
Supplemental Information

Table 12. Laboratory analysis methods for reservoir bottom-sediment constituents

[USGS, U.S. Geological Survey; GC/MS, gas chromatography/mass spectrometry]

Constituent or constituent group	Analysis method	Method reference
Nutrients	Various methods	Fishman (1993)
Trace elements (USGS schedule 2420)	Inductively coupled plasma-mass spectrometry	Fishman (1993)
Cesium-137 (USGS laboratory code 2307)	Gamma counting	American Society for Testing and Materials (2000)
Pesticides	GC/MS liquid extraction with methanol and water	Mills and Thurman (1992)

Table 13. Nutrients analyzed in bottom sediment from Cedar Lake and Lake Olathe, northeast Kansas, 2000

[mg/kg, milligrams per kilogram]

Nutrient	Method reporting limit	Units of measurement
Total ammonia plus organic nitrogen as nitrogen	20	mg/kg
Phosphorus	40	mg/kg

Table 14. Selected metals and trace elements analyzed in bottom sediment from Cedar Lake and Lake Olathe, northeast Kansas, 2000

[LRL, laboratory reporting level; pct, percent; µg/g, micrograms per gram]

Metal or trace element	LRL	Unit of measurement	Metal or trace element	LRL	Unit of measurement
Aluminum	0.005	pct	Mercury	0.02	µg/g
Antimony	.1	µg/g	Molybdenum	2	µg/g
Arsenic	.1	µg/g	Neodymium	1	µg/g
Barium	1	µg/g	Nickel	2	µg/g
Beryllium	.1	µg/g	Niobium	4	µg/g
Bismuth	1	µg/g	Potassium	.005	pct
Cadmium	.1	µg/g	Scandium	2	µg/g
Calcium	.005	pct	Selenium	.1	µg/g
Cerium	1	µg/g	Silver	.1	µg/g
Chromium	1	µg/g	Sodium	.005	pct
Cobalt	1	µg/g	Strontium	2	µg/g
Copper	1	µg/g	Sulfur	.05	pct
Europium	1	µg/g	Tantalum	1	µg/g
Gallium	1	µg/g	Thallium	1	µg/g
Gold	1	µg/g	Thorium	1	µg/g
Holmium	1	µg/g	Tin	1	µg/g
Iron	.005	pct	Titanium	.005	pct
Lanthanum	1	µg/g	Uranium	.1	µg/g
Lead	4	µg/g	Vanadium	2	µg/g
Lithium	1	µg/g	Ytterbium	1	µg/g
Magnesium	.005	pct	Yttrium	1	µg/g
Manganese	4	µg/g	Zinc	4	µg/g

Table 15. Radiochemical analyzed for age dating bottom sediment from Cedar Lake and Lake Olathe, northeast Kansas, 2000

[pCi/g, picocuries per gram]

Radiochemical	Method reporting limit	Units of measurement
Cesium-137	0.05	pCi/g

Table 16. Statistical summary of concentrations and comparison to sediment-quality guidelines for selected metals and trace elements in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000

[µg/g, micrograms per gram; TEL, Threshold Effects Level; PEL, Probable Effects Level; <, less than; --, no value assigned]

Metal or trace element and unit of measurement	Concentration			Sediment-quality guidelines ¹	
	Minimum	Median	Maximum	TEL	PEL
Aluminum, percent	8	8.1	8.4	--	--
Antimony, µg/g	1	1.1	1.1	--	--
Arsenic, µg/g	13	14	16	7.2	42
Barium, µg/g	730	760	800	--	--
Beryllium, µg/g	2.1	2.3	2.7	--	--
Bismuth, µg/g	<1.0	.5	<1.0	--	--
Cadmium, µg/g	.23	.31	.36	.68	4.2
Calcium, percent	1	1.1	1.9	--	--
Cerium, µg/g	83	84	87	--	--
Chromium, µg/g	90	90	98	52	160
Cobalt, µg/g	9.5	11	11	--	--
Copper, µg/g	32	32	45	19	110
Europium, µg/g	1.4	1.5	1.6	--	--
Gallium, µg/g	19	20	20	--	--
Gold, µg/g	<1.0	.5	<1.0	--	--
Holmium, µg/g	1.2	1.2	1.3	--	--
Iron, percent	4.1	4.2	4.4	--	--
Lanthanum, µg/g	48	50	51	--	--
Lead, µg/g	32	33	35	30	110
Lithium, µg/g	44	45	49	--	--
Magnesium, percent	.75	.77	.83	--	--
Manganese, µg/g	760	800	980	--	--
Mercury, µg/g	.05	.05	.14	.13	.70
Molybdenum, µg/g	.92	1	1.2	--	--
Neodymium, µg/g	40	42	43	--	--
Nickel, µg/g	32	34	39	16	43
Niobium, µg/g	20	21	21	--	--
Potassium, percent	1.6	1.6	1.7	--	--
Scandium, µg/g	14	14	14	--	--
Selenium, µg/g	.86	.99	1.1	--	--
Silver, µg/g	.2	.21	.24	--	--
Sodium, percent	.3	.35	.35	--	--
Strontium, µg/g	130	140	160	--	--
Sulfur, percent	.07	.09	.14	--	--
Tantalum, µg/g	1.5	1.5	1.5	--	--
Thorium, µg/g	15	15	16	--	--
Thallium, µg/g	<1.0	1	1	--	--

Table 16. Statistical summary of concentrations and comparison to sediment-quality guidelines for selected metals and trace elements in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Metal or trace element and unit of measurement	Concentration			Sediment-quality guidelines ¹	
	Minimum	Median	Maximum	TEL	PEL
Tin, µg/g	3.2	3.2	3.4	--	--
Titanium, percent	.38	.39	.39	--	--
Uranium, µg/g	4	4.4	4.8	--	--
Vanadium, µg/g	130	130	140	--	--
Ytterbium, µg/g	2.8	2.9	3	--	--
Yttrium, µg/g	30	31	32	--	--
Zinc, µg/g	150	150	170	120	270

¹Guidelines from U.S. Environmental Protection Agency (1998).

