

USGS ID River Phytoplankton 2010 (February Samples)
Diatom Component Taxonomy Report



Station Description		Boise River NR Parma, ID	Snake River @ Nyssa, OR
Station		13213000	13213100
Collection Time		13:00	14:50
Collection Date		02-09-2010	02-10-2010
EcoAnalysts Sample ID		5433.1-1	5433.1-2
Percent Counted		0.01392%	0.00752%
Achnanthes	Achnanthes conspicua	2	0
	Achnanthes exigua	1	0
	Achnanthes girdle sp.	8	2
	Achnanthes hungarica	3	0
	Achnanthes lanceolata	1	0
	Achnanthes microcephala	1	0
	Achnanthes minutissima	27	0
Amphora	Amphora ovalis	4	0
	Amphora pediculus	4	4
	Amphora veneta	4	0
Asterionella	Asterionella formosa	3	43
Aulacoseira	Aulacoseira ambigua	0	46
	Aulacoseira girdle sp.	3	4
	Aulacoseira granulata	0	3
	Aulacoseira perglabra	0	1
Brachysira	Brachysira neoexilis	1	0
Cocconeis	Cocconeis gridle sp.	2	2
	Cocconeis neodiminuta	1	0
	Cocconeis pediculus	5	20
	Cocconeis placentula	0	4
	Cocconeis placentula var. euglypta	32	18
	Cocconeis placentula var. lineata	2	0
Cyclotella	Cyclotella bodanica	3	1
	Cyclotella comensis	0	102
	Cyclotella distinguenda	1	2
	Cyclotella girdle sp.	2	59
	Cyclotella meneghiniana	0	2
Cymbella	Cymbella affinis	2	0
	Cymbella caespitosa	0	1

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EcoAnalysts Sample ID		5433.1-1	5433.1-2
Percent Counted		0.01392%	0.00752%
	Cymbella girdle sp.	17	1
	Cymbella minuta	13	0
	Cymbella prostrata	2	0
	Cymbella silesiaca	1	0
Diatoma	Diatoma girdle sp.	6	0
	Diatoma mesodon	0	2
	Diatoma moniliformis	0	16
	Diatoma tenue var. elongatum	2	0
	Diatoma vulgaris	32	11
Fragilaria	Fragilaria alpestris	0	3
	Fragilaria crotonensis	0	12
	Fragilaria girdle sp.	45	19
	Fragilaria pinnata	2	0
Gomphoneis	Gomphoneis girdle sp.	4	4
	Gomphoneis minuta	2	2
Gomphonema	Gomphonema girdle sp.	1	3
	Gomphonema olivaceum	1	4
	Gomphonema staurophorum	15	0
Navicula	Navicula angusta	0	2
	Navicula capitatoradiata	4	0
	Navicula cincta	2	1
	Navicula cryptocephala	4	0
	Navicula cryptotenella	1	0
	Navicula girdle sp.	8	6
	Navicula gregaria	8	0
	Navicula lanceolata	17	0
	Navicula mutica	3	0
	Navicula pupula	0	4
	Navicula radiosa	1	0
	Navicula subminuscula	4	0
	Navicula tripunctata	13	2
	Navicula viridula	4	2
Nitzschia	Nitzschia acicularis	2	0

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EcoAnalysts Sample ID		5433.1-1	5433.1-2
Percent Counted		0.01392%	0.00752%
Nitzschia amphibia		3	0
Nitzschia apiculata		0	2
Nitzschia calida		0	2
Nitzschia communis		0	1
Nitzschia dissipata		37	15
Nitzschia filiformis		2	0
Nitzschia frustulum		13	5
Nitzschia girdle sp.		64	34
Nitzschia gracilis		3	0
Nitzschia kutzingiana		1	1
Nitzschia lanceolata		0	2
Nitzschia linearis		17	42
Nitzschia microcephala		1	0
Nitzschia palea		3	0
Nitzschia recta		6	2
Nitzschia rosenstockii		2	2
Planothidium	Planothidium frequentissimum	9	0
Pleurosira	Pleurosira laevis	0	1
Reimeria	Reimeria sinuata	2	2
	Reimeria uniseriata	4	0
Rhoicosphenia	Rhoicosphenia abbreviata	30	20
Stephanodiscus	Stephanodiscus girdle sp.	0	7
	Stephanodiscus neoastraea	0	2
	Stephanodiscus niagarae	0	1
Surirella	Surirella brebissonii	0	1
	Surirella girdle sp.	1	0
	Surirella linearis var. helvetica	0	1
Synedra	Synedra fasciculata	0	6
	Synedra girdle sp.	2	0
	Synedra parasitica var. subconstricta	6	0
	Synedra ulna	71	47
TOTAL		603	604

USGS ID River Phytoplankton 2010 (February Samples)
Diatom Component Metrics Report



Station Description	Boise River NR Parma, ID	Snake River @ Nyssa, OR
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Collection Date	02-09-2010	02-10-2010
EcoAnalysts Sample ID	5433.1-1	5433.1-2
Percent Counted	0.01392%	0.00752%
Abundance Measures		
Species Richness	69.00	55.00
Number of Valves Counted	603.00	604.00
Total Cells Counted	301.50	302.00
Dominance Measures		
Dominant Taxon	Synedra ulna	Cyclotella comensis
Dominant Taxon Abundance	71.00	102.00
2nd Dominant Taxon	Nitzschia girdle sp.	Cyclotella girdle sp.
2nd Dominant Taxon Abundance	64.00	59.00
3rd Dominant Taxon	Fragilaria girdle sp.	Synedra ulna
3rd Dominant Taxon Abundance	45.00	47.00
4th Dominant Taxon	Nitzschia dissipata	Aulacoseira ambigua
4th Dominant Taxon Abundance	37.00	46.00
5th Dominant Taxon	Cocconeis placentula var. euglypta	Asterionella formosa
5th Dominant Taxon Abundance	32.00	43.00
% Dominant Taxon	11.77	16.89
% 2nd Dominant Taxon	10.61	9.77
% 3rd Dominant Taxon	7.46	7.78
% 4th Dominant Taxon	6.14	7.62
% 5th Dominant Taxon	5.31	7.12
Diversity/Evenness Measures		
Shannon-Weaver H' (log e)	3.45	3.12
Shannon-Weaver H' (log 10)	1.50	1.35
Shannon-Weaver H' (log 2)	4.98	4.50
Margalef's Richness	10.62	8.43

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EcoAnalysts Sample ID	5433.1-1	5433.1-2
Percent Counted	0.01392%	0.00752%
Van Dam Indices		
Van Dam pH	3.92	3.75
Van Dam Salinity	2.14	2.15
Van Dam Nitrogen Uptake	2.11	2.03
Van Dam Oxygen Tolerance	2.24	2.35
Van Dam Saprobity	2.24	2.10
Van Dam Trophic State	4.93	4.49
Van Dam Moisture	2.28	1.55
pH Preference		
% at Optimal Occurance pH 5.5	0.00	0.00
% Mainly Occuring at pH<7	0.00	0.50
% Mainly Occuring at pH~7	19.05	27.97
% Mainly Occuring at pH>7	69.94	67.08
% Exclusively Occuring at pH>7	11.01	4.46
% at no Apparent Optimum	0.00	0.00
% Unclassified pH	44.28	33.11
Richness at pH <5.5	0.00	0.00
Richness at pH <7	0.00	1.00
Richness at pH ~7	13.00	7.00
Richness at pH >7	33.00	24.00
Richness Exclusively at pH >7	3.00	4.00
Richness at no Optimum	0.00	0.00
Salinity Preference		
% Fresh	2.36	1.22
% Fresh-Brackish	81.71	84.84
% Brackish-Fresh	15.34	11.25
% Brackish	0.59	2.69
% Marine	0.00	0.00
% Unclassified Salinity	43.78	32.28
Richness Fresh	3.00	3.00
Richness Fresh-Brackish	40.00	26.00

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Percent Counted	0.01392%	0.00752%
Richness Brackish-Fresh	7.00	6.00
Richness Brackish	1.00	4.00
Richness Marine	0.00	0.00
Nitrogen Uptake Metabolism		
% Very Small Tolerance N	5.03	1.69
% Elevated Tolerance N	86.16	95.59
% Needing Periodically Elevated N	1.57	0.68
% Needing Continuously Elevated N	7.23	2.03
% Unclassified Nitrogen	47.26	51.16
Richness at Small Tolerance N	6.00	3.00
Richness at Elevated Tolerance N	32.00	24.00
Richness at Periodic Elevated N	2.00	1.00
Richness at Continuously Elevated N	5.00	2.00
Oxygen Requirements		
% at Continuously High Oxygen	15.53	3.03
% at Fairly High Oxygen	50.93	60.61
% at Moderate Oxygen	27.33	35.69
% at Low Oxygen	6.21	0.00
% at Very Low Oxygen	0.00	0.67
% Unclassified Oxygen	46.60	50.83
Richness at High Oxygen	11.00	5.00
Richness at Fairly High Oxygen	17.00	14.00
Richness at Moderate Oxygen	14.00	11.00
Richness at Low Oxygen	5.00	0.00
Richness at Very Low Oxygen	0.00	1.00
Saprobity		
% Very Slightly Polluted	1.86	2.35
% Moderately Polluted	77.02	85.91
% Moderate-Heavily Polluted	17.70	10.74
% Heavily Polluted	2.48	1.01

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Percent Counted	0.01392%	0.00752%
% Very Heavily Polluted	0.93	0.00
% Unclassified Saprobity	46.60	50.66
Richness Very Slightly Polluted	3.00	5.00
Richness Moderately Polluted	26.00	19.00
Richness Moderate-Heavily Polluted	15.00	7.00
Richness Heavily Polluted	2.00	2.00
Richness Very Heavily Polluted	1.00	0.00
Trophic State		
% Oligotrophic	0.93	1.32
% Oligo-Mesotrophic	0.31	0.00
% Mesotrophic	1.55	5.30
% Meso-Eutrophic	29.81	38.08
% Eutrophic	51.24	53.97
% Hypereutrophic	1.86	0.00
% Oligo-to-Eutrophic	14.29	1.32
% Dystrophic	0.00	0.00
% Unclassified Trophic	46.60	50.00
Richness Oligotrophic	1.00	3.00
Richness Oligo-Mesotrophic	1.00	0.00
Richness Mesotrophic	2.00	3.00
Richness Meso-Eutrophic	6.00	5.00
Richness Eutrophic	25.00	21.00
Richness Hypereutrophic	2.00	0.00
Richness Oligo-to-Eutrophic	10.00	3.00
Richness Dystrophic	0.00	0.00
Moisture		
% Never Outside Water	24.46	66.00
% Mainly in Water, Sometimes Wet	24.15	13.40
% Mainly in Water, Regularly Wet	49.85	20.10
% Mainly Wet, Moist or Temporarily Dry	1.55	0.50
% Nearly Exclusively Outside Water	0.00	0.00

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EcoAnalysts Sample ID	5433.1-1	5433.1-2
Percent Counted	0.01392%	0.00752%
% Unclassified Moisture	46.43	33.28
Richness Never Outside Water	18.00	14.00
Richness Mainly in Water, Sometimes Wet	8.00	8.00
Richness Mainly in Water, Regularly Wet	20.00	11.00
Richness Mainly Wet, Moist or Temporarily Dry	2.00	2.00
Richness Nearly Exclusively Outside Water	0.00	0.00
Morphological Guild (JS)		
% Erect	0.00	0.28
% Stalked	16.78	6.91
% Unattached	13.36	45.03
% Prostrate/Adnate	69.18	44.48
% Variable	0.68	3.31
% Unclassified Morphological Guild	51.58	40.07
Richness Erect	0.00	1.00
Richness Stalked	6.00	3.00
Richness Unattached	4.00	7.00
Richness Prostrate/Adnate	32.00	20.00
Richness Variable	1.00	1.00
Motility (JS)		
% Highly Motile	27.95	18.99
% Moderately Motile	23.60	4.30
% Not Motile	42.86	76.46
% Variable Motility	5.59	0.25
% Unclassified Motility	46.60	34.60
Richness Highly Motile	12.00	11.00
Richness Moderately Motile	16.00	7.00
Richness Not Motile	19.00	21.00
Richness Variable Motility	4.00	1.00
Pollution Tolerance (LB)		
% Very Tolerant	4.31	7.95

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EcoAnalysts Sample ID	5433.1-1	5433.1-2
Percent Counted	0.01392%	0.00752%
% Moderately Tolerant	13.60	9.93
% Sensitive/Intolerant	22.72	13.25
Richness Very Tolerant	5.00	5.00
Richness Moderately Tolerant	11.00	9.00
Richness Sensitive/Intolerant	27.00	17.00
Pollution Tolerance (Lang-Bertalot modified by Bohls)	2.45	2.17
Other Measures		
% Rhopalodiales	0.00	0.00
% Achnanthes minutissima (Disturbance Index)	4.48	0.00
% Siltation Index	25.21	14.40
Siltation Richness	24.00	17.00
% Aerophiles	46.10	41.56
% Centrics	1.49	38.25
% Stability Index	28.03	26.32
% Heavy Metals Index	0.00	0.00

USGS ID River Phytoplankton 2010 (February Samples)
Soft Algae Component Taxonomy Report



Station Description		Boise River NR Parma, ID	Snake River @ Nyssa, OR
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Collection Time		13:00	14:50
Collection Date		02-09-2010	02-10-2010
EcoAnalysts Sample ID		5433.1-1	5433.1-2
Percent Counted		0.83000%	0.83000%
DIATOM TAXA	Achnanthes sp.	24	21
	Amphora sp.	4	1
	Aulacoseira sp.	0	6
	Caloneis sp.	4	0
	Cocconeis sp.	20	22
	Coscinodiscus sp.	0	1
	Cyclotella sp.	0	56
	Cymatopleura sp.	1	0
	Cymbella sp.	9	0
	Diatoma sp.	24	32
	Fragilaria sp.	14	32
	Gomphoneis sp.	3	3
	Gomphonema sp.	5	6
	Mastogloia sp.	1	0
	Melosira sp.	38	22
	Navicula sp.	51	44
	Neidium sp.	2	0
	Nitzschia sp.	26	16
	Pleurosira laevis	0	1
	Rhoicosphenia sp.	7	4
	Synedra sp.	47	32
	DIATOM SUB TOTAL	280	299
SOFT BODY TAXA	Chlorococcum sp.	2	2
	Chroococcus sp.	5	6
	Cryptomonas sp.	1	2
	Euglena sp.	1	2
	Gloeocapsa sp.	2	0
	Mougeotia sp.	0	4
	Oocystis sp.	8	4

