

Supplemental files

Figure S1. Comparison of sensitivity and vulnerability scores for all ONP species. Vulnerability calculations include an exposure multiplier whereas sensitivity calculations do not.

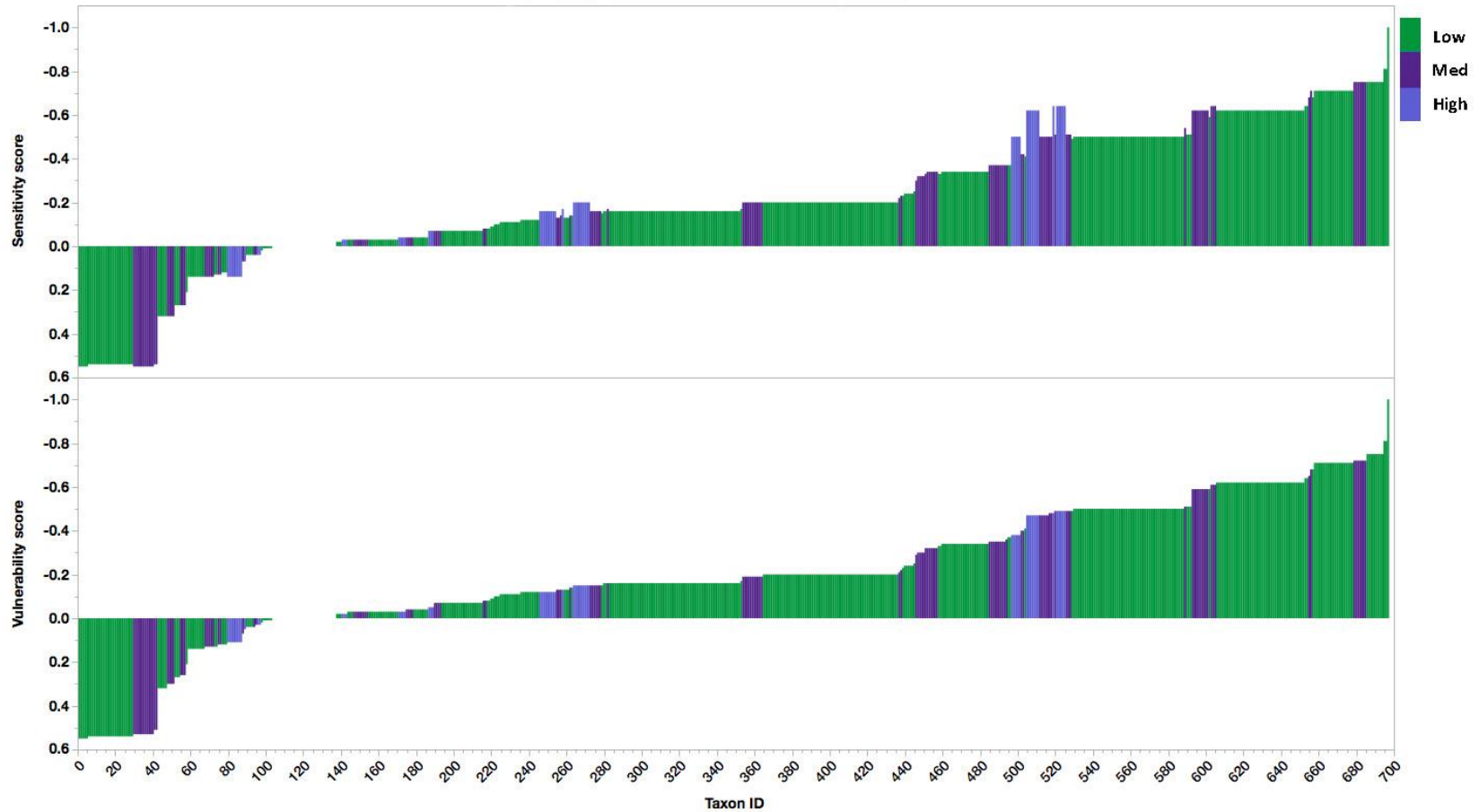


Table S1. Taxonomic level correspondence between ONP species list and NOAA database.

Level of Correspondence	Number of Corresponding Taxa
Species	22
Genus	34
Family	104
Order	246
Class	252
Phylum	39
No correspondence	15
Total taxa	712

Table S2. List of all ONP species and their accompanying database scores. Sensitivity scores are synonymous with the relative survival scalar from Busch and McElhany (2016) and describe the normalized direction and degree to which CO₂ affects organism survival. Vulnerability scores are the product of sensitivity scores and exposure scores. The exposure scores represent a categorical determination of species habitat-exposure as it relates to the intertidal zone. These scores are defined through expert opinion, average tidal heights, and familiarity with the Olympic Coastline. Evidence scores are the total sum of all rScores, independent of direction, and give a sense of the literature available for a particular taxon. Directional scores indicate the net directional effect of CO₂, either antagonistic or beneficial to organism survival. Agreement scores indicate how well the literature agrees with respect to direction and degree of organism survivorship. Confidence scores, similar to evidence scores, indicate the support provided in the literature for predicted sensitivity. However, confidence scores include agreement as well as evidence in their calculation, as there may be a large degree of evidence but not as high a degree of agreement between studies. See text for more details.

Taxonomic correspondence	Full species name	Sensitivity score	Evidence score	Directional score	Agreement score	Confidence score	Exposure score	Vulnerability score (SS x E)
Family	<i>Janczewskia gardneri</i>	0.55	7.72	0.75	0.63	1.29	1.00	0.55
Family	<i>Laurencia spectabilis</i>	0.55	7.72	0.75	0.63	1.29	1.00	0.55
Family	<i>Osmundea spectabilis</i>	0.55	7.72	0.75	0.63	1.29	1.00	0.55
Family	<i>Petrosiphonia bipinnata</i>	0.55	7.72	0.75	0.63	1.29	1.00	0.55
Family	<i>Rhodomela lycopodioides</i>	0.55	7.72	0.75	0.63	1.29	1.00	0.55
Order	<i>Ceramium codicola</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Ceramium pacificum</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Ceramium rubrum</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Ceramium washingtoniense</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Cryptopleura lobulifera</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Cryptopleura ruprechtiana</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Cryptopleura violacea</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Delesseria decipiens</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Gonimophyllum skottsbergii</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Griffithsia pacifica</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Hymenena flabelligera</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Hymenena multiloba</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53

Order	<i>Microcladia borealis</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Microcladia coulteri</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Neoptilota asplenioides</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Neoptilota hypnoides</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Phycodrys setchellii</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Polyneura latissima</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Polyneuropsis stolonifera</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Ptilota asplenioides</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Ptilota filicina</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Ptilota filiformis</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Ptilota hypnoides</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Order	<i>Tiffaniella snyderae</i>	0.53	8.92	0.72	0.59	1.31	1.00	0.53
Family	<i>Neorhodomela larix</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Neorhodomela oregona</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Odonthalia floccosa</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Odonthalia washingtoniensis</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Polysiphonia hendryi</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Polysiphonia pacifica</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Polysiphonia paniculata</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Polysiphonia scopulorum</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Polysiphonia urceolata</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Pterosiphonia dendroidea</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Family	<i>Pterosiphonia pennata</i>	0.55	7.72	0.75	0.63	1.29	0.95	0.52
Order	<i>Callithamnion pikeanum</i>	0.53	8.92	0.72	0.59	1.31	0.95	0.50
Order	<i>Corallophila eatoniana</i>	0.53	8.92	0.72	0.59	1.31	0.95	0.50
Family	<i>Epiactis prolifera</i>	0.31	5.96	0.67	0.46	0.83	1.00	0.31
Order	<i>Metridium senile</i>	0.31	5.96	0.67	0.46	0.83	1.00	0.31
Family	<i>Urticina coriacea</i>	0.31	5.96	0.67	0.46	0.83	1.00	0.31

