

Beta Diversity

Data and R code accompanying: Tipping points and interactive effects of chronic human disturbance and acute heat stress on coral diversity

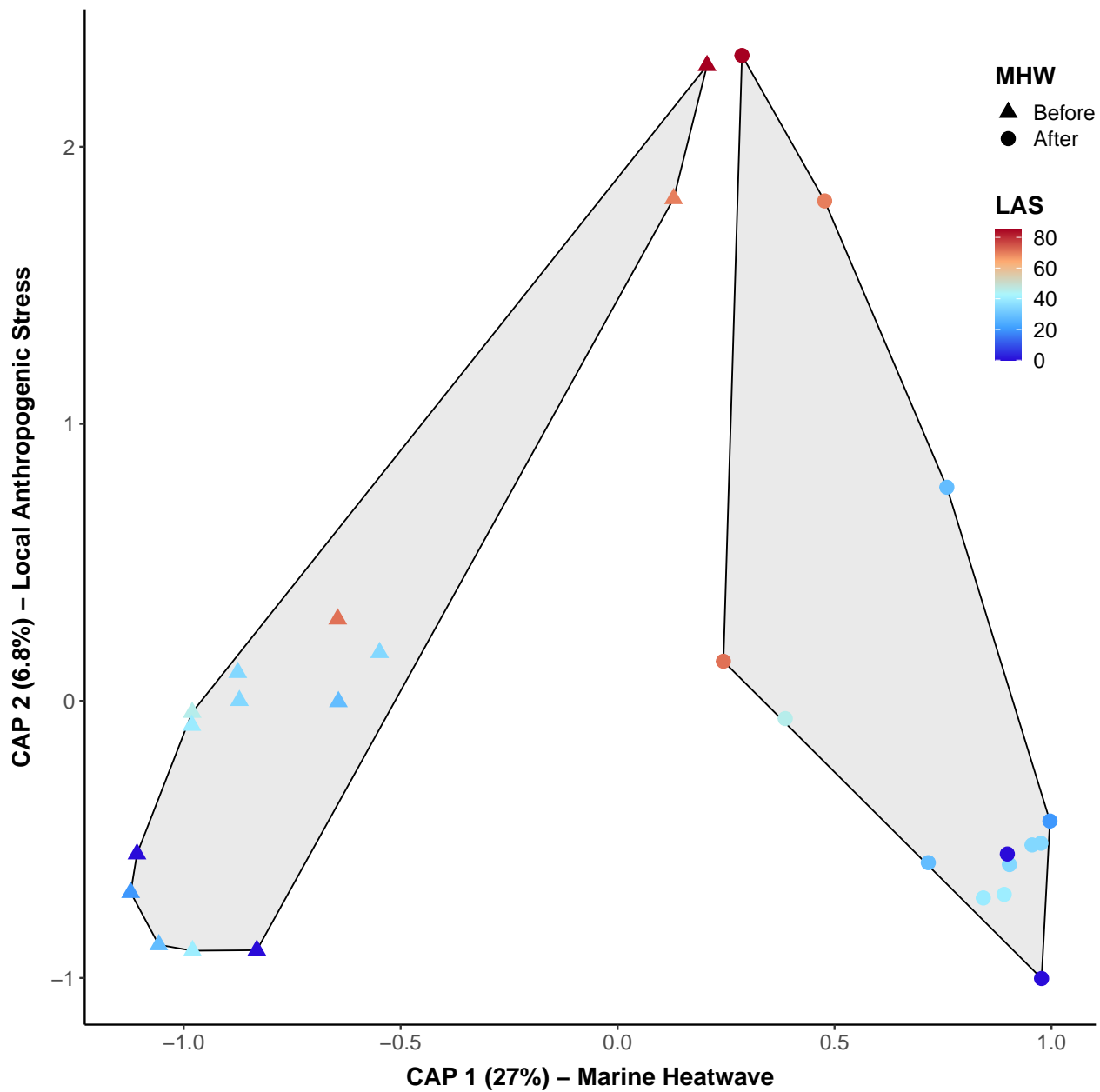
Dominique G. Maucieri, Samuel Starko and Julia K. Baum

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Figure 3



PERMANOVA

```
## Permutation test for adonis under reduced model
## Terms added sequentially (first to last)
## Permutation: free
## Number of permutations: 1000
##
## adonis2(formula = coral_cover ~ coral_variables$MHW * coral_variables$HD_Cont, permutations = 1000)
##
```

	Df	SumOfSqs	R2	F
coral_variables\$MHW	1	2.2697	0.30582	14.0573
coral_variables\$HD_Cont	1	0.5515	0.07431	3.4158

```
## coral_variables$MHW:coral_variables$HD_Cont 1 0.7255 0.09775 4.4934
## Residual 24 3.8751 0.52212
## Total 27 7.4219 1.00000
## Pr(>F)
## coral_variables$MHW 0.000999 ***
## coral_variables$HD_Cont 0.007992 **
## coral_variables$MHW:coral_variables$HD_Cont 0.000999 ***
## Residual
## Total
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Bray-Curtis distance plot

Before