Table 17. Statistical summary of concentrations and comparison to sediment-quality guidelines for selected metals and trace elements in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000

[µg/g, micrograms per gram; TEL, Threshold Effects Level; PEL, Probable Effects Level; <, less than; --, no value assigned]

Metal or trace element and unit of measurement	Concentration			Sediment-quality guidelines ¹	
	Minimum	Median	Maximum	TEL	PEL
Aluminum, percent	8.5	8.7	9.0	--	--
Antimony, µg/g	1.1	1.2	1.4	--	--
Arsenic, µg/g	15	16	18	7.2	42
Barium, µg/g	710	760	780	--	--
Beryllium, µg/g	2	2.3	2.6	--	--
Bismuth, µg/g	<1.0	<1.0	<1.0	--	--
Cadmium, µg/g	.27	.33	.41	.68	4.2
Calcium, percent	1.1	1.3	2.6	--	--
Cerium, µg/g	88	91	93	--	--
Chromium,	88	89	94	52	160
Cobalt, µg/g	10	11	12	--	--
Copper, µg/g	32	36	38	19	110
Europium, µg/g	1.4	1.4	1.5	--	--
Gallium, µg/g	20	21	21	--	--
Gold, µg/g	<1.0	<1.0	<1.0	--	--
Holmium, µg/g	1.1	1.1	1.2	--	--
Iron, percent	4	4.1	4.2	--	--
Lanthanum, µg/g	54	56	58	--	--
Lead, µg/g	28	36	40	30	110
Lithium, µg/g	44	45	48	--	--
Magnesium, percent	.79	.84	.86	--	--
Manganese, µg/g	890	1,000	1,200	--	--
Mercury, µg/g	.05	.05	.07	.13	.70
Molybdenum, µg/g	.93	1.0	1.1	--	--
Neodymium, µg/g	40	43	44	--	--
Nickel, µg/g	35	37	39	16	43
Niobium, µg/g	20	21	21	--	--
Potassium, percent	1.8	1.8	1.9	--	--
Scandium, µg/g	15	15	15	--	--
Selenium, µg/g	.95	.99	1.2	--	--
Silver, µg/g	.43	.44	.48	--	--
Sodium, percent	.33	.36	.39	--	--
Strontium, µg/g	130	140	170	--	--
Sulfur, percent	.07	.11	.16	--	--
Tantalum, µg/g	1.7	1.8	1.9	--	--
Thorium, µg/g	14	15	16	--	--
Thallium, µg/g	<1.0	.5	1.0	--	--

Table 17. Statistical summary of concentrations and comparison to sediment-quality guidelines for selected metals and trace elements in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Metal or trace element and unit of measurement	Concentration			Sediment-quality guidelines ¹	
	Minimum	Median	Maximum	TEL	PEL
Tin, µg/g	3.2	3.2	3.4	--	--
Titanium, percent	.5	.52	.53	--	--
Uranium, µg/g	3.7	4	4.3	--	--
Vanadium, µg/g	130	130	140	--	--
Ytterbium, µg/g	2.7	2.8	3	--	--
Yttrium, µg/g	28	30	30	--	--
Zinc, µg/g	140	140	150	120	270

¹Guidelines from U.S. Environmental Protection Agency (1998).

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
0.55	<i>Achnanthidium minutissimum</i>	2	0.6	176,000
	<i>Amphora inariensis</i>	2	.6	176,000
	<i>Aulacoseira cf alpigena</i>	159	48.0	14,000,000
	<i>Aulacoseira granulata</i>	101	30.5	8,910,000
	<i>Brachysira vitrea</i>	1	.3	88,200
	<i>Cocconeis placentula</i>	2	.6	176,000
	<i>Cyclotella sp. 1 (small)</i>	1	.3	88,200
	<i>Cyclotella meneghiniana</i>	17	5.1	1,500,000
	<i>Cyclotella ocellata</i>	1	.3	88,200
	<i>Cyclotella striata</i>	17	5.1	1,500,000
	<i>Gomphonema gracile</i>	1	.3	88,200
	<i>Gomphonema grovei</i>	1	.3	88,200
	<i>Gomphonema parvulum</i>	1	.3	88,200
	<i>Mastogloia smithii</i>	1	.3	88,200
	<i>Navicula cryptotenella</i>	1	.3	88,200
	<i>Navicula cryptocephala</i>	1	.3	88,200
	<i>Navicula geoppertiana</i>	1	.3	88,200
	<i>Navicula gregaria</i>	2	.6	176,000
	<i>Navicula tripunctata</i>	1	.3	88,200
	<i>Navicula trivialis</i>	1	.3	88,200
	<i>Neidium affine</i>	2	.6	176,000
	<i>Nitzschia acicularis</i>	1	.3	88,200
	<i>Nitzschia inconspicua</i>	2	.6	176,000
	<i>Nitzschia subacicularis</i>	1	.3	88,200
	<i>Pinnularia interrupta</i>	2	.6	176,000
	<i>Stephanodiscus nigarae</i>	4	1.2	353,000
	<i>Surirella angusta</i>	2	.6	176,000
	<i>Surirella brebissonii</i>	1	.3	88,200
	<i>Synedra delicatissima</i>	1	.3	88,200
	<i>Synedra ulna</i>	1	.3	88,200
Total		331	100¹	29,200,000

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
1.10	<i>Achnanthes bioreti</i>	1	0.2	101,000	
	<i>Achnanthes deflexa</i>	2	.3	203,000	
	<i>Achnanthes exigua</i>	8	1.3	812,000	
	<i>Achnanthidium minutissimum</i>	4	.6	406,000	
	<i>Aulacoseira cf alpigena</i>	383	59.9	38,900,000	
	<i>Aulacoseira granulata</i>	128	20.0	13,000,000	
	<i>Bacillaria paradoxa</i>	1	.2	101,000	
	<i>Cocconeis placentula</i>	2	.3	203,000	
	<i>Cyclotella sp. 1 (small)</i>	1	.2	101,000	
	<i>Cyclotella cf stelligera</i>	4	.6	406,000	
	<i>Cyclotella meneghiniana</i>	27	4.2	2,740,000	
	<i>Cyclotella ocellata</i>	2	.3	203,000	
	<i>Cyclotella striata</i>	21	3.3	2,130,000	
	<i>Denticula kuetzingii</i>	2	.3	203,000	
	<i>Gomphonema angustum</i>	1	.2	101,000	
	<i>Gomphonema minutum</i>	4	.6	406,000	
	<i>Gomphonema parvulum</i>	1	.2	101,000	
	<i>Gomphonema sp.</i>	2	.3	203,000	
	<i>Gomphonema sp. (heterovalvie)</i>	3	.5	305,000	
	<i>Melosira sp.</i>	3	.5	305,000	
	<i>Melosira varians</i>	3	.5	305,000	
	<i>Navicula absoluta</i>	1	.2	101,000	
	<i>Navicula cincta</i>	1	.2	101,000	
	<i>Navicula cryptocephala</i>	3	.5	305,000	
	<i>Navicula geoppertiana</i>	1	.2	101,000	
	<i>Navicula halophila</i>	1	.2	101,000	
	<i>Navicula miniscula</i>	2	.3	203,000	
	<i>Navicula ordinaria</i>	1	.2	101,000	
	<i>Navicula striata</i>	1	.2	101,000	
	<i>Nitzschia acicularis</i>	4	.6	406,000	
	<i>Nitzschia dissipata</i>	2	.3	203,000	
	<i>Nitzschia inconspicua</i>	2	.3	203,000	
	<i>Nitzschia linearis</i>	2	.3	203,000	
	<i>Nitzschia palea</i>	7	1.1	711,000	
	<i>Nitzschia recta</i>	2	.3	203,000	
	<i>Nitzschia subacicularis</i>	1	.2	101,000	
	<i>Stephanodiscus nigarae</i>	4	.6	406,000	
	<i>Synedra delicatissima</i>	1	.2	101,000	
	Total		639	100¹	64,900,000