Family	<i>Urticina crassicornis</i>	0.31	5.96	0.67	0.46	0.83	1.00	0.31
Family	<i>Urticina lofotensis</i>	0.31	5.96	0.67	0.46	0.83	1.00	0.31
Family	<i>Anthopleura artemisia</i>	0.31	5.96	0.67	0.46	0.83	0.95	0.30
Family	<i>Anthopleura elegantissima</i>	0.31	5.96	0.67	0.46	0.83	0.95	0.30
Family	<i>Anthopleura xanthogrammica</i>	0.31	5.96	0.67	0.46	0.83	0.95	0.30
Order	<i>Halcampa decemtentaculata</i>	0.31	5.96	0.67	0.46	0.83	0.95	0.30
Order	<i>Cylindrocarpus rugosus</i>	0.27	7.38	0.61	0.39	0.78	1.00	0.27
Order	<i>Dictyosiphon foeniculaceus</i>	0.27	7.38	0.61	0.39	0.78	1.00	0.27
Family	<i>Solaster stimpsoni</i>	0.26	2.75	0.75	0.62	0.63	1.00	0.26
Order	<i>Leathesia marina</i>	0.27	7.38	0.61	0.39	0.78	0.95	0.25
Order	<i>Melanosiphon intestinalis</i>	0.27	7.38	0.61	0.39	0.78	0.95	0.25
Order	<i>Soranthera ulvoidea</i>	0.27	7.38	0.61	0.39	0.78	0.95	0.25
Species	<i>Nereocystis luetkeana</i>	0.20	2.61	0.67	0.56	0.54	1.00	0.20
Class	<i>Cystoseira geminata</i>	0.14	37.53	0.23	0.30	1.08	1.00	0.14
Class	<i>Desmarestia herbacea</i>	0.14	37.53	0.23	0.30	1.08	1.00	0.14
Class	<i>Desmarestia ligulata</i>	0.14	37.53	0.23	0.30	1.08	1.00	0.14
Class	<i>Desmarestia munda</i>	0.14	37.53	0.23	0.30	1.08	1.00	0.14
Class	<i>Desmarestia viridis</i>	0.14	37.53	0.23	0.30	1.08	1.00	0.14
Class	<i>Haplogloia andersonii</i>	0.14	37.53	0.23	0.30	1.08	1.00	0.14
Class	<i>Sargassum muticum</i>	0.14	37.53	0.23	0.30	1.08	1.00	0.14
Class	<i>Sphacelaria norrisii</i>	0.14	37.53	0.23	0.30	1.08	1.00	0.14
Class	<i>Sphacelaria racemosa</i>	0.14	37.53	0.23	0.30	1.08	1.00	0.14
Class	<i>Analipus japonicus</i>	0.14	37.53	0.23	0.30	1.08	0.95	0.13
Class	<i>Colpomenia bullosa</i>	0.14	37.53	0.23	0.30	1.08	0.95	0.13
Class	<i>Colpomenia peregrina</i>	0.14	37.53	0.23	0.30	1.08	0.95	0.13
Class	<i>Phaeostrophion irregulare</i>	0.14	37.53	0.23	0.30	1.08	0.95	0.13
Class	<i>Scytosiphon lomentaria</i>	0.14	37.53	0.23	0.30	1.08	0.95	0.13
Order	<i>Codium fragile</i>	0.12	1.25	1.00	1.00	0.22	1.00	0.12

Order	<i>Derbresia marina</i>	0.12	1.25	1.00	1.00	0.22	1.00	0.12
Order	<i>Bryopsis corticulans</i>	0.12	1.25	1.00	1.00	0.22	0.95	0.12
Order	<i>Bryopsis plumosa</i>	0.12	1.25	1.00	1.00	0.22	0.95	0.12
Genus	<i>Laminaria groenlandica</i>	0.11	9.86	0.11	0.80	1.83	1.00	0.11
Genus	<i>Laminaria setchellii</i>	0.11	9.86	0.11	0.80	1.83	1.00	0.11
Genus	<i>Laminaria sinclairii</i>	0.11	9.86	0.11	0.80	1.83	1.00	0.11
Class	<i>Fucus distichus</i>	0.14	37.53	0.23	0.30	1.08	0.76	0.10
Class	<i>Fucus spiralis</i>	0.14	37.53	0.23	0.30	1.08	0.76	0.10
Class	<i>Fucus gardneri</i>	0.14	37.53	0.23	0.30	1.08	0.76	0.10
Class	<i>Pelvetiopsis limitata</i>	0.14	37.53	0.23	0.30	1.08	0.76	0.10
Class	<i>Petalonia fascia</i>	0.14	37.53	0.23	0.30	1.08	0.76	0.10
Class	<i>Ralfsia californica</i>	0.14	37.53	0.23	0.30	1.08	0.76	0.10
Class	<i>Ralfsia fungiformis</i>	0.14	37.53	0.23	0.30	1.08	0.76	0.10
Class	<i>Ralfsia pacifica</i>	0.14	37.53	0.23	0.30	1.08	0.76	0.10
Species	<i>Pisaster ochraceus</i>	0.07	1.62	0.51	0.50	0.24	0.95	0.06
Species	<i>Ulva lactuca</i>	0.06	7.81	0.19	0.29	0.60	0.76	0.05
Class	<i>Acrosiphonia coalita</i>	0.03	20.01	0.12	0.19	0.57	1.00	0.03
Class	<i>Acrosiphonia mertensii</i>	0.03	20.01	0.12	0.19	0.57	1.00	0.03
Class	<i>Acrosiphonia saxatilis</i>	0.03	20.01	0.12	0.19	0.57	1.00	0.03
Class	<i>Acrosiphonia spinescens</i>	0.03	20.01	0.12	0.19	0.57	1.00	0.03
Class	<i>Ulva fenestrata</i>	0.03	20.01	0.12	0.19	0.57	0.95	0.03
Genus	<i>Ulva taeniata</i>	0.03	17.39	0.10	0.20	0.59	0.95	0.03
Class	<i>Ulva californica</i>	0.03	20.01	0.12	0.19	0.57	0.76	0.03
Class	<i>Ulva intestinalis</i>	0.03	20.01	0.12	0.19	0.57	0.76	0.03
Order	<i>Costaria costata</i>	0.02	23.36	0.03	0.37	1.18	1.00	0.02
Family	<i>Alaria marginata</i>	0.00	1.04	0.50	0.50	0.02	1.00	0.00
Family	<i>Lessoniopsis littoralis</i>	0.00	1.04	0.50	0.50	0.02	1.00	0.00
Family	<i>Pterygophora californica</i>	0.00	1.04	0.50	0.50	0.02	1.00	0.00

Family	<i>Hedophyllum sessile</i>	0.00	19.65	0.00	0.31	0.94	1.00	0.00
Family	<i>Postelsia palmaeformis</i>	0.00	19.65	0.00	0.31	0.94	1.00	0.00
Family	<i>Discophyton rudyi</i>	0.00	1.69	0.01	0.10	0.05	1.00	0.00
Family	<i>Alvania compacta</i>	0.00	1.10	0.00	1.00	0.09	1.00	0.00
Order	<i>Arctonoe vittata</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Family	<i>Egorgia menziesii</i>	0.00	2.66	0.00	1.00	0.98	1.00	0.00
Order	<i>Eteone tuberculata</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Order	<i>Eulalia aviculiseta</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Order	<i>Exogone lourei</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Halosydna brevisetosa</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Genus	<i>Hemigrapsus nudus</i>	0.00	2.26	0.00	1.00	0.81	0.95	0.00
Species	<i>Hemigrapsus oregonensis</i>	0.00	2.26	0.00	1.00	0.81	0.95	0.00
Order	<i>Hemipodus borealis</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Nephtys brachycephala</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Order	<i>Nephtys caecoides</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Order	<i>Nephtys californiensis</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Order	<i>Nephtys ferruginea</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Order	<i>Nephtys longosetosa</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Family	<i>Nereis eakini</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Family	<i>Nereis latescens</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Family	<i>Nereis vexillosa</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Family	<i>Onoba carpenteri</i>	0.00	1.10	0.00	1.00	0.09	1.00	0.00
Order	<i>Phyllodoce castanea</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Family	<i>Platynereis bicanaliculata</i>	0.00	1.73	0.00	1.00	0.55	0.95	0.00
Order	<i>Proceraea kiiensis</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Proceraea okadi</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Sphaerodoropsis minuta</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Sphaerosyllis californiensis</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00

