

Annex I: Acronyms and abbreviations

ALOS: Advanced Land Observing Satellite
ASP: Amnesic Shellfish Poisoning
CEARAC: Special Monitoring & Coastal Environment Assessment Regional Activity Centre
COD: Chemical Oxygen Demand
DNA: Deoxyribonucleic Acid
DO: Dissolved Oxygen
DSP: Diarrhetic Shellfish Poisoning
DTX: Dinophysistoxin
ECD: Electrolytic Clay Dispenser
EKWC: East Korean Warm Current
ELISA: Enzyme-Linked Immunosorbent Assay
EMECS: International Center for the Environmental Management of Enclosed Coastal
FISH: Fluorescent In Situ Hybridization
FPM: Focal Points Meeting
HAB: Harmful Algal Bloom
HPLC: High Performance Liquid Phase Separations
IMB FEB RAS: The Institute of Marine Biology Far Eastern Branch Russian Academy of Sciences
IOC: Intergovernmental Oceanographic Commission
LAMP: Loop-Mediated Isothermal Amplification
LCC: Liman Cold Current
LC-MS: Liquid Chromatography Mass Spectrometry
MU: Mouse Unit
NFRDI: National Fisheries Research and Development Institute
NOWPAP: Northwest Pacific Action Plan
NPEC: Northwest Pacific Region Environmental Cooperation Center
OA: Okadaic Acid
PCR: Polymerase Chain Reaction
PICES: North Pacific Marine Science Organization
POMRAC: Pollution Monitoring Regional Activity Centre
PSP: Paralytic Shellfish Poisoning
RAC: Regional Activity Centre
SEPA: State Environmental Protection Administration
SOA: State Oceanic Administration
SST: Sea Surface Temperature
STX: Saxitoxin
TTR: Training Through Research
TWC: Tushima Warm Current
UNEP: United Nations Environment Programme

WESTPAC: IOC Sub-Commission for the Western Pacific

WG3: Working Group 3

WG4: Working Group 4

YWC: Yellow Sea Warm Current

Annex II: Red tide events, toxin events and water quality information in the target sea areas

Annex II-1 Red tide events in the NOWPAP region

Country	Organization	Pref. Code	Event No. Year	Duration (Start)		Duration (End)	Continuous days	Locatio of occurrence		Causative species ⁽¹⁾	Maximum density (cells·mL ⁻¹)	Fish/Shellfish species	Fishery damage		Environmental parameters ⁽²⁾			Size of bloom (km ²)					
				Year	Month			day	Year				Month	day	Sub-area	Spot	Quantity		Economic loss (Chinese Yuan)	Temp. (°C)	Salinity	DO (mg/L)	
China	North China Sea Environmental Monitoring Centre	QD	1990	1	6	26	-	-	Qingdao	Jiaozhou Bay	<i>Mesodinium rubrum</i>	-	-	-	-	-	-	-	2				
		DL	1990	2	-	-	-	-	Dalian	Changhai country	-	-	Scallop	-	20 million	-	-	-	-				
		QD	1992	1	4	-	-	-	-	Qingdao	Jiaozhou Bay	-	-	-	-	-	-	-	-	-			
		QD	1992	2	5	12	-	-	-	Qingdao	East Qingdao	-	-	-	-	-	-	-	-	-			
		QD	1992	3	8	-	-	-	-	Qingdao	Jiaozhou Bay	-	-	-	-	-	-	-	-	-			
		DL	1993	1	8	11	-	-	-	Dalian	Dalian Bay	-	-	-	-	-	-	-	-	-	40		
		QD	1997	1	1997	8	-	-	-	Qingdao	Jiaozhou Bay	<i>Skeletonema costatum</i>	-	-	-	-	-	-	-	-	-		
		QD	1998	1	1998	7	3	1998	7	8	6	<i>Skeletonema costatum</i>	4,500	-	-	-	-	-	-	-	-	10	
		QD	1999	1	6	8	1999	6	15	8	<i>Eucampia zoiaeus</i>	2,300	-	-	-	-	-	-	-	-	-	-	
		QD	1999	2	7	23	1999	7	24	2	<i>Skeletonema costatum</i>	-	-	-	-	-	-	-	-	-	-	26	
		QD	1999	3	7	26	-	-	-	-	<i>Eucampia zoiaeus</i>	-	-	-	-	-	-	-	-	-	-	60	
		DL	1999	5	7	17	1999	7	21	5	<i>Mesodinium rubrum</i>	-	-	-	-	-	-	-	-	-	-	100	
		SD	1999	6	7	17	-	-	-	Shandong	Penglai	<i>Noctiluca scintillans</i>	-	-	-	-	-	-	-	-	-	680	
		SD	1999	7	8	6	-	-	-	Shandong	Shidao	-	-	-	-	-	-	-	-	-	-	160	
		LN	2000	1	8	2	-	-	-	Dalian	Zhuanghe	-	-	-	-	-	-	-	-	-	-	827	
		QD	2000	2	7	20	2000	7	23	4	<i>Noctiluca scintillans</i>	-	-	-	-	-	-	-	-	-	-	92	
		QD	2000	1	4	4	-	-	-	Qingdao	Fushan Bay	<i>Noctiluca scintillans</i>	-	-	-	-	-	-	-	-	-	-	-
		LN	2000	2	5	24	-	-	-	Liaoning	Dandong	-	-	-	-	-	-	-	-	-	-	-	
		QD	2001	3	6	11	2001	6	12	2	<i>Noctiluca scintillans</i>	-	-	-	-	-	-	-	-	-	-	5	
		QD	2001	4	7	7	2001	7	13	7	<i>Mesodinium rubrum</i>	-	-	-	-	-	-	-	-	-	-	9.8	
		QD	2001	5	6	20	-	-	-	-	<i>Skeletonema costatum</i>	-	-	-	-	-	-	-	-	-	-	1000	
		NY	2001	6	8	24	2001	9	14	22	<i>Eucampia zoiaeus</i>	-	-	-	-	-	-	-	-	-	-	110	
		QD	2002	1	2002	6	28	2002	7	2	<i>Cheetoceros sociale</i>	-	-	-	-	-	-	-	-	-	-	60	
		LN	2002	1	6	-	-	-	-	Liaoning	Dandong	<i>Mesodinium rubrum</i>	-	-	-	-	-	-	-	-	-	30	
		QD	2003	2	7	-	-	-	-	Qingdao	Jiaozhou Bay	<i>Cocchodiscus asteromphalus</i>	-	-	-	-	-	-	-	-	-	200	
		QD	2003	3	7	4	2003	7	10	7	<i>Mesodinium rubrum</i>	-	-	-	-	-	-	-	-	-	-	460	
QD	2004	1	2	-	-	-	-	Qingdao	Jiaozhou Bay	<i>Guinaradia delicatula</i>	-	-	-	-	-	-	-	-	-	-	-		
QD	2004	2	2	9	2004	2	28	20	<i>Rhizosolenia delicatula</i>	-	-	-	-	-	-	-	-	-	-	70			
QD	2004	3	3	22	2004	3	25	4	<i>Thalassiosira nordenskoeldii</i>	-	-	-	-	-	-	-	-	-	-	70			
QD	2004	4	7	-	-	-	-	Qingdao	Jiaozhou Bay	<i>Cocchodiscus asteromphalus</i>	-	-	-	-	-	-	-	-	-	-	-		
QD	2004	5	8	10	-	-	-	Qingdao	Fushan Bay	<i>Mesodinium rubrum</i>	-	-	-	-	-	-	-	-	-	-	50		
DL	2004	6	9	6	-	-	-	Dalian	Jinshatan	<i>Chattonella antiqua</i>	-	-	-	-	-	-	-	-	-	-	-		
QD	2005	1	6	12	2005	6	17	6	<i>Heterosigma akashiwo</i>	95,400	-	-	-	-	-	-	-	-	-	80			
QD	2005	2	6	7	2007	7	10	34	<i>Heterosigma akashiwo</i>	53,100	-	-	-	-	-	-	-	-	-	70			
QD	2007	1	8	20	2007	8	23	4	<i>Skeletonema costatum</i>	11,100	-	-	-	-	-	-	-	-	-	15			
QD	2007	2	9	25	2007	9	28	4	<i>Gonyaulax spinifera</i>	-	-	-	-	-	-	-	-	-	-	8			
QD	2008	1	6	28	2008	6	29	2	<i>Heterosigma sp.</i>	3,280	-	-	-	-	-	-	-	-	-	-	-		
QD	2008	2	8	7	2008	8	8	2	<i>Chattonella antiqua</i>	520	-	-	-	-	-	-	-	-	-	-	86		

¹ Scientific name is based on the Integrated Report on Harmful Algal Blooms (HABs) for the NOWPAP Region (NOWPAP/CEARAC 2005).

² In case of China, the range of environmental parameters means the value which observed in some monitoring points during HAB event.

³ In case of Korea, the range of environmental parameters means the value which observed in some monitoring points.

⁴ In case of Russia, the range of environmental parameters means the value which observed during HAB event.

Annex II-1 Red tide events in the NOWPAP region (Continued)

Country	Organization	Event No.		Duration(Start)		Duration(End)		Continuous days	Locatio of occurrence		Causative species ⁽¹⁾	Maximum density (cells·inds./mL)	Fish/Shellfish species	Fishery damage		Environmental parameters			Size of bloom (km ²)		
		Year	No.	Year	Month	Year	Month		Year	Month				Year	Month	Year	Month	Year		Temp. (°C)	Salinity
Japan	Yamaguchi Prefectural Fisheries Research Center	YM	1	2006	2	20	2006	2	27	8	Between Aburaya Bay and coastline of Woshlo	<i>Noctiluca scintillans</i>	2,150	-	-	-	10.0	-	-	-	
		YM	2	2006	2	25	2006	2	28	4	Coastline of Nagato City (Sensaki Bay, Fukagawa Bay)	<i>Noctiluca scintillans</i>	-	-	-	-	-	-	-	-	
		YM	3	2006	3	27	2006	3	29	3	Coastline of Nagato City (Sensaki Bay)	<i>Noctiluca scintillans</i>	-	-	-	-	-	-	-	0.3	
		YM	4	2006	7	13	2006	8	4	23	Coastal area of Yamaguchi	<i>Karenia mikimotoi</i>	57,500	Amberjack etc.	370 ind.	1,800	25.4	-	-	-	50
		YM	5	2006	8	2	2006	8	11	10	Coastal area of Yamaguchi	<i>Karenia mikimotoi</i>	4,900	Kingfish	60 ind.	120	28.2	-	-	-	-
		YM	6	2006	10	16	2006	10	19	4	Coastal area of Yamaguchi	<i>Mesodinium rubrum</i>	68	-	-	-	23.0	-	-	-	0.0001
	Fukuoka Fisheries and Marine Technology Research Center	FO	1	2006	6	5	2006	6	12	8	Novase fishing port	<i>Noctiluca scintillans</i>	200	-	-	-	-	-	-	-	-
		FO	2	2006	6	21	2006	6	27	7	West region of Chikuzen Sea	<i>Prorocentrum trisetinum</i>	10,080	-	-	-	-	-	-	-	-
		FO	3	2006	6	29	2006	?	?	?	Fukuoka Bay	<i>Skeletonema</i> sp. <i>Leptocylindrus</i> sp. <i>Chaetoceros</i> sp. Other Diatom	25,240 11,800 1,710 740 14,090	-	-	-	-	-	-	-	-
		FO	4	2006	7	11	2006	7	31	21	Fukuoka Bay	<i>Skeletonema</i> sp. <i>Chaetoceros</i> sp. Other Diatom	47,110 2,020 1,200	-	-	-	-	-	-	-	-
		FO	5	2006	7	18	2006	7	26	9	Kanmon Strait	<i>Karenia mikimotoi</i>	43,100	Damaged (The details were not known)	-	-	-	-	-	-	-
		SA	1	2006	7	20	2006	7	22	3	Imari Bay	<i>Ceratium furca</i>	340	-	-	-	-	-	-	-	-
		SA	2	2006	7	20	2006	7	23	4	Karatsu Bay	<i>Mesodinium rubrum</i>	1,180	-	-	-	-	-	-	-	-
		SA	3	2006	7	26	2006	7	30	5	Imari Bay	<i>Nitzschia</i> sp. <i>Thalassiosira</i> sp.	13,900 5,940	-	-	-	-	-	-	-	-
		SA	4	2006	7	27	2006	7	30	4	Kanaya Bay	<i>Skeletonema costatum</i>	11,140	-	-	-	-	-	-	-	-
		SA	5	2006	8	21	2006	8	25	5	Imari Bay	<i>Thalassiosira</i> sp. <i>Skeletonema costatum</i>	2,520 1,400	-	-	-	-	-	-	-	-
	Nagasaki Prefectural Institute of Fisheries	NS	6	2006	8	22	2006	8	23	2	Karatsu Bay	<i>Thalassiosira</i> sp.	2,022	-	-	-	-	-	-	-	-
		NS	7	2006	11	20	2006	11	22	3	Imari Bay	<i>Prorocentrum trisetinum</i>	7,240	-	-	-	-	-	-	-	-
		NS	8	2006	11	27	2006	11	28	2	Imari Bay	<i>Prorocentrum trisetinum</i>	2,940	-	-	-	-	-	-	-	-
		NS	1	2006	2	24	2006	3	15	20	Ohmura Bay	<i>Cryptophyceae</i>	148,000	-	-	-	-	12.7	27.4	14.5	-
		NS	3	2006	5	1	2006	5	2	2	West Kyushu	<i>Symbiodium</i> sp.	55	-	-	-	-	17.7	33.8	8.6	0.00005
		NS	4	2006	5	15	2006	5	26	12	Remote Is.	<i>Heterosigma akeshiwo</i>	11,800	-	-	-	-	19.5	27.0	9.5	0.005
		NS	5	2006	5	16	2006	6	29	45	Ohmura Bay	<i>Heterosigma akeshiwo</i>	225,000	-	-	-	-	-	-	-	-
		NS	7	2006	6	1	2006	6	3	3	Kujukushima	<i>Prorocentrum</i> sp.	3,400	-	-	-	-	-	-	-	-
		NS	8	2006	7	3	2006	7	14	12	Ohmura Bay	<i>Karenia mikimotoi</i>	15,800	-	-	-	-	-	-	-	-
NS		9	2006	7	4	2006	7	12	9	Tachibana Bay	<i>Ceratium furca</i>	6,650	-	-	-	-	-	-	-	-	
NS		10	2006	7	9	2006	7	11	3	West Kyushu	<i>Mesodinium rubrum</i>	13,570	-	-	-	-	-	-	-	-	
NS		11	2006	7	8	2006	7	31	24	Ohmura Bay	<i>Karenia mikimotoi</i>	92,200	-	-	-	-	-	-	-	-	
NS		12	2006	7	14	2006	7	18	5	Ohmura Bay	<i>Prorocentrum</i> spp.	721	-	-	-	-	25.3	29.1	8.1	0.5	
Nagasaki Prefectural Institute of Fisheries		NS	14	2006	7	20	2006	7	25	6	Kujukushima	<i>Karenia mikimotoi</i>	8,504	Pufferfish Red seabream	1000 ind. 70 ind.	184	-	-	-	-	-
	NS	15	2006	7	20	2006	7	25	6	Remote Is.	<i>Cochlodinium polykrikoides</i>	135	-	-	-	-	22.8	26.3	5.2	-	
	NS	16	2006	7	21	2006	7	23	3	North Kyushu	<i>Ceratium furca</i>	667	-	-	-	-	26.0	-	-	-	
	NS	17	2006	7	25	2006	8	11	18	Imari Bay	<i>Karenia mikimotoi</i>	16,100	Pufferfish	6900 ind.	10,350	-	-	-	-	-	
	NS	19	2006	8	21	2006	8	25	5	Kujukushima	<i>Prorocentrum minimum</i>	12,800	-	-	-	-	26.1	31.9	10.1	-	
	NS	20	2006	9	6	2006	9	21	16	West Kyushu	<i>Heterosigma akeshiwo</i>	11,500	-	-	-	-	27.5	30.1	-	-	
	NS	21	2006	9	22	2006	9	26	5	Imari Bay	<i>Diatoms</i>	16,220	-	-	-	-	23.0	-	-	-	
	NS	22	2006	10	11	2006	10	13	3	Hirado(Usuki/Furue Bay)	<i>Cochlodinium polykrikoides</i>	646	-	-	-	-	23.0	33.0	7.9	0.25	
	NS	23	2006	10	26	2006	11	6	12	Ohmura Bay	<i>Prorocentrum sigmoides</i>	160	-	-	-	-	-	-	-	-	5.3
	NS	24	2006	10	30	2006	12	7	39	North Kyushu	<i>Prorocentrum sigmoides</i>	14,980	-	-	-	-	-	-	-	-	2.1
	NS	25	2006	11	1	2006	11	3	3	Remote Is.	<i>Mesodinium rubrum</i>	490	-	-	-	-	22.5	34.9	5.8	-	

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Annex II-1 Red tide events in the NOWPAP region (Continued)

