Appendix 3c: PCB and OCP Concentrations with Qualifiers (from J. Ashley, ANS)

CHEM ID			1881	1881
Sample #			77904	Qualifier
Sample Date			5/7/2003	
Station			TN2	
Common Name			mummichog	
DRY MASS (%)			N/A	
LIPID PERCENT (%)			3.763	
EXTRACTION MASS (wet weight, g)			2.057	
SURROGATE RECOVERY (%)				
PCB 14			116	
PCB 65			96	
PCB 166			106	
Concentrations (ng/g wet for biota; ng/g dry for sediment)				
TOTAL PCBs			781	
TOTAL DDXs			131	
TOTAL CHLORDANES			45	
POLYCHLORINATED BIPHENYLS	*Homo. Grp. (# of Cl's)*	*Detec. Limit*		
1	1	*0.25*	1.19	
3	1	*0.72*	2.71	
4+10	2	*0.05*	0.79	
7	2	*0.03*	0.07	
6	2	*0.04*	0.17	
8+5	2	*0.24*	1.33	
19	3	*0.08*	0.26	
12+13	2	*0.02*	0.20	
18	3	*0.20*	1.26	
17	3	*0.24*	7.56	
24+27	3	*0.09*	0.35	
16+32	3	*0.22*	3.56	
29	3	*0.21*	0.26	
26	3	*0.09*	1.58	
25	3	*0.34*	0.81	
31+28	3	*0.84*	18.79	
53+33+21	.84 tri /.16 tetra	*0.27*	2.67	
22	3	*0.25*	3.38	
45	4	*0.06*	0.96	
46	4	*0.04*	0.36	
52	4	*0.70*	16.19	
49	4	*0.62*	14.89	
47	4	*0.75*	18.52	
48	4	*0.30*	2.40	
44	4	*0.52*	11.18	
37+42	.49 tri /.51 tetra	*0.31*	6.60	
41+71	4	*0.71*	23.81	
64	4	*0.75*	12.32	
40	4	*0.11*	2.04	
100	5	*0.08*	104.44	
63	4	*0.06*	2.06	
74	4	*0.43*	16.29	
70+76	4	*0.80*	23.51	
66	4	*1.54*	58.18	
95	5	*0.30*	8.47	

91	**5**	*0.13*	4.80
56+60	**4**	*0.92*	25.11
101	**5**	*0.60*	17.25
99	**5**	*0.49*	19.79
83	**5**	*0.06*	0.85
97	**5**	*0.18*	3.90
87+81	**.90 penta /.10 tetra**	*0.65*	12.12
85	**5**	*0.24*	8.60
136	**6**	*0.04*	1.05
77+110	**.79 penta /.21 tetra**	*0.77*	31.73
82	**5**	*0.06*	1.02
151	**6**	*0.15*	6.27
135+144	**6**	*0.11*	2.97
107	**5**	*0.06*	3.07
149	**6**	*0.45*	15.16
118	**5**	*0.62*	21.99
134	**6**	*0.27*	0.59
131	**6**	*0.01*	0.27
146	**6**	*0.27*	8.67
153+132+105	**.88 hexa /.12 penta**	*1.49*	61.34
141	**6**	*0.04*	0.79
137+176	**.20 hexa / .80 hepta**	*0.16*	2.61
163+138	**6**	*1.16*	43.81
158	**6**	*0.21*	8.86
129+178	**.92 hepta / .08 hexa**	*0.08*	3.36
187+182	**7**	*0.32*	13.13
183	**7**	*0.18*	7.53
128	**6**	*0.15*	5.82
185	**7**	*0.03*	0.86
174	**7**	*0.08*	3.92
177	**7**	*0.12*	4.57
202+171	**.50 octa /.50 hepta**	*0.11*	3.27
157+200	**.07 hexa /.93 octa**	*0.04*	1.72
172+197	**.84 hepta /.16 octa**	*0.05*	2.32
180	**7**	*0.42*	20.40
193	**7**	*0.39*	1.39
191	**7**	*0.04*	0.89
199	**8**	*0.04*	0.25
170+190	**7**	*0.30*	14.31
198	**8**	*0.02*	0.28
201	**8**	*0.14*	6.32
203+196	**8**	*0.23*	7.84
189	**7**	*0.17*	0.84
208+195	**.06 nona /.94 octa**	*0.12*	4.25
207	**9**	*0.07*	0.36
194	**8**	*0.06*	2.73
205	**8**	*0.04*	0.11
206	**9**	*0.08*	2.19
209	**10**	*0.03*	0.77
ORGANOCHLORINE PESTICIDES			
o,p DDE		*0.28*	6.63
p,p DDE		*1.01*	84.46
o,p DDT		*0.34*	19.76
p,p DDT		*0.83*	0.50
o,p DDD		*0.08*	1.35
p,p DDD		*0.37*	18.21
Total DDX's		*2.08*	130.91

alpha BHC	*0.03*	0.08
beta BHC	*0.04*	0.22
delta BHC	*0.42*	0.44
lindane	*0.33*	0.51
heptaclor	*0.13*	2.96
heptachlor epoxide	*0.11*	4.70
oxychlordane	*0.09*	1.11
gamma chlordane	*0.18*	4.84
alpha chlordane	*0.21*	7.32
cis nonachlor	*0.14*	4.22
trans nonachlor	*0.50*	19.54
Total Chlordanes	*1.27*	44.69
dieldrin		2.68
endrin	*0.07*	0.14
aldrin	*0.17*	0.14
endosulfan I	*0.18*	3.60
endosulfan II	*0.05*	0.31

1882	1882	1883	1883	1884	1884	1885	1885	1886
75362	Qualifier	75252	Qualifier	76433	Qualifier	75364	Qualifier	75442
1/23/2002		10/25/2001		7/19/2002		1/25/2002		4/19/2002
TN3		TN4		TN4		TN5		TN5
mummichog		mummichog		mummichog		mummichog		mummichog
N/A		N/A		N/A		N/A		N/A
4.647		6.196		2.602		5.630		2.822
2.139		2.077		2.394		2.096		2.282
116		124		113		128		106
98		102		96		96		93
107		111		104		96		106
1190		1224		607		806		851
189		191		74		167		160
85		98		37		149		83
0.70		0.62		0.55		0.34		0.98
3.06		1.62		1.70		1.74		1.18
1.09		2.31		0.68		0.98		0.88
0.09		0.06		0.08		0.03		0.04
0.33		0.42		0.20		0.23		0.16
2.01		3.24		1.21		2.00		0.75
0.52		0.52		0.26		0.35		0.25
0.25		0.41		0.19		0.43		0.15
5.77		7.77		1.03		3.15		1.26
15.11		14.25		8.76		11.07		10.93
0.81		0.95		0.17		0.55		0.42
7.35		9.93		2.59		4.39		3.78
0.52		0.42		0.16		0.41		0.33
5.39		6.99		1.38		2.49		1.81
2.77		4.39		1.23		2.07		1.56
35.11		48.43		15.69		25.40		25.30
5.40		7.92		1.93		3.02		2.70
6.76		10.15		3.24		6.26		3.97
1.81		1.98		0.72		0.95		0.71
0.51		0.84		0.34		0.21		0.34
39.72		38.60		10.05		20.24		15.56
31.80		31.75		10.98		19.55		15.86
33.78		30.54		11.91		19.80		22.55
5.68		5.50		1.81		3.40		2.42
18.99		30.27		10.14		11.28		10.50
15.10		17.66		5.76		8.71		7.36
42.12		44.59		15.30		24.84		29.03
12.79		16.21		7.89		20.40		13.08
2.37		4.60		1.76		1.33		1.82
36.40		148.66		139.68		35.41		67.05
3.90		3.49		1.36		2.14		2.42
36.04		29.36		11.07		20.91		21.56
34.17		39.73		11.80		27.02		30.10
87.61		85.36		37.45		60.98		63.70
23.07		17.11		6.23		12.02		11.66

6.30	6.42	2.53		4.99		4.61			
41.47	44.78	15.81		26.27		28.67			
33.81	29.34	10.80		21.76		16.81			
35.54	28.53	12.47		29.20		18.30			
0.79	1.53	0.70		0.73		0.67			
5.64	6.52	3.08		4.21		3.95			
19.20	16.49	6.80		13.78		14.25			
18.60	13.01	6.10		10.80		9.75			
0.82	1.57	0.74		0.98		0.88			
45.24	40.54	17.49		28.85		36.19			
0.84	1.66	0.79		0.79		1.42			
7.86	9.39	4.34		6.78		7.43			
3.28	5.16	2.10		3.20		3.84			
6.97	5.42	2.13		3.62		3.96			
20.40	18.23	9.22		12.84		15.25			
44.30	30.34	15.13		25.24		27.15			
0.68	1.45		ND	3.15		1.37			
0.28	0.45	0.23			ND				
15.66	11.42	6.59		9.21		10.99			
103.52	72.55	42.81		61.06		71.34			
0.35	1.43	0.69		0.56		0.58			
3.83	3.10	1.60		2.15		2.95			
72.45	53.07	29.10		45.06		50.74			
14.15	10.96	5.22		8.53		11.65			
5.57	4.63	2.56		3.41		4.54			
19.88	15.71	10.11		13.49		14.99			
11.81	10.09	5.89		8.00		9.33			
11.62	7.42	3.52		6.37		7.38			
0.74	1.06	0.39		0.58		0.91			
5.10	5.71	2.67		3.21		4.04			
6.33	5.82	3.27		4.22		4.80			
4.66	4.66	2.79		6.56		4.50			
3.08	2.23	1.15		1.85		1.59			
3.60	3.15	1.77		2.78		2.44			
33.70	27.55	16.76		23.73		26.74			
2.18	3.11	1.35		3.24		1.55			
1.43	1.05	0.52		1.20		1.04			
0.37	0.27	0.15		0.21		0.21			
23.74	19.70	11.43		18.60		19.97			
0.34	0.44	0.18		0.29		0.36			
10.10	8.01	5.58		8.30		8.18			
10.91	9.54	6.31		9.35		9.84			
1.07	1.08	0.93		1.05		1.11			
5.42	5.19	3.82		3.95		5.36			
0.42	0.34	0.27		0.39		0.43			
3.51	3.62	1.93		3.60		3.42			
0.12	0.16	0.07		0.24		0.13			
2.21	2.79	1.49		2.54		2.13			
0.80	0.80	0.66		0.97		0.74			
7.48	13.86	4.81		11.25		7.97			
120.15	102.89	40.95		92.79		93.08			
33.25	38.17	16.76		40.46		32.13			
0.87	1.21	0.72		2.10		1.84			
1.95	2.90	1.11		2.12		2.99			
24.97	31.68	9.97		18.08		21.92			
188.68	190.72	74.33		166.80		159.93			

