

Species composition and acoustic signatures of mesopelagic organisms in a subtropical convergence zone, the New Zealand Chatham Rise

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Supplement. Additional data

Table S1. Species occurrence (Occ.) in number of tows, and abundance in weight (Wt) and number (No.) in successful mid-water trawls. Trawls are separated by voyage and type (daytime mark identification trawls ID, and nighttime oblique tows)

Name	Order	May–June 2008 ID			Nov 2011 ID			Nov 2011 Oblique		
		Occ.	Wt (g)	No.	Occ.	Wt (g)	No.	Occ.	Wt (g)	No.
<i>Acantheephyra pelagica</i>	Decapoda	–	–	–	–	–	–	3	9	3
<i>Acantheephyra quadrispinosa</i>	Decapoda	–	–	–	–	–	–	1	7	1
<i>Acantheephyra</i> spp.	Decapoda	–	–	–	–	–	–	3	17	4
<i>Agrostichthys parkeri</i>	Lampriformes	1	8	1	–	–	–	3	1813	3
<i>Alainopasiphaea australis</i>	Decapoda	–	–	–	3	273	356	14	287	366
<i>Alloctytus niger</i>	Zeiformes	–	–	–	–	–	–	1	600	1
Amphipod (unspecified)	Amphipoda	–	–	–	1	3	4	8	34	17
<i>Anoplogaster cornuta</i>	Beryciformes	–	–	–	–	–	–	1	25	1
<i>Apristurus</i> spp.	Carcharhiniformes	–	–	–	–	–	–	1	900	1
<i>Argentina elongata</i>	Argentiniformes	–	–	–	–	–	–	4	541	6
<i>Argyropelecus gigas</i>	Stomiiformes	2	20	2	2	38	5	8	165	12
<i>Argyropelecus hemigymnus</i>	Stomiiformes	4	12	6	1	1	1	1	19	2
<i>Astronesthes</i> spp.	Stomiiformes	–	–	–	1	3	3	3	103	3
<i>Atolla wyvillei</i>	Coronatae	–	–	–	–	–	–	4	83	7
<i>Bathophilus ater</i>	Stomiiformes	1	12	1	–	–	–	–	–	–
<i>Bathylagus</i> spp.	Argentiniformes	–	–	–	1	121	2	18	2236	84
<i>Bentheuphausia ambylops</i>	Euphausiacea	1	1	1	–	–	–	–	–	–
<i>Benthodesmus</i> spp.	Perciformes	–	–	–	–	–	–	2	48	2
<i>Bolinichthys supralateralis</i>	Myctophiformes	–	–	–	1	3	1	3	42	19
<i>Borostomias antarcticus</i>	Stomiiformes	–	–	–	–	–	–	1	70	1
<i>Borostomias mononema</i>	Stomiiformes	1	1	1	–	–	–	–	–	–
<i>Brama australis</i>	Perciformes	11	79103	50	4	24345	14	6	18355	11
<i>Ceratoscopelus warmingi</i>	Myctophiformes	–	–	–	–	–	–	1	2	1
<i>Chauliodus sloani</i>	Stomiiformes	2	34	6	3	631	87	11	2055	146
<i>Chaunax pictus</i>	Lophiiformes	–	–	–	–	–	–	1	72	1
<i>Chiroteuthis veranyi</i>	Teuthida	–	–	–	1	68	1	5	1510	5
<i>Coccorella atlantica</i>	Aulopiformes	1	8	1	–	–	–	–	–	–
<i>Coelorinchus oliverianus</i>	Gadiformes	–	–	–	–	–	–	2	92	2
<i>Coryphaenoides subserrulatus</i>	Gadiformes	–	–	–	1	6300	146	4	6495	127
<i>Cranchiidae</i>	Teuthida	–	–	–	4	45	22	17	1891	50
<i>Cryptopsaras couesi</i>	Lophiiformes	–	–	–	–	–	–	1	32	1
Ctenophore	Ctenophora	2	1299	218	–	–	–	9	1506	13
<i>Cyclothone</i> spp.	Stomiiformes	–	–	–	1	2	54	7	166	416
<i>Cymbalia peroni</i>	Pteropoda	–	–	–	2	6	2	–	–	–
<i>Cystisoma</i> spp.	Amphipoda	–	–	–	–	–	–	1	1	1