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Collection Date	02-09-2010	02-10-2010
EcoAnalysts Sample ID	5433.1-1	5433.1-2
Percent Counted	0.83000%	0.83000%
Phacus sp.	1	0
Trachelomonas sp.	7	0
SOFT BODY SUB TOTAL	27	20
GRAND TOTAL	307	319

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Collection Date	02-09-2010	02-10-2010
EcoAnalysts Sample ID	5433.1-1	5433.1-2
Percent Counted	0.83000%	0.83000%
Abundance Measures		
Species Richness	25.00	22.00
Number of Valves Counted	280.00	299.00
Total Cells Counted	140.00	149.50
Dominance Measures		
Dominant Taxon	Navicula sp.	Cyclotella sp.
Dominant Taxon Abundance	51.00	56.00
2nd Dominant Taxon	Synedra sp.	Navicula sp.
2nd Dominant Taxon Abundance	47.00	44.00
3rd Dominant Taxon	Melosira sp.	Diatoma sp.
3rd Dominant Taxon Abundance	38.00	32.00
4th Dominant Taxon	Nitzschia sp.	Fragilaria sp.
4th Dominant Taxon Abundance	26.00	32.00
5th Dominant Taxon	Diatoma sp.	Synedra sp.
5th Dominant Taxon Abundance	24.00	32.00
% Dominant Taxon	16.61	17.55
% 2nd Dominant Taxon	15.31	13.79
% 3rd Dominant Taxon	12.38	10.03
% 4th Dominant Taxon	8.47	10.03
% 5th Dominant Taxon	7.82	10.03
Diversity/Evenness Measures		
Shannon-Weaver H' (log e)	2.63	2.55
Shannon-Weaver H' (log 10)	1.14	1.11
Shannon-Weaver H' (log 2)	3.79	3.68
Margalef's Richness	4.19	3.64

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EcoAnalysts Sample ID	5433.1-1	5433.1-2
Percent Counted	0.83000%	0.83000%
Other Measures		
% Rhopalodiales	0.00	0.00
% Achnanthes minutissima (Disturbance Index)	0.00	0.00
% Siltation Index	25.08	18.81
Siltation Richness	2.00	2.00
% Aerophiles	0.00	0.31
% Centrics	12.38	26.96
% Stability Index	27.69	30.09
% Heavy Metals Index	0.00	0.00

USGS ID River Phytoplankton 2010 (March Samples)
Diatom Component Taxonomy Report



Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.012%	0.028%	0.015%
Achnanthes Achnanthes conspicua	2	0	0
Achnanthes exigua	1	0	0
Achnanthes girdle sp.	8	2	0
Achnanthes hauckiana	0	0	2
Achnanthes lanceolata	4	0	0
Achnanthes lanceolata var. dubia	6	1	0
Achnanthes minutissima	7	0	1
Amphora Amphora ovalis	2	1	0
Amphora pediculus	12	5	4
Asterionella Asterionella formosa	2	2	9
Aulacoseira Aulacoseira ambigua	0	32	21
Aulacoseira granulata	0	4	31
Aulacoseira granulata var. angustissima	0	10	7
Cocconeis Cocconeis gridle sp.	2	0	0
Cocconeis pediculus	6	15	28
Cocconeis placentula	3	0	0
Cocconeis placentula var. euglypta	15	7	9
Cocconeis placentula var. lineata	3	0	0
Coscinodiscus Coscinodiscus lacustris	0	2	0
Cyclotella Cyclotella comensis	9	0	0
Cyclotella girdle sp.	10	0	0
Cyclotella meneghiniana	2	0	4
Cymbella Cymbella affinis	2	0	0
Cymbella cistula	0	0	2
Cymbella girdle sp.	13	0	0
Cymbella minuta	36	0	3
Cymbella muelleri	2	0	1
Cymbella silesiaca	4	0	1
Diatoma Diatoma girdle sp.	4	0	2
Diatoma mesodon	0	1	0
Diatoma tenue var. elongatum	0	1	0

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		10:30	11:00	13:42
Collection Date		03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID		5433.2-1	5433.2-2	5433.2-3
Volume Received (L)		1.95	1.85	1.90
Percent Counted		0.012%	0.028%	0.015%
	Diatoma vulgaris	25	7	11
Fragilaria	Fragilaria alpestris	0	2	0
	Fragilaria capucina	0	2	0
	Fragilaria capucina var. mesolepta	0	2	0
	Fragilaria construens	0	1	0
	Fragilaria construens var. venter	2	0	0
	Fragilaria crotonensis	0	19	0
	Fragilaria girdle sp.	76	2	32
	Fragilaria leptostauron	1	2	0
	Fragilaria pinnata	3	2	0
Frustulia	Frustulia rhomboides var. saxonica	1	0	0
Gomphoneis	Gomphoneis herculeana	4	0	0
	Gomphoneis minuta	3	1	0
Gomphonema	Gomphonema affine	2	0	0
	Gomphonema girdle sp.	3	5	2
	Gomphonema gracile	2	1	2
	Gomphonema lagenula	1	0	0
	Gomphonema olivaceum	2	2	2
	Gomphonema parvulum	5	0	0
	Gomphonema pumilum	0	4	0
	Gomphonema staurophorum	25	0	2
Navicula	Navicula atomus	2	0	0
	Navicula bacillum	0	1	0
	Navicula capitatoradiata	4	0	2
	Navicula cari	0	4	2
	Navicula cincta	2	0	0
	Navicula cryptocephala	4	0	0
	Navicula decussis	2	0	0
	Navicula girdle sp.	27	7	3
	Navicula goeppertiana	1	0	0
	Navicula gregaria	1	2	0
	Navicula lanceolata	57	0	0
	Navicula menisculus	2	0	0
	Navicula pupula	2	3	4
	Navicula schroeteri	2	0	0

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
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Collection Time		10:30	11:00	13:42
Collection Date		03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID		5433.2-1	5433.2-2	5433.2-3
Volume Received (L)		1.95	1.85	1.90
Percent Counted		0.012%	0.028%	0.015%
	Navicula tripunctata	19	7	11
	Navicula viridula	1	0	0
Nitzschia	Nitzschia amphibioides	1	0	0
	Nitzschia calida	4	0	0
	Nitzschia capitellata	2	0	0
	Nitzschia dissipata	26	7	2
	Nitzschia frustulum	8	1	0
	Nitzschia girdle sp.	25	16	3
	Nitzschia gracilis	8	2	2
	Nitzschia kutzingiana	1	1	1
	Nitzschia linearis	18	9	6
	Nitzschia palea	0	1	0
	Nitzschia recta	4	2	0
Pinnularia	Pinnularia girdle sp.	2	0	0
Planothidium	Planothidium frequentissimum	1	0	0
Pleurosira	Pleurosira laevis	0	1	2
Reimeria	Reimeria sinuata	0	0	2
	Reimeria uniseriata	0	0	3
Rhoicosphenia	Rhoicosphenia abbreviata	30	3	8
Stephanodiscus	Stephanodiscus girdle sp.	10	186	287
	Stephanodiscus hantzschii	3	209	79
	Stephanodiscus neoastreae	1	10	2
	Stephanodiscus niagarae	2	2	10
Surirella	Surirella brebissonii	2	2	0
	Surirella girdle sp.	0	1	0
Synedra	Synedra acus	0	2	0
	Synedra girdle sp.	7	0	0
	Synedra mazamaensis	2	1	1
	Synedra parasitica	2	1	0
	Synedra ulna	41	24	18
TOTAL		636	640	624

USGS ID River Phytoplankton 2010 (March Samples)
Diatom Component Metrics Report



Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.012%	0.028%	0.015%
Abundance Measures			
Species Richness	74.00	53.00	41.00
Number of Valves Counted	636.00	640.00	624.00
Total Cells Counted	318.00	320.00	312.00
Dominance Measures			
Dominant Taxon	Fragilaria girdle sp.	Stephanodiscus hantzschii	Stephanodiscus girdle sp.
Dominant Taxon Abundance	76.00	209.00	287.00
2nd Dominant Taxon	Navicula lanceolata	Stephanodiscus girdle sp.	Stephanodiscus hantzschii
2nd Dominant Taxon Abundance	57.00	186.00	79.00
3rd Dominant Taxon	Synedra ulna	Aulacoseira ambigua	Fragilaria girdle sp.
3rd Dominant Taxon Abundance	41.00	32.00	32.00
4th Dominant Taxon	Cymbella minuta	Synedra ulna	Aulacoseira granulata
4th Dominant Taxon Abundance	36.00	24.00	31.00
5th Dominant Taxon	Rhoicosphenia abbreviata	Fragilaria crotonensis	Cocconeis pediculus
5th Dominant Taxon Abundance	30.00	19.00	28.00
% Dominant Taxon	11.95	32.66	45.99
% 2nd Dominant Taxon	8.96	29.06	12.66
% 3rd Dominant Taxon	6.45	5.00	5.13
% 4th Dominant Taxon	5.66	3.75	4.97
% 5th Dominant Taxon	4.72	2.97	4.49
Diversity/Evenness Measures			
Shannon-Weaver H' (log e)	3.56	2.38	2.27
Shannon-Weaver H' (log 10)	1.55	1.03	0.98
Shannon-Weaver H' (log 2)	5.14	3.43	3.27
Margalef's Richness	11.31	8.05	6.21

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.012%	0.028%	0.015%
Van Dam Indices			
Van Dam pH	3.85	4.57	4.32
Van Dam Salinity	2.20	2.05	2.13
Van Dam Nitrogen Uptake	2.06	2.56	2.32
Van Dam Oxygen Tolerance	2.36	3.27	2.96
Van Dam Saprobity	2.33	3.13	2.67
Van Dam Trophic State	4.85	5.40	5.15
Van Dam Moisture	2.34	1.81	1.66
pH Preference			
% at Optimal Occurance pH 5.5	0.28	0.00	0.00
% Mainly Occuring at pH<7	0.00	0.00	0.00
% Mainly Occuring at pH~7	22.54	2.89	6.20
% Mainly Occuring at pH>7	68.45	36.84	55.81
% Exclusively Occuring at pH>7	8.73	60.26	37.98
% at no Apparent Optimum	0.00	0.00	0.00
% Unclassified pH	44.18	40.63	58.65
Richness at pH <5.5	1.00	0.00	0.00
Richness at pH <7	0.00	0.00	0.00
Richness at pH ~7	11.00	7.00	8.00
Richness at pH >7	33.00	25.00	14.00
Richness Exclusively at pH >7	4.00	5.00	6.00
Richness at no Optimum	0.00	0.00	0.00
Salinity Preference			
% Fresh	3.05	0.77	0.77
% Fresh-Brackish	74.24	93.56	86.21
% Brackish-Fresh	22.71	5.41	12.26
% Brackish	0.00	0.26	0.77
% Marine	0.00	0.00	0.00
% Unclassified Salinity	43.24	39.38	58.17

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.012%	0.028%	0.015%
Richness Fresh	3.00	2.00	1.00
Richness Fresh-Brackish	40.00	31.00	26.00
Richness Brackish-Fresh	8.00	5.00	2.00
Richness Brackish	0.00	1.00	1.00
Richness Marine	0.00	0.00	0.00
Nitrogen Uptake Metabolism			
% Very Small Tolerance N	4.70	1.89	1.61
% Elevated Tolerance N	88.26	41.24	65.06
% Needing Periodically Elevated N	3.69	56.33	33.33
% Needing Continuously Elevated N	3.36	0.54	0.00
% Unclassified Nitrogen	53.14	42.03	60.10
Richness at Small Tolerance N	8.00	6.00	2.00
Richness at Elevated Tolerance N	30.00	23.00	20.00
Richness at Periodic Elevated N	4.00	1.00	2.00
Richness at Continuously Elevated N	2.00	2.00	0.00
Oxygen Requirements			
% at Continuously High Oxygen	8.17	2.14	1.99
% at Fairly High Oxygen	52.61	25.47	35.06
% at Moderate Oxygen	35.29	15.55	29.88
% at Low Oxygen	3.27	56.84	31.47
% at Very Low Oxygen	0.65	0.00	1.59
% Unclassified Oxygen	51.89	41.72	59.78
Richness at High Oxygen	11.00	6.00	3.00
Richness at Fairly High Oxygen	17.00	17.00	13.00
Richness at Moderate Oxygen	12.00	7.00	7.00
Richness at Low Oxygen	4.00	3.00	1.00
Richness at Very Low Oxygen	1.00	0.00	1.00
Saprobity			
% Very Slightly Polluted	2.58	1.33	1.57

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.012%	0.028%	0.015%
% Moderately Polluted	66.45	40.69	62.60
% Moderate-Heavily Polluted	26.77	2.13	3.15
% Heavily Polluted	4.19	55.59	32.68
% Very Heavily Polluted	0.00	0.27	0.00
% Unclassified Saprobity	51.26	41.25	59.29
Richness Very Slightly Polluted	5.00	4.00	2.00
Richness Moderately Polluted	26.00	25.00	19.00
Richness Moderate-Heavily Polluted	11.00	4.00	4.00
Richness Heavily Polluted	5.00	1.00	2.00
Richness Very Heavily Polluted	0.00	1.00	0.00
Trophic State			
% Oligotrophic	0.32	0.00	0.78
% Oligo-Mesotrophic	0.00	0.00	0.00
% Mesotrophic	3.82	6.51	2.33
% Meso-Eutrophic	25.48	8.59	12.40
% Eutrophic	59.87	26.82	51.55
% Hypereutrophic	1.59	54.69	30.62
% Oligo-to-Eutrophic	8.92	3.39	2.33
% Dystrophic	0.00	0.00	0.00
% Unclassified Trophic	50.63	40.00	58.65
Richness Oligotrophic	1.00	0.00	1.00
Richness Oligo-Mesotrophic	0.00	0.00	0.00
Richness Mesotrophic	3.00	5.00	3.00
Richness Meso-Eutrophic	9.00	9.00	5.00
Richness Eutrophic	24.00	16.00	14.00
Richness Hypereutrophic	2.00	2.00	1.00
Richness Oligo-to-Eutrophic	9.00	5.00	5.00
Richness Dystrophic	0.00	0.00	0.00
Moisture			
% Never Outside Water	22.71	28.88	46.64

