The following supplement accompanies the article

Pre- and post-settlement factors controlling spatial variation in recruitment across a cold-seep mussel bed

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Supplement 2. Additional data

Fig. S1. 'Bathymodiolus' childressi. Correlation between length and width or height. n = 462

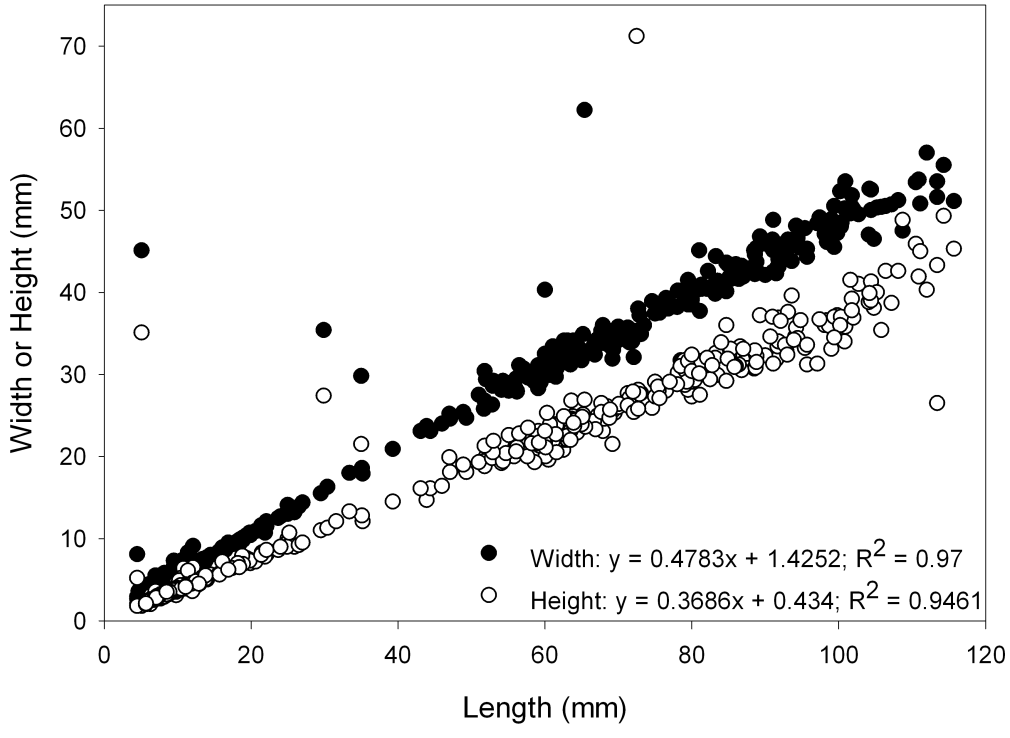

Table S1. 'Bathymodiolus' childressi. Total number of settlers on settlement racks at the inner and outer-seep zones. Expected frequencies are based on a hypothesized 6:1 ratio for the inner to the outer-seep zones. G_{adj} is Williams' adjusted log likelihood statistic G

Zone	Obs.	Exp.	G_{adj}	p
Inner	252	325	88.44	< 0.001
Outer	127	54		
Total	379	379		

Table S2. 'Bathymodiolus' childressi. Two-factor randomized block ANOVA showing the effect of size (large or small) and state (living mussel or mussel shell) on recruitment density (recruits m^{-2}) of 14 d old mussels in the inner-seep zone only. Blocks are the replicate settlement racks

Source	df	Type III SS	MS	*F*	p
Size	1	227.3	227.3	0.100	0.754
State	1	5433.2	5433.2	2.390	0.131
Size _ State	1	1323.6	1323.6	0.582	0.450
Block	12	22007.6	1834.0	0.807	0.642
Error	36	81838.3	2273.3		

Table S3. 'Bathymodiolus' childressi. Two-factor ANOVA showing the effect of zone (inner-, outer-, or non-seep) and treatment (caged, cage control, and uncaged) on the arcsine transformed survival ratio of juveniles (<15 mm long)

Source	df	Type III SS	MS	*F*	p	$\_^2$
Zone	2	0.005	0.002	0.028	0.972	0.002
Treatment	2	1.798	0.899	10.374	<0.001	0.372
Zone _ Treatment	4	0.748	0.187	2.158	0.094	0.198
Error	35	3.032	0.087			

Text S1. Predation experiments.

Shipboard predation experiments were conducted on 2 occasions to obtain direct evidence of predation on 'Bathymodiolus' childressi juveniles by common predators found at the Brine Pool cold seep. In November 2003, the following potential predators were used: unidentified polyclad flatworms, the buccinid snail *Eosipho canetae*, *Rochina crassa* (a large spider crab), and the galatheid crabs Munidopsis sp. Three replicate flatworms were each placed in ~300 ml seawater with 10 small (<5 mm long) mussels, 5 replicate *E. canetae* (each 10 cm long) were each placed in 2 l seawater with 10 small mussels (~10 mm long), 2 replicate *R. crassa* of similar size were each placed in ~35 l seawater with 20 small mussels (~10 mm long), and 3 replicate galatheid crabs of similar size were each placed in ~300 ml of seawater with 10 small mussels (~5 mm long). Each replicate was left undisturbed in a 7–8 ^{o}C cold room on the ship for 48 h and then mussels were scored for percent mortality.

In July 2004, 3 more shipboard predation experiments were conducted using Eosipho canetae, the galatheid crabs, and *Sclerasterias tanneri* (a large starfish) as potential predators. Three replicate *E. canetae* (4–5 cm long) were each placed in 2 l seawater with 5 mussels from 2–3 cm long and 5 mussels less than 1 cm long. Two replicate S. tanneri of equal sizes were each placed in ~35 l seawater with 5 mussels from 2–3 cm long and 5 mussels < 1 cm long. Three replicate galatheid crabs of similar sizes were each placed with 10 juvenile mussels (<5 mm long) in 1 l of seawater. Each replicate was left undisturbed in a 7–8°C cold room on the ship for 10 d. The water was changed in each treatment on Days 4 and 7 and the mussels were scored for percent mortality on Day 10.

There was no evidence of predation on small mussels by polyclad flatworms, *Eosipho canetae*, *Rochina crassa*, or *Sclerasterias tanneri* in shipboard experiments conducted in November 2003 or July 2004. There was some mortality of the juvenile mussels placed with the galatheid crabs (average 16.6%) in November 2003. However, predation on the mussels by the galatheids was not directly observed. In July 2004, 2 juvenile mussels died in 1 replicate and the galatheid crab was observed scavenging on the dead mussels.

Fig. S2. *'Bathymodiolus' childressi* mussels cantilevered over the edge of the Brine Pool