

Lett (Gadsden County)
Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°30'31", Longitude 84°25'37"

Period of record: 4 sampling dates; September 28, 1999 to December 20, 1999

Lake Region (Griffith et al. 1997): Tifton/Tallahassee Uplands (65-04)

Geologic formation (Brooks 1981a):

The geology is dominated by clayey sand and clay with sandy to clayey limestone of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Quincy Hills division of the Tifton Uplands District

Supplemental water chemistry data

Data reported are means from 1 sampling date:

pH	6.8	Total alkalinity (mg/L as CaCO ₃)	12.0
Conductance (µS/cm @ 25 °C)	50	Color (Pt-Co units)	20
Chloride (mg/L)	6.5		

Long-term Florida LAKEWATCH Data

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

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	21	41	69
Long-term total nitrogen concentrations (µg/L)	507	574	750
Long-term total chlorophyll concentrations (µg/L)	6.0	10.3	16.7
Long-term Secchi depth (ft)	5.3	5.4	5.5

2001 Florida LAKEWATCH Data

No samples collected in 2001

Tallavana (Gadsden County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°35'59", Longitude 84°27'53"

Period of record: 112 sampling dates; December 15, 1991 to December 15, 2001

Surface Area (LAKEWATCH 2001): 155 acres

Lake Region (Griffith et al. 1997): Tifton/Tallahassee Uplands (65-04)

Geologic formation (Brooks 1981a):

The geology is dominated by clayey sand and clay with sandy to clayey limestone of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Quincy Hills division of the Tifton Uplands District

Periodic water chemistry data

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

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	17	28	40

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 112 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	29	85	336
Long-term total nitrogen concentrations (µg/L)	395	792	1926
Long-term total chlorophyll concentrations (µg/L)	5.3	49.3	226.0
Long-term Secchi depth (ft)	1.3	2.8	6.5

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 5 stations for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
May-19	116	948	39.0	2.5
Jun-16	228	1126	70.8	1.8
Jul-14	151	1018	90.4	2.0
Aug-11	191	1160	90.0	1.9
Sep-22	117	1056	96.4	2.0
Oct-13	112	1140	98.6	1.9
Nov-10	93	1016	75.6	2.2
Dec-15	106	1106	92.6	2.3
2001 Average	139	1071	81.7	2.1

Tallavana (Gadsden County)
Florida LAKEWATCH Bacteria Summary

The following table lists bacteria concentrations found in Tallavana (Gadsden County). These data are part of a statewide survey that Florida LAKEWATCH is conducting to determine patterns in the abundance of total coliforms and fecal coliforms among Florida water bodies. This is a one-time sample and can be used to describe the bacteria concentrations for that day and not throughout a year. It is important to remember that results could differ over the course of one year or several years based on varying environmental factors such as changes in water temperature, rainfall, aquatic plant abundance, algae blooms and others.

June 6, 2001

Lake	County	Station	Station Location	Total Coliforms (MPN)	Fecal Coliforms (MPN)
Tallavana	Gadsden	1	Off vegetation	520	0
Tallavana	Gadsden	2	Off vegetation	640	0
Tallavana	Gadsden	3	Off vegetation	1000	0
Tallavana	Gadsden	4	Off vegetation	200	0
Tallavana	Gadsden	5	Off vegetation	600	0
Tallavana	Gadsden	6	Off vegetation	830	10
Tallavana	Gadsden	7	Off vegetation	220	0
Tallavana	Gadsden	8	Off vegetation	690	0
Tallavana	Gadsden	9	Off vegetation	170	10
Tallavana	Gadsden	10	Open water	610	10
Tallavana	Gadsden	11	Open water	420	0
Tallavana	Gadsden	12	Open water	370	0

The Florida Administrative Code (FAC), Section 62-302.530 defines criteria for both total and fecal coliform bacteria for Class III waters. The FAC states that total coliform bacteria shall not exceed a count or Most Probable Number (MPN) of 1,000 bacteria per 100 milliliters of water in 20% or more of the samples examined during any month, nor exceed a MPN of 2,400 at any individual station. The FAC also states that fecal coliform bacteria shall not exceed a MPN of 400 in 10% or more of the samples, nor exceed a MPN of 800 at any individual station.

