Restoring Louisiana's Alligator Snapping Turtles

An Interview with Ben Naquin by Kieley Hurff Department of Oceanography and Coastal Sciences Louisiana State University, Baton Rouge, LA 70803

Ben Naquin, an avid sportsman with a deep appreciation and respect for wildlife, grew up hunting & fishing in Southern Louisiana. As a child, his mother brought him to visit a reptile farm in LaPlace, LA, where he would later work as a teenager. This

"I want to learn and do the best that I can. It's fun, and I enjoy it" - Ben Naquin

experience peaked his interest in the local reptiles of Southern Louisiana, and when the young Naquin caught an alligator snapping turtle too small to eat, he decided to keep it as a pet (Fig. 1).



Fig. 1. The pink, worm-like appendage inside the turtle's mouth is used to lure in prey.

Relationship Status: It's Complicated... As a young man, Mr. Naquin realized that alligator snapping turtles, especially the very large (100-200 lbs.) and very old (100+ years), were becoming exceedingly rare. Conversations with elder, former turtle hunters confirmed his suspicion. Many had ceased hunting the turtles altogether as their scarcity had made it impossible to earn a living. Louisiana was the last state to impose harvest regulations. During the 1950-70's, the turtles were exploited for the production of turtle soup. Nation-wide pressure eventually led to the closure of the commercial harvest in Louisiana. Only recreational hunting is permitted now (limit of 1 turtle per day per

vehicle). Despite regulatory efforts, alligator snapping turtles are still listed as a "vulnerable" species. Ben Naquin, who no longer hunts these turtles, has made it his mission to restore Louisiana's struggling turtle population.

Making Restoration Happen

Naquin needed a turtle breeding pond and, after years of negotiations, the Cajun Pride Swamp Tour in LaPlace, LA, agreed to let him dig one on their property. Naquin joined the non-profit organization, the Lake Maurepas Society, and was able to raise funds to construct a pond and stock it with fish. Turtles are captured by setting baited hoop nets (Fig. 2), which is a much safer method than jug-lining or noodling, which pose threats to both the turtles and hunters alike. Although the captive turtles were breeding successfully, studies published on the high rates of nest mortality due to flooding, predation by raccoons, and nest destruction by red ants remained a concern. Mr. Naquin decided he would dig up the eggs & incubate them indoors. Early each morning during the nesting season (typically the last 2 weeks of May the the first 2 weeks of



Fig. 2. Left: Hoop net used to catch turtles. Right: Net set in a canal.

June), he searches the pond's perimeter for nests, containing about 8 to 39 eggs. The eggs are incubated for approximately 90 days at 72-82°F. Higher temperatures yield more females, which is desired for the breeding program. Turtles are released into the wild once they are approximately 2-3 years old and 4-5 inches long. It is at this size that most of the turtles' natural predators are excluded. The release site, the HWY 51 canal (part of the Swamp Tour), was carefully selected for its limited public access and exclusion of potential trappers.

One Step Forward, Two Steps Back ... and Forward Again

Soon after the completion of the LaPlace pond, a hurricane caused major flooding, and most of the turtles escaped and the fence rusted apart. During this time, Mr. Naquin was in the process of building a new home in St. Amant, and so the project took back seat for 5 years. The project did, however, remain in the forefront of his mind. The vision of a turtle pond on his own property played a huge role in land selection and home design; he even strategically omitted air-conditioning vents from the room which would become the egg incubation room. When the time



Fig. 3. Ben Naquin's turtle pond in St. Amant, LA.

came to make the dream a reality, an excavator was used to construct a 1 acre pond, with a maximum depth of 20ft, in his yard (Fig. 3).

The Louisiana Alligator Snapping Turtle Foundation

was formed while the new pond was being established. The non-profit organization is partially funded by the US Fish & Wildlife Service, the LA Dept. of Wildlife & Fisheries, the East Ascension Sportsman League, the LA Fish & Wildlife Foundation, the Lake Maurepas Society, and local businesses. One of the NPO's first goals was raising funds to build a fence around the new pond in St. Amant. Two years of price negotiations eventually paid off, and the foundation was able to purchase the fence for \$24,000 (about half the original estimate). The newly purchased fence was installed after 4 months filled with long days and the help of friends and family.

A New Pond

A large portion of the turtles' diet is vegetation; the crabgrass, water hyacinth, cattail, swamp iris, water lettuce, water lilies, & oak, Satsuma, and pear trees provide roots and fruit that the turtles feed on. The palmetto & fruit trees are important features of the landscaping, as they provide the sheltered nesting areas that the turtles prefer. The minimally-managed vegetation reflects a more natural habitat which attracts insects, frogs, and other natural prey items. Over the course of 3 years, the pond has been stocked with over 3,000 perch, and to further diversify the turtles' diets, Mr. Naquin and his friends save carcasses from their hunting and fishing trips to feed to the turtles.

Lessons Learned – Mitigating Mortality

To lessen flood concerns, the new pond is connected to the canal behind the property to maintain a relatively stable water level. Red ants colonies are diligently eliminated before the turtle nesting season. The new fence and the addition of 2 Catahoula dogs patrolling the perimeter of the pond deter not only raccoons, but thieving humans as well (Fig. 4).

Current Efforts & Looking to the Future

Mr. Naquin returned to the LaPlace pond to relocate the turtles in the spring of 2014. Only 4 of the original 39 turtles were re-captured, as most had escaped into the adjacent canal during the flood. Some local turtle hunters realized that they had caught Mr. Naquin's turtles, and returned them or captured replacements for ones they



Fig. 4. Above: Juvenile alligator snapping turtle. Right: The pond's guard dogs patrolling the perimeter.

had eaten. The current goal is

to stock the new pond with turtles. The capture efforts are focused in Northern Louisiana where the turtle population has experienced historically lower hunting pressure. Catching turtles is an involved process requiring permits to catch and transport multiple turtles, and long days hauling equipment and multiple watercraft. When a turtle is captured, key metrics are recorded, including weight, length, sex, and the Parish of capture. The pond has currently 21 juveniles and 21 adults. Unfortunately, it may be 2 years before these turtles begin to breed again, due to the stress of relocation. Mr. Naquin explained that, despite working hard and having the best intentions, uninformed restoration efforts may be ineffective, or even harmful. This is why he meticulously studies the successes and failures of other programs, and continues to work closely with government wildlife agencies which are excited about the program and want it to be a success. Mr. Naquin is currently considering adding a tagging and monitoring component to the project, and is working toward a target goal provided by the LA Dept. of Wildlife & Fisheries of 100 turtles, and 10 nests per year. Education is a very important aspect of this program, and recently Mr. Naquin secured a grant from Entergy to purchase aquarium equipment for his child's school, where they will raise some of the young turtles, as well as awareness for alligator snapping turtle conservation.

Despite being faced with more than its fair share of challenges, **The Louisiana Alligator Snapping Turtle Foundation** has managed great successes. Restoration should be viewed as a work in progress, and the positive attitude, sincere passion, and diligence of the program's founder, Ben Naquin, bodes well for this project. The challenges and setbacks of not only this project, but projects undertaken by others, have been viewed as meaningful learning experiences & opportunities to improve. The current trajectory of this grass roots restoration program is a shining light emerging from the troubled past of Louisiana's alligator snapping turtle population. **This inspiring story is proof positive that with hard work, meaningful restoration is possible in your own backyard, literally.**

For more information:

US Fish & Wildlife Service at: <u>http://www.fws.gov</u>.

A video about the Louisiana Alligator Snapping Turtle Foundation is available at: https://www.youtube.com/watch?v=RznUKa0OWeg