

**Table S12:** Pairwise analysis of the OTU richness & assemblage between before, during and after the heatwaves, t statistics included for significant results (t)—PERMANOVA+[7].

Assay	OTU diversity test	Heatwave 1 (5 Months)			Heatwave 2 (17 Months)		
		Before-During	Before-After	During-After	Before-During	Before-After	During-After
Cnidaria	Richness	-	-	-	-	-	-
	Assemblage	* HB t=1.27	*** HB t=1.93	** HB t=1.46	* HB t=1.37	*** HB t=2.12	** HB t=1.48
Copepod 1	Richness	-	* HB t=2.46	** HB t=2.88	-	* HB t=2.71	-
	Assemblage	-	*** HB t=2.19	* t=1.55	** HB t=1.48	*** HB t=2.39	*** HB t=1.75
Copepod 2	Richness	-	-	-	-	-	-
	Assemblage	-	-	-	-	-	* HB t=1.56
Copepod 3	Richness	-	** HB t=2.84	-	** HB t=3.19	* t=2.34	-
	Assemblage	-	** HB t=1.58	-	** HB t=1.55	* HB t=1.48	* HB t=1.51
Crustacea	Richness	* t=2.32	-	-	** HB t=2.95	-	-
	Assemblage	-	-	-	-	-	-
Fish	Richness	-	-	-	-	-	-
	Assemblage	-	-	* HB t=1.44	-	-	-
Mollusca	Richness	-	-	-	-	-	-
	Assemblage	-	** HB t=1.64	** HB t=1.54	** HB t=1.43	** HB t=1.62	** HB t=1.47
Universal	Richness	-	-	-	-	-	-
	Assemblage	-	** HB t=1.59	* t=1.41	-	** HB t=1.68	** HB t=1.64

Where \*\*\* is  $p \leq .001$ , \*\* is  $p \leq .01$ , \* is  $p \leq .05$ , <sup>HB</sup> is significant with Holm-Bonferroni correction & - is no significant change