Table S1 (continued)

Name	Order	May–June 2008 ID			Nov 2011 ID			Nov 2011 Oblique		
		Occ.	Wt (g)	No.	Occ.	Wt (g)	No.	Occ.	Wt (g)	No.
<i>Cyttus traversi</i>	Zeiformes	–	–	–	–	–	–	1	35	1
<i>Diaphus danae</i>	Myctophiformes	18	15597	2015	8	2089	167	29	12852	1178
<i>Diaphus hudsoni</i>	Myctophiformes	–	–	–	6	63	50	27	954	348
<i>Diaphus ostenfeldi</i>	Myctophiformes	4	41	7	3	50	12	5	122	33
<i>Diaphus</i> spp.	Myctophiformes	–	–	–	–	–	–	1	205	20
<i>Diplophos rebainsi</i>	Stomiiformes	–	–	–	1	4	1	–	–	–
<i>Diplophos</i> spp.	Stomiiformes	–	–	–	2	52	4	7	237	12
<i>Diretmus argenteus</i>	Beryciformes	3	82	7	–	–	–	3	37	3
<i>Electrona carlsbergi</i>	Myctophiformes	4	2441	564	7	587	82	15	1019	164
<i>Electrona paucirastra</i>	Myctophiformes	4	48	11	6	248	132	9	200	70
<i>Electrona risso</i>	Myctophiformes	2	5	2	1	3	1	1	5	1
<i>Electrona</i> spp.	Myctophiformes	–	–	–	–	–	–	2	8	2
<i>Electrona subaspera</i>	Myctophiformes	2	85	16	–	–	–	–	–	–
<i>Enygniastes eximia</i>	Elasipodida	–	–	–	–	–	–	1	137	8
<i>Epigonus lenimen</i>	Perciformes	–	–	–	–	–	–	1	14	1
<i>Etmopterus baxteri</i>	Squaliformes	–	–	–	–	–	–	6	16220	13
<i>Etmopterus lucifer</i>	Squaliformes	–	–	–	–	–	–	1	100	2
<i>Euphausia longirostris</i>	Euphausiacea	1	1	2	1	1	1	–	–	–
<i>Euphausia similis</i>	Euphausiacea	17	376	1357	5	11	60	14	276	1560
<i>Euphausia spinifera</i>	Euphausiacea	11	35	98	–	–	–	–	–	–
<i>Euphausia</i> spp.	Euphausiacea	1	300	1000	5	83	410	7	37	174
<i>Euprymna tasmanica</i>	Sepiolida	9	163	55	–	–	–	–	–	–
<i>Eurypharynx pelecanoioides</i>	Saccopharyngiformes	–	–	–	–	–	–	1	31	1
<i>Evermannella balbo</i>	Aulopiformes	–	–	–	–	–	–	1	48	2
Fish larvae (unidentified)		–	–	–	3	5	79	14	61	282
<i>Galiteuthis glacialis</i>	Teuthida	–	–	–	–	–	–	1	5	1
<i>Gnathophausia ingens</i>	Lophogastrida	–	–	–	–	–	–	2	10	3
<i>Gymnoscopelus bolini</i>	Myctophiformes	1	62	3	–	–	–	2	17	2