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
1.65	<i>Achnanthes deflexa</i>	2	0.3	89,800	
	<i>Achnanthes exigua</i>	4	.7	180,000	
	<i>Achnanthes spp.</i>	8	1.3	359,000	
	<i>Achnanthidium minutissimum</i>	4	.7	180,000	
	<i>Amphora montana</i>	2	.3	89,800	
	<i>Aulacoseira cf alpigena</i>	272	45.5	12,200,000	
	<i>Aulacoseira granulata</i>	106	17.7	4,760,000	
	<i>Cocconeis placentula</i>	2	.3	89,800	
	<i>Cyclotella sp. 1 (small)</i>	8	1.3	359,000	
	<i>Cyclotella cf stelligera</i>	2	.3	89,800	
	<i>Cyclotella meneghiniana</i>	50	8.4	2,240,000	
	<i>Cyclotella ocellata</i>	6	1.0	269,000	
	<i>Cyclotella striata</i>	32	5.4	1,440,000	
	<i>Denticula kuetzingii</i>	6	1.0	269,000	
	<i>Encyonema minutum</i>	4	.7	180,000	
	<i>Fragilaria capucina</i>	6	1.0	269,000	
	<i>Gomphoneis sp.</i>	4	.7	180,000	
	<i>Gomphonema minutum</i>	2	.3	89,800	
	<i>Gomphonema sp.</i>	2	.3	89,800	
	<i>Melosira varians</i>	26	4.4	1,170,000	
	<i>Navicula capitata</i>	2	.3	89,800	
	<i>Navicula cryptocephala</i>	2	.3	89,800	
	<i>Navicula geoppertiana</i>	2	.3	89,800	
	<i>Navicula gregaria</i>	2	.3	89,800	
	<i>Navicula halophila</i>	4	.7	180,000	
	<i>Navicula lanceolata</i>	2	.3	89,800	
	<i>Navicula miniscula</i>	2	.3	89,800	
	<i>Navicula cf salinarium</i>	3	.5	135,000	
	<i>Navicula trivialis</i>	2	.3	89,800	
	<i>Nitzschia amphibia</i>	5	.8	224,000	
	<i>Nitzschia clausii</i>	3	.5	135,000	
	<i>Nitzschia dissipatta</i>	3	.5	135,000	
	<i>Nitzschia inconspicua</i>	2	.3	89,800	
	<i>Nitzschia littoralis</i>	2	.3	89,800	
	<i>Nitzschia palea</i>	2	.3	89,800	
	<i>Nitzschia perminuta</i>	6	1.0	269,000	
	<i>Planothidium lanceolatum</i>	2	.3	89,800	
	<i>Surirella angusta</i>	1	.2	44,900	
	<i>Surirella brebissonii</i>	1	.2	44,900	
	<i>Surirella ovalis</i>	1	.2	44,900	
	<i>Synedra delicatissima</i>	1	.2	44,900	
	Total		598	100¹	26,800,000

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
2.20	<i>Achnanthidium minutissimum</i>	8	6.0	107,000	
	<i>Aulacoseira cf alpigena</i>	8	6.0	107,000	
	<i>Aulacoseira ambigua</i>	4	3.0	53,300	
	<i>Aulacoseira granulata</i>	52	39.1	694,000	
	<i>Aulacoseira lirata</i>	8	6.0	107,000	
	<i>Bacillaria paradoxa</i>	1	.8	13,300	
	<i>Cyclotella meneghiniana</i>	8	6.0	107,000	
	<i>Cyclotella ocellata</i>	8	6.0	107,000	
	<i>Cyclotella striata</i>	20	15.0	267,000	
	<i>Melosira varians</i>	8	6.0	107,000	
	<i>Navicula cincta</i>	4	3.0	53,300	
	<i>Planothidium lanceolatum</i>	4	3.0	53,300	
	Total		133	100¹	1,780,000

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
2.75	<i>Achnanthes bioreti</i>	1	0.2	36,000
	<i>Achnanthes deflexa</i>	3	.5	108,000
	<i>Achnanthes spp.</i>	1	.2	36,000
	<i>Achnanthidium minutissimum</i>	6	1.0	216,000
	<i>Amphora montana</i>	6	1.0	216,000
	<i>Amphora ovalis</i>	6	1.0	216,000
	<i>Aulacoseira cf alpigena</i>	31	5.4	1,120,000
	<i>Aulacoseira distans</i>	6	1.0	216,000
	<i>Aulacoseira granulata</i>	350	60.8	12,600,000
	<i>Cyclotella sp. 1 (small)</i>	30	5.2	1,080,000
	<i>Cyclotella meneghiniana</i>	8	8.3	1,730,000
	<i>Cyclotella striata</i>	12	2.1	432,000
	<i>Denticula kuetzingii</i>	8	1.4	288,000
	<i>Denticula tenuis</i>	6	1.0	216,000
	<i>Encyonema lange-bertalotii</i>	3	.5	108,000
	<i>Encyonema silesiacum</i>	3	.5	108,000
	<i>Fragilaria capucina</i>	3	.5	108,000
	<i>Navicula geoppertiana</i>	9	1.6	324,000
	<i>Planothidium lanceolatum</i>	3	.5	108,000
	<i>Stephanodiscus sp. 1</i>	25	4.3	899,000
	<i>Stephanodiscus nigarae</i>	3	.5	108,000
	<i>Synedra delicatissima</i>	4	.7	144,000
	<i>Synedra ulna</i>	9	1.6	324,000
Total		576	100¹	20,700,000

