

# Projected Impact of BOEM Oregon Wind Farm on the Pacific Whiting Fishery

22 June 2022

Sea State Inc.  
Merrill Rudd, merrill@seastateinc.com  
Steve Martell, steve@seastateinc.com

VMS was used to identify catcher-processor and mothership hauls that would have been impacted by the proposed BOEM Oregon offshore wind farm call areas. Whiting catch and key bycatch from observer data were examined to quantify and project potential impacts. VMS paired with fish tickets were used for the shoreside fleet to quantify full trips and whiting catch that would have been impacted by the call areas.

## Effort and catch statistics

26% of the hauls for the Pacific whiting catcher-processor (CP) and mothership (M) fleets have intersected the Brookings or Coos Bay call areas from 2012-present. 17% of VMS points were recorded within the call areas. Multiplying the whiting catch from the CP and M fleets by the proportion of VMS points recorded within the call areas, approximately 245,399 metric tons of whiting have been caught from these two fleets over the full time period.

7% of shoreside whiting trips have overlapped the call areas. Multiplying the whiting catch by trip by the proportion of VMS points estimated to be fishing within the call areas (filtered based on speed of 1.2-5.5 knots) amounted to approximately 7,153 metric tons of whiting caught within the call areas from the shoreside fleet from 2017-present.

## Shoreside trip and catch statistics, 2017-present

Call Area:	Call Area	% Trips	% VMS	Whiting Catch
General	Brookings	0.30%	0.41%	541
	Coos Bay	7.06%	2.52%	6,612
	Total	7.36%	2.93%	7,153
Outside	Outside Areas	92.64%	97.07%	457,741
	Total	92.64%	97.07%	457,741
Grand Total		100.00%	100.00%	464,894

## Catcher-processor and Mothership Haul and Catch Statistics

Call Area;	General	Call Area	VesselType	2012-2016			2017-present			Grand Total		
				% Hauls	% VMS	Whiting Catch	% Hauls	% VMS	Whiting Catch	% Hauls	% VMS	Whiting Catch
Call Area	Brookings	CP	6.73%	3.15%	23,790	5.06%	3.05%	30,026	5.70%	3.09%	53,816	
			1.22%	0.67%	2,777	3.77%	1.95%	16,756	2.79%	1.45%	19,533	
Call Area	Coos Bay	CP	13.71%	7.88%	46,781	10.65%	7.29%	67,239	11.83%	7.52%	114,019	
			1.77%	1.44%	3,820	8.80%	7.63%	54,210	6.09%	5.24%	58,030	
	Total		23.42%	13.14%	77,167	28.28%	19.92%	168,231	26.42%	17.30%	245,399	
Outside	Outside Areas	CP	63.54%	73.80%	339,405	45.72%	56.79%	500,955	52.58%	63.37%	840,360	
			13.04%	13.06%	55,915	25.99%	23.29%	199,047	21.01%	19.33%	254,962	
	Total		76.58%	86.86%	395,320	71.72%	80.08%	700,002	73.58%	82.70%	1,095,322	
Grand Total			100.00%	100.00%	472,487	100.00%	100.00%	868,234	100.00%	100.00%	1,340,721	

## Whiting catch by year and area (CP and M)

		Brookings	Coos Bay	Outside Areas
2012-2016	2012	151	2,118	50,719
	2013	904	19,631	57,216
	2014	7,546	17,373	77,804
	2015	9,334	5,948	52,559
	2016	8,632	5,531	157,023
	Average	5,313	10,120	79,064
2017-present	2017	723	36,166	165,123
	2018	6,879	17,357	151,453
	2019	738	29,826	130,828
	2020	19,252	7,726	116,563
	2021	14,775	13,304	96,374
	2022	4,416	17,071	39,661
	Average	7,797	20,241	116,667
Annual Average	6,668	15,641	99,575	

## Projected foregone catch of 30-year offshore wind lease

Based on recent trends from 2017-present, an annual average of 7,797 metric tons and 20,241 metric tons of Pacific whiting have been caught in the Brookings and Coos Bay call areas, respectively, across both the CP and M fleets. This equates to an estimated foregone catch of 233,910 metric tons from the Brookings area and 607,230 metric tons from the Coos Bay area when projected over the 30-year life span of an offshore wind lease.

