

**Supplementary Table 3**

Results from the linear model used to examine the effects of season (fall, winter, spring, and summer) and otolith length (OL, in millimeters) on standard length for the central subpopulation of northern anchovy (*Engraulis mordax*). Fish were collected during both the fishery port sampling survey of the California Department of Fish and Wildlife and the NOAA Southwest Fisheries Science Center coastal pelagic species trawl survey from 2015 through 2021. All comparisons in this table are made to the null model. An asterisk (\*) indicates significance at the 0.05 level, and asterisks (\*\*\*) indicate significant differences at the 0 level. Standard errors of the mean (SEs) are given for mean parameters estimates.

Reference model	<i>F</i>	Estimate	SE	<i>t</i>	<i>P</i> (>  <i>t</i>  )
Fall	(Intercept)	-2.3162	1.7481	-1.325	0.1853
	Winter	-6.2683	3.1694	-1.978	0.0481*
	Spring	2.3584	2.9795	0.792	0.4287
	Summer	26.8075	1.9310	13.882	<2e-16***
	Otolith length ( <i>OL</i> )	32.1345	0.5383	59.692	<2e-16***
	Winter* <i>OL</i>	1.3262	0.9264	1.432	0.1524
	Spring* <i>OL</i>	-0.2700	0.8584	-0.315	0.7531
	Summer* <i>OL</i>	-5.8911	0.6044	-9.747	<2e-16***
Winter	(Intercept)	-8.5844	2.6437	-3.247	0.00118**
	Spring	8.6267	3.5792	2.410	0.01603*
	Summer	33.0758	2.7680	11.949	<2e-16***
	Fall	6.2683	3.1694	1.978	0.04809*
	Otolith length ( <i>OL</i> )	33.4607	0.7540	44.380	<2e-16***
	Spring* <i>OL</i>	-1.5962	1.0078	-1.584	0.11336
	Summer* <i>OL</i>	-7.2173	0.8024	-8.994	<2e-16***
	Fall* <i>OL</i>	-1.3262	0.9264	-1.432	0.15244
Spring	(Intercept)	0.04224	2.41277	0.018	0.986
	Summer	24.44911	2.54841	9.594	<2e-16***
	Fall	-2.35843	2.97950	-0.792	0.429
	Winter	-8.62668	3.57916	-2.410	0.016*
	Otolith length ( <i>OL</i> )	31.86449	0.66867	47.654	<2e-16***
	Summer* <i>OL</i>	-5.62105	0.72289	-7.776	1.18e-14***
	Fall* <i>OL</i>	0.27004	0.85845	0.315	0.753
	Winter* <i>OL</i>	1.59622	1.00775	1.584	0.113

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Supplementary Table 3 (*continued*)

Reference model	<i>F</i>	Estimate	SE	<i>t</i>	<i>P</i> (>  <i>t</i>  )
	(Intercept)	24.4914	0.8203	29.855	<2e-16***
	Fall	-26.8075	1.9310	-13.882	<2e-16***
	Winter	-33.0758	2.7680	-11.949	<2e-16***
	Spring	-24.4491	2.5484	-9.594	<2e-16***
Summer	Otolith length ( <i>OL</i> )	26.2434	0.2747	95.539	<2e-16***
	Fall* <i>OL</i>	5.8911	0.6044	9.747	<2e-16***
	Winter* <i>OL</i>	7.2173	0.8024	8.994	<2e-16***
	Spring* <i>OL</i>	5.6210	0.7229	7.776	1.18e-14***