

Distribution of mollusc shells in the Sea of Okhotsk, off Hokkaido

Akihisa Kitamura¹, Ikuo Kawakami¹, Fushima Okamoto¹,
Ken Ikehara², Atushi Noda² and Hajime Katayama²

Akihisa Kitamura, Ikuo Kawakami, Fushima Okamoto, Ken Ikehara, Atushi Noda and Hajime Katayama(2002) Distribution of mollusc shells in the Sea of Okhotsk, off Hokkaido. *Bull. Geol. Surv. Japan*, vol. 53(5/6), p.483-558, 16figs., 2tables, 3appendices.

Keywords: recent mollusc shell, Sea of Okhotsk, Hokkaido.

1. Introduction

The Sea of Okhotsk is bounded by the eastern Siberian region, Kamchatka Peninsula, Kuril Islands, Hokkaido and Sakhalin. Since a large amount of fresh water flows into this marginal sea from the Amur River, the surface water salinity is lower than those in the adjacent Pacific and other open oceans. This semi-enclosed condition and strong cold wind allow sea ice to form easily during the winter. All sea ice formed in this sea is called first-year ice because it forms in the winter and melts in the spring. Since the Sea of Okhotsk is the southernmost ocean in the Northern Hemisphere where sea ice forms, a sea ice-albedo feedback may occur early and effectively. These results suggest that severe climate warming would occur first and most intensely in the seas around Japan (e.g., Tokioka *et al.* 1995). This would add further uncertainty to the availability and distribution of marine mollusc shells. It is very important to predict the impact of climate change on marine mollusc shells. Therefore, we have made and published a list of marine molluscs in the Sea of Okhotsk, off Hokkaido, at the Institute for Marine Resources and Environment, Geological Survey of Japan/AIST (National Institute of Advanced Industrial Science and Technology). This data afford key insights for modeling future marine ecosystems.

2. Materials and Methods

A total of 557 bottom samples were collected during the GH78-3 cruise in 1978 (Kinoshita *et al.*, 1981) by R/V Hakurei-Marū, and GH00 and GH01 cruises in 2000 and 2001 by R/V Hakurei-Marū No.2 from the continental shelf and upper slope of the Sea of Okhotsk off of Hokkaido (Fig. 1). Samples were obtained with a Smith-McIntyre-type grab sampler on the GH78-3 cruise and a Kinoshita-type grab having a surface area of 40 cm X 40 cm on the GH00 and GH01 cruises.

Commonly, 30-cm-thick sediment samples were collected by those means. We found mollusc shells in 403 such samples and identified shells larger than 0.5 cm. For disarticulated shells, separated valves were counted as one individual. Tables 1 and 2 show the locations of bottom samples collected on the GH00 and GH01 cruises, respectively. The location of samples collected in GH78-3 is shown in Kinoshita *et al.* (1981).

3. Results and Remarks

Lists of molluscs are given in Appendices 1, 2 and 3. In terms of numbers of individuals, details of the fifteen most abundant species are given here. The large and suborbicular bivalve *Patinopecten yessoensis* is cultured along the coast of the study area and occurs in depths 30-80 m (Fig. 2). The small gastropod *Homalopoma amussitatum* has been found in depths of 20-70 m off of Hamatonbetsu and Lake Saroma (Fig. 3). The bilaterally compressed bivalve *Glycymeris yessoensis* commonly occurs in depths between 30 m and 80 m (Fig. 4). The rounded-ovate bivalve *Clinocardium californiense* occurs in depths between 30 m and 90 m (Fig. 5). Shells of the elongate-conical gastropod *Turritella (Neohaustator) fortilirata* are common in depths between 50 m and 90 m (Fig. 6), although living individuals occur in depths from 48 m to 124 m. Populations as dense as 750 individuals per m² rarely occur off of Esashi. Shells of the small and elongate-oval bivalve *Cadella lubrica* are common in depths of 40 m and 90 m (Fig. 7), with living individuals known in the 48 - 143 m depth. Populations with more than 1400 individuals per m² occur off of Hamatonbetsu. The large, oval and inflated bivalve *Callista brevisiphonata* has been taken between depths of 40 m and 90 m off of Hamatonbetsu and Lake Saroma (Fig. 8). The small, subcircular bivalve *Felaniella usta* is commonly found in depths from 60 to 90 m off of Hamatonbetsu and Shari (Fig. 9). The

¹Institute of Geosciences, Shizuoka University, Shizuoka 422-8529, Japan

²Institute for Marine Resources and Environment, GSJ

small gastropod *Puncturella nobilis* occurs in depths from 60 to 90 m off of Hamatonbetsu and Lake Saroma (Fig. 10). The quadrate, thick and strongly inflated bivalve *Arca boucardi* is found at depths from 60 to 80 m off of Hamatonbetsu and Lake Saroma (Fig. 11). The subcircular bivalve *Cyclocardia (Crassicardia) crassidens* has been observed in depths of 70 to 110 m in the area east of 143° E (Fig. 12). Living individuals of the rounded-oval bivalve *Clinocardium ciliatum* have been collected from the 53 m to 275 m depth, although most shells are found in depths from 80 m to 130 m at a total of 133 sites (Fig. 13). The small, inflated bivalve *Tridonta alaskensis* occurs in depths between 80 and 150 m off of Hamatonbetsu and Lake Saroma (Fig. 14). Living individuals of the oval and compressed bivalve *Macoma calcarea* were taken between depths of 105 m and 449 m, although most were collected in depths of 110-150 m (Fig. 15). The small, inflated bivalve *Nuculana pernula pernuloides* is common in depths of 120 to 170 m, although living individuals were found in depths of 105-265 m (Fig. 16).

Acknowledgements: We express our heartfelt thanks

to Captains Toshiaki Takahashi and Hiroshi Futami, and the other officers and crew of the R/V Hakurei-Marun No.2 for their kind support during the surveys. We thank Dr. Louie Marinovich for suggestions to our manuscript. This study was partly funded by Grants-in-Aid 10304040 and 13640470 from the Ministry of Education, Science and Culture of Japan and the Nissan Science Foundation.

References

- Kinoshita, Y., Inouchi, Y., Nishimura, K. and Nishimura, A. (1981) Sedimentological Map off Monbetsu. *Marine Geology Map Series*, **16**, Geological Survey of Japan.
- Tokioka, T., Noda, A., Kitoh, A., Nikaidou, Y., Nakagawa, S., Motoi, T., Yukimoto, S., Takata, K. (1995) A transient CO₂ experiment with the MRCGCM quick report. *J. Meteor. Soc. Japan*, **73**, 67-84.

Received March 12, 2002

Accepted May 23, 2002

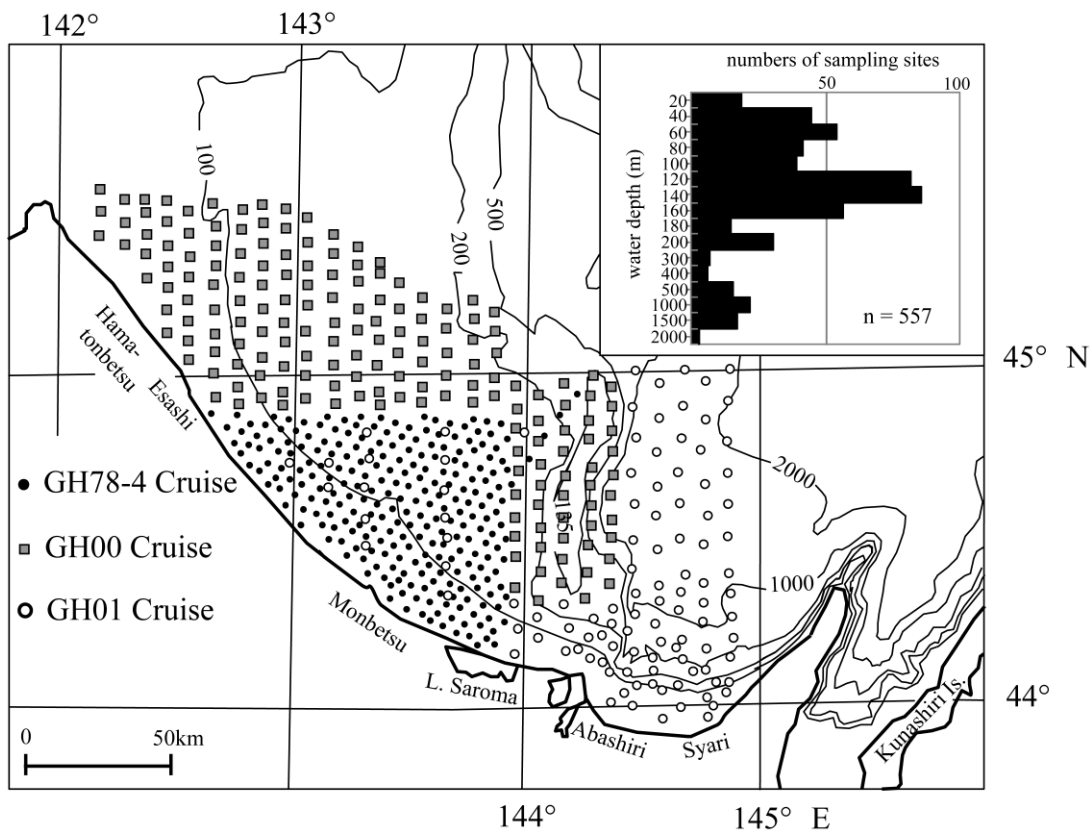


Fig. 1 Location of bottom sampling points.

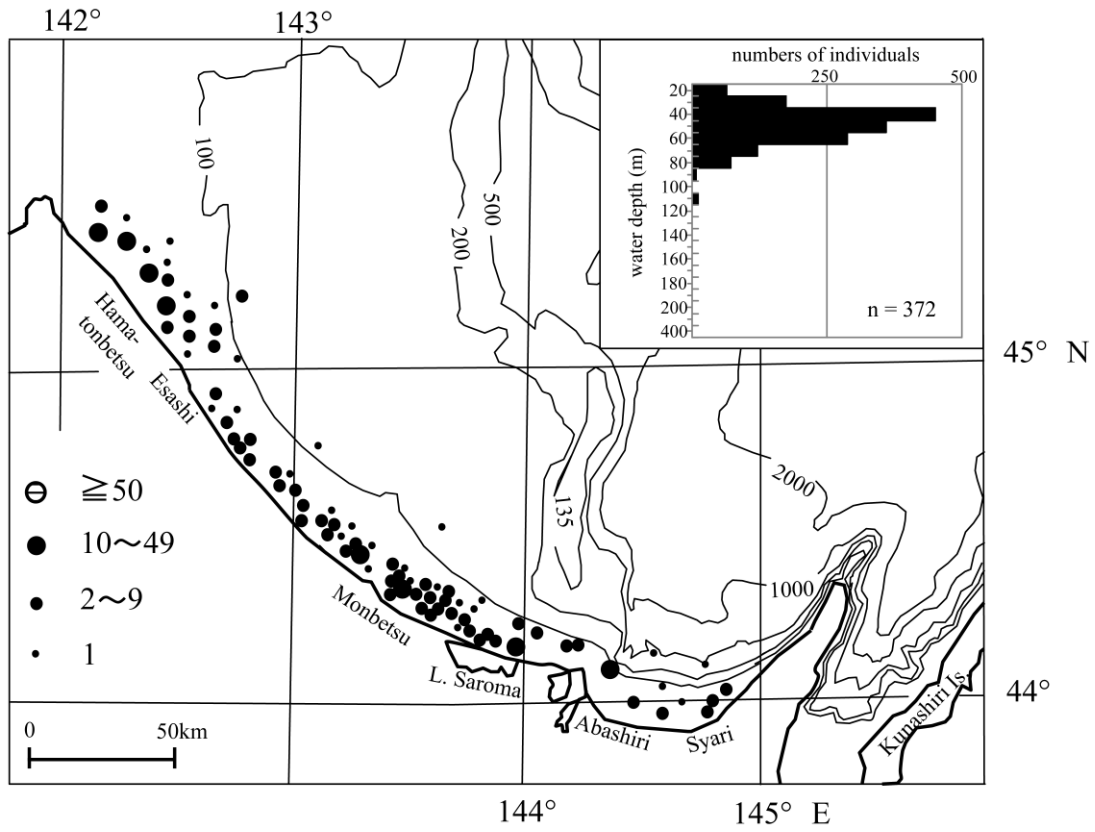


Fig. 2 Geographic distribution of *Patinopecten yessoensis*. Numbers of shells are total of live and dead individuals.

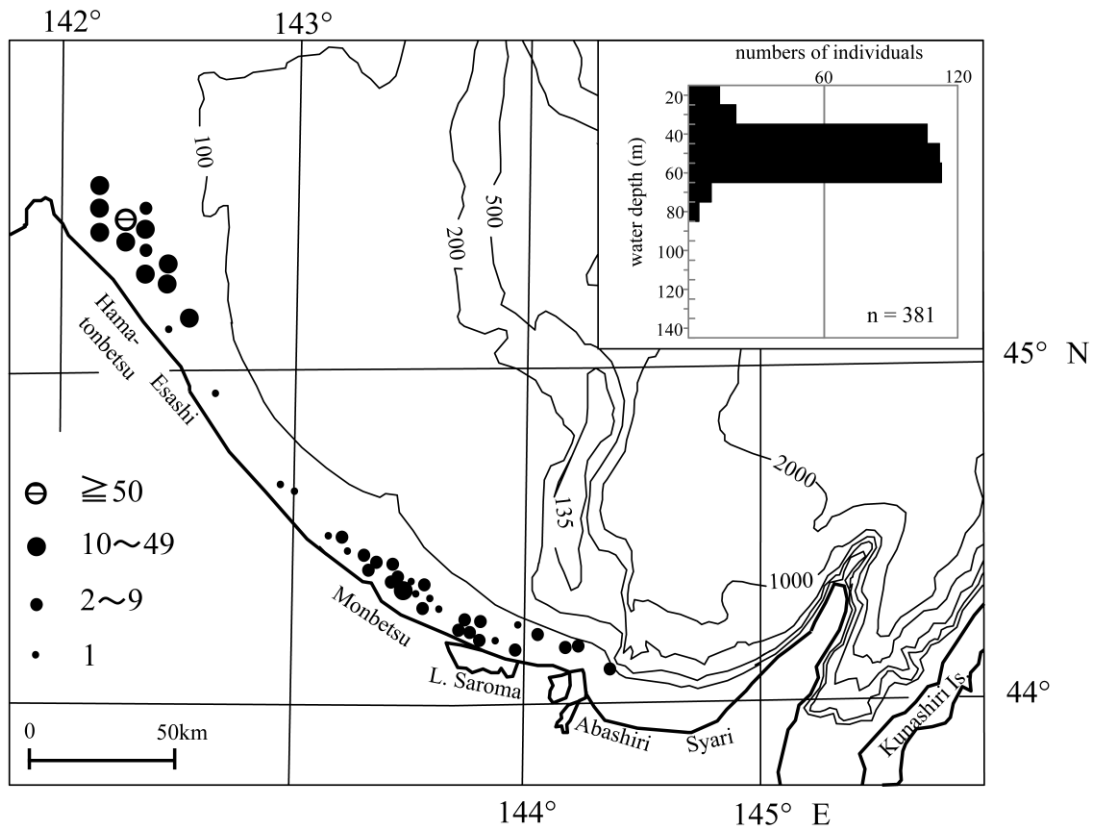


Fig. 3 Geographic distribution of *Homalopoma amussitatum*. Numbers of shells are total of live and dead individuals.

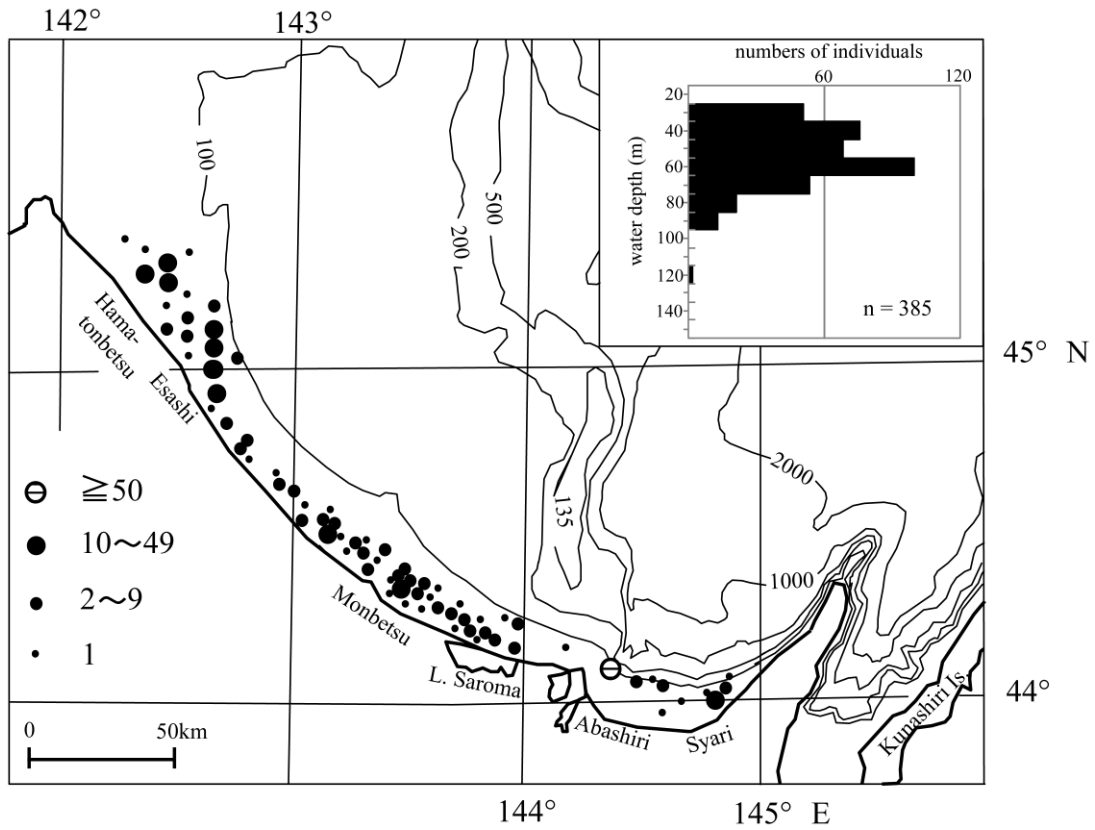


Fig. 4 Geographic distribution of *Glycymeris yessoensis*. Numbers of shells are total of live and dead individuals.

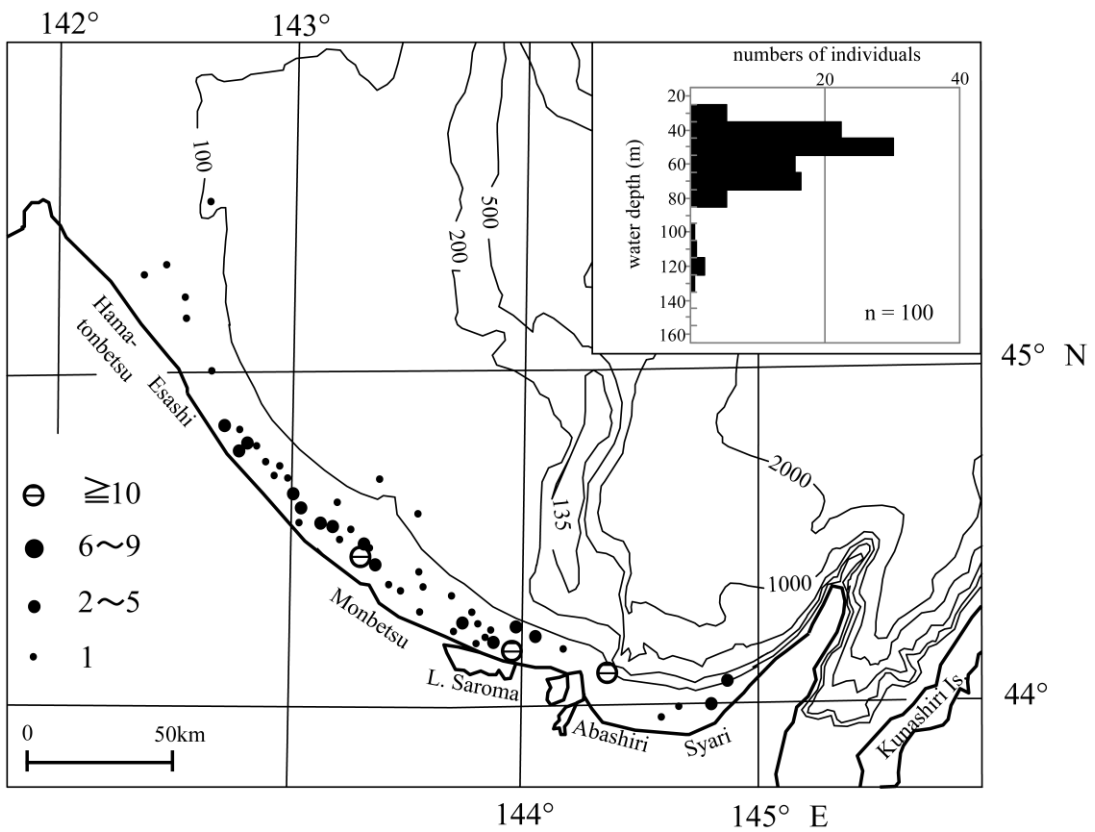


Fig. 5 Geographic distribution of *Clinocardium californiense*. Numbers of shells are total of live and dead individuals.

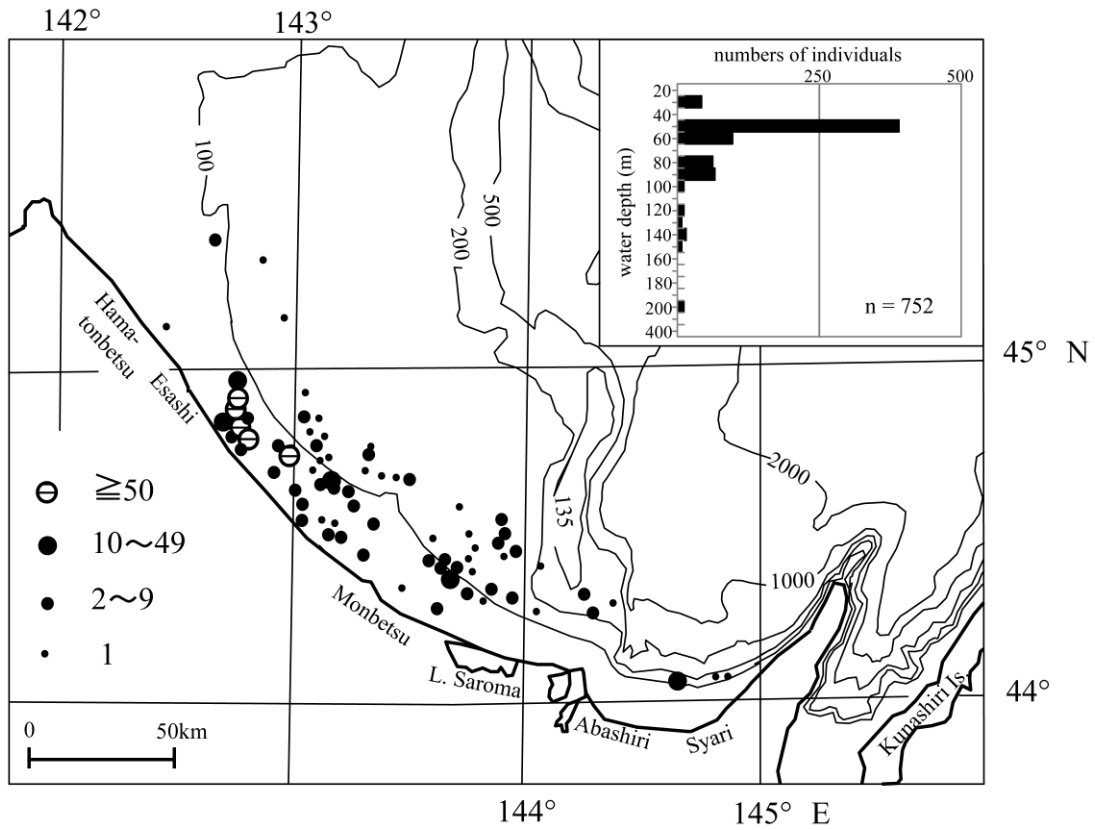


Fig. 6 Geographic distribution of *Turritella (Neohaustator) fortilirata*. Numbers of shells are total of live and dead individuals.

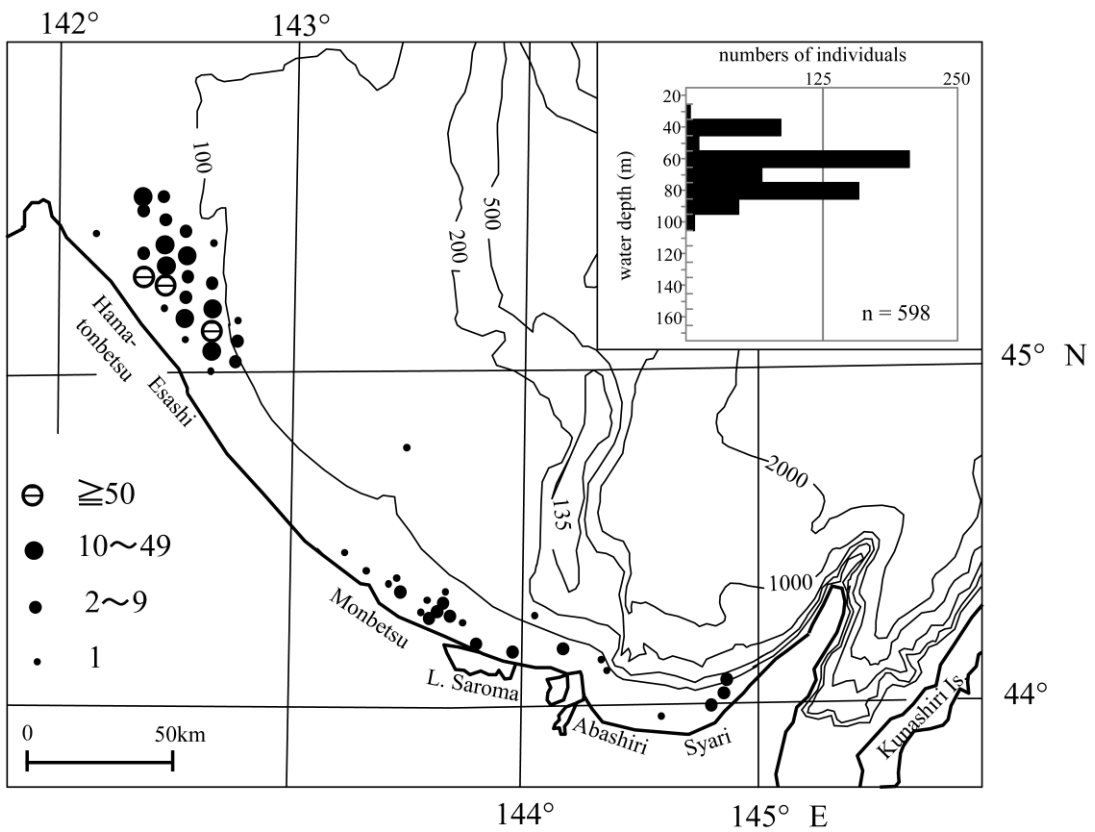


Fig. 7 Geographic distribution of *Cadella lubrica*. Numbers of shells are total of live and dead individuals.

