Bear (Santa Rosa County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°51'50", Longitude 86°49'56"

Period of record: 10 sampling dates; March 22, 2001 to December 11, 2001

Surface Area (Shafer et al. 1986): 109 acres

Lake Region (Griffith et al. 1997): Western Highlands (65-01)

Geologic formation (Brooks 1981a)**:**
The geology is dominated by silty fine sand to sandy clay of the Shoal River Formation

Physiographic region (Brooks 1981b)**:**
The lake lies in the Blackwater Hills division of the Southern Pine Hills District

Supplemental water chemistry data

Data reported are means from 4 sampling dates:

pH	4.6	Total alkalinity (mg/L as $CaCO_3$)	6.3
Conductance (µS/cm @ 25 °C)	25	Color (Pt-Co units)	26
Chloride (mg/L)	3.4	Silicon (mg/L)	0.9
Sulfate (mg/L)	5.2	Calcium (mg/L)	1.3
Magnesium (mg/L)	2.0	Sodium (mg/L)	2.4
Potassium (mg/L)	0.2	Iron (mg/L)	0.6

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 3 sampling dates:

	Minimum	Average	Maximum
Long-term color concentrations (Pt-Co units)	14	21	29

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 10 months sampled:

	Minimum	Average	Maximum
Long-term total phosphorus concentrations (µg/L)	38	77	172
Long-term total nitrogen concentrations (µg/L)	500	755	1580
Long-term total chlorophyll concentrations (µg/L)	16.0	38.6	73.3
Long-term Secchi depth (ft)	1.9	3.2	4.7

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 3 stations for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

Date	TP (µg/L)	TN (µg/L)	CHL (µg/L)	SECCHI (ft)
Mar-22	48	500	16.0	4.7
Apr-23	168	580	20.0	4.0
May-21	172	707	35.7	3.7
Jun-15	100	1580	73.3	2.4
Jul-26	48	760	49.3	2.7
Aug-15	39	663	31.7	3.5
Sep-11	38	683	35.3	3.4
Oct-10	39	650	34.0	3.2
Nov-14	51	723	44.0	1.9
Dec-11	64	700	46.3	2.8
2001 Average	77	755	38.6	3.2

East Bay-1 (Santa Rosa County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°31'13", Longitude 87°1'42"

Period of record: 1 sampling date; February 26, 2001

Geologic formation (Brooks 1981a)**:**
The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b)**:**
The station lies in the Coastal Strip division of the Southern Pine Hills District

Periodic water chemistry data
Numbers reported below are the minimum, average, and maximum value for the 1 sampling date:

	Minimum	Average	Maximum
Long-term color concentrations (Pt-Co units)	8	8	8
Long-term specific conductance (mmhos)	8	8	8

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 1 month sampled:

	Minimum	Average	Maximum
Long-term total phosphorus concentrations (µg/L)	6	6	6
Long-term total nitrogen concentrations (µg/L)	260	260	260
Long-term total chlorophyll concentrations (µg/L)	1.0	1.0	1.0
Long-term Secchi depth (ft)	7.0	7.0	7.0

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

Date	TP (µg/L)	TN (µg/L)	CHL (µg/L)	SECCHI (ft)
Feb-26	6	260	1.0	7.0
2001 Average	6	260	1.0	7.0

East Bay-2 (Santa Rosa County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°30'26", Longitude 87°1'53"

Period of record: 1 sampling date; February 26, 2001

Geologic formation (Brooks 1981a)**:**
The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b)**:**
The station lies in the Coastal Strip division of the Southern Pine Hills District

Periodic water chemistry data
Numbers reported below are the minimum, average, and maximum value for the 1 sampling date:

	Minimum	Average	Maximum
Long-term color concentrations (Pt-Co units)	6	6	6
Long-term specific conductance (mmhos)	7	7	7

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 1 month sampled:

	Minimum	Average	Maximum
Long-term total phosphorus concentrations (µg/L)	4	4	4
Long-term total nitrogen concentrations (µg/L)	200	200	200
Long-term total chlorophyll concentrations (µg/L)	2.0	2.0	2.0
Long-term Secchi depth (ft)	6.5	6.5	6.5