Order	<i>Sthenelais fusca</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Syllis elongata</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Syllis stewartii</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Syllis variegata</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Tenonia priops</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Trypanosyllis gemmipara</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Order	<i>Typosyllis adamantea</i>	0.00	1.73	0.00	1.00	0.55	1.00	0.00
Genus	<i>Saccharina sessilis</i>	0.00	2.23	-0.04	0.10	0.08	1.00	0.00
Family	<i>Amphiodia occidentalis</i>	-0.02	3.06	-0.15	0.20	0.22	1.00	-0.02
Family	<i>Amphiodia periercta</i>	-0.02	3.06	-0.15	0.20	0.22	1.00	-0.02
Family	<i>Amphipholis squamata</i>	-0.02	3.06	-0.15	0.20	0.22	1.00	-0.02
Order	<i>Gloiopeltis furcata</i>	-0.03	16.26	-0.05	0.37	1.04	0.76	-0.02
Order	<i>Mastocarpus jardinii</i>	-0.03	16.26	-0.05	0.37	1.04	0.76	-0.02
Order	<i>Mastocarpus papillatus</i>	-0.03	16.26	-0.05	0.37	1.04	0.76	-0.02
Family	<i>Phyllospadix scouleri</i>	-0.02	1.05	-1.00	1.00	0.04	1.00	-0.02
Family	<i>Phyllospadix serrulatus</i>	-0.02	1.05	-1.00	1.00	0.04	1.00	-0.02
Family	<i>Phyllospadix torreyi</i>	-0.02	1.05	-1.00	1.00	0.04	1.00	-0.02
Order	<i>Ahnfeltia fastigiata</i>	-0.03	16.26	-0.05	0.37	1.04	0.95	-0.02
Order	<i>Caulacanthus ustulatus</i>	-0.03	16.26	-0.05	0.37	1.04	0.95	-0.02
Order	<i>Endocladia muricata</i>	-0.03	16.26	-0.05	0.37	1.04	0.95	-0.02
Order	<i>Prionitis cornea</i>	-0.03	16.26	-0.05	0.37	1.04	0.95	-0.02
Order	<i>Prionitis filiformis</i>	-0.03	16.26	-0.05	0.37	1.04	0.95	-0.02
Order	<i>Prionitis lanceolata</i>	-0.03	16.26	-0.05	0.37	1.04	0.95	-0.02
Order	<i>Prionitis linearis</i>	-0.03	16.26	-0.05	0.37	1.04	0.95	-0.02
Order	<i>Prionitis lyallii</i>	-0.03	16.26	-0.05	0.37	1.04	0.95	-0.02
Order	<i>Ahnfeltiopsis gigartinoides</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Ahnfeltiopsis leptophylla</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Ahnfeltiopsis linearis</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03

Order	<i>Callophyllis firma</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Callophyllis flabellulata</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Callophyllis violacea</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Erythrophyllum delesserioides</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Erythrophyllum splendens</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Gloiosiphonia capillaris</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Gloiosiphonia verticillaris</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Grateloupia doryphora</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Grateloupia pinnata</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Grateloupia setchellii</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Gymnogongrus chiton</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Gymnogongrus leptophyllus</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Order	<i>Gymnogongrus linearis</i>	-0.03	16.26	-0.05	0.37	1.04	1.00	-0.03
Family	<i>Mazzaella parksii</i>	-0.04	11.35	-0.06	0.43	1.05	0.76	-0.03
Order	<i>Cladophora columbiana</i>	-0.04	1.36	-0.48	0.50	0.15	0.76	-0.03
Order	<i>Cladophora microcladoides</i>	-0.04	1.36	-0.48	0.50	0.15	0.76	-0.03
Order	<i>Rhizoclonium riparium</i>	-0.04	1.36	-0.48	0.50	0.15	0.76	-0.03
Species	<i>Chondrus crispus</i>	-0.04	11.35	-0.06	0.43	1.05	0.95	-0.03
Family	<i>Mazzaella affinis</i>	-0.04	11.35	-0.06	0.43	1.05	0.95	-0.03
Family	<i>Mazzaella flaccida</i>	-0.04	11.35	-0.06	0.43	1.05	0.95	-0.03
Family	<i>Mazzaella oregona</i>	-0.04	11.35	-0.06	0.43	1.05	0.95	-0.03
Family	<i>Chondracanthus canaliculatus</i>	-0.04	11.35	-0.06	0.43	1.05	1.00	-0.04
Family	<i>Chondracanthus exasperatus</i>	-0.04	11.35	-0.06	0.43	1.05	1.00	-0.04
Family	<i>Mazzaella linearis</i>	-0.04	11.35	-0.06	0.43	1.05	1.00	-0.04
Family	<i>Mazzaella rosea</i>	-0.04	11.35	-0.06	0.43	1.05	1.00	-0.04
Family	<i>Mazzaella sanguinea</i>	-0.04	11.35	-0.06	0.43	1.05	1.00	-0.04
Family	<i>Mazzaella splendens</i>	-0.04	11.35	-0.06	0.43	1.05	1.00	-0.04
Family	<i>Rhodoglossum affine</i>	-0.04	11.35	-0.06	0.43	1.05	1.00	-0.04

