

Lower St Johns River
Bi-Weekly River Field Brief

St. Johns River Water Management District (SJRWMD) Field Science Team

15 August 2012

Coverage Dates: July 31, August 6 – 9, August 14, 2012

Areas of Coverage: July 31: Marine reach from JU to Mayport, including mouth of Sisters Creek, Clapboard Creek, and Brown's Creek;

August 6-8 : Lower St. Johns River mainstem from NAS Jax to Crescent Lake and Lake George. Including Dunns Creek and sections of the Ocklawaha, and Black Creek;

August 9: Rodman spot entry at Hwy. 19; and

August 14: Lower reach from JU down through Mandarin Point

Surface Water quality: Ocklawaha @ Hwy. 19 was observed to be more tannic than usual. Lower Basin river salinities from NAS Jax to Hibernia Point span ranged from 3.55 ppt just north of NAS Jax to .34 ppt at Hibernia Point. Temperatures were in the 29-30 degree Celsius range. Water quality parameters were collected at permanent monitoring sites from Mayport through northern Lake George.

Algal/HAB:

August 6: The SJRWMD team observed what appeared to be a plankton bloom at Mandarin Point. A sample using Florida Wildlife Research Institute (FWRI) protocol was collected at this station. Live composite plankton samples were collected and shipped to FWRI via overnight on August 6. Additional samples were collected at Piney Point, Plummers Cove, and Doctors Lake.

August 14: Working with National Oceanic and Atmospheric Administration (NOAA)/Jacksonville University (JU)/University of North Florida (UNF), the SJRWMD team observed a surficial bloom characteristic of a cyanobacteria bloom at Mandarin Point, center of river. Waters were calm. A cell phone image is included at the end of this report.

Follow up from July 25 report: "Compositions of the blooms appeared different to the field scientists." An identification of dominant species from contract laboratories confirmed the field team's observation of apparent difference. The dominant species at each site were identified as follows:

Ocklawaha: *Microcystis aeruginosa*, *Occilatoria limosa*, and *Anabaena spiroides*;

Crescent Lake: *Planktolyngbya limnetica* and *Planktolyngbya tallingi*.

Foam: No unusual foam events observed.

Fish Kills: None observed by SJRWMD team. Some fish, reported as likely tilapia, observed dead near Bolles on August 14 via verbal report on water.

From FWRI for period of coverage/Catalina Brown:

7/31/2012

Welaka - Putnam County - Hotline Call – We received a report of a large catfish kill in the SJR near marker #87. The caller was concerned that pollution was the cause of the kill. Fish and Wildlife Hotline (FWH) staff explained that we have collected catfish and water samples from central and east Florida and we continue to monitor the situation.

Suspected Cause - Unidentified (Call ID: 073112_18331)

8/2/2012

Bunnell - Flagler County - Hotline Call - We received a report of 6 dead fish in Black Branch Creek. The caller was concerned and wanted to know if there were any potential health issues associated with the consumption of fish caught in the creek. We provided the link to the DOH Fish Consumption Advisories and the local DOH number.

Suspected Cause - Unidentified (Call ID: 080212_18337)

Referred the call to DOH.

Jacksonville - Duval County - Hotline Call – A concerned citizen contacted us for information pertaining to blue green algae blooms. The caller explained that the water color in the pond behind her business had changed to bright green. FWH staff gave a general explanation about blue green algae and forwarded the DOH brochure on blue green blooms.

Suspected Cause - Algae Bloom (Call ID: 080212_18338)

8/3/2012

Ocala - Marion County - Hotline Call – We received a report of moribund catfish in Lake George. The caller explained that he noted sores resembling a fungus on the animals. The fish were approximately 12"-14" and were observed swimming sluggishly near the surface. FWH staff explained that we have collected catfish and water samples from central and east Florida and we continue to monitor the situation.

Suspected Cause - Unidentified (Call ID: 080312_18342) - - - (Group Report ID # 18094)

8/6/2012

Ocala - Marion County - Hotline Call – A concerned citizen contacted us to report a fish kill in a private pond. The caller wanted FWC staff to test the water for contaminants. FWH staff gave a general explanation about low dissolved oxygen kills.