Country	Organization	Pref. Code	Event No.		Duration(Start)		Duration(End)		Locatio of occurrence		Causative species(1)	Maximum density (cells·inds./mL)	Fishery damage		Environmental parameters			Size of bloom (km ²)				
			Year	No.	Year	Month	Day	Year	Month	Day			Continuous days	Sub-area	Spot	Fish/Shellfish species	Quantity		Economic loss (1,000 Japanese Yen)	Temp. (°C)	Salinity	DO (mg/L)
Japan	Yamaguchi Prefectural Fisheries Research Center	YM	2008	1	2008	2	29	2008	-	-	-	-	-	-	-	-	-	-	-	-		
		YM	2008	2	2008	3	6	2008	-	-	Sensaki Bay	<i>Noctiluca</i> sp.	-	-	-	-	-	-	-	-	-	
		YM	2008	3	2008	3	11	2008	-	-	Coastal area of Yamaguchi	<i>Noctiluca</i> sp.	-	-	-	-	-	-	-	-	-	-
		YM	2008	4	2008	4	15	2008	-	-	Coastal area of Yamaguchi	<i>Noctiluca</i> sp.	-	-	-	-	-	-	-	-	-	-
		YM	2008	5	2008	7	23	2008	-	-	Coastal area of Yamaguchi	<i>Karenia mikimotoi</i>	-	-	-	-	-	-	-	-	-	-
		YM	2008	6	2008	7	30	2008	-	-	Coastal area of Yamaguchi	<i>Karenia mikimotoi</i>	-	-	-	-	-	-	-	-	-	-
	Fukuoka Fisheries and Marine Technology Research Center	FO	2008	1	2008	3	12	2008	3	17	5	North Kyushu	<i>Noctiluca scintillans</i>	2,200	-	-	-	-	-	-	-	-
		FO	2008	2	2008	4	14	2008	4	30	17	North region of Chikuzen sea area (Shiga Island)	<i>Gephyrocapsa oceanica</i>	1,900	-	-	-	-	-	-	-	-
		FO	2008	3	2008	5	8	2008	5	14	7	Coastline of Fukuoka City	<i>Noctiluca scintillans</i>	1,200	-	-	-	-	-	-	-	-
		FO	2008	4	2008	5	15	2008	5	29	15	North Kyushu	<i>Prorocentrum minimum</i> <i>Prorocentrum dentatum</i>	35,000 19,000	-	-	-	-	-	-	-	-
		FO	2008	5	2008	5	15	2008	5	20	6	Fukuoka Bay	<i>Leptocylindrus danicus</i>	4,000	-	-	-	-	-	-	-	-
		FO	2008	6	2008	5	28	2008	5	30	3	North Kyushu	<i>Heterosigma akashiwo</i>	65,000	-	-	-	-	-	-	-	-
		FO	2008	7	2008	6	4	2008	6	13	10	North Kyushu	<i>Heterosigma akashiwo</i>	30,000	-	-	-	-	-	-	-	-
		FO	2008	8	2008	6	23	2008	6	30	8	North Kyushu	<i>Skeletonema costatum</i>	25,000	-	-	-	-	-	-	-	-
		FO2	2008	9	2008	9	11	2008	9	7	7	West Kyushu	<i>Mesodinium rubrum</i>	1,000	-	-	-	-	-	-	-	-
		FO2	2008	2	2008	9	10	2008	9	21	12	West Kyushu	<i>Akashio sanguinea</i> <i>Ceratium fuscum</i>	300 90	-	-	-	-	-	-	-	-
FO2	2008	3	2008	9	24	2008	9	28	5	West Kyushu	<i>Mesodinium rubrum</i>	19,100	-	-	-	-	-	-	-	171.0		
SA	2008	2	2008	3	5	2008	3	7	3	North Kyushu	<i>Noctiluca scintillans</i>	160	-	-	-	-	-	-	-	-		
SA	2008	4	2008	4	30	2008	5	2	3	North Kyushu	<i>Noctiluca scintillans</i>	1,520	-	-	-	-	-	-	-	-		
SA	2008	6	2008	6	23	2008	7	2	10	North Kyushu	<i>Chattonella antiqua</i>	5,530	Red seabream 500 ind. Chicken grunt 400 ind.	400 75	-	-	-	-	-	-		
SA	2008	7	2008	6	25	2008	7	1	7	North Kyushu	<i>Prorocentrum triestinum</i>	300	-	-	-	-	-	-	-	-		
SA	2008	8	2008	7	3	2008	7	4	2	North Kyushu	<i>Prorocentrum dentatum</i>	22,190	-	-	-	-	-	-	-	-		
SA	2008	16	2008	10	3	2008	10	9	7	North Kyushu	<i>Chattonella antiqua</i>	35	-	-	-	-	-	-	-	-		

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Country	Organization	Event No.		Duration(Start)		Duration(End)		Continuous days	Locatio of occurrence		Causative species(*)	Maximum density (cells/mL)	Fish/Shellfish species	Fishery damage		Environmental parameters			Size of bloom (km ²)		
		Year	No.	Year	Month	day	Year		Month	day				Sub-area	Spot	Economic loss (1,000 Japanese Yen)	Quantity	Temp. (°C)		Salinity	DO (mg/L)
Japan	Saga Prefectural Genkai Fisheries Promotion Center	SA2	1	2008	2	15	2008	3	18	33	West Kyushu	Ariake	<i>Asterionella kariana</i> <i>Skeletonema costatum</i>	22,000 19,700	laver	-	-	-	-	-	
		SA2	2	2008	4	30	2008	5	7	8	West Kyushu	Ariake	<i>Heterocapsa rotundata</i> <i>Amphidinium</i> sp.	173,000	-	-	-	-	-		
		SA2	3	2008	6	13	2008	7	4	22	West Kyushu	Ariake	<i>Skeletonema costatum</i> <i>Thalassiosira</i> spp. <i>Microalgae</i>	47,800 3,950 64,000	-	-	-	-	-	-	
		SA2	4	2008	7	11	2008	7	14	4	West Kyushu	Ariake	<i>Heterosigma akashimo microalgae</i>	17,533 32,533	-	-	-	-	-	-	
		SA2	5	2008	7	28	2008	8	3	7	West Kyushu	Ariake	<i>Ceratium fusus</i> <i>Akashimo sanguinea</i> <i>Chatonella antiqua</i> <i>Chatonella marina</i>	250 11 290 66	-	-	-	-	-	-	
		SA2	6	2008	7	29	2008	8	20	23	West Kyushu	Ariake	<i>Chatonella antiqua</i> <i>Chatonella marina</i>	9,300 1,250	-	-	-	-	-	-	
		SA2	7	2008	8	11	2008	8	17	7	West Kyushu	Ariake	<i>Thalassiosira</i> spp. <i>Cheeroceros</i> spp. <i>Skeletonema costatum</i>	13,600 13,700 6,700	-	-	-	-	-	-	-
		SA2	8	2008	8	12	2008	8	13	2	West Kyushu	Ariake	<i>Noctiluca scintillans</i>	8,150	-	-	-	-	-	-	
		SA2	9	2008	8	25	2008	9	15	22	West Kyushu	Ariake	<i>Skeletonema costatum</i> <i>Thalassiosira</i> spp. <i>Cheeroceros</i> spp. <i>Akashimo sanguinea</i>	23,400 44,100 22,000 350	-	-	-	-	-	-	-
		SA2	10	2008	9	8	2008	9	15	8	West Kyushu	Ariake	<i>Akashimo sanguinea</i>	2,250	-	-	-	-	-	-	
		SA2	11	2008	10	10	2008	10	13	4	West Kyushu	Ariake	<i>Skeletonema costatum</i> <i>Cheeroceros</i> spp.	20,400 44,400	-	-	-	-	-	-	-
		SA2	12	2008	10	14	2008	10	16	3	West Kyushu	Ariake	<i>Akashimo sanguinea</i>	138	-	-	-	-	-	-	
		SA2	13	2008	10	23	2008	11	3	12	West Kyushu	Ariake	<i>Akashimo sanguinea</i>	778	-	-	-	-	-	-	
		SA2	14	2008	11	8	2008	11	12	5	West Kyushu	Ariake	<i>Fibrocapsa japonica</i> <i>Akashimo sanguinea</i>	4,150 194	-	-	-	-	-	-	-
		NS	1	2008	3	17	2008	3	18	2	North Kyushu	Imari Bay	<i>Noctiluca scintillans</i>	113	-	-	-	-	-	-	-
		NS	6	2008	6	20	2008	6	23	4	West Kyushu	Kujukushima/Sasebo city/Ainoura Port	<i>Mesodinium rubrum</i>	3,250	-	-	-	-	-	-	0.002
		NS	7	2008	6	24	2008	6	28	5	West Kyushu	Tachibana Bay	<i>Ceratium fusus</i>	21,700	-	-	-	-	-	-	-
		NS	9	2008	6	24	2008	6	25	2	North Kyushu	Imari Bay	<i>Cheeroceros</i>	49,200	-	-	22	24.2	10.5	-	-
		NS	10	2008	6	25	2008	6	27	3	Remote Is.	Iki	<i>Heterosigma akashimo</i>	9,000	-	-	21	-	8.2	-	0.1
		NS	12	2008	7	2	2008	7	24	23	West Kyushu	Kujukushima	<i>Karenia mikimotoi</i>	8,250 Japanese pufferfish	4000 ind.	24	-	-	-	-	-
NS	13	2008	7	17	2008	7	18	2	West Kyushu	Ohmura Bay	<i>Heterosigma akashimo</i>	22,950	-	-	-	-	-	-	-		
NS	14	2008	7	25	2008	7	26	2	West Kyushu	Kujukushima	<i>Rhizosolenia</i> sp.	20,800	-	-	-	-	-	-	-		
NS	16	2008	9	4	2008	9	5	2	Remote Is.	Goto	<i>Mesodinium rubrum</i>	10,800	-	-	27	33.1	9.8	-	0.03		
NS	17	2008	9	22	2008	9	30	9	North Kyushu	Usuka Bay	<i>Cochlodinium polykrikoides</i>	88	-	-	24	-	7.3	-	-		
NS	18	2008	9	30	2008	10	1	2	West Kyushu	Ohmura Bay	<i>Heterocapsa</i>	610	-	-	25	31.7	4.8	-	-		
NS	19	2008	10	3	2008	10	15	13	North Kyushu	Imari Bay	<i>Skeletonema</i>	35,800	-	-	23	-	-	-	-		
NS	21	2008	11	7	2008	11	27	21	North Kyushu	Usuka Bay	<i>Mesodinium rubrum</i> <i>Cochlodinium polykrikoides</i> <i>Alexandrium catenella</i> <i>Gymnodinium catenatum</i>	1,820 195 173 138	-	-	-	-	-	-	-	-	
NS	22	2008	11	25	2008	11	26	2	Remote Is.	Goto	<i>Mesodinium rubrum</i>	7,000	-	-	-	-	-	-	0.0		
NS	23	2008	11	26	2008	11	27	2	Remote Is.	Tsushima	<i>Mesodinium rubrum</i>	3,800	-	-	-	-	-	-	-		
NS	24	2008	12	3	2008	12	22	20	Remote Is.	Goto	<i>Mesodinium rubrum</i>	79,000	-	-	19	-	-	-	-		
NS2	2	2008	3	21	2008	3	22	2	West Kyushu	Ariake(Isahaya Bay)	<i>Noctiluca scintillans</i>	150	-	-	14	-	-	-	-		
NS2	3	2008	5	8	2008	5	12	5	West Kyushu	Ariake(Isahaya Bay)	<i>Heterosigma akashimo</i>	36,900	-	-	20	31.8	12.4	-	-		
NS2	4	2008	5	30	2008	5	31	2	West Kyushu	Ariake(Isahaya Bay)	<i>Heterosigma akashimo</i>	15,100	-	-	-	-	-	-	-		
NS2	5	2008	6	13	2008	6	14	2	West Kyushu	Ariake(Isahaya Bay)	<i>Skeletonema</i>	9,460	-	-	23	-	11.8	-	-		
NS2	8	2008	6	24	2008	7	1	8	West Kyushu	Ariake(Isahaya Bay)	<i>Heterosigma akashimo</i>	14,300	-	-	23	-	-	-	-		
NS2	11	2008	7	1	2008	7	2	2	West Kyushu	Ariake(Isahaya Bay)	<i>Prorocentrum</i> sp.	3,600	-	-	25	-	-	-	-		
NS2	15	2008	7	26	2008	8	21	27	West Kyushu	Ariake(Isahaya Bay)	<i>Chatonella antiqua</i> <i>Chatonella marina</i> <i>Ceratium fusus</i>	29,600 5,300 1,050	Dotted gizzard shad Goby Japanese littleneck	45kg	83	-	-	-	-	-	
NS2	20	2008	10	9	2008	10	10	2	West Kyushu	Ariake	<i>Skeletonema</i>	8,800	-	-	-	-	-	-	-		

Annex II-1 Red tide events in the NOWPAP region (Continued)

Country	Organization	Event No.		Duration(Start)		Duration(End)		Locatio of occurrence		Causative species(*)	Maximum density (cells·inds./mL)	Fish/Shellfish species	Fishery damage		Environmental parameters (**)			Size of bloom (km ²)
		Year	No.	Year	Month	Year	Month	Sub-area	Spot				Economic loss (1,000 won)	Quantity (million ind.)	Temp. (°C)	Salinity	DO (mg/L)	
Korea	National Fisheries Research and Development Institute	SE	1	2007	7	24	2007	7	30	Tongyeong Dosaan	500	-	-	-	22.4-24.5	32.0-33.2	-	-
		SE	2	2007	8	6	2007	9	15	Namhae Mizo	32,500 0.688 0.389 0.15 0.61	Red sea bream Bass Rockfish Parrot fish	3,664	-	23.3-29.4	28.3-32.0	-	50
		SE	3	2007	8	9	2007	9	12	Tongyeong Sarang Suyou-do	23,000	Rockfish Parrot fish etc.	7,337	-	24.0-27.6	30.2-34.0	-	70
		SE	4	2007	8	11	2007	9	1	Goseong Bay	4,000	-	-	-	26.0-29.5	30.3-32.3	-	3
		SE	5	2007	9	3	2007	9	9	jinju Bay	2,000	-	-	-	22.1-25.6	30.1-32.8	-	2
		SE	6	2007	10	19	2007	10	29	Upper Sarang-do	2,130	-	-	-	22.5-23.8	32.8-33.2	-	2
		SE	1	2008	8	4	2008	9	23	Tongyeong Donsan	5,600	-	-	-	21.0-26.9	30.5-32.9	-	40
		SE	2	2008	8	8	2008	9	22	Namhae Mizo	2,650	-	-	-	22.2-27.0	29.0-32.3	-	60
		SE	3	2008	9	16	2008	9	25	Tongyeong Sarang Suyou-do	2,500	-	-	-	24.0-27.0	30.1-33.2	-	60
		SE	4	2008	8	29	2008	9	5	Goseong Bay	4,000	-	-	-	24.9-27.0	30.0-32.8	-	3
		SE	5	2008	9	11	2008	9	20	jinju Bay	5,000	-	-	-	26.5-27.0	30.9-33.2	-	2
		SE	1	2009	8	4	2009	8	-	Goseong	2,000	-	-	-	24.0-25.2	28.9-30.6	-	0.8
		SE	2	2009	8	11	2009	8	19	Nam-myeon	6,000	Alexandrium fraterculus	-	-	24.1-26.5	29.3-30.9	-	2
		SE	3	2009	8	11	2009	8	13	Tae-do	950	Gonyaulax polygramma	-	-	24.2-24.9	30.3-31.4	-	3
		SE	4	2009	8	24	2009	8	26	Gejeo	15,000	Scipostella trochoidea	-	-	24.7-25.5	29.1-30.6	-	2
SE	5	2009	11	1	2009	11	9	Sandong eunjeom	1,800	Gymnodinium sp.	-	-	19.0-19.6	31.8-32.9	-	0.5		

*1 Scientific name is based on the Integrated Report on Harmful Algal Blooms (HABs) for the NOWPAP Region (NOWPAP/CEARAC 2005).

*2 In case of China, the range of environmental parameters means the value which observed in some monitoring points during HAB event.

*3 In case of Korea, the range of environmental parameters means the value which observed in some monitoring points.

*4 In case of Russia, the range of environmental parameters means the value which observed during HAB event.

