

Enclosure 31

FWS Summary of Sturgeon Spawning Monitoring Data, 10 June 2005

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**Subject:** Prelim summary results Apalach sturgeon spawning study  
**Attachments:** results summary.pdf



results

summary.pdf (15 KB)

It will probably be the end of the summer before I'm able to write up a more formal paper on what we did and what we found this spring, so I've prepared a preliminary summary of some the results to share in the meantime with cooperators and supporters. Most of what I've included here is straight out of field notes with minimal analysis, so please treat this as a draft document and not the final word on anything. The more important "so-what" part is yet to come, including a full analysis of the habitat data we've been working on the last couple years.

I want to thank everyone who assisted with the tracking and egg sampling (Joanne/Brian: please share this email with others at the Corps who helped or are interested -- I don't have Katie's email, for example). Couldn't have done it without you.

Thanks,

Jerry

(See attached file: results summary.pdf)

## **2005 Apalachicola River Gulf Sturgeon Spawning Study Preliminary Summary of Results**

### **Radio Tracking**

Tracked on 19 days between 3/14 and 5/16 covering a cumulative distance of 533 one-way miles, listening for about 43 hours. Once egg sampling began, when checking the pads we listened for tags going to and from the sample sites, sometimes tracking an additional distance downstream (usually to Ocheese Landing).

We detected 7 of the 15 radio-tagged fish altogether, on 35 occasions. Fish were located at the dam and downstream as far as the Brothers River near the mouth of Bearman Creek.

First tag detections (2 fish) occurred in the upper river on 4/18.

On the third day that tagged fish were detected in this reach, we began sampling for eggs at two hard-bottom sites: 1) the rock shoals at rm 105.3; and 2) the limestone/marl bank/ledge at rm 97.8. No eggs were collected at the latter site, so at this time I have summarized only the results for the rock shoals site.

### **Sampling Results at the Rock Shoals**

Up to 20 pads were deployed from 4/21 to 5/16 (duration 26 days).

Pads were checked on nine dates (4/25, 4/27, 4/28, 4/29, 5/2, 5/6, 5/9, 5/13, and 5/16), for a possible total of 180 samples (20 pads checked on 9 days), minus about 20 samples lost when pads were presumably carried away by high flows and were not immediately replaced.

Eggs were collected on four dates (4/27, 4/29, 5/2, and 5/13).

A total of 20 eggs and 1 larva were collected in 17 sample events (1 sample = checking 1 pad on 1 date) at 11 sample locations on the rock shoals. Spawning was also indicated at or near an additional 6 sample locations by the presence of hatched egg cases on the pads.

One pad yielded eggs on 3 dates; four other pads yielded eggs on 2 dates.

Depths of pads from which eggs/larvae were collected ranged from 7.5 to 20.1 ft (mean 11.7 ft, n=17).

Stages during the sample period varied from a low of 45.56 ft (on the last day of sampling, 5/16) to a high of 53.18 ft (on 5/4) (range = 7.62 ft) (source: provisional data from USGS Chattahoochee gage).

Depths sampled ranged from 21.7 ft (measured 4/29) to 1.5 ft (measured 5/16).