

Trophic ecology of the gopher rockfish *Sebastes carnatus* inside and outside of central California marine protected areas

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This supplement contains pooled diet information for all gopher rockfish examined in this study.

Table S1. Diet composition of the gopher rockfish. Diet indices include average percent number (%N), average percent weight (%W), percent occurrence (%O), percent prey-specific number (%PSN), percent prey-specific weight (%PSW), and percent prey-specific index of relative importance (%PSIRI). Bold values represent sums for each phylum or group. †Indicates only mature females identified. *Indicates values < 0.01.

Lowest Identification	%N	%W	%O	%PSN	%PSW	%PSIRI
Arthropoda	73.19	66.89				70.04
<u>Pisidae</u>						
<i>Scyra acutifrons</i> †	2.59	3.76	6.90	37.58	54.55	3.18
Unidentified pisid	10.27	11.44	30.99	33.15	36.91	10.85
<u>Canceridae</u>						
<i>Cancer antennarius</i>	6.11	10.45	18.31	33.35	57.06	8.28
<i>Cancer</i> sp.	4.51	3.85	16.62	27.14	23.18	4.18
<i>Cancer jordani</i>	1.55	2.56	5.92	26.25	43.19	2.05
<i>Cancer productus</i>	0.46	0.22	1.83	25.36	12.24	0.34
<i>Cancer branneri</i>	0.01	0.05	0.14	8.33	34.46	0.03
Mysidacea	10.11	4.35	13.94	72.51	31.19	7.23
<u>Porcellanidae</u>						
<i>Pachycheles</i> sp.	4.00	3.70	13.52	29.56	27.35	3.85
<i>Pachycheles pubescens</i>	1.27	1.53	3.52	36.01	43.33	1.40
<i>Pachycheles rudis</i>	0.07	0.14	0.56	12.64	25.66	0.11
<i>Petrolisthes eriomereus</i>	0.81	0.69	2.54	32.11	27.30	0.75
<i>Petrolisthes</i> sp.	0.52	0.28	2.96	17.57	9.46	0.40
Unidentified porcellanid	0.18	0.14	0.70	25.56	20.09	0.16
<u>Hippolytidae</u>						
<i>Spirontocaris prionota</i>	1.78	0.99	8.73	20.38	11.28	1.38
<i>Heptacarpus</i> sp.	0.45	0.61	1.27	35.37	48.08	0.53
Unidentified hippolytid	4.37	2.27	18.45	23.68	12.30	3.32

Lowest Identification	%N	%W	%O	%PSN	%PSW	%PSIRI
<u>Alpheidae</u>	1.73	2.38	5.49	31.56	43.36	2.06
<i>Alpheus clamator</i>	0.38	0.45	1.55	24.74	29.36	0.42
<i>Betaeus setosus</i>	0.10	0.05	0.99	10.15	5.37	0.08
<i>Synalpheus lockingtoni</i>	0.02	0.01	0.14	14.29	5.35	0.01
Unidentified alpheid	0.28	0.32	1.69	16.65	18.74	0.30
<u>Pandalidae</u>						
<i>Pandalus</i> sp.	1.93	2.91	7.89	24.46	36.90	2.42
<u>Epialtidae</u>						
<i>Pugettia richii</i>	1.70	2.29	4.37	38.84	52.41	1.99
<i>Pugettia</i> sp.	1.08	0.99	4.08	26.34	24.16	1.03
<i>Pugettia gracillis</i>	0.65	0.70	2.54	25.62	27.56	0.67
<i>Pugettia producta</i>	0.26	0.16	0.99	26.80	15.94	0.21
<i>Mimulus foliatus</i>	0.34	0.66	1.27	26.95	52.29	0.50
<u>Panopeidae</u>						
<i>Lophopanopeus bellus</i>	1.06	1.25	3.52	30.01	35.44	1.15
<u>Crangonidae</u>						
<i>Crangon</i> sp.	1.13	0.64	4.93	22.86	13.03	0.88
<u>Amphipoda</u>						
Gammaridea	1.38	0.18	5.92	23.28	3.04	0.78
Caprellidae	0.45	0.02	2.39	18.73	0.78	0.23
<u>Xanthidae</u>						
<i>Paraxanthias taylori</i>	0.49	0.74	1.27	38.70	58.19	0.61
<u>Isopoda</u>						
<i>Idotea resecata</i>	0.26	0.38	0.85	31.15	44.66	0.32
<i>Idotea</i> sp.	0.46	0.18	1.83	24.86	10.06	0.32
<i>Idotea rufescens</i>	0.18	0.11	0.56	32.74	19.07	0.15
Unidentified isopod	0.80	0.36	4.08	19.60	8.76	0.58
<u>Lithodidae</u>						
<i>Phyllolithodes papillosus</i>	0.37	0.76	1.69	22.14	45.23	0.57
<i>Cryptolithodes typicus</i>	0.12	0.16	0.42	28.89	38.64	0.14
<i>Hapalogaster cavicauda</i>	0.05	0.14	0.14	33.33	99.03	0.09
<u>Paguridae</u>						
<i>Pagurus granosimanus</i>	0.09	0.04	0.28	33.33	13.99	0.07
Unidentified pagurid	0.62	0.31	3.24	19.22	9.44	0.46
<u>Grapsidae</u>						
<i>Hemigrapsus nudus</i>	*	0.12	0.14	1.27	81.85	0.06
<u>Parthenopidae</u>						
<i>Heterocrypta occidentalis</i>	0.05	0.04	0.14	33.33	28.36	0.04
Unidentified shrimp	5.05	1.14	17.75	28.47	6.44	3.10
Unidentified crab	2.85	2.32	10.42	27.34	22.23	2.58
Unidentified crustacean	0.24	0.06	0.85	27.84	7.16	0.15
Echinodermata	16.27	20.24				18.26
<i>Ophiothrix spiculata</i>	13.89	17.04	32.25	43.05	52.82	15.46
<i>Ophiopholis kennerlyi</i>	1.62	2.22	7.46	21.71	29.69	1.92
<i>Ophiopteris papillosa</i>	0.69	0.97	1.83	37.95	52.76	0.83
<i>Strongylocentrotus purpuratus</i>	0.07	0.02	0.28	25.00	8.23	0.05