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

Date	TP (µg/L)	TN (µg/L)	CHL (µg/L)	SECCHI (ft)
Feb-26	4	200	2.0	6.5
2001 Average	4	200	2.0	6.5

East Bay-3 (Santa Rosa County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°29'42", Longitude 87°2'2"

Period of record: 1 sampling date; February 26, 2001

Geologic formation (Brooks 1981a)**:**
The geology is dominated by undifferentiated sand, shell, clay, marl, and peat of the Holocene

Physiographic region (Brooks 1981b)**:**
The station lies in the Coastal Strip division of the Southern Pine Hills District

Periodic water chemistry data
Numbers reported below are the minimum, average, and maximum value for the 1 sampling date:

	Minimum	Average	Maximum
Long-term color concentrations (Pt-Co units)	11	11	11
Long-term specific conductance (mmhos)	17	17	17

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 1 month sampled:

	Minimum	Average	Maximum
Long-term total phosphorus concentrations (µg/L)	6	6	6
Long-term total nitrogen concentrations (µg/L)	310	310	310
Long-term total chlorophyll concentrations (µg/L)	2.0	2.0	2.0
Long-term Secchi depth (ft)	6.5	6.5	6.5

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

Date	TP (µg/L)	TN (µg/L)	CHL (µg/L)	SECCHI (ft)
Feb-26	6	310	2.0	6.5
2001 Average	6	310	2.0	6.5

Locklin (Santa Rosa County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°37'40", Longitude 87°2'56"

Period of record: 3 sampling dates; June 1, 2000 to August 17, 2000

Lake Region (Griffith et al. 1997): Western Highlands (65-01)

Geologic formation (Brooks 1981a)**:**
The geology is dominated by gravel, sand and clay of the Citronelle Formation

Physiographic region (Brooks 1981b)**:**
The lake lies in the Milton-Crestview Ridge division of the Southern Pine Hills District

Supplemental water chemistry data

Data reported are means from 1 sampling date:

pH	6.5	Total alkalinity (mg/L as $CaCO_3$)	6.8
Conductance (µS/cm @ 25 °C)	34	Color (Pt-Co units)	25
Chloride (mg/L)	7.0		

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 3 months sampled:

	Minimum	Average	Maximum
Long-term total phosphorus concentrations (µg/L)	15	18	21
Long-term total nitrogen concentrations (µg/L)	307	389	480
Long-term total chlorophyll concentrations (µg/L)	10.7	14.6	21.3
Long-term Secchi depth (ft)	3.2	4.1	4.7

2001 Florida LAKEWATCH Data

No samples collected in 2001

Santa Rosa Sound-1 (Santa Rosa County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°23'45", Longitude 86°52'8"

Period of record: 5 sampling dates; February 17, 2001 to September 23, 2001

Geologic formation (Brooks 1981a)**:**
The geology is dominated by beach and dune sand with silty sand, silt, and clay of the Biloxi Formation

Physiographic region (Brooks 1981b)**:**
The station lies in the Coastal Strip division of the Southern Pine Hills District

Periodic water chemistry data
Numbers reported below are the minimum, average, and maximum value for the 5 sampling dates:

	Minimum	Average	Maximum
Long-term color concentrations (Pt-Co units)	4	7	12
Long-term specific conductance (mmhos)	28	31	37

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 5 months sampled:

	Minimum	Average	Maximum
Long-term total phosphorus concentrations (µg/L)	9	12	17
Long-term total nitrogen concentrations (µg/L)	210	302	350
Long-term total chlorophyll concentrations (µg/L)	0.0	2.4	4.0
Long-term Secchi depth (ft)	6.0	8.2	9.0

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

Date	TP (µg/L)	TN (µg/L)	CHL (µg/L)	SECCHI (ft)
Feb-17	11	210	4.0	8.0
Mar-18	9	300	2.0	9.0
May-06	11	320	0.0	9.0
Jul-08	14	350	3.0	9.0
Sep-23	17	330	3.0	6.0
2001 Average	12	302	2.4	8.2

Santa Rosa Sound-2 (Santa Rosa County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°23'35", Longitude 86°53'33"

Period of record: 5 sampling dates; February 17, 2001 to September 23, 2001

Geologic formation (Brooks 1981a)**:**
The geology is dominated by beach and dune sand with silty sand, silt, and clay of the Biloxi Formation