<i>Gymnoscopelus microlampus</i>	Myctophiformes	1	9	3	–	–	–	3	231	9
<i>Gymnoscopelus piabilis</i>	Myctophiformes	1	14	1	4	1387	149	15	651	108
<i>Gymnoscopelus</i> spp.	Myctophiformes	–	–	–	–	–	–	3	424	13
<i>Hintonia candens</i>	Myctophiformes	–	–	–	–	–	–	1	30	1
<i>Hippopodius hippopus</i>	Siphonophora	2	6	6	–	–	–	–	–	–
<i>Histioteuthis atlantica</i>	Teuthida	–	–	–	1	410	1	–	–	–
<i>Histioteuthis hoylei</i>	Teuthida	1	23	1	–	–	–	–	–	–
<i>Histioteuthis</i> spp.	Teuthida	1	627	2	3	678	6	12	3984	42
<i>Iasis zonaria</i>	Salpida	9	446	106	12	886	519	18	2232	871
<i>Idiacanthus atlanticus</i>	Stomiiformes	3	13	6	2	45	10	–	–	–
<i>Idiacanthus</i> spp.	Stomiiformes	–	–	–	–	–	–	13	2002	86
Jellyfish (unspecified)	Medusozoa	10	952	339	10	948	216	17	2985	92
<i>Lampadena notialis</i>	Myctophiformes	1	3	1	1	4	1	4	126	21
<i>Lampadena speculigera</i>	Myctophiformes	–	–	–	–	–	–	1	34	1
<i>Lampanyctodes hectoris</i>	Myctophiformes	19	30048	19921	13	158875	100529	31	98571	65421
<i>Lampanyctus achirus</i>	Myctophiformes	–	–	–	–	–	–	3	564	26
<i>Lampanyctus australis</i>	Myctophiformes	5	395	55	4	203	50	19	5912	772
<i>Lampanyctus intracarius</i>	Myctophiformes	–	–	–	2	153	7	11	1232	62
<i>Lampanyctus macdonaldi</i>	Myctophiformes	–	–	–	–	–	–	1	55	4
<i>Lampanyctus mendeleevi</i>	Myctophiformes	–	–	–	–	–	–	2	3	2
<i>Lampanyctus procerus</i>	Myctophiformes	1	6	2	–	–	–	–	–	–
<i>Lampanyctus</i> spp.	Myctophiformes	–	–	–	1	3	2	7	1831	240
<i>Lampichthys procerus</i>	Myctophiformes	–	–	–	1	7	1	11	1299	176
<i>Lepidorhynchus denticulatus</i>	Gadiformes	–	–	–	–	–	–	1	10	4
Leptocephali	Anguilliformes	1	1	1	5	75	31	9	29	14
<i>Macroparalepis macrugeneion</i>	Aulopiformes	–	–	–	1	5	1	1	11	1
<i>Macruronus novaezelandiae</i>	Gadiformes	–	–	–	4	6677	6	5	10614	16
<i>Magnisudis prionosa</i>	Aulopiformes	–	–	–	–	–	–	4	354	7

