ARIZONA BASS NATION

Conservation Alert

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Conservation Director

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1. Arizona Game and Fish requires boaters and anglers to be 'good stewards'

Boaters can stop the spread of Aquatic Invasive Species when they "Clean, Drain and Dry"

PHOENIX – Preventing the spread of Aquatic Invasive Species (AIS) in Arizona waters starts with Arizona boat owners and anglers. To protect Arizona lakes, rivers and streams from the devastating effects of invasive species, boaters and anglers are required to pull the boat plug and drain the water out of their boat before leaving an AIS affected body of water. Law enforcement officers from the **Arizona Game and Fish Department, in coordination with other lake patrol agencies, will start issuing citations to boaters who don't "Clean, Drain and Dry" their boats when leaving an AIS affected lake.**

In 2009, the Arizona Legislature passed the Aquatic Invasive Species Interdiction Act **(A.R.S. §17-255)**, authorizing regulatory measures known as **"Director's Order**s" and making the Game and Fish Department responsible for establishing mandatory protocols to stop the transport of these invasive organisms. The Director's Orders have identified aquatic invasive species affecting these Arizona waters:

- **Lake Powell**: Quagga mussel
- **Lake Mead:** Quagga mussel, New Zealand Mudsnail
- **Lake Mohave**: Quagga mussel, New Zealand Mudsnail
- **Lake Havasu**: Quagga mussel, Didymo
- **Lower Colorado River below Lake Havasu**: Quagga mussel, giant salvinia, apple snail
- **Lake Pleasant**: Quagga mussel, Large Mouth bass Virus (LMBV)
- **Lees Ferry**: New Zealand Mudsnail, whirling disease
- **Lower Salt/Verde River**: apple snail
- **Bartlett Lake**: LMBV
- **Roosevelt Lake**: LMBV
- **Saguaro Lake**: LMBV

Starting Jan. 1, boaters who fail to plug their boat plug out and drain the water from their boat when leaving any of these Director's Orders waters, won't get a warning, they'll get a citation, a mandatory court appearance, and if found guilty, a fine. To help stop the spread of aquatic invasive species, it is vital that people avoid transporting water or live fish from one body of water to another and be 'Good Stewards' of the resource. Wipe down your boat, pull your plug, and drain all water from any places in your boat where it may accumulate. According to Chris Cantrell, Fisheries

Branch Chief for Arizona Game and Fish, boaters should dry watercraft and equipment for at least five days before launching your boat into other waters.

"Going through the steps to prevent the spread of AIS is easy and should become as routine as securing your boat to its trailer," said Cantrell. "Doing this every time you pull your boat out of the water is the best way to protect your boat, and your favorite places to boat in Arizona."

To help stop the spread of aquatic invasive species, boaters and anglers should:

1. Pull out your boat plug
2. Drain any water from boats, bilge, bait buckets, and livewells before leaving the launch area.
3. Dispose of all unused bait in the trash, never in the water.
4. Never transfer live fish from one body of water to another.
5. Rinse any mud and/or debris from equipment and wading gear.
6. Use a mixture of vinegar and water to disinfect your equipment.
7. Allow everything to air dry for five days before moving to another body of water.
8. If you see dead or dying fish, please call Arizona Game and Fish at (623) 236-7257.
9. Educate others to follow these steps.

2. Roosevelt Lake Activities and Management (Current-FY15)

Issue Statement:

Electro fishing surveys in 2008, 2009, 2011 and 2013 indicate that Roosevelt Lake has dwindling populations of both largemouth bass and bluegill. Results show that electro fishing catch per unit effort (CPUE) for largemouth has declined from 44.4 fish/hour in 2008 to 10.6 fish/hour in 2013, a roughly 75% decline. Likewise bluegill electro fishing CPUE for bluegill has declined from 30.0 fish/hour in 2008 to 5.6 fish/hour in 2013, a greater than 80% decline. Additionally, both species have show declining condition over this time. Relative weight (Wr) of largemouth bass declined from 96.0 in 2008 to 86.0 in 2013 while bluegill Wr declined from 93.0 in 2008 to 83.3 in 2013. Black Crappie has also shown a dramatic decline based on recent surveys. Gill net catch rates for black crappie declined from 0.27 fish/hour in 2008 to 0.06 fish/hour in 2013, a greater than 80% decline. Black crappie also experienced a decline in Wr from 109.2 in 2008 to 98.5 in 2011.

The declines that we have noted have not gone unnoticed by the general public. Over the last few years the Department has received numerous complaints about the "quality" of fishing at Roosevelt Lake. In April 2013, the Department hosted the first Angler Roundtable in Tonto Basis to begin addressing those concerns. Since then we have hosted two more meetings in the Tonto Basin area. The overwhelming response from anglers and local business owners is that the Department needs to take measures to improve fishing at Roosevelt Lake as soon as possible.

