

Research team saves turtle species on the brink (w/ Video)

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A Diamondback terrapin hatchling breaks free of his shell inside the UAB turtle hatchery. Credit: Bob Shepard/UAB

University of Alabama at Birmingham (UAB) researchers exploring strategies for conserving the Diamondback Terrapin along Alabama's Dauphin Island coastline are working to keep the once-celebrated turtle off the endangered species list.

The Diamondback Terrapin has been a national delicacy, a source of state taxes and a casualty of commercial development and victim of new predators, but now its prospects are improved by a UAB-based turtle hatchery that may accelerate the growth of the fledgling population.

In 2006, a UAB research team began its examination of conservation and recovery strategies for the Diamondback Terrapin in Alabama. After three years, biology professors Thane Wibbels, Ph.D., and Ken Marion, Ph.D., and doctoral student Andy Coleman concluded that the

species was fighting for survival.

"This spring we began the captive rearing of the terrapin, opening up a hatchery at UAB," Coleman said. "With almost each weekly trip to Dauphin Island, we return to Birmingham with a new clutch of eggs. If we did not rescue them, raccoons would destroy as many as 90 percent of the eggs nesting naturally along the wetland beaches."

Commercial growth in the Dauphin Island area in recent decades has constricted the turtle population's habitat. New predators like raccoons and threats like crab traps also have been introduced into the environment. All of these factors have driven the animals to near-endangered species status, and losing the species could badly damage the local ecosystem by throwing the food chain out of whack. Terrapin are voracious snail eaters who use their strong jaws to break through snail shells.

"Our work along the Cedar Point marsh on Dauphin Island started with research into the threats posed by natural predators and man-made devices like crab traps, which can catch the turtles and lead to drowning," Wibbels said.

Wibbels said the early research efforts showed a population on the brink, a view confirmed in the 2004 Alabama Department of Conservation and Natural Resource's book *Alabama Wildlife*, in which the Diamondback terrapin was listed as a highest conservation concern.

Wibbels said the research quickly moved into its next phase: recovery of the terrapin population. Coleman, Wibbels and Marion identified strategies for decreasing predation and began field testing terrapin excluder devices (TEDs) on crab traps to protect the turtle population from becoming ensnared in the traps.

Coleman said increasing the turtle population is as important as reducing habitat threats. In the UAB hatchery, Diamondback Terrapin eggs are hatched in incubators, and the turtles are returned to Dauphin Island when they are large enough to avoid fend against birds and raccoons.



This is a Diamondback terrapin newborn inside the UAB campus hatchery.
Credit: Bob Shepard/UAB

"Their natural instincts are amazing," Wibbels said. "When we return the young terrapins to the Cedar Point marsh area, they immediately head to marshland and don't give the Gulf Coast a second look - it's just an amazing example of how their instincts are hard-wired for their particular habitat."

Heading into the early 1900s, Diamondback terrapin stew was considered a top U.S. delicacy. In 1881, the New York Times reported that demand for the stew was met by a Diamondback Terrapin farm on Dauphin Island's Cedar Point. The farm was reported to be the second largest in the country for raising the Diamondback Terrapin with as many as 25,000 terrapins calling the spot home at the operation's peak. Around this time, the farm annually shipped 10,000 terrapin from Alabama to the U.S. Northeast, selling a dozen terrapin for as much as \$90.

Famed biologist Archie Carr named the Diamondback terrapin the most expensive turtle in the world, pound for pound, in his 1952 Handbook of [Turtles](#).

"To tell you how historically important the species was to the state's economy, the state legislature actually enacted a terrapin sales tax in 1923 to generate revenue," Wibbels said. "This is why we've acted so decisively; we did not want to see a part of Alabama history lost."

Source: University of Alabama at Birmingham ([news](#) : [web](#))

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