

Mexican 'water monster' salamander battles extinction

September 11 2014, by Yemeli Ortega

Dubbed the "water monster" by the Aztecs, the axolotl salamander is battling extinction in the remnants of Mexico City's ancient lake, alarming scientists hoping mankind learns from its ability to regenerate organs.

The creature, whose colors vary from milky white to black and olive green, has survived in the Xochimilco canals since most of the lake was drained over the centuries following the Spanish conquest.

But the weight of the sprawling megacity of 20 million is taking its toll on a species that can also resist cancer and reproduce complex brain tissue.

Researchers have studied the salamander's cells in the hopes of grasping how to regenerate organs and body parts of people suffering from malformations or accidents.

While the female can lay 1,500 eggs four times a year, only 0.3 axolotls on average are found every square kilometer compared to 1,000 in 1996, according to a study by the National Autonomous University of Mexico (UNAM).

So now UNAM scientists, under the auspices of Britain's Kent University, are striving to keep the legendary animal alive.

The scientists are trying to convince local farmers to stop using harmful

pesticides and avoid growing non-native plants near the canals in the south of the city. In return, their vegetables would get an eco-friendly label that makes them more valuable.

Around 10 farmers are adopting the system, which includes making the canals cleaner thanks to aquatic plants.

So far, about 100 [salamanders](#) have been born in three experimental canals, said Horacio Mena, the project's coordinator. Salamanders are also breeding in a lab.

But the locations of the breeding grounds have been kept secret to prevent the theft and sale of the creatures as pets or for dubious medicinal purposes on the black market.

'Mexican walking fish'

Just 30 centimeters (12 inches) long, the "Mexican walking fish" is a carnivore with six pink and feathery external gills that remains in larval form throughout its life.

With eyes that never shut due to a lack of lids, it also never morphs into adult form even though it can live up to 20 years in captivity and six years in the wild.

According to Aztec mythology, the salamander is the last reincarnation of the god of fire, Xolotl, who took that form after refusing to sacrifice himself with other deities to launch the age of the Fifth Sun, the era of the creation of mankind.

But nowadays it is becoming harder to find because the water it thrives in is contaminated by urbanization, pesticides and trash left behind by legions of visitors lounging in the canal's colorful rafts, biologist Cristina

Ayala told AFP.

It has also had to contend with thousands of carps the government introduced in the canals over the years that have a big appetite for axolotl eggs and larvae.

Still, some experts contend that efforts to ensure the salamander's survival appear to be paying off.

"It is growing in many labs around the world and aquariums," said Roger Bartra, a renowned anthropologist.

"While it is preserved artificially, it lives a more modern, cosmopolitan and transnational life," he quipped.

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