0.12		0.11	0.09	0.13	0.18
0.41		1.18	0.29	0.74	0.58
	BDL	0.32	BDL	0.88	0.55
9.32		7.06	7.66	88.25	16.69
5.32		6.25	2.45	3.42	2.96
4.55		6.85	1.77	9.88	3.36
7.61		5.05	1.48	4.89	3.20
6.25		12.82	4.41	19.93	8.22
11.22		17.99	5.36	28.40	14.93
8.32		6.13	3.21	6.30	7.31
41.93		43.27	18.26	76.63	42.67
85.20		98.35	36.93	149.46	82.66
4.59		5.41	1.28	6.63	2.61
0.15		0.26	0.12	0.42	0.28
0.38		0.45	0.12	0.24	0.37
10.76		21.79	7.18	32.03	6.52
1.23		0.94	0.34	0.78	0.75

1886 Qualifier	1887 75256	1887 Qualifier	1888 77389	1888 Qualifier	1889 75355	1889 Qualifier	1890 75380	1890 Qualifier
	10/25/2001		3/12/2003		11/12/2001		3/26/2002	
	TN6		TN6		S1		S1	
	mummichog		mummichog		silversides		silversides	
	N/A		N/A		N/A		N/A	
	6.762		3.089		5.202		5.198	
	2.199		2.007		2.274		2.270	
	133		109		110		107	
	103		96		98		91	
	111		109		112		103	
	1498		1378		1498		1131	
	299		306		255		309	
	223		195		98		75	
	0.59		1.76		0.80		0.80	
	1.14		1.56		1.89		1.06	
	2.26		0.58		1.80		1.90	
	0.09		0.10		0.13		0.08	
	0.57		0.25		0.44		0.37	
	4.75		1.60		2.56		3.60	
	0.55		0.31		0.48		0.86	
	0.31		0.27		0.16		0.15	
	12.14		2.94		11.14		7.76	
	17.63		12.07		21.61		13.90	
	1.42		0.49		1.44		1.30	
	13.67		6.26		12.35		9.91	
	0.77		0.33		0.68		0.40	
	10.29		5.37		8.68		5.26	
	7.29		3.87		6.28		3.30	
	73.59		43.39		63.28		47.76	
	9.68		3.87		14.66		9.81	
	18.18		8.20		10.80		9.36	
	2.37		1.28		3.80		2.57	
	0.89		0.26		1.78		1.22	
	49.49		38.65		49.17		35.19	
	43.46		34.90		40.57		31.96	
	37.87		35.43		35.91		25.98	
	8.53		5.31		9.93		8.60	
	39.04		14.04		45.52		30.77	
	23.58		11.80		29.50		21.33	
	59.21		47.41		57.65		37.74	
	56.12		66.25		28.79		20.96	
	5.43		1.66		9.14		7.15	
	41.86		41.87		63.76		33.08	
	5.41		4.41		4.49		3.36	
	41.79		36.00		34.92		26.88	
	52.37		51.31		68.25		52.67	
	111.87		96.92		123.91		31.17	
	22.47		23.01		17.89		48.89	

	8.32	7.77	9.04	6.72
	64.97	46.17	74.62	63.88
	37.08	38.29	38.96	32.89
	43.97	42.12	32.37	27.68
	1.90	0.62	3.21	3.22
	8.55	5.44	12.42	9.60
	22.81	22.89	22.06	17.44
	19.05	18.51	17.30	14.27
	1.57	1.44	2.37	2.39
	50.05	53.39	59.02	46.59
	1.89	0.64	4.64	3.55
	9.99	12.22	10.71	10.23
	5.01	5.72	7.36	6.83
	7.11	7.83	5.22	4.72
	19.84	22.32	24.15	20.25
	39.90	46.08	37.01	29.22
	1.23	ND	1.32	0.92
ND	0.53	0.25	0.65	0.68
	13.78	17.80	12.77	11.75
	87.85	107.20	83.17	72.72
	0.83	0.79	2.43	2.22
	3.62	4.43	3.38	3.28
	67.69	79.93	63.82	55.25
	15.11	18.82	13.01	10.85
	5.83	5.69	6.09	5.07
	18.05	22.20	17.97	14.78
	11.81	15.17	11.26	8.87
	10.99	12.61	9.13	8.19
	1.23	1.25	1.12	0.88
	5.43	5.46	6.55	5.04
	6.93	6.52	6.73	5.87
	7.78	8.70	5.71	4.96
	2.68	3.26	2.15	2.02
	3.79	4.21	3.15	2.56
	34.81	39.45	32.27	23.24
	3.60	4.68	2.30	1.91
	1.48	1.77	0.94	0.82
	0.33	0.31	0.35	0.31
	28.16	31.16	22.17	17.41
	0.41	0.41	0.49	0.90
	12.22	12.40	9.37	7.51
	14.01	16.53	13.67	10.24
	1.43	1.59	1.88	1.49
	6.04	8.88	6.72	5.26
	0.60	0.72	0.65	0.49
	5.40	5.46	4.75	3.77
	0.29	0.31	0.57	0.35
	3.99	3.59	5.61	4.31
	1.32	1.35	1.19	0.99
	25.58	13.68	23.41	24.16
	152.16	182.16	152.24	194.92
	79.09	75.91	33.99	25.79
	1.58	3.34	1.51	1.85
	3.11	2.92	9.40	12.66
	37.46	28.33	34.37	49.93
	298.98	306.34	254.92	309.30

0.26	0.17	0.17		0.26
1.46	0.48	0.46		0.76
0.44	0.79		BDL	0.44
10.19	0.89	5.22		32.28
8.44	4.79	9.58		6.83
11.54	13.21	4.54		3.17
11.00	9.22	4.33		5.23
21.96	11.20	9.66		6.03
43.58	35.90	14.29		7.83
9.92	10.89	7.81		6.86
116.34	110.17	47.84		39.51
222.78	195.38	98.05		75.46
9.44	7.67	4.17		2.84
0.28	0.47	0.23		0.27
0.43	0.59	0.40		0.21
19.35	6.92	12.63		5.25
2.12	1.78	0.62		0.49

75380	Qualifier	76435	Qualifier	75361	Qualifier	75423	Qualifier	75424
3/26/2002		7/22/2002		1/23/2002		4/23/2002		4/26/2002
S1		S2		TN3		S2		S3
silversides		silversides		mummichog		silversides		silversides
N/A		N/A		N/A		N/A		N/A
4.802		2.590		4.316		2.799		2.806
2.520		2.019		2.039		2.001		2.053
112		96		106		104		102
92		86		88		87		87
105		99		97		101		98
1123		811		817		1380		873
313		126		153		209		159
77		46		73		97		71
0.68		0.92		0.88		0.34		0.76
2.21		0.80		1.09		2.18		1.39
1.53		0.74		0.78		1.15		1.31
0.13		0.06		0.10		0.11		0.05
0.34		0.42		0.30		0.57		0.25
3.57		1.61		2.93		2.86		2.00
0.63		0.35		0.31		0.62		0.41
0.15		0.17		0.12		0.30		0.16
8.12		6.41		3.24		10.99		6.15
12.64		4.18		2.69		6.87		3.89
1.40		0.69		0.45		1.10		0.72
9.74		5.88		8.01		11.31		6.40
0.42		0.14		0.99		0.94		0.56
5.03		5.85		2.64		11.66		5.23
2.95		3.93		1.50		9.35		4.22
44.44		33.59		34.96		60.57		33.44
10.15		8.29		3.62		17.33		8.59
8.92		5.63		6.89		11.35		6.14
2.38		1.82		1.13		3.94		2.08
1.20		0.90		0.27		1.99		1.16
35.01		27.60		20.10		49.95		28.28
30.62		23.93		21.31		42.71		24.56
30.28		21.47		27.79		41.30		23.11
5.95		4.44		4.59		6.36		4.23
29.98		25.24		12.18		46.95		25.77
20.51		15.88		9.33		29.77		16.04
35.84		31.52		36.02		61.39		33.09
16.50		10.55		12.16		22.86		17.34
6.26		5.01		1.71		8.61		5.37
32.40		1.54		1.32		3.35		1.95
3.42		2.52		3.39		4.95		2.63
26.07		20.85		27.31		35.89		19.83
51.47		44.65		27.58		80.60		44.77
73.17		68.70		81.46		116.56		75.96
25.33		13.30		9.15		22.74		10.56

