

Common Format for Redtide events information

Country	Organization	Event No.			Duration (Start)			Duration (End)			Continuous days	Locatio of occurrence		Monitoring date		Causative species(*1)	Maximum density (cells·inds./mL)	Fishery damage			Environmental parameters (*2)			Size of bloom (km ²)				
		Prof. Code	Year	No.	Year	Month	day	Year	Month	day		Sub-area	Spot	Date	Time			Fish/Shellfish species	Quantity	Economic loss (Chinese Yuan)	Shellfish poisoning	Temp. (°C)	Salinity		DO (mg/L)			
China	North China Sea Environmental Monitoring Centre	QD	1990	1	1990	6	26	?	?	?	?	Qingdao	Jiaozhou Bay			<i>Mesodinium rubrum</i>									2			
		LN	1990	2	1990	?	?	?	?	?	?	Liaoning	Changhai country					Scallop		2.5 million								
		QD	1992	1	1992	4	?	?	?	?	?	Qingdao	Jiaozhou Bay															
		QD	1992	2	1992	5	12	?	?	?	?	Qingdao	East Qingdao															
		QD	1992	3	1992	8	?	?	?	?	?	Qingdao	Jiaozhou Bay															
		DL	1993	1	1993	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	Qingdao	Jiaozhou Bay					<i>Skeletonema costatum</i>	4,500								10	
		QD	1999	1	1999	6	8	1999	6	15	8	Qingdao	Jiaozhou Bay					<i>Eucampia zodiacus</i>	2,300									
		QD	1999	2	1999	7	23	1999	7	24	2	Qingdao	Jiaozhou Bay					<i>Skeletonema costatum</i> <i>Eucampia zodiacus</i>									26	
		QD	1999	3	1999	7	26	?	?	?	?	Qingdao	Fushan Bay					<i>Mesodinium rubrum</i>									60	
		DL	1999	5	1999	7	17	1999	7	21	5	Dalian	Dalian Bay					<i>Noctiluca scintillans</i>									100	
		SD	1999	6	1999	7	17	?	?	?	?	Shandong	Penglai					<i>Noctiluca scintillans</i>									680	
		SD	1999	7	1999	8	6	?	?	?	?	Shandong	Shidao														160	
		LN	2000	1	2000	8	2	?	?	?	?	Liaoning	Zhuanghe														827	
		QD	2000	2	2000	7	20	2000	7	23	4	Qingdao	Jiaozhou Bay					<i>Noctiluca scintillans</i>									92	
		QD	2001	1	2001	4	4	?	?	?	?	Qingdao	Fushan Bay					<i>Noctiluca scintillans</i>										
		LN	2001	2	2001	5	24	?	?	?	?	Liaoning	Dandong															
		QD	2001	3	2001	6	11	2001	6	12	2	Qingdao	Jiaozhou Bay					<i>Noctiluca scintillans</i>									5	
		QD	2001	4	2001	7	7	2001	7	13	7	Qingdao	Jiaozhou Bay					<i>Mesodinium rubrum</i>									9.8	
		QD	2001	5	2001	6	20	?	?	?	?		Coast of Jiangsu				<i>Skeletonema costatum</i>										1000	
		NY	2001	6	2001	8	24	2001	9	14	22	North Yellow Sea	Yalujiang Estuary					<i>Eucampia zodiacus</i> <i>Chaetoceros socialie</i>									110	
		QD	2002	1	2002	6	28	2002	7	2	5	Qingdao	Fushan Bay					<i>Mesodinium rubrum</i>									60	
		LN	2003	1	2003	6	?	?	?	?	?	Liaoning	Dandong															30
		QD	2003	2	2003	7	?	?	?	?	?	Qingdao	Jiaozhou Bay					<i>Coscinodiscus asteromphalus</i>										200
		QD	2003	3	2003	7	4	2003	7	10	7	Qingdao	East Qingdao					<i>Mesodinium rubrum</i>										450
		QD	2004	1	2004	2	?	?	?	?	?	Qingdao	Jiaozhou Bay					<i>Guinaradia delicatula</i>										
