

*The following supplement accompanies the article*

## **Does larval advection explain latitudinal differences in recruitment across upwelling regimes?**

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**Supplement.** Lower and upper 95% confidence intervals from analysis of variance (ANOVA) tests.

Table S1. Lower and (upper) 95% confidence intervals for (A) 2-way ANOVA testing for ontogenetic differences in larval concentrations relative to distance offshore (2 and 9 km) and (B) 1-way ANOVA testing whether larvae were found farther offshore during different oceanographic conditions for 9 taxa collected off Newport, Oregon, over 7 years (1998 through 2002, 2009 and 2010). The proportion of larvae collected across sites per year was used in both tests to standardize larval concentrations across years. The relative difference in abundance between the 2 sites at each sampling time was used as the response variable in the 1-way ANOVA. nc = larval stages that were not collected during the study, na = larval stages that are not applicable

Taxon	(A)						Cross-shelf distance × larval stage								(B)		
	Cross-shelf distance		Larval stage				2 km				9 km				Oceanographic condition		
	2 km	9 km	Early	Mid	Late	PL	Early	Mid	Late	PL	Early	Mid	Late	PL	Before	Up	Relax
<b>Nearshore</b>																	
<i>Balanus</i> spp. & <i>Chthamalus dalli</i>	0.6 (0.91)	0.08 (0.39)	0.32 (0.76)	0.26 (0.7)	0.26 (0.7)	0.27 (0.71)	0.46 (1.08)	0.39 (1.01)	0.42 (1.04)	0.51 (1.13)	0 (0.62)	-0.06 (0.56)	-0.08 (0.54)	-0.16 (0.46)	-0.09 (0.01)	-0.08 (0.01)	-0.09 (-0.02)
Porcellanidae	0.62 (0.91)	-0.05 (0.24)	0.43 (0.72)	na	0.14 (0.43)	nc	0.78 (1.19)	na	0.34 (0.75)	nc	-0.05 (0.36)	na	-0.18 (0.23)	nc	-0.34 (-0.12)	-0.15 (0.01)	-0.2 (-0.002)
Pinnotheridae	0.49 (0.73)	0 (0.23)	0.28 (0.57)	0.18 (0.47)	0.2 (0.49)	nc	0.52 (0.93)	0.38 (0.79)	0.33 (0.73)	nc	-0.08 (0.33)	-0.13 (0.28)	-0.05 (0.36)	nc	-0.21 (-0.07)	-0.11 (-0.01)	-0.06 (0.07)
<b>Mid-shelf</b>																	
<i>Neotrypaea californiensis</i>	0.23 (0.46)	0.18 (0.41)	0.37 (0.65)	0.16 (0.45)	0 (0.29)	nc	0.44 (0.84)	0.1 (0.5)	-0.1 (0.3)	nc	0.19 (0.58)	0.11 (0.5)	-0.01 (0.39)	nc	-0.04 (0.13)	-0.11 (0)	-0.1 (0.04)
Paguridae	0.25 (0.38)	0.06 (0.19)	0.19 (0.38)	0.32 (0.51)	0.02 (0.21)	-0.04 (0.15)	0.34 (0.6)	0.45 (0.71)	0.01 (0.27)	-0.08 (0.19)	-0.03 (0.23)	0.12 (0.38)	-0.04 (0.22)	-0.08 (0.19)	-0.07 (0.003)	-0.06 (-0.01)	-0.05 (0.01)
<i>Pugettia</i> spp.	0.04 (0.12)	-0.02 (0.06)	0.02 (0.12)	na	0.01 (0.11)	-0.04 (0.06)	0.06 (0.2)	na	0 (0.14)	-0.04 (0.1)	-0.05 (0.09)	na	-0.02 (0.12)	-0.07 (0.07)	-0.08 (0.11)	-0.09 (0.04)	-0.04 (0.13)
<i>Hemigrapsus</i> spp.	0.06 (0.14)	0 (0.07)	0.05 (0.14)	0.01 (0.1)	0 (0.09)	nc	0.11 (0.24)	0.01 (0.14)	-0.01 (0.11)	nc	-0.04 (0.09)	-0.03 (0.09)	-0.02 (0.11)	nc	-0.22 (-0.04)	-0.1 (0.02)	-0.14 (0.01)
<b>Offshore</b>																	
<i>Cancer</i> spp.	0.26 (0.42)	0.11 (0.26)	0.45 (0.66)	0.25 (0.47)	-0.08 (0.14)	0 (0.21)	0.68 (0.98)	0.21 (0.52)	-0.15 (0.15)	0.01 (0.32)	0.12 (0.43)	0.21 (0.51)	-0.09 (0.21)	-0.1 (0.2)	-0.09 (-0.004)	-0.06 (0.005)	-0.03 (0.04)
<i>Lophopanopeus bellus</i>	0 (0.1)	0.03 (0.12)	0.04 (0.14)	-0.01 (0.08)	nc	nc	0.03 (0.17)	-0.07 (0.06)	nc	nc	0.01 (0.14)	0 (0.14)	nc	nc	-0.21 (0.13)	-0.12 (0.12)	-0.15 (0.14)

