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Solein Carlson-Donohoe

# Raefetus: Procreate or Perish

By Mia Dawson

We college students are getting to the age at which our parents may start asking loaded questions. “So, is there a special someone these days? Anyone new in your life we should know about?” What once may have seemed like an innocent inquiry is now a purposeful probe, a pointed accusation. Sure, you’re doing well in environmental systems modeling, but are you taking the necessary steps toward one day creating a brand new human life that will bring meaning to your days and joy to the hearts of its loving, devoted grandparents?

If you are ever feeling unwanted pressure to reproduce, I invite you to consider the plight of a very singular captive turtle at the Suzhou Zoo in China. At least 80 years old, she is the last known female of the species *Raefetus swinhoei*. Commonly known as the Yangtze giant softshell, she has a worldwide fleet of herpetologists -- or zoologists interested in amphibians and reptiles -- eagerly watching and waiting for her to procreate.

For this large, quiet, and rather shapeless animal, the attention is altogether new. The Changsa Zoo bought her from a traveling circus half a century ago, and she had spent many years there, unidentified, largely unno-

ticed, and alone in a man-made pond. When the U.S.-based Wildlife Conservation Society identified her as a *Raefetus* in 2008, the herpetologist community was overjoyed. Previously, herpetologists had only known of three living specimens, all of which were males – two wild and one captive. One resided in a lake east of Hanoi on private property. Another, living in Lake Hoan Kiem in Hanoi, was a hero of local folklore. The captive male *Raefetus* was a 100-year-old resident of the Suzhou Zoo in China.

Clearly, the discovery of a female was a game-changer. In an international collaboration, Chinese and American herpetologists decided that the female should be transported 600 miles to unite her with the captive male. Turtle biologist Peter Pritchard was one of the experts involved in the discussion.

“These turtles only get more fertile as they get older,” Pritchard said, “and as long as nothing bad happens, they can live a very, very long time.” So the prospects of mating an 80-year-old female with a 100-year-old male aren’t as bleak as they sound. However, neither animal had seen another of its own kind in decades, and nobody was sure how the two would react to one another.

But, undaunted by their inexperience,

the two turtles began to copulate almost immediately, and they have continued to do so since they were brought together in 2008. The female has laid several clutches of over 100 eggs. So far, however, none of them have hatched. Many of the eggs have had weak or cracked shells, perhaps resulting from a calcium-deficient diet in her years at the Changsa zoo. Now, she is being given calcium supplement, and being fed delicacies such as whole fish, crayfish, gutted quail, and chicken with bones.

Even if the female does produce offspring, the species is still in grave danger. After such a severe bottleneck event, any new population of *Raefetus swinhoei* will have virtually no genetic variation. Dr. Pritchard is hopeful, however, pointing to species such as the cheetah, *Acinonyx jubatus*, which survives despite its species genetic homogeneity. Furthermore, he thinks there is a chance that another female lurks somewhere in the lakes or rivers of Vietnam. Fishermen have told him of *Raefetus swinhoei* they’ve caught and killed as recently as five years ago, giving him hope that there are more in the wild. But for now, all hope rides on the back of one ancient and placid female; her ability to procreate could be a matter of life or death for her species. ●