

Supplementary Data 2—Biomass data matrix.

Genera	Trench #-meters above the base of the outcrop - all masses in					
	1-0.0	3-0.45	6-1.0	8-1.4	9-1.65	10-1.9
<i>Phestia</i>	0.29364	0.05987	1.1339	0.21205	0.48435	0.2765
<i>Myalina</i>	0	0	0	0	0	0
<i>Aviculopectin</i>	0	0	0	0	0	0
<i>Astartella</i>	1.46961	1.45886	3.41564	1.75767	2.65194	2.12502
<i>Nuculopsis</i>	0.11431	0.25145	0.30618	0	0.12425	0.15294
<i>Wilkingia</i>	0	0	0.03131	0	0	0
<i>Palaeoneilo</i>	0.90729	0	1.26008	0	0	0
<i>Pteronites</i>	0	0	0	0.42899	0	0
<i>Paleyoldia</i>	2.58508	0	0.62255	0.92868	2.01472	0.09401
<i>Euphemites</i>	0.69634	4.09354	0.56944	2.23892	2.48599	1.47361
<i>Knightites</i>	0.14839	0	0.02614	0.09755	0.24361	0.1654
<i>Pharkidanotus</i>	0	0	0	0.08801	0.21761	0
<i>Staparollus</i>	0.05811	0.29787	0.67695	2.09332	0.80755	0.15975
<i>Trepostira</i>	1.17995	0.5107	0.05513	0.52255	0.09199	0.78911
<i>Phymatopleura</i>	0.10507	0.1277	0.24976	0.41277	0.10092	0.14361
<i>Platyceras</i>	0	0	0	0	0	0
<i>AlphaGlabrocingulum</i>	0	2.45442	0.47757	0.08064	0.43622	2.3659
<i>BetaGlabrocingulum</i>	0.09859	0.37689	0.37162	2.0911	0.08296	0.48124
<i>Retispira</i>	0	0	0	0	0	0
<i>Meekospira</i>	0	0	0	0	1.30577	0.68654
<i>Strobeus</i>	0	0	0	0.07405	0	0.04139
<i>Streptacis</i>	0	0	0	0	0	0
<i>Paleostylus</i>	0	0	0	0	0	0.04976
<i>Turbinopsis</i>	0	0	0	0	0	0
<i>Worthenia</i>	0	0.21472	0	0	0	0
<i>Crurithyris</i>	24.9015	26.4219	23.2973	27.2702	13.592	21.6079
<i>Rhipidomella</i>	0.02182	0.0075	0	0	0.01909	0.00189
<i>Alpha-Neochonetes</i>	1.47965	2.76718	6.18236	2.31219	4.72421	5.95455
<i>Beta-Neochonetes</i>	0	0	0	0	0.12054	0.30235
<i>Hustedia</i>	0.56006	0.12881	1.68825	0.10926	1.19736	3.51575
<i>Retaria</i>	0.01191	0	2.70718	1.2873	0	6.04491
<i>Cancrinella</i>	0	0.17165	0.09441	0.05006	0.65776	2.22519
<i>Hystriculina</i>	0	0	0.39049	0.06129	0.88555	3.29006
<i>Phricidothyris</i>	0	0	0.07753	0	0	0
<i>Cleiothyridina</i>	0	0	0.05788	0	0.16367	0.14859
<i>Derbyia</i>	0	0.01407	0	0	0.0261	0
<i>Composita</i>	0	0	0	0.12693	0.46087	0.26643
<i>Dielasma</i>	0	0	0	0	0.12936	10.0404
<i>Wellerella</i>	0	0	0	0	0	0.20584
<i>Pulchratia</i>	0	0	0	0	0.4025	0.01647
<i>Punctospirifer/Spiriferinella</i>	0	0	0	0	0	1.01206
<i>Linoproductus</i>	0	0	0	0	0.03104	0.1144
<i>Heterolosia</i>	0	0	0	0	0.0372	0
<i>Reticulata</i>	0	0	0	0	0	0
<i>Eridmatus</i>	0	0	0	0	0	0
<i>Meekella</i>	0	0	0	0	0	0.01271

<i>Prodentium</i>	0	0	0	0	0	0
A-Columnal	0	0.76801	1.61489	0.09184	0.42518	0.10533
B-Columnal	0.03148	0.83975	0.26565	0.16755	0.02543	0.05683
C-Columnal	0	0.10527	0.04616	0	0	0
D-Columnal	0	0	0	0	0	0
E-Columnal	0	0	0	0	0	0
F-Columnal	0	0	0	0	0	0
G-Columnal	0	0	0	0	0	0
<i>Polypora</i>	0	0	0	0	0	0.01819
<i>Pinnatopora</i>	0	0	0	0	0	0
<i>Acanthocladia</i>	0	0	0	0	0	0
<i>Septopora</i>	0	0.02746	0.0084	0	0	0
<i>A-Fistulipora</i>	0	0	0	0	0	0
<i>B-Fistulipora</i>	0	0.04652	0.26664	0	0	0
<i>A-Fenestella</i>	0	0	0	0	0	0.14805
<i>B-Fenestella</i>	0	0	0	0	0	0.018
F-Sheet-like	0	0	0	0	0	0
A-Sheet-like	0	0	0	0	0	0
<i>A-Tabulipora</i>	0	0	0	0	0	0
<i>B-Tabulipora</i>	0	0	0	0	0	0
<i>Lioclema</i>	0	0	0	0	0	0
<i>Cistodictya</i>	0	0	0	0	0.00181	0
<i>A-Rhombopora</i>	0	0	0	0	0	0
<i>B-Rhombopora</i>	0	0	0	0	0	0
<i>Rhabdomeson</i>	0	0	0	0	0	0.02491
<i>Eoasianites</i>	0	0	0	0	0	0
<i>Archaeocidaris</i>	0	0	0	0	0	0
Coral-Rugose	0.08866	5.95268	0.43954	0	0.20977	0
Total Biomass (g)	35	47	46	43	34	64
Richness	18	22	27	22	31	36
Evenness	0.419	0.526	0.583	0.493	0.653	0.639
Shannon's Information Index	1.211	1.627	1.921	1.523	2.242	2.291
Simpson's Diversity	0.4748	0.6537	0.7156	0.5742	0.8024	0.834