7.06	5.45	5.04		10.65	6.22
65.24	40.86	34.85		79.21	42.48
32.39	23.09	18.35		38.43	25.24
25.44	19.03	24.03		28.47	20.53
2.87	1.99	0.82		3.52	2.01
9.40	8.08	4.89		13.79	8.06
17.11	13.24	14.13		23.69	14.30
10.29	9.90	12.29		16.38	10.34
2.15	1.46	0.89		2.26	1.85
45.26	36.78	32.84		59.27	38.31
3.36	3.18	0.78		5.88	3.22
9.89	6.11	6.37		10.16	7.81
6.97	4.66	2.77		7.17	5.31
4.88	3.34	4.16		5.06	3.13
20.68	15.21	13.66		22.04	17.32
28.00	23.67	28.94		34.45	21.56
1.05	0.77		ND		ND 0.58
0.64	0.43	0.25		0.64	0.48
12.07	8.07	10.63		11.22	8.96
71.52	51.01	63.92		71.05	56.94
2.33	1.55	0.52		2.90	1.78
3.63	2.09	2.54		3.83	2.40
54.00	37.75	45.30		53.92	40.67
10.60	7.34	8.93		13.29	8.05
5.16	3.65	3.53		5.82	3.87
14.72	9.82	13.49		13.06	11.63
9.06	6.13	7.52		9.00	7.43
8.08	5.41	7.09		8.09	5.79
1.16	0.61	0.61		1.08	0.91
4.85	3.29	3.54		6.12	4.45
6.00	3.78	4.52		5.22	4.61
5.03	3.04	3.58		4.39	3.74
2.38	1.43	1.79		2.09	1.48
2.80	1.93	2.09		2.92	2.24
22.04	16.00	20.62		23.64	18.94
2.29	1.07	1.10		2.28	1.28
1.33	0.53	0.73		0.83	0.71
0.45	0.16	0.19		0.34	0.22
16.56	10.84	15.50		17.32	13.40
0.56	0.26	0.20		0.46	0.42
7.06	3.83	7.54		6.46	5.45
9.86	5.52	7.67		9.76	7.93
1.88	0.80	0.73		1.51	1.50
5.86	2.97	4.68		4.55	4.12
0.62	0.32	0.37		0.38	0.34
3.13	2.00	2.58		3.50	2.64
0.70	0.25	0.09		0.40	0.42
3.90	1.95	1.74		3.77	3.33
0.79	0.36	0.70		0.65	0.69
22.60	13.24	7.18		21.92	14.47
197.76	73.82	88.51		117.71	94.81
26.77	18.07	28.81		32.12	25.47
2.33	0.62	0.47		1.22	0.67
14.21	4.15	1.28		9.17	5.73
49.59	16.49	27.04		27.07	18.26
313.26	126.39	153.29		209.21	159.42

0.27	0.08	0.11		0.19	0.08
0.63	0.35	0.33		0.35	0.42
0.26	0.28		BDL	0.30	0.35
31.22	10.44	7.24		13.25	61.17
6.50	4.48	5.71		9.39	5.18
3.27	1.51	4.37		1.38	2.58
5.80	2.30	5.58		3.78	3.03
6.53	3.81	6.37		11.36	8.54
10.88	6.04	11.88		18.87	12.11
6.79	4.47	5.93		8.31	4.69
37.59	23.12	32.89		43.57	34.62
77.35	45.75	72.72		96.66	70.75
2.99	1.32	4.30		2.18	1.94
0.16	0.19	0.20		0.22	0.18
0.26	0.20	0.27		0.17	0.25
5.18	5.89	9.80		9.52	9.29
0.50	0.34	0.92		0.52	0.43

Qualifier	77903	Qualifier	75308	Qualifier	75308	Qualifier	75434	Qualifier
	5/7/2003		11/27/2001		11/27/2001		5/8/2002	
	TN2		TN1		TN1		TN2	
	silversides		white perch		white perch		white perch	
	N/A		N/A		N/A		N/A	
	2.617		2.569		1.907		5.148	
	2.029		2.055		2.019		1.484	
	102		100		94		104	
	85		89		86		89	
	97		106		98		94	
	665		697		644		2113	
	140		185		145		1564	
	45		46		35		278	
	0.73		1.28		1.05		0.41	
	2.91		2.50		1.43		2.03	
	0.76		0.54		0.53		1.27	
	0.09		0.07		0.06		0.10	
	0.16		0.26		0.18		1.55	
	1.48		1.40		1.46		3.47	
	0.27		0.38		0.34		1.07	
	0.17		0.15		0.15			ND
	3.64		5.13		3.91		12.46	
	2.15		7.06		10.89		28.67	
	0.59		0.72		0.61		2.26	
	4.02		6.58		5.14		15.58	
	0.29		0.20		0.36		0.77	
	2.53		2.77		2.38		6.56	
	1.64		1.47		1.43		4.03	
	20.31		17.75		15.46		57.79	
	5.50		4.71		3.87		17.75	
	3.74		4.56		3.53		18.00	
	1.73		1.33		1.25		5.02	
	0.85		0.68		0.61		2.69	
	18.39		17.57		14.15		50.31	
	16.05		15.01		12.13		41.82	
	15.30		21.27		16.67		51.77	
	3.70		2.98		2.52		10.42	
	15.77		14.79		11.92		46.29	
	9.60		8.92		7.14		31.44	
	19.79		19.66		15.89		64.88	
	14.55		13.88		11.42		37.95	
	3.06		2.80		2.45		11.27	
	1.62		44.63		132.21		148.91	
	1.70		1.41		1.16		5.60	
	13.36		17.86		13.62		46.63	
	29.98		17.08		12.97		69.18	
	43.04		57.29		41.27		154.96	
	12.08		5.87		6.78		24.82	

4.25	3.20	2.39	10.72
30.82	36.59	27.19	153.45
20.57	13.50	10.51	46.62
16.81	17.58	13.56	57.64
1.88	0.92	0.68	7.48
6.30	3.71	2.67	14.95
10.70	7.61	5.77	27.71
7.74	8.32	5.36	19.35
1.76	0.90	0.74	4.20
27.89	20.93	16.14	76.78
2.13	1.08	0.78	5.84
6.74	3.80	2.81	16.90
4.63	2.23	1.71	11.72
2.70	2.21	1.83	8.83
14.84	9.93	7.83	33.33
18.19	23.11	18.11	54.66
1.71	ND	1.31	ND
0.19	0.21	ND	1.85
8.50	8.24	6.45	23.16
53.24	60.83	48.65	142.21
1.98	0.64	0.46	3.47
2.54	1.06	0.87	3.32
37.55	38.60	30.06	107.68
7.35	10.48	6.13	21.26
3.91	3.19	2.06	9.67
10.79	11.24	8.34	28.66
7.16	7.65	5.54	18.26
5.47	5.31	3.76	15.65
0.93	0.44	0.33	1.58
3.69	1.98	1.46	8.22
4.40	2.06	1.42	8.17
3.41	3.05	2.04	7.86
1.47	1.51	1.17	5.12
2.34	1.99	1.53	7.03
16.91	20.29	15.63	56.96
2.15	1.45	1.27	2.65
1.12	0.64	0.59	2.99
0.39	0.13	0.24	0.65
12.28	13.18	9.51	44.26
0.81	0.26	0.28	1.37
4.97	5.29	4.11	12.92
6.61	8.51	6.34	19.84
1.88	1.15	0.79	3.54
4.29	3.84	3.12	9.91
0.58	0.41	0.29	0.67
2.78	2.85	2.04	7.79
0.63	0.29	0.14	0.55
2.89	2.83	2.10	6.35
0.60	0.72	0.47	1.19
10.75	7.88	5.73	88.46
95.02	120.80	94.25	696.90
13.85	17.05	13.40	83.20
1.85	1.28	1.03	43.90
4.60	7.38	5.89	178.59
13.53	30.99	24.70	472.74
139.61	185.37	145.00	1563.80

0.12		0.10	0.17	0.23
0.17		0.24	0.23	0.40
	BDL	0.24	BDL	0.45
1.14		0.59	0.75	3.02
3.82		4.48	3.88	12.69
2.96		1.46	1.52	9.84
2.00		5.56	4.63	25.15
4.04		1.76	1.34	23.03
6.12		6.22	4.50	59.44
5.12		4.61	3.63	22.96
20.59		22.09	15.27	124.40
44.65		46.17	34.77	277.50
2.11		2.16	1.40	8.21
0.23		0.30	0.19	0.53
0.25		0.19	0.22	0.31
3.25		3.15	2.37	9.82
0.39		0.60	0.42	2.40

1898	1898	1899	1899	1900	1900	1901A	1901A	1901B
75439	Qualifier	75440	Qualifier	75441	Qualifier	75178	Qualifier	75178
5/8/2002		5/8/2002		5/8/2002		9/25/2001		9/25/2001
TN2		TN2		TN2		S2		S2
white perch		white perch		white perch		white perch		white perch
N/A		N/A		N/A		N/A		N/A
1.618		2.187		1.401		2.023		2.265
2.027		2.030		2.049		2.012		2.084
104		101		100		100		92
84		100		96		87		83
96		90		96		93		88
660		948		750		242		235
119		202		131		43		43
44		70		52		9		8
0.71		1.72		3.46		0.36		0.26
4.23		2.90		3.84		0.91		1.37
0.44		0.79		0.32		0.58		0.51
0.12		0.11		0.17		0.04		0.04
0.25		0.35		0.29		0.12		0.12
1.36		1.75		0.91		0.67		0.64
0.41		0.58		0.37		0.20		0.20
0.12		0.30		0.13		0.04		0.03
3.30		6.12		2.99		1.78		1.62
8.95		24.26		13.66		1.55		3.39
0.50		0.95		0.40		0.23		0.21
3.88		8.13		4.08		1.63		1.60
0.36		0.86		0.55			BDL	0.19
2.78		5.45		3.76		0.88		0.84
2.02		3.88		2.48		0.59		0.53
16.31		26.98		17.82		7.53		7.27
5.19		9.27		6.18		0.48		0.58
4.13		9.13		5.17		1.50		1.44
1.62		2.76		2.00		0.45		0.42
0.91		1.77		1.14		0.25		0.25
18.36		31.06		24.12		5.66		5.43
14.92		24.08		21.28		5.26		5.09
12.60		28.40		22.91		5.42		4.31
3.98		7.27		4.17		1.23		1.50
16.93		30.58		24.17		4.31		4.05
10.09		20.76		16.26		2.46		2.46
21.61			ND	10.96		5.06		4.92
14.94			ND		ND	3.97		6.27
3.30		0.80		0.25		0.87		0.92
23.94			ND		ND	0.69		0.28
1.54		3.38		3.79		0.58		0.64
12.45		26.83		18.13		4.40		4.28
27.78		33.64		30.92		7.89		7.63
47.05		28.11		15.20		5.71		5.07
7.25		36.30		34.90		6.06		5.94