		QD	2004	2	2004	2	9	2004	2	28	20	Qingdao	Jiaozhou Bay					<i>Rhizosolenia delicatula</i>										70
		QD	2004	3	2004	3	22	2004	3	25	4	Qingdao	Jiaozhou Bay					<i>Thalassiosira nordensköldii</i>										70
		QD	2004	4	2004	7	?	?	?	?	?	Qingdao	Jiaozhou Bay					<i>Coscinodiscus asteromphalus</i>										
		QD	2004	5	2004	8	10	?	?	?	?	Qingdao	Fushan Bay					<i>Mesodinium rubrum</i>										50
		DL	2004	6	2004	9	6	?	?	?	?	Dalian	Jinshatan					<i>Chattonella antiqua</i>										
		QD	2005	1	2005	6	12	2005	6	17	6	Qingdao	Lingshan Bay					<i>Heterosigma akashiwo</i>	95,400									80
QD	2007	1	2007	6	7	2007	7	10	34	Qingdao	Shazikou Bay					<i>Heterosigma akashiwo</i>	53,100									70		
QD	2007	2	2007	8	20	2007	8	23	4	Qingdao	East Qingdao					<i>Skeletonema costatum</i>	11,100				22.7- 25.3	27.9- 29.6	6.7- 7.8		15			
QD	2007	3	2007	9	25	2007	9	28	4	Qingdao	Shazikou Bay					<i>Gonyaulax spinifera</i>										8		
QD	2008	1	2008	6	28	2008	6	29	2	Qingdao	Jiaozhou Bay					<i>Heterocapsa sp.</i>	3,280											
QD	2008	2	2008	8	7	2008	8	8	2	Qingdao	South Qingdao					<i>Chattonella antiqua</i>	520				24.4-25.4	28.6-29.4	6.93-8.05		86			
Country	Organization	Event No.			Duration(Start)			Duration(End)			Continuous days	Locatio of occurrence		Monitoring date		Causative species(*1)	Maximum density (cells·inds./mL)	Fishery damage			Environmental parameters			Size of bloom (km ²)				
		Prof. Code	Year	No.	Year	Month	day	Year	Month	day		Sub-area	Spot	Date	Time			Fish/Shellfish species	Quantity	Economic loss (1,000 Yen)	Shellfish poisoning	Temp. (°C)	Salinity		DO (mg/L)			
	Yamaguchi Prefectural Fisheries Research Center	YM	2006	1	2006	2	20	2006	2	27	8	Coastal area of Yamaguchi	Between Aburaya Bay and coastline of Woshibo			<i>Noctiluca scintillans</i>	2,150					10.0						
		YM	2006	2	2006	2	25	2006	2	28	4	Coastal area of Yamaguchi	Coastline of Nagato City (Sensaki Bay, Fukagawa Bay)			<i>Noctiluca scintillans</i>	unknown											
		YM	2006	3	2006	3	27	2006	3	29	3	Coastal area of Yamaguchi	Coastline of Nagato City (Sensaki Bay)			<i>Noctiluca scintillans</i>	unknown									0.3		
		YM	2006	4	2006	7	13	2006	8	4	23	Coastal area of Yamaguchi	Coastline of Shimonoseki City			<i>Karenia mikimotoi</i>	57,500	Amberjack etc.	Amberjack 370 ind.	1,800		25.4					50	

Prefectural Fisheries Research Center	YM	2007	5	2007	4	9	2007	4	12	4	Coastal area of Yamaguchi	Coastline of Shimonoseki City(Between Ogushi and Yudama of Tovoura town)	<i>Noctiluca sp.</i>	-	-	-	-	-	?		
	YM	2007	6	2007	4	19	2007	4	24	6	Coastal area of Yamaguchi	Coastline of Hagi City (Between Ohiminato and Koshigahama)	<i>Noctiluca sp.</i>	-	-	-	-	-	?		
	YM	2007	7	2007	5	23	2007	5	30	8	Coastal area of Yamaguchi	Coastline of Hagi City (Sanmiogasaki)	<i>Noctiluca sp.</i>	-	-	-	-	-	?		