Suspected Cause - Low Dissolved Oxygen (Call ID: 080612_18355)

8/9/2012

Welaka-Putnum County - Hotline Call – We received a report of numerous dead catfish in the SJR. The caller explained that the animals were freshly dead. FWH staff explained that we continue to monitor the situation.

Suspected Cause - Unidentified (Call ID: 080912_18365) - - - (Group Report ID # 18094)

8/10/2012

Georgetown - Putnam County - Hotline Call - We received a report of a catfish kill. The report initiator explained that for the past several weeks she has noted dead catfish near Turkey Island and by the Rodman Dam. FWH staff explained that we have collected catfish and water samples from central and east Florida and we continue to monitor the situation.

Suspected Cause - Unidentified (Call ID: 081012_18368) - - - (Group Report ID # 18094)

Ocala - Lake County - WWW Form - FWC LE staff contacted us to report numerous dead catfish in Lake George & Juniper Run. Staff explained that the western shoreline of Lake George between Salt Run & Juniper Run was covered with hundreds of dead catfish. We returned the call and provided an explanation regarding the ongoing catfish motility event in the state.

Suspected Cause - Unidentified (Call ID: 081012_18369) - - - (Group Report ID # 18094)

8/12/2012

Orange Park - Clay County - Hotline Call – We received a report of a fish kill in a private pond. The description of the kill was in line with a low dissolved oxygen kill. The caller explained that the water looked normal. FWH staff gave a general explanation about low dissolved oxygen kills. We also forwarded the link to the Fish and Wildlife Commission (FWC) bird mortality database, since the report initiator had noted one dead crow and one dead muscovy duck a few days prior to the fish kill.

Suspected Cause - Unidentified (Call ID: 081212_18371)

Wildlife: Five manatees observed on July 31 at mouth of Clapboard Creek (3) and Brown's Creek (2). Atlantic bottlenose dolphins were also observed between the two creeks. Dolphin activity observed at Mayport, Sisters Creek, BAE Systems (former Atlantic Marine), Fort Caroline (station JAX04) and off the Lion's Club boat ramp (Station Jax17) July 31. Dolphin activity observed moving up Trout River on August 14. Black bear cub observed crossing Hwy. 19 near Salt Springs.

Other notes: Two additional continuous DO meters installed at Edgefield and Yarborough Regional Stormwater Treatment areas (RSTs) in Hastings.

Hydrilla/invasive plants: During a routine water quality run on August 8, the SJRWMD team was approached by a longtime crab fisherman, who was concerned about the recent release of large mats of hydrilla from what he believes are from the Ocklawaha Barge Canal lock operations. A follow-up call indicated that he began noticing the mats on or about July 18, moving into the SJR. The issue was that the mats are wrapping around the crab pot floats and submerging them, making them impossible to locate. He indicated that he alone had lost about 70 traps because of this. He also indicated that besides the economic impact, the traps will likely form navigational hazards to other boaters, with the creation of “ghost traps” and submerged lines just below the surface. He also stated that he had been fishing in this area for more than 30 years and had never seen this happen before. Photos by the SJRWMD team with camera phones are included at the end of this report.

Follow-up inquiries are in progress at the time of this report. As a side note, the SJRWMD team has noted large strands of hydrilla that are extremely dense at the confluence of Silver River and the Ocklawaha River.

Disclaimer: Field notes are collected at scheduled areas during sampling events. Complete shoreline surveys are usually not logistically feasible unless work occurs at a designated area at the shoreline. Our primary SJR main stem range is approximately 110 miles.

These “River Briefs” are designed to highlight selected information from the lower SJR. If you would like more details for any of the information put forth, please ask. For questions, comments, or suggestions on improving the usefulness of these weekly updates, please email me @ rburks@sjrwmd.com. Your input is appreciated.

Robert Storm Burks-SJRWMD



Hydrilla mats wrapping around crab pot floats 8.8.2012-T Trent/SJRWMD



Hydrilla mats in SJR 8.8.2012 – T Trent/SJRWMD



Likely cyanobacteria surficial bloom at Mandarin Point 8.14.2012- R Burks/SJRWMD