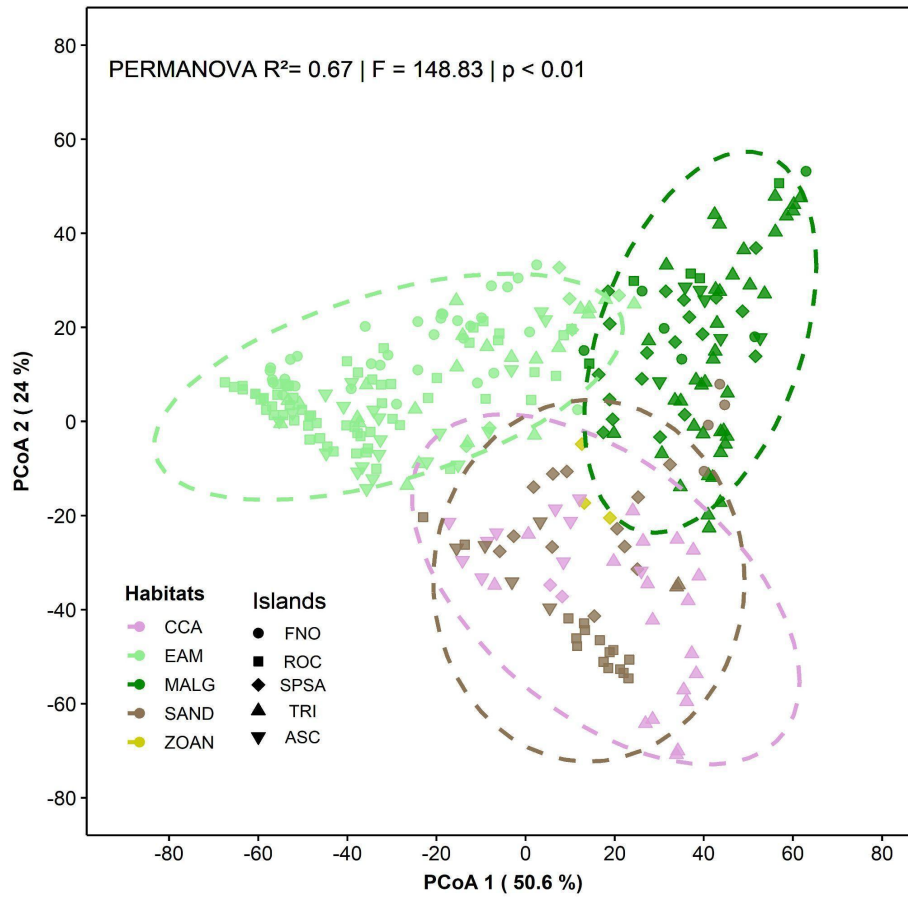
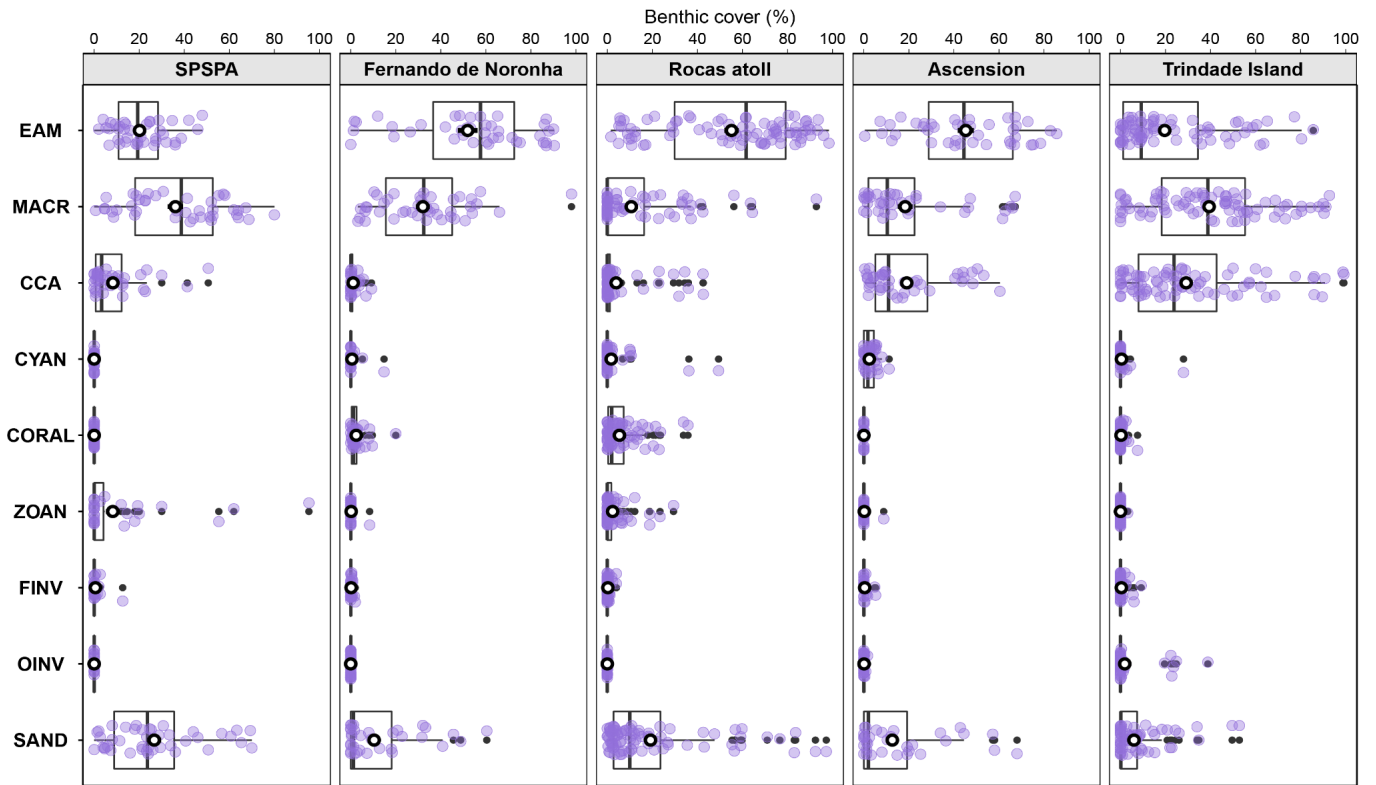