	YM	2007	8	2007	11	29	2007	12	6	8	Coastal area of Yamaguchi	Shimonoseki fishing port	<i>Mesodinium rubrum</i>	19	-	-	-	-	0.0001		
	YM	2007	9	2007	12	7	2007	12	19	13	Coastal area of Yamaguchi	Ohura fishing port of Nagato City	<i>Mesodinium rubrum</i>	4,280	-	-	16-17	-	0.04		
	YM	2007	10	2007	12	12	2007	12	14	3	Coastal area of Yamaguchi	Coastline of Hagi City (Susa Town)	<i>Mesodinium rubrum</i>	170	-	-	-	-	0.02		
Fukuoka Fisheries and Marine Technology Research Center	FO	2007	1	2007	3	8	2007	5	9	63	North Kyushu	Fukuoka Bay	<i>Gephyrocapsa oceanica</i>	-	Damaged(The details were not known.)	-	-	?	?	?	?
	FO	2007	2	2007	6	7	2007	6	12	6	North Kyushu	Fukuoka Bay	<i>Heterosigma akashiwo</i>	-	-	-	-	?	?	?	?
	FO	2007	3	2007	6	22	2007	6	27	6	North Kyushu	Fukuoka Bay	<i>Skeletonema costatum</i>	-	-	-	-	?	?	?	?
	FO	2007	4	2007	7	6	2007	7	9	4	North Kyushu	Fukuoka Bay	<i>Heterosigma akashiwo</i>	-	-	-	-	?	?	?	?
	FO	2007	5	2007	7	9	2007	7	16	8	North Kyushu	Fukuoka Bay	<i>Skeletonema costatum</i> <i>Prorocentrum triestinum</i> <i>Heterosigma akashiwo</i>	-	-	-	-	?	?	?	?
	FO	2007	6	2007	8	6	2007	8	16	11	North Kyushu	Fukuoka Bay	<i>Chaetoceros sp.</i> <i>Prorocentrum triestinum</i>	-	-	-	-	?	?	?	?
	FO	2007	7	2007	8	23	2007	8	28	6	North Kyushu	Fukuoka Bay	<i>Chaetoceros sp.</i> <i>Karenia mikimotoi</i>	-	-	-	-	?	?	?	?
	FO	2007	8	2007	9	12	2007	9	18	7	North Kyushu	Fukuoka Bay	<i>Leptocylindrus sp.</i> <i>Chaetoceros sp.</i> <i>Skeletonema sp.</i>	-	-	-	-	?	?	?	?
Saga Prefectural Genkai Fisheries	SA	2007	10	2007	8	1	2007	8	2	2	North Kyushu	Hado Point	<i>Noctiluca scintillans</i>	3,800	-	-	-	-	-	-	
	SA	2007	19	2007	12	21	2007	12	24	4	North Kyushu	Karatsu Bay	<i>Akashiwo sanguinea</i>	90	-	-	15.0	34.1	7.4	-	
	NS	2007	1	2007	1	16	2007	1	18	3	Remote Is.	Tsushima	<i>Scripsiella sp.</i>	5,960	-	-	14.6	-	6.4	*	
	NS	2007	2	2007	3	23	2007	4	2	11	Remote Is.	Goto	<i>Noctiluca scintillans</i>	350	-	-	16.7	35.8	7.7	0.0005	
	NS	2007	4	2007	5	25	2007	5	29	5	Remote Is.	Tsushima	<i>Heterosigma akashiwo</i>	13,850	-	-	19.7	33.5	5.6	*	
	NS	2007	5	2007	6	5	2007	6	6	2	Remote Is.	Tsushima	<i>Noctiluca scintillans</i>	1,880	-	-	21.9	33.5	5.0	*	
	NS	2007	6	2007	6	14	2007	7	5	22	West Kyushu	Kujuku island	<i>Karenia mikimotoi</i>	16,500	Yellow tail	3000 ind.	-	24.9	33.6	11.6	*
	NS	2007	7	2007	6	14	2007	6	16	3	Remote Is.	Tsushima	<i>Ceratium furca</i>	234	-	-	*	*	*	*	