Total coliform bacteria counts for Tallavana on June 6, 2001 ranged from 170 to 1000 MPN. Total coliform bacteria exceeded 1,000 MPN in 0% of the samples. Total coliform bacteria did not exceed 2,400 at any station. Total coliform bacteria were within the acceptable range as defined by the Florida Administrative Code (FAC), Section 62-302.530.

Fecal coliform bacteria counts for Tallavana on June 6, 2001 ranged from 0 to 10 MPN. Fecal coliform bacteria exceeded 400 MPN in 0% of the samples. Fecal coliform bacteria did not exceed 800 at any station. Fecal coliform bacteria were within the acceptable range as defined by the Florida Administrative Code (FAC), Section 62-302.530.

**Tallavana (Gadsden County)
Florida LAKEWATCH Aquatic Plant Summary**

Aquatic plant data collected on July 28, 1992

Percent area covered with aquatic vegetation (PAC, %)	36.0
Percent of lake's volume filled with vegetation (PVI, %)	12.0
Average emergent plant biomass (kg wet wt/m ²)	6.9
Average floating-leaved plant biomass (kg wet wt/m ²)	0.0
Average submersed plant biomass (kg wet wt/m ²)	2.9
Average width of emergent and floating-leaved zone (ft)	15.3
Average lake depth (m)	2.2

Frequency that plant species occur in 10 evenly spaced transects around the lake.

<u>Common Name</u>	<u>Plant Species</u>	<u>Frequency (%)</u>
slender naiad	<i>Najas minor</i>	90
para grass	<i>Brachiaria mutica</i>	90
soft rush	<i>Juncus effusus</i>	90
musk-grass	<i>Chara spp.</i>	90
buttonbush	<i>Cephalanthus occidentalis</i>	80
alligator-weed	<i>Alternanthera philoxeroides</i>	70
southern water-grass	<i>Hydrochloa caroliniensis</i>	60
giant duckweed	<i>Spirodela polyrhiza</i>	40
smartweed	<i>Polygonum hydropiperoides</i>	40
cat-tail	<i>Typha spp.</i>	40
floating water-hyacinth	<i>Eichhornia crassipes</i>	30
elephant-ear	<i>Colocasia esculenta</i>	30
variable-leaf milfoil	<i>Myriophyllum heterophyllum</i>	10
water primrose	<i>Ludwigia octovalvis</i>	10
willow	<i>Salix spp.</i>	10
giant bulrush	<i>Scirpus californicus</i>	10
rush spp.	<i>Juncus dichotomus</i>	10

Tallavana (Gadsden County)
Florida LAKEWATCH Aquatic Plant Summary

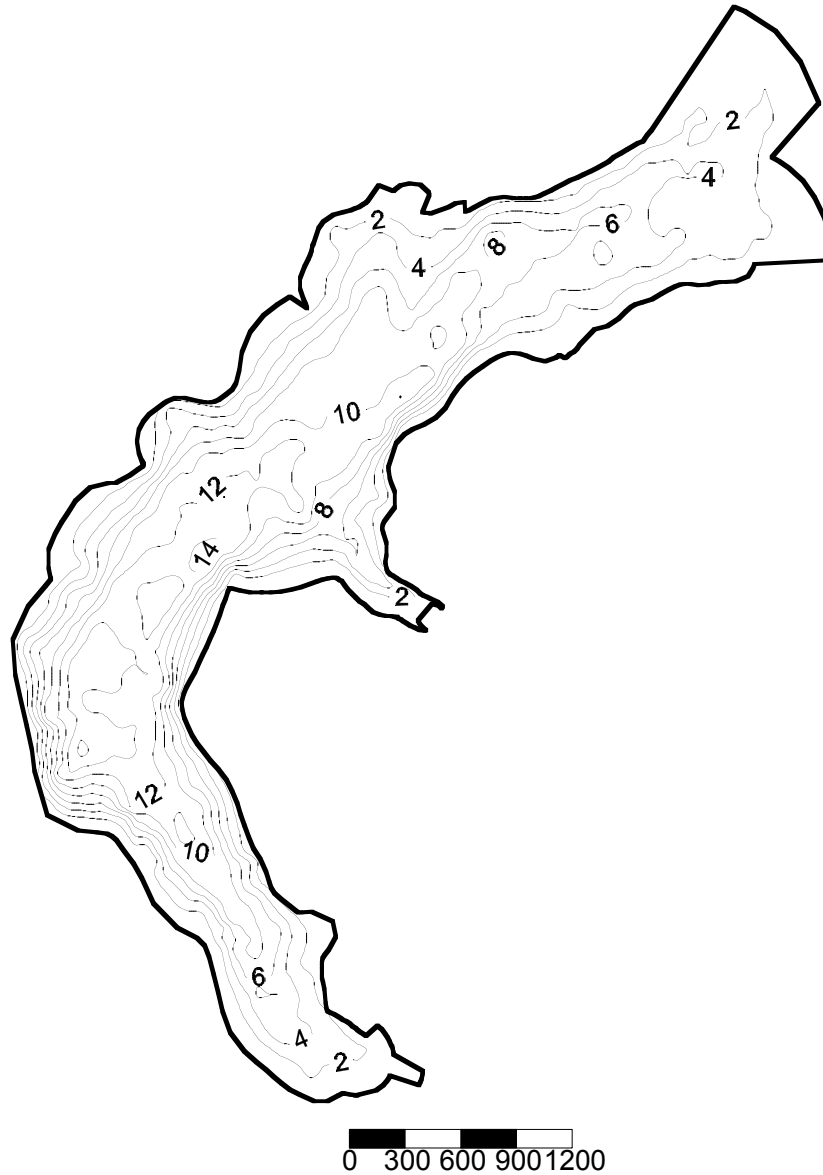
Aquatic plant data collected on June 6, 2001