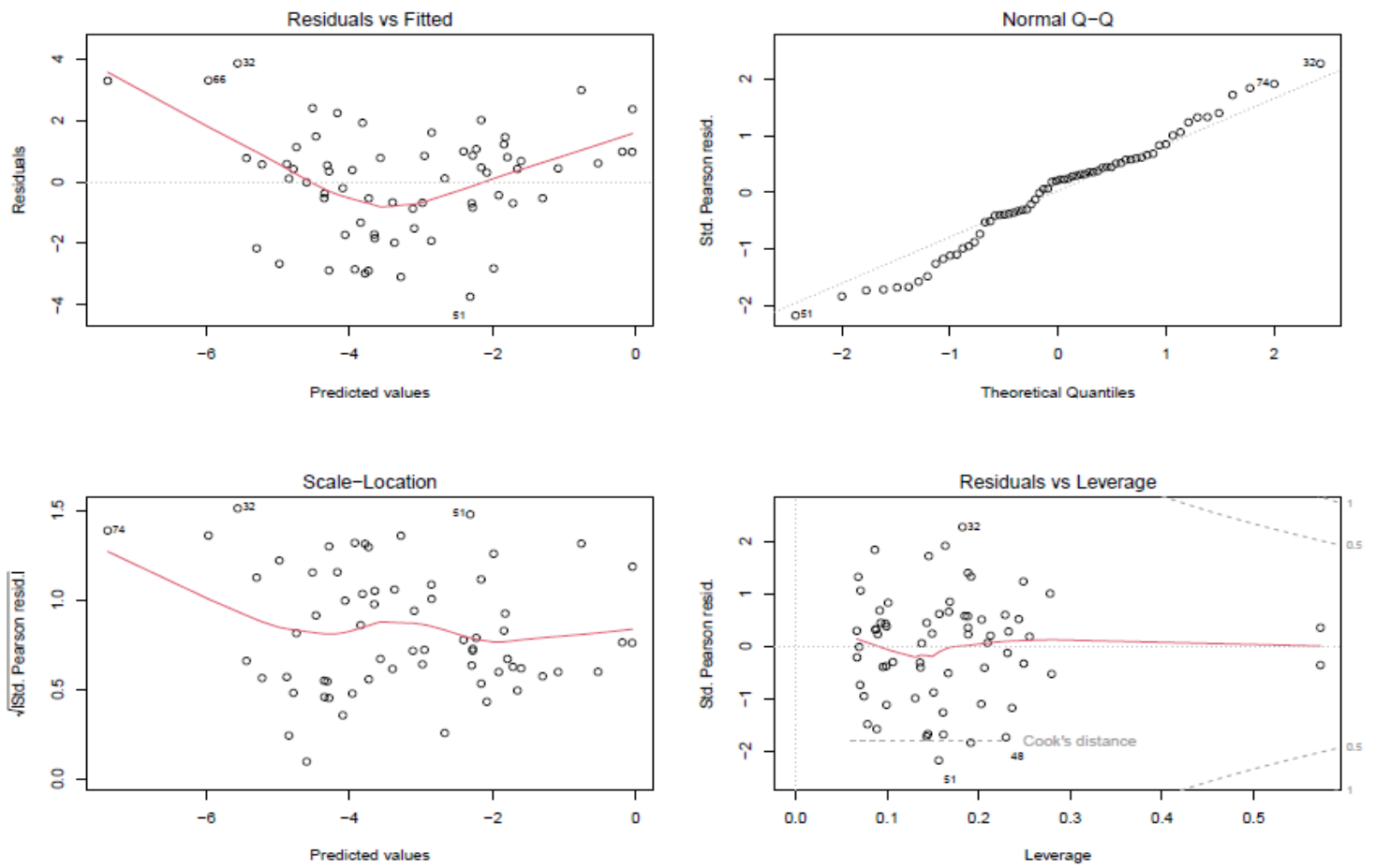
**Fig. S1** - Clustering analysis of habitats group following Euclidean distance (UPGMA clustering method). The dendrogram shows the results of hierarchical clustering, with benthic substrate clustered into five groups based on a 50% distance height. Dendrogram branches are coloured according to benthic habitat. Pink - Crustose Coralline Algae; Light green - Epilithic algae matrix; Dark green - Macroalgae; Brown - Sand; Yellow - Zoanthid.



