

STATE OF THE STATE-S FRESHWATER FISHERIES - 2006

The Bureau of Fisheries of the Mississippi Department of Wildlife, Fisheries and Parks strives to conserve, manage and enhance inland fisheries, including habitats and support facilities, to enhance recreational and economic benefits for present and future generations. Management to benefit fish, habitats and public use improves the value of our fisheries.

- Anglers spend around \$210 million a year in Mississippi and generate a total economic impact near \$1.3 billion.
- In 2005, Mississippi had around 380,000 licensed anglers.
- 85% of our licensed anglers fish only in freshwater.
- 62% of the resident anglers live in rural areas, 28% are female.
- 52% of the anglers target crappie, 23% bass and 18% bream.
- Oxbow lakes and impoundments total 281,479 acres.
- Stream miles total 123,000 miles.
- Cleanliness, safety and proximity to home are important factors that determine where people choose to fish.

A Comprehensive Wildlife Conservation Strategy was completed for Mississippi in 2005. This long-term plan will guide conservation efforts for species of greatest conservation need, including sport fish such as walleye, sauger, paddlefish, alligator gar and striped bass. Primary threats identified in the strategy include water withdrawals, operation of dams, water quality, invasive species, channel modification/headcutting and land-use practices.

Evaluating fish populations, habitats and angler utilization is a challenge due sampling requirements and variation of conditions between years and among habitat types. All waters can not be sampled every year. Experience and improved methods allow fishery managers to forecast and evaluate the state of our state's fisheries as shown in the 2005 regional summaries below:

NORTHEAST

Resources: 87,000 lake acres (Tenn-Tom Waterway, Pickwick, 10 State Lakes) and 399 stream miles (Tombigbee R. and tributaries). The 9-inch minimum length limit for crappie on the Tenn Tom continues to maintain good fishing. Pickwick smallmouth bass offer an excellent opportunity for bass anglers.

Pickwick Lake

Angler catch for largemouth bass and crappie was higher than any year since 2001; 70% of the anglers targeted crappie; 18% bass.

Lock B

Angler catch for both crappie and bass was lower than 2001 and 1989, but abundance and sizes were similar to those years. Crappie anglers released 50% of the crappie caught; most were under the 9" minimum limit.

Lock A

Angler catch of crappie increased 61% from 2001; remained stable for bass.

Columbus Lake

Largemouth bass and crappie abundance estimates were the highest reported since 1998. Indices of size structure improved since 2002.

Aliceville Lake

Angler catch of crappie increased 72% from 2002; bass catch was stable.

Tippah County Lake

Angler catch of bass and bluegill increased. Herbicide treatment helped control filamentous algae and fertilization increased fish stocks.

Lake Lamar Bruce

Angler catch of bass was 46% higher than 2004; bluegill 64% higher. Nearly half the anglers targeted bass; 24% crappie and 21% bream. Fertilization will resume in 2006 after no treatments in 2005.

Elvis Presley Lake

Abundance of largemouth bass and bluegill was up and the bass population is crowded. Black crappie abundance increased.

Lake Monroe

Largemouth bass and bluegill abundance was up. Bass were crowded to produce large bream but more anglers targeted crappie than bream.

Oktibbeha County Lake

Angler catch of bass and bream was slightly down. Average weight of bass harvested was 2.1 lbs. Anglers caught fewer crappie, but larger size.

Tombigbee State Park

Bass were crowded, which increases average size of the bream.

Trace State Park

Abundance of bass and bluegill was up and bass have become more crowded.

* A winter drawdown helped control aquatic plants, allowed pier repairs and allowed fish attractors to be installed in Lamar Bruce, Elvis Presley, Monroe, Tombigbee and Trace.

NORTHWEST

Resources: 104,000 lake acres (Arkabutla, Sardis, Enid, Grenada, Miss. R. oxbows) and 516 stream miles (Yazoo Basin and Miss. R.).

Arkabutla Lake

Known for large crappie, this lake has received high fishing effort in recent years and numbers of trophy crappie have been reduced.

Sardis Lake

Bass fishing is good but angler harvest is low. This is home lake for many Memphians.