Table S2. Lower and (upper) 95% confidence intervals for 3-way ANOVA testing for ontogenetic differences in larval concentrations relative to upwelling region (Newport, Oregon, and Bodega Bay, California) and distance offshore (inner = 1 or 2 km, outer = 4 or 9 km) for the 8 taxa collected at both upwelling regions in 2009. nc = larval stages that were not collected during the study, na = larval stages that are not applicable

Taxon	Region		Cross-shelf distance		Larval stage				Region × larval stage							
	OR	CA	Inner	Outer	Early	Mid	Late	PL	OR				CA			
									Early	Mid	Late	PL	Early	Mid	Late	PL
<i>Balanus crenatus</i>	0.22 (0.84)	0.44 (1.23)	0.63 (1.37)	0.03 (0.7)	nc	0.23 (1.1)	0.1 (0.97)	0.41 (1.28)	nc	0.02 (1.08)	-0.1 (0.97)	0.08 (1.14)	nc	0.1 (1.47)	-0.04 (1.33)	0.39 (1.76)
<i>Balanus nubilus</i>	-0.01 (0.13)	0.09 (0.27)	0.07 (0.24)	0.01 (0.17)	nc	-0.04 (0.15)	-0.09 (0.1)	0.21 (0.41)	nc	-0.05 (0.19)	-0.11 (0.13)	-0.02 (0.22)	nc	-0.12 (0.19)	-0.15 (0.16)	0.36 (0.67)
<i>Neotrypaea californiensis</i>	0.23 (0.55)	-0.04 (0.37)	0.14 (0.52)	0.05 (0.4)	0.25 (0.69)	-0.02 (0.42)	-0.07 (0.38)	nc	0.45 (0.99)	0.06 (0.61)	-0.16 (0.39)	nc	-0.13 (0.58)	-0.28 (0.42)	-0.16 (0.55)	nc
Paguridae	0.11 (0.27)	-0.02 (0.18)	0.13 (0.32)	-0.05 (0.13)	0.04 (0.3)	0.14 (0.4)	-0.07 (0.19)	-0.1 (0.16)	0.05 (0.37)	0.24 (0.56)	-0.07 (0.25)	-0.11 (0.21)	-0.07 (0.34)	-0.06 (0.35)	-0.18 (0.23)	-0.2 (0.21)
Porcellanidae	0.17 (0.66)	0.3 (0.94)	0.58 (1.17)	-0.11 (0.43)	0.32 (0.89)	na	0.14 (0.71)	nc	0.24 (0.94)	na	-0.11 (0.6)	nc	0.18 (1.08)	na	0.15 (1.05)	nc
Pinnotheridae	0.2 (0.62)	0.25 (0.8)	0.56 (1.06)	-0.11 (0.35)	0.25 (0.74)	0.19 (0.68)	nc	0.16 (0.76)	0.05 (0.66)	nc	0.14 (0.91)	0.14 (0.91)	nc	0.14 (0.91)	nc	nc
Majidae	0.02 (0.15)	-0.04 (0.13)	0.02 (0.17)	-0.04 (0.1)	0.02 (0.2)	na	-0.05 (0.13)	-0.05 (0.13)	0.02 (0.24)	na	-0.07 (0.15)	-0.03 (0.19)	-0.05 (0.23)	na	-0.1 (0.18)	-0.14 (0.14)
<i>Cancer magister</i>	-0.01 (0.05)	-0.01 (0.06)	0.00 (0.07)	-0.02 (0.04)	0.02 (0.11)	-0.04 (0.04)	nc	-0.04 (0.04)	0.01 (0.11)	-0.05 (0.05)	nc	-0.05 (0.06)	0.00 (0.13)	-0.07 (0.07)	nc	-0.07 (0.07)