

# Tagging & tales: Alligators in Mississippi

By Ricky Flynt

rebounded beyond expectations into areas where they previously had occurred prior to being listed as endangered. A statewide survey of conservation officers in 1977 indicated that alligators occurred in 55 of 82 counties. A similar survey in 2006 reported an increase to 77 of 82 counties.

In 1988, Mississippi's Legislature gave authority to MDWFP to develop the Alligator Management and Control Program and, in 1989; the MDWFP's Alligator Program developed regulations to manage alligators. Part of the Agency's task was to manage the increased nuisance alligator complaints that had arisen as human development into alligator-inhabited areas increased. By the early 1990s, the MDWFP was responding to over 400 alligator complaints a year and harvesting over 300 nuisance alligators annually. For over 30 years, small juvenile alligators and even some larger adult alligators have been relocated by the MDWFP. Due to safety concerns, in 1998, the agency developed a policy to no longer relocate alligators over 7 feet long. While it seems popular to relocate alligators to new areas, "new areas" have become increasingly hard to find, as alligators now occupy most major river drainage systems of the state.

the past. So, it is very possible that some of these repeated complaints were indeed "repeat offenders," or alligators returning back to their original location after being relocated in nearby habitat 5-10 miles away, and further in some cases.

In 2007, the MDWFP Alligator Program began capturing and tagging alligators in areas open to public alligator hunting to learn more about alligator movements and growth rates. Since 2007, over 600 alligators have been captured and tagged. Most of these alligators are captured, tagged, and released on-site, and nearly 100 were tagged and relocated, some up to 30 miles away. The information gained from this research has modified MDWFP's stance on relocations of alligators. In dozens of cases, relocated male and female alligators of all sizes returned to their original capture location in a short period of time. So what have we learned? While it may seem ethical to relocate alligators to a new home where they can live in relative isolation from

## Conservation Success

**I**n 1967, the American alligator was placed on the endangered species list. The Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) began working to re-establish this native species into suitable habitats across the state. During 1970-1978, approximately 4,000 alligators were captured at Rockefeller Wildlife Refuge in Louisiana and transported to Mississippi for release.

After arriving in Mississippi, conservation officers and wildlife biologists released them into remote areas of suitable habitat across much of the state. Landowners who desired to place them on their land also came to the Mississippi Fairgrounds in Jackson to receive alligators and release them on their property (literally receiving a croaker-sack full of alligators). At the time, it was believed that the presence of alligators would help control snakes, turtles, and beavers. As it turns out, that theory is only partially true. While alligators do prey upon snakes and turtles, they rarely control beaver populations at acceptable levels.

Mississippi's alligator relocation efforts, combined with federal protections, allowed the population to rebound. In some cases, alligators

## Alligator Research

Alligator biologists and conservation officers have long theorized that relocating nuisance alligators may not be effective. Since the late 1980s, the MDWFP has responded to hundreds of nuisance alligator complaints all across the state. In many cases, smaller alligators under 7 feet long, have been captured and relocated to nearby isolated alligator habitat, in hopes that alligators would remain in their new homes and no longer conflict with humans. As time goes on, however, MDWFP personnel are repeatedly called back to these same locations to remove alligators soon after previous removals. In many cases, these professionals believe that these recaptured alligators had simply returned home after being relocated. This "homing" instinct of alligators has been documented by scientists in



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humans, this may actually create several new problems. Foremost among them is that relocating problem alligators may create problems in new areas. Alligators traveling through new territory may cross roads and highways and increase the likelihood of vehicle collisions. The increased effort and resources to continually recapture and relocate alligators may not be justified. However, once alligators establish a new home range, they typically do not travel more than a couple of miles.