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.012%	0.028%	0.015%
% Mainly in Water, Sometimes Wet	21.77	61.23	41.11
% Mainly in Water, Regularly Wet	54.26	9.89	12.25
% Mainly Wet, Moist or Temporarily Dry	1.26	0.00	0.00
% Nearly Exclusively Outside Water	0.00	0.00	0.00
% Unclassified Moisture	50.16	41.56	59.46
Richness Never Outside Water	14.00	14.00	12.00
Richness Mainly in Water, Sometimes Wet	12.00	9.00	5.00
Richness Mainly in Water, Regularly Wet	19.00	11.00	9.00
Richness Mainly Wet, Moist or Temporarily Dry	2.00	0.00	0.00
Richness Nearly Exclusively Outside Water	0.00	0.00	0.00
Morphological Guild (JS)			
% Erect	0.00	0.28	0.84
% Stalked	25.00	2.82	7.59
% Unattached	12.35	61.86	43.46
% Prostrate/Adnate	61.45	27.68	48.10
% Variable	1.20	7.34	0.00
% Unclassified Morphological Guild	47.80	44.69	62.02
Richness Erect	0.00	1.00	1.00
Richness Stalked	8.00	4.00	6.00
Richness Unattached	5.00	4.00	4.00
Richness Prostrate/Adnate	27.00	17.00	12.00
Richness Variable	2.00	5.00	0.00
Motility (JS)			
% Highly Motile	19.25	6.85	4.30
% Moderately Motile	29.68	6.30	9.77
% Not Motile	39.30	86.85	83.20
% Variable Motility	11.76	0.00	2.73
% Unclassified Motility	41.19	42.97	58.97
Richness Highly Motile	9.00	8.00	4.00
Richness Moderately Motile	14.00	7.00	6.00

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.012%	0.028%	0.015%
Richness Not Motile	24.00	24.00	16.00
Richness Variable Motility	4.00	0.00	4.00
Pollution Tolerance (LB)			
% Very Tolerant	3.30	1.88	1.12
% Moderately Tolerant	11.01	7.34	3.85
% Sensitive/Intolerant	29.40	37.81	24.68
Richness Very Tolerant	3.00	3.00	2.00
Richness Moderately Tolerant	11.00	11.00	7.00
Richness Sensitive/Intolerant	24.00	17.00	15.00
Pollution Tolerance (Lang-Bertalot modified by Bohls)	2.60	2.76	2.79
Other Measures			
% Rhopalodiales	0.00	0.00	0.00
% Achnanthes minutissima (Disturbance Index)	1.10	0.00	0.16
% Siltation Index	27.20	6.72	4.81
Siltation Richness	23.00	14.00	8.00
% Aerophiles	49.06	57.19	38.78
% Centrics	5.82	71.25	70.99
% Stability Index	25.94	11.09	11.70
% Heavy Metals Index	0.00	0.00	0.00

USGS ID River Phytoplankton 2010 (March Samples)
Soft Algae Component Taxonomy Report



Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		10:30	11:00	13:42
Collection Date		03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID		5433.2-1	5433.2-2	5433.2-3
Volume Received (L)		1.95	1.85	1.90
Percent Counted		0.340%	0.313%	0.312%
DIATOM TAXA	Achnanthes sp.	58	7	5
	Amphora sp.	3	0	2
	Asterionella sp.	1	0	0
	Aulacoseira sp.	6	8	0
	Caloneis sp.	1	0	0
	Cocconeis sp.	26	6	9
	Cyclotella sp.	0	215	236
	Cymbella sp.	27	0	5
	Diatoma sp.	19	8	11
	Fragilaria sp.	13	33	8
	Gomphoneis sp.	3	0	2
	Gomphonema sp.	2	0	0
	Mastogloia sp.	3	0	1
	Melosira sp.	17	2	2
	Navicula sp.	55	6	11
	Nitzschia sp.	17	8	13
	Rhoicosphenia sp.	7	0	6
	Rhopalodia sp.	1	0	0
	Synedra sp.	48	14	18
	Thalassiosira sp.	0	0	2
DIATOM SUB TOTAL		307	307	331
SOFT BODY TAXA	Aphanocapsa sp. (single cell)	3	0	3
	Chlorococcum sp.	2	0	0
	Cryptomonas sp.	6	3	3
	LGBs	4	3	0
	Mallomonas sp.	2	0	1
	Oocystis sp.	4	2	2

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.340%	0.313%	0.312%
Peridinium sp.	1	0	0
Sphaerocystis sp.	1	0	0
Trachelomonas sp.	5	1	0
SOFT BODY SUB TOTAL	28	9	9
GRAND TOTAL	335	316	340

USGS ID River Phytoplankton 2010 (March Samples)
Soft Algae Component Metrics Report



Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.340%	0.313%	0.312%
Abundance Measures			
Species Richness	27.00	14.00	19.00
Number of Valves Counted	307.00	307.00	331.00
Total Cells Counted	153.50	153.50	165.50
Dominance Measures			
Dominant Taxon	Achnanthes sp.	Cyclotella sp.	Cyclotella sp.
Dominant Taxon Abundance	58.00	215.00	236.00
2nd Dominant Taxon	Navicula sp.	Fragilaria sp.	Synedra sp.
2nd Dominant Taxon Abundance	55.00	33.00	18.00
3rd Dominant Taxon	Synedra sp.	Synedra sp.	Nitzschia sp.
3rd Dominant Taxon Abundance	48.00	14.00	13.00
4th Dominant Taxon	Cymbella sp.	Aulacoseira sp.	Diatoma sp.
4th Dominant Taxon Abundance	27.00	8.00	11.00
5th Dominant Taxon	Cocconeis sp.	Diatoma sp.	Navicula sp.
5th Dominant Taxon Abundance	26.00	8.00	11.00
% Dominant Taxon	17.31	68.04	69.41
% 2nd Dominant Taxon	16.42	10.44	5.29
% 3rd Dominant Taxon	14.33	4.43	3.82
% 4th Dominant Taxon	8.06	2.53	3.24
% 5th Dominant Taxon	7.76	2.53	3.24
Diversity/Evenness Measures			
Shannon-Weaver H' (log e)	2.61	1.32	1.40
Shannon-Weaver H' (log 10)	1.13	0.57	0.61
Shannon-Weaver H' (log 2)	3.77	1.91	2.03

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:30	11:00	13:42
Collection Date	03-09-2010	03-10-2010	03-10-2010
EcoAnalysts Sample ID	5433.2-1	5433.2-2	5433.2-3
Volume Received (L)	1.95	1.85	1.90
Percent Counted	0.340%	0.313%	0.312%
Margalef's Richness	4.47	2.26	3.09
Other Measures			
% Rhopalodiales	0.30	0.00	0.00
% Achnanthes minutissima (Disturbance Index)	0.00	0.00	0.00
% Siltation Index	21.49	4.43	7.06
Siltation Richness	2.00	2.00	2.00
% Aerophiles	0.00	0.00	0.00
% Centrics	6.87	71.20	70.59
% Stability Index	24.18	17.41	10.88
% Heavy Metals Index	0.00	0.00	0.00

USGS ID River Phytoplankton 2010 (May Samples)
Diatom Component Metrics Report



Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		14:10	10:10	11:55
Collection Date		05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID		5433.3-1	5433.3-2	5433.3-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.00250%	0.00094%	0.00069%
Achnanthes	Achnanthes conspicua	4	0	0
	Achnanthes girdle sp.	8	2	8
	Achnanthes hauckiana	4	0	0
	Achnanthes laevis	0	0	2
	Achnanthes lanceolata	8	0	2
	Achnanthes lanceolata var. dubia	3	0	2
	Achnanthes minutissima	10	0	0
Amphora	Amphora pediculus	6	10	7
Asterionella	Asterionella formosa	11	92	98
Aulacoseira	Aulacoseira ambigua	12	100	92
	Aulacoseira girdle sp.	0	0	2
	Aulacoseira granulata	2	9	16
	Aulacoseira granulata var. angustissima	0	6	0
	Aulacoseira perglabra	4	0	0
Cocconeis	Cocconeis gridle sp.	0	0	2
	Cocconeis pediculus	1	24	17
	Cocconeis placentula	0	2	4
	Cocconeis placentula var. euglypta	30	6	22
	Cocconeis placentula var. lineata	2	2	3
Cyclotella	Cyclotella bodanica	0	2	3
	Cyclotella comensis	2	16	48
	Cyclotella comta	2	0	0
	Cyclotella girdle sp.	1	0	4
	Cyclotella ocellata	0	0	2
Cymatopleura	Cymatopleura solea	5	0	0
Cymbella	Cymbella girdle sp.	15	2	2
	Cymbella minuta	35	0	2
	Cymbella muelleri var. ventricosa	2	0	0

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		14:10	10:10	11:55
Collection Date		05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID		5433.3-1	5433.3-2	5433.3-3
Volume Received (L)		2.00	2.00	2.00
	Cymbella silesiaca	6	2	6
Diatoma	Diatoma girdle sp.	4	0	0
	Diatoma tenue var. elongatum	0	20	24
	Diatoma vulgaris	4	20	7
Fragilaria	Fragilaria alpestris	2	0	0
	Fragilaria capucina	2	1	1
	Fragilaria capucina var. mesolepta	2	4	2
	Fragilaria construens	0	2	0
	Fragilaria construens var. venter	10	0	0
	Fragilaria crotonensis	0	74	11
	Fragilaria girdle sp.	59	42	86
	Fragilaria leptostauron	2	0	0
	Fragilaria leptostauron var. dubia	2	0	0
	Fragilaria pinnata	7	0	6
	Fragilaria vaucheriae	0	0	2
Frustulia	Frustulia rhomboides var. saxonica	1	0	0
Gomphoneis	Gomphoneis herculeana	2	0	0
	Gomphoneis minuta	4	0	0
Gomphonema	Gomphonema girdle sp.	2	4	8
	Gomphonema lagenula	0	2	0
	Gomphonema olivaceum	7	0	4
	Gomphonema parvulum	2	0	0
	Gomphonema pumilum	0	2	2
	Gomphonema staurophorum	34	0	0
	Gomphonema subclavatum var. mexicanum	0	1	0
	Gomphonema ventricosum	2	0	0
Gyrosigma	Gyrosigma attenuatum	0	0	2
Navicula	Navicula capitata	0	2	0
	Navicula capitatoradiata	4	0	0
	Navicula cari	1	4	2
	Navicula cryptocephala	3	0	0
	Navicula cryptotenella	2	1	0
	Navicula decussis	2	0	0

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		14:10	10:10	11:55
Collection Date		05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID		5433.3-1	5433.3-2	5433.3-3
Volume Received (L)		2.00	2.00	2.00
	Navicula girdle sp.	6	3	4
	Navicula gregaria	8	0	0
	Navicula lanceolata	29	0	7
	Navicula minima	1	0	0
	Navicula mutica	2	0	0
	Navicula pupula	0	2	1
	Navicula rostellata	2	0	0
	Navicula schroeteri	0	0	2
	Navicula subminuscula	4	0	0
	Navicula tripunctata	12	2	4
	Navicula trivialis	2	0	0
	Navicula veneta	4	0	0
Nitzschia	Nitzschia amphibia	1	0	2
	Nitzschia apiculata	2	0	0
	Nitzschia calida	2	2	0
	Nitzschia dissipata	14	0	0
	Nitzschia frustulum	15	0	0
	Nitzschia girdle sp.	84	8	11
	Nitzschia gracilis	10	2	0
	Nitzschia hungarica	3	0	0
	Nitzschia inconspicua	1	0	0
	Nitzschia lancettula	2	0	0
	Nitzschia linearis	0	0	3
	Nitzschia microcephala	2	0	0
	Nitzschia palea	5	1	2
	Nitzschia perminuta	2	0	0
	Nitzschia pura	2	0	0
	Nitzschia recta	8	2	0
	Nitzschia sigma	2	0	0
	Nitzschia sigmoidea	2	0	0
Planothidium	Planothidium frequentissimum	5	0	0
Reimeria	Reimeria sinuata	2	0	0
	Reimeria uniseriata	1	0	0

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		14:10	10:10	11:55
Collection Date		05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID		5433.3-1	5433.3-2	5433.3-3
Volume Received (L)		2.00	2.00	2.00
Rhoicosphenia	Rhoicosphenia abbreviata	24	44	25
Stephanodiscus	Stephanodiscus girdle sp.	2	8	0
	Stephanodiscus hantzschii	2	28	4
	Stephanodiscus neoastraea	0	18	12
Surirella	Surirella linearis var. helvetica	2	0	0
Synedra	Synedra girdle sp.	4	0	2
	Synedra mazamaensis	6	0	0
	Synedra ulna	42	43	36
TOTAL		650	617	616