Annex II-1 Red tide events in the NOWPAP region (Continued)

Country	Event No.	Duration(Start)		Duration(End)		Continuous days		Locatio of occurrence		Causative species(1)	Maximum density (cells·inds./mL)	Fish/Shellfish species	Fishery damage		Environmental parameters (4)			Size of bloom (km ²)	
		Year	Month	Year	Month	Year	Month	Sub-area	Spot				Quantity	Economic loss	Temp. (°C)	Salinity	DO (mg/L)		
Russia	AB 1991	1	1991	7	8	1991	8	12	36	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1993	1	1993	11	19	?	?	?	<7	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1996	1	1996	2	28	1996	3	28	29	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1996	3	1996	7	2	1996	7	16	15	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1996	7	1996	7	8	1996	8	30	31	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1996	5	1996	7	22	1996	8	30	40	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1996	8	1996	8	5	1996	8	12	8	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1996	8	1996	11	4	1996	12	16	43	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1997	4	1997	5	4	1997	6	4	32	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1997	4	1997	7	29	?	?	?	<7	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1997	5	1997	8	19	1997	8	28	10	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1997	7	1997	10	17	1997	11	3	18	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1998	1	1998	1	26	1998	2	17	23	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	AB 1998	2	1998	3	5	1998	3	12	8	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	-
	ANB 2001	1	2001	8	13	2001	-	-	-	-	Aniva Bay	Aniva Bay	-	-	-	-	-	-	-
	VB 2001	1	2001	8	16	2001	-	-	>12	-	Vostok Bay	Vostok Bay	-	-	-	-	-	-	-
	VB 2001	4	2001	9	30	2001	-	-	?	-	Vostok Bay	Vostok Bay	-	-	-	-	-	-	-
	VB 2002	2	2002	7	14	2002	-	-	?	-	Vostok Bay	Vostok Bay	-	-	-	-	-	-	-
	VB 2003	1	2003	4	23	2003	-	-	?	-	Vostok Bay	Vostok Bay	-	-	-	-	-	-	-
	AB 2004	1	2004	11	17	?	?	?	<7	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-
	AB 2005	1	2005	7	12	?	?	?	<7	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-
	AB 2005	6	2005	10	20	?	?	?	<5	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-
	VB 2005	1	2005	9	1	2005	-	-	?	-	Vostok Bay	Vostok Bay	-	-	-	-	-	-	-
	AB 2006	2	2006	6	5	2006	7	3	29	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-
	AB 2006	5	2006	7	3	?	?	?	<5	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-
	AB 2006	6	2006	7	3	?	?	?	<5	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-
	VB 2006	2	2006	8	4	2006	-	-	?	-	Vostok Bay	Vostok Bay	-	-	-	-	-	-	-
	VB 2006	3	2006	8	20	2006	-	-	?	-	Vostok Bay	Vostok Bay	-	-	-	-	-	-	-
AB 2007	1	2007	7	11	2007	7	25	14	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2007	2	2007	7	25	2007	8	20	25	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2007	3	2007	7	25	2007	7	25	1	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2007	4	2007	8	6	2007	9	17	42	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2007	5	2007	8	20	2007	8	20	1	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2007	6	2007	9	5	2007	9	17	12	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2007	7	2007	10	30	2007	10	30	1	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2007	8	2007	7	25	2007	7	25	1	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
VB 2007	1	2007	8	8	2007	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	-	-	-	
AB 2008	1	2008	3	4	2008	4	7	34	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2008	2	2008	7	14	2008	7	28	14	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2008	3	2008	6	7	2008	6	7	1	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2008	4	2008	6	7	2008	7	14	37	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2008	5	2008	8	29	2008	-	-	7	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2008	6	2008	9	15	2008	-	-	7	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2009	1	2009	1	11	2009	-	-	7	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2009	4	2009	6	8	2009	-	-	7	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2009	7	2009	8	2	2009	-	-	76	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2009	8	2009	9	9	2009	-	-	7	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
VB 2009	1	2009	7	4	2009	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	-	-	-	
AB 2010	3	2010	3	30	2010	-	-	7	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	
AB 2010	5	2010	7	30	2010	-	-	7	-	Amurskii Bay	Amurskii Bay	-	-	-	-	-	-	-	

¹ Scientific name is based on the Integrated Report on Harmful Algal Blooms (HABs) for the NOWPAP Region (NOWPAP CEARAC 2005).

² In case of China, the range of environmental parameters means the value which observed in some monitoring points during HAB event.

³ In case of Korea, the range of environmental parameters means the value which observed in some monitoring points.

⁴ In case of Russia, the range of environmental parameters means the value which observed during HAB event.

Annex II-2 Toxin-producing plankton bloom and shellfish poisoning

Country	Event No.		Duration (Start)			Duration (End)			Continuous days		Locatio of occurrence		Monitoring date		Causative species (*1)	Maximum density (cells · inds./L)	Fishery damage			Environmental parameters (*2)		
	Pref. Code	Year	Year	Month	day	Year	Month	day	Year	Month	day	Sub-area	Spot	Date			Time	Fish/Shellfish species	Shellfish poisoning	Toxin level (*3)	Temp. (°C)	Salinity
China	DL	1999	4	-	-	-	-	-	-	-	-	Dalian	Dalian Bay	-	-	8,100,000	-	-	-	-	-	-
	DL	2004	7	9	25	-	-	-	-	-	-	Dalian	Jinshatan	-	-	-	-	-	-	-	-	-
Japan	YM	2006	1	2006	11	6						Yamaguchi	Sensaki Bay			16						
		2006	2	2006	11	6						Yamaguchi	Sensaki Bay			12						
	YM	2006	3	2006	11	13						Yamaguchi	Sensaki Bay			4						
	YM	2006	4	2006	11	13						Yamaguchi	Sensaki Bay			23						
	YM	2006	5	2006	11	27						Yamaguchi	Sensaki Bay			4						
	YM	2006	6	2006	11	27						Yamaguchi	Sensaki Bay			164						
	YM	2006	7	2006	11	30						Yamaguchi	Sensaki Bay			152						
	YM	2006	8	2006	11	30						Yamaguchi	Sensaki Bay			425						
	YM	2006	9	2006	12	6						Yamaguchi	Sensaki Bay			667						
	YM	2006	10	2006	12	6						Yamaguchi	Sensaki Bay			29						
	YM	2006	11	2006	12	15						Yamaguchi	Sensaki Bay			7						
	YM	2006	12	2006	12	15						Yamaguchi	Sensaki Bay			341						
	YM	2006	13	2006	12	22						Yamaguchi	Sensaki Bay			216						
	YM	2006	14	2006	12	22						Yamaguchi	Sensaki Bay			114						
	FO	2006	1	2006	4	11						Fukuoka	Fukuoka Bay			235						
	FO	2006	2	2006	10	12						Fukuoka	Fukuoka Bay			15						
	FO	2006	3	2006	12	12						Fukuoka	Fukuoka Bay			43						
																6						
																32						
															77							
															86							
															18							
															1							
															37							
															70							

*1 Scientific name is based on the Integrated Report on Harmful Algal Blooms (HABs) for the NOWPAP Region (NOWPAP CEARAC, 2005).

*2 In case of Japan and Russia, the range of environmental parameters means the value which observed during event.

*3 In case of Japan, the unit of toxin level is MU/g. The unit of other member states is µg/g.

Annex II-2 Toxin-producing plankton bloom and shellfish poisoning (Continued)

Country	Event No.		Duration (Start)			Duration (End)			Continuous days		Locatio of occurrence		Monitoring date		Causative species (*1)	Maximum density (cells/inds./L)	Fishery damage		Environmental parameters (*2)			
	Pref. Code	Year	Year	Month	day	Year	Month	day	Year	Month	day	Sub-area	Spot	Date			Time	Fish/Shellfish species	Shellfish poisoning	Toxin level (*3)	Temp. (°C)	Salinity
	SA	2006	1	2006	5	2					Saga	Karatsu Bay			<i>Alexandrium</i> spp.	40						
	SA	2006	2	2006	5	23					Saga	Karatsu Bay			<i>Alexandrium</i> spp.	4800						
	SA	2006	3	2006	5	24					Saga	Kariya Bay			<i>Dinophysis</i> spp.	128						
	SA	2006	4	2006	5	24					Saga	Kariya Bay			<i>Alexandrium</i> spp.	104						
	SA	2006	5	2006	5	30					Saga	Imari Bay			<i>Dinophysis</i> spp.	68						
	SA	2006	6	2006	5	30					Saga	Karatsu Bay			<i>Dinophysis</i> spp.	512						
	SA	2006	7	2006	5	30					Saga	Kariya Bay			<i>Alexandrium</i> spp.	20084						
	SA	2006	8	2006	6	2					Saga	Imari Bay			<i>Dinophysis</i> spp.	8						
	SA	2006	9	2006	6	8					Saga	Imari Bay			<i>Dinophysis</i> spp.	144						
	SA	2006	10	2006	6	8					Saga	Karatsu Bay			<i>Alexandrium</i> spp.	712						
	SA	2006	11	2006	6	9					Saga	Imari Bay			<i>Alexandrium</i> spp.	24						
	SA	2006	12	2006	6	13					Saga	Imari Bay			<i>Dinophysis</i> spp.	32						
	SA	2006	13	2006	6	13					Saga	Imari Bay			<i>Dinophysis</i> spp.	8						
	SA	2006	14	2006	7	3					Saga	Imari Bay			<i>Dinophysis</i> spp.	72						
	SA	2006	15	2006	7	3					Saga	Karatsu Bay			<i>Dinophysis</i> spp.	80						
	SA	2006	16	2006	8	2					Saga	Karatsu Bay			<i>Dinophysis</i> spp.	32						
	SA	2006	17	2006	8	2					Saga	Kariya Bay			<i>Dinophysis</i> spp.	16						
	SA	2006	18	2006	8	6					Saga	Kariya Bay			<i>Alexandrium</i> spp.	788						
	SA	2006	19	2006	8	8					Saga	Kariya Bay			<i>Dinophysis</i> spp.	16						
	SA	2006	20	2006	8	13					Saga	Kariya Bay			<i>Alexandrium</i> spp.	72						
	SA	2006	21	2006	8	20					Saga	Kariya Bay			<i>Dinophysis</i> spp.	8						
	SA	2006	22	2006	8	27					Saga	Karatsu Bay			<i>Alexandrium</i> spp.	296						
	SA	2006	23	2006	9	13					Saga	Kariya Bay			<i>Alexandrium</i> spp.	8						
	SA	2006	24	2006	10	2					Saga	Nagoyaura			<i>Dinophysis</i> spp.	18						
	SA	2006	25	2006	10	2					Saga	Kushura			<i>Gymnodinium catenatum</i>	10						
	SA	2006	26	2006	10	3					Saga	Kariya Bay			<i>Alexandrium</i> spp.	58						
	SA	2006	27	2006	10	5					Saga	Kariya Bay			<i>Dinophysis</i> spp.	24						
	SA	2006	28	2006	11	1					Saga	Karatsu Bay			<i>Gymnodinium catenatum</i>	8						
	SA	2006	29	2006	11	1					Saga	Nagoyaura			<i>Alexandrium</i> spp.	98						
	SA	2006	30	2006	11	1					Saga	Kushura			<i>Gymnodinium catenatum</i>	16						
	SA	2006	31	2006	11	2					Saga	Kariya Bay			<i>Gymnodinium catenatum</i>	88						
	SA	2006	32	2006	11	2					Saga	Kariya Bay			<i>Gymnodinium catenatum</i>	40						
	SA	2006	33	2006	11	20					Saga	Karatsu Bay			<i>Alexandrium</i> spp.	192						
	SA	2006	34	2006	12	1					Saga	Kariya Bay			<i>Alexandrium</i> spp.	120						
	SA	2006	35	2006	12	5					Saga	Kariya Bay			<i>Dinophysis</i> spp.	32						
	NA	2006	1	2006	4	18					Saga	Imari Bay			<i>Dinophysis</i> spp.	8						
	NA	2006	2	2006	7	12					Nagasaki	South			<i>Alexandrium</i> spp.	32						
	NA	2006	3	2006	9	19					Nagasaki	Kushiyama			<i>Dinophysis</i> spp.	40						
	NA	2006	4	2006	10	10					Nagasaki	Helijima			<i>Alexandrium</i> spp.	2						
	NA	2006	5	2006	10	18					Nagasaki	South			<i>Dinophysis</i> spp.	6						

Japan

Annex II-2 Toxin-producing plankton bloom and shellfish poisoning (Continued)

Country	Event No.		Duration (Start)			Duration (End)			Continuous days		Locatio of occurrence		Monitoring date		Causative species (*1)	Maximum density (cells · inds./L)	Fishery damage		Environmental parameters (*2)			
	Pref. Code	Year	Year	Month	day	Year	Month	day	Year	Month	day	Sub-area	Spot	Date			Time	Fish/Shellfish species	Shellfish poisoning	Toxin level (*3)	Temp. (°C)	Salinity
Japan	YM	2007	1	2006	12	26	2007	2	21	58	Yamaguchi	Sensaki Bay	-	-	<i>Gymnodinium catenatum</i>	1,211	Japanese oyster	PSP	6.18-12.2	9.1-13.6	28.9-34.3	-
	YM	2007	2	2007	1	5					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	74						
	YM	2007	3	2007	1	5					Yamaguchi	Sensaki Bay			<i>Alexandrium</i> spp.	12						
	YM	2007	4	2007	1	12					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	58						
	YM	2007	5	2007	1	12					Yamaguchi	Sensaki Bay			<i>Alexandrium</i> spp.	14						
	YM	2007	6	2007	1	17					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	4						
	YM	2007	7	2007	1	17					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	92						
	YM	2007	8	2007	1	24					Yamaguchi	Sensaki Bay			<i>Alexandrium</i> spp.	115						
	YM	2007	9	2007	1	24					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	16						
	YM	2007	10	2007	1	31					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	57						
	YM	2007	11	2007	1	31					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	102						
	YM	2007	12	2007	2	7					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	12						
	YM	2007	13	2007	11	15					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	39						
	YM	2007	14	2007	11	26					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	14						
	YM	2007	15	2007	12	3					Yamaguchi	Sensaki Bay			<i>Alexandrium</i> spp.	2						
	YM	2007	16	2007	12	10					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	6						
	YM	2007	17	2007	12	10					Yamaguchi	Sensaki Bay			<i>Alexandrium</i> spp.	12						
	YM	2007	18	2007	12	12					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	20						
YM	2007	19	2007	12	12					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	81							
YM	2007	20	2007	12	17					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	246							
YM	2007	21	2007	12	17					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	33							
YM	2007	22	2007	12	20					Yamaguchi	Sensaki Bay			<i>Alexandrium</i> spp.	2							
YM	2007	23	2007	12	20					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	64							
YM	2007	24	2007	12	26					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	78							
YM	2007	25	2007	12	26					Yamaguchi	Sensaki Bay			<i>Gymnodinium catenatum</i>	53							
FO	2007	1	2007	2	9					Fukuoka	Fukuoka Bay			<i>Gymnodinium catenatum</i>	41							
SA	2007	1	2007	1	8					Saga	Karatsu Bay			<i>Dinophysis</i> spp.	36							
SA	2007	2	2007	1	12					Saga	Karatsu Bay			<i>Alexandrium</i> spp.	72							
SA	2007	3	2007	1	16					Saga	Karatsu Bay			<i>Alexandrium</i> spp.	6,488							
SA	2007	4	2007	1	16					Saga	Nagayaura			<i>Alexandrium</i> spp.	48							
SA	2007	5	2007	1	18					Saga	Karatsu Bay			<i>Alexandrium</i> spp.	1,056							
SA	2007	6	2007	1	18					Saga	Nagayaura			<i>Gymnodinium catenatum</i>	64							
SA	2007	7	2007	1	22					Saga	Karatsu Bay			<i>Dinophysis</i> spp.	32							
SA	2007	8	2007	1	22					Saga	Karatsu Bay			<i>Alexandrium</i> spp.	180							
SA	2007	9	2007	1	22					Saga	Nagayaura			<i>Dinophysis</i> spp.	48							
SA	2007	10	2007	1	22					Saga	Imari Bay			<i>Alexandrium</i> spp.	224							
SA	2007	11	2007	1	25					Saga	Imari Bay			<i>Dinophysis</i> spp.	18							
SA	2007	12	2007	1	25					Saga	Karatsu Bay			<i>Dinophysis</i> spp.	24							
SA	2007	13	2007	2	1					Saga	Nagayaura			<i>Dinophysis</i> spp.	8							
SA	2007	14	2007	2	1					Saga	Imari Bay			<i>Gymnodinium catenatum</i>	32							
SA	2007	15	2007	2	2					Saga	Imari Bay			<i>Alexandrium</i> spp.	224							
SA	2007	16	2007	2	2					Saga	Karatsu Bay			<i>Dinophysis</i> spp.	326							
SA	2007	17	2007	2	2					Saga	Karatsu Bay			<i>Dinophysis</i> spp.	56							
SA	2007	18	2007	2	2					Saga	Kariya Bay			<i>Alexandrium</i> spp.	80							
SA	2007	18	2007	3	1					Saga	Imari Bay			<i>Alexandrium</i> spp.	8							
SA	2007	18	2007	3	1					Saga	Imari Bay			<i>Dinophysis</i> spp.	96							

Annex II-2 Toxin-producing plankton bloom and shellfish poisoning (Continued)