	NS	2007	8	2007	6	19	2007	7	9	21	West Kyushu	Kujuku island	<i>Karenia mikimotoi</i>	97,000	Takifugu rubripes Yellow tail Amberjack	5000 ind. 20 ind. 50 ind.	500 100 200	*	*	*	*
	NS	2007	9	2007	6	24	2007	7	7	14	Remote Is.	Goto	<i>Ceratium furca</i>	730	-	-	24.9	31.5	7.6	0.0225	
	NS	2007	10	2007	6	24	2007	6	29	6	Remote Is.	Goto	<i>Ceratium furca</i>	88	-	-	22.4	34.1	7.2	0.005	
	NS	2007	11	2007	6	25	2007	6	27	3	Remote Is.	Goto	<i>Ceratium furca</i>	41	-	-	22.3	33.4	7.5	0.01	
	NS	2007	12	2007	6	27	2007	6	29	3	Remote Is.	Goto	<i>Prorocentrum triestinum</i>	2,232,000	-	-	25.2	*	*	0.25	
	NS	2007	13	2007	7	2	2007	7	5	4	West Kyushu	Kujuku island	<i>Karenia mikimotoi</i>	5,100	-	-	*	*	*	*	
	NS	2007	14	2007	7	7	2007	7	9	3	Remote Is.	Tsushima	<i>Ceratium furca</i>	27	-	-	*	*	*	*	
	NS	2007	15	2007	7	11	2007	7	23	13	North Kyushu	Hirado(Usuka/Furue Bay)	<i>Karenia mikimotoi</i> <i>Cochlodinium polykrikoides</i>	8560 682	Yellow tail Amberjack Red sea bream	31 ind. 20 ind. 1 ind.	500	22.3	*	6.6	*
	NS	2007	17	2007	7	27	2007	7	29	3	North Kyushu	Hirado(Usuka/Furue Bay)	<i>Noctiluca scintillans</i>	2,445	-	-	*	*	*	*	
	NS	2007	20	2007	8	22	2007	8	27	6	West Kyushu	Ohmura Bay	<i>Skeletonema sp.</i>	4,750	-	-	29.2	-	-	-	
	NS	2007	21	2007	8	23	2007	8	24	2	North Kyushu	Imari Bay	<i>Mesodinium rubrum</i>	1,250	-	-	*	*	*	*	
	NS	2007	22	2007	8	24	2007	8	25	2	West Kyushu	Coastline of Seih	<i>Prorocentrum triestinum</i>	1,500	-	-	*	*	*	*	
	NS	2007	23	2007	8	28	2007	9	3	7	West Kyushu	Ohmura Bay	<i>Karenia mikimotoi</i>	5,800	-	-	30.1	*	*	*	
	NS	2007	24	2007	9	6	2007	9	12	7	West Kyushu	Ohmura Bay	<i>Karenia mikimotoi</i>	15,700	Amberjack Yellow tail	17000 ind. 1800 ind.	19800 1260	29.8	*	11.5	-
	NS	2007	25	2007	9	6	2007	9	11	6	Remote Is.	Tsushima	<i>Dictyocha fibula</i>	46	-	-	25.6	24.3	4.9	-	
	NS	2007	27	2007	9	11	2007	9	13	3	West Kyushu	Tachibana Bay	<i>Gyrodinium instratum</i>	541	-	-	27.3	33.2	101(%)	-	
	NS	2007	28	2007	9	16	2007	9	28	13	West Kyushu	Ohmura Bay	<i>Prorocentrum sigmoides</i>	4,040	-	-	30.0	32.7	129(%)	20.0	
	NS	2007	29	2007	10	3	2007	10	5	3	West Kyushu	Ohmura Bay	<i>Prorocentrum sigmoides</i>	1,400	-	-	29.2	-	-	0.045	
	NS	2007	30	2007	11	15	2007	11	16	2	North Kyushu	Hirado(Usuka/Furue Bay)	<i>Cochlodinium polykrikoides</i>	2,500	-	-	-	-	-	-	
	NS	2007	31	2007	11	19	2007	11	29	11	Remote Is.	Goto	<i>Mesodinium rubrum</i>	176	-	-	-	-	-	0.005	
	NS	2007	32	2007	11	21	2007	11	21	1	Remote Is.	Tsushima	<i>Mesodinium rubrum</i>	157	-	-	-	-	-	-	