USGS ID River Phytoplankton 2010 (May Samples)
Diatom Component Metrics Report



Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00250%	0.00094%	0.00069%
Abundance Measures			
Species Richness	82.00	41.00	48.00
Number of Valves Counted	650.00	617.00	616.00
Total Cells Counted	325.00	308.50	308.00
Dominance Measures			
Dominant Taxon	Nitzschia girdle sp.	Aulacoseira ambigua	Asterionella formosa
Dominant Taxon Abundance	84.00	100.00	98.00
2nd Dominant Taxon	Fragilaria girdle sp.	Asterionella formosa	Aulacoseira ambigua
2nd Dominant Taxon Abundance	59.00	92.00	92.00
3rd Dominant Taxon	Synedra ulna	Fragilaria crotonensis	Fragilaria girdle sp.
3rd Dominant Taxon Abundance	42.00	74.00	86.00
4th Dominant Taxon	Cymbella minuta	Rhoicosphenia abbreviata	Cyclotella comensis
4th Dominant Taxon Abundance	35.00	44.00	48.00
5th Dominant Taxon	Gomphonema staurophorum	Synedra ulna	Synedra ulna
5th Dominant Taxon Abundance	34.00	43.00	36.00
% Dominant Taxon	12.92	16.21	15.91
% 2nd Dominant Taxon	9.08	14.91	14.94
% 3rd Dominant Taxon	6.46	11.99	13.96
% 4th Dominant Taxon	5.38	7.13	7.79
% 5th Dominant Taxon	5.23	6.97	5.84
Diversity/Evenness Measures			
Shannon-Weaver H' (log e)	3.66	2.85	2.97
Shannon-Weaver H' (log 10)	1.59	1.24	1.29
Shannon-Weaver H' (log 2)	5.28	4.11	4.29
Margalef's Richness	12.51	6.23	7.32

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00250%	0.00094%	0.00069%
Van Dam Indices			
Van Dam pH	3.80	4.08	3.92
Van Dam Salinity	2.16	2.08	2.10
Van Dam Nitrogen Uptake	2.16	2.06	2.01
Van Dam Oxygen Tolerance	2.50	2.43	2.46
Van Dam Saprobity	2.31	2.18	2.13
Van Dam Trophic State	4.92	4.52	4.70
Van Dam Moisture	2.17	1.24	1.30
pH Preference			
% at Optimal Occurance pH 5.5	0.29	0.00	0.00
% Mainly Occuring at pH<7	0.00	0.00	0.00
% Mainly Occuring at pH~7	24.36	5.26	14.67
% Mainly Occuring at pH>7	70.49	81.38	78.78
% Exclusively Occuring at pH>7	4.87	13.36	6.55
% at no Apparent Optimum	0.00	0.00	0.00
% Unclassified pH	46.31	19.94	28.08
Richness at pH <5.5	1.00	0.00	0.00
Richness at pH <7	0.00	0.00	0.00
Richness at pH ~7	13.00	7.00	8.00
Richness at pH >7	37.00	18.00	20.00
Richness Exclusively at pH >7	4.00	3.00	5.00
Richness at no Optimum	0.00	0.00	0.00
Salinity Preference			
% Fresh	4.78	0.80	1.57
% Fresh-Brackish	75.28	90.04	87.25
% Brackish-Fresh	18.82	9.16	11.19
% Brackish	1.12	0.00	0.00
% Marine	0.00	0.00	0.00
% Unclassified Salinity	45.23	18.64	27.44

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00250%	0.00094%	0.00069%
Richness Fresh	4.00	2.00	3.00
Richness Fresh-Brackish	43.00	26.00	28.00
Richness Brackish-Fresh	10.00	3.00	4.00
Richness Brackish	2.00	0.00	0.00
Richness Marine	0.00	0.00	0.00
Nitrogen Uptake Metabolism			
% Very Small Tolerance N	4.48	0.85	1.80
% Elevated Tolerance N	84.14	92.98	96.13
% Needing Periodically Elevated N	2.41	5.96	1.55
% Needing Continuously Elevated N	8.97	0.21	0.52
% Unclassified Nitrogen	55.38	23.82	37.01
Richness at Small Tolerance N	6.00	2.00	3.00
Richness at Elevated Tolerance N	32.00	19.00	22.00
Richness at Periodic Elevated N	5.00	1.00	2.00
Richness at Continuously Elevated N	4.00	1.00	1.00
Oxygen Requirements			
% at Continuously High Oxygen	12.75	0.85	3.85
% at Fairly High Oxygen	34.56	61.02	48.21
% at Moderate Oxygen	42.95	31.99	46.41
% at Low Oxygen	9.73	6.14	1.54
% at Very Low Oxygen	0.00	0.00	0.00
% Unclassified Oxygen	54.15	23.50	36.69
Richness at High Oxygen	9.00	2.00	5.00
Richness at Fairly High Oxygen	12.00	10.00	10.00
Richness at Moderate Oxygen	18.00	10.00	12.00
Richness at Low Oxygen	8.00	2.00	2.00
Richness at Very Low Oxygen	0.00	0.00	0.00
Saprobity			
% Very Slightly Polluted	5.52	0.42	1.79

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00250%	0.00094%	0.00069%
% Moderately Polluted	64.94	87.97	85.93
% Moderate-Heavily Polluted	23.70	5.49	10.74
% Heavily Polluted	4.22	5.91	1.02
% Very Heavily Polluted	1.62	0.21	0.51
% Unclassified Saprobity	52.62	23.18	36.53
Richness Very Slightly Polluted	8.00	1.00	3.00
Richness Moderately Polluted	24.00	19.00	19.00
Richness Moderate-Heavily Polluted	14.00	4.00	6.00
Richness Heavily Polluted	5.00	1.00	1.00
Richness Very Heavily Polluted	1.00	1.00	1.00
Trophic State			
% Oligotrophic	2.88	0.41	1.27
% Oligo-Mesotrophic	0.64	0.00	0.00
% Mesotrophic	4.47	15.98	3.04
% Meso-Eutrophic	13.74	24.48	28.10
% Eutrophic	62.94	50.83	62.03
% Hypereutrophic	2.24	6.02	1.52
% Oligo-to-Eutrophic	13.10	2.28	4.05
% Dystrophic	0.00	0.00	0.00
% Unclassified Trophic	51.85	21.88	35.88
Richness Oligotrophic	4.00	1.00	2.00
Richness Oligo-Mesotrophic	1.00	0.00	0.00
Richness Mesotrophic	3.00	3.00	2.00
Richness Meso-Eutrophic	6.00	5.00	5.00
Richness Eutrophic	30.00	13.00	17.00
Richness Hypereutrophic	2.00	2.00	2.00
Richness Oligo-to-Eutrophic	8.00	5.00	4.00
Richness Dystrophic	0.00	0.00	0.00
Moisture			
% Never Outside Water	29.74	79.55	78.08

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00250%	0.00094%	0.00069%
% Mainly in Water, Sometimes Wet	24.51	17.38	13.47
% Mainly in Water, Regularly Wet	45.10	3.07	8.45
% Mainly Wet, Moist or Temporarily Dry	0.65	0.00	0.00
% Nearly Exclusively Outside Water	0.00	0.00	0.00
% Unclassified Moisture	52.92	20.75	28.90
Richness Never Outside Water	16.00	15.00	14.00
Richness Mainly in Water, Sometimes Wet	12.00	7.00	6.00
Richness Mainly in Water, Regularly Wet	22.00	4.00	10.00
Richness Mainly Wet, Moist or Temporarily Dry	1.00	0.00	0.00
Richness Nearly Exclusively Outside Water	0.00	0.00	0.00
Morphological Guild (JS)			
% Erect	0.00	0.00	0.00
% Stalked	25.25	10.76	10.21
% Unattached	6.31	35.43	42.41
% Prostrate/Adnate	64.78	36.55	42.67
% Variable	3.65	17.26	4.71
% Unclassified Morphological Guild	53.69	27.71	37.99
Richness Erect	0.00	0.00	0.00
Richness Stalked	6.00	3.00	5.00
Richness Unattached	4.00	5.00	6.00
Richness Prostrate/Adnate	36.00	14.00	15.00
Richness Variable	3.00	3.00	3.00
Motility (JS)			
% Highly Motile	21.05	1.50	2.22
% Moderately Motile	23.27	4.50	5.17
% Not Motile	43.77	93.58	90.64
% Variable Motility	11.91	0.43	1.97
% Unclassified Motility	44.46	24.31	34.09
Richness Highly Motile	16.00	4.00	4.00
Richness Moderately Motile	16.00	6.00	5.00

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00250%	0.00094%	0.00069%
Richness Not Motile	24.00	16.00	19.00
Richness Variable Motility	3.00	1.00	2.00
Pollution Tolerance (LB)			
% Very Tolerant	0.92	0.49	1.14
% Moderately Tolerant	10.31	17.34	7.79
% Sensitive/Intolerant	32.31	23.66	23.38
Richness Very Tolerant	2.00	2.00	3.00
Richness Moderately Tolerant	14.00	5.00	5.00
Richness Sensitive/Intolerant	27.00	11.00	13.00
Pollution Tolerance (Lang-Bertalot modified by	2.72	2.56	2.69
Other Measures			
% Rhopalodiales	0.00	0.00	0.00
% Achnanthes minutissima (Disturbance Index)	1.54	0.00	0.00
% Siltation Index	22.92	2.92	3.73
Siltation Richness	30.00	9.00	8.00
% Aerophiles	43.69	72.77	55.84
% Centrics	4.15	30.31	29.71
% Stability Index	24.15	48.30	44.64
% Heavy Metals Index	0.00	0.00	0.00

USGS ID River Phytoplankton 2010 (May Samples)
Diatom Component Metrics Report



Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.12500%	0.12500%	0.12500%
DIATOM TAXA			
Achnanthes sp.	32	25	42
Amphora sp.	0	0	1
Asterionella sp.	0	12	8
Aulacoseira sp.	5	72	32
Caloneis sp.	4	0	2
Cocconeis sp.	12	25	20
Coscinodiscus sp.	0	3	0
Cyclotella sp.	0	17	7
Cymbella sp.	6	3	6
Denticula sp.	0	0	1
Diatoma sp.	37	6	15
Fragilaria sp.	25	44	52
Gomphoneis sp.	9	0	1
Gomphonema sp.	3	2	7
Gomphosphaeria sp.	0	1	0
Melosira sp.	25	0	1
Navicula sp.	20	3	3
Nitzschia sp.	20	7	3
Reimeria sinuata	0	0	2
Rhoicosphenia sp.	4	9	13
Stephanodiscus sp.	0	0	2
Surirella sp.	1	0	1
Synedra sp.	31	50	37
Thalassiosira sp.	2	2	0
DIATOM SUB TOTAL	236	281	256
SOFT BODY TAXA			
Botryococcus sp.	0	0	1
Chlamydomonas sp.	18	7	13
Chlorococcum sp.	0	0	2

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.12500%	0.12500%	0.12500%
Chroococcus sp.	0	0	3
Coelastrum sp.	1	0	2
Coelosphaerium sp.	0	0	1
Cosmarium sp.	0	1	0
Cryptomonas sp.	10	4	4
Euglena sp.	3	2	2
Gloeocapsa sp.	0	0	2
Komma sp.	18	6	8
Mallomonas sp.	2	0	2
Microspora sp.	0	9	0
Mougeotia sp.	0	4	3
Nephrocytium sp.	0	0	1
Oocystis sp.	5	0	4
Pyrenomonas sp.	16	7	14
Radiococcus sp.	0	0	1
Scenedesmus sp.	0	0	2
Trachelomonas sp.	9	2	1
LGBs	2	0	0
unknown crysophyte	12	0	0
SOFT BODY SUB TOTAL	96	42	66
GRAND TOTAL	332	323	322

USGS ID River Phytoplankton 2010 (May Samples)
Diatom Component Metrics Report



Station Description	Boise River NR Parma, ID	SNAKE RIVER NR ADRIAN, OR	SNAKE RIVER @ NYSSA, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.12500%	0.12500%	0.12500%
Abundance Measures			
Species Richness	27.00	25.00	39.00
Number of Valves Counted	236.00	281.00	256.00
Total Cells Counted	118.00	140.50	128.00
Dominance Measures			
Dominant Taxon	Diatoma sp.	Aulacoseira sp.	Fragilaria sp.
Dominant Taxon Abundance	37.00	72.00	52.00
2nd Dominant Taxon	Achnanthes sp.	Synedra sp.	Achnanthes sp.
2nd Dominant Taxon Abundance	32.00	50.00	42.00
3rd Dominant Taxon	Synedra sp.	Fragilaria sp.	Synedra sp.
3rd Dominant Taxon Abundance	31.00	44.00	37.00
4th Dominant Taxon	Fragilaria sp.	Achnanthes sp.	Aulacoseira sp.
4th Dominant Taxon Abundance	25.00	25.00	32.00
5th Dominant Taxon	Melosira sp.	Cocconeis sp.	Cocconeis sp.
5th Dominant Taxon Abundance	25.00	25.00	20.00
% Dominant Taxon	11.14	22.29	16.15
% 2nd Dominant Taxon	9.64	15.48	13.04
% 3rd Dominant Taxon	9.34	13.62	11.49
% 4th Dominant Taxon	7.53	7.74	9.94
% 5th Dominant Taxon	7.53	7.74	6.21
Diversity/Evenness Measures			
Shannon-Weaver H' (log e)	2.94	2.57	2.92
Shannon-Weaver H' (log 10)	1.28	1.11	1.27
Shannon-Weaver H' (log 2)	4.24	3.70	4.21
Margalef's Richness	4.48	4.15	6.58

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	14:10	10:10	11:55
Collection Date	05-18-2010	05-19-2010	05-19-2010
EcoAnalysts Sample ID	5433.3-1	5433.3-2	5433.3-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.12500%	0.12500%	0.12500%
Van Dam Indices			
Van Dam pH	0.00	0.00	3.00
Van Dam Salinity	0.00	0.00	2.00
Van Dam Nitrogen Uptake	0.00	0.00	2.00
Van Dam Oxygen Tolerance	0.00	0.00	1.00
Van Dam Saprobity	0.00	0.00	2.00
Van Dam Trophic State	0.00	0.00	3.00
Van Dam Moisture	0.00	0.00	3.00
Other Measures			
% Rhopalodiales	0.00	0.00	0.00
% Achnanthes minutissima (Disturbance Index)	0.00	0.00	0.00
% Siltation Index	12.35	3.10	2.17
Siltation Richness	3.00	2.00	3.00
% Aerophiles	0.00	0.00	0.00
% Centrics	9.64	29.10	13.04
% Stability Index	28.01	34.67	34.78
% Heavy Metals Index	0.00	0.00	0.00

