Appendix A-supplemental results

Figure S1. *in situ* temperature data from the five study sites over a trailing 12-year period. Note that the gray shading about the smoothed black temperature (left y-axis) lines represents the 95% confidence interval (typically not visible). Also note that for certain reefs (e.g., "Inlet-outside" [E]), *in situ* temperature loggers were not deployed until 2012-2013; see Table 2 for information on how these data were used to compute mean monthly maxima (MMM) for each site (plotted as horizontal orange lines). These MMM were then used to calculate the degree-heating weeks (DHWs; right y-axes) as described in the main text. Please see Figure 3A-E for a more detailed view of the 2020-2021 data.
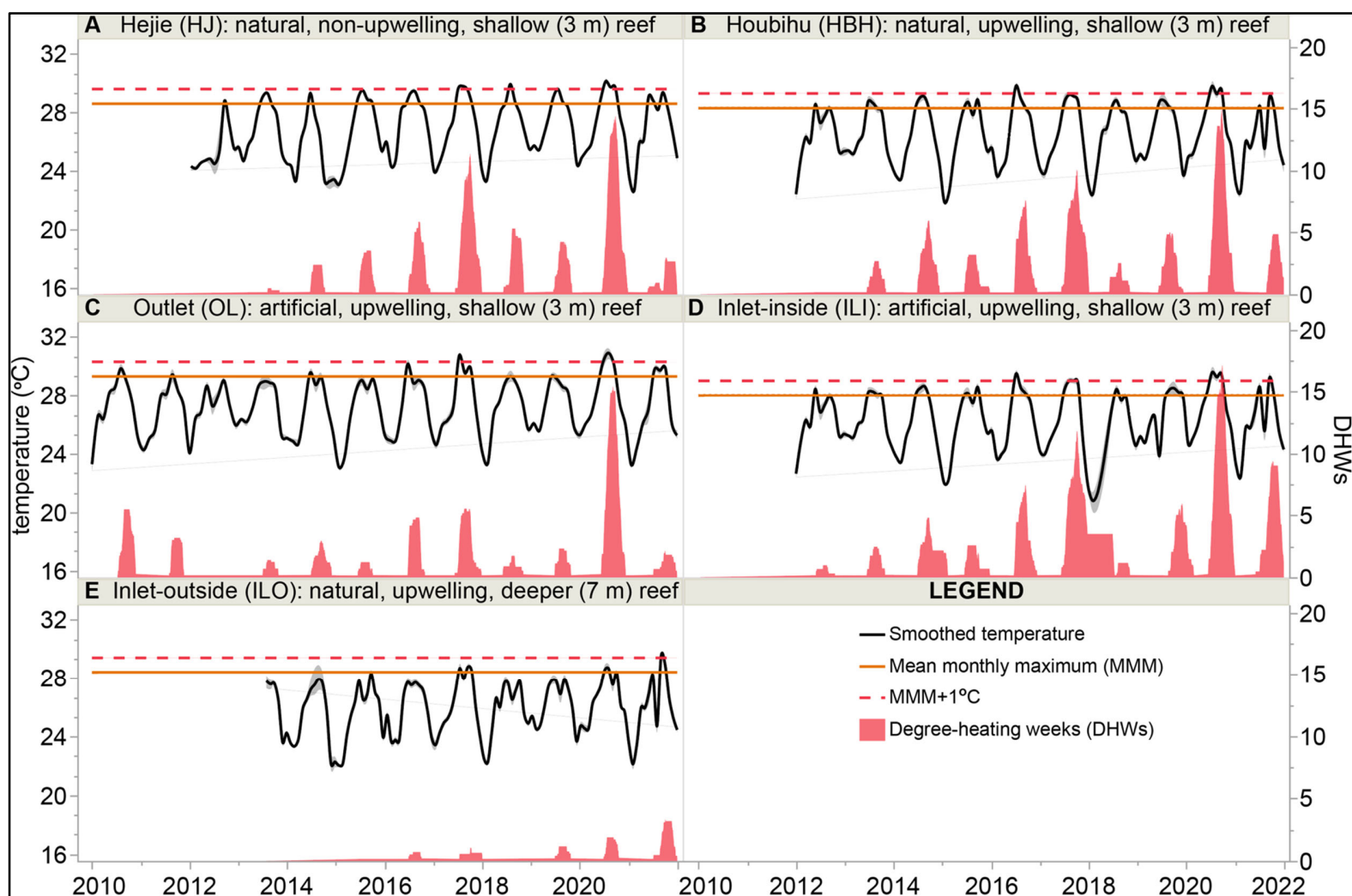
Figure S2. Representative images of photo quadrats of the five fringing reefs before (April) and after (December) the 2020 bleaching event. Note that the images represent the same relative positioning along the permanent transects.
