

TABLE S7 | Results of the SIMPER analysis highlighting the species that contributed most to the dissimilarity between shallow (SH), upper (UP) and lower mesophotic (LO) communities from Fernando de Noronha Archipelago (FNA) and Saint Peter and Saint Paul Archipelago (SPSPA).

Location	Depth	Species	Average contribution	Standard deviation (SD)	Mean group A	Mean group B	Cumulative
FNA	SH vs. UP	<i>Bodianus pulchellus</i>	4%	0.034	0.1	7.7	0.8
		<i>Carangoides bartholomaei</i>	1%	0.014	0.2	1.9	0.9
		<i>Haemulon parra</i>	1%	0.020	0.0	1.8	1.0
		<i>Holocentrus adscensionis</i>	7%	0.117	0.5	15.5	1.0
		<i>Mulloidichthys martinicus</i>	3%	0.044	0.0	4.2	1.0
		<i>Myripristis jacobus</i>	3%	0.030	0.2	5.5	1.0
		<i>Stegastes pictus</i>	1%	0.014	0.1	1.2	1.0
		<i>Thalassoma noronhanum</i>	5%	0.051	11.9	3.9	1.0
FNA	LO vs. SH	<i>Abudefduf saxatilis</i>	3%	0.041	0.0	4.5	0.2
		<i>Acanthurus chirurgus</i>	2%	0.033	0.1	3.0	0.3
		<i>Acanthurus coeruleus</i>	1%	0.016	0.3	1.4	0.5
		<i>Anisotremus surinamensis</i>	0%	0.006	0.0	0.3	0.7
		<i>Cephalopholis fulva</i>	2%	0.018	0.7	3.1	1.0
		<i>Chromis vanbeberae</i>	12%	0.142	19.2	0.0	1.0
		<i>Dermatolepis inermis</i>	0%	0.006	0.4	0.1	1.0
		<i>Haemulon aurolineatum</i>	0%	0.008	0.0	0.4	1.0
		<i>Haemulon chrysargyreum</i>	0%	0.005	0.0	0.2	1.0
		<i>Lutjanus jocu</i>	1%	0.010	0.9	0.1	1.0
		<i>Malacoctenus lianae</i>	1%	0.015	0.0	0.7	1.0
		<i>Melichthys niger</i>	9%	0.094	0.0	11.8	1.0
		<i>Ophioblennius trinitatis</i>	2%	0.038	0.0	2.0	1.0
		<i>Parablennius marmoreus</i>	0%	0.011	0.0	0.5	1.0
		<i>Prognathodes guyanensis</i>	0%	0.009	0.6	0.0	1.0
		<i>Sparisoma axillare</i>	0%	0.008	0.0	0.5	1.0
		<i>Sparisoma frondosum</i>	1%	0.012	0.1	1.1	1.0
		<i>Stegastes rocasensis</i>	5%	0.048	0.0	6.8	1.0
<i>Thalassoma noronhanum</i>	8%	0.073	0.0	11.9	1.0		
<i>Tosanoides aphrodite</i>	6%	0.089	6.2	0.0	1.0		
FNA	LO vs. UP	<i>Amblycirrhitus pinos</i>	0%	0.003	0.0	0.1	0.6
		<i>Bodianus pulchellus</i>	4%	0.042	1.1	7.7	0.8
		<i>Bodianus rufus</i>	0%	0.005	0.0	0.3	0.9
		<i>Canthigaster figueiredoi</i>	0%	0.004	0.0	0.2	0.9
		<i>Carangoides bartholomaei</i>	2%	0.019	0.0	1.9	0.9
		<i>Caranx hippos</i>	0%	0.001	0.0	0.1	0.9
		<i>Caranx latus</i>	1%	0.030	0.0	1.2	0.9
		<i>Chromis vanbeberae</i>	0%	0.001	0.0	0.1	1.0
		<i>Clepticus brasiliensis</i>	0%	0.002	0.0	0.1	1.0
		<i>Elacatinus phthirophagus</i>	0%	0.004	0.0	0.2	1.0
		<i>Haemulon parra</i>	2%	0.027	0.0	1.8	1.0
		<i>Heteroconger camelopardalis</i>	0%	0.005	0.0	0.1	1.0
		<i>Holocentrus adscensionis</i>	8%	0.137	0.8	15.5	1.0
		<i>Mulloidichthys martinicus</i>	4%	0.059	0.0	4.2	1.0
		<i>Mycteroperca bonaci</i>	0%	0.003	0.0	0.1	1.0
		<i>Myripristis jacobus</i>	4%	0.037	0.1	5.5	1.0
		<i>Paranthias furcifer</i>	14%	0.130	19.2	15.2	1.0
		<i>Pomacanthus paru</i>	0%	0.005	0.0	0.3	1.0
		<i>Pseudupeneus maculatus</i>	0%	0.011	0.0	0.6	1.0
		<i>Sphyaena barracuda</i>	0%	0.004	0.1	0.4	1.0
<i>Stegastes pictus</i>	1%	0.018	0.0	1.2	1.0		
<i>Trachinotus falcatus</i>	0%	0.008	0.0	0.3	1.0		

