

Table S1. Number of stomachs and percent weight of the diet of Bering Sea fishes made up of jellyfish (Cnidaria and Ctenophores) and urochordates (Thaliacea and Appendicularia) for predators that had at least 10 stomachs examined during the study period (1981 to 2017).

Scientific name (common name)	# examined	Jelly %W	Salp %W
<i>Gadus chalcogrammus</i> (walleye pollock)	128649	0.03	1.35
<i>Gadus macrocephalus</i> (Pacific cod)	67030	0.00	0.00
<i>Atheresthes stomias</i> (arrowtooth flounder)	26471	0.00	0.00
<i>Limanda aspera</i> (yellowfin sole)	23130	0.42	0.71
<i>Hippoglossoides elassodon</i> (flathead sole)	10947	0.08	0.00
<i>Hippoglossus stenolepis</i> (Pacific halibut)	9931	0.00	0.00
<i>Lepidopsetta polyxystra</i> (Northern rock sole)	8736	0.03	0.03
<i>Pleuronectes quadrituberculatus</i> (Alaska plaice)	5522	0.09	0.09
<i>Bathyraja parmifera</i> (Alaska skate)	4846	0.01	0.00
<i>Reinhardtius hippoglossoides</i> (Greenland turbot)	2654	0.00	0.00
<i>Myoxocephalus polyacanthocephalus</i> (great sculpin)	1695	0.02	0.00
<i>Albatrossia pectoralis</i> (giant grenadier)	1570	3.27	0.16
<i>Sebastes alutus</i> (Pacific ocean perch)	1438	0.40	0.40
<i>Atheresthes evermanni</i> (Kamchatka flounder)	1252	0.01	0.00
<i>Hemilepidotus jordani</i> (yellow Irish lord)	1192	0.05	0.00
<i>Hippoglossoides robustus</i> (Bering flounder)	1158	0.00	0.00
<i>Anoplopoma fimbria</i> (sablefish)	1138	3.70	0.00
<i>Sebastolobus alascanus</i> (shortspine thornyhead)	1097	0.00	0.02
<i>Clupea pallasii</i> (Pacific herring)	1093	0.00	0.42
<i>Myoxocephalus jaok</i> (plain sculpin)	1038	0.00	0.00
<i>Platichthys stellatus</i> (starry flounder)	830	0.00	0.00
<i>Atheresthes</i> spp.	808	0.00	0.00
Rajidae (skates)	651	0.00	0.00
<i>Coryphaenoides cinereus</i> (popeye grenadier)	606	1.53	0.01
<i>Boreogadus saida</i> (Arctic cod)	584	0.00	0.69
<i>Mallotus villosus</i> (capelin)	581	0.00	0.04
<i>Bathyraja aleutica</i> (Aleutian skate)	455	0.00	0.00
<i>Hemilepidotus papilio</i> (butterfly sculpin)	422	3.74	14.38
<i>Eleginus gracilis</i> (saffron cod)	404	0.00	0.18
<i>Lycodes palearis</i> (wattled eelpout)	400	0.00	0.00
<i>Myoxocephalus scorpius</i> (shorthorn sculpin)	366	0.00	0.00
<i>Glyptocephalus zachirus</i> (rex sole)	351	0.25	0.00
<i>Lycodes raridens</i> (marbled eelpout)	343	0.00	0.00
<i>Podothecus accipenserinus</i> (sturgeon poacher)	323	0.00	0.00
<i>Osmerus mordax</i> (rainbow smelt)	294	0.00	0.28
Bathyrajidae (skates)	292	0.09	0.00

