

## Evaluation biological samples collected by observers

Table 1 provides the combined number of otolith samples collected from BSAI and GOA groundfish and halibut fisheries in the years 2013 through 2015, by species and management area. The table also identifies how many of the total samples were collected from fixed gear catcher vessels that would be eligible to opt in to the EM strata. Note that the Council has already indicated that the scope of EM implementation would not be to replace human observers entirely for these sectors, and there will continue to be deployment of human observers in these sectors. Rather, Table 1 is intended to illustrate the species for which the fixed gear catcher vessel sectors currently contribute the majority of otolith samples.

**Table 1** Number of otolith samples collected from fixed gear catcher vessels, compared to total otoliths collected from the groundfish and halibut fisheries, for 2013 through 2015 inclusive.

Proportions of 20 percent or higher are highlighted in yellow.

Management area	Species	Number of otolith samples			Proportion of total from hook and line	Proportion of total from pot
		Hook and line	Pot	Total (all gears)		
GOA	Pacific cod	381	352	1,213	31%	29%
	Sablefish	1,843		3,456	53%	
	Pollock	3		2,682	0.1%	
	Pacific Ocean perch	10		4,608	0.2%	
	Northern rockfish	6		3,149	0.2%	
	Shortraker rockfish	402		932	43%	
	Rougheye rockfish	260		821	32%	
	Dusky rockfish	51		2,324	2%	
	Dark rockfish	6		48	13%	
	Shortspine thornyhead rockfish	385		1,382	28%	
Longspine thornyhead rockfish	1		1	100%		
BSAI	Pacific cod	46	181	9,482	0.5%	2%
	Sablefish	245	95	1,719	14%	6%
	Northern rockfish	1		1,474	0.1%	
	Shortraker rockfish	148		725	20%	
	Rougheye rockfish	47		697	7%	
	Dusky rockfish	11		136	8%	
	Dark rockfish	1		3	33%	
Shortspine thornyhead rockfish	170	2	1,193	14%	0.2%	
GOA Inside Waters	Pacific cod	61		67	91%	
	Sablefish	62		68	91%	
	Pacific Ocean perch	7		7	100%	
	Shortraker rockfish	53		67	79%	
	Rougheye rockfish	42		48	88%	
	Dusky rockfish	2		2	100%	
	Shortspine thornyhead rockfish	61		65	94%	

In the GOA, about 60 percent of Pacific cod otolith samples are currently collected from the fixed gear catcher vessel sectors, and about half of sablefish otolith samples. Longline catcher vessels also account for approximately 43 percent of shortraker rockfish samples, and about 30 percent of rougheye rockfish and shortspine thornyhead otolith samples (as well as the only longspine thornyhead rockfish sample taken in 2013 through 2015). In the BSAI, fixed gear catcher vessels accounted for approximately 20 percent of Pacific cod and shortraker rockfish otolith samples, as well as one of the three dark rockfish samples collected during the time period.

Almost all samples collected from GOA inside waters are from fixed gear catcher vessels. The inside waters samples represent only a small proportion of the total GOA samples from these species, however, mostly 5 percent or less. Total samples collected from inside waters represent 7 percent of the total GOA-wide samples for shortraker rockfish, and 6 percent of total samples for rougheye rockfish.