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
3.30	<i>Achnanthes bioreti</i>	1	0.2	34,900
	<i>Achnanthes deflexa</i>	1	.2	34,900
	<i>Achnantheidium minutissimum</i>	12	2.4	419,000
	<i>Amphora ovalis</i>	9	1.8	314,000
	<i>Aulacoseira distans</i>	21	4.2	733,000
	<i>Aulacoseira granulata</i>	219	43.5	7,640,000
	<i>Bacillaria paradoxa</i>	3	.6	105,000
	<i>Coscinodiscus sp.</i>	3	.6	105,000
	<i>Craticula cuspidata</i>	3	.6	105,000
	<i>Cyclotella sp. 1 (small)</i>	21	4.2	733,000
	<i>Cyclotella cf. stelligera</i>	9	1.8	314,000
	<i>Cyclotella meneghiniana</i>	42	8.3	1,470,000
	<i>Cyclotella ocellata</i>	3	.6	105,000
	<i>Cyclotella striata</i>	93	18.5	3,250,000
	<i>Cymbella delicatula</i>	3	.6	105,000
	<i>Denticula kuetzingii</i>	3	.6	105,000
	<i>Diploneis oblongella</i>	3	.6	105,000
	<i>Diploneis pupula</i>	3	.6	105,000
	<i>Fragilaria sp.</i>	6	1.2	209,000
	<i>Gomphonema sp. (heterovalvie)</i>	7	1.4	244,000
	<i>Gyrosigma obtusatum</i>	3	.6	105,000
	<i>Hantzschia amphioxys</i>	3	.6	105,000
	<i>Melosira varians</i>	4	.8	140,000
	<i>Nitzschia dissipata</i>	2	.4	69,800
	<i>Nitzschia linearis</i>	2	.4	69,800
	<i>Planothidium lanceolatum</i>	1	.2	34,900
	<i>Stephanodiscus sp. 1</i>	9	1.8	314,000
	<i>Stephanodiscus nigarae</i>	6	1.2	209,000
	<i>Surirella brebissonii</i>	3	.6	105,000
	<i>Synedra delicatissima</i>	2	.4	69,800
<i>Synedra ulna</i>	3	.6	105,000	
Total		503	100¹	17,600,000

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
3.85	<i>Achnanthes bioreti</i>	1	0.2	26,900	
	<i>Achnanthidium minutissimum</i>	4	1.0	108,000	
	<i>Amphipleura pellucida</i>	1	.2	26,900	
	<i>Aulacoseira cf alpigena</i>	60	14.6	1,620,000	
	<i>Aulacoseira ambigua</i>	12	2.9	323,000	
	<i>Aulacoseira distans</i>	8	1.9	215,000	
	<i>Aulacoseira granulata</i>	228	55.3	6,140,000	
	<i>Bacillaria paradoxa</i>	4	1.0	108,000	
	<i>Cocconeis placentula</i>	4	1.0	108,000	
	<i>Cyclotella cf areolata</i>	4	1.0	108,000	
	<i>Cyclotella meneghiniana</i>	32	7.8	862,000	
	<i>Cyclotella ocellata</i>	4	1.0	108,000	
	<i>Cyclotella striata</i>	16	3.9	431,000	
	<i>Navicula geoppertiana</i>	4	1.0	108,000	
	<i>Stephanodiscus sp. 1</i>	1	.2	26,900	
	<i>Stephanodiscus nigarae</i>	20	4.9	539,000	
	<i>Surirella sp.</i>	1	.2	26,900	
	<i>Synedra delicatissima</i>	8	1.9	215,000	
	Total		412	100¹	11,100,000

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
4.40	<i>Achnanthes spp.</i>	8	2.3	108,000
	<i>Achnantheidium minutissimum</i>	8	2.3	108,000
	<i>Aulacoseira cf alpigena</i>	32	9.2	431,000
	<i>Aulacoseira distans</i>	28	8.0	377,000
	<i>Aulacoseira granulata</i>	218	62.6	2,940,000
	<i>Bacillaria paradoxa</i>	4	1.1	53,900
	<i>Cocconeis pediculus</i>	2	.6	26,900
	<i>Cocconeis placentula</i>	4	1.1	53,900
	<i>Cyclostephanos cf dubius</i>	2	.6	26,900
	<i>Cyclotella meneghiniana</i>	4	1.1	53,900
	<i>Cyclotella striata</i>	2	.6	26,900
	<i>Cymbella delicatula</i>	2	.6	26,900
	<i>Encyonema gracile</i>	2	.6	26,900
	<i>Fragilaria capucina</i>	2	.6	26,900
	<i>Gomphonema parvulum</i>	2	.6	26,900
	<i>Gyrosigma spencerii</i>	6	1.7	80,800
	<i>Hantzschia amphioxys</i>	2	.6	26,900
	<i>Navicula geoppertiana</i>	2	.6	26,900
	<i>Navicula placentula</i>	2	.6	26,900
	<i>Navicula rhynchocephala</i>	2	.6	26,900
<i>Nitzschia littoralis</i>	2	.6	26,900	
<i>Pinnularia borealis</i>	2	.6	26,900	
<i>Rhoicosphenia curvata</i>	2	.6	26,900	
<i>Sellaphora pupula</i>	2	.6	26,900	
<i>Stephanodiscus nigarae</i>	2	.6	26,900	
<i>Synedra delicatissima</i>	2	.6	26,900	
<i>Synedra ulna</i>	2	.6	26,900	
Total		348	100¹	4,690,000

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
4.95	<i>Achnanthes bioreti</i>	3	0.6	64,600
	<i>Achnanthes deflexa</i>	2	.4	43,100
	<i>Achnanthes sp.</i>	5	1.0	108,000
	<i>Achnanthidium minutissimum</i>	10	2.0	215,000
	<i>Amphipleura pellucida</i>	3	.6	64,600
	<i>Amphora montana</i>	3	.6	64,600
	<i>Aulacoseira distans</i>	27	5.4	582,000
	<i>Aulacoseira granulata</i>	358	71.2	7,710,000
	<i>Bacillaria paradoxa</i>	13	2.6	280,000
	<i>Cyclotella bodanica</i>	5	1.0	108,000
	<i>Cyclotella meneghiniana</i>	8	1.6	172,000
	<i>Cyclotella striata</i>	1	.2	21,500
	<i>Encyonema lange-bertalotii</i>	3	.6	64,600
	<i>Encyonema minutum</i>	3	.6	64,600
	<i>Fragilaria capucina</i>	8	1.6	172,000
	<i>Fragilaria cf zeilleri</i>	3	.6	64,600
	<i>Gomphoneis sp.</i>	5	1.0	108,000
	<i>Hantzschia amphioxys</i>	5	1.0	108,000
	<i>Melosira sp.</i>	5	1.0	108,000
	<i>Navicula geoppertiana</i>	10	2.0	215,000
	<i>Navicula mutica</i>	5	1.0	108,000
	<i>Navicula rhynchocephala</i>	2	.4	43,100
	<i>Nitzschia amphibia</i>	2	.4	43,100
	<i>Nitzschia capitellata</i>	0	0	0
	<i>Pinnularia borealis</i>	2	.4	43,100
	<i>Planothidium lanceolatum</i>	2	.4	43,100
	<i>Stephanodiscus nigarae</i>	3	.6	64,600
	<i>Synedra delicatissima</i>	2	.4	43,100
	<i>Synedra ulna</i>	5	1.0	108,000
	Total		503	100¹