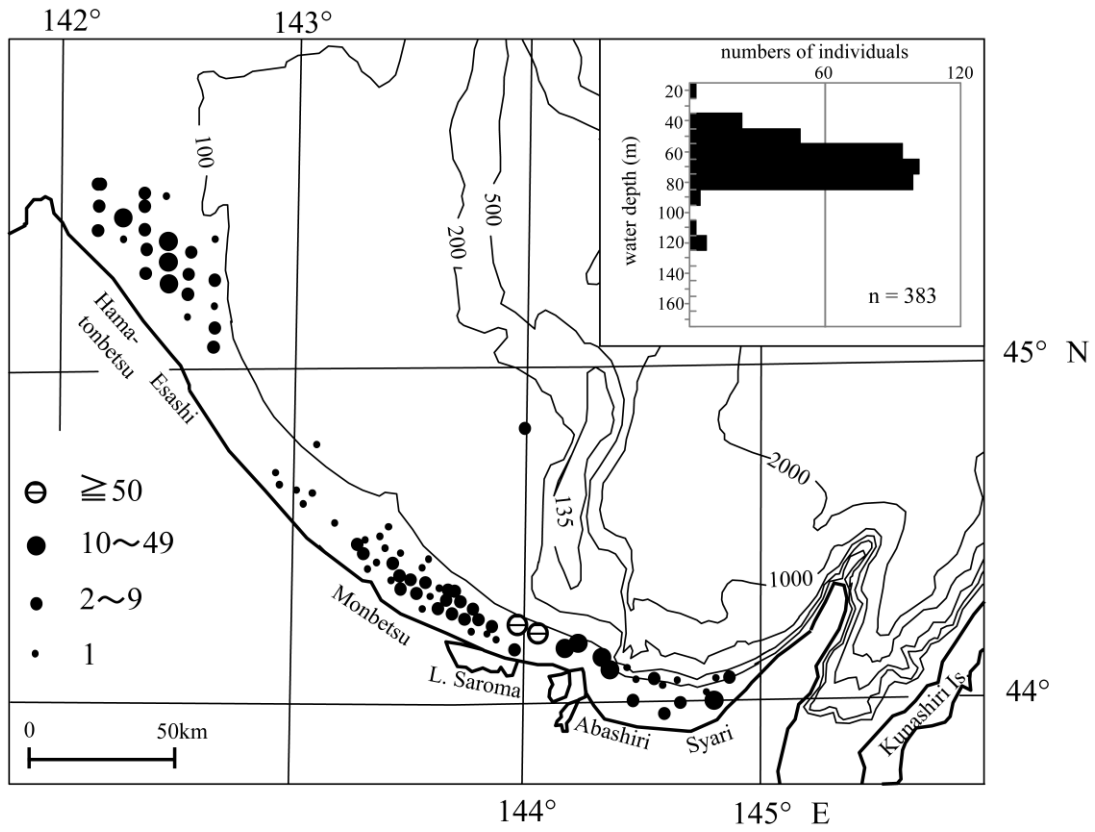


Fig. 8 Geographic distribution of *Callista brevisiphonata*. Numbers of shells are total of live and dead individuals.

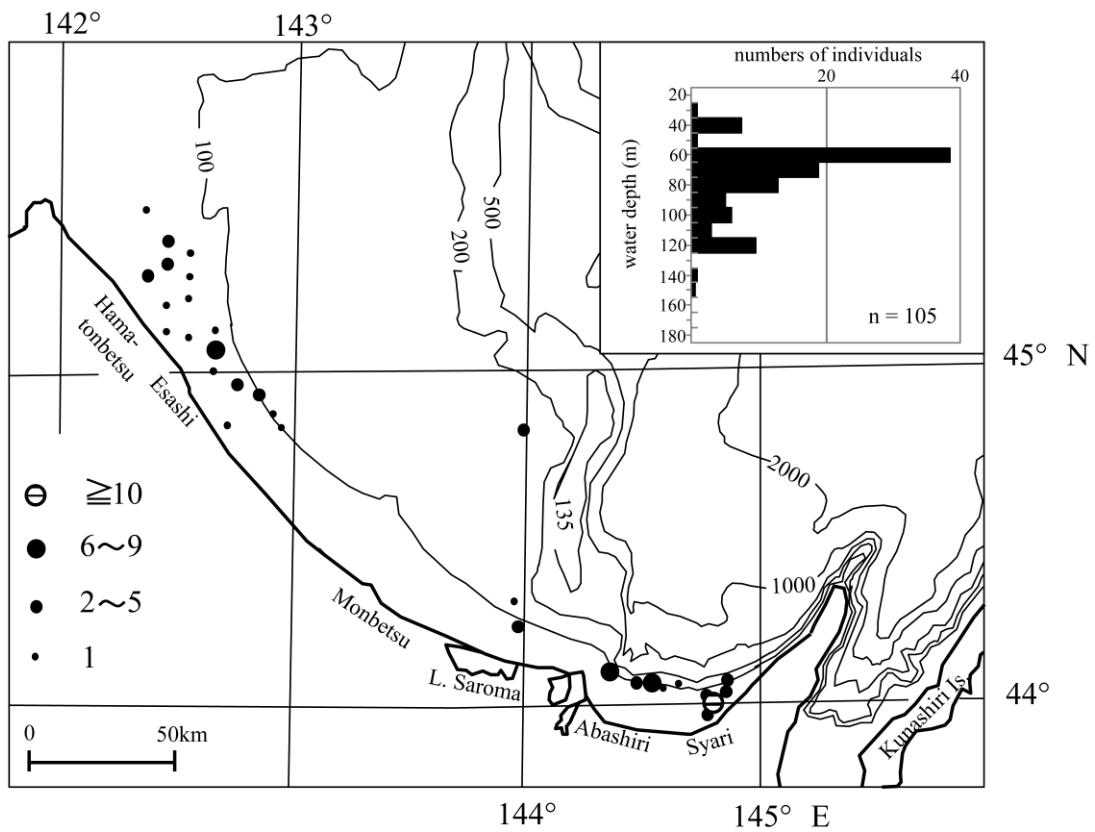


Fig. 9 Geographic distribution of *Felaniella usta*. Numbers of shells are total of live and dead individuals.

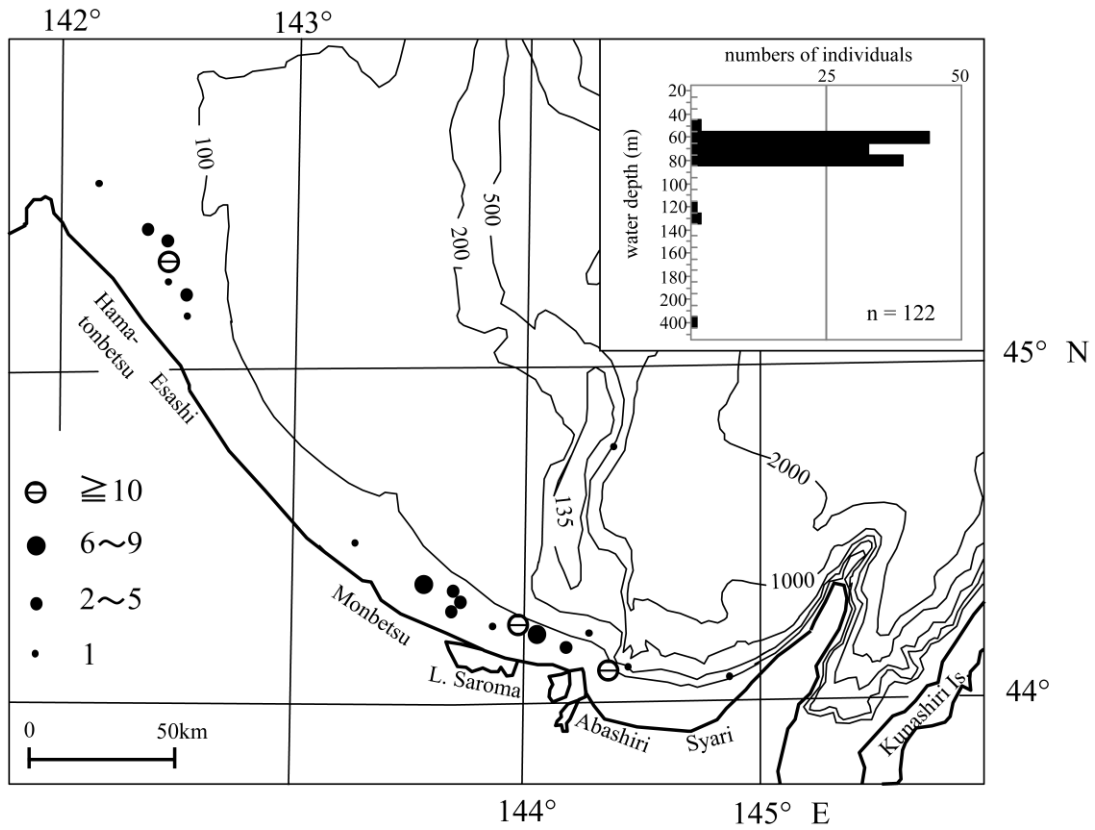


Fig. 10 Geographic distribution of *Puncturella nobilis*. Numbers of shells are total of live and dead individuals.

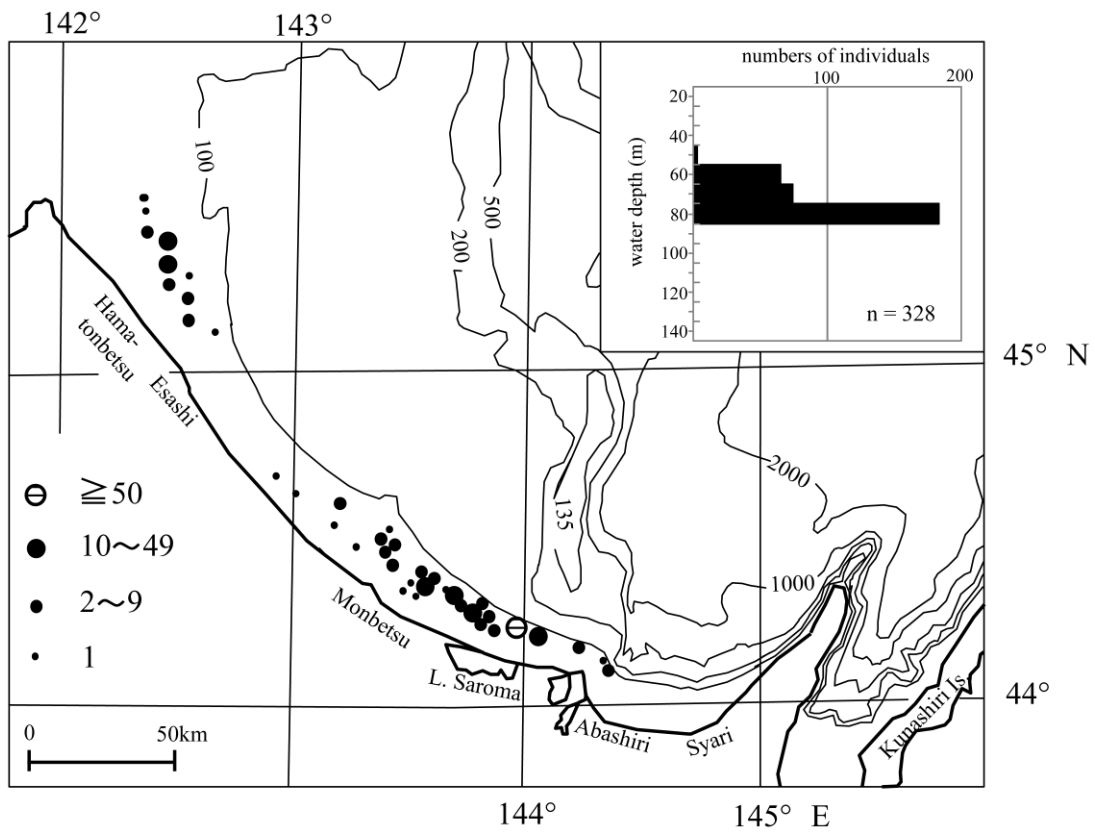


Fig. 11 Geographic distribution of *Arca boucardi*. Numbers of shells are total of live and dead individuals.

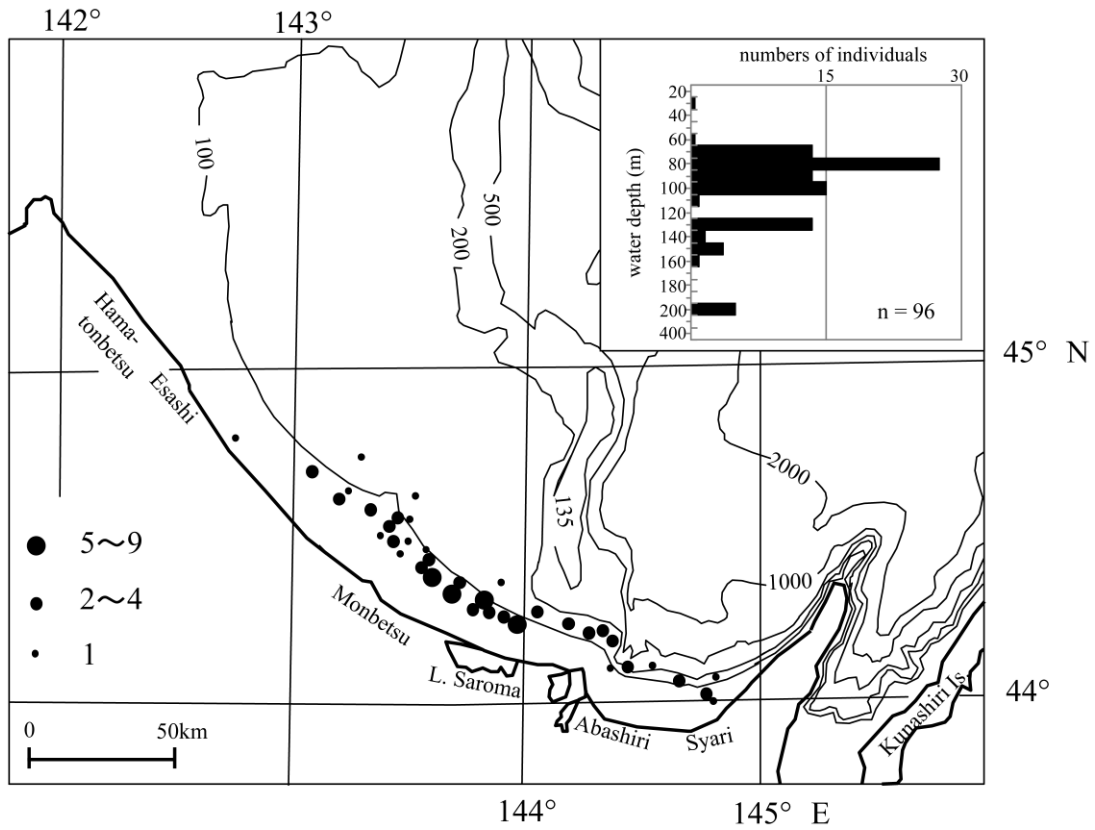


Fig. 12 Geographic distribution of *Cyclocardia (Crassicardia) crassidens*. Numbers of shells are total of live and dead individuals.

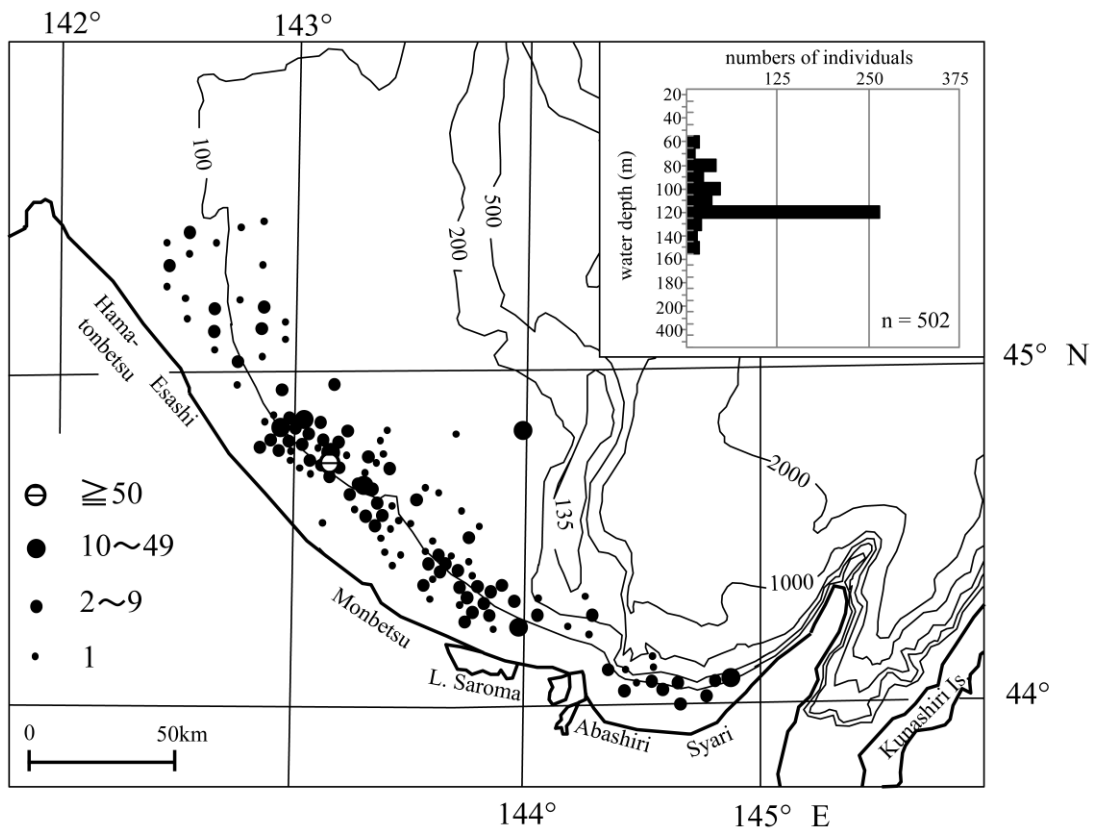


Fig. 13 Geographic distribution of *Clinocardium ciliatum*. Numbers of shells are total of live and dead individuals.

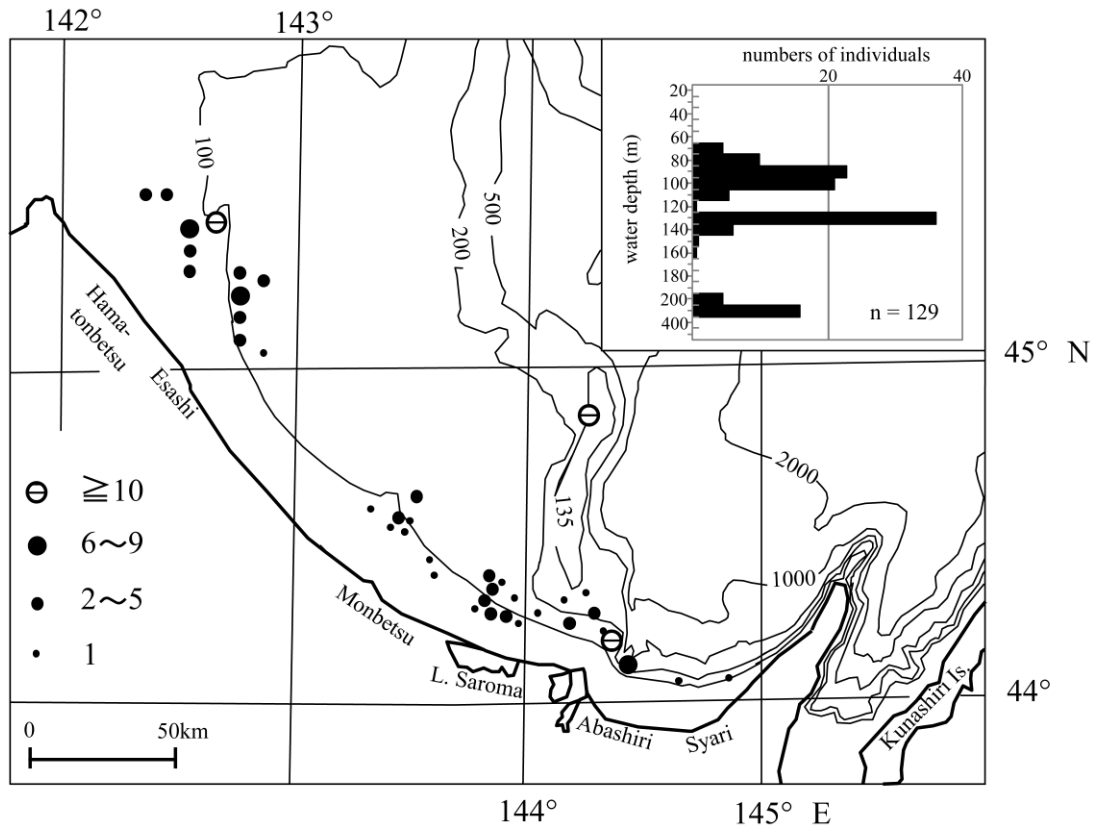


Fig. 14 Geographic distribution of *Tridonta alaskensis*. Numbers of shells are total of live and dead individuals.

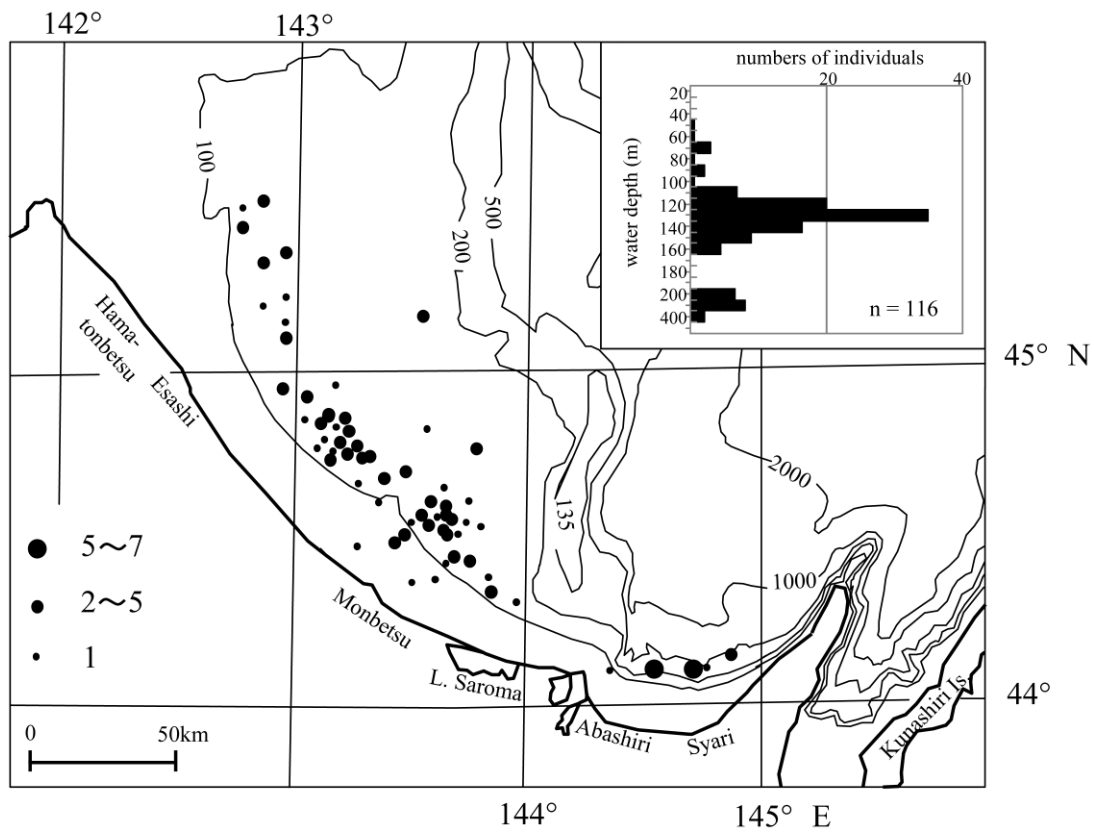


Fig. 15 Geographic distribution of *Macoma calcarea*. Numbers of shells are total of live and dead individuals.

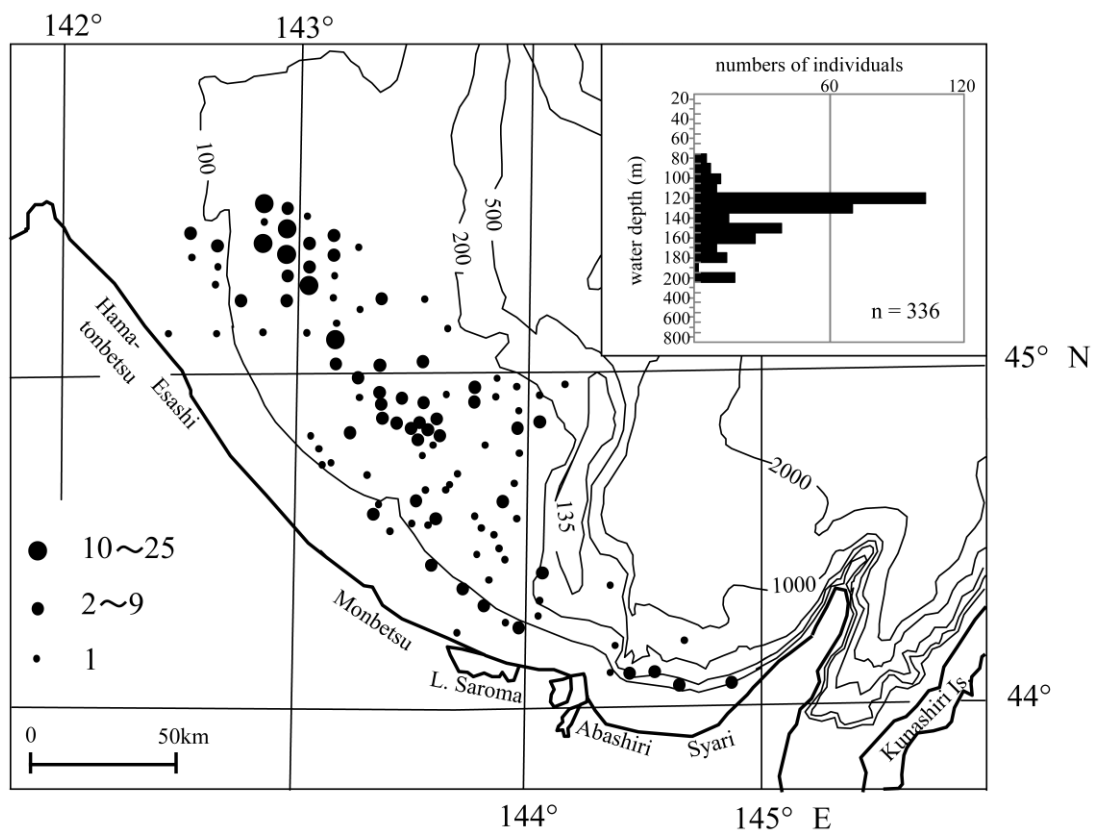


Fig. 16 Geographic distribution of *Nuculana pernula pernuloides*.
Numbers of shells are total of live and dead individuals.

Table 1 Locations of bottom samples collected during the GH00 cruise in 2000.