	NS	2007	33	2007	11	26	2007	11	27	2	Remote Is.	Goto	<i>Mesodinium rubrum</i>	1,488	-	-	-	-	-	0.04	
	NS	2007	34	2007	11	29	2007	11	30	2	Remote Is.	Goto	<i>Mesodinium rubrum</i>	4,110	-	-	20.1	34.4	-	-	
	NS	2007	35	2007	12	1	2007	12	5	5	Remote Is.	Goto	<i>Mesodinium rubrum</i>	810	-	-	-	-	-	-	
	NS	2007	36	2007	12	5	2007	12	23	19	North Kyushu	Hirado(Usuka/Furue Bay)	<i>Mesodinium rubrum</i>	3,640	-	-	-	-	-	0.025	
	NS	2007	37	2007	12	10	2007	12	11	2	Remote Is.	Goto	<i>Mesodinium rubrum</i>	1,220	-	-	16.7	33.2	7.8	-	
	NS	2007	38	2007	12	11	2007	12	12	2	West Kyushu	Kujuku island	<i>Mesodinium rubrum</i>	152	-	-	-	-	-	-	
	NS	2007	39	2007	12	12	2007	12	13	2	West Kyushu	Kujuku island	<i>Mesodinium rubrum</i>	1,070	-	-	-	-	-	-	
	NS	2007	40	2007	12	12	2007	12	19	8	Remote Is.	Goto	<i>Mesodinium rubrum</i>	1,074	-	-	-	-	-	-	
	Yamaguchi Prefectural Fisheries	YM	2008	1	2008	2	29	2008	-	-	-	Coastal area of Yamaguchi		<i>Noctiluca sp.</i>	-	-	-	-	-	-	
		YM	2008	2	2008	3	6	2008	-	-	-	Coastal area of Yamaguchi	Sensaki Bay	<i>Noctiluca sp.</i>	-	-	-	-	-	-	
		YM	2008	3	2008	3	11	2008	-	-	-	Coastal area of Yamaguchi	Hibiki Nada	<i>Noctiluca sp.</i>	-	-	-	-	-	-	

		NS2	2008	5	2008	6	13	2008	6	14	2	West Kyushu	Ariake(Isahaya Bay)			Skeletonema	9,460			23	-	11.8		-		
		NS2	2008	8	2008	6	24	2008	7	1	8	West Kyushu	Ariake(Isahaya Bay)			Heterosigma akashiwo	14,300			23	-	-		-		
		NS2	2008	11	2008	7	1	2008	7	2	2	West Kyushu	Ariake(Isahaya Bay)			Prorocentrum sp.	3,600			25	-	-		-		
		NS2	2008	15	2008	7	26	2008	8	21	27	West Kyushu	Ariake(Isahaya Bay)			Chattonella antiqua Chattonella marina Ceratum fusus	29,600 5,300 1,050	Dotted gizzard shad Goby Japanese littleneck	45kg	83	-	-	-	-		
		NS2	2008	20	2008	10	9	2008	10	10	2	West Kyushu	Ariake			Skeletonema	8,800			-	-	-		-		
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		Pref. Code	Year	No.	Year	Month	day	Year	Month	day		Sub-area	Spot	Date	Time			Fish/Shellfish species	Quantity (million ind.)	Economic loss (1,000 won)	Temp. (°C)	Salinity	DO (mg/L)			
Korea	National Fisheries Research and Development Institute	SE	2007	1	2007	7	24	2007	7	30	7	Tongyeong	Tongyeong Dosan			<i>Akashiwo sanguinea</i>	500					22.4-24.5	32.0-33.2			
		SE	2007	2	2007	8	6	2007	9	15	42	Namhae	Namhae Mizo			<i>Cochlodinium polykrikoides</i>	32,500	Red sea bream, Bass, Rockfish, Parrot fish	Rockfish 0.688 Red sea bream 0.389 Parrot fish 0.15 Bass 0.61 Sea bastes 0.149	3,664		23.3-29.4	28.3-32.0		50	
