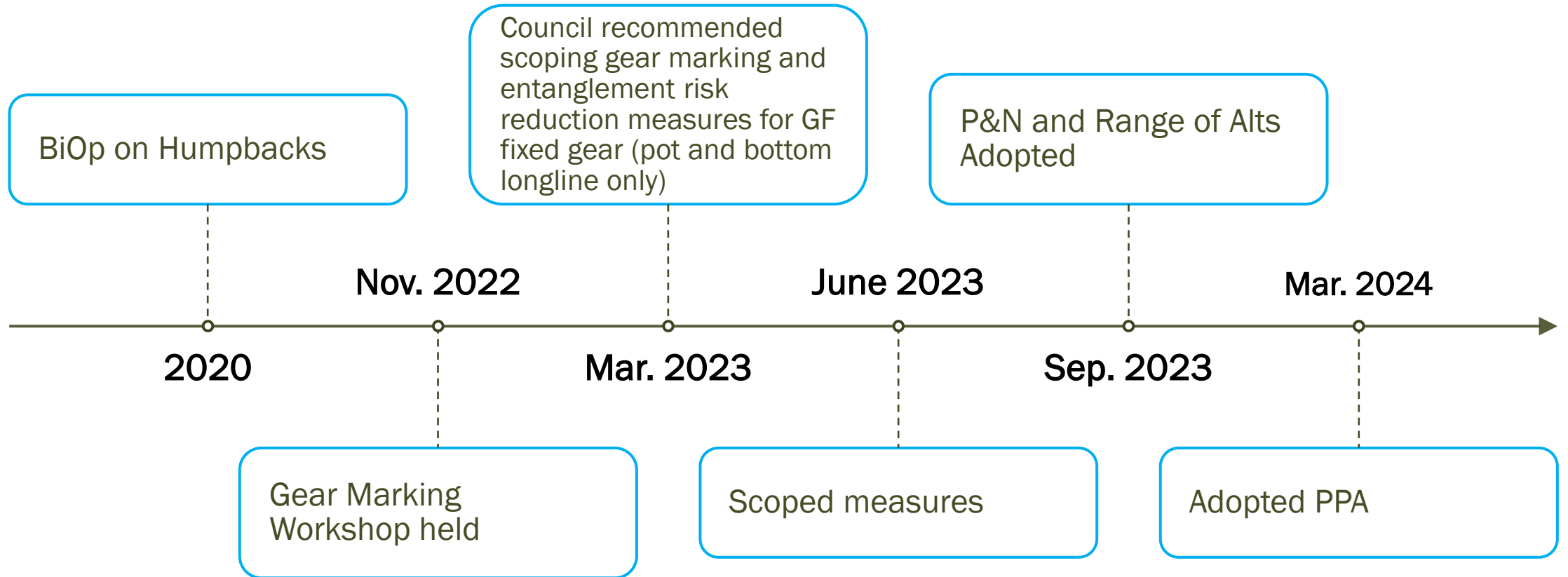
Agenda Item F.5

June 2024

West Coast Entanglements

- Whale entanglements have increased since 2013
- 2013-2021: 50% humpback entanglements have been identified to the gear
 - Mostly pot and trap fisheries
- Groundfish fixed gear (pot and longline) entanglements are rare
 - Sablefish pot gear- 5 (1982-2022)
 - No interactions in other GF pot/LGL fishery
 - 2023: 1 entanglement in halibut longline/sablefish pot

History of Action



Council Action

- Adopt FPA for gear marking, including buoy and line marking alternatives.
- Provide guidance relative to outstanding issues as described in Attachment 1.
- Adopt FPA for entanglement risk reduction measures of surface gear requirements and surface line limitation.
- Adopt a FPA for escape panel regulations.
- Provide guidance relative to the development of a best practices guide.



Materials

- Attachment 1: Gear Marking Alternatives
- Attachment 2: Analytical Document
- Supp GAP/EC Reports
- Public Comment

Scope of Action

- Fixed Gear: Pot/trap and bottom longline
 - Does not include other types of fixed gear (e.g. vertical HKL anchored to the bottom)
- Groundfish only- IFQ gear switchers, LEFG, Directed OA
 - Average of 303 vessels annually from 2019-2023
 - Mostly directed OA
 - Mostly longline (Table 3-1 in Attach 2)
- Directed halibut (even if retaining GF) not included