Table 18. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Cedar Lake coring site 3, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
5.50	<i>Achnanthes bioreti</i>	10	2.4	442,000
	<i>Achnantheidium minutissimum</i>	40	9.5	1,770,000
	<i>Aulacoseira distans</i>	155	36.6	6,850,000
	<i>Aulacoseira granulata</i>	125	29.6	5,520,000
	<i>Aulacoseira lirata</i>	30	7.1	1,330,000
	<i>Cocconeis pediculus</i>	1	.2	44,200
	<i>Cocconeis placentula</i>	1	.2	44,200
	<i>Cyclotella cf areolata</i>	25	5.9	1,100,000
	<i>Cyclotella bodanica</i>	1	.2	44,200
	<i>Cyclotella meneghiniana</i>	30	7.1	1,330,000
	<i>Cyclotella ocellata</i>	5	1.2	221,000
	<i>Diademsis contenta</i>	15	3.5	663,000
	<i>Fragilaria capucina</i>	15	3.5	663,000
	<i>Frustulia rhomboides</i>	5	1.2	221,000
	<i>Gyrosigma spencerii</i>	5	1.2	221,000
	<i>Hantzschia amphioxys</i>	3	.7	133,000
	<i>Navicula cryptotenella</i>	5	1.2	221,000
	<i>Navicula geoppertiana</i>	10	2.4	442,000
	<i>Nitzschia dissipata</i>	1	.2	44,200
	<i>Nitzschia linearis</i>	10	2.4	442,000
<i>Nitzschia palea</i>	5	1.2	221,000	
<i>Sellaphora pupula</i>	10	2.4	442,000	
<i>Stephanodiscus sp. 1</i>	5	1.2	221,000	
<i>Stephanodiscus nigarae</i>	30	7.1	1,330,000	
Total		423	100¹	23,900,000

¹Numbers are rounded to three significant figures.

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
0.35	<i>Achnanthes bioreti</i>	4	0.4	109,000
	<i>Achnanthidium minutissimum</i>	16	1.7	436,000
	<i>Asterinella formosa</i>	30	3.1	818,000
	<i>Aulacoseira cf alpigena</i>	446	46.8	12,200,000
	<i>Aulacoseira granulata</i>	32	3.4	873,000
	<i>Bacillaria paradoxa</i>	4	.4	109,000
	<i>Caloneis limosa</i>	8	.8	218,000
	<i>Cocconeis pediculus</i>	2	.2	54,500
	<i>Cyclostephanos cf dubius</i>	12	1.3	327,000
	<i>Cyclotella bodanica</i>	58	6.1	1,580,000
	<i>Cyclotella cf fottii</i>	6	.6	164,000
	<i>Cyclotella cf stelligera</i>	12	1.3	327,000
	<i>Cyclotella meneghiniana</i>	116	12.2	3,160,000
	<i>Cyclotella ocellata</i>	6	.6	164,000
	<i>Cymatopleura solea</i>	2	.2	54,500
	<i>Denticula kuetzingii</i>	2	.2	54,500
	<i>Diadesmis contenta</i>	4	.4	109,000
	<i>Diploneis pupula</i>	2	.2	54,500
	<i>Encyonema silesiacum</i>	2	.2	54,500
	<i>Fragilaria capucina</i>	4	.4	109,000
	<i>Fragilaria nanana</i>	12	1.3	327,000
	<i>Gomphonema olivaceum</i>	4	.4	109,000
	<i>Gomphonema parvulum</i>	2	.2	54,500
	<i>Hantzschia amphioxys</i>	4	.4	109,000
	<i>Navicula cryptotenella</i>	14	1.5	382,000
	<i>Navicula gregaria</i>	4	.4	109,000
	<i>Navicula subrhynchocephala</i>	2	.2	54,500
	<i>Navicula tripunctata</i>	2	.2	54,500
	<i>Navicula trivialis</i>	2	.2	54,500
	<i>Nitzschia acicularis</i>	8	.8	218,000
	<i>Nitzschia amphibia</i>	6	.6	164,000
	<i>Nitzschia dissipata</i>	16	1.7	436,000
	<i>Nitzschia dubia</i>	2	.2	54,500
	<i>Nitzschia inconspicua</i>	4	.4	109,000
	<i>Nitzschia linearis</i>	6	.6	164,000
	<i>Nitzschia littoralis</i>	2	.2	54,500
<i>Nitzschia palea</i>	2	.2	54,500	
<i>Nitzschia perminuta</i>	2	.2	54,500	

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
0.35	<i>Nitzschia subacicularis</i>	8	0.8	218,000	
	<i>Reimeria sinuata</i>	2	.2	54,500	
	<i>Stephanodiscus cf neoastraea</i>	4	.4	109,000	
	<i>Stephanodiscus nigarae</i>	48	5.0	1,310,000	
	<i>Stephanodiscus sp. 1</i>	4	.4	109,000	
	<i>Stephanodiscus sp. 2</i>	4	.4	109,000	
	<i>Surirella brebissonii</i>	4	.4	109,000	
	<i>Surirella minuta</i>	2	.2	54,500	
	<i>Surirella ovalis</i>	2	.2	54,500	
	<i>Surirella sp.</i>	4	.4	109,000	
	<i>Synedra delicatissima</i>	2	.2	54,500	
	<i>Synedra ulna</i>	6	.6	164,000	
	Total		952	100¹	26,000,000