<i>Bothrocara zestum</i> (Western eelpout)	238	0.00	0.00
<i>Coryphaenoides acrolepis</i> (Pacific rattail)	220	0.57	0.00
<i>Pleurogrammus monopterygius</i> (Atka mackerel)	199	0.02	3.55
<i>Hemitripterus bolini</i> (bigmouth sculpin)	197	0.00	0.00
<i>Hemilepidotus hemilepidotus</i> (red Irish lord)	194	0.00	0.00
<i>Lycodes beringi</i> (black eelpout)	164	0.00	0.00
<i>Gymnocanthus pistilliger</i> (threaded sculpin)	164	0.00	0.00
<i>Lepidopsetta bilineata</i> (Southern rock sole)	161	0.00	0.00
<i>Limanda proboscidea</i> (longhead dab)	157	0.00	0.00
<i>Lycodes brevipes</i> (shortfin eelpout)	156	0.05	0.00
<i>Sebastes polyspinis</i> (northern rockfish)	152	0.00	0.00
<i>Liparis gibbus</i> (variegated snailfish)	149	0.00	0.00
<i>Sarritor frenatus</i> (sawback poacher)	145	0.00	0.00
<i>Bathyraja lindbergi</i> (commander skate)	134	0.02	0.00
<i>Lycodes concolor</i> (ebony eelpout)	132	0.20	0.00
<i>Lumpenus fabricii</i> (slender eelblenny)	131	0.00	0.00
<i>Bothrocara brunneum</i> (twoline eelpout)	125	0.00	0.00
<i>Limanda sakhalinensis</i> (Sakhalin sole)	119	0.00	0.14
<i>Stenobranchius leucopsarus</i> (northern lampfish)	116	0.00	0.76
<i>Sebastes aleutianus</i> (rougheyed rockfish)	114	0.00	0.00
<i>Bathyraja trachura</i> (rougthead skate)	112	0.00	0.00
<i>Lepidopsetta</i> spp. (rock sole)	81	0.00	0.00
<i>Bathymaster signatus</i> (searcher)	74	0.00	4.68
<i>Dasycottus setiger</i> (spinyhead sculpin)	73	0.00	0.00
<i>Careproctus rastrinus</i> (salmon snailfish)	73	6.08	0.00
<i>Enophrys diceraus</i> (antlered sculpin)	68	0.00	0.00
<i>Hexagrammos stelleri</i> (white-spotted greenling)	65	0.02	0.00
<i>Gymnocanthus tricuspis</i> (Arctic staghorn sculpin)	62	0.00	0.00
<i>Bathyraja minispinosa</i> (whitebrow skate)	50	0.00	0.00
<i>Oncorhynchus tshawytscha</i> (chinook salmon)	49	0.00	0.00
<i>Leuroglossus schmidti</i> (northern smoothtongue)	46	0.00	13.91
<i>Leptoclinus maculatus</i> (daubed shanny)	46	0.00	1.08
<i>Malacocottus zonurus</i> (darkfin sculpin)	45	0.17	0.00
<i>Ammodytes hexapterus</i> (sandlance)	45	0.00	10.78
<i>Occella dodecaedron</i> (Bering poacher)	39	0.00	0.00
<i>Trichodon trichodon</i> (Pacific sandfish)	39	0.00	0.00
<i>Lycodes turneri</i> (polar eelpout)	31	0.00	0.00
<i>Bothrocara</i> spp. (eelpouts)	30	0.00	0.00
<i>Anisarchus medius</i> (stout eelblenny)	28	0.00	0.00
<i>Acantholumpenus mackayi</i> (pighead prickleback)	27	0.00	0.00
<i>Podothecus veterinus</i> (veteran poacher)	26	0.00	0.00
<i>Ulcina olrikii</i> (Arctic alligatorfish)	23	0.00	0.00
<i>Isopsetta isolepis</i> (butter sole)	21	0.00	0.00

<i>Sebastes variabilis</i> (dusky rockfish)	20	19.55	9.09
<i>Nautichthys pribilovius</i> (eyeshade sculpin)	17	0.00	0.00
<i>Careproctus cypselurus</i> (blackfinned redsnail)	17	0.00	0.00
<i>Aspidophoroides bartoni</i> (Aleutian alligatorfish)	16	0.00	0.00
<i>Liparis tunicatus</i> (kelp snailfish)	16	0.00	0.00
<i>Icelus spiniger</i> (thorny sculpin)	15	0.13	0.00
<i>Aptocyclus ventricosus</i> (smooth lumpsucker)	15	52.14	36.74
<i>Beringraja binoculata</i> (big skate)	14	0.00	0.00
<i>Zaprora silenus</i> (prowfish)	13	30.40	0.00
<i>Somniosus pacificus</i> (Pacific sleeper shark)	12	0.00	0.00
<i>Bathyagonus nigripinnis</i> (blackfin poacher)	12	0.00	0.00
<i>Sebastes diploproa</i> (splitnose rockfish)	11	0.00	0.00
<i>Bathylagus pacificus</i> (slender blacksmelt)	10	0.00	0.00

Table S2. Number of stomachs and percent weight of the diet of Aleutian Islands fishes made up of jellyfish (Cnidaria and Ctenophores) and urochordates (Thaliacea and Appendicularia) for predators that had at least 10 stomachs examined during the study period (1981 to 2012).