		SE	2007	3	2007	8	9	2007	9	12	35	Tongyeong	Tongyeong Sarang Suyou-do			<i>Cochlodinium polykrikoides</i>	23,000	Rockfish, Parrot fish etc.	Rockfish 2 Parrot fish 1 etc. 1.9	7,337		24.0-27.6	30.2-34.0		70	
		SE	2007	4	2007	8	11	2007	9	1	29	Tongyeong	Goseong Bay			<i>Cochlodinium polykrikoides</i>	4,000					26.0-29.5	30.3-32.3		3	
		SE	2007	5	2007	9	3	2007	9	9	6	Tongyeong	Jinju Bay			<i>Cochlodinium polykrikoides</i>	2,000					22.1-25.6	30.1-32.8		2	
		SE	2007	6	2007	10	19	2007	10	29	10	Tongyeong	Upper Sarang-do			<i>Cochlodinium polykrikoides</i>	2,130					22.5-23.8	32.8-33.2		2	
		SE	2008	1	2008	8	4	2008	9	23	50	Namhae	Tongyeong Donsan			<i>Cochlodinium polykrikoides</i>	5,600					21.0-26.9	30.5-32.9		40	
		SE	2008	2	2008	8	8	2008	9	22	45	Tongyeong	Namhae Mizo			<i>Cochlodinium polykrikoides</i>	2,650					22.2-27.0	29.0-32.3		60	
		SE	2008	3	2008	9	16	2008	9	25	40	Tongyeong	Tongyeong Sarang Suyou-do			<i>Cochlodinium polykrikoides</i>	2,500					24.0-27.0	30.1-33.2		60	
		SE	2008	4	2008	8	29	2008	9	5	7	Tongyeong	Goseong Bay			<i>Cochlodinium polykrikoides</i>	4,000					24.9-27.0	30.0-32.8		3	
		SE	2008	5	2008	9	11	2008	9	20	9	Tongyeong	Jinju Bay			<i>Cochlodinium polykrikoides</i>	5,000					26.5-27.0	30.9-33.2		2	
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		Pref. Code	Year	No.	Year	Month	day	Year	Month	day		Sub-area	Spot	Date	Time			Fish/Shellfish species	Quantity	Economic loss	Temp. (°C)	Salinity	DO (mg/L)			
Russia	Institute of Marine Biology FEB RAS Center of Monitoring of HABS & Biotoxins Institute of Marine Biology FEB RAS	AB	1991	1	1991	7	8	1991	8	12	36	Amurskii Bay	Amurskii Bay			<i>Prorocentrum minimum</i>	7,600									
		AB	1993	1	1993	11	19	?	?	?	<7	Amurskii Bay	Amurskii Bay			<i>Chattonella sp.</i>	800									
		AB	1996	1	1996	2	28	1996	3	28	29	Amurskii Bay	Amurskii Bay			<i>Heterosigma akashiwo</i>	1,000					-1.0- 1.0	33.0- 34.0			
		AB	1996	3	1996	7	2	1996	7	16	15	Amurskii Bay	Amurskii Bay			<i>Noctiluca scintillans</i>	1.6					17.0- 20.0	28.0- 30.0			
		AB	1996	4	1996	7	8	1996	8	30	31	Amurskii Bay	Amurskii Bay			<i>Chaetoceros affinis</i>	1,900					19.0- 23.0	27.0- 28.0			
		AB	1996	5	1996	7	22	1996	8	30	40	Amurskii Bay	Amurskii Bay			<i>Skeletonema costatum</i>	12,700					20.0- 23.0	27.0- 30.0			
		AB	1996	7	1996	8	5	1996	8	12	8	Amurskii Bay	Amurskii Bay			<i>Chaetoceros curvisetum</i>	1,500					20.0- 21.0	25.0- 27.0			
