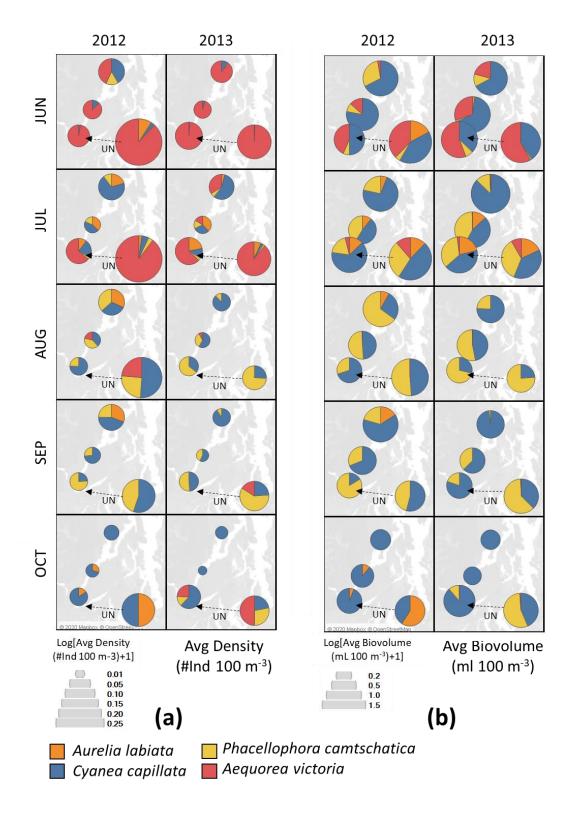


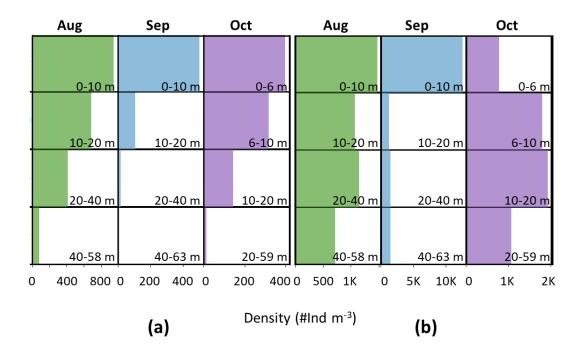


**Table S1.** Pearson correlation coefficients (r) and correlations ( $R^2$ ) between environmental variables and the NMS ordination axes. Variables strongly correlated with each axis ( $R^2 > 0.3$ ) are in bold. Total cumulative  $R^2$  of the ordination is given as CUM  $R^2$ . CTD variables were values at 30 m depth and the maximum, minimum, average, 2 m depth and sum (for fluorescence only) in the water column, along with year, month, station, and total crustacean prey density.

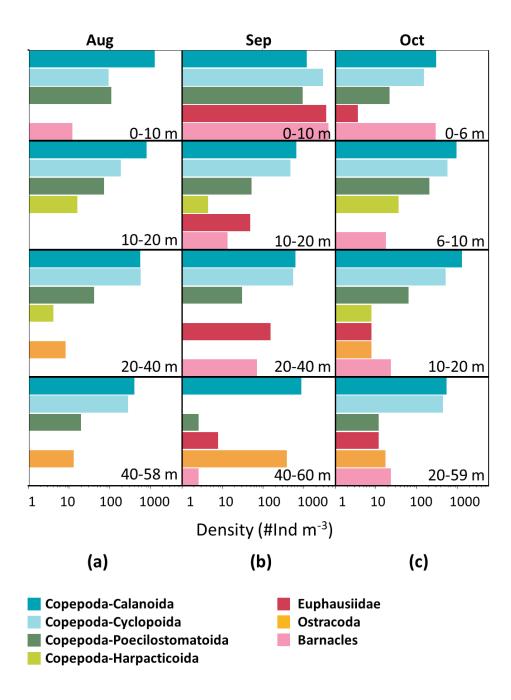
CUM $R^2 = 0.89$		Axis 1		Ax	Axis 2		Axis 3	
		$(R^2 = 0.61)$		$\mathbb{R}^2 =$	$(R^2 = 0.15)$		$(R^2 = 0.14)$	
		r	$\mathbb{R}^2$	r	$\mathbb{R}^2$	r	R <sup>2</sup>	
Year		0.21	0.05	-0.41	0.17	0.24	0.06	
Month		0.06	0	-0.3	0.09	-0.38	0.14	
Station		0.57	0.33	0.16	0.03	0	0	
Crustacean prey density		-0.04	0	-0.46	0.21	0.31	0.1	
Temperature	minimum	0.21	0.04	-0.53	0.28	0.15	0.02	
(°C)	maximum	-0.29	0.09	0.08	0.01	0.36	0.13	
	average	0.03	0	-0.6	0.37	0.35	0.12	
	30 m	0.05	0	-0.45	0.21	0.07	0.01	
Salinity	minimum	0.03	0	-0.35	0.12	0.18	0.03	
(PSU)	maximum	-0.15	0.02	-0.35	0.12	-0.27	0.08	
	average	-0.05	0	-0.3	0.09	-0.25	0.06	
	30 m	0.22	0.05	-0.53	0.28	-0.11	0.01	
Dissolved oxygen	minimum	-0.37	0.14	0.03	0	0.22	0.05	
(mg L-1)	maximum	-0.1	0.01	0.31	0.1	0.26	0.07	
	average	-0.3	0.09	0.03	0	0.39	0.15	
	30 m	-0.49	0.24	0.21	0.04	0.07	0.01	
Density	minimum	0.12	0.02	-0.32	0.1	0.03	0	
(kg m <sup>-3</sup> )	maximum	-0.3	0.09	-0.14	0.02	-0.36	0.13	
	average	-0.05	0	-0.1	0.01	-0.38	0.15	
	30 m	0.27	0.07	-0.49	0.24	-0.18	0.03	
Fluorescence	minimum	0.29	0.08	0.07	0	0.17	0.03	
(mg m <sup>-3</sup> )	maximum	0.35	0.12	0.17	0.03	-0.13	0.02	
	average	0.43	0.18	-0.1	0.01	0.28	0.08	
	2 m	0.21	0.05	-0.34	0.11	-0.05	0	
	30 m	0.24	0.06	-0.07	0	0.27	0.07	
	sum	0.38	0.14	0	0	0.25	0.06	



**Figure S1.** Midwater trawl megaplankton jellyfish distributions in Hood Canal: (**a**) average density (Ind. 100 m<sup>-3</sup>) and (**b**) average biovolume (mL 100 m<sup>-3</sup>) of each species from all trawls for each station-month-year. Pie diameters are sized by total density or biovolume at each station, log scaled as depicted by the symbol legends. The location of Union (UN) station symbols are off-set for visibility.



**Figure S2.** Vertical distributions (Ind m<sup>-3</sup>) of (a) mesoplankton jellyfish and (b) crustacean zooplankton prey at Union during hypoxic conditions in August-October, 2013. Note the different x-axis scales and different depth range of net tows each month.



**Figure S3.** Daytime vertical distribution (Ind m<sup>-3</sup>) of abundant crustacean prey taxa—four orders of copepods, euphausiid early life stages, and other crustaceans—during the 2013 hypoxic events at Union in (**a**) August, (**b**) September, and (**c**) October. Depth range sampled by each net is indicated in each panel. Note the log scaling of x-axes.