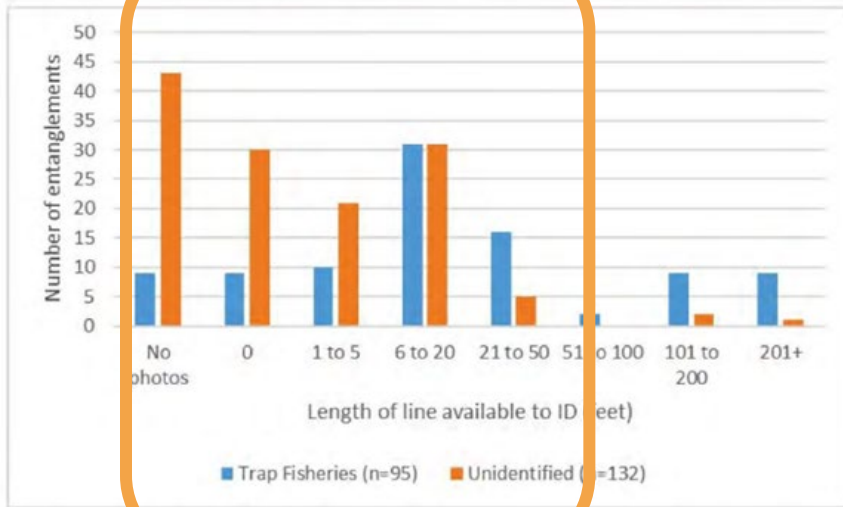
Gear Marking



Purpose

- Designed to improve NMFS' ability to identify the gear involved in an entanglement.
- No immediate direct impact on entanglement risks but help in long run.
 - Positive attributions: improve ability to target management measures more effectively
 - Negative attributions: entanglements not associated with groundfish gear

Estimated Line Available to ID



Estimates of the amount of line available to ID line marks from confirmed whale entanglements that were: (A) attributed to a pot/trap fishery vs (B) not identified to a source from 2013-2020.

What Part of Gear/Line Do We See?

Area of line	Pot/trap fishery (n= 95)	Unidentified (n=132)	Total (n=227)
Top	64 (67%)	14 (11%)	78 (34%)
Upper	53 (56%)	16 (12%)	69 (30%)
Middle	27 (28%)	15 (11%)	42 (19%)
Bottom	12 (13%)	0 (0%)	12 (5%)
No photos	10 (11%)	44 (33%)	54 (24%)
Unknown	2 (2%)	24 (18%)	26 (11%)
No line	7 (7%)	26 (20%)	33 (15%)

Segment of line available to ID line marks from confirmed whale entanglements that were: (A) attributed to a pot/trap fishery vs (B) not identified to a source from 2013-2020.

Entanglements

Gear Marking Alternatives

- Buoy Marking
- Line Marking

Action alternatives are gear specific-
pot and longline

Council could choose buoy marking,
line marking, or both action
alternatives

Preliminary Preferred Alternative

Buoy Marking

Alternative 1, suboption b (modified in March 2024)

Gear specific cattle ear tag on each buoy of surface gear with vessel identifying information

Line Marking

Alternative 1

- Portion of Line Marked: Vertical Line Only
- Distance of Marking: At least top 20 fm
- Method of Marking: Manufactured Line
- Transition Period: No transition, manufactured line upon implementation

Impacts of Buoy Marking (PPA)

- 2013-2020: Buoys were documented ~2/3rds of entanglement reports
 - ~1/3 of the current markings were legible and could be used to identify the gear
- Buoy tags: helped with identification in state Dungeness crab fishery
- PPA= more tags → increasing likelihood of observing
- Annual costs estimated to range from \$16-\$113 depending on sector/gear/vertical gear set up

Impacts of Line Marking (PPA)

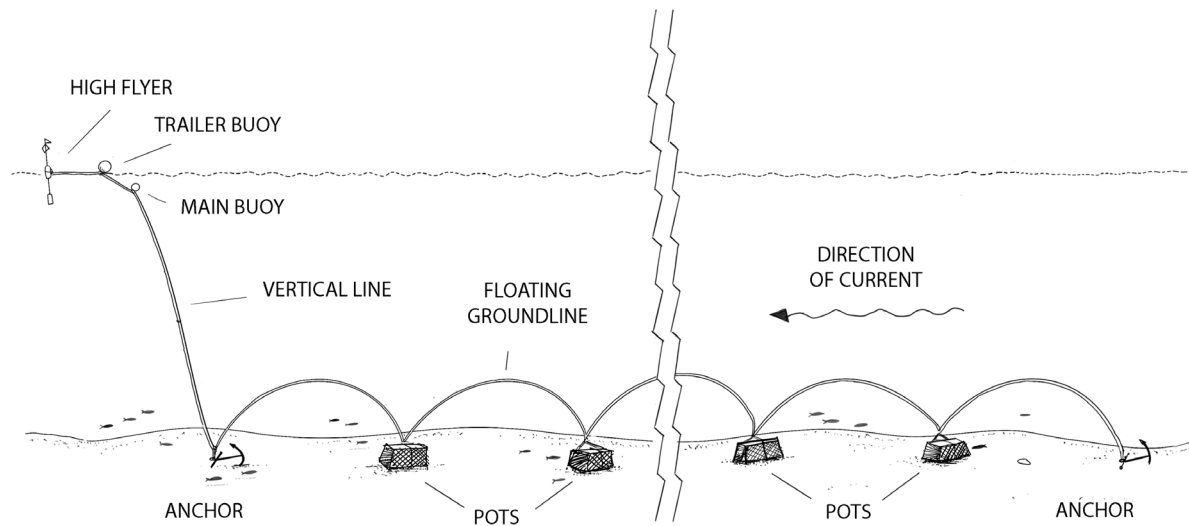
- Buoy tag PPA limited need to mark surface line
 - Allows identification without need to change out line for different fisheries → operational savings
- 20 fm likely to be sufficient markings to identify entanglement if occur
- Manufactured Line costs: One to two coils- \$500-600 depending on gear/sector
- No transition
 - Likely time to coordinate and order multi-colored lines
 - Quick to implement

