

All About That Bass

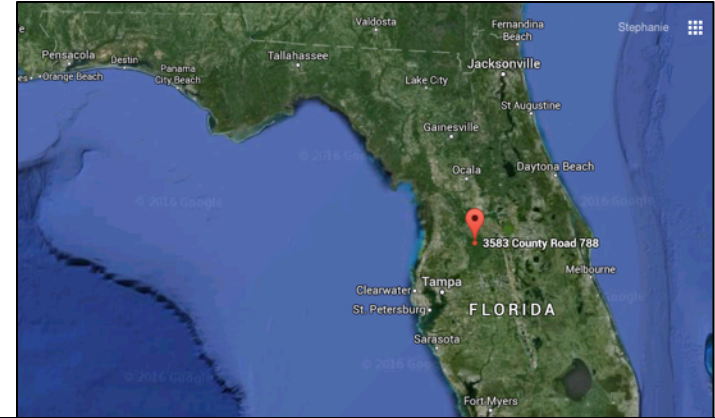


Study Objective

- Assess differences in bass recovery time, feeding behavior, and mortality following exposure to one of three commonly observed handling practices.
 - a) Vertical hold
 - b) Horizontal jaw only hold
 - c) Support two-handed cradle

Study Location: Florida Fish & Wildlife Conservation Commission Florida Bass Conservation Center

Photo: Floridasportsman.com



For more info:
[http://myfwc.com/conservation/
freshwater/fbcc/](http://myfwc.com/conservation/freshwater/fbcc/)



Photo: larsenoutdoors.com

The Setup

- Hatchery raceways were divided into 3 sections by metal screens to allow water to circulate
 - One section would hold 10 fish each for each handling treatment



The Setup

- Two Underwater cameras were placed at opposite ends of each raceway section to observe the fish after treatment and during feeding trials.



The Experiment

- Bass were randomly chosen from a holding raceway



The Experiment

- Each fish was measured for length, weighed and scanned for its unique ID number



The Experiment

- A piece of colored yarn was tied through the dorsal fin of each bass so it could be identified on the underwater cameras



The Experiment

- The bass was then held for 1 minute in one of the 3 treatment holds: vertical, horizontal (jaw only) or support (2 handed cradle)



Vertical Hold



Support (a.k.a. 2-handed cradle)



Horizontal (jaw only)



The Experiment

- Once the time was up the fish was placed in a given section of the holding raceway. Each treatment group (vertical, horizontal, support) had its own section.
- All fish were monitored via underwater video to estimate the time it took to 'recover'



The experiment

- Recovery time included the total amount of time it took for each fish to:
 - 1) Regain equilibrium
 - 2) Cease all jaw adjustments
 - 3) Swim in a controlled, directed manner



The Experiment

- Jaw adjustments were ranked as
 - Major - a full jaw extension and/or violent head shaking
 - Minor – a very slight jaw movement with no head shaking
 - Moderate adjustments were symptoms in between major and minor

See YouTube videos for examples.

The Experiment

- 2 feeding trials were conducted on the 4th and 5th day after the bass were subjected to the treatment
- Bass were fed small koi carp or bluegill (2-4 inches in length)



The Experiment

Feeding trials continued:

- Underwater cameras were used to record:
 - Prey strike effectiveness (prey captured, escaped or ignored)
 - Time required to consume each prey item



The Experiment

Delayed mortality assessment

- After the feeding trials all bass were transported to outdoor ponds for 30 days
 - After 30 days the ponds were drained and the bass recovered
 - Carcasses of bass that died during this time period were scanned for their unique tag ID
 - Recovered bass were transported to public fishing lakes for the FWC's Fish Orlando! program

All About That Bass

For More Information:

- See the YouTube videos for examples of post treatment recovery and jaw adjustments, and feeding trials

(Links were emailed around along with this material)

- Check out the summary article PDF for an overview of the study and results