St. No.	North Latitude	East Longitude	St. No.	North Latitude	East Longitude	St. No.	North Latitude	East Longitude
1	45°33.9645	142°10.359	61	45°13.9412	142°58.0569	121	45°1.978	143°46.0274
2	45°30.057	142°10.1492	62	45°9.9579	142°57.9635	122	44°58.0124	143°46.0026
3	45°25.9874	142°9.9856	63	45°6.013	142°57.9837	123	44°55.0036	143°46.0031
4	45°32.0327	142°15.9778	64	45°2.0347	142°57.9532	124	45°10.9751	143°52.0278
5	45°27.9659	142°15.9891	65	44°57.8394	142°58.0461	125	45°8.0008	143°51.9857
6	45°24.0481	142°16.0799	66	44°54.9732	142°58.2414	126	45°3.9812	143°52.0568
7	45°31.9847	142°21.9768	67	45°27.9729	143°3.9651	127	44°59.9866	143°52.0145
8	45°29.9816	142°21.0955	68	45°23.966	143°4.0076	128	44°55.9835	143°51.991
9	45°25.9762	142°21.8711	69	45°20.0148	143°4.0365	129	44°57.9528	143°58.0439
10	45°22.0106	142°22.1359	70	45°15.9733	143°4.0294	130	44°54.0143	143°57.9939
11	45°18.0234	142°21.9871	71	45°11.9785	143°4.0085	131	44°50.0000	143°57.9994
12	45°31.9982	142°27.9591	72	45°7.9686	143°4.0749	132	44°45.9977	143°57.9981
13	45°27.9786	142°27.9524	73	45°3.9797	143°4.0359	133	44°42.0075	143°57.9985
14	45°24.0147	142°27.944	74	45°0.026	143°3.9604	134	44°37.9764	143°58.0118
15	45°20.0088	142°27.9426	75	44°56.0174	143°4.0038	135	44°33.9949	143°58.0081
16	45°16.1028	142°28.1969	76	45°24.9128	143°9.9905	136	44°29.9831	143°58.0195
17	45°11.473	142°28.0343	77	45°21.9409	143°9.9865	137	44°25.9898	143°58.0324
18	45°8.2958	142°27.3999	78	45°17.943	143°10.0814	138	44°21.9695	143°58.0854
19	45°30.1332	142°33.9432	79	45°14.0092	143°9.9954	142	44°59.9816	144°4.0193
20	45°25.9785	142°33.9551	80	45°10.0091	143°10.0223	143	44°56.0133	144°3.9766
21	45°21.128	142°34.4589	81	45°6.0097	143°9.9377	144	44°52.0059	144°3.997
22	45°17.7903	142°34.2764	82	45°1.9965	143°9.9956	145	44°48.0017	144°4.0071
23	45°14.0399	142°34.0838	83	44°58.0047	143°10.0003	146	44°43.9821	144°3.847
24	45°10.0231	142°33.9922	84	44°55.0157	143°9.9965	147	44°39.9942	144°4.0006
25	45°6.196	142°34.1163	85	45°22.9508	143°15.9557	148	44°36.0132	144°4.0084
26	45°2.5852	142°33.9698	86	45°20.0057	143°15.9831	149	44°32.005	144°4.0003
27	45°31.1283	142°39.9538	87	45°16.007	143°15.991	150	44°27.989	144°4.0137
28	45°28.0618	142°40.0824	88	45°11.9931	143°16.0029	151	44°24.022	144°3.9559
29	45°23.9944	142°39.9819	89	45°7.9958	143°16.0101	152	44°19.9935	144°3.9767
30	45°20.0823	142°40.0917	90	45°4.0005	143°16.0118	155	44°58.0324	144°9.9897
31	45°16.0145	142°40.0527	91	44°59.981	143°15.988	156	44°54.0095	144°10.0021
32	45°12.009	142°40.0071	92	44°55.9873	143°15.998	157	44°50.0004	144°9.9953
33	45°7.9597	142°40.1051	93	45°19.9975	143°21.99	158	44°45.9964	144°9.9955
34	45°3.967	142°39.8959	94	45°18.0584	143°22.0547	159	44°41.9979	144°10.0115
35	45°0.0328	142°40.0194	95	45°14.0115	143°22.0133	160	44°37.9055	144°9.811
36	45°56.026	142°39.9602	96	45°9.9906	143°21.9899	161	44°34.0026	144°10.0247
37	45°30.031	142°46.0434	97	45°5.9785	143°21.9879	162	44°29.9932	144°9.9952
38	45°26.0473	142°46.0412	98	45°1.9946	143°22.0049	163	44°26.0706	144°9.9221
39	45°22.0124	142°46.0232	99	45°57.9881	143°21.9806	164	44°21.9942	144°9.9986
40	45°18.0048	142°46.0044	100	45°54.9944	143°22.0086	168	44°59.9809	144°16.0088
41	45°14.0602	142°45.9284	101	45°16.1019	143°28.0455	169	44°55.9971	144°16.023
42	45°9.9871	142°46.21	102	45°12.0373	143°28.0216	170	44°52.0041	144°15.9432
43	45°5.902	142°46.0771	103	45°7.9853	143°27.9868	171	44°47.9963	144°15.9794
44	44°1.9642	142°45.9091	104	45°4.0021	143°27.9842	172	44°43.9946	144°16.0003
45	44°58.0344	142°46.0545	105	45°0.0275	143°27.9954	173	44°40.0009	144°15.9952
46	44°55.0102	142°45.9878	106	45°56.0025	143°27.9986	174	44°35.9728	144°16.0411
47	45°30.9984	142°52.0151	107	45°13.9931	143°33.9804	175	44°32.0013	144°16.0057
48	45°28.0122	142°52.0553	108	45°9.9681	143°34.0639	176	44°27.9834	144°15.9736
49	45°23.9759	142°52.0305	109	45°6.006	143°33.9869	177	44°24.0268	144°15.9485
50	45°20.0205	142°51.9953	110	45°1.9964	143°34.0055	178	44°19.9724	144°16.072
51	45°16.0425	142°52.0813	111	44°58.0086	143°34.009	182	44°57.976	144°21.9905
52	45°11.9622	142°52.0993	112	44°55.0038	143°34.0016	183	44°53.9876	144°21.993
53	45°7.9131	142°52.1152	113	45°11.8935	143°39.8679	184	44°49.984	144°21.9952
54	45°3.9923	142°52.0507	114	45°7.963	143°40.0294	185	44°46.0056	144°22.0598
55	44°59.9657	142°52.0199	115	45°3.9585	143°39.9057	186	44°41.9991	144°22.0213
56	44°55.9666	142°52.1086	116	44°59.9875	143°40.0054	187	44°38.004	144°21.9941
57	45°30.0154	142°58.0377	117	44°55.9982	143°40.0082	188	44°33.9733	144°22.0008
58	45°26.0219	142°58.0397	118	45°12.9973	143°45.9824	189	44°29.9762	144°22.0128
59	45°21.9473	142°58.1031	119	45°9.9363	143°45.8975	190	44°26.0343	144°21.9514
60	45°18.0304	142°57.9589	120	45°5.9714	143°46.0337	191	44°21.9669	144°22.0795

Table 2 Locations of bottom samples collected during the GH01 cruise in 2001.

St. No.	North Latitude	East Longitude	St. No.	North Latitude	East Longitude	St. No.	North Latitude	East Longitude
139	44°18.0219	143°58.0789	220	44°9.975	144°34.0118	259	44°12.0013	144°51.9977
140	44°14.0106	143°57.9982	221	44°5.9798	144°34.003	260	44°7.9985	144°52.0474
141	44°10.035	143°57.9597	222	44°1.9563	144°34.0569	261	44°4.0213	144°52.0837
153	44°15.9954	144°4.0832	223	43°57.9892	144°33.8689	262	44°10.0363	144°13.9652
154	44°11.9643	144°4.0516	224	44°59.9242	144°39.9804	263	44°7.9999	144°19.9245
165	44°18.0441	144°9.8389	225	44°53.9302	144°39.9383	265	44°5.9506	144°26.1632
166	44°14.079	144°10.121	226	44°47.9499	144°40.0071	266	44°2.0399	144°26.0705
167	44°9.9946	144°9.9769	227	44°42.0579	144°39.9938	267	44°7.9384	144°32.0824
179	44°16.0109	144°16.0292	228	44°36.1018	144°40.1035	268	44°4.0305	144°32.0803
180	44°12.0502	144°16.0524	229	44°30.0037	144°40.0681	269	44°9.8059	144°37.9624
181	44°8.0165	144°16.0353	230	44°24.0357	144°40.0151	270	44°6.0214	144°42.1182
192	44°17.9754	144°21.9852	231	44°20.0413	144°39.9015	272	44°4.0112	144°48.012
193	44°14.0565	144°22.088	232	44°15.9825	144°39.9675	273	43°59.9823	144°47.9789
194	44°11.9863	144°20.057	233	44°12.0167	144°39.8973	274	44°1.9932	144°52.0406
195	44°10.0159	144°21.9756	234	44°8.0029	144°40.1085	1007	44°43.9991	144°28.0195
196	44°6.0163	144°21.9972	235	44°4.064	144°40.0428	1008	44°44.0052	144°54.3033
197	44°2.0306	144°22.2664	236	43°59.9687	144°39.9005	1009	44°31.6233	144°59.7061
198	44°59.9169	144°28.0702	237	44°57.9441	144°45.9865	1010	44°20.02	144°29.3092
199	44°53.9774	144°27.986	238	44°52.0057	144°46.0039	1011	44°16.5084	144°58.4989
200	44°47.9505	144°28.0955	239	44°45.9318	144°46.0147	1012	44°32.0117	144°33.187
201	44°41.9594	144°28.0772	240	44°39.9015	144°46.1006	1013	44°57.0071	144°9.5013
202	44°36.0239	144°27.9964	241	44°33.9698	144°45.976	1014	45°1.3298	144°56.0531
203	44°30.0005	144°28.0078	242	44°28.0162	144°46.0345	M1	44°49.8762	143°59.9214
204	44°24.0053	144°27.9688	243	44°22.0211	144°45.8987	M2	44°44.9836	143°0.0026
205	44°19.997	144°27.6897	244	44°18.0268	144°45.9157	M3	44°44.8982	143°10.0129
206	44°15.9954	144°27.9233	245	44°14.0128	144°45.9199	M4	44°39.9616	143°10.081
207	44°11.9321	144°27.1999	246	44°10.0933	144°46.1014	M5	44°50.002	143°20.0485
208	44°8.059	144°27.9095	247	44°6.0206	144°46.1132	M6	44°44.9908	143°20.01
209	44°3.9189	144°28.042	248	44°1.9992	144°46.0914	M7	44°39.7813	143°20.0657
210	44°0.0442	144°27.8521	249	43°57.9766	144°45.9371	M8	44°34.9605	143°20.0063
211	44°57.9513	144°34.035	250	44°59.9229	144°51.8577	M9	44°29.9666	143°19.9739
212	44°51.9678	144°33.9668	251	44°54.0371	144°52.0122	M10	44°49.9874	143°39.9408
213	44°45.9818	144°34.0133	252	44°47.9596	144°51.9198	M11	44°44.9929	143°39.9963
214	44°39.9876	144°34.0087	253	44°42.0531	144°51.9216	M12	44°39.9738	143°39.9373
215	44°34.008	144°33.9729	254	44°35.9444	144°52.1241	M13	44°35.0066	143°40.0113
216	44°28.0406	144°34.0735	255	44°29.9793	144°52.0276	M14	44°29.9501	143°40.0417
217	44°22.1254	144°33.9587	256	44°23.9821	144°51.9941	M15	44°24.9863	143°40.0712
218	44°18.0229	144°33.9823	257	44°20.0852	144°51.8007	M16	44°19.9896	143°40.0215
219	44°14.0407	144°33.9836	258	44°15.9873	144°51.9511			

Appendix 1 List of mollusc shells collected during the GH78-3 cruise in 1978 (Kinoshita et al., 1981). Numbers of gastropod and bivalve individuals are shown in terms of [alive / dead] and [alive / articulated dead / disarticulated dead], respectively.

Site	1	2	3	4	5	6	7	8	9	11	12	13	14
Depth (m)	30	48	64	102	115	102	76	57	30	46	63	83	107
Substrate	v. f. sand	v. f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	50% ≤ pebble	v. f. sand	v. f. sand	f. sand	f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>													
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>													
<i>Margarites helacinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>													
<i>Turritella (Neohaustator) fortilirata</i>	0/2	15/98	1/2							0/3		0/1	
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>													
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>								0/1					
<i>Cryptonatica jonhostoma</i>	0/1									0/1			
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>												0/1	
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>								0/1		0/1			
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroeyeri</i>													
<i>Searlesia modesta</i>								0/1					
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>				0/1/1	0/1/0			0/0/1					
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>	3/0/2		1/0/2					0/0/2		0/0/5	0/0/1		
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>													
<i>Nuculana (Thestyleda) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>								0/0/2		0/0/3	1/0/3	0/0/1	

Appendix 1 Continued.

Site	1	2	3	4	5	6	7	8	9	11	12	13	14
Depth (m)	30	48	64	102	115	102	76	57	30	46	63	83	107
Substrate	v. f. sand	v. f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	50%≤pebble	v. f. sand	v. f. sand	f. sand	f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.								0/0/1					
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>										0/0/1			
<i>Glycymeris yessoensis</i>									0/0/1	0/0/2			
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>													
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>													
<i>Patinopecten yessoensis</i>	0/1/3								0/0/5	0/1/2			
<i>Monia macroschisma</i>													
<i>Monia</i> sp.													
<i>Felaniella usta</i>				0/1/0		1/0/0							
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>	0/0/1												
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>													
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>		0/0/2						0/1/0		0/1/0	0/0/1		
<i>Clinocardium ciliatum</i>				0/0/2	0/2/2	0/7/5	0/0/5	0/0/4				0/0/1	0/1/1
<i>Clinocardium</i> sp.								0/0/4			0/0/3		
<i>Serripes groenlandicus</i>													
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>												0/1/1	
<i>Cadella lubrica</i>													
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>													
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>													
<i>Macoma</i> sp.											0/0/1		
<i>Siliqua alta</i>						0/1/0							
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>								0/0/2		0/1/0			
<i>Phacosoma japonicum</i>													
<i>Liocyra fluctuosum</i>								0/0/1					
<i>Callista brevisiphonata</i>										0/0/2			
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>								0/0/1					
<i>Mya (Arenomya) japonica</i>											0/0/1		
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>									0/0/1	0/0/1			
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>		0/0/1											
<i>Pandorella</i> sp.											0/0/1		
<i>Heteroclidus pulchellus</i>				0/0/1									
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>											0/0/1		
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	15	16	17	18	19	20	21	22	23	24	25	26	28
Depth (m)	118	124	129	137	136	133	129	118	108	87	67	52	27
Substrate	f. sand	v. f. sand	v. f. sand	silty sand	silty sand	v. f. sand	v. f. sand	f. sand	f. sand	v. f. sand	f. sand	v. f. sand	v. f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>													
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>													
<i>Margarites helycinus pilsbryi</i>						1/0							
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>		1/0											
<i>Homalopoma amussitatum</i>												0/1	
<i>Turritella (Neohaustator) fortilirata</i>	0/1	0/1							0/1	0/1		0/3	0/4
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>													
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													0/1
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													0/1
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>												0/3	
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>		0/1											
<i>Searlesia modesta</i>												0/2	
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													0/1
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>												0/2	
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>												0/1	
PELECYPODA													
<i>Leionucula tenuis</i>						0/1/0							
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>												5/0/5	2/1/6
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>	0/0/1					1/1/0				0/1/0			
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>					0/0/2								
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													0/0/1
<i>Yoldia (Cnesterium) johanni</i>	0/0/1				0/0/1				0/0/2			2/0/3	

Appendix 1 Continued.

Site	15	16	17	18	19	20	21	22	23	24	25	26	28
Depth (m)	118	124	129	137	136	133	129	118	108	87	67	52	27
Substrate	f. sand	v. f. sand	v. f. sand	silty sand	silty sand	v. f. sand	v. f. sand	f. sand	f. sand	v. f. sand	f. sand	v. f. sand	v. f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>												0/0/2	
<i>Glycymeris yessoensis</i>												0/1/2	1/0/2
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>					0/0/1								
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>						0/1/0							
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>													
<i>Patinopecten yessoensis</i>												0/0/5	0/0/3
<i>Monia macroschisma</i>													
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>										0/0/7			
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>													
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>												0/1/4	0/0/2
<i>Clinocardium ciliatum</i>	5/2/4	0/0/3				0/2/0	0/3/1	0/14/1	0/2/6	1/0/0			
<i>Clinocardium</i> sp.					0/0/1	0/0/1							
<i>Serripes groenlandicus</i>			0/0/1						0/1/0				
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>													
<i>Nitidotellina hokkaidoensis</i>												0/1/1	
<i>Nitidotellina minuta</i>													1/0/0
<i>Macoma calcarea</i>		0/1/3	0/1/2			0/1/1	0/0/8	0/0/1					
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>													
<i>Macoma</i> sp.	0/0/1												
<i>Siliqua alta</i>													0/0/1
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>											0/0/1		1/0/0
<i>Phacosoma japonicum</i>													
<i>Liocyra fluctuosum</i>													
<i>Callista brevisiphonata</i>												0/0/2	
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>	0/0/2									0/0/1	1/0/0		
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>		0/0/1	0/0/2	0/1/0	0/1/1								
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>	0/1/0						0/1/0	0/1/0					0/0/1
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>						1/0/0							

Appendix 1 Continued.

Site	29	31	34	35	36	37	38	39	40	41	42	43	44
Depth (m)	55	88	128	134	137	141	146	156	152	147	143	142	136
Substrate	v. f. sand	f. sand	v. f. sand	v. f. sand	silty sand	sand-silt-clay	clayey silt	clayey silt	clayey silt	sand-silt-clay	sand-silt-clay	silty sand	v. f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>			0/2										0/1
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>													
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>													
<i>Turritella (Neohaustator) fortilirata</i>		2/4		1/0									
<i>Tachyrhynchus yanamii</i>			0/1										
<i>Tachyrhynchus septemcostatus</i>						0/1	0/12	0/1		0/5			
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>										0/1			
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>	0/3												
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>	0/1												
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													0/1
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>			0/0/1										
<i>Leionucula mirifica</i>					1/0/0								
<i>Acila divaricata divaricata</i>						1/0/0							
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>													
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>							3/0/1	5/2/1	1/1/1	0/2/0			
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>	0/0/2	0/1/0			0/1/0		0/0/1						
<i>Yoldia (Cnesterium) johanni</i>	0/0/3												

Appendix 1 Continued.

Site	29	31	34	35	36	37	38	39	40	41	42	43	44
Depth (m)	55	88	128	134	137	141	146	156	152	147	143	142	136
Substrate	v. f. sand	f. sand	v. f. sand	v. f. sand	silty sand	sand-silt-clay	clayey silt	clayey silt	clayey silt	sand-silt-clay	sand-silt-clay	silty sand	v. f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>							1/0/0						
<i>Arca boucardi</i>													
<i>Glycymeris yessoensis</i>													
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>					2/0/0								
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>			0/0/1										
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>													
<i>Patinopecten yessoensis</i>													
<i>Monia macroschisma</i>													
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>			0/0/1										
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>													
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>													
<i>Clinocardium ciliatum</i>				0/0/1	0/1/0								0/1/1
<i>Clinocardium</i> sp.													
<i>Serripes groenlandicus</i>					0/0/2			0/1/0		0/0/4			
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>											1/0/0		
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>			0/1/1						0/1/0				
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>													
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>		0/0/1											
<i>Phacosoma japonicum</i>													
<i>Liocyra fluctuosum</i>			1/0/0						1/0/0	0/1/0			
<i>Callista brevisiphonata</i>													
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>													
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>				0/0/1	0/0/1							0/0/1	
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>													
<i>Thracia itoi</i>	0/0/1												
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	45	46	48	50	51	52	53	54	55	56	57	58	59
Depth (m)	123	113	82	55	48	36	52	64	78	92	98	109	137
Substrate	v. f. sand	f. sand	f. sand	f. sand	v. f. sand	50%≤pebble	c. sand	f. sand	f. sand	f. sand	v. f. sand	v. f. sand	v. f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>	0/1												
<i>Lepeta alba</i>				0/1									
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>							0/1						
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>													
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>					0/1		0/1						
<i>Turritella (Neohaustator) fortilirata</i>	0/1		0/2	0/1	1/1				0/6				1/1
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>													
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.											1/0		
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>													
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>				0/1									
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>													
<i>Leionucula mirifica</i>	2/0/0									1/0/0			
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>													
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>													
<i>Nuculana (Thestyloda) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>								2/0/1					
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>										1/0/0		2/1/0	

Appendix 1 Continued.

Site	45	46	48	50	51	52	53	54	55	56	57	58	59
Depth (m)	123	113	82	55	48	36	52	64	78	92	98	109	137
Substrate	v. f. sand	f. sand	f. sand	f. sand	v. f. sand	50%≤pebble	c. sand	f. sand	f. sand	f. sand	v. f. sand	v. f. sand	v. f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>				0/0/1			0/0/2						
<i>Glycymeris yessoensis</i>				0/0/3	0/9/20	0/0/1	0/0/3						
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.							0/0/1						
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>												0/0/9	
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>													
<i>Patinopecten yessoensis</i>				0/0/10	0/2/13	0/0/3	0/1/13						
<i>Monia macroschisma</i>													
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>													
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>													
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>				1/0/0									
<i>Clinocardium californiense</i>		0/1/0		1/0/4									
<i>Clinocardium ciliatum</i>		0/1/2	0/0/1						1/0/1	0/2/0	0/0/1		
<i>Clinocardium</i> sp.													
<i>Serripes groenlandicus</i>										1/0/0			
<i>Serripes laperousii</i>				0/0/2									
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>						0/0/1							
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>	1/0/1						0/0/1						
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>													
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>					0/0/1								
<i>Callithaca adamsi</i>								0/0/1					
<i>Phacosoma japonicum</i>													
<i>Liocyma fluctuosum</i>													
<i>Callista brevisiphonata</i>				0/0/2			0/1/3						
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>			0/0/1					0/0/1					
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>			0/1/0						0/1/0	0/1/0			
<i>Pandorella wardiana</i>													
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>				1/0/0						0/0/1			
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	60	64	65	69	70	71	72	73	74	75	76	77	78
Depth (m)	150	156	162	163	158	155	149	148	149	137	125	110	90
Substrate	v. f. sand	clayey silt	clayey silt	clayey silt	clayey silt	clayey silt	sand-silt-clay	silty sand	v. f. sand	v. f. sand	v. f. sand	f. sand	v. f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>													
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>													
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>													
<i>Turritella (Neohaustator) fortilirata</i>													
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>					0/1	0/2							
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.									0/1				
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>					0/1								
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>					0/2								
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>													
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>											1/0/1		
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>	1/0/0												
<i>Acila (Truncacila) insignis</i>													
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>				0/0/1			0/0/1	0/0/1				1/0/0	
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>				0/1/0									
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>										0/0/1			0/0/1
<i>Yoldia (Cnesterium) johanni</i>													

Appendix 1 Continued.

Site	60	64	65	69	70	71	72	73	74	75	76	77	78
Depth (m)	150	156	162	163	158	155	149	148	149	137	125	110	90
Substrate	v. f. sand	clayey silt	clayey silt	clayey silt	clayey silt	clayey silt	sand-silt-clay	silty sand	v. f. sand	v. f. sand	v. f. sand	f. sand	v. f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>													
<i>Glycymeris yessoensis</i>													
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													1/1/0
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>												0/0/4	
<i>Chlamys (Azumapecten) farreri nipponensis</i>												0/0/1	
<i>Chlamys</i> sp.												0/0/1	
<i>Swiftopecten swiftii</i>													
<i>Patinopecten yessoensis</i>													
<i>Monia macroschisma</i>												0/0/1	2/1/2
<i>Monia</i> sp.													2/0/0
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>												0/1/6	
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>												0/0/2	
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>											0/0/1	0/0/1	
<i>Tridonta alaskensis</i>												0/0/1	0/0/1
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>											0/0/1		
<i>Clinocardium ciliatum</i>		0/0/1							0/1/0			0/0/1	
<i>Clinocardium</i> sp.													
<i>Serripes groenlandicus</i>					0/2/1	0/0/1				0/0/2		0/0/1	
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.	0/0/2												
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>													
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>					1/2/0					0/1/5	0/2/0	0/0/1	0/0/3
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>													
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>													
<i>Phacosoma japonicum</i>													
<i>Liocyma fluctuosum</i>													
<i>Callista brevisiphonata</i>													
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>													
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>	0/0/1		0/0/1						0/0/1	0/0/1			
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>											1/0/0		
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	79	80	81	82	83	84	85	86	87	88	89	90	91
Depth (m)	72	59	48	38	42	48	61	75	97	118	129	142	149
Substrate	v. f. sand	m. sand	m. sand	50%≤pebble	50%≤pebble	50%≤pebble	m. sand	f. sand	v. f. sand	f. sand	v. f. sand	v. f. sand	v. f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>	0/2												
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.	0/1												
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>	0/3												
<i>Puncturella kawamurai</i>			0/1										
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>			0/2	0/3	0/6	1/5							
<i>Turritella (Neohaustator) fortilirata</i>										1/0			0/1
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>													1/0
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>													
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>									0/1				
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>													
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>													
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>													
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>	0/0/1								0/0/2		0/1/0		0/0/1
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>										1/0/1			

Appendix 1 Continued.

Site	79	80	81	82	83	84	85	86	87	88	89	90	91
Depth (m)	72	59	48	38	42	48	61	75	97	118	129	142	149
Substrate	v. f. sand	m. sand	m. sand	50%≤pebble	50%≤pebble	50%≤pebble	m. sand	f. sand	v. f. sand	f. sand	v. f. sand	v. f. sand	v. f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>	0/0/11	0/0/7											
<i>Glycymeris yessoensis</i>		0/0/3	0/0/2	0/0/4	0/0/1								
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>		0/1/0											
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>													
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>						0/0/1	0/0/2						
<i>Patinopecten yessoensis</i>			0/0/11	0/0/2	0/1/11	0/0/4	0/0/2				0/0/1		
<i>Monia macroschisma</i>													
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>						1/0/5							
<i>Cyclocardia (Crassicardia) crassidens</i>	0/0/5								0/0/2				
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>													
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>			1/0/2		0/0/1								
<i>Clinocardium ciliatum</i>		1/0/0							0/0/2	0/1/0			0/0/1
<i>Clinocardium</i> sp.		0/0/1											
<i>Serripes groenlandicus</i>													0/1/2
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>							0/0/1						
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>				0/0/1	0/1/0	0/0/1							
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>	0/0/5										0/0/4	0/2/1	
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>													
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>													
<i>Phacosoma japonicum</i>													
<i>Liocyma fluctuosum</i>													
<i>Callista brevisiphonata</i>		0/0/1	0/0/1	0/0/2	0/0/2	1/0/1							
<i>Saxidomus purpurata</i>					0/0/1								
<i>Mya (Arenomya) arenaria oonogai</i>													
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>													
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>								1/0/0	1/0/0				
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	92	97	98	100	101	102	104	105	106	107	107A	108	110
Depth (m)	152	167	165	157	153	148	125	102	78	61	61	48	28
Substrate	silty sand	clayey silt	clayey silt	sand-silt-clay	silty sand	v. f. sand	f. sand	v. f. sand	v. f. sand	f. sand	f. sand	m. sand	50%≤pebble
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>									0/4				
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>										0/5	0/1		
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>									0/2	0/1			
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>										0/1	0/1	0/2	
<i>Turritella (Neohaustator) fortilirata</i>						0/1		0/2					
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>			0/1										
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>											0/1		
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>										0/1	0/1		
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>										0/3			
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>					0/1								
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>								0/1					
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>										0/5	0/2		
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>						1/0/0							
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>				1/0/0		0/0/2							
<i>Acila (Truncacila) insignis</i>												0/0/1	
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>			0/1/1			1/0/0							
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>													

Appendix 1 Continued.

Site	92	97	98	100	101	102	104	105	106	107	107A	108	110
Depth (m)	152	167	165	157	153	148	125	102	78	61	61	48	28
Substrate	silty sand	clayey silt	clayey silt	sand-silt-clay	silty sand	v. f. sand	f. sand	v. f. sand	v. f. sand	f. sand	f. sand	m. sand	50%≤pebble
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>									0/0/10	0/1/14	0/0/6	0/0/2	
<i>Glycymeris yessoensis</i>										0/1/4	0/0/4	0/0/5	0/0/1
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>									0/0/1				
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>										0/0/5	0/0/2	0/0/1	
<i>Patinopecten yessoensis</i>										0/0/7	0/0/9	0/0/7	1/0/1
<i>Monia macroschisma</i>									0/0/2				
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>									0/2/14				
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>									0/0/1				
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>										0/0/1			
<i>Clinocardium ciliatum</i>				0/2/0	0/2/6	0/0/2	0/0/16	0/0/1			0/0/3		
<i>Clinocardium</i> sp.											0/0/1		
<i>Serripes groenlandicus</i>	0/1/2			0/0/3	0/0/1	1/0/0							
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													1/0/0
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>													3/1/0
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>	1/0/0			1/0/0		0/1/2		0/0/1					
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>												1/0/4	
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>										0/0/1			
<i>Phacosoma japonicum</i>													
<i>Liocyra fluctuosum</i>						0/0/1							
<i>Callista brevisiphonata</i>										0/0/5	0/0/3	0/0/7	
<i>Saxidomus purpurata</i>													0/0/1
<i>Mya (Arenomya) arenaria oonogai</i>													
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>									0/0/2				
<i>Anisocorbula venusta</i>										0/0/2	0/0/1		
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>		0/1/0				0/1/1	0/1/1						
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>								0/1/0					
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	111	112	113	114	114A	115	118	119	120	120A	121	121A	122
Depth (m)	42	57	72	97	98	130	163	165	158	158	135	135	96
Substrate	50%≤pebble	m. sand	f. sand	v. f. sand	v. f. sand	f. sand	clayey silt	sand-silt-clay	f. sand	f. sand	m. sand		f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>			0/2										
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>			0/3										
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>			0/1										0/1
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>	0/1												
<i>Turritella (Neohaustator) fortilirata</i>	0/1					0/1	0/3	0/2			0/1	1/0	
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>													
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.					3/0	massive							
<i>Marsenia uchidai</i>						0/1							
<i>Velutina (Velutella) plicatilis</i>		0/1											
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>									0/1				
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>													
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>			0/1										
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>			0/2										
<i>Buccinum tenue</i>													
<i>Admete viridula</i>						0/1					0/2		
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>													
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>													
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>				0/0/5	0/0/2		1/0/0						0/0/1
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													0/0/1
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>													

Appendix 1 Continued.