Outstanding Issues To Resolve Before Selecting FPA

1. If buoy tags as specified in PPA are confirmed as FPA- what color/shape of buoy tags would be applied for each groundfish gear?
2. If line marking PPA is specified as FPA, what multi-color scheme would be applied for each groundfish gear?

Entanglement Risk Reduction Measures

Surface Gear Limitation



No Action: Fixed gear vessels are required to use surface gear (buoys and flag poles) attached at each terminal end of the groundline.

Alternative 1: Fixed gear vessels may choose to use surface gear (buoys and flags) on one terminal end of the groundline. **(PPA)**

Benefits of Surface Gear Limitation

- Reduce # of vertical lines in water- uncertain
 - Likely to see this measure utilized by pot vessels rather than longline vessels
- Estimated 10-30% reduction annually depending on change in behavior (based on retrospective analysis of 2019-2023, Table 3-6 in Attachment 1)
- Potential cost savings by having fewer vertical lines to operate/replace

Costs of Surface Gear Limitation

- Potential for gear conflicts
 - Trawl vessels may be more at risk to trawl through where the set was laid with only one end of set marked
 - Fixed gear vessels could set across lines- but this more likely in directed halibut season
 - Sharing location information could help- decreasing risk of gear conflict
- Ghost Fishing Risk
 - Limited observed loss of fixed gear- less than 5% in all FG sectors (Table 3-7 of Attachment 1)
 - If observations are representative- then limited gear loss across fishery
 - Even if increase in gear loss- biodegradable escape panels are design to limit ghost fishing
- Enforcement
 - Challenges with enforcing closed areas- not quantifiable in terms of cost
 - Likely mitigated to degree with VMS

Surface Line Length Restriction

No Action: No limitations on the length of surface line for fixed gears.

Alternative 1: Limit the amount of surface line permitted for fixed gears to a maximum length of:

Suboption a: no more than 5 fathoms

Suboption b: no more than 10 fathoms (PPA)

Impacts

- Negligible costs to industry under either option.
 - May economically benefit fishery participants over the long term by reducing the costs to maintain and replace fixed gear surface line.
 - PPA selected to cover operational needs where conditions pull down surface gear
- Alternative 1 would likely be beneficial to protected species.
 - Generally the top or upper part of the line that is entangled.

Other Items



Escape Panel Regulations

No Action: No changes to escape panel regulations.

Alternative 1: Add clarification to escape panel regulations to prohibit panel placement at bottom of pot, with exception for slinky pots (which do not have a bottom). **(PPA)**

Suboption a: Change thread count on biodegradable panel from No 21 to No 30 or smaller twine (not included in PPA)

- Administrative action to specify placement of the escape panel in the West Coast regulations and provide clarity for slinky pots- which do not have a standard “bottom” to the pot.
- Align West Coast regulations with Alaska regulations.
- No expected costs to industry under this alternative.

Twine Size Impacts

- Enable fishers who fish both AK/WC to use same gear without changing twine size → potential operational savings
- Change in escape panel opening
 - Could be increase in time to degrade, but uncertain
 - Majority of studies show thicker twine=longer breakdown
 - Time in water, manufacturer, ocean conditions could impact rate
- Impacts uncertain but likely not significant
 - Ghost fishing likely limited when bait gone
 - Low rate of gear loss overall

Best Practices Guide

- Not an official alternative.
- BPG could include information about:
 - Methods and techniques that would be difficult to regulate, but important to fishery participants
 - Times and areas of known higher whale abundance
 - Measures in the current suite of alternatives that are not adopted under final action

Impacts

- Future benefits to industry if result in lower entanglement risk and no need for new mitigation measures
- Indirectly benefit protected species by reducing risk for entanglements.

Council Action

Adopt a Final Preferred Alternative