Country	Event No.		Duration (Start)			Duration (End)			Continuous days		Locatio of occurrence			Monitoring date		Causative species (*1)	Maximum density (cells/inds./L)	Fishery damage		Environmental parameters (*2)			
	Pref. Code	Year	Year	Month	day	Year	Month	day	Year	Month	day	Sub-area	Spot	Date	Time			Fish/Shellfish species	Shellfish poisoning	Toxin level (*3)	Temp. (°C)	Salinity	DO (mg/L)
Japan	SA	2007	19	2007	3	2						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	209						
	SA	2007	20	2007	3	2						Saga	Nagayaura			<i>Alexandrium</i> spp.	80						
	SA	2007	21	2007	3	2						Saga	Kariya Bay			<i>Dinophysis</i> spp.	16						
	SA	2007	22	2007	4	3						Saga	Imari Bay			<i>Dinophysis</i> spp.	8						
	SA	2007	23	2007	4	4						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	320						
	SA	2007	24	2007	4	4						Saga	Kariya Bay			<i>Alexandrium</i> spp.	192						
	SA	2007	25	2007	5	1						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	394						
	SA	2007	26	2007	5	1						Saga	Imari Bay			<i>Dinophysis</i> spp.	1016						
	SA	2007	27	2007	5	2						Saga	Kariya Bay			<i>Alexandrium</i> spp.	48						
	SA	2007	28	2007	5	2						Saga	Kariya Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	32						
	SA	2007	28	2007	5	7						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	56						
	SA	2007	29	2007	5	10						Saga	Karatsu Bay			<i>Dinophysis</i> spp.	32						
	SA	2007	30	2007	5	14						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	752						
	SA	2007	31	2007	5	17						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	136						
	SA	2007	32	2007	5	21						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	16						
	SA	2007	33	2007	5	24						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	760						
	SA	2007	34	2007	5	29						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	24						
	SA	2007	35	2007	6	4						Saga	Imari Bay			<i>Alexandrium</i> spp.	144						
	SA	2007	36	2007	6	5						Saga	Imari Bay			<i>Dinophysis</i> spp.	8						
	SA	2007	37	2007	6	5						Saga	Karatsu Bay			<i>Dinophysis</i> spp.	104						
	SA	2007	38	2007	6	19						Saga	Kariya Bay			<i>Dinophysis</i> spp.	48						
	SA	2007	39	2007	6	22						Saga	Imari Bay			<i>Dinophysis</i> spp.	56						
	SA	2007	40	2007	6	26						Saga	Imari Bay			<i>Dinophysis</i> spp.	80						
	SA	2007	41	2007	7	2						Saga	Imari Bay			<i>Dinophysis</i> spp.	16						
	SA	2007	42	2007	7	3						Saga	Karatsu Bay			<i>Dinophysis</i> spp.	184						
	SA	2007	43	2007	8	1						Saga	Kariya Bay			<i>Dinophysis</i> spp.	32						
	SA	2007	44	2007	9	4						Saga	Imari Bay			<i>Alexandrium</i> spp.	16						
	SA	2007	45	2007	10	1						Saga	Karatsu Bay			<i>Dinophysis</i> spp.	8						
	SA	2007	46	2007	10	1						Saga	Nagayaura			<i>Alexandrium</i> spp.	48						
	SA	2007	47	2007	10	1						Saga	Imari Bay			<i>Dinophysis</i> spp.	24						
	SA	2007	48	2007	10	2						Saga	Imari Bay			<i>Alexandrium</i> spp.	48						
	SA	2007	49	2007	11	1						Saga	Kushura			<i>Alexandrium</i> spp.	48						
	SA	2007	50	2007	11	1						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	64						
	SA	2007	51	2007	11	1						Saga	Imari Bay			<i>Dinophysis</i> spp.	64						
	SA	2007	52	2007	11	2						Saga	Imari Bay			<i>Alexandrium</i> spp.	224						
	SA	2007	53	2007	12	4						Saga	Kariya Bay			<i>Alexandrium</i> spp.	96						
	SA	2007	54	2007	12	4						Saga	Karatsu Bay			<i>Alexandrium</i> spp. <i>Dinophysis</i> spp.	128						
	SA	2007	55	2007	12	4						Saga	Kushura			<i>Dinophysis</i> spp.	96						
	NA	2007	1	2007	5	14						Saga	Kariya Bay			<i>Alexandrium</i> spp.	16						
	NA	2007	2	2007	7	12						Nagasaki	Terashima			<i>Dinophysis</i> spp.	80						
	NA	2007	3	2007	8	13						Nagasaki	Helijima			<i>Dinophysis</i> spp.	286						
	NA	2007	4	2007	11	14						Nagasaki	Helijima			<i>Gymnodium catenatum</i>	7						
	NA	2007	5	2007	12	12						Nagasaki	Helijima			<i>Gymnodium catenatum</i>	3						
	NA	2007	6	2007	12	17						Nagasaki	Techibana			<i>Gymnodium catenatum</i>	54						
	NA	2007	6	2007	12	17						Nagasaki	Helijima			<i>Dinophysis</i> spp.	5						
	NA	2007	6	2007	12	17						Nagasaki	Helijima			<i>Dinophysis</i> spp.	1						

Annex II-2 Toxin-producing plankton bloom and shellfish poisoning (Continued)

Country	Event No.		Duration (Start)			Duration (End)			Continuous days		Locatio of occurrence		Monitoring date		Causative species (*1)	Maximum density (cells/inds/L)	Fishery damage		Environmental parameters (*2)	
	Pref. Code	Year	No.	Year	Month	day	Year	Month	day	Sub-area	Spot	Date	Time	Fish/Shellfish species			Shellfish poisoning	Toxin level (*3)	Temp. (°C)	Salinity
	YM	2008	1	2008	1	4					Sensaki Bay			<i>Gymnodinium catenatum</i>	8					
	YM	2008	2	2008	1	4					Sensaki Bay			<i>Gymnodinium catenatum</i>	20					
	YM	2008	3	2008	1	9					Sensaki Bay			<i>Gymnodinium catenatum</i>	25					
	YM	2008	4	2008	1	9					Sensaki Bay			<i>Alexandrium</i> spp.	2					
	YM	2008	5	2008	1	15					Sensaki Bay			<i>Gymnodinium catenatum</i>	45					
	YM	2008	6	2008	1	15					Sensaki Bay			<i>Gymnodinium catenatum</i>	47					
	YM	2008	7	2008	1	21					Sensaki Bay			<i>Gymnodinium catenatum</i>	52					
	YM	2008	8	2008	1	21					Sensaki Bay			<i>Gymnodinium catenatum</i>	9					
	YM	2008	9	2008	1	30					Sensaki Bay			<i>Gymnodinium catenatum</i>	30					
	YM	2008	10	2008	1	30					Sensaki Bay			<i>Gymnodinium catenatum</i>	18					
	YM	2008	11	2008	2	4					Sensaki Bay			<i>Gymnodinium catenatum</i>	41					
	YM	2008	12	2008	2	4					Sensaki Bay			<i>Gymnodinium catenatum</i>	30					
	YM	2008	13	2008	2	12					Sensaki Bay			<i>Gymnodinium catenatum</i>	18					
	YM	2008	14	2008	11	14					Sensaki Bay			<i>Alexandrium</i> spp.	2					
	SA	2008	1	2008	1	4					Saga	Karatsu Bay		<i>Gymnodinium catenatum</i>	20,678	Japanese oyster	PSP	5.25-59	-	-
	SA	2008	2	2008	1	7					Saga	Kariya Bay		<i>Dinophysis</i> spp.	208					
	SA	2008	3	2008	1	8					Saga	Imari Bay		<i>Dinophysis</i> spp.	16					
	SA	2008	4	2008	1	8					Saga	Imari Bay		<i>Dinophysis</i> spp.	96					
	SA	2008	5	2008	2	4					Saga	Karatsu Bay		<i>Dinophysis</i> spp.	32					
	SA	2008	6	2008	2	4					Saga	Imari Bay		<i>Dinophysis</i> spp.	16					
	SA	2008	7	2008	2	4					Saga	Imari Bay		<i>Dinophysis</i> spp.	32					
	SA	2008	8	2008	2	5					Saga	Imari Bay		<i>Dinophysis</i> spp.	32					
	SA	2008	9	2008	3	4					Saga	Kariya Bay		<i>Dinophysis</i> spp.	8					
	SA	2008	10	2008	4	2					Saga	Imari Bay		<i>Dinophysis</i> spp.	48					
	SA	2008	11	2008	4	2					Saga	Imari Bay		<i>Dinophysis</i> spp.	8					
	SA	2008	12	2008	4	3					Saga	Imari Bay		<i>Dinophysis</i> spp.	8					
	SA	2008	13	2008	4	3					Saga	Karatsu Bay		<i>Alexandrium</i> spp.	16					
	SA	2008	14	2008	5	1					Saga	Kariya Bay		<i>Dinophysis</i> spp.	8					
	SA	2008	15	2008	5	1					Saga	Karatsu Bay		<i>Alexandrium</i> spp.	32					
	SA	2008	16	2008	5	1					Saga	Imari Bay		<i>Dinophysis</i> spp.	16					
	SA	2008	17	2008	5	2					Saga	Imari Bay		<i>Dinophysis</i> spp.	16					
	SA	2008	18	2008	6	2					Saga	Kariya Bay		<i>Alexandrium</i> spp.	48					
	SA	2008	19	2008	6	3					Saga	Imari Bay		<i>Dinophysis</i> spp.	48					
	SA	2008	20	2008	7	1					Saga	Imari Bay		<i>Dinophysis</i> spp.	32					
	SA	2008	21	2008	7	1					Saga	Karatsu Bay		<i>Dinophysis</i> spp.	16					
	SA	2008	22	2008	7	1					Saga	Imari Bay		<i>Dinophysis</i> spp.	24					
	SA	2008	23	2008	7	2					Saga	Imari Bay		<i>Dinophysis</i> spp.	112					
	SA	2008	24	2008	8	5					Saga	Kariya Bay		<i>Dinophysis</i> spp.	48					
	SA	2008	25	2008	9	1					Saga	Karatsu Bay		<i>Dinophysis</i> spp.	8					
	SA	2008	26	2008	9	1					Saga	Kariya Bay		<i>Dinophysis</i> spp.	248					
	SA	2008	26	2008	9	2					Saga	Imari Bay		<i>Dinophysis</i> spp.	56					
	SA	2008	27	2008	9	2					Saga	Imari Bay		<i>Dinophysis</i> spp.	64					
	SA	2008	28	2008	11	4					Saga	Karatsu Bay		<i>Gymnodinium catenatum</i>	48					
														<i>Alexandrium</i> spp.	32					
														<i>Dinophysis</i> spp.	16					
	SA	2008	29	2008	11	4					Saga	Nagayaura		<i>Gymnodinium catenatum</i>	16					
	SA	2008	30	2008	11	4					Saga	Kariya Bay		<i>Alexandrium</i> spp.	48					
	SA	2008	31	2008	11	5					Saga	Imari Bay		<i>Dinophysis</i> spp.	16					
	SA	2008	32	2008	12	2					Saga	Karatsu Bay		<i>Dinophysis</i> spp.	40					
														<i>Dinophysis</i> spp.	8					
														<i>Dinophysis</i> spp.	120					

Annex II-2 Toxin-producing plankton bloom and shellfish poisoning (Continued)

Country	Event No.		Duration (Start)			Duration (End)			Continuous days		Locatio of occurrence		Monitoring date		Causative species (*1)	Maximum density (cells·inds./L)	Fishery damage		Environmental parameters (*2)			
	Pref. Code	Year	Year	Month	day	Year	Month	day	Year	Month	day	Sub-area	Spot	Date			Time	Fish/Shellfish species	Shellfish poisoning	Toxin level (*3)	Temp. (°C)	Salinity
Japan	NA	2008	1	2008	1	16						Nagasaki	Terasima			1						
	NA	2008	2	2008	1	23						Nagasaki	Souin			2						
	NA	2008	3	2008	8	26						Nagasaki	Helajima			30						
	NA	2008	4	2008	10	27						Nagasaki	Helajima			29						
	NA	2008	5	2008	12	18						Nagasaki	Helajima			8						
	SA	2009	1	2009	1	5						Saga	Imari Bay			8						
	SA	2009	2	2009	1	6						Saga	Nagoyaura			8						
	SA	2009	3	2009	1	6						Saga	Kushura			8						
	SA	2009	4	2009	1	6						Saga	Kariya Bay			16						
	SA	2009	5	2009	1	8						Saga	Imari Bay			16						
	SA	2009	6	2009	2	2						Saga	Kariya Bay			24						
	SA	2009	7	2009	2	3						Saga	Karatsu Bay			16						
	SA	2009	8	2009	2	3						Saga	Imari Bay			16						
	Country	Pref. Code	Year	No.	Year	Month	day	Year	Month	day	Year	Month	day	Sub-area	Spot	Date	Time	Causative species (*1)	Maximum density (cells·inds./L)	Fishery damage	Environmental parameters (*2)	
	Korea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*1 Scientific name is based on the Integrated Report on Harmful Algal Blooms (HABs) for the NOWPAP Region (NOWPAP CEARAC, 2005).

*2 In case of Japan and Russia, the range of environmental parameters means the value which observed during event.

*3 In case of Japan, the unit of toxin level is MU/g. The unit of other member states is µg/g.

Annex II-2 Toxin-producing plankton bloom and shellfish poisoning (Continued)

Country	Event No.		Duration (Start)			Duration (End)			Continuous days		Locatio of occurrence		Monitoring date		Causative species (*1)	Maximum density (cells/ind./L)	Fishery damage		Environmental parameters (*2)				
	Year	No.	Year	Month	day	Year	Month	day	Year	Month	day	Sub-area	Spot	Date			Time	Fish/Shellfish species	Shellfish poisoning	Toxin level (µg/g)	Temp. (°C)	Salinity	DO (mg/L)
Russia	AB	1992	1	1992	6	25	1992	7	10	16	Anurski Bay	Anurski Bay	-	-	<i>Pseudo-nitzschia pungens/pulviscens</i>	11,000,000	-	-	19.0-23.0	27.0-28.0	-		
	AB	1996	2	1996	6	19	-	-	<7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Dinophysis acuta</i>	800	-	-	13.0	31.0	-	
	AB	1996	6	1996	7	29	-	-	<7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Dinophysis fortii</i>	200	-	-	23.0	24.0	-	
	AB	1997	2	1997	6	4	-	-	<7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Dinophysis novaeigia</i>	60	-	-	12.0	31.0	-	
	AB	1997	3	1997	6	13	1997	7	22	50	Anurski Bay	Anurski Bay	-	-	-	-	<i>Dinophysis acuminata</i>	12,800	-	-	15.0-20.0	28.0-30.0	-
	AB	1997	6	1997	9	4	1997	11	19	66	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia delicatissima</i>	2,700,000	-	-	1.0-19.0	31.0-35.0	-
	AB	1997	8	1997	11	11	1997	11	19	9	Anurski Bay	Anurski Bay	-	-	-	-	<i>calanilla</i>	500,000	-	-	1.0-5.0	34.0-35.0	-
	AB	1998	3	1998	3	26	-	-	<7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Dinophysis rotundata</i>	600	-	-	0.2	33.0	-	
	VB	2001	2	2001	8	29	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	<i>Alexandrium tamarense</i>	1,600	-	-	-	-	-
	VB	2001	3	2001	8	29	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	<i>Dinophysis fortii</i>	400	-	-	-	-	-
	VB	2001	5	2001	9	30	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	<i>Pseudo-nitzschia pseudodelicatissima</i>	686,000	-	-	14.7	33.6	-
	VB	2002	1	2002	7	14	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	<i>Dinophysis acuminata</i>	500	-	-	16.4	32.1	-
	VB	2002	3	2002	10	15	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	<i>Pseudo-nitzschia pungens</i>	2,600	-	-	14.2	33.2	-
	VB	2003	2	2003	6	30	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	<i>Dinophysis acuminata</i>	100	-	-	17.5	33.2	-
	ANB	2004	1	2004	7	8	2004	12	25	171	Aniva Bay	Aniva Bay	-	-	-	-	<i>Alexandrium tamarense</i>	-	PSP	2.5-17.5	-	-	-
	ANB	2004	2	2004	9	10	2004	9	12	3	Aniva Bay	Aniva Bay	-	-	-	-	<i>Pseudo-nitzschia</i> spp.	-	ASP	100-110	-	-	-
	ANB	2004	3	2004	11	20	2004	11	30	11	Aniva Bay	Aniva Bay	-	-	-	-	<i>Pseudo-nitzschia</i> spp.	-	ASP	19-65	-	-	-
	VB	2004	1	2004	8	1	2004	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	<i>Dinophysis acuminata</i>	200	-	-	23.2	28.5	-
	ANB	2005	1	2005	4	20	2005	11	27	222	Aniva Bay	Aniva Bay	-	-	-	-	<i>Alexandrium tamarense</i>	-	PSP	2.5-80	-	-	-
	AB	2005	1	2005	10	20	2005	10	28	9	Anurski Bay	Anurski Bay	-	-	-	-	<i>calanilla</i>	200,000	-	-	6.0-12.0	32.0-33.0	-
	AB	2005	2	2005	10	26	?	?	?	<7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia fraudulenta</i>	38,000	-	-	8.0	34.0	-
	AB	2005	3	2005	10	5	2005	10	26	22	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia multistriata</i>	800,000	-	-	15.0	33.0	-
	AB	2005	4	2005	12	5	2005	12	30	26	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia delicatissima</i>	80,000	-	-	-1.7-11.8	33.0-35.0	-
	AB	2005	5	2005	12	5	2005	12	29	25	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia pungens</i>	60,000	-	-	-	-	-
	AB	2005	7	2005	9	4	2005	9	10	7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia setata</i>	9,100	-	-	20.0	31.0	-
	VB	2005	2	2005	11	1	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	<i>Pseudo-nitzschia multistriata</i>	87,000	-	-	3.0	32.6	-
AB	2006	1	2006	3	1	-	-	-	<7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Dinophysis rotundata</i>	500	-	-	-1.7	34.0	-	
AB	2006	3	2006	6	20	2006	7	3	14	Anurski Bay	Anurski Bay	-	-	-	-	<i>Dinophysis acuminata</i>	12,800	-	-	13.0-22.0	17.0-20.0	-	
AB	2006	4	2006	6	20	-	-	-	<7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Dinophysis acuta</i>	500	-	-	13.0	17.0	-	
VB	2006	1	2006	8	4	-	-	-	-	Vostok Bay	Vostok Bay	-	-	-	-	<i>Alexandrium tamarense</i>	5,000	-	-	22.8	30.6	-	
AB	2007	1	2007	7	11	2007	7	25	14	Anurski Bay	Anurski Bay	-	-	-	-	<i>Dinophysis acuminata</i>	686	-	-	18.0-22.0	26.0-26.7	-	
AB	2007	2	2007	7	11	2007	7	11	7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia delicatissima</i>	686	-	-	18.0	26.0	-	
AB	2007	3	2007	11	9	2007	11	9	7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia delicatissima</i>	340	-	-	6.8	31.9	-	
AB	2007	4	2007	8	6	2007	9	17	42	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia delicatissima</i>	83,385	-	-	20.0-22.0	26.8-32.7	-	
AB	2007	5	2007	7	11	2007	7	11	7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia</i>	7,800	-	-	18.0	26.0	-	
AB	2007	6	2007	9	5	2007	9	17	12	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia</i>	173,400	-	-	20.0-22.0	30.2-32.7	-	
AB	2007	7	2007	10	30	2007	10	30	7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia</i>	1,540	-	-	6.5	31.2	-	
AB	2007	8	2007	7	25	2007	7	25	7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia pungens</i>	58,800	-	-	22.0	26.7	-	
AB	2007	9	2007	9	17	2007	10	9	22	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia pungens</i>	4,800	-	-	12.0-20.0	30.5-32.7	-	
AB	2007	10	2007	7	25	2007	7	25	7	Anurski Bay	Anurski Bay	-	-	-	-	<i>Pseudo-nitzschia</i>	3,600	-	-	22.0	26.7	-	