Site	111	112	113	114	114A	115	118	119	120	120A	121	121A	122
Depth (m)	42	57	72	97	98	130	163	165	158	158	135	135	96
Substrate	50%≤pebble	m. sand	f. sand	v. f. sand	v. f. sand	f. sand	clayey silt	sand-silt-clay	f. sand	f. sand	m. sand		f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>			0/0/22										
<i>Glycymeris yessoensis</i>	1/0/4	0/2/8											
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>											0/0/1		
<i>Chlamys</i> sp.									0/0/1				
<i>Swiftopecten swiftii</i>	0/0/1		0/0/1										
<i>Patinopecten yessoensis</i>	0/0/12	0/1/10											
<i>Monia macroschisma</i>			0/0/1										
<i>Monia</i> sp.			0/0/1										
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													0/3/12
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>			0/0/11	0/0/5	0/1/0					0/1/0			2/3/4
<i>Cyclocardia</i> sp.										0/0/1			
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>										0/0/1	0/1/1	0/0/2	1/0/4
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>			0/0/2										
<i>Clinocardium ciliatum</i>					0/2/2	0/0/1				0/1/2	0/1/0	0/3/3	1/2/1
<i>Clinocardium</i> sp.											0/0/1		
<i>Serripes groenlandicus</i>													
<i>Serripes laperousii</i>												1/0/0	
<i>Serripes</i> sp.													0/0/1
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>	1/0/5	1/2/0											
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>												0/2/0	
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>		0/0/1											
<i>Macoma</i> sp.			0/0/1										
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>			0/0/1										
<i>Phacosoma japonicum</i>													
<i>Liocyma fluctuosum</i>													
<i>Callista brevisiphonata</i>	0/0/4	0/0/4	0/0/3										
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>													
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>			2/1/0										
<i>Anisocorbula venusta</i>			0/0/3										
<i>Hiatella orientalis</i>				0/0/1									
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>													
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>													
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	122A	123	123A	124	124A	125	125A	126	127	128	129	130
Depth (m)	96	72	72	55	55	36	36	37	50	62	90	52
Substrate		f. sand		f. sand		50%≤pebble		50%≤pebble	m. sand	f. sand	m. . sand	f. sand
GASTROPODA												
<i>Cryptobranchia kuragiensis</i>												
<i>Limalepeta lima</i>												
<i>Lepeta alba</i>		0/3	0/2	0/1	0/1					0/1		
<i>Lepeta</i> sp.												
<i>Tugalina (Scelidotoma) gigas</i>					0/1							
<i>Puncturella nobilis</i>		0/2		0/4						0/1		
<i>Puncturella (Rimulanax) major</i>												
<i>Puncturella kawamurai</i>		0/1										
<i>Margarites helycinus pilsbryi</i>												
<i>Margarites ochotensis</i>												
<i>Margaritopsis pribiloffensis</i>												
<i>Machaeroplax varicosa koreanica</i>												
<i>Homalopoma amussitatum</i>				0/2			3/1	0/3				0/1
<i>Turritella (Neohaustator) fortilirata</i>	0/1											
<i>Tachyrhynchus yanamii</i>												
<i>Tachyrhynchus septemcostatus</i>												
<i>Trichotropis (Ariadnaria) insignis</i>												
<i>Crepidula grandis</i>												
Vermetidae gen. et sp. indet.												
<i>Marsenia uchidai</i>												
<i>Velutina (Velutella) plicatilis</i>												
<i>Bulbus flavus elongatus</i>												
<i>Euspira pila</i>												
<i>Euspira pallida</i>												
<i>Cryptonatica jonhostoma</i>		0/1										
<i>Cryptonatica wakkanaiensis</i>												
<i>Cryptonatica clausa</i>		0/1										
<i>Cryptonatica</i> sp.												
<i>Pteropurpura (Ocinebrellus) adunca</i>		0/1										
<i>Nipponotrophon lasia</i>												
<i>Boreotrophon candelabrum</i>												
<i>Boreotrophon beringi</i>												
<i>Boreotrophon xestra xestra</i>												
<i>Mohnia vernalis</i>												
<i>Mohnia</i> sp.												
<i>Plicifusus plicatus</i>												
<i>Plicifusus (Retifusus) brunneus</i>												
<i>Plicifusus kroyeri</i>												
<i>Searlesia modesta</i>												
<i>Buccinum middendorffi</i>												
<i>Buccinum tenue</i>												
<i>Admete viridula</i>												
<i>Clathrodrillia takeokensis</i>												
<i>Obesotoma uchidai</i>												
<i>Obesotoma simplex</i>												
<i>Oenopota hanazakiensis</i>												
<i>Obesotoma schantarica</i>												
<i>Rhodopetoma akkeshiensis</i>												
<i>Derjuginella rufofasciata</i>												
<i>Philine argentata</i>												
PELECYPODA												
<i>Leionucula tenuis</i>												
<i>Leionucula mirifica</i>												
<i>Acila divaricata divaricata</i>												
<i>Acila divaricata vigila</i>												
<i>Acila (Truncacila) insignis</i>											0/0/1	
<i>Acila</i> sp.												
<i>Nuculana pernula pernuloides</i>	0/0/2					0/1/0					0/0/1	
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>												
<i>Yoldia limatula</i>												
<i>Yoldia amygdalea</i>												
<i>Yoldia glauca</i>												
<i>Yoldia (Cnesterium) seminuda</i>												
<i>Yoldia (Cnesterium) notabilis</i>												
<i>Yoldia (Cnesterium) johanni</i>												

Appendix 1 Continued.

Site	122A	123	123A	124	124A	125	125A	126	127	128	129	130
Depth (m)	96	72	72	55	55	36	36	37	50	62	90	52
Substrate		f. sand		f. sand		50%≤pebble		50%≤pebble	m. sand	f. sand	m. . sand	f. sand
<i>Yoldia conceptionis</i>												
<i>Yoldia</i> sp.												
<i>Megayoldia thraciaeformis</i>												
<i>Arca boucardi</i>		0/5/13	0/0/8	0/0/9						0/0/4		
<i>Glycymeris yessoensis</i>				0/3/6	0/0/1			0/0/1	0/1/2		0/0/1	0/1/4
<i>Mytilus coruscus</i>		0/0/1										0/0/1
<i>Mytilus (Crenomytilus) grayanus</i>												
<i>Mytilus</i> sp.		0/1/0										
<i>Modiolus kurilensis</i>												
<i>Megacrenella columbiana</i>												
<i>Chlamys islandica behringiana</i>												
<i>Chlamys (Azumapecten) farreri nipponensis</i>												
<i>Chlamys</i> sp.												
<i>Swiftopecten swiftii</i>				0/0/3						0/0/1		0/0/1
<i>Patinopecten yessoensis</i>	0/0/1		0/0/2	0/1/8			0/0/2	2/1/6	1/1/0			0/0/3
<i>Monia macroschisma</i>												
<i>Monia</i> sp.												
<i>Felaniella usta</i>												
<i>Diplodonta orbella</i>			0/0/2									
<i>Cyclocardia crebricostata</i>		0/0/3	0/1/0	0/0/4						0/0/5		
<i>Cyclocardia ferruginea</i>											0/2/1	0/0/1
<i>Cyclocardia (Crassicardia) crassidens</i>			0/0/3								0/0/4	
<i>Cyclocardia</i> sp.										0/0/1		
<i>Tridonta borealis</i>												
<i>Tridonta alaskensis</i>		0/0/1									0/0/6	
<i>Tridonta bennettii</i>												
<i>Tridonta</i> sp.				0/0/1								
<i>Clinocardium buellowi</i>												
<i>Clinocardium californiense</i>			0/0/1	0/0/3			0/0/1	0/0/1	0/0/1	0/0/1		0/0/3
<i>Clinocardium ciliatum</i>	0/1/3	0/2/0		1/1/1						0/0/1		
<i>Clinocardium</i> sp.				0/0/2								
<i>Serripes groenlandicus</i>												
<i>Serripes laperousii</i>												
<i>Serripes</i> sp.												
<i>Spisula polynyma</i>												
<i>Raetellops pulchellus</i>												
<i>Cadella lubrica</i>				0/0/1	0/0/1			1/0/3				
<i>Nitidotellina hokkaidoensis</i>												
<i>Nitidotellina minuta</i>												
<i>Macoma calcarea</i>												
<i>Macoma incongrua</i>												
<i>Macoma sector</i>												
<i>Macoma nipponica</i>												
<i>Macoma</i> sp.												
<i>Siliqua alta</i>												
<i>Mercenaria stimpsoni</i>												
<i>Callithaca adamsi</i>												
<i>Phacosoma japonicum</i>												
<i>Liocyma fluctuosum</i>												
<i>Callista brevisiphonata</i>		0/0/5	0/1/0	1/0/2					0/0/1	0/1/4		0/0/1
<i>Saxidomus purpurata</i>												
<i>Mya (Arenomya) arenaria oonogai</i>			1/0/0								0/0/1	
<i>Mya (Arenomya) japonica</i>												
<i>Mya</i> sp.						0/0/1						
<i>Cryptomya busoensis</i>												
<i>Anisocorbula venusta</i>		0/1/2		1/0/7						0/0/1		
<i>Hiatella orientalis</i>												
<i>Hiatella arctica</i>												
<i>Pandorella wardiana</i>												
<i>Pandorella</i> sp.												
<i>Heteroclidus pulchellus</i>									0/1/0			
<i>Myadora fluctuosa</i>												
<i>Thracia kakumana</i>	0/0/1				1/0/0							
<i>Thracia itoi</i>												
<i>Thracia</i> sp.												
<i>Dermatomya tenuiconcha</i>												

Appendix 1 Continued.

Site	131	132	133	136	138	139	140	140A	141	141A	142	144	145
Depth (m)	42	60	80	165	144	122	87	87	63	63	50	36	53
Substrate	c. sand	f. sand	f. sand	v. f. sand	f. sand	f. sand	m. sand		f. sand		m. sand	f. sand	f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>													
<i>Lepeta alba</i>			0/1							0/1			
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>		0/1								0/2			
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>	1/5	0/3										0/5	0/1
<i>Turritella (Neohaustator) fortilirata</i>				0/1			1/4	1/2					
<i>Tachyrhynchus yanamii</i>					0/2								
<i>Tachyrhynchus septemcostatus</i>													
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													
<i>Cryptonatica</i> sp.			0/1								1/0		
<i>Pteropurpura (Ocinebrellus) adunca</i>										0/1			
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>											0/1		
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>			0/1										
<i>Plicifusus (Retifusus) brunneus</i>							0/1						
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>		0/1											
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>													
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>											0/0/1	0/0/1	
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>				0/1/0	1/0/0								
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>							0/0/1	1/0/0					

Appendix 1 Continued.

Site	131	132	133	136	138	139	140	140A	141	141A	142	144	145
Depth (m)	42	60	80	165	144	122	87	87	63	63	50	36	53
Substrate	c. sand	f. sand	f. sand	v. f. sand	f. sand	f. sand	m. sand		f. sand		m. sand	f. sand	f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>		0/0/3	0/0/6							0/0/5			
<i>Glycymeris yessoensis</i>	0/0/4	0/0/2							0/0/1		1/1/8	0/0/2	0/0/1
<i>Mytilus coruscus</i>	0/0/1	0/0/2	0/0/3										
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>			0/0/3							0/0/1			
<i>Chlamys</i> sp.								0/0/1	0/0/1				
<i>Swiftopecten swiftii</i>		0/0/4	0/0/1						0/0/3		0/0/2	0/0/1	0/0/2
<i>Patinopecten yessoensis</i>	0/1/4									0/0/2	0/1/11	0/0/4	0/0/6
<i>Monia macroschisma</i>			0/0/2				0/0/2		0/0/1				
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>		0/1/1	0/0/1										
<i>Cyclocardia (Crassicardia) crassidens</i>			0/0/7										
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>			0/0/3		1/0/3								
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>		0/0/1										0/0/1	
<i>Clinocardium ciliatum</i>			0/1/2			0/3/1	0/1/0	0/0/2	0/0/1				1/0/0
<i>Clinocardium</i> sp.									0/0/2	0/0/1			
<i>Serripes groenlandicus</i>				0/0/1									
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>											2/0/5	0/0/1	0/0/1
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>					0/1/0								
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>													
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>							0/0/1						
<i>Phacosoma japonicum</i>													
<i>Liocyma fluctuosum</i>													
<i>Callista brevisiphonata</i>	0/0/1	0/0/4							0/0/3		0/1/4	0/0/1	0/0/2
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>			1/0/0			0/1/0					0/0/1		
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>											0/0/2		
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>													
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>											0/0/1		
<i>Thracia kakumana</i>						0/1/0	1/1/0	1/0/0			0/0/2		
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	146	147	148	149	150	152	153	157	158	159	160	161	162
Depth (m)	68	90	120	136	152	159	163	153	148	141	128	115	87
Substrate	f. sand	m. sand	f. sand	v. f. sand	f. sand	silty sand	sand-silt-clay	silty sand	v. f. sand	v. f. sand	v. f. sand	f. sand	m. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>													
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>													
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>													
<i>Turritella (Neohaustator) fortilirata</i>		11/1	1/1	0/1	0/1		0/2						0/1
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>							0/2						
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.			1/0	1/0			1/0		1/0	0/1			
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>													
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>		1/0											
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>			0/1										
<i>Obesotoma schantarica</i>								0/1					
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>			0/0/1										
<i>Leionucula mirifica</i>												1/0/0	
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>													
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>					1/0/0	0/1/0			1/0/0				
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>													

Appendix 1 Continued.

Site	146	147	148	149	150	152	153	157	158	159	160	161	162
Depth (m)	68	90	120	136	152	159	163	153	148	141	128	115	87
Substrate	f. sand	m. sand	f. sand	v. f. sand	f. sand	silty sand	sand-silt-clay	silty sand	v. f. sand	v. f. sand	v. f. sand	f. sand	m. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>													
<i>Glycymeris yessoensis</i>	0/0/1												
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>								0/0/1					
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>													
<i>Chlamys</i> sp.				0/0/1									
<i>Swiftopecten swiftii</i>													
<i>Patinopecten yessoensis</i>	0/0/2												
<i>Monia macroschisma</i>													
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>													0/0/4
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>													0/0/1
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>													
<i>Clinocardium ciliatum</i>			1/0/2	1/0/0								2/0/0	
<i>Clinocardium</i> sp.													
<i>Serripes groenlandicus</i>										0/0/1			
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>													
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>				0/1/5						1/0/0	0/1/0		
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>													
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>													
<i>Phacosoma japonicum</i>													
<i>Liocyma fluctuosum</i>													
<i>Callista brevisiphonata</i>	0/0/1												
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>													
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>				0/0/1	0/0/1		0/1/0	0/1/1					
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>													
<i>Thracia itoi</i>													
<i>Thracia</i> sp.		0/0/1											
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	162A	163	164	165	165A	166	168	169	170	172	173	174	176
Depth (m)	87	70	55	42	42	22	55	68	82	122	132	145	151
Substrate		v. f. sand	m. sand	50%≤pebble	50%≤pebble	50%≤pebble	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	sand-silt-clay
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>		0/2											
<i>Lepeta alba</i>	0/1												
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>	0/1								0/1				
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>			0/1	0/5	0/11		0/2						
<i>Turritella (Neohaustator) fortilirata</i>	0/3			0/1									
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>													
<i>Trichotropis (Ariadnaria) insignis</i>	0/1												
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>									0/1				
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>							0/1						
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>													
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>		0/1									0/1	0/1	
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>									0/1				
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>									0/2				
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>											0/0/1		
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>													
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>	0/0/5									1/0/0	1/1/0		
<i>Nuculana (Thestyloda) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>													

Appendix 1 Continued.

Site	162A	163	164	165	165A	166	168	169	170	172	173	174	176
Depth (m)	87	70	55	42	42	22	55	68	82	122	132	145	151
Substrate		v. f. sand	m. sand	50%≤pebble	50%≤pebble	50%≤pebble	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	sand-silt-clay
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.											0/0/1		
<i>Megayoldia thraciaeformis</i>													1/0/0
<i>Arca boucardi</i>		0/0/14	0/0/1		0/0/1		0/0/4						
<i>Glycymeris yessoensis</i>			0/0/4	0/0/4	0/13/43	0/0/1							
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>									0/0/1				
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>		0/0/1	0/0/2	0/0/1			0/0/1						
<i>Patinopecten yessoensis</i>		0/0/2	0/0/6	0/0/3	0/3/27	0/0/5	0/0/7						
<i>Monia macroschisma</i>		0/0/1			0/0/1								
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>	0/0/1												
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>	0/0/4	0/0/4						0/0/1	0/0/2				
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>	0/0/1												
<i>Tridonta alaskensis</i>	0/0/1												
<i>Tridonta bennettii</i>							0/0/1						
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>		0/0/1			0/0/1								
<i>Clinocardium ciliatum</i>	0/0/3						0/0/1	0/0/1					
<i>Clinocardium</i> sp.													
<i>Serripes groenlandicus</i>													0/0/2
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.										0/0/1			
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>					0/0/4								
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>			0/0/1							0/0/5	0/0/1	0/1/2	
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>							0/0/1						
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>					0/0/1								
<i>Callithaca adamsi</i>													
<i>Phacosoma japonicum</i>													
<i>Liocyma fluctuosum</i>													
<i>Callista brevisiphonata</i>	0/0/1	0/0/1	0/0/6	0/0/2	0/2/1		0/0/4	0/0/2					
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>							1/0/1						
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>	0/0/1	0/0/1											
<i>Anisocorbula venusta</i>							0/1/3						
<i>Hiatella orientalis</i>									0/0/1				
<i>Hiatella arctica</i>	0/0/1												
<i>Pandorella wardiana</i>										0/0/2			
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>													
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	178	183	184	186	187	188	189	190	191	192	193	194	195
Depth (m)	157	165	159	151	148	146	141	126	102	89	82	68	56
Substrate	clayey silt	clayey silt	clayey silt	clayey silt	sand-silt-clay	silty sand	v. f. sand	v. f. sand	v. f. sand	f. sand	v. f. sand	f. sand	f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>									0/1				
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>										0/1			
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>													
<i>Turritella (Neohaustator) fortilirata</i>													
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>	0/1			0/1									
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>													
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>											0/1		
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>													
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>													
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>								0/1/0	3/0/0		0/0/1		
<i>Nuculana (Thestyloda) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>													1/2/1

Appendix 1 Continued.

Site	178	183	184	186	187	188	189	190	191	192	193	194	195
Depth (m)	157	165	159	151	148	146	141	126	102	89	82	68	56
Substrate	clayey silt	clayey silt	clayey silt	clayey silt	sand-silt-clay	silty sand	v. f. sand	v. f. sand	v. f. sand	f. sand	v. f. sand	f. sand	f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.											0/0/1		
<i>Megayoldia thraciaeformis</i>					1/0/0								
<i>Arca boucardi</i>											0/0/1	0/0/3	
<i>Glycymeris yessoensis</i>													
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>								0/0/1	0/0/2	0/0/1			
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>													
<i>Patinopecten yessoensis</i>													0/0/2
<i>Monia macroschisma</i>									0/0/3				
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>								0/0/1		0/1/2	0/0/7	0/0/2	
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>								0/0/3		0/0/4	0/0/1		
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>													0/0/2
<i>Clinocardium ciliatum</i>							0/1/0	0/1/4		0/0/1	0/1/0	0/0/1	
<i>Clinocardium</i> sp.													
<i>Serripes groenlandicus</i>		0/1/0			0/0/1	0/0/1		0/0/1					
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													1/0/0
<i>Cadella lubrica</i>													
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>							0/0/4			0/0/1			
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>													
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>													
<i>Phacosoma japonicum</i>											0/0/1		
<i>Liocyra fluctuosum</i>				0/2/0									
<i>Callista brevisiphonata</i>											0/0/1	0/0/1	
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>								0/0/1		0/0/1			
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>												0/1/0	
<i>Pandorella wardiana</i>			0/1/0		1/0/0		0/0/1						
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>													
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	196	197	198	199	200	201	203	204	206	207	208	"210, 211"	212
Depth (m)	46	48	61	75	98	105	124	141	145	148	153	"153, 148"	143
Substrate	f. sand	50% pebble	f. sand	f. sand	v. f. sand	f. sand	v. f. sand	v. f. sand	sand-silt-clay	clayey silt	clayey silt	clayey silt	sand-silt-clay
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>							0/4						
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>													
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>	0/2	0/2											
<i>Turritella (Neohaustator) fortilirata</i>	0/2	0/3					1/0						
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>									0/5			0/5	0/4
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>			0/2										
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>													
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>				0/1									
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>													
PELECYPODA													
<i>Leionucula tenuis</i>						1/0/0			1/0/0			1/0/0	
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>								0/2/0					
<i>Acila (Truncacila) insignis</i>	2/0/1												
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>					0/0/4	1/0/0			0/1/0	0/1/0	1/0/1	3/2/2	1/1/0
<i>Nuculana (Thestyleda) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>			0/0/1										

Appendix 1 Continued.

Site	196	197	198	199	200	201	203	204	206	207	208	"210, 211"	212
Depth (m)	46	48	61	75	98	105	124	141	145	148	153	"153, 148"	143
Substrate	f. sand	50%≤pebble	f. sand	f. sand	v. f. sand	f. sand	v. f. sand	v. f. sand	sand-silt-clay	clayey silt	clayey silt	clayey silt	sand-silt-clay
<i>Yoldia conceptionis</i>								1/0/0					
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>													
<i>Glycymeris yessoensis</i>	0/0/4	0/0/1											
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.	0/0/1												
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>													
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>	0/0/2												
<i>Patinopecten yessoensis</i>	0/6/26	0/0/1	0/0/1										
<i>Monia macroschisma</i>						1/0/0							
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>					0/1/4								
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>					0/0/2								
<i>Tridonta bennettii</i>			0/0/1										
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													
<i>Clinocardium californiense</i>	0/6/10	0/0/2	0/0/1										
<i>Clinocardium ciliatum</i>						1/3/0							
<i>Clinocardium</i> sp.													
<i>Serripes groenlandicus</i>													0/0/1
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>													
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>						1/0/1							
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>					0/1/0								
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>			0/0/1			1/0/0							
<i>Phacosoma japonicum</i>													
<i>Liocyra fluctuosum</i>								1/0/0					
<i>Callista brevisiphonata</i>	0/0/3												
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>													
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>	0/0/1												
<i>Pandorella wardiana</i>	0/0/1												
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>					0/0/1								
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	213	214	215	216	217	218	219	220	221	222	223	224	225
Depth (m)	139	137	132	124	113	96	80	63	51	48	60	82	98
Substrate	silty sand	silty sand	v. f. sand	v. f. sand	f. sand	f. sand	f. sand	coarse sand	f. sand	f. sand	v. f. sand	v. f. sand	f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>										0/1			
<i>Limalepeta lima</i>													
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>													
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>													
<i>Margaritopsis pribiloffensis</i>													
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>													
<i>Turritella (Neohaustator) fortilirata</i>				0/1		0/3			0/1	0/3		0/5	
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>													
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>							0/1			0/3			
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>	0/1												
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>										0/2			
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>													
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>													
<i>Oenopota hanazakiensis</i>													
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>			0/1										
<i>Derjuginella rufofasciata</i>			0/2										
<i>Philine argentata</i>											0/1		
PELECYPODA													
<i>Leionucula tenuis</i>	1/0/0	0/0/1				0/0/1							
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>													
<i>Acila (Truncacila) insignis</i>									0/0/2	0/1/0			
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>					0/0/2								
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>													
<i>Yoldia (Cnesterium) johanni</i>					2/0/0		1/0/1		0/0/4				0/1/0

Appendix 1 Continued.

Site	213	214	215	216	217	218	219	220	221	222	223	224	225
Depth (m)	139	137	132	124	113	96	80	63	51	48	60	82	98
Substrate	silty sand	silty sand	v. f. sand	v. f. sand	f. sand	f. sand	f. sand	coarse sand	f. sand	f. sand	v. f. sand	v. f. sand	f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>							0/0/4						
<i>Glycymeris yessoensis</i>									0/1/2	0/1/0			
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>													
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>								0/0/1					
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>													
<i>Patinopecten yessoensis</i>								0/0/1	0/0/6	0/1/4			
<i>Monia macroschisma</i>							0/0/1						
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>						0/0/1	0/2/5						
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>													
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>										0/2/0			
<i>Clinocardium californiense</i>								0/0/1	0/0/7	0/1/1			
<i>Clinocardium ciliatum</i>		0/0/1	0/0/2	0/0/1	7/0/2	1/1/5			0/1/0				0/1/2
<i>Clinocardium</i> sp.							0/0/1						0/0/2
<i>Serripes groenlandicus</i>													
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>													
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>				0/0/1									
<i>Macoma incongrua</i>													
<i>Macoma sector</i>													
<i>Macoma nipponica</i>								0/1/0		0/0/1			
<i>Macoma</i> sp.			1/0/0										
<i>Siliqua alta</i>										0/0/1			
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>											0/1/0	0/0/1	
<i>Phacosoma japonicum</i>													
<i>Liocyma fluctuosum</i>													
<i>Callista brevisiphonata</i>										0/0/1	0/0/1		
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>							0/1/0						
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>							0/2/3						
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>	1/0/0												
<i>Pandorella wardiana</i>		0/0/1											
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>									0/0/1				
<i>Thracia itoi</i>										0/1/0			
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	226	227	228	229	230	231	232	233	234	235	236	238	239
Depth (m)	115	124	131	135	137	142	133	131	124	114	96	58	42
Substrate	f. sand	f. sand	v. f. sand	v. f. sand	silty sand	clayey silt	v. f. sand	v. f. sand	f. sand	f. sand	f. sand	v. f. sand	f. sand
GASTROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Limalepeta lima</i>													
<i>Lepeta alba</i>													
<i>Lepeta</i> sp.													
<i>Tugalina (Scelidotoma) gigas</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Puncturella kawamurai</i>													
<i>Margarites helycinus pilsbryi</i>													
<i>Margarites ochotensis</i>							0/1						
<i>Margaritopsis pribiloffensis</i>			0/2				0/2						
<i>Machaeroplax varicosa koreanica</i>													
<i>Homalopoma amussitatum</i>													0/1
<i>Turritella (Neohaustator) fortilirata</i>									0/1	0/3			
<i>Tachyrhynchus yanamii</i>													
<i>Tachyrhynchus septemcostatus</i>						0/5	0/2						
<i>Trichotropis (Ariadnaria) insignis</i>													
<i>Crepidula grandis</i>													
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Velutina (Velutella) plicatilis</i>													
<i>Bulbus flavus elongatus</i>													
<i>Euspira pila</i>													
<i>Euspira pallida</i>													
<i>Cryptonatica jonhostoma</i>													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>													
<i>Cryptonatica</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>												0/1	
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon xestra xestra</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia</i> sp.													
<i>Plicifusus plicatus</i>													
<i>Plicifusus (Retifusus) brunneus</i>													
<i>Plicifusus kroyeri</i>													
<i>Searlesia modesta</i>												0/3	
<i>Buccinum middendorffi</i>													
<i>Buccinum tenue</i>													
<i>Admete viridula</i>			0/1										
<i>Clathrodrillia takeokensis</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma simplex</i>					0/1								
<i>Oenopota hanazakiensis</i>								0/1					
<i>Obesotoma schantarica</i>													
<i>Rhodopetoma akkeshiensis</i>													
<i>Derjuginella rufofasciata</i>													
<i>Philine argentata</i>											0/1		
PELECYPODA													
<i>Leionucula tenuis</i>	0/1/0		0/1/0			0/0/1	1/0/0		0/1/0				
<i>Leionucula mirifica</i>													
<i>Acila divaricata divaricata</i>													
<i>Acila divaricata vigila</i>				0/1/0									
<i>Acila (Truncacila) insignis</i>												0/1/1	0/1/1
<i>Acila</i> sp.													
<i>Nuculana pernula pernuloides</i>						0/1/1				0/1/0			
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>			0/1/0										
<i>Yoldia limatula</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia glauca</i>													
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia (Cnesterium) notabilis</i>				0/0/1		1/0/1							
<i>Yoldia (Cnesterium) johanni</i>			0/0/1									0/0/5	0/3/0

Appendix 1 Continued.