USGS ID River Phytoplankton 2010 (July Samples)
Diatom Component Taxa Report



Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		10:35	18:32	10:49
Collection Date		07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID		5433.4-1	5433.4-2	5433.4-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.00025%	0.00125%	0.00050%
Achnanthes	Achnanthes clevei	2	0	0
	Achnanthes conspicua	4	0	1
	Achnanthes exigua	2	0	0
	Achnanthes girdle sp.	8	16	26
	Achnanthes hauckiana	4	2	4
	Achnanthes lanceolata	8	2	2
	Achnanthes lanceolata var. dubia	2	2	0
	Achnanthes minutissima	0	0	7
	Achnanthes suchlandtii	0	0	2
Amphora	Amphora girdle sp.	0	2	0
	Amphora inariensis	0	2	0
	Amphora pediculus	23	12	21
Asterionella	Asterionella formosa	0	4	2
Aulacoseira	Aulacoseira ambigua	7	22	3
	Aulacoseira girdle sp.	0	4	2
	Aulacoseira granulata	0	2	6
Biddulphia	Biddulphia laevis	0	3	2
Cocconeis	Cocconeis gridle sp.	2	8	2
	Cocconeis pediculus	1	42	10
	Cocconeis placentula	2	3	3
	Cocconeis placentula var. euglypta	36	125	80
	Cocconeis placentula var. lineata	2	12	18
Cyclotella	Cyclotella comensis	0	6	12
	Cyclotella comta	3	1	0
	Cyclotella girdle sp.	2	0	0
	Cyclotella meneghiniana	5	0	2
	Cyclotella pseudostelligera	0	0	1
	Cyclotella tripartita	0	0	2
Cymatopleura	Cymatopleura solea	0	0	2
Cymbella	Cymbella girdle sp.	1	0	0
	Cymbella mexicana var. janischii	0	0	1

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		10:35	18:32	10:49
Collection Date		07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID		5433.4-1	5433.4-2	5433.4-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.00025%	0.00125%	0.00050%
Cymbella minuta		19	2	12
Cymbella silesiaca		25	1	3
Diatoma	Diatoma girdle sp.	4	0	0
	Diatoma moniliformis	52	0	6
	Diatoma tenue var. elongatum	0	1	0
	Diatoma vulgaris	29	55	33
	Diatoma vulgaris var. brevis	1	2	0
Epithemia	Epithemia adnata	0	2	0
Fragilaria	Fragilaria brevistriata	1	3	0
	Fragilaria capucina	0	0	5
	Fragilaria capucina var. mesolepta	0	2	2
	Fragilaria construens	0	2	0
	Fragilaria construens var. venter	8	0	2
	Fragilaria girdle sp.	70	29	30
	Fragilaria leptostauron	0	0	6
	Fragilaria pinnata	0	2	12
	Fragilaria vaucheriae	2	0	2
Gomphoneis	Gomphoneis minuta	2	0	0
Gomphonema	Gomphonema girdle sp.	3	12	6
	Gomphonema parvulum	0	9	12
	Gomphonema pumilum	0	6	8
	Gomphonema subclavatum var. mexicanum	2	0	5
Gyrosigma	Gyrosigma girdle sp.	0	1	0
Melosira	Melosira varians	8	4	9
Navicula	Navicula atomus	2	2	0
	Navicula bacillum	0	0	2
	Navicula capitata	0	2	0
	Navicula capitatoradiata	20	1	5
	Navicula cari	0	1	2
	Navicula cincta	0	1	6
	Navicula confervacea	0	0	1
	Navicula cryptocephala	4	0	0
	Navicula cryptotenella	15	2	2
	Navicula decussis	0	2	2
	Navicula erifuga	0	2	2

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		10:35	18:32	10:49
Collection Date		07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID		5433.4-1	5433.4-2	5433.4-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.00025%	0.00125%	0.00050%
	Navicula gregaria	2	0	1
	Navicula lanceolata	8	0	7
	Navicula meniculus var. obtusa	1	0	0
	Navicula mutica	4	0	0
	Navicula pupula	0	0	22
	Navicula pygmaea	2	0	0
	Navicula radiosafallax	0	0	2
	Navicula schroeteri	0	0	2
	Navicula subminuscula	2	2	2
	Navicula tripunctata	6	13	6
	Navicula veneta	2	2	4
Neidium	Neidium hercynicum var. subrostratum	0	0	3
Nitzschia	Nitzschia amphibia	4	3	10
	Nitzschia amphibioides	2	0	0
	Nitzschia dissipata	63	0	9
	Nitzschia filiformis	3	0	0
	Nitzschia frustulum	25	5	8
	Nitzschia girdle sp.	62	10	8
	Nitzschia graciliformis	4	0	0
	Nitzschia gracilis	0	0	2
	Nitzschia hungarica	0	0	2
	Nitzschia kutzingiana	1	0	1
	Nitzschia linearis	1	0	11
	Nitzschia palea	6	2	2
	Nitzschia perminuta	0	0	4
	Nitzschia recta	0	0	4
	Nitzschia sigma	2	0	0
Pinnularia	Pinnularia borealis	0	1	0
	Pinnularia mesolepta	0	1	2
Planothidium	Planothidium frequentissimum	2	3	4
Reimeria	Reimeria sinuata	4	0	0
	Reimeria uniseriata	0	6	2
Rhoicosphenia	Rhoicosphenia abbreviata	20	109	73
Rhopalodia	Rhopalodia gibba	0	2	0
Stauroneis	Stauroneis kriegeri	0	0	2

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		10:35	18:32	10:49
Collection Date		07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID		5433.4-1	5433.4-2	5433.4-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.00025%	0.00125%	0.00050%
Stephanodiscus	Stephanodiscus girdle sp.	0	0	2
	Stephanodiscus neoastreae	0	6	7
Surirella	Surirella brebissonii	0	2	4
	Surirella brightwellii	0	1	0
Synedra	Synedra parasitica var. subconstricta	2	0	0
	Synedra ulna	36	40	47
TOTAL		645	624	639

USGS ID River Phytoplankton 2010 (July Samples)
Diatom Component Metrics Report



Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00025%	0.00125%	0.00050%
Abundance Measures			
Species Richness	60.00	60.00	76.00
Number of Valves Counted	645.00	624.00	639.00
Total Cells Counted	322.50	312.00	319.50
Dominance Measures			
Dominant Taxon	Fragilaria girdle sp.	Cocconeis placentula var. euglypta	Cocconeis placentula var. euglypta
Dominant Taxon Abundance	70.00	125.00	80.00
2nd Dominant Taxon	Nitzschia dissipata	Rhoicosphenia abbreviata	Rhoicosphenia abbreviata
2nd Dominant Taxon Abundance	63.00	109.00	73.00
3rd Dominant Taxon	Nitzschia girdle sp.	Diatoma vulgaris	Synedra ulna
3rd Dominant Taxon Abundance	62.00	55.00	47.00
4th Dominant Taxon	Diatoma moniliformis	Cocconeis pediculus	Diatoma vulgaris
4th Dominant Taxon Abundance	52.00	42.00	33.00
5th Dominant Taxon	Cocconeis placentula var. euglypta	Synedra ulna	Fragilaria girdle sp.
5th Dominant Taxon Abundance	36.00	40.00	30.00
% Dominant Taxon	10.85	20.03	12.52
% 2nd Dominant Taxon	9.77	17.47	11.42
% 3rd Dominant Taxon	9.61	8.81	7.36
% 4th Dominant Taxon	8.06	6.73	5.16
% 5th Dominant Taxon	5.58	6.41	4.69
Diversity/Evenness Measures			
Shannon-Weaver H' (log e)	3.32	3.00	3.60
Shannon-Weaver H' (log 10)	1.44	1.30	1.56
Shannon-Weaver H' (log 2)	4.79	4.32	5.20
Margalef's Richness	9.12	9.17	11.61
Van Dam Indices			
Van Dam pH	3.93	4.10	3.91

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00025%	0.00125%	0.00050%
Van Dam Salinity	2.24	2.11	2.09
Van Dam Nitrogen Uptake	2.21	2.06	2.09
Van Dam Oxygen Tolerance	2.57	2.46	2.48
Van Dam Saprobity	2.42	2.10	2.24
Van Dam Trophic State	4.96	4.88	4.87
Van Dam Moisture	2.06	1.83	2.08
pH Preference			
% at Optimal Occurance pH 5.5	0.00	0.00	0.00
% Mainly Occuring at pH<7	0.00	0.00	0.00
% Mainly Occuring at pH~7	15.19	4.61	18.01
% Mainly Occuring at pH>7	76.64	80.92	72.88
% Exclusively Occuring at pH>7	8.16	14.47	9.11
% at no Apparent Optimum	0.00	0.00	0.00
% Unclassified pH	31.63	23.56	24.41
Richness at pH <5.5	0.00	0.00	0.00
Richness at pH <7	0.00	0.00	0.00
Richness at pH ~7	8.00	7.00	16.00
Richness at pH >7	31.00	29.00	38.00
Richness Exclusively at pH >7	4.00	6.00	3.00
Richness at no Optimum	0.00	0.00	0.00
Salinity Preference			
% Fresh	0.91	0.00	1.01
% Fresh-Brackish	75.06	88.89	89.05
% Brackish-Fresh	22.90	11.11	9.94
% Brackish	1.13	0.00	0.00
% Marine	0.00	0.00	0.00
% Unclassified Salinity	31.63	22.12	22.85
Richness Fresh	1.00	0.00	3.00
Richness Fresh-Brackish	31.00	39.00	44.00
Richness Brackish-Fresh	9.00	6.00	12.00
Richness Brackish	2.00	0.00	0.00
Richness Marine	0.00	0.00	0.00

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00025%	0.00125%	0.00050%
Nitrogen Uptake Metabolism			
% Very Small Tolerance N	1.75	2.40	3.90
% Elevated Tolerance N	83.96	91.72	85.55
% Needing Periodically Elevated N	5.51	3.49	7.80
% Needing Continuously Elevated N	8.77	2.40	2.75
% Unclassified Nitrogen	38.14	26.44	31.77
Richness at Small Tolerance N	3.00	5.00	6.00
Richness at Elevated Tolerance N	27.00	23.00	33.00
Richness at Periodic Elevated N	5.00	3.00	5.00
Richness at Continuously Elevated N	4.00	4.00	3.00
Oxygen Requirements			
% at Continuously High Oxygen	5.26	1.75	7.99
% at Fairly High Oxygen	38.35	54.05	42.01
% at Moderate Oxygen	52.13	40.92	44.29
% at Low Oxygen	3.01	3.28	5.25
% at Very Low Oxygen	1.25	0.00	0.46
% Unclassified Oxygen	38.14	26.76	31.46
Richness at High Oxygen	6.00	4.00	7.00
Richness at Fairly High Oxygen	12.00	10.00	15.00
Richness at Moderate Oxygen	16.00	16.00	19.00
Richness at Low Oxygen	4.00	4.00	6.00
Richness at Very Low Oxygen	1.00	0.00	1.00
Saprobity			
% Very Slightly Polluted	1.20	1.08	3.36
% Moderately Polluted	60.77	91.97	74.94
% Moderate-Heavily Polluted	33.97	3.25	16.78
% Heavily Polluted	2.63	3.25	4.47
% Very Heavily Polluted	1.44	0.43	0.45
% Unclassified Saprobity	35.19	26.12	30.05
Richness Very Slightly Polluted	2.00	2.00	5.00
Richness Moderately Polluted	21.00	21.00	28.00
Richness Moderate-Heavily Polluted	13.00	8.00	13.00
Richness Heavily Polluted	4.00	4.00	4.00

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00025%	0.00125%	0.00050%
Richness Very Heavily Polluted	1.00	1.00	1.00
Trophic State			
% Oligotrophic	0.95	0.84	1.30
% Oligo-Mesotrophic	0.00	0.21	0.86
% Mesotrophic	0.95	0.00	1.51
% Meso-Eutrophic	25.12	14.77	20.09
% Eutrophic	58.77	80.17	67.17
% Hypereutrophic	1.90	0.84	0.43
% Oligo-to-Eutrophic	12.32	3.16	8.64
% Dystrophic	0.00	0.00	0.00
% Unclassified Trophic	34.57	24.04	27.54
Richness Oligotrophic	1.00	2.00	2.00
Richness Oligo-Mesotrophic	0.00	1.00	1.00
Richness Mesotrophic	1.00	0.00	2.00
Richness Meso-Eutrophic	7.00	8.00	11.00
Richness Eutrophic	24.00	22.00	29.00
Richness Hypereutrophic	2.00	2.00	1.00
Richness Oligo-to-Eutrophic	7.00	6.00	9.00
Richness Dystrophic	0.00	0.00	0.00
Moisture			
% Never Outside Water	35.99	30.92	22.59
% Mainly in Water, Sometimes Wet	23.91	55.86	48.46
% Mainly in Water, Regularly Wet	38.65	12.37	27.63
% Mainly Wet, Moist or Temporarily Dry	1.45	0.85	1.32
% Nearly Exclusively Outside Water	0.00	0.00	0.00
% Unclassified Moisture	35.81	24.84	28.64
Richness Never Outside Water	10.00	13.00	18.00
Richness Mainly in Water, Sometimes Wet	12.00	9.00	12.00
Richness Mainly in Water, Regularly Wet	16.00	13.00	21.00
Richness Mainly Wet, Moist or Temporarily Dry	2.00	3.00	1.00
Richness Nearly Exclusively Outside Water	0.00	0.00	0.00
Morphological Guild (JS)			