3.69		5.14		4.83		1.07		1.07	
34.22		56.10		41.58		12.52		12.10	
16.39		21.82		19.94		5.55		5.38	
14.30		25.27		18.91		4.83		4.72	
1.22		1.84		1.67		0.36		0.30	
5.37		7.39		7.19		1.30		1.63	
9.11		11.96		11.47		2.83		2.61	
6.78		11.68		9.63		2.35		2.10	
1.45		1.87		1.50		0.38		0.36	
23.57		33.21		31.17		6.36		6.42	
1.90		2.61		2.87		0.68		0.56	
4.70		7.05		5.65		1.37		1.30	
3.22		5.04		4.15		1.24		1.02	
2.35		4.52		3.04		1.28		1.16	
10.87		16.51		14.00		4.31		4.10	
16.95		30.66		24.67		7.00		6.68	
	ND		ND	0.93		0.79		0.59	
0.33		0.43		0.55		0.09		0.06	
7.13		13.56		9.04		3.67		3.43	
48.46		79.22		58.10		26.47		25.42	
1.28		1.64		1.59		0.44		0.30	
1.33		2.57		2.06		0.80		0.67	
34.77		58.48		43.10		17.56		16.99	
6.34		11.74		8.66		2.94		2.50	
3.24		5.22		4.15		1.80		1.64	
10.48		20.12		12.68		5.65		5.35	
6.69		9.93		7.85		3.61		3.36	
4.76		8.58		6.24		2.48		2.27	
0.66		0.88		0.85		0.21		0.14	
2.40		4.66		3.75		0.75		0.76	
2.00		5.92		3.78		2.15		2.10	
3.22		4.80		4.03		2.48		2.34	
1.43		2.04		1.65		0.74		0.58	
2.49		4.00		2.95		1.26		1.14	
21.26		28.27		23.61		10.72		10.43	
1.75		2.78		2.60		1.43		1.02	
0.81		1.33		0.99		0.38		0.55	
0.16		0.42		0.23		0.03		0.07	
15.89		22.36		17.76		7.56		7.22	
0.58		0.63		0.41		0.17		0.22	
6.45		8.59		6.81		3.75		3.73	
9.57		10.66		9.82		4.21		4.17	
1.49		1.84		1.86		0.69		0.70	
4.70		5.64		5.03		2.07		1.98	
0.40		0.50		0.56		0.12		0.12	
4.19		4.22		4.21		2.01		1.95	
0.31		0.34		0.40		0.10		0.09	
4.28		3.63		4.19		1.53		1.36	
0.88		0.69		0.86		0.20		0.21	
10.63		13.92		12.79		2.33		2.25	
63.06		116.87		76.54		18.55		18.51	
17.91		25.44		19.52		4.57		4.71	
0.99		1.46		1.30			BDL	0.53	
5.94		13.90		6.37		2.38		2.44	
20.35		30.16		14.43		15.09		15.04	
118.88		201.74		130.93		43.37		43.49	

0.09		0.17	0.15	0.08	0.07
0.18		0.32	0.23	0.29	0.21
	BDL	0.32	0.29	0.55	0.53
1.08		3.26	1.26	1.11	1.09
3.43		6.47	4.58	0.62	0.66
1.39		2.13	1.14	0.72	0.71
1.78		5.56	1.91	0.70	0.61
4.53		5.07	3.41	0.64	0.54
9.61		12.37	8.96	1.26	1.29
3.29		6.41	5.73	1.45	1.03
20.24		31.84	26.28	3.69	3.44
44.27		69.85	52.02	9.08	8.28
1.05		2.55	1.22	0.45	0.49
0.24		0.40	0.39	0.24	0.29
0.12		0.16	0.16	0.19	0.16
3.51		6.08	1.85	1.55	1.47
0.28		0.69	0.50	0.21	0.20

1901B Qualifier	1901C 75178	1901C Qualifier	1902 75427	1902 Qualifier	1903 76259	1903 Qualifier	1904 76263	1904 Qualifier
	9/25/2001		5/8/2002		6/4/2002		6/4/2002	
	S2		TN3		TN3		TN3	
	white perch		white perch		white perch		white perch	
	N/A		N/A		N/A		N/A	
	2.112		1.598		7.440		4.586	
	2.003		0.870		2.074		2.067	
	103		95		147		100	
	92		86		96		88	
	98		91		123		104	
	252		1017		5190		3709	
	46		100		1069		508	
	9		41		394		193	
	0.28		1.49		0.75		1.00	
	0.98		1.85		4.44		7.73	
	0.66		0.21		6.58		2.92	
	0.05		0.10		0.17		0.19	
	0.14		0.63		1.32		0.95	
	0.83		2.20		6.96		4.79	
	0.24		0.57		1.47		1.02	
	0.05		0.08		0.17		0.14	
	1.68		9.20		25.39		19.22	
	3.67		9.21		21.56		15.37	
	0.26		0.86		3.16		2.01	
	1.74		8.22		28.85		20.53	
		BDL	0.62		2.34		2.20	
	0.72		7.80		24.65		22.62	
	0.52		5.43		17.20		16.18	
	7.77		46.13		153.29		125.34	
	0.57		4.83		19.35		13.68	
	1.68		7.40		37.27		26.96	
	0.44		3.16		14.41		3.89	
	0.30		2.00		6.65		5.02	
	5.92		39.06		159.01		121.44	
	5.58		31.01		132.26		107.21	
	5.54		17.81			ND	81.35	
	1.15		7.34		41.18		18.91	
	4.44		36.12		138.32		115.38	
	2.61		16.72		86.08		74.56	
	4.09		44.40		187.36		158.30	
	5.80		25.33		145.69		107.86	
	0.98		5.47		26.02		21.99	
	1.23		49.89		76.22		53.11	
	0.58		3.24		19.91		14.74	
	4.67		25.08		142.92		103.94	
	8.26		55.57		256.34		218.85	
	5.65		26.34		65.90		65.21	
	6.37		38.04		228.95		158.32	

1.20	7.26	34.31	26.50
12.41	70.12	401.00	305.57
5.84	24.96	144.01	93.03
5.26	20.91	141.32	83.77
0.33	2.20	16.37	10.16
1.31	8.71	50.05	36.28
2.83	14.59	87.03	61.72
2.31	8.10	70.35	50.83
0.34	1.60	12.62	7.10
7.13	41.58	214.16	150.37
0.59	3.22	20.62	18.50
1.35	4.94	44.05	22.80
1.12	4.38	33.63	19.35
1.31	4.09	32.05	17.61
4.43	13.92	87.14	53.47
7.42	26.19	147.78	98.35
0.37	1.44	5.08	3.91
0.07	0.34	2.31	1.41
3.75	8.50	52.49	29.12
27.47	56.45	316.07	184.90
0.30	1.34	9.52	6.43
0.24	1.48	4.13	2.17
18.38	38.81	246.03	144.27
2.68	5.98	50.54	28.22
1.65	3.49	24.79	10.44
5.73	12.27	74.04	39.05
3.64	6.08	41.87	25.40
2.54	3.77	39.89	23.60
0.17	0.84	5.72	3.47
0.82	2.64	25.66	16.07
2.20	2.48	19.02	11.98
2.56	3.27	20.21	13.24
0.76	1.81	12.17	7.97
1.40	2.28	16.83	10.28
11.35	18.79	132.87	81.96
1.36	12.10	157.47	85.31
0.40	1.54	5.69	3.33
0.05	0.38	1.07	0.83
8.12	12.76	110.53	68.31
0.19	0.56	2.12	1.76
4.05	5.58	39.83	28.98
4.45	7.76	56.51	38.80
0.92	2.06	14.01	9.40
2.16	4.32	30.22	15.75
0.14	0.54	2.14	1.78
2.11	2.91	24.19	17.60
0.13	0.32	1.56	1.09
1.39	3.36	22.54	19.71
0.24	0.70	4.17	4.14
2.67	14.03	95.92	61.98
20.37	35.97	571.46	238.01
4.65	17.12	171.08	84.15
0.62	2.00	9.35	3.11
2.34	7.73	76.56	44.07
14.90	23.10	144.91	76.90
45.54	99.95	1069.30	508.22

0.10	0.25	0.42	0.32
0.23	0.18	4.93	1.64
0.57	BDL	0.74	0.25
1.18	3.14	22.55	6.55
0.64	5.21	26.96	19.16
0.80	1.92	16.01	6.49
0.69	3.51	19.63	8.38
0.70	3.67	39.06	16.16
0.99	8.05	90.68	41.97
1.18	3.54	35.28	18.69
3.87	15.43	166.48	82.44
8.86	41.33	394.10	193.28
0.43	1.71	14.22	6.51
0.27	0.61	1.83	1.08
0.11	0.32	0.41	0.37
1.55	4.39	36.23	16.36
0.12	0.54	2.58	1.71