Enid Lake

Abundance of largemouth bass and bluegill has declined as populations adjust to lower water levels. Fewer yearling crappie is partly attributed to threadfin shad becoming more abundant. Since the shad are thin, condition of smaller bass is poor. Average weight of crappie caught by anglers was .8 pounds, the same as the first year the 10-inch size limit was enacted (1992). One year of low spawning success and high exploitation could collapse this fishery.

Grenada Lake

No longer a secret, it's most likely the best trophy crappie lake in the country. Fishing effort in 2005 was the highest recorded. Water levels were below rule curve during spring and summer 2005. Crappie made up 85% of the harvest by weight. Trollers comprised 44% of crappie anglers and they harvested 1.02 fish per hour while pole anglers harvested 0.67 per hour. Around 81% of trollers were residents. Crappie tournaments made up less than 1% of the crappie anglers interviewed. Crappie harvest totaled 433,747

pounds and was probably around 50–60% of the fish in the lake. Due to the widespread media attention, crappie anglers have flocked to the lake from all corners of the state and the country. Past levels of low fishing effort produced large crappie and present harvest rates must be reduced to maintain the trophy fishery. A 12 inch minimum size limit was enacted in 2006 to help reduce harvest, but more restrictions may be necessary. Bass catch rates were good and this is a popular tournament lake.



* Rainfall greatly influences water levels and fishery conditions on the four Corps flood-control lakes. Forty-one inches fell in 2005, far below the annual average of 54 inches. Water levels were on or below rule curve and very little terrestrial vegetation was flooded for fish habitat.

Tunica Cutoff

Lake level was higher than the Mississippi River for over half of 2005 following construction of a retention weir the year before. Condition of adult bass and crappie was average at best since young shad were scarce. Bluegill and shad condition was below average due to prolonged low water levels; however, fish populations have improved since the weir was constructed.

DELTA

Resources: 31,507 lake acres (river oxbows, 4 State Lakes) and 756 stream miles (Yazoo Basin and Miss. R.).

Hurricane Rita washed a tremendous amount of organic matter into streams and lakes on September 24-25, 2005. A week after the hurricane, oxygen measurements were less than 0.3 mg/l in many streams. MDWFP noted kills at Deer Creek, Sunflower River, Blue Lake, Black Bayou, Steele Bayou and Bogue Phalia.



Lake Whittington

Fishing effort increased slightly in 2005 as did crappie harvest. Around 16,400 bluegill were harvested but this was well below the mid 1990s when

estimates were around 45,000.

Ten-Mile, Long, Bee, Blue, Little Eagle
Lakes and Cassidy Bayou

Flea beetles were stocked in these lakes during 2005 to reduce coverage of alligator weed. Over abundance of plants hinders angler access and can impact fish populations.



Lake Charlie Capps

Fishing will be closed when levee repairs begin. Fish population renovation is underway.

Bee Lake

A project is underway to improve water quality. Crappie fishing is good during spring unless the water becomes muddy.

Lake Washington

This lake has been designated as a demonstration for nutrient reduction in support of anoxia reduction in the Gulf of Mexico. Fall fishing for crappie was good as indicated by Conservation Officers writing several citations for exceeding the crappie limit. Around 22% of the spring crappie catch and 58% of the catfish were caught on yo yos.

Chute of Island 63

A grant was initiated to notch the dike in this area of the Mississippi River and evaluate the effects on developing fisheries.

CENTRAL

Resources: 40,247 lake acres (Ross Barnett and Okatibbee Reservoirs, 10 State Lakes) and 509 stream miles (Upper Pearl, Pascagoula and Big Black Drainages).

Ross Barnett Reservoir

Bass and crappie fishing remained good with over half the anglers (54%) targeting crappie and 34% targeting bass. Average size for crappie harvested was 0.8 pounds and 3.9 pounds for bass. Plans are underway to renovate the boat ramp at Tommy's Trading Post on Hwy 43 beginning in

summer 2006.

Okatibbee Reservoir

Fishing was mostly for crappie (77% of the anglers) with only 9% targeting bass. Anglers caught 2.5 crappie per hour with an average of 0.65 pounds. Bass anglers caught one bass per hour and removal of the 14-inch to 18-inch slot limit had very little impact on the number of bass harvested.

Clarkco State Park

An increase in quality-sized bass has occurred but as expected, angler catch rates decreased. Fishing pressure was low but most anglers were after bass. Lime and fertilizer was applied to increase productivity.

