Corrigendum: Thermally Variable, Macrotidal Reef Habitats Promote Rapid Recovery From Mass Coral Bleaching

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A Corrigendum on

In the original article, there was an error. In the Materials and Methods section, subsection Statistical Analyses, Coral Health Surveys, it was incorrectly stated that the study design for the PERMANOVAs used to analyze coral health and community composition was a balanced design. Six replicate transects were used for all environments and time points, except in the intertidal in January 2016 where $n = 7$ transects were conducted (Le Nohaïc et al., 2017). In order to ensure that this imbalance did not affect assumptions underlying a PERMANOVA (Anderson and Walsh, 2013), we conducted a permutation test for homogeneity of multivariate dispersions using the betadisper function of the vegan package in R (Oksanen et al., 2016) with 999 permutations. The tests revealed that the assumption of homogeneity of multivariate dispersions was indeed fulfilled for both PERMANOVAs that involved the "intertidal January 2016" group (**Table 1**).

A correction has been made to Material and Methods, Statistical Analyses, Coral Health Surveys, the first paragraph:

Coral health and community composition was analyzed using permutational multivariate analysis of variance (PERMANOVAs). Prior to multivariate statistical analysis, count data were converted to percent abundance and square root transformed. The four health categories (UB, M, S, and D) across all coral genera were statistically tested for differences between environments (intertidal, subtidal) and time points (January, April, and October 2016) using two-way PERMANOVAs, the Bray–Curtis similarity index, and 9999 permutations. Transects served as replicates. Six replicate transects were used for all environments and time points, except in the intertidal in January 2016 where $n = 7$ transects were conducted (Le Nohaïc et al., 2017). Since PERMANOVA is largely unaffected by heterogeneity of multivariate dispersions and differences

TABLE 1 | Results from tests for homogeneity of multivariate dispersions for PERMANOVAs assessing (1) the effect of environment and time on coral health across all surveyed coral genera and (2) the effect of time on coral health across all surveyed coral genera in the intertidal only.

	Factor	df	SS	MS	F-value	p-value
(1) Two-way PERMANOVA	Groups	5	19.952	3.991	0.981	0.437
	Residuals	31	126.170	4.070		
(2) One-way PERMANOVA Intertidal	Groups	2	5.607	2.803	0.533	0.609
	Residuals	16	84.115	5.257		

SS, sum of squares, MS, mean square.

in correlation structure in balanced designs (Anderson and Walsh, 2013), we did not specifically test for this when the design was balanced (i.e., all analyses *not* involving the intertidal January 2016 time point). For analyses involving the intertidal January 2016 time point, we conducted a permutation test for homogeneity of multivariate dispersions using the betadisper function of the vegan package in R (Oksanen et al., 2016) with 999 permutations. The tests revealed that the assumption of homogeneity of multivariate dispersions was indeed fulfilled for both PERMANOVAs that involved the "intertidal January 2016" group (**Table 1**).

Additional one-way PERMANOVAs were conducted to (1) to test for the effect of time on coral health across all genera in the intertidal and subtidal, respectively and (2) to compare intertidal and subtidal at the recovery time point (October). *Post hoc* pairwise comparisons were calculated, with p values adjusted using the sequential Bonferroni correction. Principal component analysis was used to visualize the data. The software PAST was used for the PERMANOVA and PCA analyses (Hammer and Ryan, 2001).

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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