### Hunters Contribute to Research

The alligator tagging program began in 2007 with the hope that hunter harvested alligators could produce additional information about alligator movements and growth rates. Therefore, tagging efforts have mainly focused on the Pearl River north of Ross Barnett Reservoir and on the Pascagoula River. By mimicking the duck banding program utilized by waterfowl biologists, alligator tagging can obtain similar data about alligators. As alligator hunters harvest tagged alligators, data can be used to determine movements and growth rates of tagged alligators. Since 2007, 31 tagged alligators have been harvested by alligator hunters. Additionally, over

40 tagged alligators have been recaptured by MDWFP personnel and agent alligator trappers. More than 60 percent of alligators are recaptured or harvested within half a mile of where they were originally tagged. Other gators are most commonly recaptured or harvested within 1-3 miles. One large male gator was harvested 16 miles away from its original tagged location.

### Future Research

In 2012, a cooperative research project was re-established with the Mississippi State University Department of Wildlife, Fisheries, and Aquaculture that will more closely investigate alligator movements within an inland river system. Researchers will place radio transmitters on 30 adult male alligators on the Pearl River north of Ross Barnett Reservoir. In 2010, 30 adult male and female alligators were captured and fitted with transmitters, but complications with the radio attachment technique hampered data collection. The radios were attached to the neck area and were repeatedly lost during fights between alligators. The radios have been adapted now to be attached to the top of the tail in a more protected location in hope of obtaining better radio retention. The radio transmitters will allow researchers and biologists to accurately monitor alligator locations and movements over the next two years.

Alligators have been around for thousands of years and are arguably the longest living creatures of the animal kingdom in North America. During much of their existence, they have remained unaffected by humans. However, during our recent past, humans have negatively impacted alligators through lack of protection and over exploitation during the late 1800s and early 1900s. Human encroachment will continue to crowd wildlife and the habitats on which they depend. Now more than ever, it is important for resource managers and

wildlife agencies to take the lead to learn more about our valuable wildlife resources, to fight to protect wildlife habitats, and to ensure the continuance of wildlife resources for future generations. The MDWFP is proud to be a part of this wildlife conservation success story – the American alligator in the Mississippi landscape. To learn more about the MDWFP Alligator Program and alligator hunting, go to [www.mdwfp.com/alligator](http://www.mdwfp.com/alligator).

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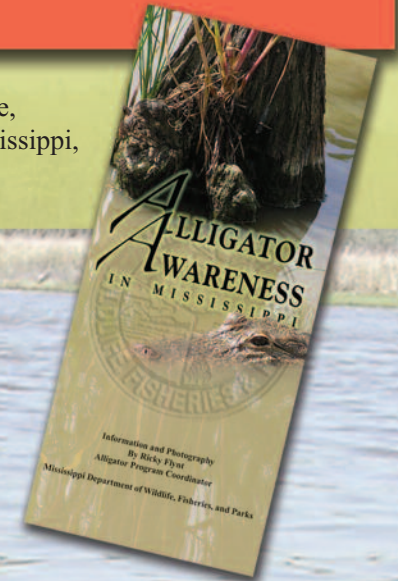
**A**lligator growth rates are much faster in juveniles than in adults. Annual growth rates in tagged and recaptured alligators have ranged from less than 1 inch to nearly 12 inches. However, on average, juveniles under 6 feet long grow about 5 to 8 inches annually and adults over 6 feet grow 1 to 3 inches per year.

**L**ike males of other wildlife species, adult male alligators do most of their traveling during the breeding season (April and May). One unique alligator (White 4) tagged north of Vicksburg was recently captured and killed over 30 miles away near Lake Providence, Louisiana. He was originally captured and tagged in Warren County, approximately 1 mile south

of Eagle Lake on March 18, 2009, and was 7 feet 7 inches long. When this alligator was captured again near Lake Providence, LA, on April 11, 2012, he had grown to 9 feet 2 inches long. Since the time of original capture in Mississippi, White 4 had traveled at least 30.6 miles and had grown 6.3 inches per year. It is likely that White 4 navigated over 44 miles of water dur-

ing his venture to Lake Providence, LA. Additionally, a farm-raised 3 feet 8 inch alligator tagged by the Louisiana Department of Wildlife and Fisheries in 1996 was captured in Mississippi, near Eagle Lake in 2008 after growing to 11 feet 5 inches. It had also traveled over 30 miles since its original release in Louisiana.

To receive the brochure, Alligator Awareness in Mississippi, call (601) 432-2199



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