1905	1905	1906	1906	1907	1907	1908	1908	1909
76264	Qualifier	76265	Qualifier	76270	Qualifier	76272	Qualifier	75236
6/4/2002		6/4/2002		6/4/2002		6/4/2002		10/25/2001
TN3		TN3		TN3		TN3		TN4
white perch		white perch		white perch		white perch		white perch
N/A		N/A		N/A		N/A		N/A
6.369		4.387		4.056		4.404		2.285
2.019		0.857		0.853		2.057		2.035
120		104		91		100		100
91		88		85		85		86
106		95		90		100		92
6822		2234		3060		2757		739
611		359		338		606		132
304		143		153		209		71
0.70		0.87		0.65		0.16		0.72
1.63		5.68		11.96		4.65		4.56
5.03		2.69		3.14		1.58		0.70
0.42		0.14		0.76		0.12		0.07
4.83		0.73		1.50		0.72		0.31
16.04		3.26		4.36		2.81		1.78
3.02		1.07		1.00		1.14		0.48
0.68		0.12		0.09		0.07		0.18
49.04		13.60		17.41		14.39		5.99
36.77		10.71		10.92		12.84		4.56
5.52		1.50		1.94		2.09		1.00
56.74		13.89		18.67		17.70		6.56
4.90		1.37		1.71		0.78		0.68
70.02		11.34		22.26		8.88		4.81
59.58		8.28		16.74		4.60		3.14
330.09		76.65		109.69		60.74		28.02
52.28		8.83		11.52		9.18		3.73
76.13		16.12		20.62		19.59		7.19
25.23		5.12		7.32		5.29		2.50
14.66		3.33		5.46		3.23		1.31
265.82		73.01		111.02		63.03		25.26
235.38		63.99		98.49		53.94		21.93
176.67		48.26		77.44		59.66		18.75
42.88		12.53		18.16		15.53		5.21
263.73		66.90		100.56		57.52		23.02
165.74		41.26		61.75		36.63		12.67
363.68		87.61		140.62		80.41		29.87
241.68		69.08		87.58		48.53		16.72
50.92		13.47		17.19		13.06		3.96
63.57		5.71		8.64		56.88		2.22
34.46		6.60		14.03		9.44		2.33
211.76		52.72		92.09		81.38		21.52
466.83		120.01		176.73		94.05		35.21
155.16		33.27		93.16		42.56		15.23
290.40		91.79		121.56		104.23		30.08

49.17	16.20	23.37	12.69	4.41
655.19	159.80	244.78	182.69	48.54
161.49	62.66	79.38	54.07	17.49
141.85	53.53	75.05	82.14	21.32
19.02	5.82	8.47	6.10	1.39
67.78	22.37	30.82	17.50	5.76
121.92	35.21	52.33	32.58	9.94
106.33	26.60	43.00	31.67	7.73
10.04	5.49	5.47	5.54	1.29
269.35	95.93	128.34	90.12	26.87
38.85	9.65	14.14	6.56	2.10
30.83	17.48	17.09	17.23	3.84
28.69	13.65	15.13	13.77	2.99
30.17	10.12	12.95	13.91	2.54
65.88	39.80	41.62	45.16	9.98
156.12	54.28	89.24	80.56	21.89
6.37	4.00	6.72	4.16	0.70
1.90	0.92	1.05	0.80	0.22
34.69	20.31	27.23	40.25	7.49
214.17	129.60	161.72	266.65	50.88
6.07	4.90	4.01	4.84	0.84
2.98	1.40	2.17	1.74	0.28
181.72	98.63	119.87	162.37	32.59
39.92	16.65	22.32	33.80	5.78
9.95	9.78	7.04	13.24	2.69
39.39	27.81	32.13	58.16	9.09
26.69	16.76	18.49	35.71	5.67
33.41	14.23	15.80	23.78	3.84
3.38	2.10	2.06	2.06	0.65
16.73	10.76	9.86	12.95	1.94
12.42	8.05	8.43	12.00	1.22
12.99	9.92	8.88	14.11	2.39
7.73	4.18	5.53	7.64	1.52
10.23	5.81	7.39	11.67	1.96
82.16	52.20	56.25	103.80	18.38
84.06	64.96	54.42	54.37	22.32
3.61	2.40	2.46	4.78	0.67
0.68	0.58	0.40	0.52	0.12
69.17	41.71	40.58	78.00	11.81
1.56	1.21	1.16	1.78	0.27
25.57	17.06	15.56	25.60	5.33
36.70	23.37	22.32	41.39	7.84
8.99	7.08	7.10	9.24	1.74
18.67	12.79	10.31	20.54	2.43
1.54	1.13	0.80	1.29	0.38
14.53	10.17	8.15	16.55	2.96
0.92	0.72	0.43	1.20	0.15
15.71	10.64	9.55	10.33	3.71
2.70	2.09	1.72	1.93	0.95

106.97	40.27	46.51	43.33	
241.45	168.79	149.94	379.80	72.82
103.11	69.25	60.23	65.62	30.96
3.90	3.81	3.31	3.98	0.89
65.85	22.06	31.77	36.57	6.18
90.06	54.77	46.61	76.80	20.93
611.34	358.94	338.37	606.09	131.78

0.28	0.39	0.29	0.25	0.12
1.89	0.67	1.89	0.58	0.68
0.41	0.79	0.59	0.23	0.27
13.43	9.18	11.44	2.25	4.62
44.43	12.00	18.01	15.70	4.97
14.49	6.28	6.04	10.83	2.80
15.89	4.51	8.74	17.54	4.95
24.38	13.79	12.31	13.87	6.35
57.10	34.93	30.92	34.30	18.64
31.41	9.59	15.89	18.06	3.82
116.44	62.08	61.07	98.78	29.47
304.13	143.18	152.98	209.09	70.99
13.54	4.62	4.88	7.35	1.97
2.25	1.08	1.10	0.38	0.18
0.59	0.62	0.52	0.44	0.16
25.35	19.58	16.39	10.37	5.21
3.16	1.55	1.49	1.70	0.72

1909 Qualifier	1910 75395	1910 Qualifier	1911 75396	1911 Qualifier	1912 75398	1912 Qualifier	1913 75277	1913 Qualifier
	4/10/2002		4/10/2002		4/10/2002		9/12/2001	
	TR4		TR4		TR4		TN5	
	white perch		white perch		white perch		white perch	
	N/A		N/A		N/A		N/A	
	3.600		5.613		4.033		1.788	
	2.111		2.405		2.058		2.013	
	112		111		106		107	
	91		86		92		94	
	94		99		94		90	
	1505		2407		1726		360	
	280		515		258		52	
	119		227		118		21	
	0.46		2.13		0.47		1.18	
	4.02		ND		0.79		1.60	
	1.06		1.81		1.52		0.33	
	0.09		0.09		0.06		0.07	
	0.47		0.67		0.39		0.26	
	2.97		3.14		2.24		0.70	
	0.78		0.94		0.58		0.23	
	0.32		0.15		0.08		0.13	
	10.77		12.34		10.92		2.55	
	15.41		17.13		12.33		14.01	
	1.26		1.58		1.11		0.35	
	11.06		14.27		11.93		2.30	
	1.39		1.42		0.58		0.42	
	8.07		11.60		7.55		1.24	
	5.56		8.59		4.90		1.01	
	49.14		78.56		53.30		8.79	
	5.32		6.94		14.42		0.89	
	11.49		17.97		11.26		2.67	
	2.77		5.45		4.21		0.96	
	2.46		2.98		2.22		0.54	
	47.17		71.52		46.51		12.12	
	40.24		67.42		40.11		10.47	
		ND	16.55		37.94		7.99	
	23.13		42.59		8.20		3.67	
	45.04			ND	42.63		10.49	
	27.66		13.86		23.30		6.00	
	58.81		42.10		58.53		4.49	
	15.31		11.65		36.05		3.36	
	9.43			ND	9.44		2.07	
	50.33		39.28		111.93			ND
	4.08		8.69		3.89		0.99	
	42.49		66.49		32.31		7.65	
	68.09		120.63		61.19		10.85	
	21.82		20.01		49.55		7.79	
	65.80		113.62		43.52		13.40	

	9.81	16.68	10.05	2.20
	113.69	162.35	91.41	17.27
	35.39	70.62	38.32	10.03
	43.11	71.72	41.00	8.25
	3.28	5.99	3.27	0.61
	12.08	21.81	11.41	2.77
	21.22	44.95	21.56	5.23
	19.27	34.45	12.70	4.50
	3.26	4.82	4.56	0.67
	57.01	109.35	51.61	11.74
	5.58	9.92	4.61	1.00
	9.89	23.43	17.78	2.44
	7.10	15.93	10.66	1.64
	6.16	12.93	5.76	1.44
	20.90	39.43	35.83	7.39
	42.55	68.76	34.75	10.99
	2.33	3.55	4.87	1.06
	0.50	0.85	0.71	0.14
	14.72	26.58	18.16	4.21
	99.32	172.32	110.87	30.70
	2.78	4.21	5.96	0.59
	0.49	ND	5.20	0.92
	69.04	126.87	79.17	21.66
	14.46	26.71	17.07	3.44
	6.65	12.17	9.56	2.11
	19.21	36.21	29.55	6.25
	12.47	24.14	18.86	3.60
	11.19	20.94	9.71	3.06
	1.25	2.51	2.81	0.30
	5.14	11.58	13.63	1.43
	4.74	11.14	8.69	1.59
	0.67	ND	14.49	1.69
	2.93	5.85	3.37	0.75
	4.64	10.20	7.03	1.31
	37.06	77.80	54.71	10.29
	52.21	120.09	51.28	9.51
	2.26	4.02	2.34	0.53
	0.44	0.34	0.55	0.13
	28.65	63.70	43.59	6.97
	0.81	1.29	1.02	0.24
	10.24	23.11	15.13	3.66
	13.62	32.98	21.95	4.71
	4.55	8.11	6.23	1.88
	6.65	16.24	11.06	2.30
	0.57	1.28	0.64	0.33
	5.13	13.59	8.76	1.82
	0.35	0.81	0.52	0.15
	4.47	10.86	5.98	2.04
	0.89	2.14	1.66	0.68
ND	7.20	10.97	24.01	3.88
	159.39	284.43	107.45	18.33
	51.62	121.31	60.61	13.20
	1.34	1.55	1.39	0.62
	17.41	25.38	17.16	3.35
	43.13	70.90	47.72	12.25
	280.10	514.53	258.34	51.63