TABLE S7 | (Continued)

Location	Depth	Species	Average contribution	Standard deviation (SD)	Mean group A	Mean group B	Cumulative
SPSPA	SH_UP	<i>Aluterus scriptus</i>	0%	0.004	0.5	0.2	0.6
		<i>Cantherhines macrocerus</i>	0%	0.005	0.8	1.3	0.9
		<i>Canthidermis sufflamen</i>	0%	0.007	0.0	0.8	0.9
		<i>Caranx crysos</i>	0%	0.020	0.0	1.8	1.0
		<i>Azurina multilineata</i>	0%	0.096	60.1	50.2	1.0
		<i>Elagatis bipinnulata</i>	4%	0.062	0.0	10.0	1.0
		<i>Halichoeres radiatus</i>	0%	0.006	1.0	0.2	1.0
		<i>Kyphosus</i> spp.	0%	0.005	0.4	0.7	1.0
		<i>Muraena pavonina</i>	1%	0.006	1.1	1.0	1.0
		<i>Stegastes sanctipauli</i>	5%	0.041	12.5	8.5	1.0
SPSPA	LO vs. SH	<i>Aluterus scriptus</i>	0%	0.006	0.1	0.5	0.7
		<i>Aulostomus strigosus</i>	0%	0.007	0.0	0.2	0.9
		<i>Azurina multilineata</i>	41%	0.123	3.6	60.1	1.0
		<i>Bodianus insularis</i>	2%	0.026	2.6	0.5	0.9
		<i>Cantherhines macrocerus</i>	1%	0.006	0.6	0.8	1.0
		<i>Caranx lugubris</i>	5%	0.075	0.7	6.7	1.0
		<i>Chaetodon striatus</i>	0%	0.002	0.0	0.1	1.0
		<i>Choranthias salmopunctatus</i>	5%	0.039	7.4	0.0	1.0
		<i>Enchelycore nigricans</i>	0%	0.003	0.1	0.1	1.0
		<i>Halichoeres radiatus</i>	1%	0.009	0.0	1.0	1.0
		<i>Holacanthus ciliaris</i>	1%	0.007	0.9	0.5	1.0
		<i>Malacoctenus lianae</i>	0%	0.009	0.0	0.5	1.0
		<i>Melichthys niger</i>	10%	0.045	0.2	14.5	1.0
		<i>Muraena pavonina</i>	1%	0.008	0.4	1.1	1.0
<i>Prognathodes obliquus</i>	4%	0.023	4.5	0.0	1.0		
<i>Rypticus saponaceus</i>	0%	0.003	0.2	0.2	1.0		
<i>Stegastes sanctipauli</i>	8%	0.064	0.5	12.5	1.0		
SPSPA	LO vs. UP	<i>Cantherhines macrocerus</i>	1%	0.007	0.6	1.3	1.0
		<i>Canthidermis sufflamen</i>	1%	0.011	0.0	0.8	1.0
		<i>Caranx crysos</i>	1%	0.030	0.0	1.8	1.0
		<i>Choranthias salmopunctatus</i>	8%	0.078	7.4	7.0	1.0
		<i>Azurina multilineata</i>	33%	0.162	3.6	50.2	1.0
		<i>Elagatis bipinnulata</i>	6%	0.090	0.0	10.0	1.0
		<i>Holacanthus ciliaris</i>	1%	0.007	0.9	1.0	1.0
		<i>Melichthys niger</i>	10%	0.064	0.2	12.8	1.0
		<i>Muraena pavonina</i>	1%	0.007	0.4	1.0	1.0
		<i>Prognathodes obliquus</i>	3%	0.021	4.5	1.0	1.0
<i>Stegastes sanctipauli</i>	7%	0.069	0.5	8.5	1.0		

Neotropical Ichthyology



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