Scientific name (common name)	# examined	Jelly %W	Salp %W
<i>Gadus chalcogrammus</i> (walleye pollock)	7496	0.33	6.08
<i>Pleurogrammus monopterygius</i> (Atka mackerel)	6599	0.40	3.63
<i>Gadus macrocephalus</i> (Pacific cod)	6365	0.12	0.01
<i>Atheresthes stomias</i> (arrowtooth flounder)	5744	0.00	0.00
<i>Sebastes alutus</i> (Pacific ocean perch)	3326	1.50	2.35
<i>Hippoglossus stenolepis</i> (Pacific halibut)	1782	0.00	0.00
<i>Atheresthes evermanni</i> (Kamchatka flounder)	888	0.00	0.03
<i>Sebastes polyspinis</i> (northern rockfish)	847	1.32	0.36
<i>Lepidopsetta polyxystra</i> (Northern rock sole)	775	0.00	0.33
<i>Hemilepidotus jordani</i> (yellow Irish lord)	626	0.90	0.00
<i>Sebastes borealis</i> (shortraker rockfish)	359	0.00	0.78
<i>Hippoglossoides elassodon</i> (flathead sole)	317	0.06	0.27
<i>Albatrossia pectoralis</i> (giant grenadier)	251	4.05	0.00
<i>Anoplopoma fimbria</i> (sablefish)	234	22.77	5.04
<i>Sebastes aleutianus</i> (rougheye rockfish)	202	0.00	0.00
<i>Sebastes melanostictus</i> (black spotted rockfish)	197	0.02	0.00
<i>Lepidopsetta</i> spp.	189	0.00	0.00
<i>Malacocottus zonurus</i> (darkfin sculpin)	143	0.81	0.05
<i>Bathyraja taranetzi</i> (mud skate)	117	0.00	0.01
<i>Zaprora silenus</i> (prowfish)	104	57.23	40.21
<i>Bathyraja maculata</i> (white blotched skate)	87	0.00	0.01
<i>Triglops szepticus</i> (spectacled sculpin)	81	0.00	2.29
<i>Bathymaster signatus</i> (searcher)	60	0.00	0.00
<i>Sebastes variabilis</i> (dusky rockfish)	46	1.57	62.60
<i>Hemitripterus bolini</i> (bigmouth sculpin)	43	0.00	0.00
<i>Atheresthes</i> spp.	38	0.00	0.00
<i>Sebastes ciliatus</i> (dark rockfish)	34	43.23	24.23
<i>Triglops forficata</i> (scissortail sculpin)	34	0.00	0.24
<i>Bathyraja aleutica</i> (Aleutian skate)	29	0.00	0.00
<i>Bathyraja panthera</i> (leopard skate)	20	0.00	0.00
<i>Gymnocanthus galeatus</i> (armorhead sculpin)	15	0.00	0.00
<i>Hemilepidotus hemilepidotus</i> (red Irish lord)	14	0.00	0.00
<i>Sarritor frenatus</i> (sawback poacher)	13	0.00	0.00
<i>Eumicrotremus orbis</i> (Pacific spiny lump sucker)	13	0.00	0.00

Table S3. Number of stomachs and percent weight of the diet of Gulf of Alaska fishes made up of jellyfish (Cnidaria and Ctenophores) and urochordates (Thaliacea and Appendicularia) for predators that had at least 10 stomachs examined during the study period (1981 to 2017).