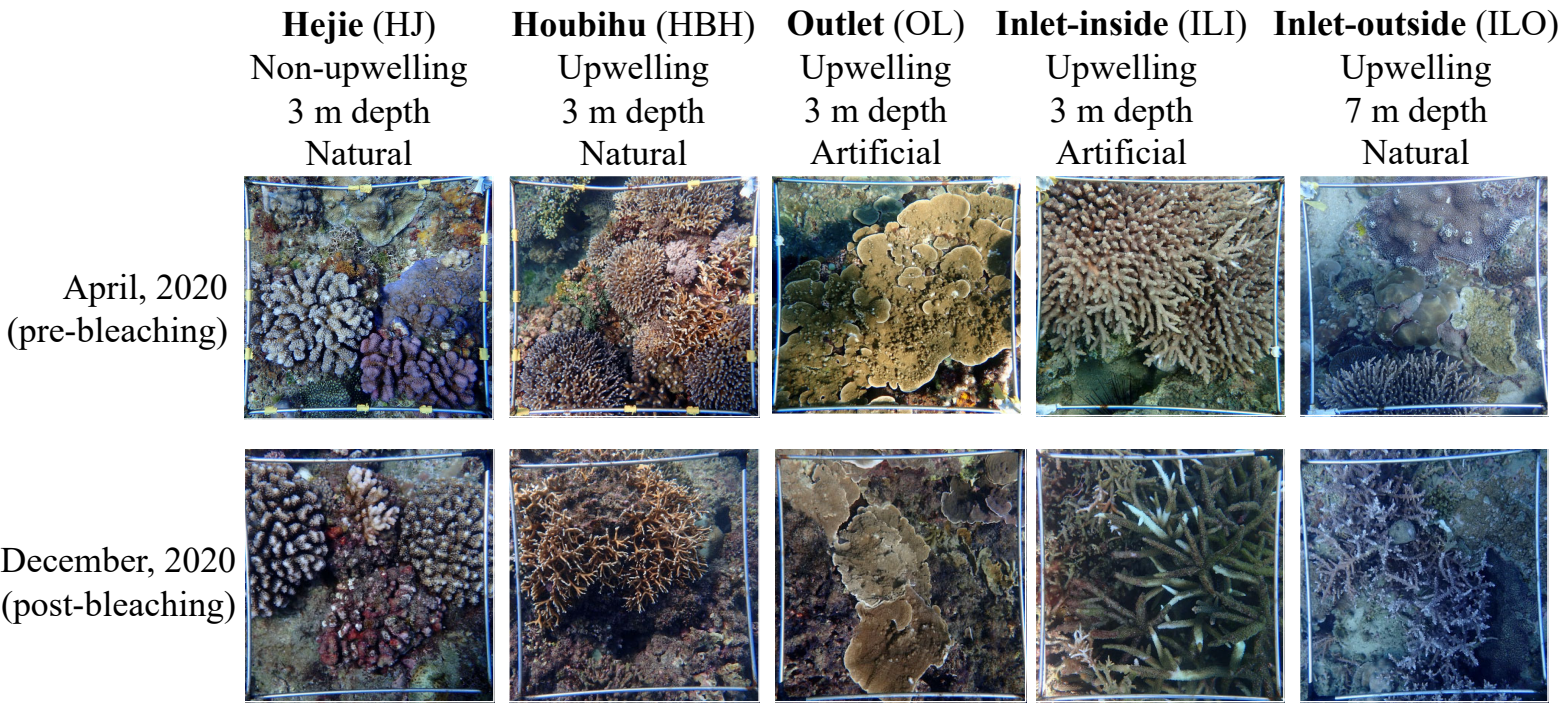
Figure S3. Relative changes in the abundance of reef-building corals across the 18-month monitoring period. Data in cells represent $\log_2$-fold changes (Apr. 2020 vs. Sept. 2021) except for three scenarios: the respective genus was never present at the site ("absent" [A]), the respective genus went locally extinct due to bleaching ("X"), or the respective genus was not found in Apr. 2020 but instead documented post-bleaching (Sept. 2021; upwards-facing green arrow). Several non-scleractinian corals were included: *Heliopora* spp. and *Millepora* spp. Please **see Tables 1-2** for additional details on species' sensitivities to bleaching and emergence post-bleaching.