Site	226	227	228	229	230	231	232	233	234	235	236	238	239
Depth (m)	115	124	131	135	137	142	133	131	124	114	96	58	42
Substrate	f. sand	f. sand	v. f. sand	v. f. sand	silty sand	clayey silt	v. f. sand	v. f. sand	f. sand	f. sand	f. sand	v. f. sand	f. sand
<i>Yoldia conceptionis</i>													
<i>Yoldia</i> sp.													
<i>Megayoldia thraciaeformis</i>													
<i>Arca boucardi</i>													
<i>Glycymeris yessoensis</i>													0/1/10
<i>Mytilus coruscus</i>													
<i>Mytilus (Crenomytilus) grayanus</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													
<i>Megacrenella columbiana</i>					0/1/0								
<i>Chlamys islandica behringiana</i>													
<i>Chlamys (Azumapecten) farreri nipponensis</i>	0/0/1												
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>													
<i>Patinopecten yessoensis</i>										0/0/1		0/0/2	0/2/6
<i>Monia macroschisma</i>	0/0/1												
<i>Monia</i> sp.													
<i>Felaniella usta</i>													
<i>Diplodonta orbella</i>													
<i>Cyclocardia crebricostata</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia (Crassicardia) crassidens</i>													
<i>Cyclocardia</i> sp.													
<i>Tridonta borealis</i>													
<i>Tridonta alaskensis</i>													
<i>Tridonta bennettii</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium buellowi</i>													0/3/4
<i>Clinocardium californiense</i>												0/0/1	
<i>Clinocardium ciliatum</i>	6/0/4	0/0/1							0/3/0	0/0/1	0/1/1	0/0/1	
<i>Clinocardium</i> sp.													
<i>Serripes groenlandicus</i>					0/0/1								
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>													
<i>Raetellops pulchellus</i>													
<i>Cadella lubrica</i>													
<i>Nitidotellina hokkaidoensis</i>													
<i>Nitidotellina minuta</i>													
<i>Macoma calcarea</i>		0/3/2	0/1/2				0/1/2	0/0/1	0/1/0	0/0/1			
<i>Macoma incongrua</i>	0/1/0												
<i>Macoma sector</i>													
<i>Macoma nipponica</i>											0/1/0		0/0/1
<i>Macoma</i> sp.													
<i>Siliqua alta</i>													
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>												0/1/0	0/0/1
<i>Phacosoma japonicum</i>													
<i>Liocyma fluctuosum</i>													
<i>Callista brevisiphonata</i>										0/0/1			0/0/2
<i>Saxidomus purpurata</i>													
<i>Mya (Arenomya) arenaria oonogai</i>												0/1/0	
<i>Mya (Arenomya) japonica</i>													
<i>Mya</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella orientalis</i>													
<i>Hiatella arctica</i>													
<i>Pandorella wardiana</i>					0/1/0		0/0/1						
<i>Pandorella</i> sp.				0/0/1									
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>	0/0/1	0/0/2											0/0/1
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
<i>Dermatomya tenuiconcha</i>													

Appendix 1 Continued.

Site	241	242	243	244	245	246	247	248	249	250	251	252
Depth (m)	53	71	95	112	122	85	63	45	30	33	49	50
Substrate	v. f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand
GASTROPODA												
<i>Cryptobranchia kuragiensis</i>												
<i>Limalepeta lima</i>												
<i>Lepeta alba</i>												
<i>Lepeta</i> sp.												
<i>Tugalina (Scelidotoma) gigas</i>												
<i>Puncturella nobilis</i>												
<i>Puncturella (Rimulanax) major</i>												
<i>Puncturella kawamurai</i>												
<i>Margarites helacinus pilsbryi</i>												
<i>Margarites ochotensis</i>												
<i>Margaritopsis pribiloffensis</i>												
<i>Machaeroplax varicosa koreanica</i>												
<i>Homalopoma amussitatum</i>												
<i>Turritella (Neohaustator) fortilirata</i>		0/5			0/2			0/98	0/5	0/32	0/126	
<i>Tachyrhynchus yanamii</i>												
<i>Tachyrhynchus septemcostatus</i>												
<i>Trichotropis (Ariadnaria) insignis</i>												
<i>Crepidula grandis</i>												
Vermetidae gen. et sp. indet.												
<i>Marsenia uchidai</i>												
<i>Velutina (Velutella) plicatilis</i>												
<i>Bulbus flavus elongatus</i>												
<i>Euspira pila</i>								0/2		0/2		
<i>Euspira pallida</i>												
<i>Cryptonatica jonhostoma</i>												
<i>Cryptonatica wakkanaensis</i>		0/1										
<i>Cryptonatica clausa</i>										0/1		
<i>Cryptonatica</i> sp.												
<i>Pteropurpura (Ocinebrellus) adunca</i>	0/2							0/3				
<i>Nipponotrophon lasia</i>											0/1	
<i>Boreotrophon candelabrum</i>												
<i>Boreotrophon beringi</i>												
<i>Boreotrophon xestra xestra</i>												
<i>Mohnia vernalis</i>												
<i>Mohnia</i> sp.												
<i>Plicifusus plicatus</i>												
<i>Plicifusus (Retifusus) brunneus</i>												
<i>Plicifusus kroyeri</i>												
<i>Searlesia modesta</i>	0/6							0/4				
<i>Buccinum middendorffi</i>												
<i>Buccinum tenue</i>												
<i>Admete viridula</i>												
<i>Clathrodrillia takeokensis</i>								0/1		0/1		
<i>Obesotoma uchidai</i>												
<i>Obesotoma simplex</i>												
<i>Oenopota hanazakiensis</i>												
<i>Obesotoma schantarica</i>												
<i>Rhodopetoma akkeshiensis</i>												
<i>Derjuginella rufofasciata</i>												
<i>Philine argentata</i>								0/1	0/1	0/3		
PELECYPODA												
<i>Leionucula tenuis</i>												
<i>Leionucula mirifica</i>												
<i>Acila divaricata divaricata</i>												
<i>Acila divaricata vigila</i>												
<i>Acila (Truncacila) insignis</i>								0/2/4	0/1/3	0/4/3	0/2/2	
<i>Acila</i> sp.	0/0/3							0/0/4			0/0/2	
<i>Nuculana pernula pernuloides</i>												
<i>Nuculana (Thestylea) yokoyamai yokoyamai</i>												
<i>Yoldia limatula</i>												
<i>Yoldia amygdalea</i>												
<i>Yoldia glauca</i>												
<i>Yoldia (Cnesterium) seminuda</i>												
<i>Yoldia (Cnesterium) notabilis</i>								0/0/1				0/0/2
<i>Yoldia (Cnesterium) johanni</i>	0/0/2								0/1/1	0/1/4		

Appendix 1 Continued.

Site	241	242	243	244	245	246	247	248	249	250	251	252
Depth (m)	53	71	95	112	122	85	63	45	30	33	49	50
Substrate	v. f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand	f. sand
<i>Yoldia conceptionis</i>												
<i>Yoldia</i> sp.												
<i>Megayoldia thraciaeformis</i>												
<i>Arca boucardi</i>												
<i>Glycymeris yessoensis</i>								0/2/5	0/0/6	0/2/6		0/0/1
<i>Mytilus coruscus</i>												
<i>Mytilus (Crenomytilus) grayanus</i>												
<i>Mytilus</i> sp.												
<i>Modiolus kurilensis</i>												
<i>Megacrenella columbiana</i>												
<i>Chlamys islandica behringiana</i>												
<i>Chlamys (Azumapecten) farreri nipponensis</i>												
<i>Chlamys</i> sp.												
<i>Swiftopecten swiftii</i>												
<i>Patinopecten yessoensis</i>								0/1/2	0/2/6	0/0/5	0/0/1	0/0/1
<i>Monia macroschisma</i>												
<i>Monia</i> sp.												
<i>Felaniella usta</i>										0/0/1		
<i>Diplodonta orbella</i>												
<i>Cyclocardia crebricostata</i>												
<i>Cyclocardia ferruginea</i>												
<i>Cyclocardia (Crassicardia) crassidens</i>												
<i>Cyclocardia</i> sp.												
<i>Tridonta borealis</i>												
<i>Tridonta alaskensis</i>												
<i>Tridonta bennettii</i>												
<i>Tridonta</i> sp.												
<i>Clinocardium buellowi</i>								0/0/4		0/2/4	0/0/1	0/0/1
<i>Clinocardium californiense</i>	0/0/1							0/0/4	0/1/1	0/1/4		
<i>Clinocardium ciliatum</i>		0/1/3	0/3/2	0/1/3	0/12/0	0/0/2						
<i>Clinocardium</i> sp.												
<i>Serripes groenlandicus</i>												
<i>Serripes laperousii</i>												
<i>Serripes</i> sp.												
<i>Spisula polynyma</i>												
<i>Raetellops pulchellus</i>												
<i>Cadella lubrica</i>												
<i>Nitidotellina hokkaidoensis</i>										0/1/0		0/0/3
<i>Nitidotellina minuta</i>												
<i>Macoma calcarea</i>					0/0/1							
<i>Macoma incongrua</i>												
<i>Macoma sector</i>										0/0/1		
<i>Macoma nipponica</i>									0/0/1			
<i>Macoma</i> sp.												
<i>Siliqua alta</i>												
<i>Mercenaria stimpsoni</i>												
<i>Callithaca adamsi</i>								0/2/1		0/0/1		
<i>Phacosoma japonicum</i>												
<i>Liocyma fluctuosum</i>												
<i>Callista brevisiphonata</i>												
<i>Saxidomus purpurata</i>												
<i>Mya (Arenomya) arenaria oonogai</i>		0/0/1	0/1/0						0/0/1			
<i>Mya (Arenomya) japonica</i>									0/0/1			
<i>Mya</i> sp.												
<i>Cryptomya busoensis</i>												
<i>Anisocorbula venusta</i>												
<i>Hiatella orientalis</i>												
<i>Hiatella arctica</i>							0/0/1					
<i>Pandorella wardiana</i>											0/0/1	
<i>Pandorella</i> sp.												
<i>Heteroclidus pulchellus</i>												
<i>Myadora fluctuosa</i>												
<i>Thracia kakumana</i>			0/1/0	0/1/0								0/0/1
<i>Thracia itoi</i>												
<i>Thracia</i> sp.												
<i>Dermatomya tenuiconcha</i>												

Appendix 2 List of mollusc shells collected during the GH00 cruise in 2000.
Numbers of individuals are referred to Appendix 1.

Site	1	2	3	5	6	7	8	9	10	11	12	13	14	15
Depth (m)	46	36	24	45	33	66	64	56	50	38	77	69	65	61
Substrata	pebble	gravels	v. c. sand	granule	v. c. sand	v. c. sand	v. c. sand	m. sand	v. c. sand	v. c. sand	granule	v. c. sand	m. sand	v. c. sand
GATROPODA														
<i>Puncturella nobilis</i>	0/1							0/5					0/4	0/21
<i>Limalepeta lima</i>								0/1					0/2	0/1
<i>Homalopoma amussitatum</i>	0/20	0/33	0/14	0/66	0/19		0/9	0/11	0/8	0/23				0/15
<i>Bittium glareosum</i>														
<i>Turritella (Neohaustator) fortilirata</i>				0/1				0/4						0/1
<i>Crepidula grandis</i>														
<i>Euspira</i> sp.														0/2
<i>Cryptonatica wakkanaiensis</i>				0/4		0/1		0/1						
<i>Cryptonatica clausa</i>														0/2
<i>Fusitriton oregonensis</i>														
<i>Cirsotrema (Boreoscala) gleenlandicum</i>						0/1								
<i>Nipponotrophon lasia</i>				0/1				0/2	0/1					
<i>Boreotrophon cymatus</i>														
<i>Fusivoluptusius minor</i>														
<i>Colus esychus</i>														
<i>Plicifusus plicatus</i>				0/1										
<i>Neptunea vinosa</i>														
<i>Searlesia modesta</i>										0/5				0/3
<i>Buccinum anivanum</i>														
<i>Volutomitra alaskana</i>														
<i>Admete viridula</i>														
<i>Suavodrillia declivis</i>														
<i>Obestoma schantarica</i>														
<i>Propebela</i> sp.														
PELECYPODA														
<i>Leionucula tenuis</i>														
<i>Acila divaricata vigilia</i>														
<i>Acila (Truncacila) insignis</i>														
<i>Acila</i> sp.														
<i>Nuculana permula permuloides</i>														
<i>Nuculana (Robaia) robai</i>														
<i>Yoldia limatula</i>														
<i>Yoldia similis</i>														
<i>Yoldia (Cnesterium) johanni</i>								0/0/1				0/0/1		
<i>Arca boucardi</i>						0/0/1	0/0/1	0/0/17					0/0/24	0/0/45
<i>Porterius dalli</i>				0/0/1			0/0/1	0/0/1	0/0/1				0/0/1	0/0/4
<i>Glycymeris yessoensis</i>					0/0/2				0/0/2	0/2/32				0/0/22
<i>Glycymeris</i> sp.			0/0/5											
<i>Limopsis</i> sp.														
<i>Modiolus modiolus</i>	0/0/1			0/3/1					0/0/1					
<i>Megacrenella columbiana</i>														
<i>Musculus laevigatus</i>														
<i>Limatula vladivostokensis</i>														
<i>Patinopecten yessoensis</i>		0/1/11	0/0/25	0/0/2	0/0/19				0/0/2	0/0/41			0/0/2	0/0/2
<i>Chlamys (Azumapecten) farreri nipponesis</i>														

Appendix 2 Continued.

Site	1	2	3	5	6	7	8	9	10	11	12	13	14	15
Depth (m)	46	36	24	45	33	66	64	56	50	38	77	69	65	61
Substrata	pebble	gravels	v. c. sand	granule	v. c. sand	v. c. sand	v. c. sand	m. sand	v. c. sand	v. c. sand	granule	v. c. sand	m. sand	v. c. sand
<i>Chlamys</i> sp.								0/0/1	0/0/1				0/0/3	0/0/1
<i>Swiftopecten swifitii</i>	0/0/3	0/0/2		0/0/1				0/0/1		0/0/1		0/0/2		
<i>Parvamusium alaskense</i>														
<i>Monia macroschisma</i>							0/0/1					0/0/3		
<i>Monia</i> sp.								0/0/1	0/0/1					0/0/1
<i>Thyasira tokunagai</i>														
<i>Thyasira (Parathyasira) kawamurai</i>														
<i>Felaniella usta</i>							0/0/1			0/1/6			0/0/6	0/1/4
<i>Diplodonta semiaperoides</i>			0/0/1		0/1/0	0/0/1						0/0/1	0/0/1	0/0/1
<i>Miodontiscus prolongatus</i>														
<i>Cyclocardia ferruginea</i>														
<i>Cyclocardia crebricostata</i>														
<i>Tridonta borealis</i>						0/0/5					0/0/5	0/0/2	0/0/1	
<i>Tridonta benetti</i>										0/0/2				0/1/0
<i>Tridonta akaskensis</i>						0/0/5					0/0/5			
<i>Tridonta filatovae</i>														
<i>Tridonta</i> sp.			0/0/1				0/0/1			0/0/3				
<i>Clinocardium californiense</i>										0/0/1				0/0/2
<i>Clinocardium ciliatum</i>													0/0/1	0/0/4
<i>Clinocardium</i> sp.									0/0/2					0/0/1
<i>Serripes groenlandicus</i>														
<i>Macra chinensis</i>														
<i>Spisula polynyma</i>														0/0/9
<i>Megangulus luteus</i>														
<i>Cadella lubrica</i>			0/0/1			0/5/31	0/1/4		0/1/6	0/16/114	0/4/5	0/4/9	0/9/28	0/3/47
<i>Macoma calcarea</i>														
<i>Macoma incongrua</i>						0/1/0								
<i>Gobreaus kazusensis</i>	0/0/1			0/1/0	0/0/1					0/0/2				
<i>Siliqua</i> sp.														
<i>Liocyma fluctuosum</i>														
<i>Mercenaria stimpsoni</i>														
<i>Callithaca adamsi</i>								0/0/1						0/0/1
<i>Phacosoma japonicum</i>										0/0/1				
<i>Callista brevisiphonata</i>	0/2/12	0/1/6	0/2/2	0/7/11	0/0/1	0/0/4	0/0/3	0/1/7	0/0/3	0/0/5	0/0/1		0/2/17	0/1/31
<i>Mya (Arenomya) japonica</i>														
<i>Mya truncata</i>														
<i>Anisocorbula venusta</i>	0/0/5			0/0/5			0/0/1		0/0/1				0/0/3	0/0/5
<i>Hiatella arctica</i>							0/0/1		0/0/1		0/0/1			
<i>Panomya arctica</i>														
<i>Panopea japonica</i>														
<i>Pandorella pseudobilirata</i>														
<i>Pandorella wardiana</i>														
<i>Heteroclidus pulchellus</i>														
<i>Pandorella</i> sp.														
<i>Myadora fluctuosa</i>									0/0/1	0/0/1				0/0/1
<i>Periploma (Takashia) plane</i>														
<i>Thracia kakumana</i>												0/0/1		

Appendix 2 Continued.

Site	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Depth (m)	55	43	31	82	86	84	74	65	59	50	32	97	98	97
Substrata	c. sand	v. f. sand	v. f. sand	m. sand	f. sand	m. sand	f. sand	granule	v. f. sand	v. f. sand	c. sand	v. f. sand	f. sand	v. f. sand
GATROPODA														
<i>Puncturella nobilis</i>	0/1							0/3	0/1					
<i>Limalepeta lima</i>														
<i>Homalopoma amussitatum</i>	0/48		0/1						0/11					
<i>Bittium glareosum</i>														0/1
<i>Turritella (Neohaustator) fortilirata</i>			0/1											0/2
<i>Crepidula grandis</i>														
<i>Euspira</i> sp.														
<i>Cryptonatica wakkanaiensis</i>	0/1												0/1	
<i>Cryptonatica clausa</i>	0/1													
<i>Fusitriton oregonensis</i>														
<i>Cirsotrema (Boreoscala) gleenlandicum</i>														
<i>Nipponotrophon lasia</i>														
<i>Boreotrophon cymatus</i>														
<i>Fusivoluptusius minor</i>														
<i>Colus esychus</i>														
<i>Plicifusus plicatus</i>					0/1									0/1
<i>Neptunea vinosa</i>														
<i>Searlesia modesta</i>														
<i>Buccinum anivanum</i>														
<i>Volutomitra alaskana</i>														
<i>Admete viridula</i>														
<i>Suavodrilgia declivis</i>														
<i>Obestoma schantarica</i>														0/1
<i>Propebela</i> sp.					0/1		0/1							0/1
PELECYPODA														
<i>Leionucula tenuis</i>														
<i>Acila divaricata vigilia</i>														0/1/0
<i>Acila (Truncacila) insignis</i>						0/0/1			0/0/1	0/0/2				
<i>Acila</i> sp.														
<i>Nuculana permula permuloides</i>			0/0/1		0/0/5	0/0/2								0/0/7
<i>Nuculana (Robaia) robaia</i>														
<i>Yoldia limatula</i>														
<i>Yoldia similis</i>														
<i>Yoldia (Cnesterium) johanni</i>														
<i>Arca boucardi</i>	0/0/7						0/0/2	0/0/5	0/0/4					
<i>Porterius dalli</i>	0/0/2								0/0/1					
<i>Glycymeris yessoensis</i>	0/9/20	0/0/1	0/4/6			0/0/1		0/0/2	0/0/17	0/0/6	0/0/1			
<i>Glycymeris</i> sp.														
<i>Limopsis</i> sp.					0/0/1									
<i>Modiolus modiolus</i>						0/0/1								
<i>Megacrenella columbiana</i>														
<i>Musculus laevigatus</i>														
<i>Limatula vladivostokensis</i>														
<i>Patinopecten yessoensis</i>	0/0/12	0/0/20	0/0/13					0/0/2	0/0/10	0/0/9	1/0/0			
<i>Chlamys (Azumapecten) farreri nipponesis</i>						0/0/2								

Appendix 2 Continued.

Site	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Depth (m)	55	43	31	82	86	84	74	65	59	50	32	97	98	97
Substrata	c. sand	v. f. sand	v. f. sand	m. sand	f. sand	m. sand	f. sand	granule	v. f. sand	v. f. sand	c. sand	v. f. sand	f. sand	v. f. sand
<i>Chlamys</i> sp.														0/0/1
<i>Swiftopecten swiftii</i>														
<i>Parvamussium alaskense</i>														
<i>Monia macroschisma</i>														
<i>Monia</i> sp.														
<i>Thyasira tokunagai</i>														
<i>Thyasira (Parathyrasira) kawamurai</i>														
<i>Felaniella usta</i>		0/0/2	0/0/1			0/0/1	0/0/1	0/0/2	0/4/7	0/0/2				
<i>Diplodonta semiaperoides</i>		0/0/2				0/0/3		0/1/0						
<i>Miodontiscus prolongatus</i>														
<i>Cyclocardia ferruginea</i>														0/0/1
<i>Cyclocardia crebricostata</i>				7/0/0	2/0/6									0/0/10
<i>Tridonta borealis</i>				0/0/1	0/2/6	0/0/2	0/0/6							0/3/18
<i>Tridonta benetti</i>	0/3/24													
<i>Tridonta akaskensis</i>					0/0/11	0/0/6	0/0/3							0/2/20
<i>Tridonta filatovae</i>					0/1/7									
<i>Tridonta</i> sp.														
<i>Clinocardium californiense</i>								0/0/1	0/0/1			0/0/1		
<i>Clinocardium ciliatum</i>	0/1/0				0/0/3	0/0/2		0/0/1	0/0/1					0/0/1
<i>Clinocardium</i> sp.									0/0/2					
<i>Serripes groenlandicus</i>														
<i>Mactra chinensis</i>		0/0/1	0/0/4											
<i>Spisula polynyma</i>	0/1/1								0/0/4	0/0/1				
<i>Megangulus luteus</i>		0/0/4												
<i>Cadella lubrica</i>	0/10/167	0/0/2			0/2/6	0/4/20	3/1/8	0/3/7	0/8/81	0/0/2				0/1/0
<i>Macoma calcarea</i>														
<i>Macoma incongrua</i>														
<i>Gobreaeus kazusensis</i>	0/0/1								0/0/3					
<i>Siliqua</i> sp.										0/0/1				
<i>Liocyma fluctuosum</i>								0/0/2	0/0/2	0/0/4				
<i>Mercenaria stimpsoni</i>		0/0/1								0/0/1				
<i>Callithaca adamsi</i>														
<i>Phacosoma japonicum</i>														
<i>Callista brevisiphonata</i>	0/1/18					0/0/3	0/0/3	0/0/3	0/0/2					0/0/1
<i>Mya (Arenomya) japonica</i>						0/0/1				0/0/3				
<i>Mya truncata</i>														
<i>Anisocorbula venusta</i>	0/1/4		0/0/1						0/0/4					
<i>Hiatella arctica</i>					0/0/1	0/0/1								
<i>Panomya arctica</i>														
<i>Panopea japonica</i>						0/0/1								
<i>Pandorella pseudobilirata</i>														
<i>Pandorella wardiana</i>														
<i>Heteroclidus pulchellus</i>														
<i>Pandorella</i> sp.														
<i>Myadora fluctuosa</i>	0/0/4								0/0/4	0/0/1				
<i>Periploma (Takashia) plane</i>														
<i>Thracia kakumana</i>					0/0/2									0/1/1

Appendix 2 Continued.

Site	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Depth (m)	95	90	86	78	64	52	33	114	114	113	109	107	107	99
Substrata	m. sand	f. sand	v. f. sand	f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	f. sand	f. sand	f. sand
GATROPODA														
<i>Puncturella nobilis</i>														
<i>Limalepeta lima</i>														
<i>Homalopoma amussitatum</i>							0/1							
<i>Bittium glareosum</i>														
<i>Turritella (Neohaustator) fortilirata</i>						0/36					0/1	0/1		
<i>Crepidula grandis</i>														
<i>Euspira</i> sp.														
<i>Cryptonatica wakkanaiensis</i>							0/1							
<i>Cryptonatica clausa</i>					0/1									
<i>Fusitriton oregonensis</i>														
<i>Cirsotrema (Boreoscala) gleenlandicum</i>														
<i>Nipponotrophon lasia</i>														
<i>Boreotrophon cymatus</i>														
<i>Fusivoluptosius minor</i>														
<i>Colus esychus</i>														
<i>Plicifusus plicatus</i>		0/1												
<i>Neptunea vinosa</i>														
<i>Searlesia modesta</i>														
<i>Buccinum anivanum</i>														
<i>Volutomitra alaskana</i>														
<i>Admete viridula</i>														
<i>Suavodrilla declivis</i>														
<i>Obestoma schantarica</i>														
<i>Propebela</i> sp.														
PELECYPODA														
<i>Leionucula tenuis</i>														
<i>Acila divaricata vigilia</i>														
<i>Acila (Truncacila) insignis</i>					0/0/1	0/0/2								
<i>Acila</i> sp.							0/0/1							
<i>Nuculana pernula permuloides</i>	0/0/2	0/0/1		0/0/1								0/1/9		
<i>Nuculana (Robaia) robai</i>														
<i>Yoldia limatula</i>														
<i>Yoldia similis</i>														
<i>Yoldia (Cnesterium) johanni</i>							0/0/1							
<i>Arca boucardi</i>				0/0/1										
<i>Porterius dalli</i>														
<i>Glycymeris yessoensis</i>			0/5/6	0/0/24	0/11/14	0/6/15	0/8/47							
<i>Glycymeris</i> sp.														
<i>Limopsis</i> sp.	0/0/1				0/0/1	0/0/6								
<i>Modiolus modiolus</i>														
<i>Megacrenella columbiana</i>									0/1/0					
<i>Musculus laevigatus</i>														
<i>Limatula vladivostokensis</i>										0/0/1				
<i>Patinopecten yessoensis</i>			0/0/1	0/0/4	0/0/4		2/1/12					0/0/4		
<i>Chlamys (Azumapecten) farreri nipponensis</i>	0/0/1	0/0/2												

Appendix 2 Continued.

Site	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Depth (m)	95	90	86	78	64	52	33	114	114	113	109	107	107	99
Substrata	m. sand	f. sand	v. f. sand	f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	f. sand	f. sand	f. sand
<i>Chlamys</i> sp.		0/0/2												
<i>Swiftopecten swiftii</i>														
<i>Parvamussium alaskense</i>														
<i>Monia macroschisma</i>														
<i>Monia</i> sp.														
<i>Thyasira tokunagai</i>														
<i>Thyasira (Parathyrasira) kawamurai</i>			0/0/2											
<i>Felaniella usta</i>			0/0/1	0/1/14	0/0/2									
<i>Diplodonta semiaperoides</i>	0/0/1			0/0/1										
<i>Miodontiscus prolongatus</i>		0/0/2												
<i>Cyclocardia ferruginea</i>		0/0/5												
<i>Cyclocardia crebricostata</i>	0/0/6	0/0/11										0/0/9		
<i>Tridonta borealis</i>	0/3/8	0/1/3	0/3/5									0/1/9		
<i>Tridonta benetti</i>				0/9/11										
<i>Tridonta akaskensis</i>	0/0/10	0/0/15	0/0/5	0/0/3								0/0/10		
<i>Tridonta filatovae</i>														
<i>Tridonta</i> sp.	0/0/2	0/1/2			0/0/2									
<i>Clinocardium californiense</i>						0/0/1								
<i>Clinocardium ciliatum</i>			0/0/5	0/0/5	0/0/2				0/0/1			0/0/1		
<i>Clinocardium</i> sp.		0/0/1			0/0/8							0/0/1		
<i>Serripes groenlandicus</i>														
<i>Macra chinensis</i>						0/0/1								
<i>Spisula polynyma</i>			0/0/1	0/1/7	0/0/4									
<i>Megangulus luteus</i>														
<i>Cadella lubrica</i>		0/1/5	0/3/63	0/7/262	0/0/51	0/0/1							0/0/1	0/4/5
<i>Macoma calcarea</i>								0/0/2	0/0/7					
<i>Macoma incongrua</i>			0/0/1											
<i>Gobreaus kazusensis</i>				0/0/1			0/0/1							
<i>Siliqua</i> sp.														
<i>Liocyma fluctuosum</i>		0/0/1										0/0/3		
<i>Mercenaria stimpsoni</i>					0/0/1									
<i>Callithaca adamsi</i>														
<i>Phacosoma japonicum</i>														
<i>Callista brevisiphonata</i>		0/0/4	0/0/2	0/0/5	0/1/7									
<i>Mya (Arenomya) japonica</i>														
<i>Mya truncata</i>														
<i>Anisocorbula venusta</i>							0/0/1							
<i>Hiatella arctica</i>		0/0/1			0/0/32							0/0/2		
<i>Panomya arctica</i>					0/0/2									
<i>Panopea japonica</i>														
<i>Pandorella pseudobilirata</i>														
<i>Pandorella wardiana</i>				0/0/1										
<i>Heteroclidus pulchellus</i>														
<i>Pandorella</i> sp.														
<i>Myadora fluctuosa</i>				0/0/7	0/0/1	0/1/6								
<i>Periploma (Takashia) plane</i>														
<i>Thracia kakumana</i>	0/0/3	0/0/1									0/0/1	0/0/1		

Appendix 2 Continued.