Order	<i>Dermasterias imbricata</i>	-0.04	12.97	-0.14	0.20	0.53	1.00	-0.04
Genus	<i>Nucella canaliculata</i>	-0.06	1.59	-0.50	0.50	0.23	0.76	-0.05
Genus	<i>Nucella emarginata</i>	-0.06	1.59	-0.50	0.50	0.23	0.76	-0.05
Genus	<i>Nucella ostrina</i>	-0.06	1.59	-0.50	0.50	0.23	0.76	-0.05
Order	<i>Lirabuccinum dirum</i>	-0.06	13.70	-0.20	0.22	0.60	0.95	-0.06
Family	<i>Ocenebra lurida</i>	-0.06	13.70	-0.20	0.22	0.60	0.95	-0.06
Family	<i>Ocinebrina interfossa</i>	-0.06	13.70	-0.20	0.22	0.60	0.95	-0.06
Family	<i>Ocinebrina lurida</i>	-0.06	13.70	-0.20	0.22	0.60	0.95	-0.06
Species	<i>Nucella lamellosa</i>	-0.06	1.59	-0.50	0.50	0.23	1.00	-0.06
Order	<i>Alia carinata</i>	-0.06	13.70	-0.20	0.22	0.60	1.00	-0.06
Order	<i>Amphissa columbiana</i>	-0.06	13.70	-0.20	0.22	0.60	1.00	-0.06
Order	<i>Amphissa versicolor</i>	-0.06	13.70	-0.20	0.22	0.60	1.00	-0.06
Order	<i>Astyris gausapata</i>	-0.06	13.70	-0.20	0.22	0.60	1.00	-0.06
Family	<i>Ceratostoma foliatum</i>	-0.06	13.70	-0.20	0.22	0.60	1.00	-0.06
Order	<i>Nassarius fossatus</i>	-0.06	13.70	-0.20	0.22	0.60	1.00	-0.06
Order	<i>Olivella biplicata</i>	-0.06	13.70	-0.20	0.22	0.60	1.00	-0.06
Order	<i>Axocelita originalis</i>	-0.07	4.01	-0.11	0.80	1.11	1.00	-0.07
Order	<i>Clathria pennata</i>	-0.07	4.01	-0.11	0.80	1.11	1.00	-0.07
Order	<i>Hymendectyon lyoni</i>	-0.07	4.01	-0.11	0.80	1.11	1.00	-0.07
Order	<i>Jones amaknensis</i>	-0.07	4.01	-0.11	0.80	1.11	1.00	-0.07
Order	<i>Lissodendoryx firma</i>	-0.07	4.01	-0.11	0.80	1.11	1.00	-0.07
Order	<i>Mycale hispida</i>	-0.07	4.01	-0.11	0.80	1.11	1.00	-0.07
Order	<i>Mycale macginitiei</i>	-0.07	4.01	-0.11	0.80	1.11	1.00	-0.07
Order	<i>Myxilla incrustans</i>	-0.07	4.01	-0.11	0.80	1.11	1.00	-0.07
Class	<i>Cucumaria miniata</i>	-0.07	1.14	-1.00	1.00	0.13	1.00	-0.07
Class	<i>Eupentacta pseudoquinquesemita</i>	-0.07	1.14	-1.00	1.00	0.13	1.00	-0.07
Class	<i>Eupentacta quinquesemita</i>	-0.07	1.14	-1.00	1.00	0.13	1.00	-0.07
Class	<i>Evasterias troschelii</i>	-0.07	1.14	-1.00	1.00	0.13	1.00	-0.07

Class	<i>Leptosynapta clarki</i>	-0.07	1.14	-1.00	1.00	0.13	1.00	-0.07
Class	<i>Paracaudina chilensis</i>	-0.07	1.14	-1.00	1.00	0.13	1.00	-0.07
Genus	<i>Corophium brevis</i>	-0.08	1.15	-1.00	1.00	0.14	0.95	-0.07
Genus	<i>Corophium salmonis</i>	-0.08	1.15	-1.00	1.00	0.14	0.95	-0.07
Family	<i>Americorophium brevis</i>	-0.08	1.15	-1.00	1.00	0.14	1.00	-0.08
Family	<i>Laticorophium baconi</i>	-0.08	1.15	-1.00	1.00	0.14	1.00	-0.08
Species	<i>Strongylocentrotus purpuratus</i>	-0.08	48.26	-0.21	0.18	0.73	1.00	-0.08
Genus	<i>Celleporella cornuta</i>	-0.08	3.53	-0.47	0.25	0.32	1.00	-0.08
Genus	<i>Cliona lobata</i>	-0.09	2.43	-0.34	0.54	0.48	1.00	-0.09
Genus	<i>Cliona californiana</i>	-0.09	2.43	-0.34	0.54	0.48	1.00	-0.09
Species	<i>Cliona celata</i>	-0.09	2.43	-0.34	0.54	0.48	1.00	-0.09
Phylum	<i>Allopora porphyra</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Calycella syringa</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Campanularia volubilis</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Eudendrium californicum</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Haliclystus sanjuanensis</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Haliclystus stejnegeri</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Haliclystus gegardi</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Obelia dichotoma</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Polyorchis penicillatus</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Sertularia argentea</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Phylum	<i>Symplectoscyphus turgidus</i>	-0.10	63.12	-0.11	0.38	1.61	1.00	-0.10
Class	<i>Adocia gellindra</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11
Class	<i>Aplysilla glacialis</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11
Class	<i>Aplysilla polyraphis</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11
Class	<i>Halichondria panicea</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11
Class	<i>Haliclona permollis</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11
Class	<i>Hymeniacidon ungodon</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11

Phylum	<i>Leucilla nuttingi</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11
Phylum	<i>Leucosolenia eleanor</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11
Class	<i>Stelletta clarella</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11
Class	<i>Suberites ficus</i>	-0.11	13.29	-0.09	0.82	2.13	1.00	-0.11
Family	<i>Balanus glandula</i>	-0.15	37.51	-0.17	0.44	1.59	0.76	-0.11
Order	<i>Eohaustorius brevicuspis</i>	-0.15	9.78	-0.29	0.42	0.96	0.76	-0.12
Order	<i>Megalorchestia californiana</i>	-0.15	9.78	-0.29	0.42	0.96	0.76	-0.12
Order	<i>Megalorchestia columbiana</i>	-0.15	9.78	-0.29	0.42	0.96	0.76	-0.12
Order	<i>Megalorchestia pugettensis</i>	-0.15	9.78	-0.29	0.42	0.96	0.76	-0.12
Order	<i>Oligochinus lighti</i>	-0.15	9.78	-0.29	0.42	0.96	0.76	-0.12
Order	<i>Orchestia corniculata</i>	-0.15	9.78	-0.29	0.42	0.96	0.76	-0.12
Order	<i>Traskorchestia georgiana</i>	-0.15	9.78	-0.29	0.42	0.96	0.76	-0.12
Order	<i>Traskorchestia traskiana</i>	-0.15	9.78	-0.29	0.42	0.96	0.76	-0.12
Family	<i>Cryptosiphonia woodii</i>	-0.13	3.12	-0.40	0.52	0.59	0.95	-0.12
Family	<i>Farlowia mollis</i>	-0.13	3.12	-0.40	0.52	0.59	0.95	-0.12
Species	<i>Mytilus trossulus</i>	-0.13	1.27	-1.00	1.00	0.24	0.95	-0.12
Order	<i>Chthamalus dalli</i>	-0.17	46.19	-0.18	0.43	1.66	0.76	-0.13
Family	<i>Constantinea simplex</i>	-0.13	3.12	-0.40	0.52	0.59	1.00	-0.13
Family	<i>Dilsea californica</i>	-0.13	3.12	-0.40	0.52	0.59	1.00	-0.13
Family	<i>Pikea californica</i>	-0.13	3.12	-0.40	0.52	0.59	1.00	-0.13
Genus	<i>Upogebia pugettensis</i>	-0.14	5.51	-0.23	0.64	1.09	0.95	-0.13
Species	<i>Macrocystis pyrifera</i>	-0.14	4.93	-0.52	0.30	0.48	1.00	-0.14
Class	<i>Cumagloia andersonii</i>	-0.19	96.95	-0.32	0.23	1.06	0.76	-0.14
Class	<i>Hildenbrandia occidentalis</i>	-0.19	96.95	-0.32	0.23	1.06	0.76	-0.14
Class	<i>Hildenbrandia rubra</i>	-0.19	96.95	-0.32	0.23	1.06	0.76	-0.14
Class	<i>Nemalion elminthoides</i>	-0.19	96.95	-0.32	0.23	1.06	0.76	-0.14
Phylum	<i>Porphyra gardneri</i>	-0.19	96.95	-0.32	0.23	1.06	0.76	-0.14
Phylum	<i>Porphyra lanceolata</i>	-0.19	96.95	-0.32	0.23	1.06	0.76	-0.14