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
0.70	<i>Achnanthes bioreti</i>	8	2.0	217,000	
	<i>Achnanthidium minutissimum</i>	12	3.0	325,000	
	<i>Asterinella formosa</i>	38	9.5	1,030,000	
	<i>Aulacoseira cf alpigena</i>	42	10.5	1,140,000	
	<i>Aulacoseira distans</i>	2	.5	54,200	
	<i>Aulacoseira granulata</i>	26	6.5	704,000	
	<i>Caloneis bacillum</i>	2	.5	54,200	
	<i>Cyclostephanos cf dubius</i>	14	3.5	379,000	
	<i>Cyclotella bodanica</i>	36	9.0	975,000	
	<i>Cyclotella cf stelligera</i>	4	1.0	108,000	
	<i>Cyclotella meneghiniana</i>	60	15.0	1,630,000	
	<i>Cyclotella ocellata</i>	26	6.5	704,000	
	<i>Cymbella tumida</i>	2	.5	54,200	
	<i>Denticula tenuis</i>	2	.5	54,200	
	<i>Encyonema lange-bertalotii</i>	2	.5	54,200	
	<i>Fragilaria capucina</i>	16	4.0	434,000	
	<i>Gomphonema sp. (heterovalvie)</i>	2	.5	54,200	
	<i>Hantzschia amphioxys</i>	2	.5	54,200	
	<i>Navicula cryptotenella</i>	4	1.0	108,000	
	<i>Navicula geoppertiana</i>	2	.5	54,200	
	<i>Navicula halophila</i>	2	.5	54,200	
	<i>Navicula trivialis</i>	2	.5	54,200	
	<i>Nitzschia acicularis</i>	2	.5	54,200	
	<i>Nitzschia capitellata</i>	4	1.0	108,000	
	<i>Nitzschia constricta</i>	2	.5	54,200	
	<i>Nitzschia dissipata</i>	2	.5	54,200	
	<i>Nitzschia inconspicua</i>	2	.5	54,200	
	<i>Nitzschia linearis</i>	4	1.0	108,000	
	<i>Nitzschia palea</i>	2	.5	54,200	
	<i>Nitzschia perminuta</i>	4	1.0	108,000	
	<i>Sellaphora pupula</i>	4	1.0	108,000	
	<i>Stephanodiscus nigarae</i>	40	10.0	1,080,000	
	<i>Stephanodiscus sp. 1</i>	2	.5	54,200	
	<i>Stephanodiscus sp. 2</i>	2	.5	54,200	
	<i>Surirella minuta</i>	2	.5	54,200	
	<i>Synedra delicatissima</i>	22	5.5	596,000	
	Total		400	100¹	10,800,000

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
1.05	<i>Achnanthydium minutissimum</i>	2	1.7	282,000	
	<i>Asterinella formosa</i>	70	11.8	1,980,000	
	<i>Aulacoseira cf alpigena</i>	134	22.6	3,780,000	
	<i>Aulacoseira distans</i>	6	1.0	169,000	
	<i>Aulacoseira granulata</i>	110	18.5	3,110,000	
	<i>Caloneis bacillum</i>	4	.7	113,000	
	<i>Cyclostephanos cf dubius</i>	4	.7	113,000	
	<i>Cyclotella bodanica</i>	52	8.8	1,470,000	
	<i>Cyclotella cf fottii</i>	4	.7	113,000	
	<i>Cyclotella cf stelligera</i>	4	.7	113,000	
	<i>Cyclotella meneghiniana</i>	46	7.8	1,300,000	
	<i>Cyclotella ocellata</i>	54	9.1	1,520,000	
	<i>Encyonema prostrata</i>	2	.3	56,500	
	<i>Encyonema silesiacum</i>	2	.3	56,500	
	<i>Fragilaria capucina</i>	16	2.7	452,000	
	<i>Hantzschia amphioxys</i>	2	.3	56,500	
	<i>Navicula cryptotenella</i>	2	.3	56,500	
	<i>Navicula gregaria</i>	2	.3	56,500	
	<i>Navicula rhynchocephala</i>	4	.7	113,000	
	<i>Navicula tripunctata</i>	2	.3	56,500	
	<i>Nitzschia dissipatta</i>	2	.3	56,500	
	<i>Nitzschia linearis</i>	2	.3	56,500	
	<i>Stephanodiscus nigarae</i>	26	4.4	734,000	
	<i>Stephanodiscus sp. 1</i>	2	.3	56,500	
	<i>Surirella minuta</i>	2	.3	56,500	
	<i>Synedra delicatissima</i>	28	4.7	790,000	
	<i>Synedra ulna</i>	1	.2	28,200	
	Total		593	100¹	16,700,000

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
1.40	<i>Achnanthes bioreti</i>	2	0.4	54,800	
	<i>Achnanthidium minutissimum</i>	8	1.5	219,000	
	<i>Aulacoseira cf alpigena</i>	168	31.1	4,600,000	
	<i>Aulacoseira distans</i>	4	.7	110,000	
	<i>Aulacoseira granulata</i>	254	47.0	6,960,000	
	<i>Bacillaria paradoxa</i>	4	.7	110,000	
	<i>Caloneis bacillum</i>	4	.7	110,000	
	<i>Cyclostephanos cf dubius</i>	6	1.1	164,000	
	<i>Cyclotella bodanica</i>	12	2.2	329,000	
	<i>Cyclotella meneghiniana</i>	6	1.1	164,000	
	<i>Cyclotella ocellata</i>	2	.4	54,800	
	<i>Cymatopleura solea</i>	2	.4	54,800	
	<i>Diploneis pupula</i>	2	.4	54,800	
	<i>Encyonema prostrata</i>	2	.4	54,800	
	<i>Fragilaria capucina</i>	4	.7	110,000	
	<i>Gomphonema angustum</i>	2	.4	54,800	
	<i>Gomphonema minutum</i>	2	.4	54,800	
	<i>Gomphonema pavulum</i>	2	.4	54,800	
	<i>Gomphonema sp.</i>	6	1.1	164,000	
	<i>Gomphonema sp. (heterovalvie)</i>	2	.4	54,800	
	<i>Navicula clementis</i>	2	.4	54,800	
	<i>Navicula cryptotenella</i>	2	.4	54,800	
	<i>Nitzschia commutata</i>	2	.4	54,800	
	<i>Nitzschia linearis</i>	2	.4	54,800	
	<i>Nitzschia perminuta</i>	4	.7	110,000	
	<i>Stephanodiscus cf neoastraea</i>	2	.4	54,800	
	<i>Stephanodiscus nigarae</i>	24	4.4	657,000	
	<i>Stephanodiscus sp. 1</i>	2	.4	54,800	
	<i>Stephanodiscus sp. 2</i>	2	.4	54,800	
	<i>Synedra ulna</i>	4	.7	110,000	
	Total		540	100¹	14,800,000