		AB	1996	8	1996	11	4	1996	12	16	43	Amurskii Bay	Amurskii Bay			<i>Leptocylindrus minimus</i>	1,900					1.0- 7.0	34.0- 35.0			
		AB	1997	1	1997	5	4	1997	6	4	32	Amurskii Bay	Amurskii Bay			<i>Chaetoceros contortus</i>	1,300					11.0- 12.0	29.0- 30.0			
		AB	1997	4	1997	7	29	?	?	?	<7	Amurskii Bay	Amurskii Bay			<i>Thalassiosira mala</i>	3,000					23.0	24.0			
		AB	1997	5	1997	8	19	1997	8	28	10	Amurskii Bay	Amurskii Bay			<i>Protoceratium reticulatum</i>	0.4					20.0- 23.0	24.0- 28.0			
		AB	1997	7	1997	10	17	1997	11	3	18	Amurskii Bay	Amurskii Bay			<i>Karenia mikimotoi</i>	7.2					5.0- 11.0	33.0- 35.0			
		AB	1998	1	1998	1	26	1998	2	17	23	Amurskii Bay	Amurskii Bay			<i>Thalassiosira nordenskioeldii</i>	1,100					-2.0 - -0.5	34.0- 35.0			
		AB	1998	2	1998	3	5	1998	3	12	8	Amurskii Bay	Amurskii Bay			<i>Plagioselmis sp.</i>	1,100					-1.0 - -0.8	33.0			
		ANB	2001	1	2001	8	13						Aniva Bay	Aniva Bay			<i>Heterosigma akashiwo</i>	7								
		VB	2001	1	2001	8	16	2001				>12	Vostok Bay	Vostok Bay			<i>Skeletonema costatum</i>	5,250					22.4-23.5	28.6		
		VB	2001	4	2001	9	30	2001				?	Vostok Bay	Vostok Bay			<i>Asterionellopsis glacialis</i>	1,191					14.7	33.6		
		VB	2002	2	2002	7	14	2002				?	Vostok Bay	Vostok Bay			<i>Chatonella globosa</i>	0.6					16.4	32.1		
		VB	2003	1	2003	4	23	2003				?	Vostok Bay	Vostok Bay			<i>Heterocapsa rotundata</i>	1,426					6.2	33.4		
		AB	2004	1	2004	11	17	?	?	?	<7	Amurskii Bay	Amurskii Bay			<i>Chaetoceros salsugineus</i>	1,600					5.0	33.0			
		AB	2005	1	2005	7	12	?	?	?	<7	Amurskii Bay	Amurskii Bay			<i>Euglena pascheri</i>	1,500					-1.7	35.0			
		AB	2005	6	2005	10	20	?	?	?	<5	Amurskii Bay	Amurskii Bay			<i>Prorocentrum minimum</i>	100					12.0	33.0			
		VB	2005	1	2005	9	1	2005				?	Vostok Bay	Vostok Bay			<i>Heterosigma akashiwo</i>	161					20.3			
AB	2006	2	2006	6	5	2006	7	3	29	Amurskii Bay	Amurskii Bay			<i>Thalassionema nitzschioides</i>	2,000					13.0- 20.0	20.0- 29.0					
AB	2006	5	2006	7	3	?	?	?	<5	Amurskii Bay	Amurskii Bay			<i>Karenia mikimotoi</i>	18					20.0	20.0					
AB	2006	6	2006	7	3	?	?	?	<5	Amurskii Bay	Amurskii Bay			<i>Chaetoceros salsugineus</i>	1,600					5.0	33.0					
VB	2006	2	2006	8	4	2006				?	Vostok Bay	Vostok Bay			<i>Heterosigma akashiwo</i>	38					22.6	30.6				
VB	2006	3	2006	8	20	2006				?	Vostok Bay	Vostok Bay			<i>Skeletonema costatum</i>	8,229										
AB	2007	1	2007	7	11	2007	7	25	14	Amurskii Bay	Amurskii Bay			<i>Dinophysis acuminata</i>	1					18.0-22.0	26.0-26.7					