```
## $coef
## b pval
## (Intercept) -0.528811774 0.260
## HD.Diff 0.028811140 0.006
## Dist.Value.km 0.000926663 0.914
##
## $dev
## resid.dev resid.df dev.pval
## 17.13078 88.00000 0.97100

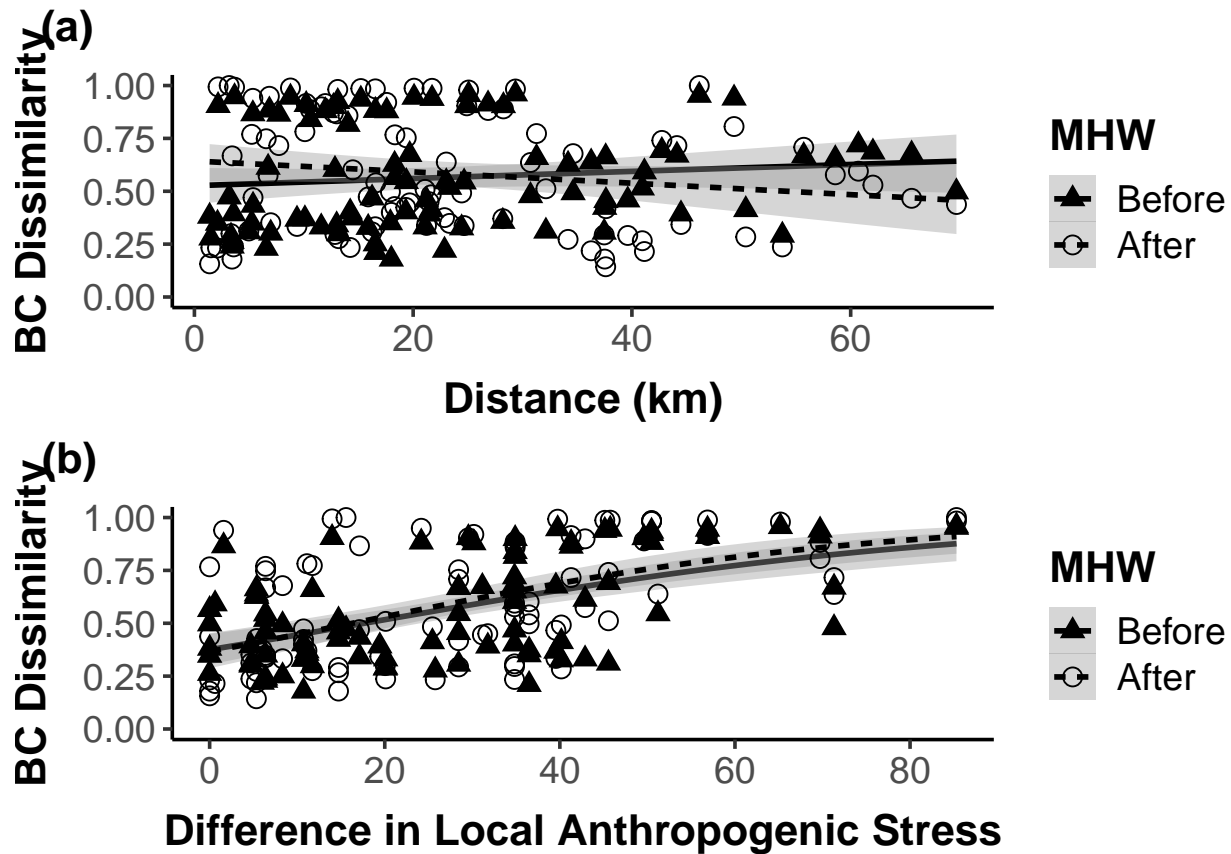
## mantelr pval1 pval2 pval3 llim.2.5% ulim.97.5%
## 0.5559072 0.0020000 0.9990000 0.0020000 0.3534678 0.7262520
```

After

```
## $coef
## b pval
## (Intercept) -0.17965930 0.793
## HD.Diff 0.03686503 0.011
## Dist.Value.km -0.01978352 0.151
##
## $dev
## resid.dev resid.df dev.pval
## 21.83473 88.00000 0.98600

## mantelr pval1 pval2 pval3 llim.2.5% ulim.97.5%
## 0.5440413 0.0050000 0.9960000 0.0050000 0.3931987 0.7108804
```

Figure S7



Stressor Responses

Figure 4 (d)

```
##
## supF test
##
## data: fs.Ari_Beta
## sup.F = 10.221, p-value = 0.06924
##
## Call:
## lm(formula = ARi ~ HD_Cont, data = AR_Beta)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.22759 -0.15571 -0.00499  0.04679  0.36667
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.216255   0.100625   2.149  0.052727 .
## HD_Cont      -0.009891   0.002245  -4.407  0.000856 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
```

Residual standard error: 0.1987 on 12 degrees of freedom
Multiple R-squared: 0.618, Adjusted R-squared: 0.5862
F-statistic: 19.42 on 1 and 12 DF, p-value: 0.0008555