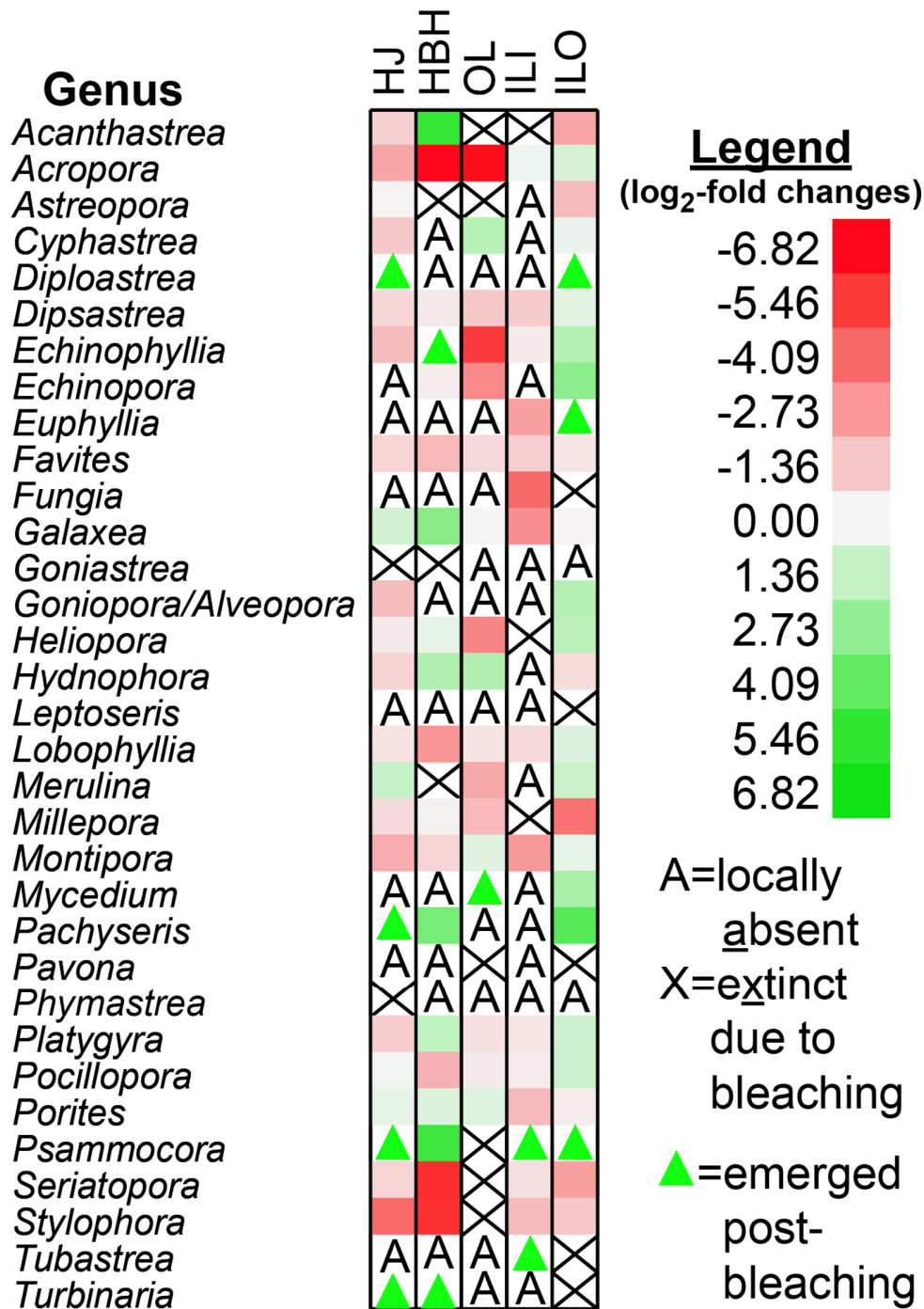
Table S1. Two-way ANOVAs with appended least-square means plots. Please note that transect(site x survey date) was treated as a random effect. Also note that, because the interaction of site and survey date was the main effect of greatest interest, the overall site and time effects are not discussed at length in the main text except for how they frame the timeline of the 2020 bleaching event. Groups with different lowercase letters trailing their names in the "*Post-hoc* test(s)" column reflect Tukey's *post-hoc* differences ($p<0.05$). In the two appended least-square means plots, values represent mean±SEM, with the *post-hoc* differences shown in the table.

Effect	df	*F*	*p*	*Post-hoc* test(s)
Hard coral cover (%)-all corals				
Site	4	16.6	<0.001	ILO(a)=OL(a)=ILI(a)=HJ(a)>HBH(b)
Survey date	4	7.99	<0.001	Sept. 2020(a)=Apr. 2020(a)=Sept. 2021(ab)=Apr. 2021(bc)=Dec. 2020(c)
Site x survey date	16	2.33	<0.01	See main text figures.
Hard coral cover (%)-non-bleached corals only				
Site	4	22.7	<0.0001	ILO(a)>OL(b)=ILI(bc)=HJ(c)>HBH(d)
Survey date	4	26.2	<0.0001	Apr. 2020(a)=Sept. 2021(ab)=Apr. 2021(b)>Dec. 2020(c)=Sept. 2020(c)
Site x survey date	16	3.66	<0.0001	See main text figures.
Bleached coral percentage				
Site	4	16.5	<0.0001	ILI(a)=HJ(ab)=OL(b)=HBH(b)>ILO(c)
Survey date	4	139	<0.0001	Sept. 2020(a)>Dec. 2020(b)>Sept. 2021(c)=Apr. 2021(c)=Apr. 2020(c)
Site x survey date	16	8.65	<0.0001	See main text figures.