Percent area covered with aquatic vegetation (PAC, %)	10.0
Percent of lake's volume filled with vegetation (PVI, %)	2.0
Average emergent plant biomass (kg wet wt/m ²)	5.7
Average floating-leaved plant biomass (kg wet wt/m ²)	4.3
Average submersed plant biomass (kg wet wt/m ²)	2.6
Average width of emergent and floating-leaved zone (ft)	22.6
Average lake depth (m)	2.5

Frequency that plant species occur in 10 evenly spaced transects around the lake.

<u>Common Name</u>	<u>Plant Species</u>	<u>Frequency (%)</u>
soft rush	<i>Juncus effusus</i>	100
woolly panicum	<i>Panicum scabriusculum</i>	100
common duckweed	<i>Lemna minor</i>	80
water-pennywort	<i>Hydrocotyle umbellata</i>	80
smartweed	<i>Polygonum densiflorum</i>	80
alligator-weed	<i>Alternanthera philoxeroides</i>	70
Walter's-millet	<i>Echinochloa walteri</i>	60
buttonbush	<i>Cephalanthus occidentalis</i>	50
elephant-ear	<i>Colocasia esculenta</i>	40
cat-tail	<i>Typha spp.</i>	30
flat-sedge	<i>Cyperus odoratus</i>	30
musk-grass	<i>Chara spp.</i>	30
green algae	<i>Chlorophyta</i>	30
azolla	<i>Azolla caroliniana</i>	20
floating water-hyacinth	<i>Eichhornia crassipes</i>	10
common salvinia	<i>Salvinia rotundifolia</i>	10
slender spikerush	<i>Eleocharis baldwinii</i>	10
salt-bush	<i>Baccharis spp.</i>	10
wax myrtle	<i>Myrica cerifera</i>	10
water primrose	<i>Ludwigia octovalvis</i>	10
willow	<i>Salix spp.</i>	10
para grass	<i>Brachiaria mutica</i>	10
water-net	<i>Hydrodictyon spp.</i>	10
water hemlock	<i>Cicuta mexicana</i>	10

Tallavana (Gadsden County)
Florida LAKEWATCH Bathymetric Map



Florida LAKEWATCH personnel created this map using differentially corrected global positioning equipment (GPS). Data were collected June 6, 2001. Scale and map contours are in feet and were generated using kriging technique in Surfer® software package (Golden CO). The center of the lake is located at Latitude 30°35'59" and Longitude 84°27'53". On this date, the lake surface area was calculated at 155 acres (63 hectares). This is only an approximate bathymetric map and should not be used for navigation.