Annex II-2 Toxin-producing plankton bloom and shellfish poisoning (Continued)

Country	Event No.		Duration (Start)			Duration (End)			Continuous days		Locatio of occurrence		Monitoring date		Causative species (*1)	Maximum density (cells·inds./L)	Fishery damage		Environmental parameters (*2)		
	Pref. Code	Year	Year	Month	day	Year	Month	day	Year	Month	day	Sub-area	Spot	Date			Time	Fish/Shellfish species	Shellfish poisoning	Toxin level (*3)	Temp. (°C)
	AB	2008	1	2008	3	4	2008	4	7	34	Anurskii Bay	Anurskii Bay	-	-	<i>Dinobryon bellitum</i>	1,054,280	-	-	-1.9-5.5	30.6-33.6	-
	AB	2008	2	2008	9	15	2008	9	15	7	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia callianta</i>	2,640	-	-	20.9	29.7	-
	AB	2008	3	2008	7	28	2008	9	29	62	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia delicatissima</i>	8,800	-	-	15.2-23.5	22.5-30.5	-
	AB	2008	4	2008	3	4	2008	3	4	7	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia multistriata</i>	270	-	-	-1.8	32.6	-
	AB	2008	5	2008	4	9	2008	11	4	208	Anurskii Bay	Anurskii Bay	-	-	<i>Crenomytilus grayanus</i>	-	ASP	0.01	-	-	-
	AB	2008	6	2008	4	11	2008	4	11	1	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia spp.</i>	-	ASP	0.02	5.5	-	-
	AB	2008	7	2008	7	28	2008	7	28	7	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia multistriata</i>	1,257	-	-	23.5	22.5	-
	AB	2008	8	2008	6	7	2008	6	7	7	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia purgens</i>	640	-	-	16.7	18.8	-
	AB	2008	9	2008	7	14	2008	7	14	7	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia purgens</i>	330	-	-	23.2	26.0	-
	AB	2008	10	2008	8	29	2008	9	15	18	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia purgens</i>	1,320	-	-	20.5-20.9	28.1-29.8	-
	AB	2008	11	2008	12	19	2008	12	19	7	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia purgens</i>	857	-	-	-1.6	33.4	-
	AB	2008	12	2008	6	7	2008	6	7	7	Anurskii Bay	Anurskii Bay	-	-	<i>Dinophysis acuminata</i>	3,200	DSP	81.1	16.2	18.8	-
	AB	2008	13	2008	5	5	2008	7	14	70	Anurskii Bay	Anurskii Bay	-	-	<i>Modiola modiolus</i>	4,480	DSP	125.9	9.0-23.3	18.8-28.6	-
	AB	2009	1	2009	3	12	2009	3	12	7	Anurskii Bay	Anurskii Bay	-	-	<i>Dinophysis acuminata</i>	1,900	DSP	155.1	22.7	26.7	-
	AB	2009	2	2009	6	8	2009	6	8	-	Anurskii Bay	Anurskii Bay	-	-	<i>Dinophysis acuta</i>	100	-	-	0.5	33.08	-
	AB	2009	3	2009	6	8	2009	7	1	22	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia purgens</i>	200	-	-	14.1	30.0	-
	AB	2009	4	2009	8	2	2009	8	25	23	Anurskii Bay	Anurskii Bay	-	-	<i>Dinophysis acuminata</i>	1,400	-	-	14.1-17.2	30	-
	AB	2009	5	2009	10	26	2009	10	26	-	Anurskii Bay	Anurskii Bay	-	-	<i>Dinophysis acuminata</i>	2,600	-	-	22.5-23.0	20.0-27.0	-
	AB	2009	6	2009	10	26	2009	10	26	-	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia cf.</i>	1,800	-	-	10.5	30.55	-
	AB	2010	1	2010	1	28	2010	2	10	13	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia</i>	19,200	-	-	10.5	30.55	-
	AB	2010	2	2010	1	28	2010	2	10	13	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia purgens</i>	500	-	-	-1.8	32.99	-
	AB	2010	3	2010	7	30	2010	7	30	-	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia cf.</i>	200	-	-	-1.8	32.99	-
	AB	2010	4	2010	8	31	2010	8	31	-	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia purgens</i>	2,000	-	-	22.5-23.5	22.59	-
	AB	2010	5	2010	8	31	2010	8	31	-	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia cf.</i>	32,800	-	-	24.0	27.74	-
	AB	2010	5	2010	8	31	2010	8	31	-	Anurskii Bay	Anurskii Bay	-	-	<i>Pseudo-nitzschia cf.</i>	800	-	-	24.0	27.74	-

*1 Scientific name is based on the Integrated Report on Harmful Algal Blooms (HABs) for the NOWPAP Region (NOWPAP CEARAC, 2005).

*2 In case of Japan and Russia, the range of environmental parameters means the value which observed during event.

*3 In case of Japan, the unit of toxin level is MU/g. The unit of other member states is µg/g.

Annex II-3 Water Quality Information

Country	Organization	Monitoring date		Location		Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN	NO ₃ -N (µM) (*2)	NO ₂ -N (µM)	NH ₄ -N (µM)	DIP	PO ₄ -P (µM)	SiO ₂ -Si	SiO ₃ -Si (µM)	Chl-a
		Year	Month	Day	Time														
China (*1)	North China Sea Environmental Monitoring Centre	2007	8	20-23			22.7-25.1	29.1-29.6	6.66-7.42	6.97-8.05	-	5.1-14.1	2.3-2.8	1.3-5.5	-	0.07-0.20	-	12.1-16.8	-
							28.5-29.5	6.90-7.46	7.93-8.09	-	6.0-18.6	2.1-3.0	1.7-14.3	-	0.04-0.12	-	8.6-15.4	-	
							23.0-25.2	29.0-29.5	6.99-7.49	7.96-8.14	-	6.0-12.2	1.9-2.3	1.0-5.9	-	0.03-0.12	-	11.0-16.0	-
							23.6-25.1	29.0-29.3	6.91-7.57	7.93-8.20	-	6.7-9.4	1.9-2.1	1.7-3.8	-	0.03-0.16	-	10.4-11.0	-
							23.5-25.2	29.0-29.3	7.04-7.68	7.94-8.19	-	4.0-9.9	1.9-2.3	1.7-5.0	-	0.04-0.17	-	10.1-13.5	-
							24.1-25.3	28.2-29.2	7.15-7.68	8.00-8.16	-	8.7-18.9	2.2-3.2	2.3-4.3	-	0.07-0.16	-	9.0-11.6	-
							23.9-25.1	28.5-29.2	7.17-7.81	7.99-8.19	-	4.1-13.2	1.8-2.6	1.2-4.3	-	0.07-0.15	-	8.6-11.6	-
							24.2-25.3	27.9-28.7	7.22-7.73	7.97-8.16	-	12.4-15.9	2.3-2.8	2.4-3.8	-	0.06-0.17	-	9.7-11.6	-
							24.2-25.3	28.4-28.6	7.20-7.71	7.98-8.15	-	7.9-19.8	2.4-3.2	0.5-3.8	-	0.07-0.13	-	8.8-11.4	-
							24.4	29.6	7.17	8.18	-	1.85	0.40	3.34	-	0.05	-	2.63	36.8
							24.6	29.6	7.17	8.21	-	1.81	0.38	3.33	-	0.03	-	2.7	-
							24.5	29.4	6.93	8.20	-	1.68	0.38	1.88	-	0.04	-	4.01	-
							25.0	29.4	8.05	8.26	-	1.60	0.34	2.52	-	0.02	-	2.63	-

*1 Monitoring points are shown in the map of another sheet (map of monitoring sites)

*2 The range of each parameter means the value observed between 20-23 August

*3 The concentration of nutrient is standardized into common unit (µM)

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location	Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN (µM)	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP	PO4-P (µM)	SiO2-Si	SiO3-Si	CH-a (µg/L)																				
		Year	Month																Day	Time																		
Japan	Fukuoka Fisheries and Marine Technology Research Center	2006		Fukuoka Bay																																		
																				4				14.6	27.9	8.40	19.46	-	-	0.32	-	-	-	-	-			
																				5				17.6	31.1	8.20	30.40	-	-	0.53	-	-	-	-	-	-	-	-
																				6				21.7	31.3	8.90	19.60	-	-	0.09	-	-	-	-	-	-	-	-
																				7				23.8	31.6	7.90	10.90	-	-	0.46	-	-	-	-	-	-	-	-
																				8				30.1	29.9	8.40	10.90	-	-	0.10	-	-	-	-	-	-	-	-
																				9				24.4	29.9	8.40	16.10	-	-	0.57	-	-	-	-	-	-	-	-
																				10				22.5	31.6	8.40	11.40	-	-	0.12	-	-	-	-	-	-	-	-
																				11				17.6	32.3	8.40	13.30	-	-	0.22	-	-	-	-	-	-	-	-
																				12				14.3	32.2	8.40	36.30	-	-	0.65	-	-	-	-	-	-	-	-
																				5	1			Imari Bay	4.3	16.9	32.0	8.40	-	0.39	0.14	0.07	0.18	-	0.00	-	-	1.70
																								Imari Bay	4.1	17.0	31.6	8.20	-	0.16	0.04	0.02	0.10	-	0.00	-	-	1.90
					Imari Bay	4.5	17.2	31.7	8.90	-	0.12	0.05	0.01	0.06	-	0.00	-	-	2.20																			
	6	1			Imari Bay	5.7	21.5	31.7	7.90	-	0.18	0.10	0.00	0.07	-	0.00	-	-	1.20																			
					Imari Bay	3.9	21.9	31.4	8.10	-	0.15	0.05	0.00	0.10	-	0.00	-	-	4.10																			
					Imari Bay	4.7	21.4	31.4	8.40	-	0.13	0.06	0.01	0.06	-	0.00	-	-	1.20																			
	7	3			Imari Bay	2.9	25.6	25.0	8.90	-	0.29	0.17	0.01	0.11	-	0.00	-	-	8.90																			
					Imari Bay	2.8	25.6	25.2	8.40	-	0.16	0.06	0.01	0.10	-	0.01	-	-	7.30																			
					Imari Bay	2.8	25.2	25.3	8.30	-	0.13	0.05	0.01	0.08	-	0.00	-	-	10.3																			
	8	1			Imari Bay	4.8	29.9	26.3	7.80	-	0.09	0.09	0.00	0.00	-	0.00	-	-	2.10																			
					Imari Bay	4.5	29.9	26.6	7.80	-	0.06	0.05	0.00	0.00	-	0.00	-	-	1.90																			
					Imari Bay	3.9	29.7	27.0	8.10	-	0.04	0.04	0.00	0.00	-	0.00	-	-	1.50																			
	9	1			Imari Bay	7.3	26.8	30.1	6.90	-	0.29	0.09	0.00	0.20	-	0.00	-	-	3.90																			
					Imari Bay	6.6	26.9	29.2	6.50	-	0.34	0.12	0.01	0.22	-	0.01	-	-	1.50																			
				Imari Bay	7.8	28.5	29.6	6.30	-	0.46	0.31	0.00	0.15	-	0.01	-	-	1.30																				
10	2			Imari Bay	4.7	23.4	30.9	6.30	-	0.20	0.13	0.01	0.07	-	0.01	-	-	5.90																				
				Imari Bay	3.8	23.3	30.9	6.00	-	0.09	0.14	0.01	0.04	-	0.01	-	-	7.10																				
				Imari Bay	4.2	23.1	30.1	6.90	-	0.38	0.10	0.01	0.27	-	0.00	-	-	2.80																				
5	8			Genkai	7.5	16.9	32.2	8.00	-	0.46	0.16	0.04	0.27	-	0.00	-	-	3.30																				
6	2			Genkai	4.8	20.3	32.7	9.10	-	0.34	0.22	0.01	0.12	-	0.00	-	-	7.30																				
7	4			Kariya Bay	6.0	23.7	24.7	8.30	-	1.68	1.50	0.02	0.16	-	0.00	-	-	6.90																				
8	2			Kariya Bay	8.5	29.1	28.8	8.20	-	0.54	0.51	0.01	0.02	-	0.00	-	-	2.80																				
9	4			Kariya Bay	2.7	27.2	26.5	9.10	-	0.84	0.53	0.01	0.31	-	0.00	-	-	7.90																				
10	3			Kariya Bay	5.2	23.0	31.2	5.70	-	0.49	0.16	0.02	0.30	-	0.00	-	-	9.20																				
5	15			Nagoyaura	8.6	16.8	31.6	8.20	-	0.76	0.58	0.04	0.14	-	0.01	-	-	1.00																				
6	1			Nagoyaura	6.2	19.4	33.7	9.20	-	0.42	0.09	0.01	0.33	-	0.01	-	-	1.60																				
7	3			Nagoyaura	7.9	23.0	31.0	7.20	-	0.88	0.67	0.02	0.19	-	0.01	-	-	2.60																				
8	1			Nagoyaura	7.5	26.7	29.0	8.40	-	0.50	0.42	0.01	0.06	-	0.00	-	-	2.90																				
9	1			Nagoyaura	4	10.6	25.1	31.6	6.40	-	0.26	0.10	0.15	-	0.01	-	-	0.60																				
10	2			Nagoyaura	6.7	23.1	31.7	6.10	-	0.38	0.26	0.02	0.10	-	0.00	-	-	5.20																				
5	1			Hokawazu	6.0	16.9	32.8	9.00	-	0.16	0.07	0.02	0.07	-	0.01	-	-	3.10																				
6	1			Hokawazu	5.5	20.8	33.4	8.60	-	0.11	0.04	0.01	0.07	-	0.00	-	-	3.70																				
7	3			Hokawazu	3.9	24.0	39.1	8.50	-	1.76	1.45	0.02	0.29	-	0.00	-	-	4.30																				
8	2			Hokawazu	6.2	28.0	31.8	9.10	-	0.24	0.16	0.01	0.06	-	0.00	-	-	2.20																				
9	4			Hokawazu	4.3	26.4	31.2	7.30	-	0.28	0.18	0.01	0.10	-	0.00	-	-	2.70																				
10	3			Hokawazu	5.1	23.3	31.0	7.10	-	0.50	0.40	0.02	0.09	-	0.01	-	-	3.60																				

