



# Preliminary Analysis Increased Monitoring of the CA/OR Large-Mesh Drift Gillnet Fishery

PFMC - March 2018

**NOAA  
FISHERIES  
SERVICE**



## Purpose & Needs / Alternatives

- Purpose: ensure adequate information is being collected
- Need: document bycatch and protected species interactions for evaluation of costs and benefits of the use of drift gillnet (DGN) gear

***No Action Alternative***: 20 percent coverage; unobservable vessels not be selected for observer coverage / allowed to fish without an observer

***Action Alternative 1***: observer coverage at a level sufficient for biological sampling; electronic monitoring (EM) on all DGN vessels that fish

***Action Alternative 2***: minimum of 50 observer coverage; unobservable vessels prohibited from fishing in the DGN fishery.

***Action Alternative 3***: 100 percent monitoring using on-board observers and/or EM



*Number of active observable, unobservable, and total drift gillnet vessels and effort for 2013 through 2016.*

<b>Calendar Year</b>	<b>Number of Active Vessels</b>	<b>Number of Active Observable Vessels</b>	<b>Number of Active Unobservable Vessels</b>	<b>Total Sets</b>	<b>Observable Sets</b>	<b>Unobservable Sets</b>
<b>2013</b>	18	12	6	470	421	49
<b>2014</b>	15	9	6	409	264	145
<b>2015</b>	17	11	6	361	216	145
<b>2016</b>	20	13	7	737	490	247



## Economics

*Estimated average variable profit per  
DGN day at sea.*

<b>Estimate</b>	<b>Observable</b>	<b>Unobservable</b>
<b>High</b>	\$1,310	\$499
<b>Mid</b>	\$1,079	\$411
<b>Low</b>	\$848	\$323

*Estimated Industry Costs of Monitoring  
per Day at Sea:*

**Electronic Monitoring: \$361.22**

**Human Observers: \$600**



## Preliminary Analysis of Alternatives - Fleet

Action & Assumed Daily Costs	Estimate Type	Observable Daily Profits	Unobservable Daily Profits	Estimated percentage reductions in variable profit per day at sea	
				Observable	Unobservable
<b>No Action</b>	Low	\$848	\$323		
	Mid	\$1,079	\$411		
	High	\$1,310	\$499		
<b>Alternative 1: Require EM \$361.22</b>	Low	\$487	\$0	-43%	-100%
	Mid	\$718	\$50	-33%	-88%
	High	\$949	\$138	-28%	-72%
<b>Alternative 2: Min. 50% observer monitoring \$300</b>	Low	\$548	\$23	-35%	-93%
	Mid	\$779	\$111	-28%	-73%
	High	\$1,010	\$199	-23%	-60%
<b>Alternative 3: 100% observer monitoring \$600</b>	Low	\$248	\$0	-71%	-100%
	Mid	\$479	\$0	-56%	-100%
	High	\$710	\$0	-46%	-100%
<b>Alternative 3: 100% EM \$361.22</b>	Low	\$487	\$0	-43%	-100%
	Mid	\$718	\$50	-33%	-88%
	High	\$949	\$138	-28%	-72%

*Estimates of average variable profit per day at sea under the alternatives.*



## Preliminary Analysis of Alternatives - Species

Likely...

- No direct effect on target, non-target, and protected or prohibited species
- Minor indirect beneficial effects if improved precision of catch and bycatch estimates
- 100% monitoring = no extrapolation and no potential observer bias
- Better data to inform management decisions



## Next Steps

- Observer bias study in 2018 Biological Opinion
- NMFS EM study - 2018 and possibly 2019
  - Achieving Council objectives
  - True costs
- Request for Council guidance before June PFMC