Table 7. Summary of phytoplankton densities, biovolume, and the top 5 species detected in each sample, Columbia River Estuary, 2004–05

[Species abbreviations are defined in table 9]

Sampling information			Total density (number per milliliter)	Total biovolume (cubic micrometers per milliliter)	Number of species in sample	Five most abundant species in each sample and the associated percent of the total density									
Location	Date	Time				Species 1	Density	Species 2	Density	Species 3	Density	Species 4	Density	Species 5	Density
Warrendale	6/1/2004	1230	808	264,000	27	STHN	35	ASFO	13	RDMN	11	CXER	5.4	STBN	3.6
Warrendale	6/21/2004	1030	692	248,000	23	STHN	29	STBN	26	RDMN	13	DTTE	6.1	MLIT	3.0
Warrendale	7/19/2004	1120	453	110,000	19	STHN	43	RDMN	18	CXER	7.7	STBN	7.7	STAM	4.8
Warrendale	8/19/2004	0910	189	38,300	22	STHN	37	RDMN	19	STAM	7.4	COPC	4.4	MLGR	2.9
Warrendale	9/15/2004	0920	732	152,000	15	STHN	67	RDMN	11	NZPC	4.5	CCMG	4.5	AKFL	2.7
Warrendale	10/20/2004	1300	879	328,000	14	STHN	38	APFA	35	RDMN	12	CCMG	5.3	AKFL	1.8
Warrendale	11/17/2004	1130	389	74,400	17	RDMN	43	STHN	19	CXER	18	CMMN	2.9	AKFL	2.9
Warrendale	12/14/2004	1010	284	54,900	22	RDMN	38	CXER	18	STHN	13	COPC	3.1	AKFL	3.1
Warrendale	1/20/2005	1130	618	118,000	20	STHN	45	RDMN	20	CCST	8.1	ACMN	3.6	CXER	3.6
Warrendale	2/15/2005	1120	1,620	489,000	17	STHN	43	ASFO	28	RDMN	8.3	FRCR	5.0	SNRD	2.5
Warrendale	3/15/2005	1030	4,770	1,170,000	13	ASFO	39	STHN	37	RDMN	6.3	SNRD	5.5	STAM	4.7
Warrendale	4/20/2005	1300	3,370	2,080,000	22	ASFO	63	STHN	11	STAM	4.5	FRCV	2.7	CCPS	1.8
Willamette	5/25/2004	1200	1,230	347,000	33	STHN	30	CXER	7.0	CCAT	7.0	CMMN	4.7	ACLN	4.7
Willamette	6/24/2004	1130	1,140	405,000	32	STHN	28	ACMN	11	CCPS	5.9	RDMN	4.7	CMMN	4.7
Willamette	7/27/2004	0940	1,890	600,000	28	STBN	34	STHN	19	CXER	6.0	CMMN	4.3	CCST	4.3
Willamette	8/16/2004	1150	1,350	264,000	30	RDMN	24	STHN	11	CXER	7.8	STAM	5.8	CCST	4.9
Willamette	9/14/2004	1000	2,790	721,000	19	CCPS	81	CCAT	4.6	RDMN	3.5	CMMN	1.2	CCST	1.2
Willamette	10/19/2004	1320	2,430	788,000	33	RHCU	9.0	COPC	6.4	ACMN	6.4	ACLN	5.1	CCAT	5.1
Willamette	11/19/2004	0930	415	101,000	33	ACLN	13	ACMN	12	NVCV	8.2	RDMN	6.2	GFAN	6.2
Willamette	12/16/2004	1120	837	238,000	31	ACMN	17	ACLN	11	CMMN	7.8	GFSB	7.8	NVCV	6.7
Willamette	1/18/2005	1330	389	133,000	33	ACMN	14	CMMN	13	NZDS	5.6	RDMN	5.6	CMSN	5.6
Willamette	2/17/2005	1050	706	163,000	29	STHN	33	CYRF	8.9	CMMN	7.8	ACMN	5.6	NZDS	5.6
Willamette	3/17/2005	1050	1,210	299,000	31	STHN	44	CMMN	11	RDMN	5.6	CYRF	5.6	ACMN	3.7
Willamette	4/14/2005	1330	966	337,000	33	CMMN	9.3	GFAN	8.0	ACMN	8.0	ACHK	6.7	ACLN	6.7
Columbia City	8/24/2004	1220	566	193,000	32	STHN	29	RDMN	11	AKFL	7.3	STBN	6.3	OSXX	6.3
Beaver	6/3/2004	1300	1,380	556,000	33	STHN	29	RDMN	16	ASFO	7.5	STBN	4.7	CCAT	3.7
Beaver	6/22/2004	1130	1,570	484,000	19	STBN	30	STHN	29	RDMN	9.4	CXER	7.5	DTTE	4.7
Beaver	7/26/2004	1140	1,890	1,710,000	23	STHN	30	STBN	24	RDMN	12	MLGR	5.7	MLAM	3.8
Beaver	8/17/2004	1220	1,720	786,000	18	STHN	32	STBN	21	RDMN	9.3	STAM	8.5	MLGR	5.1
Beaver	9/13/2004	1250	1,470	874,000	29	STHN	49	RDMN	14	STAM	4.6	NZFR	2.8	CCMG	2.8
Beaver	10/18/2004	1340	1,360	260,000	23	STHN	63	RDMN	9.2	CCMG	6.7	CCPS	2.5	CXER	1.7
Beaver	11/22/2004	1300	591	117,000	19	RDMN	36	STHN	32	CXER	14	MLAM	1.7	AKFL	1.7
Beaver	12/15/2004	1330	584	175,000	33	ACMN	14	RDMN	10	STHN	7.4	NVCV	4.9	CMMN	4.9
Beaver	1/19/2005	1400	586	269,000	31	STHN	20	ACMN	14	ACLN	10	CMMN	7.5	GFAN	5.0
Beaver	2/16/2005	1200	2,350	734,000	15	STHN	68	ASFO	16	RDMN	4.5	FRCR	3.0	CHXX	1.5
Beaver	3/16/2005	1350	6,710	2,890,000	16	STHN	42	ASFO	28	STAM	13	DTVL	2.5	SNRD	2.5
Beaver	4/21/2005	1410	2,540	2,260,000	20	ASFO	57	STHN	17	STAM	4.8	FRCR	2.9	ACMN	1.9
Pt Adams	8/18/2004	1000	260	94,300	33	STHN	25	STAM	18	MLGR	8.0	RDMN	4.5	CCMG	3.4
Pt Adams	4/18/2005	1200	982	770,000	19	ASFO	57	STHN	13	STAM	7.2	DTTE	3.6	SNRD	2.7