AB	2007	2	2007	7	25	2007	8	20	25	Amurskii Bay	Amurskii Bay			<i>Skeletonema costatum</i>	8,697					20.0-23.0	26.8-28.0		
AB	2007	3	2007	7	25	2007	7	25	1	Amurskii Bay	Amurskii Bay			<i>Heterosigma akashiwo</i>	0.3					22.0	26.8		
AB	2007	4	2007	8	6	2007	9	17	42	Amurskii Bay	Amurskii Bay			<i>Pseudo-nitzschia</i> <i>delicatissima</i>	83					20.0-22.0	26.8-32.7		
AB	2007	5	2007	8	20	2007	8	20	1	Amurskii Bay	Amurskii Bay			<i>Heterosigma akashiwo</i>	8					23.2	26.8		
AB	2007	6	2007	9	5	2007	9	17	12	Amurskii Bay	Amurskii Bay			<i>Pseudo-nitzschia calliantha</i>	173					20.0-22.0	30.2-32.7		
AB	2007	7	2007	10	30	2007	10	30	1	Amurskii Bay	Amurskii Bay			<i>Heterosigma akashiwo</i>	10					6.5	31.2		
AB	2007	8	2007	7	25	2007	7	25	1	Amurskii Bay	Amurskii Bay			<i>Pseudo-nitzschia pungens</i>	59					23.0	26.7		
VB	2007	1	2007	8	8	2007				Vostok Bay	Vostok Bay			<i>Heterosigma akashiwo</i>	19								
AB	2008	1	2008	3	4	2008	4	7	34	Amurskii Bay	Amurskii Bay			<i>Dinobryon balticum</i>	1,054					0-5.5	30.6-33.6		
AB	2008	2	2008	7	14	2008	7	28	14	Amurskii Bay	Amurskii Bay			<i>Skeletonema costatum</i>	5,526					23.3-23.5	22.5-26.0		
AB	2008	3	2008	6	7	2008	6	7	1	Amurskii Bay	Amurskii Bay			<i>Heterosigma akashiwo</i>	1					16.2	18.8		
AB	2008	4	2008	6	7	2008	7	14	37	Amurskii Bay	Amurskii Bay			<i>Dinophysis acuminata</i>	4					16.0-23.3	18.8-26.0		
AB	2008	5	2008	8	29	2008			7	Amurskii Bay	Amurskii Bay			<i>Prorocentrum minimum</i>	0.9					20.5	28.17		
AB	2008	6	2008	9	15	2008			7	Amurskii Bay	Amurskii Bay			<i>Protoceratium reticulatum</i>	0.3					20.9	29.78		
AB	2009	1	2009	1	11	2009			7	Amurskii Bay	Amurskii Bay			<i>Protoceratium reticulatum</i>	0.3					-1.8	33.31		
AB	2009	4	2009	6	8	2009			7	Amurskii Bay	Amurskii Bay			<i>Protoceratium reticulatum</i>	0.4					14.1	30		
AB	2009	7	2009	8	2	2009			76	Amurskii Bay	Amurskii Bay			<i>Prorocentrum triestinum</i>	508.8					10.5-23.0	20		
AB	2009	8	2009	9	9	2009			7	Amurskii Bay	Amurskii Bay			<i>Prorocentrum minimum</i>	0.3					19.0	25		
VB	2009	1	2009	7	4	2009				Vostok Bay	Vostok Bay			<i>Nitzschia hybrida f. hyalina</i>	8,121.6					15.4	28.27		
AB	2010	3	2010	3	30	2010			7	Amurskii Bay	Amurskii Bay			<i>Heterosigma akashiwo</i>	6,041.6					-1.0	30.55		
AB	2010	5	2010	7	30	2010			7	Amurskii Bay	Amurskii Bay			<i>Dactyliosolen fragilissimus</i>	1,860.0					23.0	22.59		

*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.