Site	44	45	46	47	48	49	50	51	52	53	54	56	57	58
Depth (m)	87	72	57	120	122	123	127	125	125	122	120	96	121	122
Substrata	v. f. sand	v. f. sand	v. f. sand	clay	clay	silt	silt	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	clay	clay
GATROPODA														
<i>Puncturella nobilis</i>														
<i>Limalepeta lima</i>														
<i>Homalopoma amussitatum</i>														
<i>Bittium glareosum</i>														
<i>Turritella (Neohaustator) fortilirata</i>			0/93											
<i>Crepidula grandis</i>														
<i>Euspira</i> sp.														
<i>Cryptonatica wakkanaiensis</i>			0/1											
<i>Cryptonatica clausa</i>				0/1										
<i>Fusitriton oregonensis</i>														
<i>Cirsotrema (Boreoscala) gleenlandicum</i>														
<i>Nipponotrophon lasia</i>														
<i>Boreotrophon cymatus</i>							0/1							
<i>Fusivoluptusius minor</i>														
<i>Colus esychus</i>														
<i>Plicifusus plicatus</i>														
<i>Neptunea vinosa</i>						0/1								
<i>Searlesia modesta</i>														
<i>Buccinum anivanum</i>														
<i>Volutomitra alaskana</i>														
<i>Admete viridula</i>											0/1			
<i>Suavodrilla declivis</i>											0/1			
<i>Obestoma schantarica</i>														
<i>Propebela</i> sp.										0/1	0/1			
PELECYPODA														
<i>Leionucula tenuis</i>							0/1/0	0/2/0	0/0/1					
<i>Acila divaricata vigilia</i>														
<i>Acila (Truncacila) insignis</i>			0/1/3											
<i>Acila</i> sp.		0/0/2												
<i>Nuculana pernula permuloides</i>				0/4/26	0/0/2	0/0/31				0/0/1			0/5/8	0/12/21
<i>Nuculana (Robaia) robai</i>														
<i>Yoldia limatula</i>														
<i>Yoldia similis</i>														
<i>Yoldia (Cnesterium) johanni</i>														
<i>Arca boucardi</i>														
<i>Porterius dalli</i>														
<i>Glycymeris yessoensis</i>	0/0/5													
<i>Glycymeris</i> sp.														
<i>Limopsis</i> sp.														
<i>Modiolus modiolus</i>	0/0/3													
<i>Megacrenella columbiana</i>														
<i>Musculus laevigatus</i>	0/0/1													
<i>Limatula vladivostokensis</i>														
<i>Patinopecten yessoensis</i>	0/0/2													
<i>Chlamys (Azumapecten) farreri nipponensis</i>														

Appendix 2 Continued.

Site	44	45	46	47	48	49	50	51	52	53	54	56	57	58
Depth (m)	87	72	57	120	122	123	127	125	125	122	120	96	121	122
Substrata	v. f. sand	v. f. sand	v. f. sand	clay	clay	silt	silt	v. f. sand	v. f. sand	v. f. sand	v. f. sand	v. f. sand	clay	clay
<i>Chlamys</i> sp.														
<i>Swiftopecten swiftii</i>														
<i>Parvamusium alaskense</i>														
<i>Monia macroschisma</i>														
<i>Monia</i> sp.														
<i>Thyasira tokunagai</i>									0/0/1					
<i>Thyasira (Parathyrasira) kawamurai</i>														
<i>Felaniella usta</i>		0/2/0										0/4/0		
<i>Diplodonta semiaperoides</i>														
<i>Miodontiscus prolongatus</i>	0/0/1													
<i>Cyclocardia ferruginea</i>														
<i>Cyclocardia crebricostata</i>														
<i>Tridonta borealis</i>	0/0/1													
<i>Tridonta benetti</i>														
<i>Tridonta akaskensis</i>	0/0/2													
<i>Tridonta filatovae</i>														
<i>Tridonta</i> sp.	0/0/1													
<i>Clinocardium californiense</i>														
<i>Clinocardium ciliatum</i>	0/0/3	0/0/1			0/0/2		0/0/2		0/1/3	0/0/5	0/0/1			
<i>Clinocardium</i> sp.														
<i>Serripes groenlandicus</i>					0/1/1	0/0/4	0/0/2	0/0/2		0/0/1				
<i>Macra chinensis</i>														
<i>Spisula polynyma</i>	0/0/4													
<i>Megangulus luteus</i>	0/0/1													
<i>Cadella lubrica</i>	0/4/3													
<i>Macoma calcareea</i>				0/0/5			0/0/5		0/0/1					
<i>Macoma incongrua</i>														
<i>Gobraeus kazusensis</i>														
<i>Siliqua</i> sp.														
<i>Liocyma fluctuosum</i>														
<i>Mercenaria stimpsoni</i>														
<i>Callithaca adamsi</i>														
<i>Phacosoma japonicum</i>														
<i>Callista brevisiphonata</i>														
<i>Mya (Arenomya) japonica</i>		0/0/1												
<i>Mya truncata</i>														
<i>Anisocorbula venusta</i>														
<i>Hiatella arctica</i>	0/0/2											0/0/16		
<i>Panomya arctica</i>														
<i>Panopea japonica</i>														
<i>Pandorella pseudobilirata</i>														
<i>Pandorella wardiana</i>														
<i>Heteroclidus pulchellus</i>		0/0/2												
<i>Pandorella</i> sp.							0/1/0							
<i>Myadora fluctuosa</i>														
<i>Periploma (Takashia) plane</i>														
<i>Thracia kakumana</i>	0/0/1		0/0/1											

Appendix 2 Continued.

Site	59	60	61	62	63	64	65	66	67	68	69	70	72	73
Depth (m)	123	124	126	128	131	128	124	117	120	122	125	125	131	133
Substrata	silt	clay	silt	silt	silt	v. f. sand	v. f. sand	v. f. sand	clay	clay	clay	clay	silt	silt
GATROPODA														
<i>Puncturella nobilis</i>														
<i>Limalepeta lima</i>														
<i>Homalopoma amussitatum</i>														
<i>Bittium glareosum</i>														
<i>Turritella (Neohaustator) fortilirata</i>	0/1			0/1								0/3	0/4	
<i>Crepidula grandis</i>														
<i>Euspira</i> sp.														
<i>Cryptonatica wakkanaiensis</i>														
<i>Cryptonatica clausa</i>							0/1							0/1
<i>Fusitriton oregonensis</i>														
<i>Cirsotrema (Boreoscala) gleenlandicum</i>														
<i>Nipponotrophon lasia</i>														
<i>Boreotrophon cymatus</i>	0/1													
<i>Fusivoluptusius minor</i>														
<i>Colus esychus</i>		0/1												
<i>Plicifusus plicatus</i>												0/1		
<i>Neptunea vinosa</i>														
<i>Searlesia modesta</i>														
<i>Buccinum anivanum</i>														
<i>Volutomitra alaskana</i>														
<i>Admete viridula</i>														
<i>Suavodrilla declivis</i>														
<i>Obestoma schantarica</i>								0/2						
<i>Propebela</i> sp.					0/1									
PELECYPODA														
<i>Leionucula tenuis</i>					0/1/0									
<i>Acila divaricata vigilia</i>			0/1/0	0/1/0										1/0/0
<i>Acila (Truncacila) insignis</i>														
<i>Acila</i> sp.														
<i>Nuculana pernula permuloides</i>	0/12/14	0/2/3	0/0/5						0/0/1	0/2/2	0/6/11	0/10/11	0/1/0	
<i>Nuculana (Robaia) robai</i>													0/1/1	0/0/3
<i>Yoldia limatula</i>														
<i>Yoldia similis</i>														
<i>Yoldia (Cnesterium) johanni</i>							0/1/0							
<i>Arca boucardi</i>														
<i>Porterius dalli</i>														
<i>Glycymeris yessoensis</i>														
<i>Glycymeris</i> sp.														
<i>Limopsis</i> sp.														
<i>Modiolus modiolus</i>														
<i>Megacrenella columbiana</i>														
<i>Musculus laevigatus</i>														
<i>Limatula vladivostokensis</i>														
<i>Patinopecten yessoensis</i>														
<i>Chlamys (Azumapecten) farreri nipponensis</i>							0/0/1							

Appendix 2 Continued.

Site	59	60	61	62	63	64	65	66	67	68	69	70	72	73
Depth (m)	123	124	126	128	131	128	124	117	120	122	125	125	131	133
Substrata	silt	clay	silt	silt	silt	v. f. sand	v. f. sand	v. f. sand	clay	clay	clay	clay	silt	silt
<i>Chlamys</i> sp.														
<i>Swiftopecten swiftii</i>														
<i>Parvamussium alaskense</i>														
<i>Monia macroschisma</i>														
<i>Monia</i> sp.														
<i>Thyasira tokunagai</i>														
<i>Thyasira (Parathyrasira) kawamurai</i>			0/4/1								0/0/1			
<i>Felaniella usta</i>														
<i>Diplodonta semiaperoides</i>														
<i>Miodontiscus prolongatus</i>														
<i>Cyclocardia ferruginea</i>														
<i>Cyclocardia crebricostata</i>														
<i>Tridonta borealis</i>														
<i>Tridonta benetti</i>														
<i>Tridonta akaskensis</i>														
<i>Tridonta filatovae</i>														
<i>Tridonta</i> sp.														
<i>Clinocardium californiense</i>														
<i>Clinocardium ciliatum</i>				0/0/2	0/0/1		0/0/13							
<i>Clinocardium</i> sp.														
<i>Serripes groenlandicus</i>	0/0/2		0/0/5	0/3/7	0/0/1									
<i>Macra chinensis</i>														
<i>Spisula polynyma</i>														
<i>Megangulus luteus</i>							0/0/1							
<i>Cadella lubrica</i>														
<i>Macoma calcarea</i>	0/0/3		0/0/2	0/0/1	0/0/6		0/1/1							
<i>Macoma incongrua</i>								0/1/0						
<i>Gobreaus kazusensis</i>							0/0/1							
<i>Siliqua</i> sp.														
<i>Liocyma fluctuosum</i>	0/0/6							0/0/1				0/0/8	0/0/8	
<i>Mercenaria stimpsoni</i>														
<i>Callithaca adamsi</i>														
<i>Phacosoma japonicum</i>														
<i>Callista brevisiphonata</i>														
<i>Mya (Arenomya) japonica</i>														
<i>Mya truncata</i>														
<i>Anisocorbula venusta</i>														
<i>Hiatella arctica</i>														
<i>Panomya arctica</i>														
<i>Panopea japonica</i>														
<i>Pandorella pseudobilirata</i>					0/1/1									
<i>Pandorella wardiana</i>														
<i>Heteroclidus pulchellus</i>														
<i>Pandorella</i> sp.			0/0/1			0/0/1								
<i>Myadora fluctuosa</i>														
<i>Periploma (Takashia) plane</i>														
<i>Thracia kakumana</i>								0/0/1						

Appendix 2 Continued.

Site	74	75	76	76	77	78	79	80	81	82	83	84	85	88
Depth (m)	132	130	123	123	126	129	130	133	134	137	138	136	133	141
Substrata	silt	v. f. sand	clay	clay	clay	silt	silt	clay	clay	silt	silt	silt	clay	clay
GATROPODA														
<i>Puncturella nobilis</i>														
<i>Limalepeta lima</i>														
<i>Homalopoma amussitatum</i>														
<i>Bittium glareosum</i>														
<i>Turritella (Neohaustator) fortilirata</i>		0/1			0/4				0/1	0/1				
<i>Crepidula grandis</i>		0/1												
<i>Euspira</i> sp.														
<i>Cryptonatica wakkanaiensis</i>														
<i>Cryptonatica clausa</i>														
<i>Fusitriton oregonensis</i>														
<i>Cirsotrema (Boreoscala) gleenlandicum</i>														
<i>Nipponotrophon lasia</i>														
<i>Boreotrophon cymatus</i>										0/1				
<i>Fusivoluptosius minor</i>														
<i>Colus esychus</i>														
<i>Plicifusus plicatus</i>														
<i>Neptunea vinosa</i>														
<i>Searlesia modesta</i>														
<i>Buccinum anivanum</i>														
<i>Volutomitra alaskana</i>														
<i>Admete viridula</i>														
<i>Suavodrilla declivis</i>														
<i>Obestoma schantarica</i>														
<i>Propebela</i> sp.														
PELECYPODA														
<i>Leionucula tenuis</i>	0/2/0										0/2/0			
<i>Acila divaricata vigilia</i>					0/1/0					0/0/2	0/2/1			
<i>Acila (Truncacila) insignis</i>														
<i>Acila</i> sp.														
<i>Nuculana pernula pernuloides</i>			0/1/0	0/1/0	0/0/8	0/0/2	0/0/1	0/0/2	0/14/21	0/1/7			0/0/2	0/0/1
<i>Nuculana (Robaia) robai</i>		0/1/0												
<i>Yoldia limatula</i>										0/0/1				
<i>Yoldia similis</i>														
<i>Yoldia (Cnesterium) johanni</i>														
<i>Arca boucardi</i>														
<i>Porterius dalli</i>														
<i>Glycymeris yessoensis</i>														
<i>Glycymeris</i> sp.														
<i>Limopsis</i> sp.														
<i>Modiolus modiolus</i>														
<i>Megacrenella columbiana</i>										0/1/0				
<i>Musculus laevigatus</i>														
<i>Limatula vladivostokensis</i>														
<i>Patinopecten yessoensis</i>														
<i>Chlamys (Azumapecten) farreri nipponensis</i>														

Appendix 2 Continued.

Site	74	75	76	76	77	78	79	80	81	82	83	84	85	88
Depth (m)	132	130	123	123	126	129	130	133	134	137	138	136	133	141
Substrata	silt	v. f. sand	clay	clay	clay	silt	silt	clay	clay	silt	silt	silt	clay	clay
<i>Chlamys</i> sp.														
<i>Swiftopecten swiftii</i>														
<i>Parvamusium alaskense</i>														
<i>Monia macroschisma</i>														
<i>Monia</i> sp.														
<i>Thyasira tokunagai</i>														
<i>Thyasira (Parathyrasira) kawamurai</i>														
<i>Felaniella usta</i>														
<i>Diplodonta semiaperoides</i>														
<i>Miodontiscus prolongatus</i>														
<i>Cyclocardia ferruginea</i>														
<i>Cyclocardia crebricostata</i>														
<i>Tridonta borealis</i>														
<i>Tridonta benetti</i>														
<i>Tridonta akaskensis</i>														
<i>Tridonta filatovae</i>														
<i>Tridonta</i> sp.														
<i>Clinocardium californiense</i>														
<i>Clinocardium ciliatum</i>											0/0/4			
<i>Clinocardium</i> sp.														
<i>Serripes groenlandicus</i>											0/1/1	0/1/0		
<i>Macra chinensis</i>														
<i>Spisula polynyma</i>														
<i>Megangulus luteus</i>														
<i>Cadella lubrica</i>														
<i>Macoma calcarea</i>		0/0/3									0/0/2			
<i>Macoma incongrua</i>		0/0/3												
<i>Gobreaeus kazusensis</i>														
<i>Siliqua</i> sp.														
<i>Liocyma fluctuosum</i>														
<i>Mercenaria stimpsoni</i>														
<i>Callithaca adamsi</i>														
<i>Phacosoma japonicum</i>														
<i>Callista brevisiphonata</i>														
<i>Mya (Arenomya) japonica</i>														
<i>Mya truncata</i>														
<i>Anisocorbula venusta</i>														
<i>Hiatella arctica</i>														
<i>Panomya arctica</i>														
<i>Panopea japonica</i>														
<i>Pandorella pseudobilirata</i>									0/2/0					
<i>Pandorella wardiana</i>		0/0/1										0/0/1		
<i>Heteroclidus pulchellus</i>														
<i>Pandorella</i> sp.		0/1/0												
<i>Myadora fluctuosa</i>														
<i>Periploma (Takashia) plane</i>														
<i>Thracia kakumana</i>														

Appendix 2 Continued.

Site	90	91	92	93	95	96	98	99	100	102	104	106	107	108
Depth (m)	146	143	141	146	148	147	154	151	148	154	153	157	163	163
Substrata	clay	clay	silt	silt	silt	silt	clay	clay	clay	clay	silt	clay	silt	silt
GATROPODA														
<i>Puncturella nobilis</i>														
<i>Limalepeta lima</i>														
<i>Homalopoma amussitatum</i>														
<i>Bittium glareosum</i>														
<i>Turritella (Neohaustator) fortilirata</i>	0/5	0/2						0/2						0/1
<i>Crepidula grandis</i>														
<i>Euspira</i> sp.														
<i>Cryptonatica wakkanaiensis</i>														
<i>Cryptonatica clausa</i>					0/1									0/1
<i>Fusitriton oregonensis</i>														
<i>Cirsotrema (Boreoscala) gleenlandicum</i>														
<i>Nipponotrophon lasia</i>														
<i>Boreotrophon cymatus</i>														
<i>Fusivoluptosius minor</i>														
<i>Colus esychus</i>														
<i>Plicifusus plicatus</i>														
<i>Neptunea vinosa</i>														
<i>Searlesia modesta</i>														
<i>Buccinum anivanum</i>														
<i>Volutomitra alaskana</i>														
<i>Admete viridula</i>												0/1		
<i>Suavodrililla declivis</i>														
<i>Obestoma schantarica</i>		0/1												
<i>Propebela</i> sp.														
PELECYPODA														
<i>Leionucula tenuis</i>			0/1/0											
<i>Acila divaricata vigilia</i>														
<i>Acila (Truncacila) insignis</i>														
<i>Acila</i> sp.														
<i>Nuculana pernula permuloides</i>		0/0/5	0/1/0		0/2/0		0/2/0	0/0/17	0/3/0			0/5/7	0/0/2	
<i>Nuculana (Robaia) robai</i>									0/1/0					
<i>Yoldia limatula</i>														
<i>Yoldia similis</i>														
<i>Yoldia (Cnesterium) johanni</i>														
<i>Arca boucardi</i>														
<i>Porterius dalli</i>														
<i>Glycymeris yessoensis</i>														
<i>Glycymeris</i> sp.														
<i>Limopsis</i> sp.														
<i>Modiolus modiolus</i>														
<i>Megacrenella columbiana</i>														
<i>Musculus laevigatus</i>														
<i>Limatula vladivostokensis</i>														
<i>Patinopecten yessoensis</i>														
<i>Chlamys (Azumapecten) farreri nipponensis</i>														

Appendix 2 Continued.

Site	90	91	92	93	95	96	98	99	100	102	104	106	107	108
Depth (m)	146	143	141	146	148	147	154	151	148	154	153	157	163	163
Substrata	clay	clay	silt	silt	silt	silt	clay	clay	clay	clay	silt	clay	silt	silt
<i>Chlamys</i> sp.														
<i>Swiftopecten swiftii</i>														
<i>Parvamusium alaskense</i>														
<i>Monia macroschisma</i>														
<i>Monia</i> sp.														
<i>Thyasira tokunagai</i>						0/1/0								
<i>Thyasira (Parathyrasira) kawamurai</i>	0/0/1	0/0/1												
<i>Felaniella usta</i>														
<i>Diplodonta semiaperoides</i>														
<i>Miodontiscus prolongatus</i>														
<i>Cyclocardia ferruginea</i>														
<i>Cyclocardia crebricostata</i>														
<i>Tridonta borealis</i>														
<i>Tridonta benetti</i>														
<i>Tridonta akaskensis</i>														
<i>Tridonta filatovae</i>														
<i>Tridonta</i> sp.														
<i>Clinocardium californiense</i>														
<i>Clinocardium ciliatum</i>														
<i>Clinocardium</i> sp.														
<i>Serripes groenlandicus</i>			0/1/1					0/0/2		0/0/1				
<i>Mactra chinensis</i>														
<i>Spisula polynyma</i>														
<i>Megangulus luteus</i>														
<i>Cadella lubrica</i>														
<i>Macoma calcarea</i>														0/1/1
<i>Macoma incongrua</i>														
<i>Gobreaeus kazusensis</i>														
<i>Siliqua</i> sp.														
<i>Liocyma fluctuosum</i>								0/0/2						
<i>Mercenaria stimpsoni</i>														
<i>Callithaca adamsi</i>														
<i>Phacosoma japonicum</i>														
<i>Callista brevisiphonata</i>														
<i>Mya (Arenomya) japonica</i>														
<i>Mya truncata</i>				0/1/0										
<i>Anisocorbula venusta</i>														
<i>Hiatella arctica</i>														
<i>Panomya arctica</i>														
<i>Panopea japonica</i>														
<i>Pandorella pseudobilirata</i>		0/1/0							0/1/0			0/1/0		
<i>Pandorella wardiana</i>											0/1/0			
<i>Heteroclidus pulchellus</i>														
<i>Pandorella</i> sp.							0/0/1							
<i>Myadora fluctuosa</i>														
<i>Periploma (Takashia) plane</i>					0/0/1									
<i>Thracia kakumana</i>														

Appendix 2 Continued.

Site	109	110	112	113	114	115	116	117	122	123	125	126	127	128
Depth (m)	159	161	160	187	178	172	171	167	181	174	211	205	199	185
Substrata	silt	silt	clay	silt	silt	silt	silt	silt	silt	silt	v. f. sand	silt	silt	clay
GATROPODA														
<i>Puncturella nobilis</i>														
<i>Limalepeta lima</i>														
<i>Homalopoma amussitatum</i>														
<i>Bittium glareosum</i>														
<i>Turritella (Neohaustator) fortilirata</i>														
<i>Crepidula grandis</i>														
<i>Euspira</i> sp.														
<i>Cryptonatica wakkanaiensis</i>														
<i>Cryptonatica clausa</i>		0/1	0/1					0/1						
<i>Fusitriton oregonensis</i>														
<i>Cirsotrema (Boreoscala) gleenlandicum</i>														
<i>Nipponotrophon lasia</i>														
<i>Boreotrophon cymatus</i>														
<i>Fusivoluptusius minor</i>														
<i>Colus esychus</i>														
<i>Plicifusus plicatus</i>														
<i>Neptunea vinosa</i>														
<i>Searlesia modesta</i>														
<i>Buccinum anivanum</i>											0/1			
<i>Volutomitra alaskana</i>														
<i>Admete viridula</i>			0/1	0/1		0/1								
<i>Suavodrilla declivis</i>														
<i>Obestoma schantarica</i>														
<i>Propebela</i> sp.														
PELECYPODA														
<i>Leionucula tenuis</i>														
<i>Acila divaricata vigilia</i>														
<i>Acila (Truncacila) insignis</i>														
<i>Acila</i> sp.														
<i>Nuculana pernula permuloides</i>		0/1/2	0/4/4		0/1/0			0/0/1	0/1/12	0/4/5			0/0/2	0/1/0
<i>Nuculana (Robaia) robai</i>														
<i>Yoldia limatula</i>														
<i>Yoldia similis</i>			0/0/1											
<i>Yoldia (Cnesterium) johanni</i>														
<i>Arca boucardi</i>														
<i>Porterius dalli</i>														
<i>Glycymeris yessoensis</i>														
<i>Glycymeris</i> sp.														
<i>Limopsis</i> sp.														
<i>Modiolus modiolus</i>														
<i>Megacrenella columbiana</i>														
<i>Musculus laevigatus</i>														
<i>Limatula vladivostokensis</i>														
<i>Patinopecten yessoensis</i>														
<i>Chlamys (Azumapecten) farreri nipponensis</i>														

Appendix 2 Continued.

Site	109	110	112	113	114	115	116	117	122	123	125	126	127	128
Depth (m)	159	161	160	187	178	172	171	167	181	174	211	205	199	185
Substrata	silt	silt	clay	silt	silt	silt	silt	silt	silt	silt	v. f. sand	silt	silt	clay
<i>Chlamys</i> sp.														
<i>Swiftopecten swiftii</i>														
<i>Parvamusium alaskense</i>			0/0/2											
<i>Monia macroschisma</i>														
<i>Monia</i> sp.														
<i>Thyasira tokunagai</i>							0/1/0							
<i>Thyasira (Parathyrasira) kawamurai</i>	1/0/0									0/1/0				
<i>Felaniella usta</i>														
<i>Diplodonta semiaperoides</i>														
<i>Miodontiscus prolongatus</i>														
<i>Cyclocardia ferruginea</i>														
<i>Cyclocardia crebricostata</i>														
<i>Tridonta borealis</i>														
<i>Tridonta benetti</i>														
<i>Tridonta akaskensis</i>														
<i>Tridonta filatovae</i>														
<i>Tridonta</i> sp.												0/0/1		
<i>Clinocardium californiense</i>														
<i>Clinocardium ciliatum</i>														
<i>Clinocardium</i> sp.														
<i>Serripes groenlandicus</i>			0/1/0							0/0/1				
<i>Macra chinensis</i>														
<i>Spisula polynyma</i>														
<i>Megangulus luteus</i>														
<i>Cadella lubrica</i>														
<i>Macoma calcarea</i>														
<i>Macoma incongrua</i>														
<i>Gobraeus kazusensis</i>														
<i>Siliqua</i> sp.														
<i>Liocyma fluctuosum</i>				0/0/2						0/0/7				
<i>Mercenaria stimpsoni</i>														
<i>Callithaca adamsi</i>														
<i>Phacosoma japonicum</i>														
<i>Callista brevisiphonata</i>														
<i>Mya (Arenomya) japonica</i>														
<i>Mya truncata</i>														
<i>Anisocorbula venusta</i>														
<i>Hiatella arctica</i>			0/1/0											
<i>Panomya arctica</i>														
<i>Panopea japonica</i>														
<i>Pandorella pseudobilirata</i>														
<i>Pandorella wardiana</i>														
<i>Heteroclidus pulchellus</i>														
<i>Pandorella</i> sp.														0/1/0
<i>Myadora fluctuosa</i>														
<i>Periploma (Takashia) plane</i>														
<i>Thracia kakumana</i>														

Appendix 2 Continued.