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00025%	0.00125%	0.00050%
% Erect	0.00	0.00	0.00
% Stalked	19.34	37.80	28.95
% Unattached	12.69	20.54	15.82
% Prostrate/Adnate	67.67	39.58	49.06
% Variable	0.30	2.08	6.17
% Unclassified Morphological Guild	48.68	46.15	41.63
Richness Erect	0.00	0.00	0.00
Richness Stalked	3.00	5.00	5.00
Richness Unattached	3.00	4.00	6.00
Richness Prostrate/Adnate	27.00	26.00	37.00
Richness Variable	1.00	3.00	3.00
Motility (JS)			
% Highly Motile	27.75	3.79	14.94
% Moderately Motile	23.50	14.58	23.80
% Not Motile	37.75	80.76	57.22
% Variable Motility	11.00	0.87	4.05
% Unclassified Motility	37.98	45.03	38.18
Richness Highly Motile	10.00	5.00	12.00
Richness Moderately Motile	13.00	17.00	19.00
Richness Not Motile	17.00	18.00	24.00
Richness Variable Motility	2.00	2.00	3.00
Pollution Tolerance (LB)			
% Very Tolerant	1.09	1.12	2.97
% Moderately Tolerant	26.36	6.41	11.42
% Sensitive/Intolerant	19.84	6.41	19.72
Richness Very Tolerant	5.00	3.00	4.00
Richness Moderately Tolerant	12.00	9.00	13.00
Richness Sensitive/Intolerant	16.00	17.00	28.00
Pollution Tolerance (Lang-Bertalot modified by Boh)	2.40	2.38	2.49
Other Measures			
% Rhopalodiales	0.00	0.64	0.00
% Achnanthes minutissima (Disturbance Index)	0.00	0.00	1.10

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00025%	0.00125%	0.00050%
% Siltation Index	27.60	6.89	19.56
Siltation Richness	21.00	16.00	27.00
% Aerophiles	46.36	51.28	52.74
% Centrics	3.88	7.69	7.51
% Stability Index	31.78	22.44	23.00
% Heavy Metals Index	0.00	0.00	0.00

USGS ID River Phytoplankton 2010 (July Samples)
SoftBody Component Taxa Report



Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00313%	0.01188%	0.00563%
DIATOM TAXA			
Achnanthes sp.	41	39	36
Amphora sp.	0	2	4
Aulacoseira sp.	12	5	19
Cocconeis sp.	14	55	23
Cyclotella sp.	0	0	8
Cymbella sp.	22	8	3
Diatoma sp.	20	20	18
Fragilaria sp.	8	6	47
Gomphoneis sp.	4	2	2
Gomphonema sp.	4	16	29
Melosira sp.	33	2	5
Navicula sp.	19	4	11
Nitzschia sp.	13	2	14
Rhoicosphenia sp.	2	23	18
Rhopalodia sp.	0	0	1
Synedra sp.	27	14	11
DIATOM SUB TOTAL	219	198	249
SOFT BODY TAXA			
Ankistrodesmus sp.	0	2	0
Botryococcus sp.	0	1	0
Chlamydomonas sp.	54	40	16
Chlorella sp. LGBs	2	6	2
Chlorococcum sp.	1	2	0
Chromulina sp.	14	15	5
Chroococcus sp.	2	6	7
Chrysochromulina sp.	0	2	4
Closterium sp.	0	0	3
Coelastrum sp.	3	1	4
Cosmarium sp.	0	1	0
Cryptomonas sp.	0	3	3
Euglena sp.	0	9	1
Komma sp.	16	13	14

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00313%	0.01188%	0.00563%
LGBs	4	19	0
Merismopedia sp.	1	0	0
Monoraphidium contortum	0	5	0
Ochromonas sp.	0	4	2
Oocystis sp.	3	3	0
Oscillatoria sp.	0	6	2
Pseudoanabaena sp.	2	0	3
Pyrenomonas sp.	13	27	15
Roya sp.	1	0	0
Scenedesmus sp.	4	0	6
Stichosiphon sp.	0	2	0
Trachelomonas sp.	1	0	0
SOFT BODY SUB TOTAL	121	167	87
GRAND TOTAL	340	365	336

USGS ID River Phytoplankton 2010 (July Samples)
SoftBody Component Metrics Report



Station Description	Boise River NR Parma, ID	SNAKE RIVER NR ADRIAN, OR	SNAKE RIVER @ NYSSA, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00313%	0.01188%	0.00563%
Abundance Measures			
Species Richness	28.00	34.00	31.00
Number of Valves Counted	219.00	198.00	249.00
Total Cells Counted	109.50	99.00	124.50
Dominance Measures			
Dominant Taxon	Chlamydomonas sp.	Cocconeis sp.	Fragilaria sp.
Dominant Taxon Abundance	54.00	55.00	47.00
2nd Dominant Taxon	Achnanthes sp.	Chlamydomonas sp.	Achnanthes sp.
2nd Dominant Taxon Abundance	41.00	40.00	36.00
3rd Dominant Taxon	Melosira sp.	Achnanthes sp.	Gomphonema sp.
3rd Dominant Taxon Abundance	33.00	39.00	29.00
4th Dominant Taxon	Synedra sp.	Pyrenomonas sp.	Cocconeis sp.
4th Dominant Taxon Abundance	27.00	27.00	23.00
5th Dominant Taxon	Cymbella sp.	Rhoicosphenia sp.	Aulacoseira sp.
5th Dominant Taxon Abundance	22.00	23.00	19.00
% Dominant Taxon	15.88	15.07	13.99
% 2nd Dominant Taxon	12.06	10.96	10.71
% 3rd Dominant Taxon	9.71	10.68	8.63
% 4th Dominant Taxon	7.94	7.40	6.85
% 5th Dominant Taxon	6.47	6.30	5.65
Diversity/Evenness Measures			
Shannon-Weaver H' (log e)	2.82	2.98	3.01
Shannon-Weaver H' (log 10)	1.23	1.29	1.31
Shannon-Weaver H' (log 2)	4.07	4.29	4.34
Margalef's Richness	4.63	5.59	5.16
Van Dam Indices			
Van Dam pH	0.00	0.00	0.00

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	10:35	18:32	10:49
Collection Date	07-08-2010	07-07-2010	07-07-2010
EcoAnalysts Sample ID	5433.4-1	5433.4-2	5433.4-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.00313%	0.01188%	0.00563%
Van Dam Salinity	0.00	0.00	0.00
Van Dam Nitrogen Uptake	0.00	0.00	0.00
Van Dam Oxygen Tolerance	0.00	0.00	0.00
Van Dam Saprobity	0.00	0.00	0.00
Van Dam Trophic State	0.00	0.00	0.00
Van Dam Moisture	0.00	0.00	0.00
Other Measures			
% Rhopalodiales	0.00	0.00	0.30
% Achnanthes minutissima (Disturbance Index)	0.00	0.00	0.00
% Siltation Index	9.41	1.64	7.44
Siltation Richness	2.00	2.00	2.00
% Aerophiles	0.00	0.00	0.00
% Centrics	13.24	1.92	9.52
% Stability Index	16.18	10.96	22.62
% Heavy Metals Index	0.00	0.00	0.00

USGS ID River Phytoplankton 2010 (August Samples)
Diatom Component Taxa Report



Station Description		Boise River NR Parma, ID
Station		13213000
Collection Time		09:20
Collection Date		08-19-2010
EcoAnalysts Sample ID		5433.5-1
Volume Received (L)		2.00
Percent Counted		0.00031%
Achnanthes	Achnanthes conspicua	11
	Achnanthes daui	4
	Achnanthes delicatula	2
	Achnanthes exigua	2
	Achnanthes girdle sp.	6
	Achnanthes hauckiana	2
	Achnanthes lanceolata	8
	Achnanthes lanceolata var. dubia	2
	Achnanthes minutissima	7
Amphora	Amphora pediculus	14
	Amphora submontana	2
	Amphora veneta	2
Aulacoseira	Aulacoseira perglabra	2
Biddulphia	Biddulphia laevis	1
Caloneis	Caloneis girdle sp.	2
Cocconeis	Cocconeis gridle sp.	2
	Cocconeis pediculus	11
	Cocconeis placentula	2
	Cocconeis placentula var. euglypta	83
	Cocconeis placentula var. lineata	4
Cyclotella	Cyclotella distinguenda	2
	Cyclotella girdle sp.	6
	Cyclotella meneghiniana	10
Cymbella	Cymbella girdle sp.	15
	Cymbella minuta	18
	Cymbella muelleri var. ventricosa	2
	Cymbella silesiaca	3
	Cymbella suburgidula	2
Diatoma	Diatoma moniliformis	2

Station Description		Boise River NR Parma, ID
Station		13213000
Collection Time		09:20
Collection Date		08-19-2010
EcoAnalysts Sample ID		5433.5-1
Volume Received (L)		2.00
Percent Counted		0.00031%
Diatoma vulgaris		21
Epithemia	Epithemia girdle sp.	2
Eunotia	Eunotia arcus	2
	Eunotia subarcuatoidea	2
Fragilaria	Fragilaria capucina	2
	Fragilaria girdle sp.	36
	Fragilaria vaucheriae	4
Gomphoneis	Gomphoneis herculeana	2
	Gomphoneis minuta	3
Gomphonema	Gomphonema lagenula	2
	Gomphonema parvulum	4
	Gomphonema productum	2
Hantzschia	Hantzschia rhaetica	1
Melosira	Melosira varians	23
Navicula	Navicula atomus	2
	Navicula capitatoradiata	29
	Navicula cryptocephala	4
	Navicula cryptotenella	9
	Navicula erifuga	1
	Navicula girdle sp.	6
	Navicula goeppertiana	10
	Navicula gysingensis	1
	Navicula lanceolata	2
	Navicula phyllepta	1
	Navicula pupula	6
	Navicula rhynchocephala	2
	Navicula rostellata	2
	Navicula subminuscula	10
	Navicula tripunctata	14
	Navicula upsaliensis	1
	Navicula viridula	4
Nitzschia	Nitzschia amphibia	12
	Nitzschia dissipata	26

Station Description		Boise River NR Parma, ID
Station		13213000
Collection Time		09:20
Collection Date		08-19-2010
EcoAnalysts Sample ID		5433.5-1
Volume Received (L)		2.00
Percent Counted		0.00031%
Nitzschia frustulum		27
Nitzschia girdle sp.		37
Nitzschia hungarica		4
Nitzschia inconspicua		2
Nitzschia lanceolata		3
Nitzschia linearis		8
Nitzschia microcephala		4
Nitzschia palea		3
Nitzschia perminuta		8
Nitzschia tryblionella var. levidensis		2
Pinnularia	Pinnularia girdle sp.	2
Planothidium	Planothidium frequentissimum	4
Reimeria	Reimeria uniseriata	4
Rhoicosphenia	Rhoicosphenia abbreviata	26
Surirella	Surirella brebissonii	1
Synedra	Synedra girdle sp.	2
	Synedra ulna	25
TOTAL		639

USGS ID River Phytoplankton 2010 (August Samples)
Diatom Component Metrics Report



Station Description	Boise River NR Parma, ID
Station	13213000
Collection Time	09:20
Collection Date	08-19-2010
EcoAnalysts Sample ID	5433.5-1
Volume Received (L)	2.00
Percent Counted	0.00031%

Abundance Measures

Species Richness	79.00
Number of Valves Counted	639.00
Total Cells Counted	319.50

Dominance Measures

Dominant Taxon	Cocconeis placentula var. euglypta
Dominant Taxon Abundance	83.00
2nd Dominant Taxon	Nitzschia girdle sp.
2nd Dominant Taxon Abundance	37.00
3rd Dominant Taxon	Fragilaria girdle sp.
3rd Dominant Taxon Abundance	36.00
4th Dominant Taxon	Navicula capitatoradiata
4th Dominant Taxon Abundance	29.00
5th Dominant Taxon	Nitzschia frustulum
5th Dominant Taxon Abundance	27.00
% Dominant Taxon	12.99
% 2nd Dominant Taxon	5.79
% 3rd Dominant Taxon	5.63
% 4th Dominant Taxon	4.54
% 5th Dominant Taxon	4.23

Diversity/Evenness Measures

Shannon-Weaver H' (log e)	3.71
Shannon-Weaver H' (log 10)	1.61
Shannon-Weaver H' (log 2)	5.36
Margalef's Richness	12.07

Station Description	Boise River NR Parma,ID
Station	13213000
Collection Time	09:20
Collection Date	08-19-2010
EcoAnalysts Sample ID	5433.5-1
Volume Received (L)	2.00
Percent Counted	0.00031%

Van Dam Indices

Van Dam pH	3.90
Van Dam Salinity	2.13
Van Dam Nitrogen Uptake	2.30
Van Dam Oxygen Tolerance	2.66
Van Dam Saprobity	2.37
Van Dam Trophic State	4.88
Van Dam Moisture	2.18

pH Preference

% at Optimal Occurance pH 5.5	0.43
% Mainly Occuring at pH<7	0.00
% Mainly Occuring at pH~7	14.13
% Mainly Occuring at pH>7	79.66
% Exclusively Occuring at pH>7	5.78
% at no Apparent Optimum	0.00
% Unclassified pH	26.92
Richness at pH <5.5	1.00
Richness at pH <7	0.00
Richness at pH ~7	12.00
Richness at pH >7	36.00
Richness Exclusively at pH >7	4.00
Richness at no Optimum	0.00

Salinity Preference

% Fresh	3.21
% Fresh-Brackish	81.84
% Brackish-Fresh	13.68
% Brackish	1.28
% Marine	0.00
% Unclassified Salinity	26.76
Richness Fresh	3.00
Richness Fresh-Brackish	37.00

Station Description	Boise River NR Parma,ID
Station	13213000
Collection Time	09:20
Collection Date	08-19-2010
EcoAnalysts Sample ID	5433.5-1
Volume Received (L)	2.00
Percent Counted	0.00031%

Richness Brackish-Fresh	11.00
Richness Brackish	3.00
Richness Marine	0.00

Nitrogen Uptake Metabolism

% Very Small Tolerance N	6.34
% Elevated Tolerance N	68.54
% Needing Periodically Elevated N	14.32
% Needing Continuously Elevated N	10.80
% Unclassified Nitrogen	33.33
Richness at Small Tolerance N	5.00
Richness at Elevated Tolerance N	27.00
Richness at Periodic Elevated N	6.00
Richness at Continuously Elevated N	5.00