Roosevelt State Park

Most anglers targeted bream and crappie. Lake fertilization and crowding of bass are management actions used to improve fishing for these species.

Simpson County Lake

Most anglers (74%) targeted bream. Fertilization and new fish attractors were management actions, but harvest of small bass is encouraged in this lake. A fishing rodeo was provided for 172 children.

Lake Ross Barnett

Most anglers (67%) fished for bream and low catch rates of bass in and above the slot limit prompted removal of this regulation. Fertilization and fish attractors are used.

Lake Claude Bennett

Lake levels were 6-7 feet below normal until levee repair was completed. Fishing decreased during this period and plans are to reinstate the fertilization program and encourage harvest of small bass.

Kemper County Lake

Most anglers (54%) targeted bass and caught 0.9 per hour with an average weight of 0.8 pounds. Crappie anglers (30%) were the next most numerous group. A fishing rodeo was conducted for 162 children.

Lake Tom Bailey

The first days of opening in 2005 produced angler catches of 1.9 bass and 4.3 bream per hour. The 15-inch minimum length limit on bass and fertilization are intended to increase size of panfish.

SOUTHWEST

Resources: 12,141 lake acres (9 State Lakes, river oxbows) and 781 stream miles (Lower Mississippi, Pearl and Big Black Drainages).

Eagle Lake

Native aquatic plants (coontail and najas) covered around 513 acres. Landowners were provided guidance on herbicide treatment around their property. Giant cutgrass along the shoreline was treated with herbicide since this prolific species impacts spawning habitat. Growth rate of bass and crappie was exceptional; however, bass stocking continued to offset low natural recruitment (production of young fish). Black crappie became more abundant relative to white crappie as recruitment remains highly variable on this lake.



Dump Lake

Sampling indicated good potential for crappie and bass. Efforts were initiated to restore water quality in the lake. As is the case in many delta lakes, public access is an issue to be addressed.

Lake Mary Crawford

Bass showed an increase in average size. Angler catches and targeted effort (60%) for bream increased. Fertilizer was used to increase productivity and herbicide treatment on water hyacinth and lilies reduced their coverage. Fourteen fish attractors were constructed of 45 blackjack oak trees.

Lake Calling Panther

The fall 2005 opening was delayed due to constraints with road construction and the impacts of Hurricane Katrina; a successful youth day and grand opening occurred in 2006. Anglers are encouraged to harvest bass under the 16-22 inch slot limit. A concession building, camping area and fishing piers are planned.

Lake Mike Conner

Bream (51%) and bass (40%) anglers had greater success than in recent

years. Fertilization, fish attractors and stocking of redear were management actions.

Lake Jeff Davis

Angler catch of bass increased dramatically from recent years but average size decreased. Average size of bream also increased. Anglers mostly targeted bream (44%) and bass (41%) but crappie anglers (17%) caught 1.7 fish per hour. Fertilization and treatment of water hyacinth were management actions.

Percy Quin State Park (Lake Tangipahoa)

Herbicides and winter drawdown were used to reduce the coverage of water hyacinth. Another plant, common salvinia, has become a concern. High flow-through rate prohibits fertilization but thirty fish attractors were added.

Lake Lincoln State Park

Herbicide was used to treat water hyacinth, probably introduced by boat trailers in 2004. Fishing is good for bass, crappie (small average size) and striped bass.

COASTAL

Resources: 7,013 lake acres (6 State Lakes, river oxbows) and 1,144 stream miles (Lower Pascagoula and Pearl Drainages).

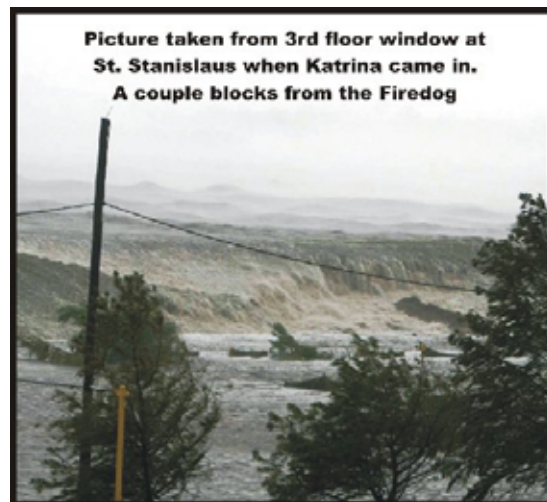
Hurricane Katrina's tidal surge brought in salt water and suspended tremendous amounts of organic matter into streams and lakes in August 2005. Very little subsequent rainfall reduced flushing and devastating fish kills occurred in area lakes and streams.