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
1.75	<i>Achmanthes bioreti</i>	6	0.7	165,000
	<i>Achmanthidium minutissimum</i>	28	3.2	768,000
	<i>Amphipleura pellucida</i>	2	.2	54,800
	<i>Asterinella formosa</i>	8	.9	219,000
	<i>Aulacoseira cf alpigena</i>	406	46.7	11,100,000
	<i>Aulacoseira granulata</i>	118	13.6	3,240,000
	<i>Aulacoseira italica</i>	12	1.4	329,000
	<i>Cyclostephanos cf dubius</i>	14	1.6	384,000
	<i>Cyclotella bodanica</i>	78	9.0	2,140,000
	<i>Cyclotella cf stelligera</i>	4	.5	110,000
	<i>Cyclotella meneghiniana</i>	72	8.3	1,970,000
	<i>Eunotia musicola</i>	8	.9	219,000
	<i>Fragilaria capucina</i>	2	.2	54,800
	<i>Gomphonema parvulum</i>	2	.2	54,800
	<i>Melosira varians</i>	8	.9	219,000
	<i>Navicula clementis</i>	2	.2	54,800
	<i>Navicula decussis</i>	2	.2	54,800
	<i>Navicula mutica</i>	8	.9	219,000
	<i>Navicula rhynchocephala</i>	2	.2	54,800
	<i>Navicula tripunctata</i>	2	.2	54,800
	<i>Navicula viridula</i>	4	.5	110,000
	<i>Nitzschia dissipatta</i>	4	.5	110,000
	<i>Nitzschia dubia</i>	2	.2	54,800
	<i>Nitzschia filiformis</i>	2	.2	54,800
	<i>Nitzschia perminuta</i>	4	.5	110,000
	<i>Sellaphora pupula</i>	2	.2	54,800
	<i>Stephanodiscus cf neoastraea</i>	4	.5	110,000
	<i>Stephanodiscus nigarae</i>	40	4.6	1,100,000
	<i>Stephanodiscus sp. 1</i>	4	.5	110,000
	<i>Stephanodiscus sp. 2</i>	2	.2	54,800
	<i>Synedra delicatissima</i>	16	1.8	439,000
	<i>Synedra ulna</i>	2	.2	54,800
Total		870	100¹	23,900,000

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
2.10	<i>Achnanthes bioreti</i>	1	0.2	27,800	
	<i>Achnanthidium minutissimum</i>	6	1.3	167,000	
	<i>Amphipleura pellucida</i>	1	.2	27,800	
	<i>Asterinella formosa</i>	10	2.2	278,000	
	<i>Aulacoseira cf alpigena</i>	62	13.6	1,730,000	
	<i>Aulacoseira granulata</i>	225	49.3	6,260,000	
	<i>Aulacoseira italica</i>	2	.4	55,700	
	<i>Caloneis limosa</i>	2	.4	55,700	
	<i>Cyclostephanos cf dubius</i>	7	1.5	195,000	
	<i>Cyclotella bodanica</i>	11	2.4	306,000	
	<i>Cyclotella meneghiniana</i>	17	3.7	473,000	
	<i>Cyclotella ocellata</i>	2	.4	55,700	
	<i>Diadsmis contenta</i>	2	.4	55,700	
	<i>Diatoma vulgare</i>	2	.4	55,700	
	<i>Encyonema silesiacum</i>	1	.2	27,800	
	<i>Fragilaria capucina</i>	1	.2	27,800	
	<i>Navicula cryptocephala</i>	2	.4	55,700	
	<i>Navicula cryptotenella</i>	1	.2	27,800	
	<i>Navicula geoppertiana</i>	3	.7	83,500	
	<i>Navicula mutica</i>	17	3.7	473,000	
	<i>Navicula trivialis</i>	2	.4	55,700	
	<i>Navicula viridula</i>	1	.2	27,800	
	<i>Nitzschia acicularis</i>	1	.2	27,800	
	<i>Nitzschia dissipata</i>	5	1.1	139,000	
	<i>Nitzschia linearis</i>	4	.9	111,000	
	<i>Planothidium lanceolatum</i>	1	.2	27,800	
	<i>Stephanodiscus cf neoastraea</i>	8	1.8	223,000	
	<i>Stephanodiscus nigarae</i>	40	8.8	1,110,000	
	<i>Stephanodiscus sp. 1</i>	3	.7	83,500	
	<i>Synedra delicatissima</i>	11	2.4	306,000	
	<i>Synedra ulna</i>	5	1.1	139,000	
	Total		456	100¹	12,700,000

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
2.45	<i>Achnanthes bioreti</i>	6	1.3	159,000
	<i>Achnantheidium minutissimum</i>	12	2.5	318,000
	<i>Amphora inariensis</i>	1	.2	26,500
	<i>Amphora ovalis</i>	1	.2	26,500
	<i>Asterinella formosa</i>	4	.8	106,000
	<i>Aulacoseira cf alpigena</i>	207	43.4	5,480,000
	<i>Aulacoseira granulata</i>	100	21.0	2,650,000
	<i>Aulacoseira italica</i>	20	4.2	529,000
	<i>Bacillaria paradoxa</i>	2	.4	52,900
	<i>Cyclostephanos cf dubius</i>	10	2.1	26,500
	<i>Cyclotella bodanica</i>	11	2.3	291,000
	<i>Cyclotella meneghiniana</i>	20	4.2	529,000
	<i>Cyclotella ocellata</i>	2	.4	52,900
	<i>Encyonmea caespitosa</i>	1	.2	26,500
	<i>Fragilaria capucina</i>	4	.8	106,000
	<i>Gomphonema parvulum</i>	1	.2	26,500
	<i>Gyrosigma obtusatum</i>	2	.4	52,900
	<i>Gyrosigma spencerii</i>	1	.2	26,500
	<i>Hantzschia amphioxys</i>	3	.6	79,400
	<i>Hantzschia rhaetica</i>	1	.2	26,500
	<i>Navicula geoppertiana</i>	2	.4	52,900
	<i>Navicula rhynchocephala</i>	1	.2	26,500
	<i>Navicula viridula</i>	1	.2	26,500
	<i>Nitzschia clausii</i>	1	.2	26,500
	<i>Nitzschia linearis</i>	3	.6	79,400
	<i>Planothidium lanceolatum</i>	2	.4	52,900
	<i>Stauroneis anceps</i>	1	.2	26,500
	<i>Stephanodiscus nigarae</i>	25	5.2	662,000
	<i>Stephanodiscus sp. 1</i>	3	.6	79,400
	<i>Stephanodiscus sp. 2</i>	1	.2	26,500
	<i>Synedra delicatissima</i>	21	4.4	556,000
	<i>Synedra parasitica</i>	1	.2	26,500
<i>Synedra ulna</i>	4	.8	106,000	
<i>Thalassiosira cf weissflogii</i>	2	.4	52,900	
Total		477	100¹	12,600,000