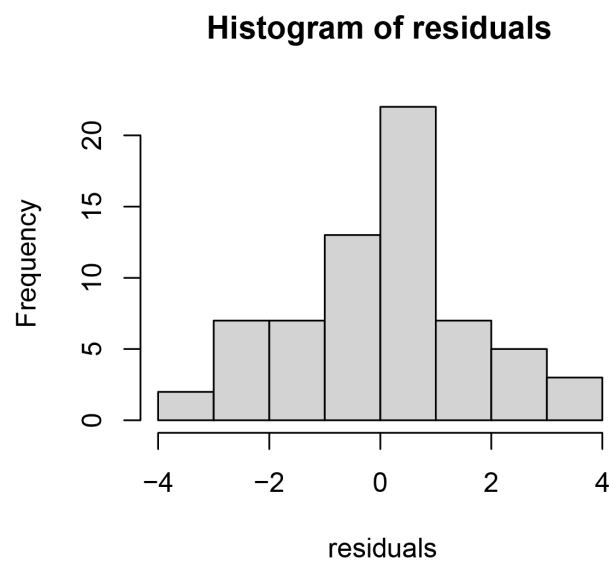
**Fig. S2** - Principal coordinate analysis (PCoA) showing the ordination of samples according to the benthic habitats. Geometric shapes indicate samples on each oceanic island, and colours indicate habitats. Ellipses indicate a 95% confidence interval.



**Fig. S3** - Boxplot and scatter plot showing the cover of nine benthic substrates found on the oceanic island. EAM - Epilithic Algal Matrix, MACR - Macroalgae, CCA - Crustose Coralline Algae, CYAN - Cyanobacteria, ZOAN - Zoanthid, FINV - Filter/suspension feeders, OINV - Other invertebrates. Each purple circle represents a RUV and the cover (%) of a benthic component in that RUV. White circles and black lines indicate the mean and standard error, respectively. SPSA (St Peter and St Paul’s Archipelago).



**Fig. S4** - Validation of the General Linear Model (GLM).



**Fig. S5** - Residual histogram.

**Table S1** - Summary General Linear Model (GLM). Relationships of mean biomass of reef fish, habitats and fish trophic group.

<b>Coefficients:</b>	<b>estimate</b>	<b>std. Error</b>	<b>t value</b>	<b>pr(&gt; t )</b>
<b>(intercept)</b>	<b>-3.5843</b>	<b>0.5837</b>	<b>-6.141</b>	<b>9.52e-08 ***</b>
<b>Log(mean_biomass)</b>	<b>0.5265</b>	<b>0.1460</b>	<b>3.606</b>	<b>0.000672 ***</b>
Habitats 2	0.3266	0.6235	0.524	0.602449
Habitats 3	0.8018	0.7230	1.109	0.272235
Habitats 4	1.5539	0.8859	1.754	0.084991
Habitats 5	2.0289	1.4688	1.381	0.172755
Macroalgivore	-1.2464	0.9983	-1.249	0.217126
<b>Mobile invertebrate</b>	<b>-1.7659</b>	<b>0.6046</b>	<b>-2.921</b>	<b>0.005056 **</b>
Omnivore	-1.0312	0.8487	-1.215	0.229548
Sessil invertebrate	-0.2455	0.8961	-0.274	0.785129
Territorial herbivore	-0.2977	0.9403	-0.317	0.752753