Lake Bogue Homa

A major fish kill reduced abundance of sport fish but left numerous bowfin and gar. Plans are to repair the levee and renovate the fish populations in 2006.

Lake Geiger (Paul B. Johnson State Park)

Most anglers targeted bass (86%) where quality is the tradition. Bass



averaged 1.7 pounds and abundance of small bass decreased. Crappie anglers (10%) harvested 1.2 fish per hour that averaged 0.8 pounds.

Lake Perry

Harvested bream averaged 0.5 pounds. Bass fishing has become more popular and herbicides were recently used to reduce coverage of lilies.

Pascagoula River (Graham Lake)

Hurricane Katrina caused extensive fish kills in the Pascagoula River system. Sampling produced no bass, bluegill, redear, catfish or shad after the storm and while only bowfin and spotted gar were collected.

REGULATION CHANGES AND LAKE OPENINGS

Grenada Lake - crappie minimum length limit of 12", bag limit of 30 with five fish allowed less than 12".

Clarkco State Park – the bass slot limit and the bream bag limit was removed.

Lake Ross Barnett – the bass slot limit was removed.

Lake Calling Panther – new 500-acre lake in Copiah County opened in spring 2006 with a bass slot limit of 16-22", creel of seven fish with one over 22". Bass up to 10 pounds were caught after initial stocking in 2003.

Lake Walthall – a very successful youth-only day was held prior to the full opening in 2006 with a 14-18" slot limit on bass. Repairs to the dam were conducted but water levels have now severely dropped due to an apparent underground leak.

Lake Tom Bailey – opened to fishing after three years of dam repairs and fish population renovation with a 15" bass minimum length limit, creel of five fish with one fish allowed over 20".

Neshoba County Lake – plans are to open during 2006 after stocked fish have matured; the new spillway has been completed; bass will have a 16-20" slot length limit and a five bag limit with one fish allowed over 20".

Lake Bill Waller – remains closed for renovation with plans to open in 2007.

Malmaisson WMA lakes – bass 15” minimum length, bag limit of 2.

Snagging (taking of fish through the use of the handheld pole and attached line with one single or treble fish hook no larger than #2) for fish is allowed statewide. Snagging is closed in designated waters (spillways) during November 1 through May 31. Snagged fish are those that are hooked in any part of the body except the mouth/head, including but no further back than the gill covers.

No person shall transport more than seven daily creel or bag limits of game fish for each person present in the vehicle. An angler may only transport his or her own limit(s) of game fish, not to exceed seven daily limits.

There is no longer a bag limit on white bass.

NEW STATE RECORDS

Pole and Line

Shadow Bass	0.45 lbs	Jeffrey Jackson	Copiah Creek
Longear Sunfish	0.14 lbs	Danabar Broom	Lobutch Creek
Flathead Catfish	66 lbs	Brad Hillhouse	Mississippi River
Yellow Perch	1.13 lbs	Bobby Joe Towry	Bull Mountain Creek
Spotted Gar	6.18 lbs	James Starnes	Reflection Point in Flowood

Fly Fishing Only

Largemouth Bass	11.62 lbs	Ron Selby	private pond
Striped Bass Hybrid	9.45 lbs	Albert Wood	Pearl River
Bluegill	1.37 lbs	Jimmy Davis	private lake
Warmouth	0.37 lbs	David Ray	private lake
Green Sunfish	0.43 lbs	Ken McGill	private lake
Grass Carp	9.53 lbs	Ron Selby	private pond
Bowfin	3.52 lbs	Ron Selby	Oxberry Bayou Run
Longnose Gar	11.42 lbs	Glen Davis	Bee Lake

Other Methods

Grass Carp (bow)	59.5 lbs	Wayne Odle	Pickwick Lake
Black Buffalo (bow)	66 lbs	James B. Yeager	Lake Ferguson

ANGLER CATCH BY LAKE AND SPECIES - 2005

Angler catch rate (fish per hour) and average size kept (pounds) are only indicators of fishing success. Fishing may be fast or slow on any given day or lake. Lakes are shown in decreasing order according to catch per hour.

