Endangered Species Hatches for First Time in 4 Years at White Oak

By Michael Stone

A northern helmeted curassow chick hatched on July 23 at White Oak Conservation, marking the first time the endangered species has produced offspring at the center since 2009.

"We've been patiently waiting for the male to do his job, and he finally did it," bird specialist Andrew Schumann said.

The fertile egg was laid about two weeks before it hatched. It was artificially incubated in a temperature-controlled setting and closely monitored to increase the chances of the chick hatching. During that time, the mom tended to a "dummy" egg, which was replaced with the real one right before it hatched.

Helmeted chicks emerge from the shell "precocial," meaning they're already fairly developed. But the mom will still tend to her child in some ways, like with feeding, Schumann said.

The chick hatched at 108 grams. As newborns, the species loses weight for the first few days but soon begins to increase its body mass by about 5 percent daily. Such rapid growth is common among bird species so they'll be self-sufficient in the wild quicker, and animal specialists at White Oak often remark at how noticeably fast chick grow.

At roughly 50, the captive U.S. population of helmeted curassows is fairly healthy, Schumann said, but having this chick hatch is nonetheless "exciting because it's still an endangered species."

Only two helmeted chicks have ever hatched at White Oak—both in 2009 from the same mom as this year's chick.

The two chicks from 2009 were fathered by an older, more experienced male who passed away from old age; the current male arrived from the Houston Zoo in 2011 at only a couple years old.

Adolescent male helmeted curassows haven't yet learned how to court a female and can often be overly aggressive, Schumann said.

"Young males are just super ferocious," he said. "They basically don't know what they're doing yet, and sometimes if you put them with a female too early, they won't be able to reproduce because he's not even sexually mature."

The males of the other two curassow species at White Oak—the wattled and blue-billed—will chase females in a courtship posture. But the helmeted lacks such abilities and only performs mating calls.

"A lot of it is governed by instinct," Schumann said, "but as far as interacting with a female to woo her, I think a lot of that is practice. It just takes a while."

White Oak's male was partnered with the female this year through "slow introductions" while still being kept separate most of the time, Schumann said. After the chick was born, they were separated again to avoid the risk of the male accidentally hurting the chick.

Their first three clutches were infertile, so it's not likely that they bred until the time that finally resulted in a fertile egg.

The helmeted curassow (*Pauxi pauxi*) is found mainly in the forested mountains of Venezuela and Colombia. The wild population suffers from hunting, fragmentation, and habitat loss, and is believed to have fallen below 2,500 in 2007.

"We're doing our best to contribute more to the helmeted curassows," White Oak Conservation Director Steve Shurter said. "Every animal life is important, but when a species is endangered, that importance is multiplied."

More Bird Offspring at White Oak

Six bird eggs laid at White Oak have already hatched in 2013—all coming from the critically endangered Mississippi sandhill crane (*Grus canadensis pulla*). Two of the chicks hatched and still live with their parents at White Oak, while the other four were given as eggs to the Audubon Institute's Species Survival Center in Louisiana.

White Oak and Audubon partner to breed the species for annual releases into the Mississippi Sandhill Crane Wildlife Refuge in Gautier, Mississippi, where the remaining wild population of about 110 lives and is protected.

White Oak is also hopeful that eggs laid by its female double-wattled cassowary (*Casuarius casuarius*) are fertile. But establishing whether a cassowary egg has a chick growing inside isn't an exact science, Schumann said.

"It's very unpredictable," he said.

Classified as Vulnerable, cassowaries are large, flightless birds native to Australia and Papua New Guinea. Because they are naturally aggressive, the male and female at White Oak are put together only during mating season.

When eggs are laid during this time, keepers assume they're fertile and care for them as such. But it's not completely evident at first.

If the egg is fertile, it will get darker over time, Schumann said. But the main key in being able to distinguish fertility is 35 days after the egg is laid. It's then that a radiograph can be performed to see if bones are growing inside.

"If it's fertile, we will continue incubating it and then we'll hatch it out," Schumann said. "If it's not fertile, then we'll do a necropsy," which includes opening the egg to look for what went wrong.

In cassowaries, the male incubates the egg and raises the chick, so developed eggs are returned to him. Since the female doesn't tend to the egg, the chick must hatch under the male for him to recognize that it's his, Schumann said. He noted the difference from Mississippi sandhill cranes, which rotate incubation between the male and female and assume the new chick in their enclosure hatched under the other parent.

"With the sandhill cranes, we can give them a chick with an eggshell and they basically say, 'Oh, it hatched!'" Schumann said.

White Oak has seen much success in cassowary breeding, with 25 chicks produced by the same female that has been at the center since 1989. The current male has been at White Oak since 1997.

More information on White Oak and its wildlife programs is available at WhiteOakWildlife.org or on the "White Oak Conservation" Facebook page.