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location	Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN (µM)	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP	PO4-P (µM)	SiO2-Si	SiO3-Si	Ch-a (µg/L)		
		Year	Month																Day	Time
Japan	Nagasaki Prefectural Institute of Fisheries	2006	6	Imari Bay	1	22.0	33.4	5.00	-	0.66	0.25	0.01	0.40	-	0.01	-	-	0.90		
					3	23.5	32.7	5.00	-	0.26	0.04	0.03	0.19	-	0.06	-	1.50			
					4	23.5	32.7	5.20	-	0.41	0.05	0.06	0.30	-	0.02	-	1.60			
		7	Imari Bay	1	24.1	32.7	5.20	-	-	-	-	-	-	-	-	-	-	-	2.70	
				3	26.8	31.8	4.70	-	-	-	-	-	-	-	-	-	-	-	2.10	
				4	25.9	32.3	4.90	-	-	-	-	-	-	-	-	-	-	-	2.30	
		8	Imari Bay	1	7.5	29.3	32.2	5.60	-	-	1.75	1.37	0.07	0.31	-	0.02	-	-	2.00	
				3	7.0	30.1	31.0	5.10	-	0.70	0.24	0.05	0.41	-	0.03	-	-	0.60		
				4	7.0	28.6	31.7	5.40	-	0.44	0.08	0.04	0.32	-	0.03	-	-	1.00		
		10	Imari Bay	1	5.0	23.5	33.1	5.00	-	0.96	0.23	0.06	0.67	-	0.07	-	-	-	4.80	
				3	3.5	22.9	32.8	4.70	-	0.37	0.05	0.04	0.28	-	0.13	-	-	-	6.30	
				4	4.5	22.7	32.9	4.80	-	0.95	0.67	0.06	0.22	-	0.07	-	-	-	4.00	
		8	Ohmura Bay	29	-	-	c	2.5	28.0	30.1	4.50	-	0.52	0.19	0.04	0.29	-	0.05	-	3.90
							C	3.0	28.5	30.0	4.20	-	1.65	0.17	0.07	1.41	-	0.04	-	2.70
							P	3.0	30.2	29.6	5.30	-	1.41	0.10	0.07	1.24	-	0.07	-	3.10
	9	Ohmura Bay	20	-	-	Z	3.0	29.5	29.7	4.90	-	0.44	0.04	0.07	0.33	-	0.12	-	3.00	
						b	3.5	25.6	29.5	5.00	-	4.65	3.98	0.34	0.33	-	0.07	-	18.7	
						C	3.5	26.5	31.0	5.00	-	0.73	0.23	0.05	0.45	-	0.06	-	3.70	
	5	Imari Bay	4	-	-	P	5.0	26.5	31.6	4.50	-	0.99	0.39	0.12	0.48	-	0.17	-	3.90	
						Z	4.5	26.5	31.6	4.60	-	1.24	0.42	0.24	0.58	-	0.22	-	9.50	
						1	6.5	18.3	31.0	7.60	-	0.30	0.11	0.01	0.18	-	0.00	-	1.54	
	6	Imari Bay	6	-	-	2	5.2	18.1	31.9	7.30	-	0.11	0.03	0.01	0.07	-	0.00	-	2.21	
						3	4.0	18.4	31.7	8.30	-	0.16	0.06	0.01	0.09	-	0.00	-	1.82	
						1	5.5	21.8	34.0	6.80	-	0.15	0.14	0.00	0.01	-	0.04	-	0.47	
	7	Imari Bay	7	-	-	2	4.2	21.7	34.1	6.40	-	0.08	0.06	0.00	0.02	-	0.06	-	0.94	
						3	4.8	22.0	33.6	6.80	-	0.10	0.08	0.00	0.01	-	0.05	-	0.70	
						1	0.4	26.1	34.0	6.40	-	0.38	0.12	0.01	0.25	-	0.00	-	3.50	
	8	Imari Bay	8	-	-	2	3.9	25.4	33.6	6.20	-	0.17	0.06	0.01	0.10	-	0.01	-	6.60	
						3	3.5	25.2	33.2	6.20	-	0.14	0.08	0.01	0.06	-	0.01	-	6.2	
						1	3.7	28.2	29.6	7.90	-	1.35	0.27	0.01	1.08	-	0.00	-	2.40	
9	Imari Bay	9	-	-	2	3.3	27.9	29.7	7.00	-	0.22	0.06	0.01	0.15	-	0.01	-	4.10		
					3	4.1	28.2	29.5	6.70	-	0.41	0.18	0.01	0.22	-	0.01	-	1.60		
					1	2.7	28.5	32.2	6.40	-	0.33	0.19	0.03	0.11	-	0.01	-	12.00		
10	Imari Bay	10	-	-	2	1.8	28.5	32.5	5.70	-	0.10	0.05	0.01	0.03	-	0.01	-	14.90		
					3	2.1	27.5	30.0	6.90	-	0.63	0.38	0.05	0.20	-	0.01	-	16.20		
					1	3.9	26.0	30.6	7.30	-	0.68	0.11	0.01	0.56	-	0.01	-	7.20		
2007	Imari Bay	1	-	-	2	3.1	26.1	30.6	6.70	-	0.26	0.07	0.05	0.14	-	0.02	-	10.10		
					3	3.9	26.0	32.7	6.30	-	1.31	0.19	0.10	1.01	-	0.03	-	8.60		

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location	Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN (µM)	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP	PO4-P (µM)	SiO2-Si	SiO3-Si	Chl-a (µg/L)								
		Year	Month																day	Time	Area	Monitoring point				
Japan	Saga Prefectural Fisheries Promotion Center	2007		Kariya Bay	5	2	10:02	6.5	18.0	328	8.60	-	0.38	0.09	0.01	0.28	0.01	-	0.01	3.70						
					6	5	10:03	6.1	22.6	334	7.90	-	0.18	0.17	0.01	0.01	0.21	0.01	-	0.01	2.40					
					7	3	10:25	2.1	25.3	325	7.00	-	0.72	0.85	0.02	0.15	0.00	-	0.00	-	0.00	7.20				
					8	2	10:05	4.6	27.4	321	8.10	-	0.35	0.15	0.02	0.18	0.00	-	0.00	-	0.00	7.60				
					9	4	9:54	3.9	28.0	320	6.10	-	0.47	0.28	0.02	0.18	0.01	-	0.01	-	0.01	11.60				
					10	2	10:49	4.9	25.4	330	7.40	-	0.27	0.10	0.01	0.17	0.00	-	0.00	-	0.00	6.20				
					5	1	11:55	7.5	18.0	324	7.10	-	0.34	0.19	0.01	0.14	0.01	-	0.01	-	0.01	1.30				
					6	4	11:40	7.0	20.8	325	7.20	-	0.08	0.07	0.00	0.01	0.04	-	0.04	-	0.04	1.60				
					7	3	11:25	6.2	23.4	341	6.20	-	0.64	0.30	0.01	0.33	0.01	-	0.01	-	0.01	2.00				
					8	1	11:45	3.7	26.1	297	7.30	-	0.21	0.09	0.01	0.10	0.01	-	0.01	-	0.01	3.40				
	Nagoyaura	2007			Nagoyaura	4	4	11:07	4.7	27.5	320	5.80	-	1.11	0.81	0.04	0.26	0.01	-	0.01	4.20					
						10	1	12:05	8.2	25.3	330	7.30	-	0.38	0.14	0.01	0.23	0.01	-	0.01	-	0.01	8.00			
						5	2	10:32	10.9	18.1	326	8.70	-	0.28	0.13	0.01	0.13	0.01	-	0.01	-	0.01	2.00			
						6	5	10:33	4.3	21.8	338	8.50	-	0.17	0.16	0.00	0.01	0.04	-	0.04	-	0.04	2.40			
						7	3	10:50	2.3	24.9	296	6.40	-	1.09	0.80	0.02	0.27	0.01	-	0.01	-	0.01	3.30			
						8	2	10:40	4.8	25.8	339	7.40	-	0.11	0.04	0.01	0.06	0.01	-	0.00	-	0.00	4.80			
						9	4	10:25	5.3	27.9	329	7.00	-	0.52	0.25	0.01	0.26	0.01	-	0.01	-	0.01	3.50			
						10	2	11:18	4.0	25.2	332	7.20	-	0.21	0.09	0.01	0.11	0.01	-	0.00	-	0.00	6.20			
						Imari Bay	2007			Imari Bay	1	7.5	22.3	34.0	4.80	-	0.67	0.24	0.06	0.39	0.11	-	0.11	-	0.11	0.90
											6	19	10:40	6.0	21.8	339	4.70	-	0.68	0.33	0.06	0.30	0.15	-	0.15	-
	3	21.8	21.6	34.0	4.80						-	1.03	0.50	0.04	0.50	0.42	-	0.42	-	0.42	2.20					
	4	9.0	21.6	34.0	4.80						-	1.03	0.50	0.04	0.50	0.42	-	0.42	-	0.42	2.20					
	1	10.5	28.6	332	4.40						-	1.03	0.54	0.09	0.41	0.12	-	0.12	-	0.12	-	0.12	0.80			
	3	5.5	29.9	332	4.60						-	0.60	0.21	0.07	0.32	0.09	-	0.09	-	0.09	-	0.09	2.00			
	4	8.5	29.6	332	4.60						-	0.68	0.19	0.06	0.43	0.09	-	0.09	-	0.09	-	0.09	0.70			
	b	3.0	31.3	30.6	4.90						-	0.94	0.24	0.10	0.60	0.08	-	0.08	-	0.08	-	0.08	0.40			
	c	3.0	31.6	30.2	5.10						-	0.63	0.31	0.06	0.27	0.09	-	0.09	-	0.09	-	0.09	1.50			
	Ohmura Bay	2007			Ohmura Bay						P	4.0	29.1	30.8	4.80	-	2.13	1.00	0.07	1.06	0.07	-	0.07	-	0.07	1.20
						Z	3.8	28.9	30.8	4.90	-	0.53	0.16	0.07	0.30	0.08	-	0.08	-	0.08	2.10					
						b	3.0	31.3	30.6	4.90	-	0.25	0.15	0.04	0.05	0.08	-	0.08	-	0.08	-	0.08	4.9			
						c	3.0	31.6	30.2	5.10	-	1.57	0.52	0.28	0.76	0.24	-	0.24	-	0.24	-	0.24	1.30			
						10	11	13:26	4.0	29.1	30.8	4.80	-	1.51	0.66	0.11	0.75	0.24	-	0.24	-	0.24	0.70			
						10	29	11:42	3.8	28.9	30.8	4.90	-	1.51	0.66	0.11	0.75	0.24	-	0.24	-	0.24	0.70			

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location	Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN (µM)	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP	PO4-P (µM)	SiO2-Si	SiO3-Si	Chl-a (µg/L)					
		Year	Month																Day	Time			
Japan	Fukuoka Fisheries and Marine Technology Research Center	2008		Ariake Sea	1	1.2	16.2	30.1	7.55	12.79	-	-	-	-	-	0.67	-	-	-				
					2	1.4	15.6	31.1	7.70	8.62	-	-	-	-	-	-	-	0.45	-	-	-		
					3	1.4	15.7	28.9	7.80	12.66	-	-	-	-	-	-	-	0.50	-	-	-	-	
					4	1.6	15.8	31.3	7.79	6.67	-	-	-	-	-	-	-	0.32	-	-	-	-	
					1	0.5	20.7	30.6	7.21	3.81	-	-	-	-	-	-	-	-	0.38	-	-	-	-
					2	1.3	19.9	30.9	7.37	2.14	-	-	-	-	-	-	-	-	0.31	-	-	-	-
					3	1.2	20.0	30.3	7.53	2.75	-	-	-	-	-	-	-	-	0.44	-	-	-	-
					4	1.4	19.9	31.8	7.42	1.44	-	-	-	-	-	-	-	-	0.25	-	-	-	-
					1	1.2	23.0	22.6	6.57	14.72	-	-	-	-	-	-	-	-	0.66	-	-	-	-
					2	2.4	23.0	26.1	6.64	13.35	-	-	-	-	-	-	-	-	0.45	-	-	-	-
					3	1.8	23.0	21.0	7.03	26.15	-	-	-	-	-	-	-	-	0.85	-	-	-	-
					4	1.8	22.7	26.0	6.85	12.93	-	-	-	-	-	-	-	-	0.54	-	-	-	-
					1	0.9	32.0	26.9	8.04	0.00	-	-	-	-	-	-	-	-	0.70	-	-	-	-
					2	1.3	32.2	27.6	8.33	0.26	-	-	-	-	-	-	-	-	0.40	-	-	-	-
					3	1.1	31.8	26.7	8.92	0.02	-	-	-	-	-	-	-	-	0.55	-	-	-	-
					4	1.3	30.0	28.6	7.42	1.15	-	-	-	-	-	-	-	-	0.29	-	-	-	-
					1	1.3	31.2	26.1	12.10	0.59	-	-	-	-	-	-	-	-	0.57	-	-	-	-
					2	1.2	31.2	26.5	10.95	0.92	-	-	-	-	-	-	-	-	0.57	-	-	-	-
					3	1.4	31.0	24.4	13.02	0.38	-	-	-	-	-	-	-	-	0.55	-	-	-	-
					4	1.6	30.3	29.8	10.51	0.14	-	-	-	-	-	-	-	-	0.38	-	-	-	-
					1	1.4	27.5	28.8	5.27	16.28	-	-	-	-	-	-	-	-	1.25	-	-	-	-
					2	1.9	28.0	28.0	6.13	14.88	-	-	-	-	-	-	-	-	1.19	-	-	-	-
					3	1.6	28.2	26.4	9.46	0.05	-	-	-	-	-	-	-	-	0.47	-	-	-	-
					4	3.2	27.3	30.0	5.43	9.87	-	-	-	-	-	-	-	-	1.01	-	-	-	-
					1	1.2	28.4	25.0	14.16	0.22	-	-	-	-	-	-	-	-	0.20	-	-	-	-
					2	1.4	29.2	25.3	15.00	0.00	-	-	-	-	-	-	-	-	0.11	-	-	-	-
					3	1.6	28.7	24.0	15.33	0.01	-	-	-	-	-	-	-	-	0.12	-	-	-	-
					4	1.8	28.2	29.9	11.64	0.00	-	-	-	-	-	-	-	-	0.13	-	-	-	-
					1	1.3	23.1	28.9	6.67	19.90	-	-	-	-	-	-	-	-	1.55	-	-	-	-
					2	1.3	23.2	30.5	6.15	19.09	-	-	-	-	-	-	-	-	1.24	-	-	-	-
					3	1.3	23.2	30.1	6.57	15.41	-	-	-	-	-	-	-	-	1.40	-	-	-	-
					4	1.7	23.4	30.2	6.20	11.99	-	-	-	-	-	-	-	-	1.06	-	-	-	-
					1	0.9	16.5	30.3	8.21	14.05	-	-	-	-	-	-	-	-	1.08	-	-	-	-
					2	0.9	16.7	30.2	8.03	13.86	-	-	-	-	-	-	-	-	1.17	-	-	-	-
					3	0.6	15.7	29.3	8.43	16.26	-	-	-	-	-	-	-	-	1.37	-	-	-	-
					4	0.6	16.6	30.5	8.19	12.46	-	-	-	-	-	-	-	-	1.09	-	-	-	-
					1	1.3	13.5	29.9	8.84	15.64	-	-	-	-	-	-	-	-	1.06	-	-	-	-
					2	0.9	13.3	29.6	8.54	15.56	-	-	-	-	-	-	-	-	0.92	-	-	-	-
					3	0.9	13.0	28.5	8.92	19.87	-	-	-	-	-	-	-	-	1.09	-	-	-	-
					4	1.8	13.8	30.3	8.48	12.92	-	-	-	-	-	-	-	-	0.80	-	-	-	-

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location	Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN (µM)	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP	PO4-P (µM)	SiO2-Si	SiO3-Si	Chl-a (µg/L)	
		Year	Month																Day
Japan	Fukuoka Fisheries and Marine Technology Research Center	2009	1	11:24	1.1	9.2	29.7	9.86	-	12.31	-	-	-	-	0.64	-	-	-	
				10:27	1.1	9.1	29.5	9.77	-	-	-	11.24	-	-	-	0.62	-	-	-
			14	10:17	0.8	8.7	28.7	10.04	-	-	15.07	-	-	-	-	0.71	-	-	-
			11:05	1.8	9.6	30.2	9.80	-	-	-	10.42	-	-	-	-	0.56	-	-	-
		2	9:54	1.1	11.4	27.4	9.85	-	-	-	13.03	-	-	-	-	1.14	-	-	-
			8:55	1.8	11.4	30.3	9.36	-	-	-	1.21	-	-	-	-	0.25	-	-	-
			8:44	3	11.2	27.9	9.48	-	-	-	8.46	-	-	-	-	0.70	-	-	-
			9:35	4	11.8	31.1	8.84	-	-	-	4.02	-	-	-	-	0.37	-	-	-
			10:34	1	11.9	30.4	9.21	-	-	-	4.41	-	-	-	-	0.40	-	-	-
			9:43	2	11.8	30.4	9.08	-	-	-	4.38	-	-	-	-	0.43	-	-	-
	3	9:23	3	11.1	29.6	9.08	-	-	-	6.81	-	-	-	-	0.49	-	-	-	
		10:03	4	2.3	31.3	9.10	-	-	-	2.66	-	-	-	-	0.31	-	-	-	
		9:36	1	5.0	18.4	33.2	7.10	-	-	15.32	11.45	0.21	3.66	-	0.12	-	-	1.17	
		9:29	2	4.2	18.5	32.9	6.94	-	-	5.93	1.27	0.21	4.45	-	0.24	-	-	1.45	
	Saga Prefectural Genkal Fisheries Promotion Center	2008	6	2	9:47	1	4.0	21.7	31.7	6.21	-	3.75	1.33	0.12	2.30	-	-	-	4.39
					9:35	2	3.5	21.6	31.1	7.51	-	-	2.03	0.83	0.14	1.06	-	0.16	-
		7	1	9:40	1	3.7	23.0	28.9	8.55	-	12.14	3.09	0.20	8.85	-	0.06	-	-	3.22
				9:30	2	2.5	22.4	27.5	8.14	-	-	10.80	7.95	0.35	2.50	-	0.20	-	-
		8	6	9:46	1	5.2	30.3	32.8	7.55	-	1.15	0.34	0.06	0.75	-	0.09	-	-	7.56
				9:24	2	5.0	30.1	32.8	7.21	-	2.25	0.91	0.05	1.29	-	0.13	-	-	14.06
9		2	9:52	1	3.5	27.4	31.3	9.86	-	5.92	3.50	0.37	2.05	-	0.18	-	-	3.4	
			9:32	2	3.1	27.4	30.2	9.66	-	2.47	0.98	0.24	1.25	-	0.20	-	-	4.93	
10		2	10:55	1	5.0	23.7	33.4	5.40	-	10.95	2.98	1.29	6.67	-	0.61	-	-	6.45	
			9:44	2	3.3	23.8	33.0	4.89	-	8.19	3.25	1.55	3.39	-	0.98	-	-	6.06	
2008	Saga Prefectural Genkal Fisheries Promotion Center	5	2	10:35	A	6.0	17.9	33.6	6.36	-	11.98	3.85	0.26	7.87	-	0.18	-	2.01	
				9:50	A	3.9	20.0	33.0	5.12	-	7.95	3.20	0.10	4.65	-	0.14	-	-	6.22
		7	2	9:47	A	4.5	21.5	28.7	6.19	-	36.46	32.71	0.70	3.05	-	0.28	-	-	7.29
				9:38	A	3.3	29.2	30.6	6.86	-	8.91	4.32	0.24	4.35	-	0.18	-	-	12.57
		9	1	10:30	A	3.9	26.1	31.5	6.70	-	9.70	6.58	0.12	3.00	-	0.70	-	-	6.90
				10:20	A	1.8	23.8	31.4	9.08	-	33.42	27.34	0.63	5.45	-	0.07	-	-	18.80
		5	1	11:36	A	6.8	17.1	34.1	7.73	-	16.99	9.36	0.20	7.43	-	0.11	-	-	2.25
				11:27	4	5.0	20.5	32.7	5.72	-	4.37	2.56	0.17	1.64	-	0.22	-	-	6.79
		7	2	10:57	A	3.4	22.4	28.1	6.50	-	30.24	25.19	0.61	4.44	-	0.53	-	-	2.79
				11:34	4	8.5	27.4	32.8	7.05	-	19.94	2.07	0.05	17.82	-	0.21	-	-	6.15
9	1	11:14	4	3.5	24.5	32.9	6.54	-	14.70	8.76	1.03	4.91	-	0.14	-	-	9.72		
		11:34	4	5.0	23.1	32.8	5.29	-	13.12	9.45	0.68	2.99	-	0.51	-	-	2.94		
5	2	11:10	5	5.0	18.3	34.1	6.75	-	4.27	1.06	0.17	3.04	-	0.12	-	-	2.27		
		10:30	6	4.3	19.9	33.2	6.18	-	2.72	1.76	0.11	0.85	-	0.19	-	-	2.80		
7	2	10:21	5	3.1	21.3	30.6	6.06	-	37.37	32.96	0.50	4.01	-	0.53	-	-	2.45		
		10:07	8	5.2	28.4	31.9	6.95	-	7.12	5.68	0.17	1.27	-	0.16	-	-	3.89		
9	2	11:37	5	3.0	25.6	33.0	8.50	-	8.46	6.25	0.30	1.91	-	0.21	-	-	6.85		
		12:25	10	2.8	24.0	34.5	5.90	-	10.18	3.27	0.81	6.10	-	0.54	-	-	6.60		