Site	129	130	131	132	133	135	137	138	142	143	144	151	152	155
Depth (m)	202	190	184	181	181	183	184	180	217	203	195	209	225	233
Substrata	clay	clay	silt	clay	silt	silt	v. f. sand	v. f. sand	clay	clay	clay	f. sand	f. sand	silt
GATROPODA														
<i>Puncturella nobilis</i>														
<i>Limalepeta lima</i>														
<i>Homalopoma amussitatum</i>														
<i>Bittium glareosum</i>														
<i>Turritella (Neohaustator) fortilirata</i>							0/5					0/1		
<i>Crepidula grandis</i>														
<i>Euspira</i> sp.														
<i>Cryptonatica wakkanaiensis</i>													0/1	
<i>Cryptonatica clausa</i>		0/1			0/1									
<i>Fusitriton oregonensis</i>								0/2						
<i>Cirsotrema (Boreoscala) gleenlandicum</i>								0/1						
<i>Nipponotrophon lasia</i>														
<i>Boreotrophon cymatus</i>														
<i>Fusivoluptosius minor</i>														
<i>Colus esychus</i>														
<i>Plicifusus plicatus</i>														
<i>Neptunea vinosa</i>														
<i>Searlesia modesta</i>														
<i>Buccinum aniwantum</i>														
<i>Volutomitra alaskana</i>														
<i>Admete viridula</i>					0/1									
<i>Suavodrilgia declivis</i>														
<i>Obestoma schantarica</i>														
<i>Propebela</i> sp.														
PELECYPODA														
<i>Leionucula tenuis</i>														
<i>Acila divaricata vigilia</i>														
<i>Acila (Truncacila) insignis</i>														
<i>Acila</i> sp.														
<i>Nuculana pernula pernulooides</i>	0/0/1	0/0/2	0/4/1	0/0/1		0/0/2				0/1/0	0/2/1	0/2/5	0/0/1	0/0/2
<i>Nuculana (Robaia) robai</i>							0/2/2					0/1/0		
<i>Yoldia limatula</i>														
<i>Yoldia similis</i>														
<i>Yoldia (Cnesterium) johanni</i>														
<i>Arca boucardi</i>														
<i>Porterius dalli</i>														
<i>Glycymeris yessoensis</i>														
<i>Glycymeris</i> sp.														
<i>Limopsis</i> sp.														
<i>Modiolus modiolus</i>														
<i>Megacrenella columbiana</i>														
<i>Musculus laevigatus</i>													0/2/0	
<i>Limatula vladivostokensis</i>														
<i>Patinopecten yessoensis</i>														
<i>Chlamys (Azumapecten) farreri nipponesis</i>														

Appendix 2 Continued.

Site	129	130	131	132	133	135	137	138	142	143	144	151	152	155
Depth (m)	202	190	184	181	181	183	184	180	217	203	195	209	225	233
Substrata	clay	clay	silt	clay	silt	silt	v. f. sand	v. f. sand	clay	clay	clay	f. sand	f. sand	silt
<i>Chlamys</i> sp.														
<i>Swiftopecten swiftii</i>														
<i>Parvamusium alaskense</i>														
<i>Monia macroschisma</i>														
<i>Monia</i> sp.														
<i>Thyasira tokunagai</i>												0/1/0		0/0/2
<i>Thyasira (Parathyrasira) kawamurai</i>														
<i>Felaniella usta</i>														
<i>Diplodonta semiaperoides</i>													0/2/0	
<i>Miodontiscus prolongatus</i>														
<i>Cyclocardia ferruginea</i>														
<i>Cyclocardia crebricostata</i>														
<i>Tridonta borealis</i>													0/1/0	
<i>Tridonta benetti</i>														
<i>Tridonta akaskensis</i>														
<i>Tridonta filatovae</i>														
<i>Tridonta</i> sp.														
<i>Clinocardium californiense</i>														
<i>Clinocardium ciliatum</i>													0/0/2	
<i>Clinocardium</i> sp.														
<i>Serripes groenlandicus</i>														
<i>Macra chinensis</i>														
<i>Spisula polynyma</i>														
<i>Megangulus luteus</i>														
<i>Cadella lubrica</i>														
<i>Macoma calcarea</i>														
<i>Macoma incongrua</i>														
<i>Gobraeus kazusensis</i>														
<i>Siliqua</i> sp.														
<i>Liocyma fluctuosum</i>									0/1/0					0/1/2
<i>Mercenaria stimpsoni</i>														
<i>Callithaca adamsi</i>														
<i>Phacosoma japonicum</i>														
<i>Callista brevisiphonata</i>														
<i>Mya (Arenomya) japonica</i>														
<i>Mya truncata</i>														
<i>Anisocorbula venusta</i>														
<i>Hiatella arctica</i>														
<i>Panomya arctica</i>														
<i>Panopea japonica</i>														
<i>Pandorella pseudobilirata</i>						0/0/1								
<i>Pandorella wardiana</i>												0/1/0		
<i>Heteroclidus pulchellus</i>														
<i>Pandorella</i> sp.														
<i>Myadora fluctuosa</i>														
<i>Periploma (Takashia) plane</i>														
<i>Thracia kakumana</i>														

Appendix 2 Continued.

Site	156	157	159	168	169	170	174	175	178	185	186	187	191
Depth (m)	221	207	223	403	489	318	166	530	284	410	825	1270	336
Substrata	silt	silt	silt	silt	g. b.	f. sand	f. sand	silt	f. sand	f. sand	clay	clay	v. f. sand
GATROPODA													
<i>Puncturella nobilis</i>										0/1			
<i>Limalepeta lima</i>													
<i>Homalopoma amussitatum</i>													
<i>Bittium glareosum</i>													
<i>Turritella (Neohaustator) fortillrata</i>									0/2				
<i>Crepidula grandis</i>													
<i>Euspira</i> sp.													
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica clausa</i>	0/1							0/1					
<i>Fusitriton oregonensis</i>													
<i>Cirsotrema (Boreoscala) gleenlandicum</i>													
<i>Nipponotrophon lasia</i>													
<i>Boreotrophon cymatus</i>													
<i>Fusivoluptosius minor</i>					0/1								
<i>Colus esychus</i>													
<i>Plicifusus plicatus</i>													
<i>Neptunea vinosa</i>													
<i>Searlesia modesta</i>													
<i>Buccinum aniwantum</i>													
<i>Volutomitra alaskana</i>					0/1								
<i>Admete viridula</i>			0/1										
<i>Suavodrilgia declivis</i>													
<i>Obestoma schantarica</i>													
<i>Propebela</i> sp.													
PELECYPODA													
<i>Leionucula tenuis</i>	0/1/0												
<i>Acila divaricata vigilia</i>													
<i>Acila (Truncacila) insignis</i>													
<i>Acila</i> sp.													
<i>Nuculana pernula perulooides</i>													0/0/2
<i>Nuculana (Robaia) robai</i>													
<i>Yoldia limatula</i>													
<i>Yoldia similis</i>													
<i>Yoldia (Cnesterium) johanni</i>													
<i>Arca boucardi</i>													
<i>Porterius dalli</i>													
<i>Glycymeris yessoensis</i>													
<i>Glycymeris</i> sp.													
<i>Limopsis</i> sp.													
<i>Modiolus modiolus</i>													
<i>Megacrenella columbiana</i>													
<i>Musculus laevigatus</i>							0/1/0						
<i>Limatula vladivostokensis</i>													
<i>Patinopecten yessoensis</i>													
<i>Chlamys (Azumapecten) farreri nipponesis</i>													

Appendix 2 Continued.

Site	156	157	159	168	169	170	174	175	178	185	186	187	191
Depth (m)	221	207	223	403	489	318	166	530	284	410	825	1270	336
Substrata	silt	silt	silt	silt	g. b.	f. sand	f. sand	silt	f. sand	f. sand	clay	clay	v. f. sand
<i>Chlamys</i> sp.													
<i>Swiftopecten swiftii</i>													
<i>Parvamusium alaskense</i>													
<i>Monia macroschisma</i>													
<i>Monia</i> sp.													
<i>Thyasira tokunagai</i>	0/1/0			0/2/0				0/1/0				0/1/0	
<i>Thyasira (Parathyrsira) kawamurai</i>		0/1/0									0/1/0		
<i>Felaniella usta</i>													
<i>Diplodonta semiaperoides</i>													
<i>Miodontiscus prolongatus</i>													
<i>Cyclocardia ferruginea</i>													0/1/0
<i>Cyclocardia crebricostata</i>													
<i>Tridonta borealis</i>						0/0/2							
<i>Tridonta benetti</i>													
<i>Tridonta akaskensis</i>						0/5/20			0/0/1				
<i>Tridonta filatovae</i>													
<i>Tridonta</i> sp.													
<i>Clinocardium californiense</i>													
<i>Clinocardium ciliatum</i>									0/0/1				
<i>Clinocardium</i> sp.													
<i>Serripes groenlandicus</i>													
<i>Macra chinensis</i>													
<i>Spisula polynyma</i>													
<i>Megangulus luteus</i>													
<i>Cadella lubrica</i>													
<i>Macoma calcarea</i>													
<i>Macoma incongrua</i>													
<i>Gobraeus kazusensis</i>													
<i>Siliqua</i> sp.													
<i>Liocyma fluctuosum</i>													0/0/1
<i>Mercenaria stimpsoni</i>													
<i>Callithaca adamsi</i>													
<i>Phacosoma japonicum</i>													
<i>Callista brevisiphonata</i>													
<i>Mya (Arenomya) japonica</i>													
<i>Mya truncata</i>													
<i>Anisocorbula venusta</i>													
<i>Hiatella arctica</i>													
<i>Panomya arctica</i>													
<i>Panopea japonica</i>													
<i>Pandorella pseudobilirata</i>													
<i>Pandorella wardiana</i>													
<i>Heteroclidus pulchellus</i>													
<i>Pandorella</i> sp.													
<i>Myadora fluctuosa</i>													
<i>Periploma (Takashia) plane</i>													
<i>Thracia kakumana</i>													

Distribution of Mollusc Shells in the Sea of Okhotsk(Kitamura et al.)

Appendix 3 List of mollusc shells collected during the GH01 cruise in 2001. Numbers of individuals are referred to Appendix 1.

Site	139	140	141	153	154	165	166	167	179	180	192	193	194	195	196
Depth (m)	146	78	36	146	67	315	132	60	275	129	292	217	130	128	72
Substrate (matrix)	f. sand	f. sand	muddy-v. f. sand	f. sand	muddy-v. f. sand	gravelly-f. sand	gravelly-f. sand	m. sand	gravelly-f. sand	silt-f. sand	co. sand-f. sand	muddy-silt	m. sand	m. sand-	f. sand
GATROPODA															
<i>Cryptobranchia kuragiensis</i>					0/1										0/1
<i>Lepeta alba</i>					0/2										0/1
<i>Limalepeta lima</i>												0/1			
<i>Lepeta caeca pacifica</i>		0/6													
<i>Lepeta</i> sp.					0/2										
<i>Tugali decussata</i>															
<i>Puncturella nobilis</i>		0/39			0/9			0/5		0/1				0/1	0/12
<i>Puncturella (Rimulanax) major</i>		0/1													
<i>Homalopoma amussitatum</i>		0/1	0/5		0/8			1/8							0/2
<i>Tachyrhynchus septemcostatus</i>											0/1				
<i>Turritella (Neohaustator) fortifirata</i>	0/2			0/1						0/3	0/1				
<i>Crepidula grandis</i>						0/1									
Vermetidae gen. et sp. indet.								0/2							
<i>Marsenia uchidai</i>					0/1										
<i>Cryptonatica clausa</i>		0/1				0/1									
<i>Cryptonatica wakkanaensis</i>		0/3			0/4					0/1				0/2	
<i>Cryptonatica</i> sp.		0/1											0/1	0/1	
<i>Tectonatica russa</i>		0/1													0/1
<i>Bulbus tenuiculus</i>					0/1			0/1	0/2						
<i>Euspira pila</i>		0/1													
<i>Euspira pallida</i>															
<i>Fusitriton oregonensis</i>					0/1										
<i>Notoseila morishimai</i>								0/2							
<i>Cerithiopsis stejnegeri</i>					0/1										
<i>Cirsotrema (Boreoscala) gleenlandicum</i>															
<i>Boreotrophon beringi</i>															
<i>Boreotrophon candelabrum</i>		0/1	0/1												0/2
<i>Boreotrophon alaskanus</i>															
<i>Boreotrophon pacifica</i>														0/1	
<i>Boreotrophon</i> sp.										0/1					
<i>Trophonopsis</i> sp.		0/1													
<i>Pteropurpura (Ocinebrellus) adunca</i>		0/1													0/2
<i>Ceratostoma inornatus</i>		0/1													
<i>Ocenebra</i> sp.		0/1													
<i>Mitrella burchardi</i>															0/1
<i>Mohnia vernalis</i>															
<i>Mohnia (Retimohnia) yanamii</i>											0/1				
<i>Mohnia (Retimohnia) multicostata</i>															
<i>Plicifusus plicatus</i>															
<i>Plicifusus kroyeri</i>															
<i>Fusivoluptosius verkruzeni</i>															
<i>Buccinum kawamurai</i>			0/2												
<i>Latisipho pulcius</i>												0/1			
<i>Latisipho jordani</i>	0/1														
<i>Colus (Latisipho) hallii</i>									0/1						
<i>Colus (Aulacofusus) nobilis</i>											0/1				
<i>Colus esychus</i>															
<i>Neptunea lamellosa</i>															
<i>Liomesus ooides</i>											0/1				
<i>Admete viridula</i>				0/1				0/1		0/1					
<i>Admete globularia</i>															
<i>Obesotoma uchidai</i>															
<i>Obesotoma</i> sp.					0/2			0/1							
<i>Clathrodrillia takeokensis</i>				0/1											
<i>Rectiplanes vinosa</i>															
<i>Rectiplanes sanctioannis</i>															
<i>Rectiplanes</i> sp.															
<i>Suavodrilina declivis</i>															0/1
<i>Derjuginella rufofasciata</i>															
<i>Derjuginella hanagaiana</i>															0/1
<i>Derjuginella</i> sp.		0/1													
<i>Cingulina cinguluta</i>								0/3							
PELECYPODA															
<i>Acila (Truncacila) insignis</i>								0/0/1							1/2/10
<i>Acila (Truncacila) minutoides</i>															
<i>Acila</i> sp.															
<i>Leionucula tenuis</i>															2/0/0
<i>Malletia pacifica</i>															
<i>Yoldia (Cnesterium) johanni</i>		0/0/4			1/0/0								0/0/1		
<i>Yoldia (Cnesterium) seminuda</i>		0/0/7											0/0/2	0/0/1	
<i>Yoldia amygdalea</i>															
<i>Yoldia (Cnesterium) notabilis</i>										0/0/1				0/0/1	
<i>Yoldia</i> sp.		0/0/4									0/0/1				0/0/2
<i>Portlandella beringii</i>															
<i>Portlandella</i> sp.															
<i>Nuculana pernula pernuloides</i>		0/0/7		0/0/2									0/0/1		0/0/1

Appendix 3 Continued.

Site	139	140	141	153	154	165	166	167	179	180	192	193	194	195	196
Depth (m)	146	78	36	146	67	315	132	60	275	129	292	217	130	128	72
Substrate (matrix)	f. sand	f. sand	muddy-v. f. sand	f. sand	muddy-v. f. sand	gravelly-f. sand	gravelly-f. sand	m. sand	gravelly-f. sand	silt-f. sand	co. sand-f. sand	muddy-silt	m. sand	m. sand-	f. sand
<i>Nuculana (Thestylela) yokoyamai yokoyamai</i>															
<i>Nuculana (Robaia) robai</i>															
<i>Nuculana</i> sp.		0/0/1													
<i>Arca boucardi</i>		0/0/341			0/0/32										0/0/4
<i>Arca</i> sp.					0/0/5			0/0/3							
<i>Glycymeris yessoensis</i>		0/0/15	0/1/8					0/0/2							0/0/101
<i>Megacrenella columbiana</i>											0/1/0				
<i>Mytilus</i> sp.		0/0/2													
<i>Modiolus kurilensis</i>		0/0/1			1/0/0			0/1/0							
<i>Musculus laevigatus</i>											0/1/0				
<i>Patinopecten yessoensis</i>		0/0/17	0/1/35		0/0/6			0/0/17							0/0/37
<i>Chlamys (Azumapecten) farreri nipponesis</i>	0/0/2	0/0/9		0/0/9						0/0/7		0/0/4	0/0/18	0/0/15	
<i>Swiftopecten swifui</i>		0/0/20			1/1/10			0/0/4							
<i>Chlamys</i> sp.							0/0/1			0/0/3		0/0/1		0/0/1	
<i>Parvassium alaskense</i>						0/0/1					0/0/1				
<i>Parvassium</i> sp.															
<i>Monia macroschisma</i>		0/0/23			0/0/11					0/0/1			0/0/2	0/0/2	0/0/1
<i>Monia</i> sp.					1/0/0			0/0/2						0/0/1	
<i>Thyasira (Parathyasira) kawamurai</i>						1/0/0	0/0/1								
<i>Diplodonta orbella</i>															
<i>Diplodonta alentica</i>															
<i>Fenella usta</i>	0/0/1	0/0/8													0/0/20
<i>Kellia porculus</i>		0/0/8											0/0/1		
<i>Cyclocardia (Crassicaria) crassidens</i>		0/0/12		0/0/6			0/0/6			0/0/5		0/1/6	0/0/6	0/1/6	0/0/1
<i>Cyclocardia ferruginea</i>	0/0/5	0/0/24		0/0/42	0/0/2	0/0/4	0/0/9			0/0/12		0/0/5	0/0/8	0/0/17	0/0/1
<i>Cyclocardia</i> sp.	0/0/1													0/0/2	0/0/1
<i>Tridonta alaskensis</i>	0/0/1	0/0/1		0/0/1		0/0/2	0/0/6		2/0/1	2/1/12		0/1/1	1/3/25	0/0/12	
<i>Tridonta borealis</i>	0/1/16	0/0/1		0/1/19		0/0/1	0/0/1		0/0/1	0/0/1					
<i>Tridonta bennetti</i>		0/0/9													
<i>Clinocardium californiense</i>		1/1/6	1/5/27		0/1/4			0/0/2							1/0/20
<i>Clinocardium ciliatum</i>	0/0/4	0/1/48		0/0/3			0/0/1		1/0/2	0/0/1				0/0/1	0/0/8
<i>Clinocardium uchidai</i>					0/0/2										
<i>Clinocardium</i> sp.	0/0/4	0/0/31			0/0/2			0/0/8		0/0/1					0/0/29
<i>Serripes groenlandicus</i>		0/0/7		0/0/1								0/0/1	0/0/5		0/0/3
<i>Serripes laperousii</i>					0/0/1										
<i>Serripes</i> sp.					0/0/3			0/0/3							
<i>Spisula polynyma</i>	0/0/3			0/0/6											
<i>Spisula</i> sp.	0/0/20	0/0/1													0/0/3
<i>Macoma calcarea</i>	0/0/2														0/0/1
<i>Macoma incongrua</i>				0/1/0									0/0/1		
<i>Macoma nipponica</i>			0/0/1		0/0/1										0/0/6
<i>Macoma sector</i>															0/0/3
<i>Macoma middendorffi</i>															
<i>Macoma</i> sp.	0/0/1			0/0/2											
<i>Cadella lubrica</i>			0/0/4	0/1/0				0/0/3							0/0/2
<i>Megangulus venulosa</i>															0/0/3
<i>Megangulus</i> sp.															
<i>Gobreaus kazusensis</i>															
<i>Gobreaus</i> sp.									0/0/1						
<i>Nuttallia commoda</i>	0/0/1														
<i>Nuttallia ezonis</i>															
<i>Nuttallia</i> sp.															
<i>Siliqua alta</i>															
<i>Liocyma fluctuosum</i>											1/0/0				
<i>Callithaca adamsi</i>		0/0/2													0/0/4
<i>Callista brevisiphonata</i>		1/2/117	0/1/10		1/10/112			7/4/11						0/0/2	0/0/20
<i>Callista</i> sp.		0/0/17		0/0/2	0/0/11			0/0/25							0/0/11
<i>Cryptomya busoensis</i>															
<i>Mya (Arenomya) arenaria oonogai</i>		2/0/2													0/0/1
<i>Mya</i> sp.								0/0/1							0/0/1
<i>Anisocorbula venusta</i>		0/0/7			0/2/7			0/0/1							0/0/5
<i>Hiatella arctica</i>		0/0/11								0/1/0					
<i>Hiatella orientalis</i>		0/0/2													
<i>Panomya turgida</i>	0/0/1											0/0/1			
<i>Panopea japonica</i>															
<i>Penitella chishimana</i>															
Pholadidae gen. et sp. indet.															0/0/1
<i>Lyonsia ventricosa</i>													0/0/1		
<i>Pandorella wardiana</i>															
<i>Pandorella</i> sp.															
<i>Heterocidus pulchellus</i>															
<i>Myadora fluctuosa</i>		0/0/1													
<i>Thracia kakumana</i>	0/0/3	0/0/9						0/0/1							0/1/7
<i>Thracia itoi</i>								0/0/1							
<i>Thracia</i> sp.					0/0/1										
SCAPHOPODA															
<i>Episiphon makiyamai</i>															

Distribution of Mollusc Shells in the Sea of Okhotsk (Kitamura et al.)

Appendix 3 Continued.

Site	197	201	204	205	206	207	208	209	210	215	218	219	220	221	222
Depth (m)	42	1533	930	1160	1019	918	625	94	47	1606	1001	820	560	254	77
Substrate (matrix)	v. f. sand	silty clay	silty clay	sandy silt	clayey silt-sandy silt	muddy-v. f. sand	sandy silt-silt	v. f. sand	co. sand	silty clay	silty clay	clayey silt	sandy silt	v. f. sand	v. f. sand
GATROPODA															
<i>Cryptobranchia kuragiensis</i>															
<i>Lepeta alba</i>															
<i>Limalepeta lima</i>															
<i>Lepeta caeca pacifica</i>															
<i>Lepeta</i> sp.															
<i>Tugali decussata</i>															
<i>Puncturella nobilis</i>															
<i>Puncturella (Rimulanax) major</i>															
<i>Homalopoma amussitatum</i>															
<i>Tachyrhynchus septemcostatus</i>							0/1								
<i>Turritella (Neohaustator) fortifirata</i>															
<i>Crepidula grandis</i>															
Vermetidae gen. et sp. indet.															
<i>Marsenia uchidai</i>															
<i>Cryptonatica clausa</i>					0/1	0/2									
<i>Cryptonatica wakkanaiensis</i>														0/1	
<i>Cryptonatica</i> sp.															
<i>Tectonatica russa</i>															
<i>Bulbus tenuiculus</i>															
<i>Euspira pila</i>															
<i>Euspira pallida</i>														0/2	
<i>Fusitriton oregonensis</i>															
<i>Notoseila morishimai</i>															
<i>Cerithiopsis stejegeri</i>															
<i>Cirsotrema (Boreoscala) gleenlandicum</i>															
<i>Boreotrophon beringi</i>															0/1
<i>Boreotrophon candelabrum</i>															
<i>Boreotrophon alaskanus</i>															
<i>Boreotrophon pacifica</i>															
<i>Boreotrophon</i> sp.															
<i>Trophonopsis</i> sp.															
<i>Pteropurpura (Ocinebrellus) adunca</i>															
<i>Ceratostoma inornatus</i>															
<i>Ocenebra</i> sp.															
<i>Mitrella burchardi</i>															
<i>Mohnia vernalis</i>			0/3	0/1											
<i>Mohnia (Retimohnia) yanamii</i>														0/1	
<i>Mohnia (Retimohnia) multicostata</i>															
<i>Plicifusus plicatus</i>															
<i>Plicifusus kroyeri</i>															
<i>Fusivoluptosius verkruzeni</i>															
<i>Buccinum kawamurai</i>															
<i>Latisipho pulcius</i>					1/0										
<i>Latisipho jordani</i>															
<i>Colus (Latisipho) hallii</i>															
<i>Colus (Aulacofusus) nobilis</i>															
<i>Colus esychus</i>															
<i>Neptunea lamellosa</i>															
<i>Liomesus ooides</i>															
<i>Admete viridula</i>							0/1								
<i>Admete globularia</i>															
<i>Obesotoma uchidai</i>															
<i>Obesotoma</i> sp.															
<i>Clathrodrillia takeokensis</i>															
<i>Rectiplanes vinosa</i>															
<i>Rectiplanes sanctioannis</i>															
<i>Rectiplanes</i> sp.															
<i>Suavodrilina declivis</i>															0/1
<i>Derjuginella rufofasciata</i>															0/2
<i>Derjuginella hanagaiana</i>															
<i>Derjuginella</i> sp.															
<i>Cingulina cingulata</i>								3/0/0							
PELECYPODA															
<i>Acila (Truncacila) insignis</i>	0/0/5														0/0/2
<i>Acila (Truncacila) minutoides</i>					0/1/0										
<i>Acila</i> sp.															
<i>Leionucula tenuis</i>					5/0/0									1/0/0	
<i>Malletia pacifica</i>												2/0/0			
<i>Yoldia (Cnesterium) johanni</i>	0/3/0													0/1/0	
<i>Yoldia (Cnesterium) seminuda</i>													1/0/0		
<i>Yoldia amygdalea</i>															
<i>Yoldia (Cnesterium) notabilis</i>							0/2/3								
<i>Yoldia</i> sp.					0/0/1					0/0/1				0/0/1	
<i>Portlandella beringii</i>		0/1/1													
<i>Portlandella</i> sp.															
<i>Nuculana pernula pernulooides</i>														0/3/2	

Appendix 3 Continued.

Site	197	201	204	205	206	207	208	209	210	215	218	219	220	221	222
Depth (m)	42	1533	930	1160	1019	918	625	94	47	1606	1001	820	560	254	77
Substrate (matrix)	v. f. sand	silty clay	silty clay	sandy silt	clayey silt-sandy silt	muddy-v. f. sand	sandy silt-silt	v. f. sand	co. sand	silty clay	silty clay	clayey silt	sandy silt	v. f. sand	v. f. sand
<i>Nuculana (Thestylela) yokoyamai yokoyamai</i>				3	1/0/1	0/0/1					0/0/1				
<i>Nuculana (Robaia) robai</i>															
<i>Nuculana</i> sp.															
<i>Arca boucardi</i>															
<i>Arca</i> sp.															
<i>Glycymeris yessoensis</i>								0/0/3							0/1/1
<i>Megacrenella columbiana</i>															
<i>Mytilus</i> sp.															
<i>Modiolus kurilensis</i>															
<i>Musculus laevigatus</i>															
<i>Patinopecten yessoensis</i>									0/0/3						0/0/1
<i>Chlamys (Azumapecten) farreri nipponesis</i>															
<i>Swiftopecten swiftii</i>															
<i>Chlamys</i> sp.															
<i>Parvamussium alaskense</i>															
<i>Parvamussium</i> sp.						0/0/1									
<i>Monia macroschisma</i>															
<i>Monia</i> sp.															
<i>Thyasira (Parathyrasira) kawamurai</i>			1/0/0				1/0/0								
<i>Diplodonta orbella</i>															
<i>Diplodonta alentica</i>															
<i>Felaniella usta</i>									0/0/6						0/0/1
<i>Kellia porculus</i>															
<i>Cyclocardia (Crassicaria) crassidens</i>															
<i>Cyclocardia ferruginea</i>															0/0/13
<i>Cyclocardia</i> sp.															
<i>Tridonta alaskensis</i>															
<i>Tridonta borealis</i>															
<i>Tridonta bennetti</i>															
<i>Clinocardium californiense</i>															
<i>Clinocardium ciliatum</i>									0/0/1					0/0/1	0/1/5
<i>Clinocardium uchidai</i>															
<i>Clinocardium</i> sp.														0/0/2	
<i>Serripes groenlandicus</i>															
<i>Serripes laperousii</i>									0/0/5						
<i>Serripes</i> sp.														0/0/1	
<i>Spisula polynyma</i>									0/0/5						0/0/1
<i>Spisula</i> sp.															0/0/1
<i>Macoma calcarea</i>														0/3/5	
<i>Macoma incongrua</i>															
<i>Macoma nipponica</i>															
<i>Macoma sector</i>															
<i>Macoma middendorffi</i>															
<i>Macoma</i> sp.								0/0/2						0/1/2	
<i>Cadella lubrica</i>															
<i>Megangulus ventulosa</i>															
<i>Megangulus</i> sp.															
<i>Gobraeus kazusensis</i>															
<i>Gobraeus</i> sp.															
<i>Nuttallia commoda</i>															
<i>Nuttallia ezonis</i>									0/1/0						
<i>Nuttallia</i> sp.															
<i>Siliqua alta</i>	0/1/0														
<i>Liocyma fluctuosum</i>							0/0/2								
<i>Callithaca adamsi</i>	0/0/1														
<i>Callista brevisiphonata</i>									0/0/2	0/0/6					0/0/1
<i>Callista</i> sp.															
<i>Cryptomya busoensis</i>									0/2/3						
<i>Mya (Arenomya) arenaria oonogai</i>															
<i>Mya</i> sp.															
<i>Anisocorbula venusta</i>															
<i>Hiatella arctica</i>															0/0/27
<i>Hiatella orientalis</i>															
<i>Panomya turgida</i>															
<i>Panopea japonica</i>															
<i>Penitella chishimana</i>															
Pholadidae gen. et sp. indet.															
<i>Lyonsia ventricosa</i>															
<i>Pandorella wardiana</i>															
<i>Pandorella</i> sp.															
<i>Heteroclidus pulchellus</i>	1/0/2								0/0/3					0/0/1	
<i>Myadora fluctuosa</i>															
<i>Thracia kakumana</i>															
<i>Thracia itoi</i>															
<i>Thracia</i> sp.															
SCAPHOPODA															
<i>Episiphon makiyamai</i>							0/2								

Distribution of Mollusc Shells in the Sea of Okhotsk (Kitamura et al.)