Scientific name (common name)	# examined	Jelly %W	Salp %W
<i>Atheresthes stomias</i> (arrowtooth flounder)	22078	0.00	0.00
<i>Gadus chalcogrammus</i> (walleye pollock)	20262	0.32	3.72
<i>Gadus macrocephalus</i> (Pacific cod)	13134	0.05	0.01
<i>Hippoglossus stenolepis</i> (Pacific halibut)	8935	0.00	0.00
<i>Sebastes alutus</i> (Pacific ocean perch)	3816	0.17	2.30
<i>Anoplopoma fimbria</i> (sablefish)	3392	4.20	0.11
<i>Hippoglossoides elassodon</i> (flathead sole)	2364	0.00	0.02
<i>Lepidopsetta bilineata</i> (Southern rock sole)	811	0.00	0.16
<i>Sebastes aleutianus</i> (rougeye rockfish)	801	0.00	0.00
<i>Sebastolobus alascanus</i> (shortspine thornyhead)	763	0.00	0.03
<i>Glyptocephalus zachirus</i> (rex sole)	744	0.00	0.12
<i>Lepidopsetta polyxystra</i> (Northern rock sole)	654	0.09	0.66
<i>Squalus acanthias</i> (spiny dogfish)	548	0.92	0.03
<i>Sebastes polyspinis</i> (northern rockfish)	470	0.03	0.46
<i>Microstomus pacificus</i> (Dover sole)	455	0.00	0.00
<i>Sebastes variabilis</i> (dusky rockfish)	399	28.61	13.91
<i>Mallotus villosus</i> (capelin)	362	0.24	1.02
<i>Albatrossia pectoralis</i> (giant grenadier)	357	23.28	0.38
<i>Pleurogrammus monopterygius</i> (Atka mackerel)	274	0.03	2.77
<i>Sebastes borealis</i> (shortraker rockfish)	243	0.11	0.00
<i>Stenobranchius leucopsarus</i> (northern lampfish)	240	0.00	0.47
<i>Hemilepidotus jordani</i> (yellow Irish lord)	207	0.05	0.00
<i>Diaphus theta</i> (California headlightfish)	206	0.00	39.54
<i>Nannobranchium regale</i> (pinpoint lanternfish)	160	0.00	0.00
<i>Bathylagus</i> sp.	152	0.00	24.65
<i>Ophiodon elongatus</i> (lingcod)	145	0.36	0.00
<i>Limanda aspera</i> (yellowfin sole)	145	0.00	1.01
<i>Melamphaes lugubris</i> (highsnout bigscale)	142	0.00	1.63
<i>Leuroglossus schmidti</i> (northern smooth tongue)	140	0.00	19.52
<i>Sebastes zacentrus</i> (sharpchin rockfish)	122	0.00	0.00
<i>Benthalbella dentata</i> (Northern pearleye)	121	0.00	0.00
<i>Chauliodus macouni</i> (Pacific viperfish)	118	0.00	0.00
<i>Sebastes melanostictus</i> (black spotted rockfish)	112	0.60	0.83
<i>Poromitra curilensis</i> (crested bigscale)	106	0.00	11.87
<i>Sebastes brevispinis</i> (silvergray rockfish)	106	0.00	0.00
<i>Bathyraja binoculata</i> (big skate)	97	0.00	0.00

<i>Isopsetta isolepis</i> (butter sole)	89	0.00	0.00
<i>Raja rhina</i> (longnose skate)	85	0.00	0.00
<i>Nansenia candida</i> (bluethroat argentine)	84	0.00	88.49
<i>Merluccius productus</i> (Pacific hake)	82	0.00	0.00
<i>Sebastes ciliatus</i> (dark rockfish)	81	60.28	0.95
<i>Parophrys vetulus</i> (English sole)	79	0.00	0.00
<i>Thaleichthys pacificus</i> (eulachon)	71	0.00	0.69
<i>Protomyctophum thompsoni</i> (bigeye lanternfish)	62	0.00	0.00
<i>Oncorhynchus tshawytscha</i> (Chinook salmon)	60	0.00	0.00
<i>Bathyraja aleutica</i> (Aleutian skate)	58	0.00	0.00
<i>Sebastes babcocki</i> (redbanded rockfish)	56	0.00	0.00
<i>Bathyraja interrupta</i> (Bering skate)	47	0.40	0.00
<i>Lepidopsetta</i> spp.	47	0.00	0.00
<i>Sebastes ruberrimus</i> (yelloweye rockfish)	46	0.00	0.00
<i>Platichthys stellatus</i> (starry flounder)	37	0.00	0.00
<i>Hemitripterus bolini</i> (bigmouth sculpin)	34	0.00	0.00
<i>Oncorhynchus keta</i> (chum salmon)	32	0.00	0.64
<i>Stenobranchius nannochir</i> (garnet myctophid)	28	0.00	0.00
<i>Dasycottus setiger</i> (spinyhead sculpin)	28	0.00	0.00
<i>Myoxocephalus jaok</i> (plain sculpin)	27	0.00	0.00
<i>Hexagrammos decagrammus</i> (kelp greenling)	26	0.00	0.00
<i>Sebastes variegatus</i> (harlequin rockfish)	25	2.19	2.05
<i>Sagamichthys abei</i> (shining tubeshoulder)	24	0.00	14.81
<i>Aptocyclus ventricosus</i> (smooth lumpsucker)	24	5.34	0.00
<i>Macropinna microstoma</i> (barreleye)	22	100.00	0.00
<i>Trichodon trichodon</i> (Pacific sandfish)	20	0.00	0.00
<i>Scopelosaurus harrisi</i> (scaly waryfish)	19	1.71	0.00
<i>Zaprora silenus</i> (prowfish)	18	98.96	0.03
<i>Sebastes proriger</i> (redstripe rockfish)	16	0.00	0.00
<i>Lyopsetta exilis</i> (slender sole)	14	0.00	0.00
<i>Somniosus pacificus</i> (Pacific sleeper shark)	13	0.00	0.00
<i>Sebastes flavidus</i> (yellowtail rockfish)	11	0.00	0.00
<i>Sebastes maliger</i> (quillback rockfish)	11	0.00	1.43