0.20		0.27	0.17	0.10	
0.71		1.81	0.60	0.28	
	BDL	0.29	0.27		BDL
2.64		8.40	3.84	1.09	
2.13		3.85	9.69	1.17	
5.09		6.37	5.11	1.65	
9.78		12.45	5.91	1.52	
16.20		20.46	15.88	2.34	
25.89		53.18	32.87	6.24	
7.99		13.37	5.91	1.46	
52.35		117.48	42.65	6.74	
119.42		227.17	118.02	21.12	
4.90		6.97	4.70	0.96	
0.72		0.87	0.49	0.13	
0.46		0.50	0.40	0.18	
13.13		23.46	11.73	2.98	
1.21		1.65	1.04	0.30	

1913dup 75277	1913dup Qualifier	1914 75347	1914 Qualifier	1915 75387	1915 Qualifier	1916 75389	1916 Qualifier	1917 75392
9/12/2001		12/11/2001		4/10/2002		4/10/2002		4/10/2002
TN5		TN5		TR5		TR5		TR5
white perch		white perch		white perch		white perch		white perch
N/A		N/A		N/A		N/A		N/A
2.031		3.386		5.433		7.387		1.899
2.019		2.156		2.393		2.369		2.054
81		112		113		136		101
75		97		86		95		93
69		92		85		99		96
348		1681		1524		2744		819
44		157		274		436		115
18		75		180		186		32
1.88		0.40		1.30		0.86		0.92
2.95		3.03		1.54		2.86		1.19
0.24		0.95		2.18		3.05		0.41
0.08		0.08		0.07		0.13		0.08
0.27		0.35		0.59		1.17		0.22
1.03		2.13		5.76		6.51		1.28
0.34		0.61		0.75		1.36		0.23
0.11		0.18		0.32		0.26		0.13
2.13		10.28		14.30		23.20		4.26
18.03		13.38		12.98		22.02		7.36
0.33		1.04		1.55		2.63		0.50
2.10		10.19		15.39		26.07		4.37
0.32		0.87		0.89		1.21		0.23
1.13		10.59		10.39		19.66		2.79
0.76		8.01		9.77		14.41		1.60
8.06		58.58		69.84		111.95		16.81
0.82		16.95		17.46		32.12		5.31
2.57		11.12		16.80		27.30		3.73
0.80		4.51		4.45		8.75		1.41
0.49		2.86		3.15		5.17		0.94
11.77		61.55		52.68		98.85		23.77
10.35		52.73		42.84		81.06		19.98
7.64		38.77		32.80		72.97		16.77
3.26		15.22		9.88		15.87		4.80
9.83		58.59		50.85		92.59		19.65
6.06		33.55		26.96		53.81		11.76
4.10		78.45		63.72		119.27		27.27
7.61		39.42		45.37		56.27		11.89
1.74		10.53		10.36		18.63		3.70
	ND	127.66		64.67		122.37		58.04
0.88		6.21		4.27		8.84		2.06
7.37		42.99		33.91		65.64		16.53
10.27		89.52		73.95		135.88		28.30
9.64		53.06		38.73		113.87		47.10
11.73		65.89		51.20		87.07		15.20

2.08	13.96	10.65		19.34	5.28
15.26	129.98	100.06		201.61	41.72
9.78	41.15	37.01		67.14	21.23
8.26	37.04	25.42		38.71	18.83
0.63	4.66	3.19		6.29	1.61
2.53	16.92	12.54		23.27	6.54
4.78	28.47	22.19		39.77	11.29
3.85	22.89	15.86		30.85	7.29
0.66	3.40	3.60		5.56	1.68
10.94	63.07	55.03		95.57	29.08
0.92	9.14	6.06		11.62	2.87
2.35	9.61	11.23		20.16	5.79
1.48	8.24	8.51		15.02	4.59
1.23	6.05	5.20		10.61	3.02
7.13	22.04	25.73		42.40	15.78
10.18	37.92	33.56		61.57	21.48
1.37	7.48	5.75		6.07	2.95
0.15	0.68	0.71		1.03	0.31
3.73	10.55	12.45		21.97	8.80
29.48	61.27	77.40		132.86	58.85
0.51	2.54	3.11		5.16	2.04
0.83	3.25	3.59		6.50	2.18
19.81	50.05	59.91		104.29	41.48
3.29	10.08	12.14		23.19	9.04
1.65	3.19	6.21		11.07	4.64
5.66	12.73	17.04		30.56	13.65
3.42	7.44	9.90		17.49	8.91
2.66	9.08	9.47		18.99	6.82
0.30	1.36	1.35		2.18	1.05
1.29	5.20	7.46		10.75	3.03
1.23	4.20	5.44		8.27	2.99
1.69	3.92	6.44		9.60	3.94
0.78	2.45	2.64		4.68	2.20
1.36	2.83	3.99		6.53	3.30
9.70	20.02	30.19		48.15	22.38
7.42	31.57		ND	10.71	1.88
0.52	1.22	1.40		2.51	1.48
0.15	0.36	0.42		0.68	0.38
6.41	15.45	24.91		40.15	16.74
0.28	0.62	0.85		1.16	0.88
3.24	6.43	10.70		15.01	7.25
4.49	8.54	13.88		21.05	10.72
0.86	3.21	5.55		7.98	4.59
2.35	2.66	7.87		11.05	5.90
0.32	0.35	0.68		0.90	0.82
1.65	2.86	5.81		8.28	4.11
0.10	0.69	0.47		0.66	0.55
1.74	3.42	6.37		8.74	4.74
0.58	0.77	1.91		2.23	1.87
3.56	23.94	32.83		44.88	10.25
15.68	52.76	94.69		181.56	54.93
10.68	34.40	83.66		95.09	20.28
0.61	0.96	1.52		2.49	0.82
2.82	17.29	19.07		35.76	7.74
10.66	27.54	41.84		76.36	21.21
44.01	156.88	273.61		436.15	115.23

0.11	0.07		0.27	0.32	0.09
0.30	0.35		1.50	3.09	0.23
0.31		BDL		BDL	0.89	
0.90	2.33		8.35	17.04	0.99
1.32	8.03		7.44	14.70	2.86
1.42	3.51		9.65	12.29	1.22
1.37	4.34		8.87	10.47	1.87
2.10	10.31		31.49	25.19	2.70
4.73	19.72		58.17	52.94	7.05
1.54	5.71		6.12	9.73	3.46
5.92	23.31		58.63	61.04	13.15
18.39	74.92		180.35	186.36	32.31
0.89	3.58		8.32	11.55	1.30
0.22	0.41		0.37	0.85	0.26
0.19	0.23		0.45	0.52	0.25
2.61	12.57		18.08	30.92	3.31
0.21	0.68		1.58	1.52	0.35

1917 Qualifier	1918 75248	1918 Qualifier	1919 75402	1919 Qualifier	1920 78184	1920 Qualifier	1921 78183	1921 Qualifier
	10/25/2001		4/10/2002		8/5/2003		8/5/2003	
	TN6		TN7		TN2 1		TN1 3	
	white perch		white perch		sediment		sediment	
	N/A		N/A		40.253		47.049	
	2.767		3.790		N/A		N/A	
	2.132		2.269		5.582		5.009	
	90		106		83		91	
	84		93		77		81	
	88		100		86		90	
	531		3223		281		454	
	66		249		124		171	
	26		105		12		10	
	0.60		0.35		1.35		0.62	
	0.77		1.36		1.26		1.99	
	0.53		1.18		0.38		0.70	
	0.04		0.19		0.09		0.15	
	0.20		1.31		0.32		0.92	
	1.89		5.79		3.83		8.76	
	0.34		1.36		0.29		0.80	
	0.08		0.40		0.20		0.36	
	4.16		26.78		2.89		7.93	
	5.88		18.81		3.64		5.74	
	0.50		2.77		0.44		0.87	
	4.43		29.47		3.34		8.92	
	0.30		1.78		0.19		0.20	
	2.16		33.49		1.91		3.06	
	1.50		26.69		1.29		1.73	
	15.86		154.81		14.65		33.35	
	4.08		49.87		4.12		10.56	
	3.58		33.99		3.44		8.50	
	1.11		11.89		0.85		2.30	
	0.64		7.59		0.50		1.24	
	13.52		132.84		7.81		13.50	
	12.30		105.19		7.17		11.33	
	11.61		79.19		4.79		7.22	
	2.29		27.61		1.83		3.71	
	11.89		126.86		7.75		14.33	
	6.45		69.51		5.58		10.46	
	14.94		164.81		9.32		16.62	
	10.77		69.33		9.32		9.90	
	2.24		21.67		1.53		2.90	
	39.90		43.23		0.60		0.93	
	1.07		13.80		0.43		0.89	
	8.77		84.21		4.85		8.49	
	15.06		185.34		12.85		22.63	
	16.23		308.15		5.62		11.06	
	11.53		38.61		10.19		15.90	