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
2.80	<i>Achnanthes bioreti</i>	4	0.6	56,200
	<i>Achnanthes sp.</i>	10	1.4	140,000
	<i>Achnanthidium minutissimum</i>	16	2.3	225,000
	<i>Amphora inariensis</i>	2	.3	28,100
	<i>Asterinella formosa</i>	4	.6	56,200
	<i>Aulacoseira cf alpigena</i>	76	10.7	1,070,000
	<i>Aulacoseira granulata</i>	296	41.8	4,160,000
	<i>Caloneis limosa</i>	4	.6	56,200
	<i>Cyclostephanos cf dubius</i>	2	.3	28,100
	<i>Cyclotella bodanica</i>	50	7.1	702,000
	<i>Cyclotella cf fottii</i>	4	.6	56,200
	<i>Cyclotella cf stelligera</i>	16	2.3	225,000
	<i>Cyclotella meneghiniana</i>	100	14.1	1,400,000
	<i>Cyclotella ocellata</i>	4	.6	56,200
	<i>Cymbella tumida</i>	2	.3	28,100
	<i>Denticula tenuis</i>	2	.3	28,100
	<i>Diadsmis contenta</i>	4	.6	56,200
	<i>Diploneis pupula</i>	2	.3	28,100
	<i>Eumotia curvata</i>	2	.3	28,100
	<i>Eumotia musicola</i>	4	.6	56,200
	<i>Fragilaria capucina</i>	4	.6	56,200
	<i>Gomphonema parvulum</i>	2	.3	28,100
	<i>Gyrosigma spencerii</i>	4	.6	56,200
	<i>Hantzschia amphioxys</i>	4	.6	56,200
	<i>Hantzschia rhaetica</i>	2	.3	28,100
	<i>Meridion circulare</i>	2	.3	28,100
	<i>Navicula capitata</i>	2	.3	28,100
	<i>Navicula cryptotenella</i>	6	.8	84,200
	<i>Navicula mutica</i>	4	.6	56,200
	<i>Navicula tripunctata</i>	2	.3	28,100
	<i>Nitzschia dissipata</i>	2	.3	28,100
	<i>Nitzschia linearis</i>	2	.3	28,100
	<i>Pinnularia microstauron</i>	6	.8	84,200
	<i>Planothidium lanceolatum</i>	6	.8	84,200
	<i>Stephanodiscus nigarae</i>	40	5.6	562,000
	<i>Stephanodiscus sp. 1</i>	8	1.1	112,000
	<i>Stephanodiscus sp. 2</i>	2	.3	28,100
	<i>Surirella brebissonii</i>	2	.3	28,100
	<i>Synedra delicatissima</i>	2	.3	28,100
	<i>Synedra ulna</i>	2	.3	28,100
Total		708	100¹	9,940,000

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹	
3.15	<i>Achmanthes bioreti</i>	2	0.5	28,300	
	<i>Achmanthidium minutissimum</i>	8	2.1	113,000	
	<i>Amphipleura pellucida</i>	1	.3	14,100	
	<i>Amphora inariensis</i>	2	.5	28,300	
	<i>Aulacoseira cf alpigena</i>	88	23.6	1,240,000	
	<i>Aulacoseira distans</i>	2	.5	28,300	
	<i>Aulacoseira granulata</i>	76	20.4	1,070,000	
	<i>Aulacoseira italica</i>	1	.3	14,100	
	<i>Cyclotella bodanica</i>	50	13.4	707,000	
	<i>Cyclotella cf fottii</i>	1	.3	14,100	
	<i>Cyclotella cf stelligera</i>	5	1.3	70,700	
	<i>Cyclotella meneghiniana</i>	75	20.1	1,060,000	
	<i>Cyclotella ocellata</i>	1	.3	14,100	
	<i>Diademsis contenta</i>	1	.3	14,100	
	<i>Diploneis pupula</i>	1	.3	14,100	
	<i>Fragilaria capucina</i>	2	.5	28,300	
	<i>Gomphonema parvulum</i>	1	.3	14,100	
	<i>Gomphonema sp.</i>	1	.3	14,100	
	<i>Hantzschia amphioxys</i>	1	.3	14,100	
	<i>Navicula cryptotenella</i>	4	1.1	56,500	
	<i>Navicula gregaria</i>	1	.3	14,100	
	<i>Nitzschia acicularis</i>	1	.3	14,100	
	<i>Nitzschia clausii</i>	1	.3	14,100	
	<i>Nitzschia littoralis</i>	3	.8	42,400	
	<i>Pinnularia borealis</i>	3	.8	42,400	
	<i>Stephanodiscus nigarae</i>	36	9.7	509,000	
	<i>Stephanodiscus sp. 1</i>	2	.5	28,300	
	<i>Stephanodiscus sp. 2</i>	1	.3	14,100	
	<i>Synedra delicatissima</i>	1	.3	14,100	
	<i>Synedra ulna</i>	1	.3	14,100	
	Total		373	100¹	5,270,000

Table 19. Diatom taxa, relative percentage abundance, and total number of valves per gram of material in bottom-sediment sample from Lake Olathe coring site 5, northeast Kansas, 2000—Continued

Depth of sample (feet)	Taxa	Number of valves counted	Relative percentage abundance	Valves per gram of material ¹
3.50	<i>Achnanthes bioreti</i>	5	1.0	70,400
	<i>Achnanthidium minutissimum</i>	34	7.1	479,000
	<i>Amphora inariensis</i>	3	.6	42,300
	<i>Aulacoseira cf alpigena</i>	97	20.3	1,370,000
	<i>Aulacoseira granulata</i>	160	33.4	2,250,000
	<i>Aulacoseira italica</i>	27	5.6	380,000
	<i>Caloneis limosa</i>	4	.8	56,300
	<i>Cyclostephanos cf dubius</i>	1	.2	14,100
	<i>Cyclotella bodanica</i>	30	6.3	423,000
	<i>Cyclotella cf fottii</i>	1	.2	14,100
	<i>Cyclotella meneghiniana</i>	35	7.3	493,000
	<i>Cyclotella ocellata</i>	2	.4	28,200
	<i>Diploneis pupula</i>	1	.2	14,100
	<i>Gomphonema parvulum</i>	1	.2	14,100
	<i>Hantzschia amphioxys</i>	3	.6	42,300
	<i>Meridion circulare</i>	2	.4	28,200
	<i>Navicula cf lapidosa</i>	1	.2	14,100
	<i>Navicula cryptotenella</i>	4	.8	56,300
	<i>Navicula trivialis</i>	2	.4	28,200
	<i>Nitzschia inconspicua</i>	22	4.6	310,000
	<i>Nitzschia linearis</i>	1	.2	14,100
	<i>Nitzschia palea</i>	1	.2	14,100
	<i>Pinnularia borealis</i>	5	1.0	70,400
	<i>Pinnularia microstauron</i>	1	.2	14,100
	<i>Planothidium lanceolatum</i>	1	.2	14,100
	<i>Stephanodiscus nigarae</i>	29	6.1	408,000
	<i>Stephanodiscus sp. 1</i>	1	.2	14,100
	<i>Stephanodiscus sp. 2</i>	2	.4	28,200
	<i>Surirella minuta</i>	2	.4	28,200
	<i>Synedra ulna</i>	1	.2	14,100
Total		479	100¹	6,750,000

¹Numbers are rounded to three significant figures.