BASS			BREAM			CRAPPIE		
Lake	Per Hour	Size Kept	Lake	Per Hour	Size Kept	Lake	Per Hour	Size Kept
Elvis Presley	2.4	0.8	Elvis Presley	3.3	0.4	Cl. Bennett	3.4	N/A
Monroe	1.9	N/A*	Columbus	3.1	0.2	Oktibbeha	3.4	.8
Jeff Davis	1.7	1.4	Tippah	3.0	.7	Lamar Bruce	3.2	.5
Mike Conner	1.4	1.4	Whittington	2.5	0.4	Okatibbee	2.6	.7
Washington	1.1	1.9	Lamar Bruce	2.2	0.5	Aliceville	2.6	.7
Okatibbee	1.0	0.9	Monroe	2.2	0.6	Elvis Presley	2.5	.5
Kemper	.9	0.8	Bee	2.1	0.3	Enid	2.2	.8
Cl. Bennett	.9	NA	M Crawford	2.0	0.3	Barnett Res.	2.0	.8
Clarkco	.8	0.9	Cl. Bennett	1.8	NA	Monroe	1.9	.7
Lk R. Barnett	.7	0.6	Oktibbeha	1.8	0.2	Whittington	1.9	.8
M. Crawford	.7	0.9	Columbia	1.8	0.4	Columbus	1.8	.7
Whittington	.7	2.3	Jeff Davis	1.7	0.6	Jeff Davis	1.7	.9
Barnett Res.	.6	3.9	Mike Conner	1.6	0.4	Bee	1.7	.7
Lamar Bruce	.6	1.9	Roosevelt	1.4	0.3	M. Crawford	1.5	.6
Bee	.6	2.2	Eagle	1.3	0.6	Washington	1.4	.9
Lock B	.5	1.5	Washington	1.3	0.6	P. B. Johnson	1.3	.9
Columbus	.5	1.7	Barnett Res.	1.2	0.3	Lock A	1.3	1.0
Enid	.5	1.2	Kemper	1.1	0.4	Roosevelt	1.2	0.4
Roosevelt	.4	NA	Tun. Cutoff	1.1	0.5	Lock B	0.9	.9
Simpson	.4	1.6	Perry	1.0	0.5	Grenada	0.9	1.2
Lock A	.4	0	Lk R Barnett	0.9	0.5	Tippah	0.8	1.0
Tippah	.4	3.8	Simpson	0.8	0.4	Aliceville	0.8	1.0
Oktibbeha	.4	2.1	Columbus	0.4	0.4	Tun. Cutoff	0.8	.7
Eagle	.4	2.3	Okatibbee	0.2	0.3	Kemper	0.7	.5
Bogue Homa	.4	1.9	P.B. Johnson	0.2	0.2	Eagle	0.5	1.2
P.B. Johnson	.4	1.7	Bogue Homa	0.1	0.2	Lk R. Barnett	0.3	1.1
Grenada	.4	1.6	Grenada		0.1	Perry	0.3	1.0
Aliceville	.3	4.0				Bogue Homa	0.3	.9
Perry	.2	1.7				Mike Conner	0.1	1.0
Columbia	.2	1.5						
Tun. Cutoff	.1	2.4						

*N/A – Data not available

EXOTIC SPECIES

The aquatic plant Hydrilla has expanded to include large areas in the Tennessee and Alabama portions of Pickwick as well as being found and treated in Ross Barnett Reservoir for the first time in 2005. Formal surveys have not yet begun to evaluate the impacts of Hurricane Katrina on spreading exotic plant species.



Non-native plants and animals pose a threat to our native species. Plants, such as water hyacinth, giant salvinia, water lettuce and hydrilla are sometimes moved great distances on boat trailers. People also release aquarium fish or may even have good intentions by stocking certain species. Remember, it is against the law to stock fish into public waters.

Asian carp (including the silver carp from the Mississippi River) are becoming more abundant. Tilapia often are caught by anglers in coastal areas.

ENDANGERED SPECIES

The number of listed species under the Endangered Species Act indicates the diversity of native aquatic fauna and to some extent, how much habitats have been impacted. Alabama is home to 115 listed species, trailed by Florida (111), Tennessee (96) and Mississippi (38).