## Whiting catch by year and area (shoreside)

Year of LandingDate	Brookings	Coos Bay	Outside Areas
2017	1	1,296	98,710
2018	25	811	80,125
2019		1,097	100,088
2020	60	1,305	92,008
2021	455	1,999	83,725
2022		105	3,085
Average	541	6,612	457,741

An average of 541 metric tons and 6,612 metric tons have been caught in the Brookings and Coos Bay call areas, respectively, from the shoreside fleet. This is associated with an estimated foregone catch of 214,590 metric tons projected to be caught from the call areas over the 30-year life span of an offshore wind lease.

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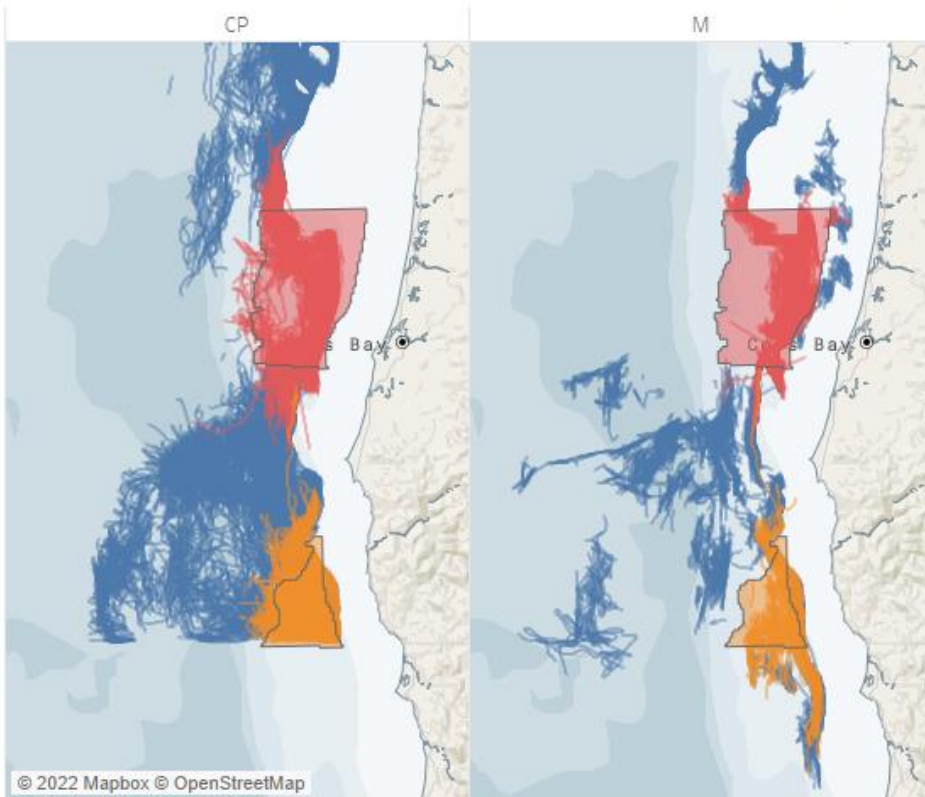
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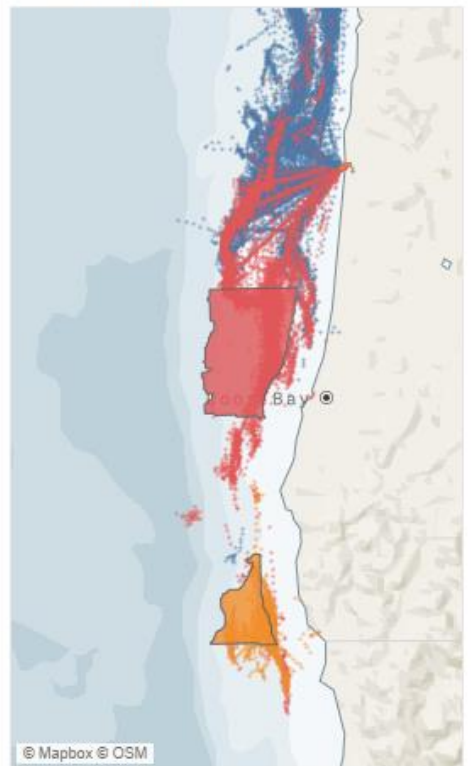
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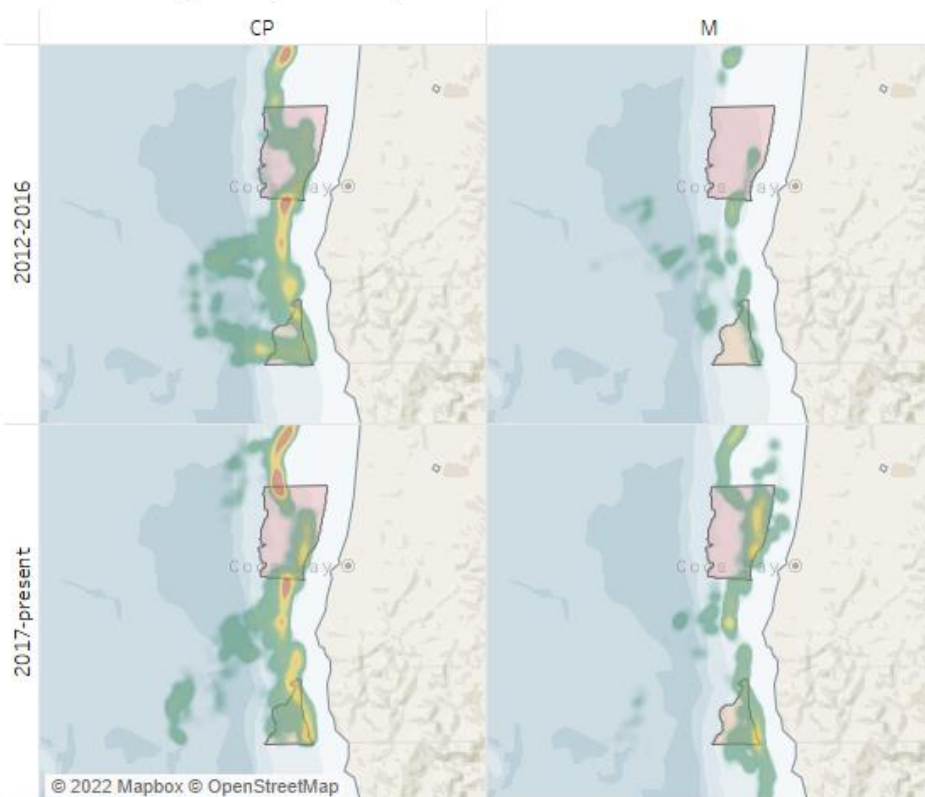
### Catcher-Processor (CP) and Mothership (M) Hauls Affected by Call Areas, 2012-present