Phylum	<i>Porphyra occidentalis</i>	-0.19	96.95	-0.32	0.23	1.06	0.76	-0.14
Phylum	<i>Porphyra papenfussii</i>	-0.19	96.95	-0.32	0.23	1.06	0.76	-0.14
Phylum	<i>Porphyra perforata</i>	-0.19	96.95	-0.32	0.23	1.06	0.76	-0.14
Order	<i>Allorchestes angusta</i>	-0.15	9.78	-0.29	0.42	0.96	0.95	-0.15
Order	<i>Apohyale anceps</i>	-0.15	9.78	-0.29	0.42	0.96	0.95	-0.15
Order	<i>Eohaustorius sawyeri</i>	-0.15	9.78	-0.29	0.42	0.96	0.95	-0.15
Order	<i>Eohaustorius washingtonianus</i>	-0.15	9.78	-0.29	0.42	0.96	0.95	-0.15
Order	<i>Probosciniotus loquax</i>	-0.15	9.78	-0.29	0.42	0.96	0.95	-0.15
Species	<i>Ulva linza</i>	-0.16	4.68	-0.33	0.55	0.85	0.95	-0.15
Genus	<i>Ruditapes philippinarum</i>	-0.15	7.36	-0.4	0.33	0.67	1.00	-0.15
Family	<i>Balanus crenatus</i>	-0.15	37.51	-0.17	0.44	1.59	1.00	-0.15
Family	<i>Balanus nubilus</i>	-0.15	37.51	-0.17	0.44	1.59	1.00	-0.15
Class	<i>Henricia leviuscula</i>	-0.16	43.02	-0.16	0.47	1.78	0.95	-0.15
Order	<i>Accedomoera vagor</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Americhelidium pectinatum</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Ampithoe dalli</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Ampithoe kussakini</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Ampithoe lacertosa</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Ampithoe simulans</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Anonyx laticoxae</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Aoroides columbiae</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Aoroides exilis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Aoroides intermedius</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Aoroides spinosus</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Apolochus litoralis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Apolochus staudei</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Atylus levidensus</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Atylus borealis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15

Order	<i>Atylus tridens</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Carinonajna longimana</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Cymadusa uncinata</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Desdimelita microdentata</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Desdimelita transmelita</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Eobrolgus chumashi</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Erichthonius brasiliensis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Erichthonius rubricornis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Foxiphalus major</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Gammaropsis ellisi</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Gammaropsis thompsoni</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Gnathopleustes pachychaetus</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Gnathopleustes pugettensis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Gnathopleustes serratus</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Grandiphoxus grandis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Hyale frequens</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Ischyrocerus anguipes</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Ischyrocerus pelagops</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Jassa borowskyae</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Leucothoe alata</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Maera danae</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Maera simile</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Melita alaskensis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Melita oregonensis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Melita sulca</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Metopa cystella</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Microjassa barnardi</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Micropleustes nautiloides</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15

Order	<i>Orchomene pinguis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Paracalliopiella pratti</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Parallorchestes cowani</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Parallorchestes leblondi</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Parallorchestes minima</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Parallorchestes ochotensis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Paramoera columbiana</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Paramoera mohri</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Paramoera serrata</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Paramoera suchaneki</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Peramphithoe humeralis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Photis brevipes</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Photis conchicola</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Photis parvidons</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Pleusirus securus</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Pleustes depressa</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Polycheria osborni</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Pontogeneia rostrata</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Pontogeneia ivanovi</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Prohyale frequens</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Protohyale jarrettae</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Protohyale oclairi</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Protohyale oculata</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Protohyale seticornis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Thorlaksonius brevirostris</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Order	<i>Tritella laevis</i>	-0.15	9.78	-0.29	0.42	0.96	1.00	-0.15
Family	<i>Cryptolithodes sitchensis</i>	-0.16	11.70	-0.39	0.29	0.72	1.00	-0.16
Species	<i>Dendroaster excentricus</i>	-0.17	2.29	-0.66	0.55	0.46	1.00	-0.17

Class	<i>Cirratulus robustus</i>	-0.19	14.48	-0.36	0.35	0.95	0.95	-0.18
Class	<i>Euzonus mucronata</i>	-0.19	14.48	-0.36	0.35	0.95	0.95	-0.18
Class	<i>Pygospio elegans</i>	-0.19	14.48	-0.36	0.35	0.95	0.95	-0.18
Class	<i>Gracilaria pacifica</i>	-0.19	96.95	-0.32	0.23	1.06	0.95	-0.18
Class	<i>Halosaccion glandiforme</i>	-0.19	96.95	-0.32	0.23	1.06	0.95	-0.18
Class	<i>Plocamium violaceum</i>	-0.19	96.95	-0.32	0.23	1.06	0.95	-0.18
Species	<i>Corallina officinalis</i>	-0.19	27.72	-0.32	0.31	1.05	0.95	-0.18
Order	<i>Bansella oregonica</i>	-0.19	12.74	-0.41	0.33	0.84	0.95	-0.18
Order	<i>Chone minuta</i>	-0.19	12.74	-0.41	0.33	0.84	0.95	-0.18
Order	<i>Eudistylia vancouveri</i>	-0.19	12.74	-0.41	0.33	0.84	0.95	-0.18
Order	<i>Schizobranchia insignis</i>	-0.19	12.74	-0.41	0.33	0.84	0.95	-0.18
Class	<i>Abarenicola pacifica</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Abarenicola vagabunda</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Arabella iricolor</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Arenicola marina</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Armandia brevis</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Axiothella rubrocincta</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Boccardia proboscidea</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Branchiomaldane simplex</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Capitella capitata</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Chaetozone acuta</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Clymenella zonalis</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Decamastus gracilis</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Drilonereis longa</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Eupolymnia heterobranchia</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Kinbergonuphis paradiopatra</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Leitoscoloplos pugettensis</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Lumbrineris californiensis</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19

Class	<i>Lumbrineris japonica</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Lumbrineris latrelli</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Lumbrineris luti</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Lumbrineris zonata</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Naineris dendritica</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Naineris quadricuspida</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Naineris uncinata</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Neoamphitrite robusta</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Nicolea zostericola</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Nothria conchylega</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Onuphis geophiliformis</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Pherusa inflata</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Pherusa papillata</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Pherusa plumosa</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Pholoides aspera</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Pista brevibranchiata</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Pista cristata</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Pista elongata</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Polydora proboscidea</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Rhynchospio arenincola</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Saccocirrus eroticus</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Schistocomus hiltoni</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Scionella japonica</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Scolelepis foliosa</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Scolelepis squamata</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Spio filicornis</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Thelepus crispus</i>	-0.19	14.48	-0.36	0.35	0.95	1.00	-0.19
Class	<i>Faucheia laciniata</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19

Class	<i>Gastroclonium subarticulatum</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Gelidium coulteri</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Halymenia californica</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Halymenia schizymenioides</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Neodilsea borealis</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Neodilsea californica</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Palmaria mollis</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Peyssonnelia pacifica</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Plocamium cartilagineum</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Plocamium oregonum</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Plocamium tenue</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Rhodophysema elegans</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Rhodymenia californica</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Rhodymenia pacifica</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Rhodymenia pertusa</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Rhodymeniocolax botryoidea</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Schizymenia pacifica</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Class	<i>Scinaia confusa</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Phylum	<i>Smithora naiadum</i>	-0.19	96.95	-0.32	0.23	1.06	1.00	-0.19
Order	<i>Idanthysus macropaleus</i>	-0.19	12.74	-0.41	0.33	0.84	1.00	-0.19
Order	<i>Neosabellaria cementarium</i>	-0.19	12.74	-0.41	0.33	0.84	1.00	-0.19
Order	<i>Owenia fusiformis</i>	-0.19	12.74	-0.41	0.33	0.84	1.00	-0.19
Order	<i>Potamilla neglecta</i>	-0.19	12.74	-0.41	0.33	0.84	1.00	-0.19
Order	<i>Pseudopotamilla ocellata</i>	-0.19	12.74	-0.41	0.33	0.84	1.00	-0.19
Family	<i>Serpula columbiana</i>	-0.19	12.74	-0.41	0.33	0.84	1.00	-0.19
Family	<i>Serpula vermicularis</i>	-0.19	12.74	-0.41	0.33	0.84	1.00	-0.19
Family	<i>Spirorbis bifurcatus</i>	-0.19	12.74	-0.41	0.33	0.84	1.00	-0.19
Genus	<i>Semibalanus cariosus</i>	-0.22	7.95	-0.34	0.54	1.13	0.95	-0.21

