

3

4

5

6 **Supplementary material**

7

8 **Table A1.** Number of plots in each region over the 7 years of the census. From 2007 on, several of
9 the plots could not be surveyed because they were damaged by storms or buried by sediment.

Region	Census period : spatial analysis	Shore (abbreviations)	Number of plots							
			2004	2005	2006	2007	2008	2009	2010	
Eastern Hokkaido	Summer 2004 to Summer 2009	Mochirippu (MC)	5	5	5	5	5	5	4	
		Mabiro (MB)	5	5	5	5	5	5	5	
		Aikappu (AP)	5	5	5	5	5	5	5	
		Monshizu (MZ)	5	5	5	5	5	5	5	
		Nikomanaï (NN)	5	5	5	5	5	5	5	
		Total	25	25	25	25	25	25	24	
Southern Hokkaido	Summer 2004 to Summer 2006	Iwato (IW)	5	5	5	5	4	5	4	
		Usujiri (US)	5	5	5	5	5	5	5	
		Shishibana (SS)	5	5	5	2	2	2	2	
		Esan (ES)	5	5	5	2	2	2	2	
		Hiura (HR)	5	5	5	5	5	5	5	
		Total	25	25	25	19	18	19	18	
Rikuchu	Summer 2004 to Summer 2006	Myojin (MJ)	5	5	5	5	5	5	5	
		Oura (OR)	5	5	5	5	5	5	5	
		Aragami (AG)	5	5	5	5	5	5	5	
		Akahama (AK)	5	5	5	4	4	3	3	
		Katagishi (KG)	5	5	5	5	0	5	5	
		Total	25	25	25	24	19	23	23	
Boso	Summer 2004 to Summer 2010	Kominato (KM)	5	5	5	5	5	5	5	
		Emi (EM)	5	5	5	5	5	5	5	
		Chikura (CK)	5	5	5	5	5	5	5	
		Mera (MR)	5	5	5	5	5	5	5	
		Nishikawana (NS)	5	5	5	5	5	5	5	
		Total	25	25	25	25	25	25	25	
Nanki	Summer 2004 to Summer 2010	Hacchoiso (HC)	5	5	5	5	5	5	5	
		Bansho (BN)	5	5	5	5	5	5	5	
		Tenjinsaki (TN)	5	5	5	5	5	5	5	
		Metsuura (MT)	5	5	5	5	5	5	5	
		Tomida (TD)	5	5	5	5	5	5	5	
		Total	25	25	25	25	25	25	25	
Osumi	Summer 2004 to Summer 2010	Henzuka (HZ)	5	5	5	5	5	5	5	
		Takenoura (TK)	5	5	5	5	5	5	5	
		Odomari (OD)	5	5	5	5	5	5	5	
		Tajiri (TJ)	5	5	5	5	5	5	5	
		Shimadomari (SD)	5	5	5	5	5	5	5	
		Total	25	25	25	25	25	25	25	

10

11

12 **Table A2.** Developmental mode and feeding habits of rocky intertidal gastropods collected from
 13 six regions (Eastern Hokkaido, Southern Hokkaido, Rikuchu, Boso, Nanki, and Osumi) along the
 14 Pacific coast of Japan between latitudes 31°N and 43°N during summer 2004 to summer 2010.

	Species	Developmental mode
PROSOBRANCHIA		
Patellogastropoda		
Nacellidae		
	<i>Cellana toreuma</i> (Reeve, 1854)	Planktonic ^a
	<i>Cellana nigrolineata</i> (Reeve, 1839)	Planktonic ^a
	<i>Cellana grata</i> (Gould, 1859)	Planktonic ^a
Lottiidae		
	<i>Niveotectura pallida</i> (Gould, 1859)	Planktonic ^a
	<i>Patelloida saccharina form lanx</i> (Reeve, 1855)	Planktonic ^a
	<i>Patelloida pygmaea</i> (Dunker, 1860)	Planktonic ^a
	<i>Lottia cassis</i> (Eschscholtz, 1833)	Planktonic ^a
	<i>Lottia sp.</i>	Planktonic ^a
	<i>Lottia dorsuosa</i> (Gould, 1859)	Planktonic ^a
	<i>Lottia langfordi</i> (Habe, 1944)	Planktonic ^a
	<i>Lottia kogamogai</i> Sasaki & Okutani, 1994	Planktonic ^a
	<i>Lottia tenuisculpta</i> Sasaki & Okutani, 1994	Planktonic ^a
	<i>Lottia lindbergi</i> Sasaki & Okutani, 1994	Planktonic ^a
	<i>Nipponacmea schrenckii</i> (Lischke, 1868)	Planktonic ^a
	<i>Nipponacmea fuscoviridis</i> (Teramachi, 1949)	Planktonic ^a
	<i>Nipponacmea concinna</i> (Lischke, 1870)	Planktonic ^a
	<i>Nipponacmea nigrans</i> (Kira, 1961)	Planktonic ^a
	<i>Nipponacmea habei</i> Sasaki & Okutani, 1994	Planktonic ^a
	<i>Tectura emydia</i> (Dall, 1914)	Planktonic ^a
Vetigastropoda		
Haliotidae		
	<i>Haliotis diversicolor aquatilis</i> Reeve, 1846	Planktonic ^a
Fissurellidae		
	<i>Montfortula picta</i> (Dunker, 1860)	Planktonic ^a
Trochidae		
	<i>Chlorostoma lischkei</i> Tapparone-Canefi, 1874	Planktonic ^a
	<i>Chlorostoma xanthostigma</i> A. Adams, 1853	Planktonic ^a
	<i>Omphalius rusticus</i> (Gmelin, 1791)	Planktonic ^a
	<i>Omphalius nigerrimus</i> (Gmelin, 1791)	Planktonic ^a
	<i>Margarites helicinus pilsbryi</i> (Kuroda & Habe, 1952)	Planktonic ^a
	<i>Monodonta labio form confusa</i> Tapparone-Canefi, 1874	Planktonic ^a
	<i>Monodonta neritodes</i> (Philippi, 1849)	Planktonic ^a
	<i>Monodonta perlplexa perplexa</i> Pilsbry, 1889	Planktonic ^a
	<i>Diloma suavis</i> (Philippi, 1849)	Planktonic ^a
	<i>Cantharidus japonicus</i> (A. Adams, 1853)	Planktonic ^a
	<i>Cantharidus callichroa</i> (Philippi, 1849)	Planktonic ^a
	<i>Cantharidus jessoensis</i> (Scherenck, 1863)	Planktonic ^a
	<i>Roya eximia</i> (Nevill, 1869)	Planktonic ^a
	<i>Calliostoma unicum</i> (Dunker, 1860)	Planktonic ^a
	<i>Calliostoma multiliratum</i> (Sowerby II, 1875)	Planktonic ^a
	<i>Lirularia iridescens</i> (Scherenck, 1863)	Planktonic ^a
	<i>Conotalopia mustelina</i> (Gould, 1861)	Planktonic ^a
Turbinidae		
	<i>Homalopoma nocturnum</i> (Gould, 1861)	Planktonic ^a
	<i>Homalopoma amussitatum</i> (Gould, 1861)	Planktonic ^a
	<i>Turbo cornutus</i> Lightfoot, 1786	Planktonic ^a
	<i>Turbo stenogyrus</i> Fischer, 1873	Planktonic ^a
	<i>Turbo cornatus coreensis</i> (Récluz, 1853)	Planktonic ^a