Physiographic region (Brooks 1981b)**:**
The station lies in the Coastal Strip division of the Southern Pine Hills District

Periodic water chemistry data
Numbers reported below are the minimum, average, and maximum value for the 5 sampling dates:

	Minimum	Average	Maximum
Long-term color concentrations (Pt-Co units)	4	8	15
Long-term specific conductance (mmhos)	27	31	38

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 5 months sampled:

	Minimum	Average	Maximum
Long-term total phosphorus concentrations (µg/L)	9	13	18
Long-term total nitrogen concentrations (µg/L)	190	268	310
Long-term total chlorophyll concentrations (µg/L)	1.0	2.0	3.0
Long-term Secchi depth (ft)	6.0	8.4	10.0

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

Date	TP (µg/L)	TN (µg/L)	CHL (µg/L)	SECCHI (ft)
Feb-17	10	190	3.0	8.0
Mar-18	15	310	2.0	10.0
May-06	9	300	1.0	9.0
Jul-08	14	260	1.0	9.0
Sep-23	18	280	3.0	6.0
2001 Average	13	268	2.0	8.4

Santa Rosa Sound-3 (Santa Rosa County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°23'27", Longitude 86°55'22"

Period of record: 4 sampling dates; February 17, 2001 to September 23, 2001

Geologic formation (Brooks 1981a)**:**
The geology is dominated by beach and dune sand with silty sand, silt, and clay of the Biloxi Formation

Physiographic region (Brooks 1981b)**:**
The station lies in the Coastal Strip division of the Southern Pine Hills District

Periodic water chemistry data
Numbers reported below are the minimum, average, and maximum value for the 4 sampling dates:

	Minimum	Average	Maximum
Long-term color concentrations (Pt-Co units)	4	9	16
Long-term specific conductance (mmhos)	28	33	39

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 4 months sampled:

	Minimum	Average	Maximum
Long-term total phosphorus concentrations (µg/L)	8	12	18
Long-term total nitrogen concentrations (µg/L)	200	290	340
Long-term total chlorophyll concentrations (µg/L)	1.0	2.7	4.0
Long-term Secchi depth (ft)	6.0	8.3	10.0

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 1 station for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

Date	TP (µg/L)	TN (µg/L)	CHL (µg/L)	SECCHI (ft)
Feb-17	8	200	3.0	8.0
Mar-18	12	290	.	9.0
May-06	9	340	1.0	10.0
Sep-23	18	330	4.0	6.0
2001 Average	12	290	2.7	8.3

Woodbine Springs (Santa Rosa County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°37'11", Longitude 87°11'17"

Period of record: 44 sampling dates; January 24, 1998 to December 23, 2001

Lake Region (Griffith et al. 1997): Gulf Coast Lowlands (75-01)

Geologic formation (Brooks 1981a)**:**
The geology is dominated by gravel, sand and clay of the Citronelle Formation

Physiographic region (Brooks 1981b)**:**
The lake lies in the Escambia Terraced Lands division of the Southern Pine Hills District

Periodic water chemistry data
Numbers reported below are the minimum, average, and maximum value for the 4 sampling dates:

	Minimum	Average	Maximum
Long-term color concentrations (Pt-Co units)	4	6	7

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 44 months sampled:

	Minimum	Average	Maximum
Long-term total phosphorus concentrations (µg/L)	5	10	33
Long-term total nitrogen concentrations (µg/L)	450	880	1287
Long-term total chlorophyll concentrations (µg/L)	1.0	9.3	42.0
Long-term Secchi depth (ft)	3.3	8.0	14.0

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 3 stations for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

Date	TP (µg/L)	TN (µg/L)	CHL (µg/L)	SECCHI (ft)
Jan-28	8	1113	1.3	14.0
Feb-22	6	1100	1.0	.
Mar-30	8	1110	1.0	11.0
Apr-23	10	947	4.7	7.0
Jun-29	13	600	11.3	7.0
Jul-22	9	567	8.3	7.2
Aug-22	11	623	10.3	6.0
Sep-29	9	703	21.3	5.0
Oct-27	11	780	8.0	6.0
Dec-23	13	883	13.3	4.0
2001 Average	10	843	8.1	7.5