Supplemental Table 1. P-values for permutation test for homogeneity of multivariate dispersions. Differences in the compositional variance as calculated through the betadisper function were tested for significance using a permutation test. The permutation tests for significant differences of median distance to centroid. Bold text indicate a p-value that is significant ($p < 0.05$).

	A. rosaria	*P. lutea*	CCA	Turf
A. hyacinthus	**0.014**	**0.021**	**0.003**	**0.001**
A. rosaria		0.994	**0.001**	**0.001**
P. lutea			**0.001**	**0.001**
CCA				0.848
Turf				

Supplemental Table 2. Sample information. Number of sampled bacterial communities for each host and the island they were sampled from.

	A. hyacinthus	*A. rosaria*	*P. lutea*	CCA	Turf
Tabuaeran	0	6	8	8	8
Jarvis	5	0	5	5	8
Kingman	2	3	8	8	8
Kiritimati	0	0	2	1	4
Palmyra	0	6	7	6	6
Teraina	1	1	5	6	4

Supplemental Table 3. *Acropora hyacinthus* OTU level taxonomy assignments and Abundance-Ubiquity test result.

Supplemental Table 4 *Acropora rosaria* OTU level taxonomy assignments and Abundance-Ubiquity test result.

Supplemental Table 5. *Porites lutea* OTU level taxonomy assignments and Abundance-Ubiquity test result.

Supplemental Table 6. CCA OTU level taxonomy assignments and Abundance-Ubiquity test result.

Supplemental Table 7. Turf OTU level taxonomy assignments and Abundance-Ubiquity test result.