16 Table A2. Continued

	Species	Developmental mode
Neritimorpha		
Neritidae	<i>Nerita albicilla</i> Linnaeus, 1758	Planktonic ^a
	<i>Nerita japonica</i> Dunker, 1860	Non-planktonic ^a
Discopoda		
Cerithiidae	<i>Rhinochlamys kochi</i> (Philippi, 1848)	Planktonic ^a
	<i>Ittibittium parvum</i> (Gould, 1861)	Non-planktonic ^b
Planaxidae	<i>Planaxis sulcatus</i> (Born, 1778)	Non-planktonic ^c
Batillariidae	<i>Batillaria multiformis</i> (Lischke, 1869)	Planktonic ^d
	<i>Batillaria cumingii</i> (Crosse, 1862)	Non-planktonic ^d
Littorinidae	<i>Lacuna uchidai</i> (Habe, 1953)	Non-planktonic ^c
	<i>Lacuna decorata</i> (A. Adams, 1861)	Planktonic ^c
	<i>Peasiella habeii</i> Reid & Mak, 1998	Planktonic ^f
	<i>Littoraria scabra</i> (Linnaeus, 1758)	Non-planktonic ^f
	<i>Nodilittorina radiata</i> (Souleyet in Eydoux & Souleyet, 1852)	Planktonic ^a
	<i>Nodilittorina trochoides</i> (Gray, 1839)	Planktonic ^f
	<i>Littorina brevicula</i> (Philippi, 1844)	Planktonic ^a
	<i>Littorina sitkana</i> (Philippi, 1846)	Non-planktonic ^a
Neogastropoda		
Muricidae	<i>Ergalatax contractus</i> (Reeve, 1846)	Planktonic ^a
	<i>Muricodrupa fusca</i> (Küster, 1862)	Non-planktonic ^g
	<i>Ceratostoma inornatus</i> (Récluz, 1851)	Non-planktonic ^a
	<i>Nucella lima</i> (Gmelin, 1791)	Non-planktonic ^a
	<i>Marula musiva</i> (Kiener, 1834)	Planktonic ^h
	<i>Thais bronni</i> (Dunker, 1860)	Planktonic ^a
	<i>Thais clavigera</i> (Küster, 1860)	Planktonic ^a
Nassariidae	<i>Niotha livescens</i> (Philippi, 1849)	Planktonic ^a
	<i>Reticunassa fratercula</i> (Dunker, 1860)	Non-planktonic ⁱ
Buccinidae	<i>Neptunea arthritica</i> (Bernardi, 1857)	Non-planktonic ^j
	<i>Japeuthria ferrea</i> (Reeve, 1847)	Non-planktonic ^k
	<i>Japeuthria cingulata</i> (Reeve, 1847)	Non-planktonic ^k
	<i>Buccinum chishimanum</i> Pilsbry, 1904	Non-planktonic ^j
PULMONATA		
Basommatophora		
Siphonariidae	<i>Siphonaria sirius</i> Pilsbry, 1894	Planktonic ^a
	<i>Siphonaria japonica</i> (Donovan, 1824)	Planktonic ^a
	<i>Siphonaria acmaeoides</i> Pilsbry, 1894	Planktonic ^a

^a Amio (1963).^b Kuramochi (2005).^c Ohgaki (1997).^d Furota et al. (2002).^e Kanamori et al. (2004).^f Habe (1956).^g Yamamoto (1997).^h Abe naoya personal communication.ⁱ Roberto Lombardo personal communication.^j Maeda & Doi (2006).^k Ohta Naotomo personal communication.