Table S4. Number of stomachs and percent weight of the diet of West Coast fishes made up of jellyfish (Cnidaria and Ctenophores) and urochordates (Thaliacea and Appendicularia) for predators that had at least 10 stomachs examined during the study period (1980 to 1992).

Scientific name (common name)	# examined	Jelly %W	Salp %W
<i>Merluccius productus</i> (Pacific hake)	13377	0.01	0.00
<i>Microstomus pacificus</i> (Dover sole)	770	0.00	0.00
<i>Anoplopoma fimbria</i> (sablefish)	617	0.10	1.10
<i>Sebastes alascanus</i> (shortspine thornyhead)	505	0.00	0.00
<i>Sebastes altivelis</i> (longspine thornyhead)	281	0.00	0.00
<i>Atheresthes stomias</i> (arrowtooth flounder)	189	0.01	0.00
<i>Sebastes flavidus</i> (yellowtail rockfish)	176	0.20	2.03
<i>Sebastes alutus</i> (Pacific ocean perch)	133	0.00	0.00
<i>Embassichthys bathybius</i> (deepsea sole)	131	0.00	0.00
<i>Sebastes elongatus</i> (greenstriped rockfish)	47	0.00	0.00
<i>Coryphaenoides pectoralis</i> (giant grenadier)	42	0.00	0.00
<i>Sebastes pinniger</i> (canary rockfish)	42	0.00	0.00
<i>Coryphaenoides acrolepis</i> (Pacific rattail)	33	0.00	0.00
<i>Sebastes brevispinis</i> (silvergray rockfish)	25	0.00	0.00

Table S5. Number of stomachs and percent weight of the diet of West Coast fishes made up of jellyfish (Cnidaria and Ctenophores) and urochordates (Thaliacea and Appendicularia) for predators that had at least 10 stomachs examined during the study period (2005 to 2017).

Scientific name (common name)	# examined	Jelly %W	Salp %W
<i>Anoplopoma fimbria</i> (sablefish)	1143	0.36	10.29
<i>Merluccius productus</i> (Pacific hake)	789	0.01	0.00
<i>Ophiodon elongatus</i> (lingcod)	466	0.00	0.00
<i>Eopsetta jordani</i> (petrale sole)	349	0.00	0.00
<i>Citharichthys sordidus</i> (Pacific sanddab)	330	0.53	8.24
<i>Atheresthes stomias</i> (arrowtooth flounder)	299	0.00	0.00
<i>Sebastes elongatus</i> (greenstriped rockfish)	155	0.02	0.00
<i>Sebastes diploproa</i> (splitnose rockfish)	134	0.07	0.00
<i>Sebastes ruberrimus</i> (yelloweye rockfish)	129	0.00	0.00
<i>Sebastes aurora</i> (aurora rockfish)	126	0.21	0.00
<i>Sebastes goodei</i> (chilipepper)	123	0.09	0.00
<i>Sebastes helvomaculatus</i> (rosethorn rockfish)	117	2.45	0.00
<i>Sebastes flavidus</i> (yellowtail rockfish)	111	4.82	0.00
<i>Sebastes entomelus</i> (widow rockfish)	111	6.26	7.30
<i>Sebastes pinniger</i> (canary rockfish)	109	0.00	0.00
<i>Sebastes crameri</i> (darkblotched rockfish)	109	12.09	1.99
<i>Sebastes paucispinis</i> (bocaccio)	108	0.00	0.00
<i>Sebastes aleutianus</i> (rougheye rockfish)	104	0.08	1.26
<i>Sebastes zacentrus</i> (sharpchin rockfish)	86	0.61	0.00
<i>Sebastes alutus</i> (Pacific ocean perch)	84	0.00	0.00
<i>Sebastes saxicola</i> (stripetail rockfish)	82	0.10	0.00
<i>Sebastes melanostoma</i> (blackgill rockfish)	56	0.01	0.46