1 grams

10-2.1	12-2.4	12-2.55	13-2.75	13-3.0	14-3.3	16-3.9
0.01187	0.06678	0.15364	0.15005	0.16066	0.04633	0
0	0	0.62974	0	0	0	0
0	0.012	0.03798	0	0	0	0
0.39955	0.16668	0.30069	0.1958	0.37209	1.41477	0.4317
0	0	0.18296	0.03582	0.1046	0.05722	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
1.30606	0.42552	0.589	0.11589	1.5713	2.3324	0
0.09179	0	0.17944	0.0482	0.11926	0.11187	0
0	0.45783	0.03246	0.19772	0.49536	0.22648	0
0.33636	0.18878	0.43966	0.30617	1.15796	0.07128	0.10704
0.04277	0.38054	0.95964	0.03762	0	0	0
0	0.26115	0.10588	0.1655	1.63039	1.63575	0.43521
0	0	0	0.17751	0.26431	0.16816	0.06321
0.07975	0.25217	0.47094	0.18516	0	0	0
0.25788	1.12794	1.13901	0.31277	1.62673	1.8662	0.03932
0	0	0	0	0.09685	0	0
0	0	0	0	0	0	0
0.04139	2.80073	0	0	0.24712	0.25311	0
0	0	0	0	0	0.01944	0
0	0.05688	2.96714	0	0	0.10714	0.04188
0	0	0	0	0.01862	0	0
0	0	0	0	0	0	0
10.9441	2.05206	3.59633	3.13105	4.92296	10.1751	0.41691
0.0341	14.1959	3.05846	6.78285	43.8572	47.6679	1.1614
2.99875	4.48082	9.84747	3.95604	3.16987	5.61998	1.2926
0.19022	0.74088	1.04576	1.50529	1.76335	1.68003	0.04414
0.82165	2.40289	5.32325	4.4231	3.64144	3.64796	0.88041
0	9.34151	4.53449	0.4626	0.9383	1.2023	0.01869
0.175	0.71554	0.63864	0.54791	0.8554	0.35638	0
0.2633	3.21058	15.3548	4.16336	3.92532	0.90532	0.05696
0	0.45163	0.18022	0	0	0	0.04915
0.04308	4.73822	1.81255	0.18972	0.08815	0.60912	0.01143
0.01745	0.33163	0.82819	0.33227	0.17765	0.59224	0.73725
0.07825	1.29074	10.1947	0.80668	0.71596	0.25018	0.45574
0.05695	0.62875	0.26289	0.29945	0.13457	0.07614	0
0	0.20934	2.30744	3.65764	2.14291	2.87776	0.30026
14.3969	0.30377	19.9008	1.91707	0.2931	1.69509	0.19299
0	0.83662	0.78021	1.13439	0.92402	2.6711	1.28356
0.06002	0	37.606	0	0.34979	0.05031	0
0	0	0	0	0	0	0
0	0	0	0.74091	0.24906	0	0.01898
0	0	0	0	0	0	0.289
0	0	0	0	0	0	0

0	0	0	0.0472	0.15838	0.16548	0
0.07943	0.22966	3.30269	1.23993	0.85016	1.05617	0.79636
0	0	0.11622	0.52238	1.68488	6.09994	11.2068
0	0	0.02237	0.05049	0	0	0
0	0.11537	0	0	0	0.01817	0.06922
0	0.09298	0	0	0	0	0
0	0	0	0	0	2.28745	6.87658
0	0	0	0	0	0	0.05232
0	0.19864	0.58349	0.2445	0.90749	1.10231	0.88815
0	0	0	0	0	0.00689	0
0	0	0	0	0	0.17745	0.37324
0	0	0.04551	0	0.04386	0.30451	0.35363
0	0	0.01838	0.38602	0.31033	0.92625	0.18927
0.03084	0	0	0	0	0	0
0	0	0.00751	0.29974	0.25345	0.73056	0.12184
0	0	0.02072	0.30308	0	0.06195	0.09517
0	0	0	0	0.03216	0	0
0	0	1.4534	1.30577	0.47189	0.82872	3.40037
0	0	0	0.89593	0.1946	0.28196	0.89771
0	0	0.02144	0.10227	0.17232	0	0
0	0	0.03963	0.0277	0	0.02785	0.0808
0	0	0.01856	0.09702	0.0026	0.1104	0
0	0	0	0	0	0	2.87086
0	0	0	0	0	0.34653	0.20785
0	0	0	0	0.03877	0.00839	0
0.06308	0	0	0	0	0	0
0	0	0	0	0	0.08263	3.39046
0.047	1.30443	0.81369	1.83716	4.42474	4.11752	10.2914
33	54	132	43	86	107	50
26	33	44	42	44	49	40
0.476	0.732	0.663	0.793	0.581	0.61	0.69
1.552	2.559	2.51	2.963	2.199	2.374	2.544
0.6862	0.8743	0.8646	0.9258	0.7225	0.7802	0.8746