

Table S1. The position and depth of samples containing *Limacina helicina helicina* f. *pacifica* collected with a 333 μm mesh vertical Bongo net over the vertically integrated depth of 100 m at the investigated stations, along with depth-integrated abundance (ind m^{-2}), shell size range (mm), life stage in the fraction of the undersaturated ($\Omega < 1$) water. For dissolution analyses, samples size (N) and the proportion of severe (Type II and Type III) dissolution are provided.

station No.	lat	long	sampling depth (m)	fraction of water ($\Omega < 1$) (upper 100 m)	depth-integrated abundance (ind m^{-2})	shell size range (mm)	life stage J=juvenile, SA=subadult	sample size (N)	severe shell dissolution (proportion)
6	48.377	124.972	0-100	83.0	19	0.5-2	J, SA	7	0.57
13	47.113	-124.637	0-100	77.6	68	0.5-2	J, SA	5	0.60
14	47.113	-124.350	0-100	40.0	86	0.5-2	J, SA	9	0.67
15	46.126	-124.095	0-100	83.3	102	0.5-2	J, SA	3	1.00
21	46.125	-125.732	0-100	0.0	104	1-2.5	J, SA	4	0.25
28	44.646	-124.289	0-100	82.9	77	0.5-2	J, SA	12	0.75
29	44.633	-124.400	0-100	65.1	122	0.5-2	J, SA	4	0.75
31	44.633	-124.833	0-100	40.1	252	1-2.5	J, SA	4	0.25
37	44.200	-124.975	0-100	31.0	134	1-2.5	J, SA	3	0.33
57	40.246	-124.384	0-100	15.2	389	0.5-2	J, SA	7	0.29
61	40.103	-124.711	0-100	12.0	445	0.5-2	J	12	0.33
65	38.300	-123.100	0-100	52.6	14267	0.5-1	J	5	0.60
69	37.762	-123.274	0-100	13.0	700	0.5-2	J, SA	4	0.25
73	36.668	125.646	0-100	0.0	6	0.5-2	J, SA	4	0
75	36.524	-122.434	0-100	30.0	15	0.5-1	J	4	0.25
87	34.433	120.432	0-100	0.0	1	0.5-1	J	4	0
95	33.488	117.755	0-100	0.0	15	0.5-2	J, SA	4	0