Oxygen Requirements

% at Continuously High Oxygen	6.81
% at Fairly High Oxygen	32.63
% at Moderate Oxygen	50.47
% at Low Oxygen	7.75
% at Very Low Oxygen	2.35
% Unclassified Oxygen	33.33
Richness at High Oxygen	8.00
Richness at Fairly High Oxygen	11.00
Richness at Moderate Oxygen	17.00
Richness at Low Oxygen	6.00
Richness at Very Low Oxygen	1.00

Saprobity

% Very Slightly Polluted	6.16
% Moderately Polluted	60.50
% Moderate-Heavily Polluted	23.97
% Heavily Polluted	8.68

Station Description	Boise River NR Parma,ID
Station	13213000
Collection Time	09:20
Collection Date	08-19-2010
EcoAnalysts Sample ID	5433.5-1
Volume Received (L)	2.00
Percent Counted	0.00031%

% Very Heavily Polluted	0.68
% Unclassified Saprobity	31.46
Richness Very Slightly Polluted	5.00
Richness Moderately Polluted	20.00
Richness Moderate-Heavily Polluted	14.00
Richness Heavily Polluted	6.00
Richness Very Heavily Polluted	1.00

Trophic State

% Oligotrophic	1.81
% Oligo-Mesotrophic	2.71
% Mesotrophic	0.45
% Meso-Eutrophic	13.77
% Eutrophic	71.56
% Hypereutrophic	1.13
% Oligo-to-Eutrophic	8.58
% Dystrophic	0.00
% Unclassified Trophic	30.67
Richness Oligotrophic	3.00
Richness Oligo-Mesotrophic	3.00
Richness Mesotrophic	1.00
Richness Meso-Eutrophic	4.00
Richness Eutrophic	28.00
Richness Hypereutrophic	2.00
Richness Oligo-to-Eutrophic	7.00
Richness Dystrophic	0.00

Moisture

% Never Outside Water	22.00
% Mainly in Water, Sometimes Wet	39.00
% Mainly in Water, Regularly Wet	38.10
% Mainly Wet, Moist or Temporarily Dry	0.91
% Nearly Exclusively Outside Water	0.00

Station Description	Boise River NR Parma,ID
Station	13213000
Collection Time	09:20
Collection Date	08-19-2010
EcoAnalysts Sample ID	5433.5-1
Volume Received (L)	2.00
Percent Counted	0.00031%
% Unclassified Moisture	30.99
Richness Never Outside Water	12.00
Richness Mainly in Water, Sometimes Wet	12.00
Richness Mainly in Water, Regularly Wet	21.00
Richness Mainly Wet, Moist or Temporarily Dry	2.00
Richness Nearly Exclusively Outside Water	0.00
 Morphological Guild (JS)	
% Erect	1.08
% Stalked	14.29
% Unattached	15.09
% Prostrate/Adnate	69.00
% Variable	0.54
% Unclassified Morphological Guild	41.94
Richness Erect	2.00
Richness Stalked	5.00
Richness Unattached	4.00
Richness Prostrate/Adnate	34.00
Richness Variable	1.00
 Motility (JS)	
% Highly Motile	25.57
% Moderately Motile	29.37
% Not Motile	37.72
% Variable Motility	7.34
% Unclassified Motility	38.18
Richness Highly Motile	13.00
Richness Moderately Motile	19.00
Richness Not Motile	22.00
Richness Variable Motility	6.00
 Pollution Tolerance (LB)	
% Very Tolerant	4.23

Station Description	Boise River NR Parma,ID
Station	13213000
Collection Time	09:20
Collection Date	08-19-2010
EcoAnalysts Sample ID	5433.5-1
Volume Received (L)	2.00
Percent Counted	0.00031%

% Moderately Tolerant	17.21
% Sensitive/Intolerant	26.76
Richness Very Tolerant	6.00
Richness Moderately Tolerant	18.00
Richness Sensitive/Intolerant	23.00
Pollution Tolerance (Lang-Bertalot modified by Bohls)	2.47

Other Measures

% Rhopalodiales	0.31
% Achnanthes minutissima (Disturbance Index)	1.10
% Siltation Index	30.99
Siltation Richness	28.00
% Aerophiles	45.54
% Centrics	6.89
% Stability Index	14.40
% Heavy Metals Index	0.00

USGS ID River Phytoplankton 2010 (August Samples)
SoftBody Component Taxa Report



Station Description		Boise River NR Parma, ID
Station		13213000
Collection Time		09:20
Collection Date		08-19-2010
EcoAnalysts Sample ID		5433.5-1
Volume Received (L)		2.00
Percent Counted		0.01250%
DIATOM TAXA		
Achnanthes sp.		37
Amphora sp.		4
Brachysira sp.		2
Cocconeis sp.		19
Cymbella sp.		3
Diatoma sp.		7
Fragilaria sp.		2
Gomphoneis sp.		2
Gomphonema sp.		2
Melosira sp.		4
Navicula sp.		10
Nitzschia sp.		20
Rhoicosphenia sp.		19
Synedra sp.		15
DIATOM SUB TOTAL		146
SOFT BODY TAXA		
Aphanocapsa sp.		2
Chlamydomonas sp.		72
Chlorella sp. LGBs		14
Chlorococcum sp.		7
Chromulina sp.		5
Chroococcus sp.		6
Coelastrum sp.		6
Cryptomonas sp.		5
Euglena sp.		4
Komma sp.		6
LGBs		3
Oocystis sp.		3
Oscillatoria sp.		3
Phormidium sp.		3

Station Description	Boise River NR Parma,ID
Station	13213000
Collection Time	09:20
Collection Date	08-19-2010
EcoAnalysts Sample ID	5433.5-1
Volume Received (L)	2.00
Percent Counted	0.01250%
Pseudoanabaena sp.	2
Pyrenomonas sp.	17
Synura sp.	3
Trachelomonas sp.	4
Zygnema sp.	5
SOFT BODY SUB TOTAL	170
GRAND TOTAL	316

USGS ID River Phytoplankton 2010 (August Samples)
SoftBody Component Metrics Report



Station Description	Boise River NR Parma, ID
Station	13213000
Collection Time	09:20
Collection Date	08-19-2010
EcoAnalysts Sample ID	5433.5-1
Volume Received (L)	2.00
Percent Counted	0.01250%

Abundance Measures

Species Richness	33.00
Number of Valves Counted	146.00
Total Cells Counted	73.00

Dominance Measures

Dominant Taxon	Chlamydomonas sp.
Dominant Taxon Abundance	72.00
2nd Dominant Taxon	Achnanthes sp.
2nd Dominant Taxon Abundance	37.00
3rd Dominant Taxon	Nitzschia sp.
3rd Dominant Taxon Abundance	20.00
4th Dominant Taxon	Cocconeis sp.
4th Dominant Taxon Abundance	19.00
5th Dominant Taxon	Rhoicosphenia sp.
5th Dominant Taxon Abundance	19.00
% Dominant Taxon	22.78
% 2nd Dominant Taxon	11.71
% 3rd Dominant Taxon	6.33
% 4th Dominant Taxon	6.01
% 5th Dominant Taxon	6.01

Diversity/Evenness Measures

Shannon-Weaver H' (log e)	2.92
Shannon-Weaver H' (log 10)	1.27
Shannon-Weaver H' (log 2)	4.21
Margalef's Richness	5.56

Station Description	Boise River NR Parma,ID
Station	13213000
Collection Time	09:20
Collection Date	08-19-2010
EcoAnalysts Sample ID	5433.5-1
Volume Received (L)	2.00
Percent Counted	0.01250%

Van Dam Indices

Van Dam pH	0.00
Van Dam Salinity	0.00
Van Dam Nitrogen Uptake	0.00
Van Dam Oxygen Tolerance	0.00
Van Dam Saprobity	0.00
Van Dam Trophic State	0.00
Van Dam Moisture	0.00

Other Measures

% Rhopalodiales	0.00
% Achnanthes minutissima (Disturbance Index)	0.00
% Siltation Index	9.49
Siltation Richness	2.00
% Aerophiles	0.00
% Centrics	1.27
% Stability Index	7.59
% Heavy Metals Index	0.00

USGS ID River Phytoplankton 2010 (September Samples)
Diatom Component Taxa Report



Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		16:40	14:16	07:04
Collection Date		09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID		5433.6-1	5433.6-2	5433.6-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.05625%	0.22500%	0.16875%
Achnanthes	Achnanthes conspicua	2	0	0
	Achnanthes exigua	1	0	0
	Achnanthes girdle sp.	3	5	2
	Achnanthes lanceolata	3	0	0
	Achnanthes minutissima	0	2	0
	Achnanthes subhudsonis	2	0	0
	Achnanthes suchlandtii	0	0	1
	Achnanthes ventralis	1	0	0
Amphora	Amphora girdle sp.	0	0	1
	Amphora ovalis	0	0	2
	Amphora pediculus	0	2	2
	Amphora veneta	2	0	0
Bacillaria	Bacillaria paradoxa	0	0	1
Cocconeis	Cocconeis gridle sp.	1	0	2
	Cocconeis pediculus	6	325	121
	Cocconeis placentula	2	18	51
	Cocconeis placentula var. euglypta	29	123	99
	Cocconeis placentula var. lineata	14	6	15
Coscinodiscus	Coscinodiscus lacustris	0	2	0
Cyclotella	Cyclotella bodanica	2	0	0
	Cyclotella meneghiniana	1	0	0
Cymbella	Cymbella girdle sp.	3	0	0
	Cymbella minuta	3	0	0
	Cymbella silesiaca	2	0	2
	Cymbella suburgidula	2	0	0
Diatoma	Diatoma vulgaris	54	2	4
Fragilaria	Fragilaria capucina	0	0	2
	Fragilaria construens	2	0	0

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		16:40	14:16	07:04
Collection Date		09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID		5433.6-1	5433.6-2	5433.6-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.05625%	0.22500%	0.16875%
Fragilaria girdle sp.		190	2	1
Fragilaria leptostauron		0	0	1
Fragilaria pinnata		2	0	103
Fragilaria vaucheriae		2	0	0
Gomphoneis	Gomphoneis minuta	0	1	0
Gomphonema	Gomphonema girdle sp.	1	2	0
	Gomphonema parvulum	2	2	0
	Gomphonema pumilum	1	3	0
Gyrosigma	Gyrosigma attenuatum	0	0	1
Hantzschia	Hantzschia amphioxys var. capitata	0	1	0
Melosira	Melosira varians	11	2	3
Meridion	Meridion circulare var. constrictum	4	0	0
Navicula	Navicula capitatoradiata	60	0	1
	Navicula cryptotenella	2	0	3
	Navicula decussis	2	0	0
	Navicula gregaria	2	0	0
	Navicula lanceolata	7	0	0
	Navicula mutica	2	0	0
	Navicula oppugnata	1	0	0
	Navicula pupula	18	0	2
	Navicula radiosafallax	4	0	0
	Navicula rhynchocephala	7	0	4
	Navicula rostellata	3	0	0
	Navicula subminuscula	3	0	0
	Navicula tripunctata	4	0	0
	Navicula trivialis	4	0	0
	Navicula viridula	6	0	0
Nitzschia	Nitzschia acicularis	2	0	0
	Nitzschia amphibia	2	0	0
	Nitzschia amphibioides	3	0	2
	Nitzschia calida	6	0	0
	Nitzschia filiformis	0	2	2
	Nitzschia frustulum	16	0	2

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		16:40	14:16	07:04
Collection Date		09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID		5433.6-1	5433.6-2	5433.6-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.05625%	0.22500%	0.16875%
Nitzschia girdle sp.		24	2	2
Nitzschia heufleriana		2	0	0
Nitzschia hungarica		0	0	2
Nitzschia inconspicua		5	0	0
Nitzschia kutzingiana		1	0	0
Nitzschia linearis		3	0	18
Nitzschia palea		4	0	2
Nitzschia perminuta		2	0	2
Nitzschia sigma		0	0	2
Pinnularia	Pinnularia borealis	1	0	0
Reimeria	Reimeria uniseriata	1	0	1
Rhoicosphenia	Rhoicosphenia abbreviata	31	11	60
Rhopalodia	Rhopalodia gibba	1	0	0
Stenopterobia	Stenopterobia curvula	1	0	0
Surirella	Surirella girdle sp.	0	0	2
Synedra	Synedra girdle sp.	0	0	2
Synedra ulna		28	92	94
TOTAL		606	605	617

USGS ID River Phytoplankton 2010 (September Samples)
Diatom Component Metrics Report



Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	16:40	14:16	07:04
Collection Date	09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID	5433.6-1	5433.6-2	5433.6-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.05625%	0.22500%	0.16875%
Abundance Measures			
Species Richness	61.00	20.00	37.00
Number of Valves Counted	606.00	605.00	617.00
Total Cells Counted	303.00	302.50	308.50
Dominance Measures			
Dominant Taxon	Fragilaria girdle sp.	Cocconeis pediculus	Cocconeis pediculus
Dominant Taxon Abundance	190.00	325.00	121.00
2nd Dominant Taxon	Navicula capitatoradiata	Cocconeis placentula var. euglyp	Fragilaria pinnata
2nd Dominant Taxon Abundance	60.00	123.00	103.00
3rd Dominant Taxon	Diatoma vulgaris	Synedra ulna	Cocconeis placentula var. euglypta
3rd Dominant Taxon Abundance	54.00	92.00	99.00
4th Dominant Taxon	Rhoicosphenia abbreviata	Cocconeis placentula	Synedra ulna
4th Dominant Taxon Abundance	31.00	18.00	94.00
5th Dominant Taxon	Cocconeis placentula var. eugly	Rhoicosphenia abbreviata	Rhoicosphenia abbreviata
5th Dominant Taxon Abundance	29.00	11.00	60.00
% Dominant Taxon	31.35	53.72	19.61
% 2nd Dominant Taxon	9.90	20.33	16.69
% 3rd Dominant Taxon	8.91	15.21	16.05
% 4th Dominant Taxon	5.12	2.98	15.24
% 5th Dominant Taxon	4.79	1.82	9.72
Diversity/Evenness Measures			
Shannon-Weaver H' (log e)	2.88	1.44	2.34
Shannon-Weaver H' (log 10)	1.25	0.63	1.02
Shannon-Weaver H' (log 2)	4.15	2.08	3.38
Margalef's Richness	9.36	2.97	5.60