Family	<i>Leptasterias hexactis</i>	-0.23	11.10	-0.46	0.36	0.87	0.95	-0.22
Family	<i>Pycnopodia helianthoides</i>	-0.23	11.10	-0.46	0.36	0.87	1.00	-0.23
Genus	<i>Cancer antennarius</i>	-0.24	26.05	-0.32	0.40	1.32	1.00	-0.24
Genus	<i>Cancer jordani</i>	-0.24	26.05	-0.32	0.40	1.32	1.00	-0.24
Genus	<i>Cancer oregonensis</i>	-0.24	26.05	-0.32	0.40	1.32	1.00	-0.24
Genus	<i>Cancer productus</i>	-0.24	26.05	-0.32	0.40	1.32	1.00	-0.24
Species	<i>Cancer magister</i>	-0.24	26.05	-0.32	0.40	1.32	1.00	-0.24
Order	<i>Ophiopholis aculeata</i>	-0.25	10.60	-0.48	0.38	0.92	1.00	-0.25
Genus	<i>Corallina frondescens</i>	-0.30	36.96	-0.45	0.33	1.19	0.95	-0.28
Genus	<i>Crepidula adunca</i>	-0.31	5.51	-0.69	0.47	0.81	0.95	-0.30
Genus	<i>Crepidula nummaria</i>	-0.31	5.51	-0.69	0.47	0.81	0.95	-0.30
Genus	<i>Crepidula perforans</i>	-0.31	5.51	-0.69	0.47	0.81	0.95	-0.30
Species	<i>Crepidula fornicata</i>	-0.31	5.51	-0.69	0.47	0.81	0.95	-0.30
Species	<i>Mytilus californianus</i>	-0.33	9.20	-0.53	0.50	1.11	0.95	-0.31
Genus	<i>Petrolisthes eriomerus</i>	-0.33	27.94	-0.31	0.56	1.89	0.95	-0.31
Species	<i>Petrolisthes cinctipes</i>	-0.33	27.94	-0.31	0.56	1.89	0.95	-0.31
Class	<i>Alcyonidium polyoum</i>	-0.34	9.63	-0.63	0.41	0.94	0.95	-0.32
Class	<i>Bowerbankia gracilis</i>	-0.34	9.63	-0.63	0.41	0.94	0.95	-0.32
Class	<i>Bowerbankia imbricata</i>	-0.34	9.63	-0.63	0.41	0.94	0.95	-0.32
Class	<i>Flustrellidra corniculata</i>	-0.34	9.63	-0.63	0.41	0.94	0.95	-0.32
Family	<i>Melobesia marginata</i>	-0.32	19.12	-0.51	0.38	1.12	1.00	-0.32
Family	<i>Melobesia mediocris</i>	-0.32	19.12	-0.51	0.38	1.12	1.00	-0.32
Family	<i>Leukoma nuttlollii</i>	-0.33	48.14	-0.36	0.42	1.63	1.00	-0.33
Family	<i>Leukoma staminea</i>	-0.33	48.14	-0.36	0.42	1.63	1.00	-0.33
Family	<i>Nutricula tantilla</i>	-0.33	48.14	-0.36	0.42	1.63	1.00	-0.33
Family	<i>Petricola carditoides</i>	-0.33	48.14	-0.36	0.42	1.63	1.00	-0.33
Family	<i>Saxidomus gigantea</i>	-0.33	48.14	-0.36	0.42	1.63	1.00	-0.33
Family	<i>Transennella tantilla</i>	-0.33	48.14	-0.36	0.42	1.63	1.00	-0.33

Family	<i>Pachycheles rudis</i>	-0.33	27.94	-0.31	0.56	1.89	1.00	-0.33
Order	<i>Bugula californica</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Bugula pacifica</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Chaperiopsis patula</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Cheilopora praelonga</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Class	<i>Crisia occidentalis</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Dendrobeatia lichenoides</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Dendrobeatia longispinosa</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Eurystomella bilabiata</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Class	<i>Heteropora alaskensis</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Hincksina velata</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Membranipora membranacea</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Microporella cribosa</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Pomocellaria californica</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Tegella horrida</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Phylum	<i>Tetrocycloecia magna</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Tricellaria circumterminata</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Tricellaria erecta</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Order	<i>Tricellaria occidentalis</i>	-0.34	9.63	-0.63	0.41	0.94	1.00	-0.34
Family	<i>Bossiella chiloensis</i>	-0.36	49.89	-0.49	0.34	1.33	0.95	-0.35
Family	<i>Bossiella cretacea</i>	-0.36	49.89	-0.49	0.34	1.33	0.95	-0.35
Family	<i>Bossiella orbigniana</i>	-0.36	49.89	-0.49	0.34	1.33	0.95	-0.35
Family	<i>Bossiella plumosa</i>	-0.36	49.89	-0.49	0.34	1.33	0.95	-0.35
Family	<i>Calliarthron tuberculosum</i>	-0.36	49.89	-0.49	0.34	1.33	0.95	-0.35
Family	<i>Lithothrix aspergillum</i>	-0.36	49.89	-0.49	0.34	1.33	0.95	-0.35
Family	<i>Pseudolithophyllum muricatum</i>	-0.36	49.89	-0.49	0.34	1.33	0.95	-0.35
Family	<i>Pseudolithophyllum neofarlowii</i>	-0.36	49.89	-0.49	0.34	1.33	0.95	-0.35

Family	<i>Pseudolithophyllum whidbeyense</i>	-0.36	49.89	-0.49	0.34	1.33	0.95	-0.35
Class	<i>Pollicipes polymerus</i>	-0.37	77.37	-0.37	0.40	1.77	0.95	-0.35
Family	<i>Chiharaea bodegensis</i>	-0.36	49.89	-0.49	0.34	1.33	1.00	-0.36
Family	<i>Serraticardia macmillanii</i>	-0.36	49.89	-0.49	0.34	1.33	1.00	-0.36
Class	<i>Alloniscus perconvexus</i>	-0.49	156.00	-0.39	0.44	2.22	0.76	-0.37
Class	<i>Gnorimosphaeroma noblei</i>	-0.49	156.00	-0.39	0.44	2.22	0.76	-0.37
Class	<i>Ligia occidentalis</i>	-0.49	156.00	-0.39	0.44	2.22	0.76	-0.37
Class	<i>Ligia pallasii</i>	-0.49	156.00	-0.39	0.44	2.22	0.76	-0.37
Order	<i>Neotrypaea californiensis</i>	-0.50	139.77	-0.39	0.45	2.22	0.76	-0.38
Genus	<i>Lithophyllum impressum</i>	-0.42	10.93	-0.65	0.47	1.14	0.95	-0.40
Genus	<i>Lithothamnion phymatodeum</i>	-0.42	10.93	-0.65	0.47	1.14	0.95	-0.40
Class	<i>Enteractopus dofleini</i>	-0.40	3.43	-0.82	0.71	0.87	1.00	-0.40
Class	<i>Lottia digitalis</i>	-0.62	87.44	-0.57	0.42	1.90	0.76	-0.47
Class	<i>Lottia fenestrata</i>	-0.62	87.44	-0.57	0.42	1.90	0.76	-0.47
Class	<i>Lottia limatula</i>	-0.62	87.44	-0.57	0.42	1.90	0.76	-0.47
Class	<i>Lottia paradigitalis</i>	-0.62	87.44	-0.57	0.42	1.90	0.76	-0.47
Class	<i>Lottia persona</i>	-0.62	87.44	-0.57	0.42	1.90	0.76	-0.47
Class	<i>Tectura persona</i>	-0.62	87.44	-0.57	0.42	1.90	0.76	-0.47
Class	<i>Tectura scutum</i>	-0.62	87.44	-0.57	0.42	1.90	0.76	-0.47
Class	<i>Cirolana harfordi</i>	-0.49	156.00	-0.39	0.44	2.22	0.95	-0.47
Class	<i>Cumella californica</i>	-0.49	156.00	-0.39	0.44	2.22	0.95	-0.47
Class	<i>Cumella vulgaris</i>	-0.49	156.00	-0.39	0.44	2.22	0.95	-0.47
Class	<i>Exciorolana chiltoni</i>	-0.49	156.00	-0.39	0.44	2.22	0.95	-0.47
Class	<i>Idotea wosnesenkii</i>	-0.49	156.00	-0.39	0.44	2.22	0.95	-0.47
Order	<i>Emerita analoga</i>	-0.50	139.77	-0.39	0.45	2.22	0.95	-0.47
Order	<i>Heptacarpus sitchensis</i>	-0.50	139.77	-0.39	0.45	2.22	0.95	-0.47
Order	<i>Barleeia haliotiphila</i>	-0.63	29.06	-0.68	0.49	1.65	0.76	-0.48
Species	<i>Crassostrea gigas</i>	-0.51	68.30	-0.51	0.41	1.76	0.95	-0.48