Talquin (Gadsden County) Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°26'23", Longitude 84°34'10"

Period of record: 17 sampling dates; January 6, 1992 to April 4, 2000

Surface Area (Shafer et al. 1986): 8850 acres

Lake Region (Griffith et al. 1997): Tifton/Tallahassee Uplands (65-04)

Geologic formation (Brooks 1981a):

The geology is dominated by clayey sand and clay with sandy to clayey limestone of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Quincy Hills division of the Tifton Uplands District

Supplemental water chemistry data

Data reported are means from 5 sampling dates:

pH	6.4	Total alkalinity (mg/L as CaCO ₃)	14.7
Conductance (µS/cm @ 25 °C)	81	Color (Pt-Co units)	56
Chloride (mg/L)	12.7	Silicon (mg/L)	6.5
Sulfate (mg/L)	7.0	Calcium (mg/L)	4.3
Magnesium (mg/L)	7.4	Sodium (mg/L)	7.6
Potassium (mg/L)	1.9	Iron (mg/L)	1.2

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 17 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	37	51	93
Long-term total nitrogen concentrations (µg/L)	437	621	933
Long-term total chlorophyll concentrations (µg/L)	5.0	28.3	55.7
Long-term Secchi depth (ft)	3.0	3.2	3.8

2001 Florida LAKEWATCH Data

No samples collected in 2001

Talquin (Gadsden County)
Florida LAKEWATCH Aquatic Plant Summary

Aquatic plant data collected on August 17, 1993

Percent area covered with aquatic vegetation (PAC, %)	40.0
Percent of lake's volume filled with vegetation (PVI, %)	3.2
Average emergent plant biomass (kg wet wt/m ²)	3.8
Average floating-leaved plant biomass (kg wet wt/m ²)	3.9
Average submersed plant biomass (kg wet wt/m ²)	3.5
Average width of emergent and floating-leaved zone (ft)	67.3
Average lake depth (m)	3.0

Frequency that plant species occur in 10 evenly spaced transects around the lake.

<u>Common Name</u>	<u>Plant Species</u>	<u>Frequency (%)</u>
common salvinia	<i>Salvinia rotundifolia</i>	90
floating water-hyacinth	<i>Eichhornia crassipes</i>	80
alligator-weed	<i>Alternanthera philoxeroides</i>	70
elephant-ear	<i>Colocasia esculenta</i>	60
coontail	<i>Ceratophyllum demersum</i>	50
smartweed	<i>Polygonum hydropiperoides</i>	40
water-pennywort	<i>Hydrocotyle umbellata</i>	40
southern naiad	<i>Najas guadalupensis</i>	40
baby-tears	<i>Micranthemum umbrosum</i>	30
hydrilla	<i>Hydrilla verticillata</i>	30
para grass	<i>Brachiaria mutica</i>	30
torpedograss	<i>Panicum repens</i>	30
musk-grass	<i>Chara spp.</i>	30
spatterdock	<i>Nuphar luteum</i>	20
cone-spur bladderwort	<i>Utricularia gibba</i>	20
buttonbush	<i>Cephalanthus occidentalis</i>	20
southern water-grass	<i>Hydrochloa caroliniensis</i>	20
bald cypress	<i>Taxodium distichum</i>	20
parrot's-feather	<i>Myriophyllum aquaticum</i>	10
frog's-bit	<i>Limnobium spongia</i>	10
American lotus	<i>Nelumbo lutea</i>	10
cat-tail	<i>Typha spp.</i>	10
water primrose	<i>Ludwigia octovalvis</i>	10
green algae	<i>Chlorophyta</i>	10

Yvette (Gadsden County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°31'50", Longitude 84°28'8"

Period of record: 36 sampling dates; January 17, 1998 to July 19, 2001

Lake Region (Griffith et al. 1997): Tifton/Tallahassee Uplands (65-04)

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 Quincy Hills division of the Tifton Uplands District

Periodic water chemistry data

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

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	54	54	54

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 36 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	28	42	69
Long-term total nitrogen concentrations (µg/L)	310	585	1257
Long-term total chlorophyll concentrations (µg/L)	9.7	34.7	109.3
Long-term Secchi depth (ft)	1.5	3.3	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:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
Jul-19	46	553	9.7	4.5
2001 Average	46	553	9.7	4.5