Table S1 (continued)

Name	Order	May–June 2008 ID			Nov 2011 ID			Nov 2011 Oblique		
		Occ.	Wt (g)	No.	Occ.	Wt (g)	No.	Occ.	Wt (g)	No.
<i>Malacosteus australis</i>	Stomiiformes	–	–	–	2	41	3	3	204	4
<i>Margrethia obtusirostra</i>	Stomiiformes	3	10	6	–	–	–	–	–	–
<i>Mauroliticus australis</i>	Stomiiformes	27	47875	59258	17	19326	16489	30	4600	4303
Melamphaidae	Stephano- beryciformes	–	–	–	–	–	–	5	110	11
<i>Melanolagus bericoides</i>	Argentiniiformes	–	–	–	–	–	–	4	315	6
<i>Melanostigma gelatinosum</i>	Perciformes	–	–	–	1	15	1	1	87	3
<i>Melanostomias</i> spp.	Stomiiformes	–	–	–	–	–	–	1	149	2
Melanostomiidae	Stomiiformes	–	–	–	1	2	1	4	217	11
<i>Mesobius antipodum</i>	Gadiformes	–	–	–	–	–	–	1	299	1
<i>Metelectrona</i> spp.	Myctophiformes	–	–	–	2	101	33	7	617	127
<i>Metelectrona ventralis</i>	Myctophiformes	1	6	1	4	46	12	11	219	39
Natant decapod	Decapoda	–	–	–	1	1	1	3	4	3
<i>Nematoscelis megalops</i>	Euphausiacea	17	170	577	6	21	130	15	38	158
<i>Nemichthys curvirostris</i>	Anguilliformes	–	–	–	–	–	–	3	17	3
<i>Nemichthys scolopaceus</i>	Anguilliformes	–	–	–	–	–	–	1	21	1
<i>Notacanthus sexspinis</i>	Notacanthiformes	–	–	–	1	52	1	3	391	3
<i>Notopandalus magnoculus</i>	Decapoda	–	–	–	–	–	–	2	10	15
<i>Nototomus auriculatus</i>	Decapoda	–	–	–	–	–	–	5	68	8
<i>Odontostomops normalops</i>	Aulopiformes	–	–	–	–	–	–	1	12	4
<i>Onychoteuthis aequimanus</i>	Teuthida	–	–	–	1	1	1	–	–	–
<i>Onychoteuthis</i> spp.	Teuthida	–	–	–	3	16	7	–	–	–
<i>Opisthoproctus grimaldii</i>	Argentiniiformes	–	–	–	–	–	–	1	14	1
<i>Oplophorus novaezeelandiae</i>	Decapoda	8	45	25	5	81	41	18	472	224
<i>Opostomias micripnus</i>	Stomiiformes	–	–	–	–	–	–	4	867	12
Ostracod (unspecified)	Ostracoda	–	–	–	–	–	–	1	1	1
Paralepididae	Aulopiformes	–	–	–	2	6	5	7	127	20
<i>Pasiphaea barnardi</i>	Decapoda	2	12	2	2	20	3	6	191	24
<i>Pasiphaea notosivado</i>	Decapoda	3	16	10	–	–	–	–	–	–
<i>Pasiphaea</i> spp.	Decapoda	–	–	–	–	–	–	3	107	56
<i>Periphylla periphylla</i>	Coronatae	–	–	–	–	–	–	3	30	6
<i>Persparia kopua</i>	Osmeriformes	–	–	–	2	369	23	14	1968	127
<i>Photichthys argenteus</i>	Stomiiformes	12	2011	98	10	517	49	20	1138	64
<i>Phronima sedentaria</i>	Amphipoda	5	48	29	5	6	11	8	14	21
Phyllosoma (unspecified)	Decapoda	4	4	6	–	–	–	4	4	6
<i>Protomyctophum andriashevi</i>	Myctophiformes	3	64	29	–	–	–	–	–	–
<i>Protomyctophum gemmatum</i>	Myctophiformes	2	71	14	3	34	8	–	–	–
<i>Protomyctophum luciferum</i>	Myctophiformes	3	56	15	–	–	–	–	–	–
<i>Protomyctophum normani</i>	Myctophiformes	16	4441	4492	7	188	145	9	887	211
<i>Protomyctophum</i> spp.	Myctophiformes	–	–	–	6	152	31	18	866	207
<i>Pseudocyttus maculatus</i>	Zeiformes	–	–	–	–	–	–	1	4	1
<i>Pseudophycis bachus</i>	Gadiformes	–	–	–	4	4	18	6	7	8
Pteropod (unspecified)	Pteropoda	–	–	–	1	1	1	1	1	1
<i>Pyrosoma atlanticum</i>	Pyrosomatida	2	15300	3	6	2446	36	10	1643	36
Rhopalonematidae	Trachymedusae	–	–	–	1	90	19	3	240	52
<i>Rosenblattia robusta</i>	Perciformes	–	–	–	1	1	1	3	17	3
Salp (unspecified)	Salpida	1	2	2	4	3943	1252	5	104134	6
<i>Salpa fusiformis</i>	Salpida	2	17	5	6	1500	524	17	119441	1008
<i>Sergestes arcticus</i>	Decapoda	5	66	118	4	626	1066	29	982	1309
<i>Sergestes</i> spp.	Decapoda	–	–	–	2	2	3	7	21	12
<i>Sergia potens</i>	Decapoda	–	–	–	–	–	–	2	26	7
<i>Seriolla punctata</i>	Perciformes	–	–	–	–	–	–	1	1700	1
<i>Serrivomer samoensis</i>	Anguilliformes	1	6	1	–	–	–	–	–	–
<i>Serrivomer</i> spp.	Anguilliformes	–	–	–	2	65	6	7	369	20
<i>Sio nordenskjoldii</i>	Stephano- beryciformes	2	33	5	1	26	4	–	–	–