Family	<i>Lacuna vincta</i>	-0.64	21.78	-0.70	0.52	1.61	0.76	-0.48
Genus	<i>Littorina plena</i>	-0.64	21.78	-0.70	0.52	1.61	0.76	-0.48
Genus	<i>Littorina scutulata</i>	-0.64	21.78	-0.70	0.52	1.61	0.76	-0.48
Genus	<i>Littorina sitkana</i>	-0.64	21.78	-0.70	0.52	1.61	0.76	-0.48
Genus	<i>Littorina tatooshensis</i>	-0.64	21.78	-0.70	0.52	1.61	0.76	-0.48
Phylum	<i>Achelia alaskensis</i>	-0.51	233.37	-0.38	0.42	2.34	0.95	-0.48
Phylum	<i>Achelia chelata</i>	-0.51	233.37	-0.38	0.42	2.34	0.95	-0.48
Phylum	<i>Ammonothea hilgendorfi</i>	-0.51	233.37	-0.38	0.42	2.34	0.95	-0.48
Species	<i>Strongylocentrotus droebachiensis</i>	-0.49	25.94	-0.57	0.46	1.51	1.00	-0.49
Class	<i>Archaeomysis grebnitzkii</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Dynamenella benedictii</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Dynamenella dilatata</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Dynamenella glabra</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Dynamenella sheareri</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Dynamenopsis diana</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Exosphaeroma amplicauda</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Exosphaeroma crenulatum</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Exosphaeroma inornata</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Exosphaeroma rhomburum</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Gnorimosphaeroma insulare</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Gnorimosphaeroma oregonense</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Holmesimysis nuda</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Ianiropsis kincaidi</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Idotea aculeata</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Idotea fewkesi</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Idotea kirchanskii</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Idotea montereyensis</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49

Class	<i>Idotea ochotensis</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Idotea rufescens</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Idotea schmitti</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Idotea urotoma</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Janiralata occidentalis</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Joeropsis dubia</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Leptochelia dubia</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Leptochelia savignyi</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Littorophiloscia richardsonae</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Munna chromatocephala</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Munna fernaldi</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Munna stephenseni</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Nebalia pugettensis</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Pentidotea montereyensis</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Pentidotea recta</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Pentidotea resecata</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Pentidotea stenops</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Pentidotea wosnesenskii</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Porcellio scaber</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Synidotea pettiboneae</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Class	<i>Synidotea ritteri</i>	-0.49	156.00	-0.39	0.44	2.22	1.00	-0.49
Order	<i>Betaeus setosus</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Crangon handi</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Crangon nigricauda</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Eualus pusiolus</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Eualus suckleyi</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Heptacarpus brevirostris</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Heptacarpus carinatus</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50

Order	<i>Hippolyte clarki</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Lissocrangon stylirostris</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Lophopanopeus bellus</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Mimulus foliatus</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Oedignathus inermis</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Pagurus granosimanus</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Pagurus hirsutiusculus</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Pagurus samuelis</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Pugettia fragillissima</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Pugettia gracilis</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Pugettia richii</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Pugettia producta</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Order	<i>Scyra acutifrons</i>	-0.50	139.77	-0.39	0.45	2.22	1.00	-0.50
Species	<i>Mytilus edulis</i>	-0.53	45.71	-0.49	0.50	1.91	0.95	-0.50
Family	<i>Adula californiensis</i>	-0.51	94.12	-0.43	0.46	2.10	1.00	-0.51
Family	<i>Adula diegensis</i>	-0.51	94.12	-0.43	0.46	2.10	1.00	-0.51
Family	<i>Adula falcata</i>	-0.51	94.12	-0.43	0.46	2.10	1.00	-0.51
Class	<i>Homalopoma suboboletum</i>	-0.62	87.44	-0.57	0.42	1.90	0.95	-0.59
Class	<i>Lottia painei</i>	-0.62	87.44	-0.57	0.42	1.90	0.95	-0.59
Class	<i>Lottia pelta</i>	-0.62	87.44	-0.57	0.42	1.90	0.95	-0.59
Class	<i>Lottia scabra</i>	-0.62	87.44	-0.57	0.42	1.90	0.95	-0.59
Class	<i>Lottia scutum</i>	-0.62	87.44	-0.57	0.42	1.90	0.95	-0.59
Class	<i>Lottia strigatella</i>	-0.62	87.44	-0.57	0.42	1.90	0.95	-0.59
Class	<i>Onchidella borealis</i>	-0.62	87.44	-0.57	0.42	1.90	0.95	-0.59
Class	<i>Tectura fenestrata</i>	-0.62	87.44	-0.57	0.42	1.90	0.95	-0.59
Class	<i>Tegula funebris</i>	-0.62	87.44	-0.57	0.42	1.90	0.95	-0.59
Order	<i>Fissurellidea bimaculata</i>	-0.59	19.44	-0.64	0.54	1.61	1.00	-0.59
Order	<i>Marsenia rhombica</i>	-0.63	29.06	-0.68	0.49	1.65	0.95	-0.6

Family	<i>Lacuna porrecta</i>	-0.64	21.78	-0.70	0.52	1.61	0.95	-0.6
Family	<i>Lacuna variegata</i>	-0.64	21.78	-0.70	0.52	1.61	0.95	-0.6
Class	<i>Acanthodoris nanaimoensis</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Acmaea mitra</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Aeolidia papillosa</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Ancula pacifica</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Anisodoris nobilis</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Archidoris montereyensis</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Archidoris odhneri</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Berthella californica</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Bittium eschrichtii</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Cadlina luteomarginata</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Calliostoma annulatum</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Calliostoma ligatum</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Cerithiopsis columna</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Cuthona abronia</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Cuthona albocrusta</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Cuthona cocoachroma</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Cuthona divae</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Cuthona flavovulta</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Dendronotus frondosus</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Dendronotus subramosus</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Diaulula sandiegensis</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Diodora aspera</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Dirona albolineata</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Doto amyra</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Elysia hedgpethi</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Eubranchus olivaceus</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62