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location		Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN (µM)	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP	PO4-P (µM)	SiO2-Si	SiO3-Si	Chl-a (µg/L)																		
		Year	Month	Day	Time															Area	Monitoring point																
Japan	Saga Prefectural Ariake Fisheries Promotion Center	2008	7																	1	14.6	-	3.39	-	-	-	-	-	0.44	-	-	-					
																				2	14.4	-	2.91	-	-	-	-	-	-	-	-	-	-	0.40	-	-	-
																				3	13.7	-	2.05	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-
																				4	13.3	-	1.33	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-
																				5	13.3	-	2.03	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-
																				6	14.1	-	3.93	-	-	-	-	-	-	-	-	-	-	0.42	-	-	-
																				7	14.0	-	2.19	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-
			8	8	13.8	-	3.91	-	-	-	-	-	-	-	-	-	-	0.46	-	-	-																
				9	14.7	-	4.30	-	-	-	-	-	-	-	-	-	-	0.53	-	-	-																
				10	14.7	-	6.84	-	-	-	-	-	-	-	-	-	-	0.74	-	-	-																
				11	13.4	-	2.15	-	-	-	-	-	-	-	-	-	-	0.27	-	-	-																
				1	19.1	-	1.81	-	-	-	-	-	-	-	-	-	-	0.53	-	-	-																
				2	17.9	-	3.97	-	-	-	-	-	-	-	-	-	-	0.53	-	-	-																
				3	17.6	-	2.74	-	-	-	-	-	-	-	-	-	-	0.32	-	-	-																
				4	17.5	-	1.43	-	-	-	-	-	-	-	-	-	-	0.20	-	-	-																
				5	17.6	-	1.87	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-																
				6	18.9	-	5.46	-	-	-	-	-	-	-	-	-	-	0.66	-	-	-																
				7	17.9	-	3.48	-	-	-	-	-	-	-	-	-	-	0.42	-	-	-																
			9	8	18.7	-	4.40	-	-	-	-	-	-	-	-	-	-	0.63	-	-	-																
				9	19.9	-	4.83	-	-	-	-	-	-	-	-	-	-	0.77	-	-	-																
				10	20.0	-	5.25	-	-	-	-	-	-	-	-	-	-	0.80	-	-	-																
				11	17.0	-	3.53	-	-	-	-	-	-	-	-	-	-	0.32	-	-	-																
				1	23.6	-	10.50	-	-	-	-	-	-	-	-	-	-	1.12	-	-	-																
				2	22.1	-	5.81	-	-	-	-	-	-	-	-	-	-	0.75	-	-	-																
				3	21.4	-	0.34	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-																
				4	20.3	-	3.79	-	-	-	-	-	-	-	-	-	-	0.51	-	-	-																
				5	20.6	-	8.01	-	-	-	-	-	-	-	-	-	-	0.76	-	-	-																
				6	21.0	-	8.67	-	-	-	-	-	-	-	-	-	-	0.83	-	-	-																
9	7	21.0	-	5.94	-	-	-	-	-	-	-	-	-	-	0.73	-	-	-																			
	8	20.5	-	7.20	-	-	-	-	-	-	-	-	-	-	0.81	-	-	-																			
	9	21.8	-	5.01	-	-	-	-	-	-	-	-	-	-	0.66	-	-	-																			
	10	22.1	-	5.33	-	-	-	-	-	-	-	-	-	-	0.75	-	-	-																			
	11	20.5	-	2.93	-	-	-	-	-	-	-	-	-	-	0.34	-	-	-																			
	1	25.6	-	1.87	-	-	-	-	-	-	-	-	-	-	0.45	-	-	-																			
	2	24.1	-	6.04	-	-	-	-	-	-	-	-	-	-	0.77	-	-	-																			
	3	24.2	-	3.80	-	-	-	-	-	-	-	-	-	-	0.43	-	-	-																			
	4	24.0	-	0.96	-	-	-	-	-	-	-	-	-	-	0.06	-	-	-																			
	5	24.6	-	0.93	-	-	-	-	-	-	-	-	-	-	0.04	-	-	-																			
29	6	24.6	-	14.77	-	-	-	-	-	-	-	-	-	-	1.04	-	-	-																			
	7	24.7	-	4.99	-	-	-	-	-	-	-	-	-	-	0.43	-	-	-																			
	8	24.8	-	21.79	-	-	-	-	-	-	-	-	-	-	1.90	-	-	-																			

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location		Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN (µM)	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP	PO4-P (µM)	SiO2-Si	SiO3-Si	Chl-a (µg/L)		
		Year	Month	day	Time															Area	Monitoring point
Japan	Saga Prefectural Ariake Fisheries Promotion Center	2008	10	29			24.8	-	-	7.08	-	-	-	-	-	0.73	-	-	-		
							25.5	-	-	11.03	-	-	-	-	-	1.39	-	-	-		
							24.0	-	-	1.14	-	-	-	-	-	0.04	-	-	-	-	
							30.7	-	-	0.74	-	-	-	-	-	1.47	-	-	-	-	
							30.2	-	-	0.49	-	-	-	-	-	0.94	-	-	-	-	
							29.6	-	-	0.78	-	-	-	-	-	0.34	-	-	-	-	
							29.0	-	-	0.57	-	-	-	-	-	0.37	-	-	-	-	
							29.7	-	-	0.71	-	-	-	-	-	0.50	-	-	-	-	
							28.5	-	-	3.01	-	-	-	-	-	1.25	-	-	-	-	
							29.2	-	-	0.67	-	-	-	-	-	0.95	-	-	-	-	
		2008	11	27				28.6	-	-	1.27	-	-	-	-	-	1.22	-	-	-	-
								29.5	-	-	0.61	-	-	-	-	1.65	-	-	-	-	
								29.8	-	-	0.68	-	-	-	-	1.46	-	-	-	-	
								28.7	-	-	0.65	-	-	-	-	0.38	-	-	-	-	
								27.3	-	-	2.39	-	-	-	-	1.14	-	-	-	-	
								27.0	-	-	2.52	-	-	-	-	0.96	-	-	-	-	
								26.9	-	-	2.17	-	-	-	-	0.83	-	-	-	-	
		2008	12	25				26.7	-	-	5.13	-	-	-	-	-	1.08	-	-	-	-
								26.8	-	-	1.10	-	-	-	-	0.64	-	-	-	-	
								27.4	-	-	13.41	-	-	-	-	2.09	-	-	-	-	
								26.9	-	-	8.61	-	-	-	-	1.64	-	-	-	-	
								27.3	-	-	12.96	-	-	-	-	2.11	-	-	-	-	
								27.1	-	-	7.95	-	-	-	-	1.78	-	-	-	-	
								27.2	-	-	5.30	-	-	-	-	1.57	-	-	-	-	
								26.7	-	-	8.57	-	-	-	-	1.20	-	-	-	-	
								24.8	-	-	11.05	-	-	-	-	2.35	-	-	-	-	
								25.2	-	-	7.71	-	-	-	-	1.56	-	-	-	-	
2009	1	27				25.2	-	-	6.87	-	-	-	-	-	1.31	-	-	-	-		
						24.5	-	-	10.53	-	-	-	-	1.59	-	-	-	-			
						24.5	-	-	8.17	-	-	-	-	1.36	-	-	-	-			
						24.3	-	-	12.08	-	-	-	-	1.79	-	-	-	-			
						24.3	-	-	12.16	-	-	-	-	1.91	-	-	-	-			
						24.1	-	-	12.87	-	-	-	-	2.18	-	-	-	-			
						20.6	-	-	23.58	-	-	-	-	2.20	-	-	-	-			
						21.4	-	-	13.07	-	-	-	-	1.45	-	-	-	-			
						22.1	-	-	11.08	-	-	-	-	1.27	-	-	-	-			
						21.8	-	-	11.72	-	-	-	-	1.28	-	-	-	-			
2009	1	27				21.6	-	-	12.53	-	-	-	-	-	1.39	-	-	-	-		
						20.8	-	-	22.90	-	-	-	-	1.19	-	-	-				
						20.9	-	-	19.06	-	-	-	-	1.90	-	-	-				
19.9	-	-	22.56	-	-	-	-	2.04	-	-	-	-									

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location	Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP (µM)	PO4-P (µM)	SiO2-Si (µM)	SiO3-Si	Chl-a (µg/L)				
		Year	Month																Day	Time		
Japan	Saga Prefectural Ariake Fisheries Promotion Center	2009	2	24	-	-	-	-	-	22.66	-	-	-	-	2.13	-	-	-				
																			10	20.8	21.27	2.15
																			11	22.0	21.27	1.15
																			1	13.4	17.82	1.85
																			2	14.7	14.72	1.54
																			3	16.6	11.92	1.20
																			4	16.3	12.91	1.34
																			5	15.7	15.25	1.45
																			6	14.6	18.72	1.71
																			7	15.3	16.88	1.65
																			8	14.5	20.49	1.80
9	14.2	20.15	1.90																			
10	13.8	19.85	1.84																			
11	17.1	11.48	1.15																			
Japan	Saga Prefectural Ariake Fisheries Promotion Center	2008	12	25	-	-	-	-	-	25.08	-	-	-	-	1.67	-	-	-				
																			1	10.3	22.61	1.55
																			2	10.0	13.89	1.27
																			3	12.6	14.92	1.33
																			4	12.1	17.66	1.42
																			5	10.6	20.66	1.45
																			6	12.0	32.07	1.75
																			7	10.9	24.69	1.68
																			8	11.1	23.95	1.64
																			9	10.8	24.47	1.82
																			10	10.4	5.23	0.36
1	8.5	2.06	0.41																			
2	9.6	6.33	0.69																			
3	10.5	5.77	0.66																			
4	10.2	5.25	0.61																			
5	9.5	16.03	1.06																			
6	8.9	7.15	0.82																			
7	9.4	9.80	1.05																			
8	8.7	8.28	1.07																			
9	8.4	6.52	0.96																			
10	8.4	7.80	0.79																			
11	11.1	2.47	0.07																			
Japan	Saga Prefectural Ariake Fisheries Promotion Center	2009	1	27	-	-	-	-	-	7.15	-	-	-	-	0.82	-	-	-				
																			2	11.0	2.39	0.18
																			3	11.0	0.42	0.06
																			4	11.3	0.53	0.13
																			5	11.0	0.59	0.05
																			6	11.3	5.81	0.43
																			7	11.2	6.69	0.46
																			8	10.9	4.39	0.40
																			9	11.0	9.10	0.59
																			10	10.8	6.30	1.65
																			11	11.5	0.45	0.13

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location Area	Monitoring point	Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN	NO ₃ -N (µM)	NO ₂ -N (µM)	NH ₄ -N (µM)	DIP (µM)	PO ₄ -P	SiO ₂ -Si (µM)	SiO ₃ -Si	Chl-a (µg/L)		
		Year	Month																	Day	Time
Japan	Nagasaki Prefectural Institute of Fisheries	2008	8			1	28.8	32.3	4.37	-	0.50	0.06	0.05	0.38	-	0.04	-	-	0.90		
						3	28.8	32.5	4.23	-	0.29	0.00	0.01	0.28	-	0.07	-	-	-	1.37	
						4	29.7	32.4	4.17	-	0.43	0.07	0.06	0.31	-	0.07	-	-	-	-	0.78
						1	25.5	32.3	5.00	-	1.17	0.12	0.00	1.05	-	0.06	-	-	-	-	2.71
		9	2				3	26.7	31.6	5.06	-	1.13	0.08	0.00	1.05	-	0.04	-	-	-	2.16
							4	26.8	30.3	5.04	-	1.18	0.08	0.00	1.11	-	0.06	-	-	-	6.04
							b	29.7	30.4	4.94	-	0.66	0.10	0.09	0.47	-	0.03	-	-	-	0.82
							c	30.2	30.0	4.95	-	2.13	1.44	0.07	0.62	-	0.04	-	-	-	2.24
		7	15				P	28.8	30.5	4.69	-	0.95	0.17	0.06	0.72	-	0.03	-	-	-	0.78
							Z	28.1	30.4	4.97	-	1.02	0.12	0.07	0.83	-	0.03	-	-	-	3.76
							b	27.5	31.1	3.85	-	2.21	0.15	0.00	2.05	-	0.05	-	-	-	4.50
		9	4				c	28.3	31.0	4.07	-	1.85	0.16	0.00	1.69	-	0.13	-	-	-	4.56
							P	27.6	31.3	4.16	-	1.67	0.15	0.00	1.52	-	0.05	-	-	-	2.80
							Z	27.8	31.4	4.42	-	1.80	0.18	0.00	1.62	-	0.04	-	-	-	3.08
								4.8													

*1 Monitoring points are shown in the map of another sheet (map of monitoring sites)

*2 The range of each parameter means the value observed between 20-23 August

*3 The concentration of nutrient is standardized into common unit (µM)

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location	Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP (µM)	PO4-P	SiO2-Si (µM)	SiO3-Si	Chl-a (µg/L)
		Year	Month															
Korea	National Fisheries Research and Development Institute	2007	6	Tongyeong	3	20.5	33.4	6.69	8.06	-	1.50	0.43	4.21	1.71	-	6.50	-	9.30
					4	21.6	33.5	6.72	8.08	-	1.29	0.07	1.36	2.65	-	5.36	-	2.30
					5	23.0	35.9	6.04	7.96	-	0.79	0.07	4.07	1.90	-	19.5	-	4.00
					6	22.8	33.5	5.57	7.95	-	0.79	0.07	1.29	2.03	-	34.8	-	1.90
					7	21.5	33.5	7.76	8.05	-	1.14	0.14	0.93	1.65	-	14.8	-	5.30
					8	21.4	33.4	6.26	7.91	-	4.64	0.71	2.36	2.06	-	17.1	-	2.60
			7	Tongyeong off shore	9	23.6	33.3	7.56	7.94	-	1.14	0.14	2.21	2.03	-	9.04	-	7.10
					10	20.7	33.5	7.65	8.12	-	1.07	0.21	1.57	1.58	-	7.43	-	0.50
					11	20.7	33.7	7.73	8.08	-	1.14	1.07	1.14	1.87	-	14.4	-	3.40
					12	19.0	33.7	6.66	8.12	-	1.86	0.36	2.43	2.87	-	10.64	-	2.20
					3	24.6	32.5	8.92	8.12	-	5.07	0.14	1.14	0.13	-	2.36	-	14.0
					4	25.5	32.7	6.86	8.06	-	4.29	0.14	1.21	0.19	-	9.93	-	15.3
8	Tongyeong off shore	5	27.4	31.4	8.32	8.29	-	2.50	0.14	1.43	0.42	-	29.1	-	1.30			
		6	26.3	31.8	7.73	8.10	-	2.57	0.14	1.29	1.23	-	1.86	-	12.8			
		7	24.1	32.3	8.39	8.11	-	3.86	0.29	1.29	0.23	-	3.39	-	1.70			
		8	25.7	31.1	8.10	8.27	-	8.64	0.50	1.43	0.23	-	4.96	-	2.70			
		9	26.3	31.1	7.23	8.27	-	4.71	0.14	1.43	0.00	-	0.68	-	0.70			
		10	24.1	32.9	7.48	8.08	-	5.50	0.07	1.21	0.26	-	4.50	-	0.30			
9	Tongyeong off shore	11	24.8	32.5	7.40	8.06	-	2.86	0.21	1.43	0.45	-	1.93	-	0.20			
		12	23.6	32.9	7.73	8.03	-	5.07	0.29	1.36	0.29	-	2.00	-	1.00			
		3	22.7	32.8	7.77	8.01	-	2.71	0.07	0.71	0.32	-	0.54	-	12.6			
		4	25.0	32.6	7.49	7.88	-	0.86	1.57	0.71	0.74	-	0.46	-	4.00			
		5	25.7	32.0	7.34	7.70	-	2.21	0.21	0.71	0.42	-	1.29	-	8.80			
		6	24.0	32.1	9.03	7.93	-	1.86	0.00	0.57	0.23	-	0.82	-	5.20			
7	Tongyeong	7	23.5	32.2	7.41	7.96	-	2.71	0.14	0.64	0.81	-	2.96	-	6.00			
		8	24.5	32.3	7.10	7.80	-	2.36	0.14	0.50	1.06	-	1.14	-	2.40			
		9	26.1	31.3	7.52	8.00	-	2.86	0.79	0.86	2.00	-	1.68	-	4.30			
		10	23.7	32.5	6.95	8.08	-	8.57	0.93	0.57	0.61	-	1.79	-	2.60			
		11	24.1	32.6	8.10	7.97	-	3.00	0.00	0.43	0.29	-	0.54	-	2.20			
		12	23.1	33.0	8.30	8.10	-	2.71	0.57	1.07	0.52	-	0.71	-	5.00			
9	Tongyeong	3	24.6	30.0	8.31	8.12	-	2.36	0.57	0.43	0.87	-	0.86	-	23.9			
		4	24.8	30.9	6.60	8.06	-	2.43	0.21	0.71	0.23	-	0.64	-	7.80			
		5	24.8	30.7	7.91	8.19	-	0.57	0.43	0.71	0.16	-	6.36	-	4.90			
		6	24.8	30.8	7.17	8.08	-	0.43	0.57	1.43	0.32	-	12.1	-	2.40			
		7	24.2	30.0	6.29	8.00	-	5.36	1.36	1.14	1.16	-	26.6	-	4.90			
		8	24.2	26.6	6.52	8.00	-	22.00	2.21	2.14	1.13	-	49.6	-	8.20			
-	Tongyeong off shore	9	24.8	21.2	8.50	8.69	-	1.93	1.07	0.86	0.84	-	34.5	-	42.0			
		10	24.8	30.5	6.16	8.15	-	0.57	0.64	0.86	0.16	-	8.36	-	4.00			
		11	24.8	30.9	7.77	8.00	-	0.43	0.79	1.21	0.42	-	14.1	-	6.80			
		12	24.4	30.5	8.10	8.11	-	0.71	1.29	0.71	0.16	-	12.0	-	16.3			

