Scientists discover eggs of one of world's most endangered turtles

12 April 2017

Credit: Wildlife Conservation Society

A team of Wildlife Conservation Society (WCS)/Turtle Survival Alliance (TSA) scientists working in Myanmar have reported the successful recovery of 44 fertile eggs of the critically endangered Burmese roofed turtle (Batagur trivittata) – one of the world's most endangered turtles with less than five females remaining in the wild.

A combination of overharvesting of eggs, incidental loss in fishing gear, and habitat loss due to gold mining had pushed the species to the brink of extinction. But ongoing conservation work offers a glimmer of hope for the imperiled turtle.

For the past 11 years, WCS scientists have monitored nesting sites awaiting females to emerge from the Chindwin River to dig nests on sand bars. This year, three clutches were found. Two of the clutches contained viable eggs. A third clutch, located in an area far upstream where scientists expect no males exist, contained no viable eggs. Another clutch of four viable eggs was found last December.

All told, 44 viable eggs have been recovered and are now in a protected incubation site where they receive 24 hour monitoring. The eggs are expected to hatch in early June. The hatchlings will be immediately transported to another facility and maintained in large pools for the next four or five years. Once the turtles are at a size thought safe from predation, they will be released back into the river.

Male in breeding colors. Credit: Kalyar Platt

WCS scientists say that the number of viable eggs recovered is an improvement over the past few years. In 2016, only a single viable clutch was found. No viable eggs were produced in 2015; and in 2014, just a single viable egg was deposited.

Young male turtles released into the wild in 2015 are believed to be responsible for inseminating the wild females. Scientists will conduct DNA tests on the hatchlings. If paternity can be traced to the released males, it would mark a major milestone in the conservation of the species, and Asian river

turtles in general. The captive population has grown to over 600 juveniles of all sizes, and conservationists plan to continue to release animals back into the wild.

Said Steven Platt, Regional Herpetologist for WCS's Myanmar Program: "Every year we hold our breath until the females emerge from the river and lay their eggs. We were delighted to collect so many viable eggs this year, but we still have a long way to go before we have a secure wild population of these turtles in the Chindwin River. Although not yet a true 'success story' in the sense that we have recovered the species, had WCS and TSA not intervened when we did, I have no doubt that Batagur trivittata would have already slipped over the edge of the extinction abyss."

Male in breeding colors. Credit: Kalyar Platt

WCS is working with partners to breed additional Burmese roofed turtles at the Yadanabon Zoo. Last year, WCS and zoo staff modified the turtles' diet to include more protein and constructed an additional sandy nesting area. This spurred the turtles to nest in both nesting area this year. Rather than excavate the clutches and risk damaging the embryos, WCS advised zoo staff to simply leave the eggs in situ to complete incubation. They have constructed small fences around the nesting areas to intercept the hatchlings as they emerge from the nests in June.

Meanwhile, turtles in another breeding facility in Lawkanandar Wildlife Sanctuary are continuing to grow. Scientists expect reproduction to begin within the next year or two. An additional 98 turtles live at a third assurance colony in Htamanthi Wildlife Sanctuary. These turtles are doing well and scientists expect breeding within five years. A forth assurance colony has been established in the Singapore Zoo.

In 2012, WCS announced a strategy that draws on all of the resources and expertise across the institution – from its Zoos and Aquarium, Global Health Program, and Global Conservation Programs – to take direct responsibility for the continued survival of some of the world's most endangered tortoises and freshwater turtles WCS focuses on two key strategies: reducing the number of adults lost and increasing the number of juvenile turtles entering into the population annually.

Steven Platt (left) with field team. Credit: Kalyar Platt

Steven Platt at incubation area. Credit: Kalyar Platt

Provided by Wildlife Conservation Society

APA citation: Scientists discover eggs of one of world's most endangered turtles (2017, April 12) retrieved 7 March 2021 from https://phys.org/news/2017-04-scientists-eggs-world-endangered-turtles.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.