A number of factors may be contributing to the decline in the fishery at Roosevelt Lake. Gizzard shad were first detected in the lake in 2007. Since then they have spread lake-wide and are now one of the most abundant fish species in the reservoir based on gill net and electro fishing catch rates. Studies have shown that gizzard shad have effects on sportfish populations through direct competition at the larval stage and through a reduction in prey as they quickly outgrow the gape size of most sportfish. Additionally, Roosevelt Lake has experienced declining reservoir levels throughout the spring in recent years. This can lead to poor year classes of sportfish as the spawning beds dry as the water recedes. Additionally, both golden algae and largemouth bass virus (LMBV) have been documented in Roosevelt Lake in recent years. The Department documented the first golden algae related fish kills

within the reservoir in late summer of 2012 and subsequent kills in 2013. Although no declines have been directly attributed to LMBV the virus has been shown to cause mortalities in other states.

Goal 1: Communicate

Ongoing activities:

- Continue Gila County Roundtable meetings (March and June 2014)
- Brief the Commission at the June 2014 Commission Meeting in Payson

Goal 2: Habitat

Completed activities:

- Redirect 1 FTE aquatic habitat position to focus on leading the effort of implementing habitat prescriptions in Roosevelt (January 2014)

Planed activities:

- Develop a conceptual outline of habitat enhancement plan to present to the Forest Service (February 2014).
    - Potential habitat prescriptions include: Reef balls, Gravel, Christmas trees…
- Draft a Habitat Management Plan for Roosevelt Lake (June 2014).
    - Mapping of habitat using side scan sonar and SCUBA diving
    - Determine locations for habitat enhancements
- Complete environmental compliance for Habitat Enhancement (anticipated completion September 2014)
    - Army Corp of Engineers 404 Permit
    - AZ Dept. of Environmental Quality 401 Certification
    - AGFD internal EA Checklist
    - USFS/Tonto NEPA Compliance Document
    - Salt River Project Concurrence Letter
- Implement Habitat Management Plan (Beginning 2015)

Goal 3: Stocking Program

Completed:

- Commission approved a one-time enhancement of $50,000 directed at Roosevelt Lake and Gizzard shad (July 2013)
- Executive staff established a donation fund account to allow the public to match the $50,000 approved by the commission (November 2013)

Ongoing activities:

- Obtain environmental compliance approvals for stocking Florida Strain Largemouth Bass, Crappie, and Bluegill (Initiated January 2014)

Planned Activities:

- Stock with Florida Strain Largemouth Bass, Crappie, and Bluegill. (Spring ’14 – Fall ’15)
    - Send Hatchery staff to Florida for training on hatchery needs, methods, and protocols for rearing Florida Strain Largemouth Bass (March 2014).
    - Obtain Florida Strain Bass from Florida Fish and Wildlife to rear at Bubbling Ponds Fish Hatchery (March 2014).
    - Purchase Bluegill, Crappie, and Additional Largemouth Bass for Stocking (Anticipated Fall 2014)

Goal 4: Research and Monitoring

Completed:

- Conducted another electro fishing survey of Roosevelt Lake (October 2013)
    - Previous surveys were conducted in fall of 2008, 2009, 2011

Ongoing:

- Largemouth Bass Genetics Study with Texas Parks and Wildlife (Fall 2013 and Spring 2014)

Planned activities:

- Conduct a special design survey of Roosevelt Lake (April 2014)
    - Primary focus on crappie and bluegill populations
- Conduct a creel survey of Roosevelt Lake (Spring 2014 – Spring 2015)
- University of Arizona to begin DNA study (April 2014)
    - New technique using Environmental DNA to assess fish population
    - Can detect presence of fish species
    - Based on concentration of DNA you can estimate biomass of fish biomass
- Evaluate stocking efficacy through Research Branch (April 2014)

Budget Commitments – Total of ~356K (Current – July 2016)

- Fish population monitoring (Fall 2013 and Spring 2014)
    - ~$40k in personnel, time and travel
- Redirection of Aquatic Habitat Position (Winter 2014 – Fall 2016)
    - ~$120k in personnel, time and travel
- Largemouth Bass Genetics Study (Fall 2013 and Spring 2014)
    - 1K for collection cost and sending samples to Texas
    - Analysis free from Texas Parks and Wildlife
- U of A DNA Study (Spring 2014 – Fall 2015)
    - $15k from Sportfish Program
    - $25k from Research Branch
- **Stocking of Florida Strain Bass (Spring 2014 – Fall 2015)**
    - **~3K in Training with Florida Fish and Wildlife**
    - **~ Up to $100k (50K AGFD – 50K donations from anglers)**
    - **~ 17k in hatchery costs and transport to AZ**
    - **Potential for additional money**
- Creel (May 2014- April 2015)
    - ~$35k in personnel costs