Table S1 (continued)

Name	Order	May–June 2008 ID			Nov 2011 ID			Nov 2011 Oblique		
		Occ.	Wt (g)	No.	Occ.	Wt (g)	No.	Occ.	Wt (g)	No.
Siphonophore	Siphonophora	8	321	157	5	336	62	9	848	38
<i>Squalus acanthias</i>	Squaliformes	–	–	–	–	–	–	2	2930	2
Squid (unspecified)	Teuthida	–	–	–	7	312	9	25	697	207
Sternoptychidae	Stomiiformes	–	–	–	–	–	–	4	19	7
<i>Sternoptyx</i> spp.	Stomiiformes	–	–	–	–	–	–	1	1	1
<i>Stoloteuthis maoria</i>	Sepiolida	–	–	–	1	10	3	4	9	6
<i>Stomias boa boa</i>	Stomiiformes	1	24	2	–	–	–	2	58	3
<i>Stomias</i> spp.	Stomiiformes	–	–	–	4	127	7	12	1293	74
<i>Stylocheiron maximum</i>	Euphausiacea	1	1	2	1	1	1	–	–	–
<i>Symbolophorus boops</i>	Myctophiformes	16	44435	7360	8	28445	5770	22	4786	689
<i>Symbolophorus</i> spp.	Myctophiformes	–	–	–	–	–	–	1	19	9
<i>Taningia danae</i>	Teuthida	1	2	2	–	–	–	–	–	–
<i>Taningia</i> spp.	Teuthida	–	–	–	–	–	–	1	1372	1
<i>Teuthowenia pellucida</i>	Teuthida	–	–	–	1	768	3	–	–	–
<i>Themisto gaudichaudii</i>	Amphipoda	2	2	3	–	–	–	–	–	–
<i>Thetys vagina</i>	Salpida	17	21006	646	4	1912	32	6	577	9
<i>Thyrsites atun</i>	Perciformes	–	–	–	–	–	–	1	1	1
Thysanopoda	Euphausiacea	–	–	–	–	–	–	1	1	1
<i>Todarodes filippovae</i>	Teuthida	–	–	–	2	2409	3	6	2210	15
<i>Trachipterus trachipterus</i>	Lampriformes	–	–	–	1	13000	1	2	12300	2
<i>Tubbia tasmanica</i>	Perciformes	1	782	1	–	–	–	–	–	–
<i>Vampyroteuthis infernalis</i>	Vampyromorphida	–	–	–	–	–	–	1	14	1
<i>Vinciguerria nimbaria</i>	Stomiiformes	2	11	6	2	14	24	1	2	4
<i>Vinciguerria</i> spp.	Stomiiformes	–	–	–	1	1	2	–	–	–
<i>Woodsia meyerwardeni</i>	Stomiiformes	3	21	3	4	91	8	8	65	23
Total		35	269131	98740	21	282516	129076	30	474915	82417