Lowest Identification	%N	%W	%O	%PSN	%PSW	%PSIRI
Chordata						
(Actinopterygii)	3.33	5.18				4.26
Unidentified fish	1.64	2.13	7.61	21.51	28.05	1.88
Cottidae	0.76	1.75	4.08	18.69	42.87	1.26
<i>Sebastes</i> sp.	0.42	0.59	1.83	23.10	32.43	0.51
<u>Clupeidae</u>						
<i>Sardinops sagax</i>	0.05	0.14	0.42	12.56	34.24	0.10
Unidentified clupeid	0.18	0.17	0.85	21.77	20.51	0.18
Gobiidae	0.13	0.09	0.42	30.56	20.14	0.11
Hexagrammidae	0.05	0.15	0.28	18.33	51.72	0.10
Pleuronectiformes	0.05	0.12	0.14	33.33	87.26	0.08
Atherinopsidae	0.02	0.02	0.14	14.29	15.14	0.02
Stichaeidae	0.02	0.01	0.14	16.67	8.72	0.02
Mollusca	3.24	4.79				4.01
<u>Cephalopoda</u>						
<i>Octopus</i> sp.	1.34	2.91	5.35	25.07	54.28	2.12
<i>Doryteuthis opalescens</i>	0.02	0.23	0.42	3.91	55.10	0.12
Unidentified cephalopod	0.36	0.15	2.25	15.94	6.66	0.25
<u>Gastropoda</u>						
<i>Haliotis</i> sp.	0.28	0.28	1.97	14.05	14.10	0.28
Opisthobranchia	0.05	0.05	0.14	33.33	36.40	0.05
<i>Triopha catalinae</i>	0.13	0.15	0.56	22.22	26.48	0.14
<i>Fissurellidea bimaculata</i>	0.05	0.08	0.14	33.33	57.54	0.06
Unidentified gastropod	0.33	0.10	1.97	16.96	4.92	0.22
Polyplacophora	0.19	0.34	0.99	19.69	34.20	0.27
<i>Tonicella</i> sp.	0.30	0.31	0.70	42.02	43.78	0.30
Bivalvia	0.12	0.13	0.70	17.65	18.25	0.13
Unidentified mollusc	0.08	0.07	0.42	18.65	16.54	0.07
Annelida	2.80	2.16				2.48
Unidentified polychaete	2.40	1.47	11.13	21.54	13.23	1.93
<i>Aphrodita</i> sp.	0.41	0.69	1.83	22.27	37.70	0.55
Cnidaria	0.08	0.08				0.08
<i>Corynactis californica</i>	0.08	0.08	0.14	55.56	60.26	0.08
Sipuncula	0.06	0.01				0.03
<i>Phascolosoma agassizii</i>	0.06	0.01	0.28	20.00	2.96	0.03
Unidentified	1.03	0.64	4.51	22.77	14.29	0.84