Appendix 3 Continued.

Site	223	232	233	234	235	236	241	244	245	246	247	248	249	257	258
Depth (m)	46	1072	790	453	144	63	1676	1238	1071	716	375	87	35	1043	941
Substrate (matrix)	gra.-peb.	silty clay	silty clay	silty clay	f. sand	f. sand	silty clay	silty clay	clayey silt	silty clay	clayey silt	muddy-f. sand	m. sand	silty clay	silty clay
GATROPODA															
<i>Cryptobranchia kuragiensis</i>															
<i>Lepeta alba</i>															
<i>Limalepeta lima</i>															
<i>Lepeta caeca pacifica</i>															
<i>Lepeta</i> sp.															
<i>Tugali decussata</i>															
<i>Puncturella nobilis</i>															
<i>Puncturella (Rimulanax) major</i>															
<i>Homalopoma amussitatum</i>															
<i>Tachyrhynchus septemcostatus</i>															
<i>Turritella (Neohaustator) fortifirata</i>					0/12										
<i>Crepidula grandis</i>															
Vermetidae gen. et sp. indet.															
<i>Marsenia uchidai</i>															
<i>Cryptonatica clausa</i>				0/1							0/1			0/1	
<i>Cryptonatica wakkanaiensis</i>															
<i>Cryptonatica</i> sp.					0/1				0/1						
<i>Tectonatica russa</i>															
<i>Bulbus tenuiculus</i>															
<i>Euspira pila</i>													0/1		
<i>Euspira pallida</i>		0/1													
<i>Fusitriton oregonensis</i>															
<i>Notoseila morishimai</i>															
<i>Cerithiopsis stejnegeri</i>															
<i>Cirsotrema (Boreoscala) gleenlandicum</i>					0/1										
<i>Boreotrophon beringi</i>															
<i>Boreotrophon candelabrum</i>															
<i>Boreotrophon alaskanus</i>											0/1				
<i>Boreotrophon pacifica</i>															
<i>Boreotrophon</i> sp.															
<i>Trophonopsis</i> sp.															
<i>Pteropurpura (Ocinebrellus) adunca</i>															
<i>Ceratostoma inornatus</i>															
<i>Ocenebra</i> sp.															
<i>Mitrella burchardi</i>															
<i>Mohnia vernalis</i>															
<i>Mohnia (Retimohnia) yanamii</i>															
<i>Mohnia (Retimohnia) multicostata</i>															
<i>Plicifusus plicatus</i>															
<i>Plicifusus kroyeri</i>															
<i>Fusivoluptosius verkruzeni</i>															0/1
<i>Buccinum kawamurai</i>					0/1										
<i>Latisipho pulcius</i>									0/1						
<i>Latisipho jordani</i>					0/2										
<i>Colus (Latisipho) hallii</i>															
<i>Colus (Aulacofusus) nobilis</i>															
<i>Colus esychus</i>															
<i>Neptunea lamellosa</i>															
<i>Liomesus ooides</i>															
<i>Admete viridula</i>															
<i>Admete globularia</i>							0/1								
<i>Obesotoma uchidai</i>												0/1			
<i>Obesotoma</i> sp.															
<i>Clathrodrillia takeokensis</i>															
<i>Rectiplanes vinosa</i>															
<i>Rectiplanes sanctioannis</i>															
<i>Rectiplanes</i> sp.															
<i>Suavodrilina declivis</i>						0/1									
<i>Derjuginella rufofasciata</i>															
<i>Derjuginella hanagaiana</i>															
<i>Derjuginella</i> sp.															
<i>Cingulina cinguluta</i>															
PELECYPODA															
<i>Acila (Truncacila) insignis</i>													1/0/1		
<i>Acila (Truncacila) minutoides</i>															
<i>Acila</i> sp.						0/0/1									
<i>Leionucula tenuis</i>															
<i>Malletia pacifica</i>			2/1/12						0/0/7	1/0/0					
<i>Yoldia (Cnesterium) johanni</i>												0/1/4			
<i>Yoldia (Cnesterium) seminuda</i>															
<i>Yoldia amygdalea</i>															
<i>Yoldia (Cnesterium) notabilis</i>				0/1/1											
<i>Yoldia</i> sp.				0/0/2											
<i>Portlandella beringii</i>											0/0/1				
<i>Portlandella</i> sp.								0/0/1							
<i>Nuculana pernula pernuloidea</i>			1/0/0		0/1/1										

Appendix 3 Continued.

Site	223	232	233	234	235	236	241	244	245	246	247	248	249	257	258
Depth (m)	46	1072	790	453	144	63	1676	1238	1071	716	375	87	35	1043	941
Substrate (matrix)	gra.-peb.	silty clay	silty clay	silty clay	f. sand	f. sand	silty clay	silty clay	clayey silt	silty clay	clayey silt	muddy-f. sand	m. sand	silty clay	silty clay
<i>Nuculana (Thestylela) yokoyamai yokoyamai</i>											0/0/1				
<i>Nuculana (Robaia) robai</i>															
<i>Nuculana</i> sp.															
<i>Arca boucardi</i>															
<i>Arca</i> sp.															
<i>Glycymeris yessoensis</i>	0/0/2					0/0/1						0/0/1			
<i>Megacrenella columbiana</i>															
<i>Mytilus</i> sp.															
<i>Modiolus kurilensis</i>															
<i>Musculus laevigatus</i>															
<i>Patinopecten yessoensis</i>	0/0/10					0/0/1					0/0/1		0/0/3		
<i>Chlamys (Azumapecten) farreri nipponesis</i>															
<i>Swiftopecten swiftii</i>															
<i>Chlamys</i> sp.					0/0/2										
<i>Parvamussium alaskense</i>															
<i>Parvamussium</i> sp.															
<i>Monia macroschisma</i>															
<i>Monia</i> sp.															
<i>Thyasira (Parathyrasira) kawamurai</i>											0/1/0				
<i>Diplodonta orbella</i>					0/0/2										
<i>Diplodonta alentica</i>						0/0/1									
<i>Felaniella usta</i>					0/0/2							0/0/3	0/0/5		
<i>Kellia porculus</i>															
<i>Cyclocardia (Crassicardia) crassidens</i>					0/0/3							0/1/2			
<i>Cyclocardia ferruginea</i>					0/0/5										
<i>Cyclocardia</i> sp.															
<i>Tridonta alaskensis</i>					0/0/2										
<i>Tridonta borealis</i>					0/0/3										
<i>Tridonta bennetti</i>															
<i>Clinocardium californiense</i>	1/0/0					0/0/2									
<i>Clinocardium ciliatum</i>					0/1/3	0/0/5						0/3/5			
<i>Clinocardium uchidai</i>	0/0/1														
<i>Clinocardium</i> sp.	0/0/2				0/0/5	0/0/1									
<i>Serripes groenlandicus</i>					0/1/3										
<i>Serripes laperousii</i>					0/0/1	0/0/5									
<i>Serripes</i> sp.															
<i>Spisula polynyma</i>					0/0/4										
<i>Spisula</i> sp.					0/0/2							0/0/1			
<i>Macoma calcarea</i>											0/0/2				
<i>Macoma incongrua</i>															
<i>Macoma nipponica</i>															
<i>Macoma sector</i>															
<i>Macoma middendorffi</i>															
<i>Macoma</i> sp.											0/0/2				
<i>Cadella lubrica</i>	0/0/2														
<i>Megangulus ventulosa</i>															
<i>Megangulus</i> sp.															
<i>Gobraeus kazusensis</i>						0/0/1						0/1/0			
<i>Gobraeus</i> sp.															
<i>Nuttallia commoda</i>					0/0/1										
<i>Nuttallia ezonis</i>															
<i>Nuttallia</i> sp.															
<i>Siliqua alta</i>															
<i>Liocytha fluctuosum</i>															
<i>Callithaca adamsi</i>															
<i>Callista brevisiphonata</i>	0/0/12				0/0/2	0/0/10						0/1/0			
<i>Callista</i> sp.	0/0/5				0/0/1										
<i>Cryptomya busoensis</i>												0/0/1			
<i>Mya (Arenomya) arenaria oonogai</i>					0/2/2										
<i>Mya</i> sp.															
<i>Anisocorbula venusta</i>															
<i>Hiatella arctica</i>															
<i>Hiatella orientalis</i>															
<i>Panomya turgida</i>						0/0/1									
<i>Panopea japonica</i>															
<i>Penitella chishimana</i>															
Pholadidae gen. et sp. indet.															
<i>Lyonsia ventricosa</i>															
<i>Pandorella wardiana</i>															
<i>Pandorella</i> sp.															0/0/1
<i>Heteroclidus pulchellus</i>															
<i>Myadora fluctuosa</i>															
<i>Thracia kakumana</i>												0/0/2			
<i>Thracia itoi</i>															
<i>Thracia</i> sp.						0/0/1									
SCAPHOPODA															
<i>Episiphon makiyamai</i>															

Distribution of Mollusc Shells in the Sea of Okhotsk(Kitamura et al.)

Appendix 3 Continued.

Site	259	260	261	262	263	265	266	267	268	269	270	272	273	274	M1	M2
Depth (m)	715	449	116	79	80	265	64	362	116	592	330	145	57	69	110	81
Substrate (matrix)	sandy silt	clayey silt	muddy-f. sand	m. sand	v. co. sand-gra	f. sand-silt	v. f. sand	v. f. sand-clayey silt	f. sand-v. co. sand	sandy silt	sandy silt-v. f. sand	f. sand-muddy gra.	f. sand	f. sand	v. f. sand	muddy-v. f. sand
GATROPODA																
<i>Cryptobranchia kuragiensis</i>																
<i>Lepeta alba</i>																
<i>Limalepeta lima</i>						0/2										
<i>Lepeta caeca pacifica</i>																
<i>Lepeta</i> sp.																
<i>Tugali decussata</i>				0/1												
<i>Puncturella nobilis</i>			0/1													
<i>Puncturella (Rimulanax) major</i>																
<i>Homalopoma amussitatum</i>				0/4												
<i>Tachyrhynchus septemcostatus</i>										0/1						
<i>Turritella (Neohaustator) fortilirata</i>			0/1									0/1				0/50
<i>Crepidula grandis</i>																
Vermetidae gen. et sp. indet.																
<i>Marsenia uchidai</i>																
<i>Cryptonatica clausa</i>								0/1								
<i>Cryptonatica wakkanaensis</i>						0/1									0/1	
<i>Cryptonatica</i> sp.													0/1			
<i>Tectonatica russa</i>		0/0/1										0/1				
<i>Bulbus tenuiculus</i>																
<i>Euspira pila</i>																
<i>Euspira pallida</i>																
<i>Fusitriton oregonensis</i>						0/1					0/1					
<i>Notoseila morishimai</i>																
<i>Cerithiopsis stejegeri</i>																
<i>Cirsotrema (Boreoscala) gleenlandicum</i>									0/1							
<i>Boreotrophon beringi</i>																
<i>Boreotrophon candelabrum</i>																
<i>Boreotrophon alaskanus</i>																
<i>Boreotrophon pacifica</i>																
<i>Boreotrophon</i> sp.																
<i>Trophonopsis</i> sp.																
<i>Pteropurpura (Ocinebrellus) adunca</i>																
<i>Ceratostoma inornatus</i>																
<i>Ocenebra</i> sp.																
<i>Mitrella burchardi</i>																
<i>Mohnia vermalis</i>																
<i>Mohnia (Retimohnia) yanamii</i>																
<i>Mohnia (Retimohnia) multicostata</i>											0/1					
<i>Plicifusus plicatus</i>																
<i>Plicifusus kroyeri</i>									0/1							
<i>Fusivoluptosius verkruzeni</i>																
<i>Buccinum kawamurai</i>																
<i>Latisipho pulcius</i>																
<i>Latisipho jordani</i>												0/1				
<i>Colus (Latisipho) hallii</i>																
<i>Colus (Aulacofusus) nobilis</i>																
<i>Colus esychus</i>												0/1				
<i>Neptunea lamellosa</i>	0/1															
<i>Liomesus ooides</i>																
<i>Admete viridula</i>																
<i>Admete globularia</i>																
<i>Obesotoma uchidai</i>															0/1	
<i>Obesotoma</i> sp.																
<i>Clathrodrillia takeokensis</i>																
<i>Rectiplanes vinosa</i>									0/1							
<i>Rectiplanes sanctioannis</i>								0/1								
<i>Rectiplanes</i> sp.								0/1								
<i>Suavodrilina declivis</i>							0/1								0/3	
<i>Derjuginella rufofasciata</i>																
<i>Derjuginella hanagaiana</i>							0/1								0/1	
<i>Derjuginella</i> sp.																
<i>Cingulina cinguluta</i>																
PELECYPODA																
<i>Acila (Truncacila) insignis</i>													0/0/1			
<i>Acila (Truncacila) minutoides</i>														0/0/1		
<i>Acila</i> sp.																
<i>Leionucula tenuis</i>			1/0/0								0/0/2					
<i>Malletia pacifica</i>																
<i>Yoldia (Cnesterium) johanni</i>			0/0/2			1/0/0	1/0/6									
<i>Yoldia (Cnesterium) seminuda</i>																
<i>Yoldia amygdalea</i>																
<i>Yoldia (Cnesterium) notabilis</i>		0/0/1														
<i>Yoldia</i> sp.			0/0/1												0/0/2	
<i>Portlandella beringii</i>										1/0/0						
<i>Portlandella</i> sp.																
<i>Nuculana pernula pernuloides</i>			2/0/10			3/0/0										

Appendix 3 Continued.

Site	259	260	261	262	263	265	266	267	268	269	270	272	273	274	M1	M2
Depth (m)	715	449	116	79	80	265	64	362	116	592	330	145	57	69	110	81
Substrate (matrix)	sandy silt	clayey silt	muddy-f. sand	m. sand	v. co. sand-gra	f. sand-silt	v. f. sand	v. f. sand-clayey silt	f. sand-v. co. sand	sandy silt	sandy silt-v. f. sand	f. sand-muddy gra.	f. sand	f. sand	v. f. sand	muddy-v. f. sand
<i>Nuculana (Thestylela) yokoyamai yokoyamai</i>																
<i>Nuculana (Robaia) robai</i>																
<i>Nuculana</i> sp.																
<i>Arca boucardi</i>				0/0/4	0/0/1											
<i>Arca</i> sp.																
<i>Glycymeris yessoensis</i>			0/0/1						0/0/2				1/0/32	0/0/4		
<i>Megacrenella columbiana</i>																
<i>Mytilus</i> sp.																
<i>Modiolus kurilensis</i>																
<i>Musculus laevigatus</i>																
<i>Patinopecten yessoensis</i>				4/0/4				0/0/1					0/0/9	0/0/3		
<i>Chlamys (Azumapecten) farreri nipponesis</i>			0/0/2						0/0/1							
<i>Swiftopecten swiftii</i>			0/0/1	0/0/2										0/0/1		
<i>Chlamys</i> sp.			0/0/1													
<i>Parvamusium alaskense</i>																
<i>Parvamusium</i> sp.																
<i>Monia macroschisma</i>				1/0/4												
<i>Monia</i> sp.																
<i>Thyasira (Parathyasira) kawamurai</i>		1/0/0						0/0/1			1/1/0					
<i>Diplodonta orbella</i>																
<i>Diplodonta alentica</i>																
<i>Felaniella usta</i>			1/0/2						0/4/7				0/0/68	0/0/5	2/0/2	
<i>Kellia porculus</i>																
<i>Cyclocardia (Crassicaria) crassidens</i>						1/0/0						0/0/1	0/0/1			
<i>Cyclocardia ferruginea</i>			1/0/8	0/0/1					0/0/1							
<i>Cyclocardia</i> sp.																
<i>Tridonta alaskensis</i>			0/0/1													
<i>Tridonta borealis</i>			0/0/1					0/0/1	0/2/1							
<i>Tridonta bennetti</i>																
<i>Clinocardium californiense</i>			0/1/2										0/1/1			
<i>Clinocardium ciliatum</i>			1/3/49				0/1/1	0/0/1	0/0/10			1/2/9			0/1/19	0/0/1
<i>Clinocardium uchidai</i>															0/1/0	
<i>Clinocardium</i> sp.			0/0/8	0/0/1	0/0/1							0/0/2				
<i>Serripes groenlandicus</i>									0/0/1							
<i>Serripes laperousii</i>					0/0/1											
<i>Serripes</i> sp.			0/0/2													
<i>Spisula polynyma</i>			0/1/2				0/1/0		0/1/5			1/0/3	0/0/5	0/0/1	0/1/1	
<i>Spisula</i> sp.			0/0/2											0/0/1	0/0/2	
<i>Macoma calcarea</i>		1/1/0									0/4/6					
<i>Macoma incongrua</i>												0/1/0				
<i>Macoma nipponica</i>			0/0/1										0/0/1			
<i>Macoma sector</i>														0/1/0		
<i>Macoma middendorffi</i>														0/0/2		
<i>Macoma</i> sp.														0/0/4	1/1/0	
<i>Cadella lubrica</i>			2/0/1		0/0/1											
<i>Megangulus venulosa</i>																
<i>Megangulus</i> sp.													0/0/1			
<i>Gobraeus kazusensis</i>			0/0/1						0/0/1				0/0/1			
<i>Gobraeus</i> sp.																
<i>Nuttallia commoda</i>												1/1/1				
<i>Nuttallia ezonis</i>								0/1/1								
<i>Nuttallia</i> sp.								0/0/1							0/0/1	
<i>Siliqua alta</i>																
<i>Liocyma fluctuosum</i>														0/0/1		
<i>Callithaca adamsi</i>							0/0/1						0/0/1			
<i>Callista brevisiphonata</i>			0/3/5	5/3/4	1/3/35				0/0/3			0/0/1	0/2/15		0/1/2	
<i>Callista</i> sp.			0/0/3	0/0/5									0/0/2			
<i>Cryptomya busoensis</i>																
<i>Mya (Arenomya) arenaria oonogai</i>								0/1/6								
<i>Mya</i> sp.																
<i>Anisocorbula venusta</i>				0/0/4	0/0/1											
<i>Hiatella arctica</i>			0/1/0												0/0/3	
<i>Hiatella orientalis</i>																
<i>Panomya turgida</i>																
<i>Panopea japonica</i>														0/0/1		
<i>Penitella chishimana</i>														0/0/1		
Pholadidae gen. et sp. indet.																
<i>Lyonsia ventricosa</i>																
<i>Pandorella wardiana</i>																
<i>Pandorella</i> sp.													0/0/1	0/0/1		
<i>Heteroclidus pulchellus</i>							0/0/2		0/0/1					0/0/1		
<i>Myadora fluctuosa</i>																
<i>Thracia kakumana</i>							0/1/1		0/0/1							
<i>Thracia itoi</i>																
<i>Thracia</i> sp.								0/1/0								
SCAPHOPODA																
<i>Episiphon makiyamai</i>																

Distribution of Mollusc Shells in the Sea of Okhotsk (Kitamura et al.)

Appendix 3 Continued.

Site	M3	M4	M5	M6	M7	M8	M9	M11	M12	M13	M14	M15	M16
Depth (m)	119	90	143	133	115	90	60	155	154	147	134	98	62
Substrate (matrix)	v. f. sand	muddy-v. f. sand	sandy silt	muddy-v. f. sand	muddy-v. f. sand	muddy-v. f. sand	v. f. sand	clayey silt-silty clay	silt	sandy silt	sandy silt	v. f. sand	f.-m. sand
GATROPODA													
<i>Cryptobranchia kuragiensis</i>													
<i>Lepeta alba</i>													
<i>Limalepeta lima</i>													
<i>Lepeta caeca pacifica</i>													
<i>Lepeta</i> sp.													
<i>Tugali decussata</i>													
<i>Puncturella nobilis</i>													
<i>Puncturella (Rimulanax) major</i>													
<i>Homalopoma amussitatum</i>													
<i>Tachyrhynchus septemcostatus</i>						0/1		0/1					
<i>Turritella (Neohaustator) fortillrata</i>	0/1	0/35		0/5								0/5	
<i>Crepidula grandis</i>	0/1												
Vermetidae gen. et sp. indet.													
<i>Marsenia uchidai</i>													
<i>Cryptonatica clausa</i>									0/1				
<i>Cryptonatica wakkanaiensis</i>													
<i>Cryptonatica</i> sp.													
<i>Tectonatica russa</i>													
<i>Bulbus tenuiculus</i>				0/1									
<i>Euspira pila</i>													
<i>Euspira pallida</i>					0/1								
<i>Fusitriton oregonensis</i>													
<i>Notoseila morishimai</i>													
<i>Cerithiopsis stejnegeri</i>													
<i>Cirsotrema (Boreoscala) gleenlandicum</i>													
<i>Boreotrophon beringi</i>													
<i>Boreotrophon candelabrum</i>													
<i>Boreotrophon alaskanus</i>													
<i>Boreotrophon pacifica</i>													
<i>Boreotrophon</i> sp.													
<i>Trophonopsis</i> sp.													
<i>Pteropurpura (Ocinebrellus) adunca</i>													
<i>Ceratostoma inornatus</i>													
<i>Ocenebra</i> sp.													
<i>Mitrella burchardi</i>													
<i>Mohnia vernalis</i>													
<i>Mohnia (Retimohnia) yanamii</i>													
<i>Mohnia (Retimohnia) multicostata</i>													
<i>Plicifusus plicatus</i>										0/1			
<i>Plicifusus kroyeri</i>													
<i>Fusivoluptusius verkruzeni</i>													
<i>Buccinum kawamurai</i>						0/1							
<i>Latisipho pulcius</i>													
<i>Latisipho jordani</i>													
<i>Colus (Latisipho) hallii</i>													
<i>Colus (Aulacofusus) nobilis</i>													
<i>Colus esychus</i>													
<i>Neptunea lamellosa</i>													
<i>Liomesus ooides</i>													
<i>Admete viridula</i>	0/1												
<i>Admete globularia</i>													
<i>Obesotoma uchidai</i>													
<i>Obesotoma</i> sp.													
<i>Clathrodrillia takeokensis</i>					0/1								
<i>Rectiplanes vinosa</i>													
<i>Rectiplanes sanctioannis</i>													
<i>Rectiplanes</i> sp.													
<i>Suavodrilina declivis</i>	0/1												
<i>Derjuginella rufofasciata</i>													
<i>Derjuginella hanagaiana</i>													
<i>Derjuginella</i> sp.													
<i>Cingulina cingulata</i>													
PELECYPODA													
<i>Acila (Truncacila) insignis</i>													
<i>Acila (Truncacila) minutoides</i>													
<i>Acila</i> sp.													
<i>Leionucula tenuis</i>	2/0/1												
<i>Malletia pacifica</i>													
<i>Yoldia (Cnesterium) johanni</i>		1/0/0				0/0/3						1/0/0	
<i>Yoldia (Cnesterium) seminuda</i>													
<i>Yoldia amygdalea</i>													
<i>Yoldia (Cnesterium) notabilis</i>			1/0/0		0/0/1								
<i>Yoldia</i> sp.													
<i>Portlandella beringii</i>													
<i>Portlandella</i> sp.													
<i>Nuculana pernula pernulooides</i>	0/0/1								1/0/0				

Appendix 3 Continued.

Site	M3	M4	M5	M6	M7	M8	M9	M11	M12	M13	M14	M15	M16
Depth (m)	119	90	143	133	115	90	60	155	154	147	134	98	62
Substrate (matrix)	v. f. sand	muddy-v. f. sand	sandy silt	muddy-v. f. sand	muddy-v. f. sand	muddy-v. f. sand	v. f. sand	clayey silt- silty clay	silt	sandy silt	sandy silt	v. f. sand	f.-m. sand
<i>Nuculana (Thestylada) yokoyamai yokoyamai</i>													
<i>Nuculana (Robaia) robai</i>									1/0/1	0/0/1			
<i>Nuculana</i> sp.													
<i>Arca boucardi</i>													0/0/1
<i>Arca</i> sp.													
<i>Glycymeris yessoensis</i>							0/0/1						
<i>Megacrenella columbiana</i>													
<i>Mytilus</i> sp.													
<i>Modiolus kurilensis</i>													0/0/1
<i>Musculus laevigatus</i>													
<i>Patinopecten yessoensis</i>													0/0/3
<i>Chlamys (Azumapecten) farreri nipponesis</i>	0/1/4												
<i>Swiftopecten swiftii</i>													
<i>Chlamys</i> sp.													
<i>Parvamussium alaskense</i>													
<i>Parvamussium</i> sp.													
<i>Monia macroschisma</i>	0/0/4												
<i>Monia</i> sp.					0/0/1								
<i>Thyasira (Parathyrasira) kawamurai</i>									1/0/0				
<i>Diplodonta orbella</i>													
<i>Diplodonta alentica</i>													
<i>Felaniella usta</i>													
<i>Kellia porculus</i>													
<i>Cyclocardia (Crassicaria) crassidens</i>													
<i>Cyclocardia ferruginea</i>													
<i>Cyclocardia</i> sp.													
<i>Tridonta alaskensis</i>													
<i>Tridonta borealis</i>													
<i>Tridonta bennetti</i>													
<i>Clinocardium californiense</i>							1/1/0						
<i>Clinocardium ciliatum</i>	0/1/285			0/2/0	4/10/9	1/0/4						0/1/8	
<i>Clinocardium uchidai</i>													0/0/1
<i>Clinocardium</i> sp.	0/0/1					0/0/7				0/0/1			
<i>Serripes groenlandicus</i>			1/0/0					0/1/1			0/0/1		
<i>Serripes laperousii</i>													
<i>Serripes</i> sp.													
<i>Spisula polynyma</i>	0/1/0					0/0/1							
<i>Spisula</i> sp.													
<i>Macoma calcarea</i>	0/1/1			0/0/7					1/0/0	0/1/2	0/1/1	0/0/1	
<i>Macoma incongrua</i>													0/0/1
<i>Macoma nipponica</i>													
<i>Macoma sector</i>													
<i>Macoma middendorffi</i>													
<i>Macoma</i> sp.													
<i>Cadella lubrica</i>													0/0/1
<i>Megangulus venulosa</i>													
<i>Megangulus</i> sp.													
<i>Gobreaus kazusensis</i>	0/2/0												
<i>Gobreaus</i> sp.													
<i>Nuttallia commoda</i>	0/0/1												
<i>Nuttallia ezonis</i>													
<i>Nuttallia</i> sp.													
<i>Siliqua alta</i>													
<i>Liocyma fluctuosum</i>													
<i>Callithaca adamsi</i>						0/1/0							
<i>Callista brevisiphonata</i>							0/0/1						0/1/4
<i>Callista</i> sp.													
<i>Cryptomya busoensis</i>													
<i>Mya (Arenomya) arenaria oonogai</i>													
<i>Mya</i> sp.						0/0/1							
<i>Anisocorbula venusta</i>													
<i>Hiatella arctica</i>					1/0/0	0/0/18							
<i>Hiatella orientalis</i>													
<i>Panomya turgida</i>													
<i>Panopea japonica</i>						0/0/1							
<i>Penitella chishimana</i>													
Pholadidae gen. et sp. indet.													
<i>Lyonsia ventricosa</i>													
<i>Pandorella wardiana</i>	0/1/0				2/0/0			0/1/1	0/0/1	0/1/0	0/0/1	0/0/1	
<i>Pandorella</i> sp.													
<i>Heteroclidus pulchellus</i>													
<i>Myadora fluctuosa</i>													
<i>Thracia kakumana</i>	0/0/1					0/1/0						0/1/0	
<i>Thracia itoi</i>													
<i>Thracia</i> sp.													
SCAPHOPODA													
<i>Episiphon makiyamai</i>													