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	16:40	14:16	07:04
Collection Date	09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID	5433.6-1	5433.6-2	5433.6-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.05625%	0.22500%	0.16875%
Van Dam Indices			
Van Dam pH	4.05	3.99	3.99
Van Dam Salinity	2.13	2.66	2.26
Van Dam Nitrogen Uptake	2.18	2.01	2.02
Van Dam Oxygen Tolerance	2.64	2.31	2.18
Van Dam Saprobity	2.43	2.02	2.03
Van Dam Trophic State	4.81	5.02	5.37
Van Dam Moisture	1.80	1.36	2.00
pH Preference			
% at Optimal Occurance pH 5.5	0.00	0.00	0.00
% Mainly Occuring at pH<7	0.61	0.20	0.00
% Mainly Occuring at pH~7	11.21	0.81	1.77
% Mainly Occuring at pH>7	70.91	98.59	97.05
% Exclusively Occuring at pH>7	17.27	0.40	1.18
% at no Apparent Optimum	0.00	0.00	0.00
% Unclassified pH	45.54	18.02	17.67
Richness at pH <5.5	0.00	0.00	0.00
Richness at pH <7	2.00	1.00	0.00
Richness at pH ~7	10.00	2.00	5.00
Richness at pH >7	29.00	8.00	19.00
Richness Exclusively at pH >7	3.00	1.00	3.00
Richness at no Optimum	0.00	0.00	0.00
Salinity Preference			
% Fresh	1.78	0.00	0.20
% Fresh-Brackish	83.14	34.47	74.21
% Brackish-Fresh	15.09	65.13	24.61
% Brackish	0.00	0.40	0.98
% Marine	0.00	0.00	0.00
% Unclassified Salinity	44.22	17.52	17.67
Richness Fresh	4.00	0.00	1.00
Richness Fresh-Brackish	33.00	11.00	20.00

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	16:40	14:16	07:04
Collection Date	09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID	5433.6-1	5433.6-2	5433.6-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.05625%	0.22500%	0.16875%
Richness Brackish-Fresh	10.00	1.00	3.00
Richness Brackish	0.00	1.00	3.00
Richness Marine	0.00	0.00	0.00
Nitrogen Uptake Metabolism			
% Very Small Tolerance N	4.02	0.00	0.80
% Elevated Tolerance N	81.73	98.79	97.42
% Needing Periodically Elevated N	6.50	1.21	0.99
% Needing Continuously Elevated N	7.74	0.00	0.80
% Unclassified Nitrogen	46.70	18.02	18.48
Richness at Small Tolerance N	8.00	0.00	3.00
Richness at Elevated Tolerance N	24.00	9.00	18.00
Richness at Periodic Elevated N	5.00	3.00	2.00
Richness at Continuously Elevated N	4.00	0.00	2.00
Oxygen Requirements			
% at Continuously High Oxygen	4.36	0.40	21.27
% at Fairly High Oxygen	34.27	68.75	41.15
% at Moderate Oxygen	54.83	30.44	35.79
% at Low Oxygen	6.23	0.40	1.79
% at Very Low Oxygen	0.31	0.00	0.00
% Unclassified Oxygen	47.03	18.02	18.48
Richness at High Oxygen	9.00	1.00	4.00
Richness at Fairly High Oxygen	9.00	5.00	6.00
Richness at Moderate Oxygen	15.00	5.00	11.00
Richness at Low Oxygen	6.00	1.00	4.00
Richness at Very Low Oxygen	1.00	0.00	0.00
Saprobity			
% Very Slightly Polluted	3.35	0.00	0.79
% Moderately Polluted	55.18	98.59	95.87
% Moderate-Heavily Polluted	37.80	1.01	2.95
% Heavily Polluted	2.44	0.40	0.00

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	16:40	14:16	07:04
Collection Date	09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID	5433.6-1	5433.6-2	5433.6-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.05625%	0.22500%	0.16875%
% Very Heavily Polluted	1.22	0.00	0.39
% Unclassified Saprobity	45.87	18.02	17.67
Richness Very Slightly Polluted	7.00	0.00	3.00
Richness Moderately Polluted	19.00	8.00	15.00
Richness Moderate-Heavily Polluted	13.00	3.00	8.00
Richness Heavily Polluted	4.00	1.00	0.00
Richness Very Heavily Polluted	1.00	0.00	1.00
Trophic State			
% Oligotrophic	0.90	0.00	0.20
% Oligo-Mesotrophic	1.20	0.00	0.39
% Mesotrophic	0.00	0.00	0.39
% Meso-Eutrophic	23.80	0.40	4.92
% Eutrophic	67.47	98.40	71.65
% Hypereutrophic	1.20	0.00	0.39
% Oligo-to-Eutrophic	5.42	1.20	22.05
% Dystrophic	0.00	0.00	0.00
% Unclassified Trophic	45.21	17.52	17.67
Richness Oligotrophic	2.00	0.00	1.00
Richness Oligo-Mesotrophic	3.00	0.00	1.00
Richness Mesotrophic	0.00	0.00	1.00
Richness Meso-Eutrophic	5.00	1.00	4.00
Richness Eutrophic	25.00	9.00	15.00
Richness Hypereutrophic	1.00	0.00	1.00
Richness Oligo-to-Eutrophic	8.00	3.00	4.00
Richness Dystrophic	0.00	0.00	0.00
Moisture			
% Never Outside Water	41.85	65.93	26.28
% Mainly in Water, Sometimes Wet	36.92	32.26	47.63
% Mainly in Water, Regularly Wet	20.31	1.61	26.09
% Mainly Wet, Moist or Temporarily Dry	0.92	0.20	0.00
% Nearly Exclusively Outside Water	0.00	0.00	0.00

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	16:40	14:16	07:04
Collection Date	09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID	5433.6-1	5433.6-2	5433.6-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.05625%	0.22500%	0.16875%
% Unclassified Moisture	46.37	18.02	17.99
Richness Never Outside Water	9.00	2.00	7.00
Richness Mainly in Water, Sometimes Wet	12.00	5.00	11.00
Richness Mainly in Water, Regularly Wet	19.00	4.00	8.00
Richness Mainly Wet, Moist or Temporarily Dry	2.00	1.00	0.00
Richness Nearly Exclusively Outside Water	0.00	0.00	0.00
Morphological Guild (JS)			
% Erect	0.00	0.00	0.00
% Stalked	13.22	4.32	15.78
% Unattached	23.05	1.08	1.78
% Prostrate/Adnate	62.37	94.59	55.47
% Variable	1.36	0.00	26.97
% Unclassified Morphological Guild	51.32	38.84	36.30
Richness Erect	0.00	0.00	0.00
Richness Stalked	5.00	3.00	2.00
Richness Unattached	4.00	2.00	2.00
Richness Prostrate/Adnate	33.00	6.00	17.00
Richness Variable	2.00	0.00	3.00
Motility (JS)			
% Highly Motile	15.36	0.81	8.59
% Moderately Motile	42.16	0.54	3.54
% Not Motile	40.20	98.65	87.37
% Variable Motility	2.29	0.00	0.51
% Unclassified Motility	49.50	38.68	35.82
Richness Highly Motile	12.00	2.00	10.00
Richness Moderately Motile	18.00	1.00	6.00
Richness Not Motile	16.00	9.00	9.00
Richness Variable Motility	3.00	0.00	1.00
Pollution Tolerance (LB)			
% Very Tolerant	1.49	0.00	3.24

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	16:40	14:16	07:04
Collection Date	09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID	5433.6-1	5433.6-2	5433.6-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.05625%	0.22500%	0.16875%
% Moderately Tolerant	6.11	0.66	2.43
% Sensitive/Intolerant	23.27	1.16	1.78
Richness Very Tolerant	4.00	0.00	2.00
Richness Moderately Tolerant	9.00	2.00	7.00
Richness Sensitive/Intolerant	23.00	4.00	6.00
Pollution Tolerance (Lang-Bertalot modified by Bohls)	2.71	2.64	1.80
Other Measures			
% Rhopalodiales	0.17	0.00	0.00
% Achnanthes minutissima (Disturbance Index)	0.00	0.33	0.00
% Siltation Index	28.22	0.33	7.13
Siltation Richness	26.00	1.00	13.00
% Aerophiles	34.32	60.66	62.56
% Centrics	2.31	0.66	0.49
% Stability Index	45.87	15.87	33.55
% Heavy Metals Index	0.00	0.00	0.00

USGS ID River Phytoplankton 2010 (September Samples)
SoftBody Component Taxa Report



Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
Collection Time		16:40	14:16	07:04
Collection Date		09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID		5433.6-1	5433.6-2	5433.6-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.005000%	0.012500%	0.006875%
DIATOM TAXA	Achnanthes sp.	19	23	18
	Amphora sp.	0	0	2
	Cocconeis sp.	29	74	53
	Coscinodiscus sp.	0	6	0
	Cymbella sp.	15	4	0
	Diatoma sp.	6	4	2
	Fragilaria sp.	12	20	5
	Frustulia sp.	3	0	0
	Gomphonema sp.	0	3	3
	Gyrosigma sp.	0	2	3
	Melosira sp.	7	9	1
	Navicula sp.	27	3	7
	Nitzschia sp.	31	4	6
	Rhoicosphenia sp.	5	6	5
	Rhopalodia sp.	2	0	0
	Surirella sp.	0	1	0
	Synedra sp.	35	45	31
	DIATOM SUB TOTAL	191	204	136
SOFT BODY TAXA	Anabaena sp.	0	2	0
	Aphanocapsa sp.	0	5	0
	Aphanocapsa sp. (single cell)	0	4	0
	Botryococcus sp.	0	0	1
	Chlamydomonas sp.	24	22	52
	Chlorella sp. LGBs	27	9	29
	Chlorococcum sp.	2	0	0
	Chromulina sp.	9	7	10
	Chroococcus sp.	8	9	16
	Coelastrum sp.	1	2	3

Station Description		Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station		13213000	13173600	13213100
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Collection Date		09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID		5433.6-1	5433.6-2	5433.6-3
Volume Received (L)		2.00	2.00	2.00
Percent Counted		0.005000%	0.012500%	0.006875%
Cryptomonas sp.		10	17	17
Euglena sp.		0	1	1
Gloeocapsa sp.		2	1	7
Komma sp.		16	10	21
LGBs		4	3	0
Microcystis sp.		0	1	0
Ochromonas sp.		0	1	0
Oocystis sp.		7	3	2
Oscillatoria sp.		2	2	3
Peridinium sp.		0	1	0
Phormidium sp.		0	2	0
Pseudoanabaena sp.		1	2	0
Pyrenomonas sp.		2	7	8
Selenastrum sp.		0	0	3
Trachelomonas sp.		2	2	5
SOFT BODY SUB TOTAL		117	113	178
GRAND TOTAL		308	317	314

USGS ID River Phytoplankton 2010 (September Samples)
SoftBody Component Metrics Report



Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
Station	13213000	13173600	13213100
Collection Time	16:40	14:16	07:04
Collection Date	09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID	5433.6-1	5433.6-2	5433.6-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.005000%	0.012500%	0.006875%

Abundance Measures

Species Richness	27.00	36.00	27.00
Number of Valves Counted	191.00	204.00	136.00
Total Cells Counted	95.50	102.00	68.00

Dominance Measures

Dominant Taxon	Synedra sp.	Cocconeis sp.	Cocconeis sp.
Dominant Taxon Abundance	35.00	74.00	53.00
2nd Dominant Taxon	Nitzschia sp.	Synedra sp.	Chlamydomonas sp.
2nd Dominant Taxon Abundance	31.00	45.00	52.00
3rd Dominant Taxon	Cocconeis sp.	Achnanthes sp.	Synedra sp.
3rd Dominant Taxon Abundance	29.00	23.00	31.00
4th Dominant Taxon	Chlorella sp.	Chlamydomonas sp.	Chlorella sp.
4th Dominant Taxon Abundance	27.00	22.00	29.00
5th Dominant Taxon	Navicula sp.	Fragilaria sp.	Komma sp.
5th Dominant Taxon Abundance	27.00	20.00	21.00
% Dominant Taxon	11.36	23.34	16.88
% 2nd Dominant Taxon	10.06	14.20	16.56
% 3rd Dominant Taxon	9.42	7.26	9.87
% 4th Dominant Taxon	8.77	6.94	9.24
% 5th Dominant Taxon	8.77	6.31	6.69

Diversity/Evenness Measures

Shannon-Weaver H' (log e)	2.89	2.85	2.72
Shannon-Weaver H' (log 10)	1.25	1.24	1.18
Shannon-Weaver H' (log 2)	4.16	4.11	3.93
Margalef's Richness	4.54	6.08	4.52

Station Description	Boise River NR Parma, ID	Snake River NR Adrian, OR	Snake River @ Nyssa, OR
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Collection Date	09-07-2010	09-07-2010	09-07-2010
EcoAnalysts Sample ID	5433.6-1	5433.6-2	5433.6-3
Volume Received (L)	2.00	2.00	2.00
Percent Counted	0.005000%	0.012500%	0.006875%
Van Dam Indices			
Van Dam pH	0.00	0.00	0.00
Van Dam Salinity	0.00	0.00	0.00
Van Dam Nitrogen Uptake	0.00	0.00	0.00
Van Dam Oxygen Tolerance	0.00	0.00	0.00
Van Dam Saprobity	0.00	0.00	0.00
Van Dam Trophic State	0.00	0.00	0.00
Van Dam Moisture	0.00	0.00	0.00
Other Measures			
% Rhopalodiales	0.65	0.00	0.00
% Achnanthes minutissima (Disturbance Index)	0.00	0.00	0.00
% Siltation Index	18.83	2.52	4.14
Siltation Richness	2.00	3.00	2.00
% Aerophiles	0.00	0.00	0.00
% Centrics	2.27	4.73	0.32
% Stability Index	17.21	21.77	12.10
% Heavy Metals Index	0.00	0.00	0.00