2.81	24.15	1.54	2.91
22.77	279.88	17.95	36.31
11.73	73.98	5.84	8.90
10.46	60.82	3.81	5.85
0.71	8.37	0.48	0.79
2.96	29.85	2.16	3.25
5.69	51.08	3.02	4.46
3.31	39.53	2.03	2.89
1.22	5.94	0.88	1.34
13.28	112.42	9.16	14.39
1.19	14.89	0.97	1.37
5.18	16.68	1.57	2.41
2.85	15.19	1.29	1.92
1.84	10.85	0.61	0.81
12.12	39.84	6.57	9.23
11.14	70.04	6.58	8.93
0.78	12.09	1.67	1.13
0.24	1.16	0.16	0.18
6.28	20.70	2.15	2.55
42.54	106.44	15.67	20.23
1.67	5.20	1.01	1.23
1.58	6.44	0.85	0.31
29.13	89.69	12.36	15.93
4.83	20.84	2.05	2.62
3.39	6.07	1.00	1.18
11.18	24.58	3.61	4.56
6.78	13.88	2.01	2.62
3.58	15.74	2.00	2.41
0.90	2.27	0.38	0.44
4.14	11.59	1.80	2.59
3.43	8.42	1.65	2.05
4.51	6.53	1.39	1.57
1.33	4.26	0.71	0.91
2.46	5.01	0.87	0.91
20.71	35.49	6.05	8.10
1.01	5.02	0.81	0.89
0.89	2.23	0.58	0.46
0.21	0.78	0.23	0.22
14.78	28.22	5.09	6.68
0.40	1.50	0.39	0.33
6.14	12.48	2.79	3.54
8.16	16.32	3.71	4.45
1.73	5.50	1.91	1.28
4.28	6.68	1.80	1.81
0.34	1.21	0.41	0.38
3.27	5.49	1.57	2.07
0.23	0.79	0.24	0.22
2.35	5.23	2.79	3.42
0.71	1.73	1.94	2.67
5.20	42.10	3.70	6.18
29.65	91.57	10.66	18.03
11.17	43.57	4.39	8.33
0.78	1.54	89.99	111.78
3.26	30.70	5.53	8.15
16.08	39.19	9.51	18.58
66.14	248.68	123.79	171.06

	0.07		0.22	2.08	0.19
	0.30		0.49	0.84	0.25
BDL		BDL	0.21	0.70	0.85
	3.05		2.82	4.61	1.84
	3.12		19.21	1.15	3.04
	2.08		4.10	0.29	0.17
	1.13		4.74	0.16	0.36
	2.28		8.85	4.22	1.01
	6.46		24.95	3.03	2.24
	2.11		9.68	0.89	1.00
	9.20		33.70	2.10	2.30
	26.38		105.23	11.84	10.12
	1.13		5.10	0.67	0.48
	0.20		1.10	0.28	1.15
	0.21		0.32	0.18	0.22
	2.98		11.58	0.65	0.56
	0.24		0.99	0.31	0.33

1922	1922	1923	1923	1924	1924	1925	1925	1925dup
78705	Qualifier	78498	Qualifier	78694	Qualifier	78494	Qualifier	78494
12/12/2003		12/4/2003		12/12/2003		12/4/2003		12/4/2003
TN4 1		TN3 1		TN5 2		TN6 3		TN6 3
sediment		sediment		sediment		sediment		sediment
35.860		35.071		31.635		46.796		46.796
N/A		N/A		N/A		N/A		N/A
5.043		5.041		4.991		5.186		5.045
92		96		95		88		92
80		84		79		83		88
91		92		90		91		95
734		504		699		22		27
134		176		215		10		10
19		15		29		2		1
1.60		0.94		1.47		0.26		0.60
2.88		2.43		2.12		1.05		1.52
0.71		0.65		0.61		0.21		0.18
0.14		0.11		0.15		0.05		0.04
1.83		0.61		0.88		0.12		0.10
14.12		4.99		9.37		0.33		0.51
0.50		0.58		0.56		0.15		0.13
0.71		0.43		0.59		0.10		0.46
9.34		4.78		7.61		0.18		0.24
7.88		7.30		10.13		0.31		0.76
0.91		0.62		0.92		0.05		0.08
9.99		5.68		8.78		0.31		0.31
0.43		0.27		0.53		0.14		0.12
7.40		3.59		5.00		0.13		0.14
12.21		2.82		5.61			BDL	
49.57		29.71		42.73		0.94		0.86
12.92		7.83		11.66		0.32		0.41
9.03		6.42		10.31		0.48		0.50
2.72		1.89		2.99		0.06		0.09
1.74		1.10		2.09		0.06		0.09
23.81		14.37		21.11		0.48		0.50
21.83		13.23		18.61		0.45		0.49
1.91		7.38		10.14			BDL	0.32
7.49		3.80		4.37			BDL	0.16
25.22		15.17		22.00		0.42		0.46
16.85		10.37		14.12		0.38		0.42
29.73		18.02		25.67		0.70		0.61
13.47		14.87		16.80		0.93		3.75
5.43		3.36		5.94		0.15		0.15
5.55		27.80		42.10		0.08		0.17
1.55		0.87		1.33		0.08		0.10
10.59		8.36		11.30		0.29		0.31
39.29		23.89		32.43		0.75		0.77
7.21		9.21		11.80			BDL	
26.61		18.55		23.34		0.38		0.50

5.11	2.74	4.21	0.10		0.11
44.53	35.92	48.49	0.95		0.87
15.32	9.34	13.29	0.31		0.37
10.36	6.48	1.39	0.20		0.22
1.33	1.63	1.84	0.16		0.06
5.56	3.56	5.04	0.13		0.15
5.49	5.14	7.14		BDL	0.33
4.29	3.68	4.95	0.13		0.17
2.05	1.31	1.85	0.05		0.08
25.04	17.94	23.41	0.44		0.40
1.85	1.88	2.48	0.11		0.09
4.07	2.21	3.24	0.11		0.16
3.25	2.07	2.81	0.10		0.11
2.33	1.09	1.43	0.11		0.07
16.87	9.60	14.23	0.27		0.29
15.01	10.71	14.92	0.35		0.30
1.62	0.81	2.74	1.35		0.43
0.33	0.56	0.81	0.04		0.03
5.59	2.98	4.61	0.17		0.17
37.09	21.93	31.45	0.68		0.65
2.42	1.53	2.06	0.45		0.10
0.60	1.06	0.56		ND	
27.75	18.09	25.71		BDL	
4.49	2.96	4.29	0.15		0.11
0.98	1.57	0.95	0.25		0.27
8.94	5.23	7.21	0.17		0.19
5.30	2.97	4.21	0.26		0.26
4.21	2.98	4.28	0.19		0.30
0.80	0.63	0.69	0.10		0.17
5.48	2.91	4.44	0.05		0.11
4.20	2.69	3.37	0.15		0.18
0.88	2.22	2.68	0.21		0.27
1.52	1.22	1.46	0.19		0.20
1.92	1.15	1.47	0.30		0.21
15.77	8.92	13.19	0.19		0.34
1.41	1.16	1.54		BDL	0.47
0.72	0.87	0.76		ND	0.10
0.46	0.28	0.43	0.06		0.06
13.76	7.28	10.75	0.34		0.26
0.69	0.40	0.61	0.11		0.15
7.55	4.22	5.99	0.24		0.29
9.46	5.40	7.70	0.29		0.33
3.72	2.47	2.03	0.90		0.67
3.37	1.97	3.17	0.15		0.20
1.19	0.63	0.73	0.09		0.11
4.02	2.55	3.20	0.11		0.19
0.53	0.31	0.34	0.09		0.16
7.08	4.03	6.03	0.31		0.20
4.81	3.18	4.03	0.20		0.11
3.74	6.70	9.86	0.39		0.40
27.62	15.40	20.08	0.73		0.76
9.78	3.35	6.33	0.31		1.98
81.94	139.51	167.53	8.28		6.11
4.63	3.64	2.97	0.13		0.15
6.71	7.44	7.93	0.36		0.46
134.42	176.05	214.70	10.19		9.86

0.28	0.27	0.19	0.09		0.08
0.81	0.87	0.85	0.22		0.19
1.08	1.06	1.56	0.24		0.27
23.84	6.44	20.93	0.44		0.37
4.77	3.16	5.62	0.26		0.22
0.50	0.59	0.78	0.24		0.20
0.51	0.25	0.34	0.12		0.08
5.39	3.83	7.69	0.22		0.21
3.28	1.60	3.51	0.10		0.21
1.71	2.28	4.57	0.24		0.31
2.81	3.79	6.34	0.33		0.25
18.97	15.50	28.85	1.51		1.48
0.38	0.84	0.60	0.04		0.07
0.63	0.80	0.71	0.22		0.16
0.30	0.43	1.23		BDL	0.09
0.52	0.71	0.61	1.53		1.48
0.69	0.70	5.09	0.07		0.10