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date		Location	Transparency (m)	SST (°C)	Salinity	DO (mg/L)	pH	DIN	NO3-N (µM)	NO2-N (µM)	NH4-N (µM)	DIP (µM)	PO4-P	SiO2-Si (µM)	SiO3-Si	Chl-a (µg/L)		
		Year	Month																Day	
Korea	National Fisheries Research and Development Institute	2008	7	Tongyeong	3	24.4	32.9	-	8.16	-	1.07	0.36	3.50	0.58	-	5.82	-	9.0		
				Geseong-Jaran Bay	4	30.1	33.7	-	8.03	-	8.03	-	2.93	0.29	3.43	0.35	-	11.43	-	1.3
				Jaran Bay	5	28.7	32.6	-	7.94	-	7.94	-	2.64	0.36	3.14	1.13	-	28.2	-	1.7
				Sachun	6	28.2	32.6	-	8.07	-	8.07	-	3.71	0.43	2.93	0.16	-	10.4	-	0.3
				Jinju Bay	7	25.5	32.8	-	8.15	-	8.15	-	1.57	0.50	0.57	0.39	-	9.9	-	1.2
				Jinju Bay	8	25.5	32.8	-	8.15	-	8.15	-	3.07	0.50	4.21	0.16	-	4.1	-	2.1
				Tongyeong off shore	9	29.3	31.8	-	8.12	-	8.12	-	2.86	0.50	4.21	0.71	-	3.89	-	0.8
				Tongyeong off shore	10	24.7	33.0	-	8.20	-	8.20	-	3.00	0.43	1.50	0.39	-	7.89	-	0.0
				Tongyeong off shore	11	25.6	32.8	-	8.13	-	8.13	-	0.64	0.57	1.00	0.58	-	10.5	-	0.3
				Tongyeong off shore	12	22.3	33.4	-	8.02	-	8.02	-	0.93	0.36	3.36	0.32	-	3.57	-	2.5
				Tongyeong	3	23.7	35.4	7.97	7.99	-	7.99	-	0.14	0.43	0.14	0.35	-	9.61	-	4.6
				Tongyeong	4	29.3	33.1	8.97	8.09	-	8.09	-	0.93	0.36	1.43	1.06	-	3.07	-	1.6
		Geseong-Jaran Bay	5	27.8	33.4	7.98	7.92	-	7.92	-	0.86	0.57	1.50	1.29	-	35.6	-	2.8		
		Jaran Bay	6	28.0	33.0	7.34	8.02	-	8.02	-	0.79	0.79	1.93	0.74	-	15.43	-	1.1		
		Sachun	7	22.3	33.3	8.20	8.16	-	8.16	-	1.43	0.36	2.14	0.39	-	7.21	-	2.5		
		Sachun	8	25.1	32.8	8.81	7.95	-	7.95	-	1.14	0.71	1.07	0.71	-	12.04	-	5.0		
		Jinju Bay	9	26.3	32.8	9.21	8.04	-	8.04	-	0.86	0.57	0.79	0.16	-	3.57	-	3.8		
		Tongyeong off shore	10	23.6	33.2	8.65	8.21	-	8.21	-	0.36	0.36	1.21	0.29	-	6.21	-	1.0		
		Tongyeong off shore	11	23.5	33.3	8.05	7.66	-	7.66	-	0.14	0.29	1.93	0.74	-	11.71	-	2.0		
		Tongyeong off shore	12	21.6	33.8	7.71	8.03	-	8.03	-	1.64	0.57	1.36	0.71	-	4.46	-	3.8		
		Tongyeong	3	25	32.1	-	8.13	-	8.13	-	1.71	0.21	0.79	0.23	-	3.89	-	4.7		
		Tongyeong	4	26.7	32.8	-	7.99	-	7.99	-	2.07	0.14	0.71	0.16	-	10.39	-	5.3		
		Geseong-Jaran Bay	5	27.2	33.0	-	7.97	-	7.97	-	3.71	0.07	0.43	0.32	-	3.89	-	2.4		
		Jaran Bay	6	26.4	32.2	-	8.07	-	8.07	-	2.43	0.14	0.57	0.00	-	2.86	-	1.1		
		Sachun	7	25.8	32.2	-	8.13	-	8.13	-	2.64	0.29	0.50	0.16	-	2.29	-	1.2		
		Jinju Bay	8	27.0	32.5	-	8.11	-	8.11	-	3.07	0.14	0.71	0.10	-	1.71	-	4.5		
		Jinju Bay	9	26.5	32.4	-	8.08	-	8.08	-	3.21	0.14	0.57	0.23	-	1.25	-	2.3		
		Tongyeong off shore	10	25.0	31.9	-	8.16	-	8.16	-	2.50	0.07	0.86	0.00	-	6.14	-	0.2		
		Tongyeong off shore	11	4.5	32.2	-	8.10	-	8.10	-	2.36	0.14	0.57	0.10	-	2.14	-	2.9		
		Tongyeong off shore	12	24.9	32.3	-	8.14	-	8.14	-	2.71	0.29	0.50	0.61	-	3.43	-	2.6		
		Tongyeong	5	21.2	31.7	-	8.86	5.86	6.86	-	6.86	0.21	0.86	0.68	-	6.75	-	3.0		
		Tongyeong	7	21.1	32.5	-	3.86	2.43	3.86	-	3.86	0.07	1.36	0.71	-	4.07	-	3.5		
Namhae	10	4.0	26.8	-	30.07	25.21	30.07	-	30.07	0.57	4.29	0.55	-	26.82	-	2.2				
Namhae	12	19.3	33.2	-	6.86	5.57	6.86	-	6.86	0.07	1.14	1.16	-	8.93	-	4.5				
Yeosu	3	0.9	20.7	-	11.57	9.71	11.57	-	11.57	0.57	1.36	0.65	-	15.50	-	2.4				
Yeosu	6	0.8	21.2	-	16.86	14.64	16.86	-	16.86	0.57	1.64	0.81	-	18.07	-	1.7				
Tongyeong	5	10.0	24.5	30.6	-	2.86	2.07	2.86	2.07	0.07	0.71	0.10	-	7.29	-	1.4				
Tongyeong	7	24.2	30.5	-	4.14	2.00	4.14	-	4.14	0.21	1.86	0.19	-	7.00	-	1.9				
Namhae	10	17.0	24.3	27.5	-	6.36	4.14	6.36	4.14	0.57	1.71	0.16	-	1.79	-	1.1				
Namhae	12	24.5	30.6	-	4.57	2.86	4.57	-	4.57	0.21	1.43	0.16	-	5.50	-	1.3				
Yeosu	3	3.0	24.1	30.7	-	11.36	8.07	11.36	8.07	0.21	3.07	0.23	-	10.43	-	2.5				
Yeosu	6	4.5	24.0	30.6	-	13.43	11.57	13.43	11.57	0.21	1.64	0.16	-	7.96	-	1.8				
Tongyeong	5	24.2	31.4	-	7.43	5.64	7.43	-	7.43	0.07	1.71	0.39	-	2.71	-	3.3				
Tongyeong	7	24.3	31.3	-	7.14	5.43	7.14	-	7.14	0.21	1.50	0.23	-	2.50	-	4.1				
Namhae	10	3.0	25.0	30.3	-	4.00	2.64	4.00	2.64	0.21	1.14	0.03	-	3.46	-	6.7				
Namhae	12	7.0	24.6	31.7	-	6.00	4.57	6.00	4.57	0.07	1.29	0.13	-	4.36	-	2.1				
Yeosu	3	2.0	24.7	31.7	-	6.93	5.07	6.93	5.07	0.14	1.71	0.13	-	4.21	-	3.4				
Yeosu	6	2.5	24.9	31.5	-	6.79	5.43	6.79	5.43	0.21	1.21	0.13	-	4.00	-	3.4				

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date			Location Area	Monitoring point	Transparency	SST	Salinity	DO	pH	DIN	NO3-N	NO2-N	NH4-N	DIP	PO4-P	SiO2-Si	SiO3-Si	Chl-a	
		Year	Month	Day																	Time
Russia	Institute of Marine Biology FEB RAS	2001	8	16	-	Vostok Bay	-	22.4	28.6	-	-	-	-	-	-	-	-	-	-	-	
		2001	9	30	-	Vostok Bay	-	14.7	33.6	-	-	-	-	-	-	-	-	-	-	-	-
		2002	7	14	-	Vostok Bay	-	16.4	32.1	-	-	-	-	-	-	-	-	-	-	-	-
		2003	4	23	-	Vostok Bay	-	6.2	33.4	-	-	-	-	-	-	-	-	-	-	-	-
		2003	6	30	-	Vostok Bay	-	17.5	33.2	-	-	-	-	-	-	-	-	-	-	-	-
		2004	8	1	-	Vostok Bay	-	23.2	28.5	-	-	-	-	-	-	-	-	-	-	-	-
		2005	9	1	-	Vostok Bay	-	20.3	-	-	-	-	-	-	-	-	-	-	-	-	-
		2005	11	1	-	Vostok Bay	-	3.0	32.6	-	-	-	-	-	-	-	-	-	-	-	-
		2006	8	4	-	Vostok Bay	-	22.6	30.6	-	-	-	-	-	-	-	-	-	-	-	-
		2006	8	4	-	Vostok Bay	-	22.6	30.6	-	-	-	-	-	-	-	-	-	-	-	-
		2007	7	11	-	Amurskii	4.67	18.0	25.0	-	-	-	-	-	-	-	-	-	-	-	-
		2007	7	25	-	Amurskii	3.67	22.0	26.7	-	-	-	-	-	-	-	-	-	-	-	-
	2007	8	6	-	Amurskii	3.33	26.0	28.0	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	8	20	-	Amurskii	2.50	23.2	26.9	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	9	5	-	Amurskii	8.54	22.0	30.2	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	9	17	-	Amurskii	2.54	20.0	32.7	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	10	3	-	Amurskii	1.79	17.0	30.6	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	10	17	-	Amurskii	5.04	12.0	31.8	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	10	30	-	Amurskii	2.33	6.5	31.2	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	11	9	-	Amurskii	0.62	6.8	32.0	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	11	23	-	Amurskii	4.87	-1.7	32.0	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	12	4	-	Amurskii	7.79	-1.7	32.6	-	-	-	-	-	-	-	-	-	-	-	-	
	2007	12	19	-	Amurskii	7.74	-1.7	33.0	-	-	-	-	-	-	-	-	-	-	-	-	
	2008	1	4	-	Amurskii	0.73	-1.7	32.9	-	-	-	-	-	-	-	-	-	-	-	-	
2008	1	22	-	Amurskii	0.59	-1.8	32.4	-	-	-	-	-	-	-	-	-	-	-	-		
2008	2	6	-	Amurskii	0.65	-1.8	33.8	-	-	-	-	-	-	-	-	-	-	-	-		
2008	2	20	-	Amurskii	0.50	-1.8	33.1	-	-	-	-	-	-	-	-	-	-	-	-		
2008	3	4	-	Amurskii	0.73	-1.8	32.7	-	-	-	-	-	-	-	-	-	-	-	-		
2008	3	21	-	Amurskii	0.96	0.5	33.7	-	-	-	-	-	-	-	-	-	-	-	-		
2008	4	7	-	Amurskii	2.17	5.5	30.7	-	-	-	-	-	-	-	-	-	-	-	-		
2008	5	5	-	Amurskii	4.39	9.0	28.7	-	-	-	-	-	-	-	-	-	-	-	-		
2008	6	7	-	Amurskii	3.39	16.2	18.8	-	-	-	-	-	-	-	-	-	-	-	-		
2008	6	26	-	Amurskii	10.20	17.8	26.8	-	-	-	-	-	-	-	-	-	-	-	-		
2008	7	17	-	Amurskii	2.48	23.2	26.0	-	-	-	-	-	-	-	-	-	-	-	-		
2008	7	28	-	Amurskii	2.96	23.5	22.6	-	-	-	-	-	-	-	-	-	-	-	-		
2008	8	11	-	Amurskii	4.32	22.7	26.7	-	-	-	-	-	-	-	-	-	-	-	-		
2008	8	29	-	Amurskii	4.54	20.5	28.2	-	-	-	-	-	-	-	-	-	-	-	-		
2008	9	15	-	Amurskii	3.35	20.9	29.8	-	-	-	-	-	-	-	-	-	-	-	-		
2008	9	29	-	Amurskii	2.04	15.2	30.6	-	-	-	-	-	-	-	-	-	-	-	-		
2008	10	13	-	Amurskii	3.31	12.9	31.2	-	-	-	-	-	-	-	-	-	-	-	-		
2008	11	5	-	Amurskii	1.23	7.0	31.7	-	-	-	-	-	-	-	-	-	-	-	-		
2008	11	20	-	Amurskii	1.82	-1.0	34.3	-	-	-	-	-	-	-	-	-	-	-	-		
2008	12	3	-	Amurskii	3.50	0.0	32.3	-	-	-	-	-	-	-	-	-	-	-	-		
2008	12	19	-	Amurskii	1.54	-1.6	33.4	-	-	-	-	-	-	-	-	-	-	-	-		

Annex II-3 Water Quality Information (Continued)

Country	Organization	Monitoring date			Location		SST	Salinity	DO	pH	DIN	NO3-N	NO2-N	NH4-N	DIP	PO4-P	SiO2-Si	SiO3-Si	Chl-a		
		Year	Month	day	Area	Monitoring point															
Russia	Institute of Marine Biology FEB RAS	2009	1	11	-	Amurskii	-1.8	33.3	-	-	-	-	-	-	-	-	-	-	-		
			3	12	-	Amurskii	0.5	33.1	-	-	-	-	-	-	-	-	-	-	-	-	
			6	8	-	Amurskii	14.1	30.0	-	-	-	-	-	-	-	-	-	-	-	-	
		Center of Monitoring of HABs & Biotoxins Institute of Marine Biology FEB RA	2010	8	2	-	Amurskii	23.0	20.0	-	-	-	-	-	-	-	-	-	-	-	-
				9	9	-	Amurskii	19.0	25.0	-	-	-	-	-	-	-	-	-	-	-	-
				10	26	-	Amurskii	10.5	30.6	-	-	-	-	0.01	0.06	-	-	0.25	18.86	-	-
		7	4	-	Vostok Bay	15.4	28.3	-	-	-	-	-	-	-	-	-	-	-	-	-	
		9	1	-	Vostok Bay	16.2	24.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
		1	28	-	Amurskii	-1.8	33.0	-	-	-	-	-	0.14	0.02	-	-	0.24	7.47	-	-	
	3	30	-	Amurskii	-1.0	30.6	-	-	-	-	-	9.36	0.26	-	-	0.11	4.98	-	-		
	7	30	-	Amurskii	2.00	22.6	-	-	-	-	-	0.16	0.02	-	-	0.09	25.62	-	-		
	8	31	-	Amurskii	1.20	24.0	-	-	-	-	-	0.55	0.04	-	-	0.29	14.23	-	-		
	9	30	-	Amurskii	2.00	16.0	-	-	-	-	-	0.56	0.03	-	-	0.80	28.11	-	-		

*1 Monitoring points are shown in the map of another sheet (map of monitoring sites)

*2 The range of each parameter means the value observed between 20-23 August

*3 The concentration of nutrient is standardized into common unit (µM)



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