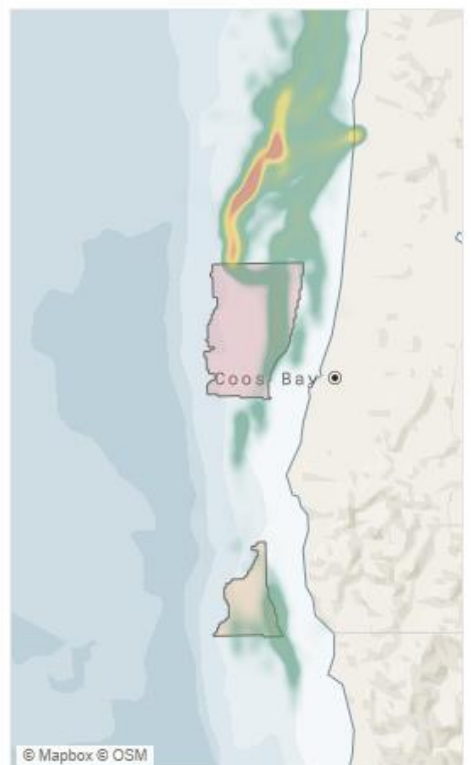
### Shoreside Trips Affected by Call Areas, 2017-present



### CP and M Whiting Catch by Year Group



### Shoreside Whiting Catch, 2017-present



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## Bottom depth

Breaking down the impacted catcher-processor whiting catch by depth, from 2017-present 3.5% of hauls intersected the call areas at greater than or equal to 700 fathoms. 29.6% of hauls intersected the call areas at less than 700 fathoms during this recent period. Across catcher-processor and mothership fleets, this resulted in 248,296 metric tons caught at depths less than 700 fathoms, compared to only 1,911 metric tons of Pacific whiting caught at greater than 700 fathoms in recent years.

From 2017-present, an average of 112 metric tons per year were caught in the Brookings call area and 61 metric tons per year in the Coos Bay call area at depths greater than 700 fathoms across the catcher-processor and mothership fleets combined. Over the 30-year lease of an offshore wind farm, this would be approximately 5,190 metric tons projected to be caught in the call areas at greater than 700 fathoms over the 30-year lease of an offshore wind farm.

This is significantly less than the impact on the wind farm at less than 700 fathoms. At less than 700 fathoms, an average of 7,704 metric tons and 20,221 metric tons were caught annually in recent years in the Brookings and Coos Bay call areas, respectively, for the catcher-processor and mothership fleets combined. This would be associated with 837,750 metric tons projected over the 30-year lease of an offshore wind farm at less than 700 fathoms.

## Haul and catch statistics by depth, 2017-present (CP and M)

			< 700 fathoms		≥ 700 fathoms		Total	
Call Area; General	Call Area	VesselType	% Hauls	Whiting Catch	% Hauls	Whiting Catch	% Hauls	Whiting Catch
Call Area	Brookings	CP	5.19%	29,573	2.44%	453	5.06%	30,026
		M	3.96%	16,649	0.27%	108	3.77%	16,756
	Coos Bay	CP	11.17%	67,121	0.68%	117	10.65%	67,239
		M	9.25%	54,205	0.14%	5	8.80%	54,210
Total			29.56%	167,549	3.53%	683	28.28%	168,231
Outside	Outside Areas	CP	44.17%	460,919	75.85%	40,036	45.72%	500,955
		M	26.27%	191,712	20.62%	7,336	25.99%	199,047
	Total			70.44%	652,631	96.47%	47,371	71.72%
Grand Total			100.00%	820,180	100.00%	48,054	100.00%	868,234

## Whiting catch by depth, year, area, and vessel type (CP and M)

	Brookings		Coos Bay		Outside Areas	
	< 700 fathoms	≥ 700 fathoms	< 700 fathoms	≥ 700 fathoms	< 700 fathoms	≥ 700 fathoms
2017	723		36,124	42	164,944	179
2018	6,666	213	17,357		146,553	4,900
2019	727	11	29,826		116,634	14,194
2020	19,127	125	7,646	80	90,779	25,784
2021	14,671	104	13,304		94,185	2,189
2022	4,308	108	17,071		39,535	126
Average	7,704	112	20,221	61	108,772	7,895

## Whiting Catch by Year, Depth, and Vessel Type