1925dup Qualifier	1925trip 78494	1925trip Qualifier	1926 75404	1926 Qualifier	1926dup 75404	1926dup Qualifier	1927 75405	1927 Qualifier
	12/4/2003		4/17/2002		4/17/2002		4/17/2002	
	TN6 3		GN2		GN2		GN2	
	sediment		white perch		white perch		white perch	
	46.796		N/A		N/A		N/A	
	N/A		5.2139695		5.56057866		5.0831793	
	5.242		2.033		2.212		2.164	
	91		111		108		100	
	87		96		97		84	
	95		106		101		80	
	27		2306		2113		1969	
	7		399		418		2159	
	1		161		178		240	
	1.02		0.32			BDL		ND
	1.03		2.18		2.48		2.68	
	0.11		1.50		1.60		1.19	
	0.04		0.14		0.12		0.16	
	0.11		0.64		0.69		1.35	
	0.51		3.39		3.30		4.84	
	0.14		0.93		0.91		0.99	
	0.06		0.14		0.09		ND	
	0.24		14.02		13.93		15.84	
	0.79		14.24		15.88		15.96	
	0.06		1.58		2.07		1.89	
	0.38		15.87		17.43		17.46	
	0.15		0.90		0.93		0.47	
	0.14		11.78		13.54		7.90	
BDL	0.14		8.36		10.17		4.20	
	1.23		78.17		92.49		69.74	
	0.32		19.97		11.11		21.55	
	0.47		17.15		21.53		21.71	
	0.12		4.99		5.60		6.95	
	0.15		3.33		3.88		3.36	
	0.50		68.97		70.07		55.18	
	0.53		58.42		59.88		44.65	
		BDL	57.78		51.24		46.35	
	0.18		13.78		17.60		10.79	
	0.53		62.75		67.17		53.66	
	0.37		37.19		43.24		30.30	
	0.74		82.50		25.13		69.03	
	3.92		48.66			ND	43.13	
	0.24		12.01			ND	12.18	
	0.07		66.40			ND	114.97	
	0.13		7.92		8.68		5.74	
	0.33		56.06		56.50		42.16	
	0.69		107.32		103.22		83.96	
BDL	0.68		53.29		39.04		49.61	
	0.41		86.49		92.87		70.56	

	0.09		13.14	14.51	13.89
	1.03		164.15	166.41	200.51
	0.39		52.43	50.68	50.92
	0.24		51.13	50.32	46.09
	0.07		5.13	5.14	10.73
	0.16		18.21	17.41	17.14
		BDL	31.53	31.55	31.22
	0.15		25.59	30.96	26.79
	0.09		4.89	4.64	5.88
	0.47		72.67	72.36	85.05
	0.16		8.41	8.69	7.74
	0.16		15.93	16.14	17.47
	0.16		11.99	12.39	13.71
	0.14		11.64	12.48	6.75
	0.31		38.63	34.16	26.71
	0.40		63.18	59.15	31.43
	0.61		6.66	3.96	0.58
	0.02		0.91	0.85	0.98
	0.19		25.36	20.02	13.49
	0.62		139.48	127.21	86.46
	0.09		4.89	5.37	3.38
ND		ND	6.22	6.81	2.79
BDL	0.49		105.62	98.46	68.63
		BDL	22.45	22.70	18.78
	0.19		10.54	11.52	8.39
	0.21		31.24	29.76	21.20
	0.33		18.44	16.84	15.39
	0.22		18.55	19.06	10.02
	0.15		2.24	2.40	1.57
	0.09		11.17	10.73	7.92
	0.18		9.82	9.86	7.09
	0.20		10.06	9.78	8.16
	0.16		6.18	7.24	4.88
	0.36		6.92	7.82	4.88
	0.28		50.85	50.42	64.25
		BDL	81.08	77.48	6.99
	0.12		2.18	2.88	1.48
	0.08		0.62	0.82	0.25
	0.23		42.20	42.29	38.69
	0.10		1.32	1.28	0.59
	0.26		17.14	17.11	9.37
	0.19		22.22	23.00	15.97
	0.38		7.59	8.60	4.58
	0.11		12.73	13.99	7.54
	0.09		0.91	1.01	0.64
	0.13		9.18	9.78	6.40
	0.11		0.56	0.65	0.56
	0.24		9.42	10.15	4.42
	0.10		3.36	3.68	0.64
	0.48		32.02	33.17	102.18
	0.72		170.25	174.44	776.12
	0.28		90.97	97.64	96.22
	5.04		2.86	2.90	28.70
	0.13		32.22	34.70	288.97
	0.41		70.78	75.57	866.47
	7.05		399.10	418.42	2158.66

0.06	0.42	0.52	0.33	
0.14	1.49	1.53	0.67	
0.23	0.38	0.24		BDL
0.33	8.28	8.23	3.05	
0.22	9.00	9.54	13.60	
0.13	5.34	5.64	9.54	
0.08	12.17	13.56	17.93	
0.29	15.10	17.35	25.46	
0.13	53.86	61.10	71.22	
0.19	8.89	9.02	10.85	
0.32	56.38	61.78	91.12	
1.36	160.74	178.01	239.73	
0.04	7.06	7.71	10.02	
0.12	1.09	1.06	0.72	
0.09	0.16	0.28	0.25	
1.55	20.43	22.50	14.24	
0.04	1.54	1.72	1.65	

1928	1928	1929	1929	1930	1930	1931	1931	
75407	Qualifier	75408	Qualifier	76275	Qualifier	75305	Qualifier	
4/17/2002		4/17/2002		6/4/2002		11/27/2001		
GN1		GN1		TN1		TN3		
white perch		white perch		white perch		white perch		
N/A		N/A		N/A		N/A		
8.19028936		5.56097561		6.59971306		2.80418251		
2.039		2.050		2.091		2.104		
								surrogate i
								average
91		114		114		103		105
73		94		92		91		89
86		98		106		97		97
1816		1626		5937		795		
266		295		458		131		
86		97		201		36		
1.40		0.48		0.46		1.01		
3.78		4.00		1.95		1.40		
2.96		1.95		3.56		0.59		
0.10		0.14		0.26		0.08		
0.35		0.57		3.14		0.42		
4.22		3.84		11.15		1.88		
1.37		0.91		2.37		0.68		
0.27		0.52		0.31		0.12		
15.70		13.65		45.07		7.21		
20.87		18.17		32.47		7.39		
2.11		1.73		4.59		1.19		
20.86		15.58		50.45		8.89		
0.93		0.97		2.75		0.60		
8.76		8.41		55.88		3.65		
4.59		5.03		44.85		1.84		
65.42		50.74		277.09		26.49		
16.07		15.46		82.72		6.87		
16.84		12.47		63.57		5.73		
5.05		4.68		18.51		2.39		
2.93		2.68		12.41		1.34		
47.21		53.49		212.55		24.98		
39.47		41.19		176.98		20.60		
45.90		34.87		158.01		20.48		
13.60		12.37		42.05		5.50		
44.67		46.96		211.35		21.67		
28.27		26.83		124.71		12.42		
60.46		60.87		283.81		28.13		
42.60		43.67		120.30		17.95		
11.82		9.12		38.48		4.42		
31.59		50.73		84.27		33.26		
5.92		4.54		26.07		1.90		
57.80		34.35		175.15		18.29		
66.76		59.67		348.12		26.04		
156.84		109.58		626.89		62.46		
17.73		24.18		45.68		9.21		

7.62	9.89	36.85	5.02
122.99	98.09	554.84	48.52
32.10	39.55	117.44	19.27
45.49	36.16	114.65	17.80
2.42	3.32	13.58	1.57
9.85	12.38	49.61	5.86
18.06	20.80	91.48	10.34
18.97	12.39	79.45	7.66
2.55	3.74	7.89	1.84
42.88	50.84	189.56	24.62
3.76	4.47	29.27	2.27
8.46	12.31	25.08	5.52
6.61	8.94	23.28	4.00
10.53	5.92	24.50	2.67
25.31	31.80	61.59	14.62
56.13	38.37	147.00	19.98
2.74	3.56	9.70	2.00
0.38	0.73	1.84	0.26
21.94	16.01	32.73	8.30
143.15	100.70	195.75	54.89
1.99	3.71	7.19	1.21
3.67	4.43	10.69	1.65
94.97	75.18	165.55	37.08
18.90	14.37	42.94	6.85
6.30	8.15	10.70	3.46
28.45	24.33	38.68	12.08
15.56	12.84	25.52	6.02
15.93	10.22	34.11	5.38
0.90	1.61	3.03	0.71
5.05	7.35	17.32	2.71
6.78	6.81	12.74	2.67
6.40	5.64	11.52	2.89
4.23	2.70	10.70	1.49
4.85	4.71	9.72	1.96
42.83	36.30	72.58	16.84
30.08	35.18	84.51	9.38
1.39	1.75	2.99	1.06
0.18	0.43	0.85	0.28
30.53	27.95	59.12	11.67
0.56	0.84	1.68	0.62
9.84	11.60	25.09	4.95
14.77	15.45	33.34	6.96
4.55	4.63	9.78	2.81
7.17	9.12	18.28	3.68
0.74	0.81	1.37	0.46
5.66	6.04	12.98	2.48
0.47	0.58	0.74	0.29
4.65	6.59	14.38	2.37
1.73	2.10	4.41	0.94
19.70	24.45	71.67	10.80
130.55	125.69	193.76	73.87
39.70	52.57	83.72	14.24
2.21	2.51	4.81	1.82
28.09	25.03	45.97	7.63
45.30	65.03	57.79	22.84
265.54	295.29	457.72	131.19

0.33		0.45	0.64	0.34
0.49		0.52	2.64	0.32
	BDL	0.36	0.57	0.33
1.20		1.45	13.37	1.04
8.18		7.84	27.84	4.55
3.70		5.61	7.80	1.86
13.46		6.33	12.39	3.17
6.41		9.12	14.82	2.91
16.29		29.25	42.97	7.89
7.88		5.95	23.66	2.76
29.60		32.47	71.66	13.06
85.52		96.58	201.15	36.20
5.78		6.60	10.16	2.73
0.73		0.72	2.68	0.51
0.14		0.29	0.59	0.21
10.78		9.94	19.65	3.06
1.80		0.92	2.04	0.63

recoveries

stdev

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