Class	<i>Flabellina trilineata</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Hallaxa chani</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Hermisenda crassicornis</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Janolus fuscus</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Laila cockerelli</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Lirobittium attenuatum</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Lirobittium eschrichtii</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Lirularia succincta</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Margarites pupillus</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Melanella micans</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Onchidoris muricata</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Opalia wroblewskyi</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Palio zosterae</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Peltodoris nobilis</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Placida dendritica</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Rostanga pulchra</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Siphonaria thersites</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Tegula brunnea</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Trimusculus reticulatus</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Triopha catalinae</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Class	<i>Tritonia festiva</i>	-0.62	87.44	-0.57	0.42	1.90	1.00	-0.62
Order	<i>Hipponix cranioides</i>	-0.63	29.06	-0.68	0.49	1.65	1.00	-0.63
Order	<i>Limneria prolongata</i>	-0.63	29.06	-0.68	0.49	1.65	1.00	-0.63
Species	<i>Corallina vancouveriensis</i>	-0.68	3.35	-1.00	1.00	1.20	0.95	-0.64
Family	<i>Rexithaerus secta</i>	-0.71	6.09	-0.88	0.79	1.43	0.95	-0.67
Family	<i>Oregonia gracilis</i>	-0.68	11.92	-0.76	0.63	1.58	1.00	-0.68
Genus	<i>Macoma inquinata</i>	-0.71	6.09	-0.88	0.79	1.43	1.00	-0.71
Genus	<i>Macoma nasuta</i>	-0.71	6.09	-0.88	0.79	1.43	1.00	-0.71

Order	<i>Clinocardium nuttallii</i>	-0.71	6.09	-0.88	0.79	1.43	1.00	-0.71
Order	<i>Semele rubropicta</i>	-0.71	6.09	-0.88	0.79	1.43	1.00	-0.71
Family	<i>Tellina nucleoides</i>	-0.71	6.09	-0.88	0.79	1.43	1.00	-0.71
Class	<i>Bankia setacea</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Cryptomya californica</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Entodesma navicula</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Glans carpenteri</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Hiatella arctica</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Kellia suborbicularis</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Lasaea adansoni</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Lyonsia californica</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Mya arenaria</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Neaeromya rugifera</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Penitella conradi</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Penitella penita</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Siliqua patula</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Simomactra falcata</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Simomactra planulata</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Class	<i>Tresus capax</i>	-0.71	333.22	-0.50	0.42	2.49	1.00	-0.71
Phylum	<i>Katharina tunicata</i>	-0.75	430.10	-0.51	0.42	2.58	0.95	-0.71
Phylum	<i>Lepidozona cooperi</i>	-0.75	430.10	-0.51	0.42	2.58	0.95	-0.71
Phylum	<i>Lepidozona willetti</i>	-0.75	430.10	-0.51	0.42	2.58	0.95	-0.71
Phylum	<i>Mopalia ciliata</i>	-0.75	430.10	-0.51	0.42	2.58	0.95	-0.71
Phylum	<i>Mopalia hindsii</i>	-0.75	430.10	-0.51	0.42	2.58	0.95	-0.71
Phylum	<i>Mopalia lignosa</i>	-0.75	430.10	-0.51	0.42	2.58	0.95	-0.71
Phylum	<i>Mopalia muscosa</i>	-0.75	430.10	-0.51	0.42	2.58	0.95	-0.71
Phylum	<i>Cryptochiton stelleri</i>	-0.75	430.10	-0.51	0.42	2.58	1.00	-0.75
Phylum	<i>Dendrochiton flectens</i>	-0.75	430.10	-0.51	0.42	2.58	1.00	-0.75

Phylum	<i>Lepidochitona dentiens</i>	-0.75	430.10	-0.51	0.42	2.58	1.00	-0.75
Phylum	<i>Lepidozona mertensii</i>	-0.75	430.10	-0.51	0.42	2.58	1.00	-0.75
Phylum	<i>Leptochiton nexus</i>	-0.75	430.10	-0.51	0.42	2.58	1.00	-0.75
Phylum	<i>Leptochiton rugatus</i>	-0.75	430.10	-0.51	0.42	2.58	1.00	-0.75
Phylum	<i>Placiphorella velata</i>	-0.75	430.10	-0.51	0.42	2.58	1.00	-0.75
Phylum	<i>Tonicella lineata</i>	-0.75	430.10	-0.51	0.42	2.58	1.00	-0.75
Phylum	<i>Tonicella insignis</i>	-0.75	430.10	-0.51	0.42	2.58	1.00	-0.75
Family	<i>Crassadoma gigantea</i>	-0.81	37.26	-0.71	0.55	2.01	1.00	-0.81
Order	<i>Pododesmus macrochisma</i>	-0.81	37.26	-0.71	0.55	2.01	1.00	-0.81
Species	<i>Strongylocentrotus franciscanus</i>	-1.00	5.89	-1.00	1.00	1.77	1.00	-1.00

Table S3. List of ONP taxonomic groups and their accompanying mean sensitivity scores.

Taxon ID	Taxonomic correspondence	Taxonomic group name	Mean sensitivity score
1	Order	Ceramiales	0.54
2	Class	Anthozoa	0.28
3	Phylum	Ochrophyta	0.12
4	Class	Ulvophyceae	0.03
5	Family	Nereididae	0.00
6	Phylum	Tracheophyta	-0.02
7	Order	Gigartinales	-0.04
8	Class	Asteroidea	-0.05
9	Class	Holothuroidea	-0.07
10	Class	Ophiuroidea	-0.07
11	Phylum	Porifera	-0.09
12	Order	Amphipoda	-0.15
13	Order	Sessilia	-0.17
14	Family	Serpulidae	-0.19
15	Phylum	Bryozoa	-0.32
16	Order	Corallinales	-0.37
17	Class	Cephalopoda	-0.40
18	Order	Decapoda	-0.40
19	Class	Echinoidea	-0.43
20	Order	Isopoda	-0.50
21	Class	Gastropoda	-0.51
22	Class	Bivalvia	-0.59

Table S4. List of ONP rocky intertidal community groups and their accompanying mean sensitivity scores. (DOC)

Taxon ID	Taxonomic correspondence	Community group name	Mean sensitivity score
23	Class	Polyplacaphora	-0.75
24	Genus	<i>Littorina spp.</i>	-0.64
25	Genus	<i>Lottia spp.</i>	-0.62
26	Species	<i>Onchidella borealis</i>	-0.62
27	Species	<i>Diodora aspera</i>	-0.62
28	Order	Isopoda	-0.50
1	Genus	<i>Lithothamnion spp.</i>	-0.42
2	Genus	<i>Corallina spp.</i>	-0.39
3	Species	<i>Pollicipes polymerus</i>	-0.37
29	Genus	<i>Petrolisthes spp.</i>	-0.34
4	Species	<i>Mytilus californianus</i>	-0.33
5	Phylum	Other Rhodophyta	-0.25
6	Species	<i>Semibalanus cariosus</i>	-0.22
7	Genus	<i>Hildenbrandia spp.</i>	-0.20
8	Species	<i>Chthamalus dalli</i>	-0.17
9	Family	Balanus glandula	-0.16
30	Order	Amphipoda	-0.16
10	Species	<i>Mytilus trossulus</i>	-0.14
11	Species	<i>Cryptosiphonia woodii</i>	-0.13
31	Class	Polychaeta	-0.13
32	Genus	<i>Nucella spp.</i>	-0.07
12	Genus	<i>Cladophora spp.</i>	-0.04
13	Genus	<i>Mazaella spp.</i>	-0.04
14	Order	Other Gigartinales	-0.04
15	Genus	<i>Phyllospadix spp.</i>	-0.03
16	Species	<i>Saccharina sessilis</i>	0.00

17	Genus	<i>Ulva spp.</i>	0.01
18	Genus	<i>Acrosiphonia spp.</i>	0.04
19	Class	Other Phaeophyceae	0.13
20	Genus	<i>Anthopleura spp.</i>	0.32
21	Order	Other Ceramiales	0.54
22	Family	Rhodomelaceae	0.55