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# MEXICAN AXOLOTL

## *Ambystoma mexicanum*

Also known as the Xochimilco axolotl, this amphibian is endemic to the Mexico basin and is in critical danger of extinction. Its name comes from Nahuatl: atl - water and xolotl - aquatic monster. According to Aztec mythology, the axolotl is connected to the god Xólotl, the brother of Quetzalcóatl, who fled to the depths of the lake to avoid sacrifice by taking on the form of the axolotl.

**ENDEMIC SPECIES**

**FICHA TÉCNICA**

**Kingdom:** Animalia  
**Phylum:** Chordata  
**Class:** Amphibia  
**Order:** Urodela  
**Family:** Ambystomatidae  
**Genus:** *Ambystoma*  
**Species:** *A. mexicanum*



**Conservation status:**  
• NOM 059 – P (Endangered)  
• IUCN – CR (Critically endangered)

**17 SPECIES**  
of axolotls in Mexico

**Distribution:** Network of freshwater channels in Xochimilco, Mexico.

**Diet:** Carnivore; feeds on small fish, alevin and acociles (an endemic group of crayfish).

**Predators:** Invasive species like carp and tilapia, as well as small mammals and birds.

**Reproduction:** Annual, during winter (January-March) when the water temperature drops.

**CONSERVATION TIMELINE**

- 1863:** The first individuals were collected for the Natural History Museum in Paris.
- 1950-1970:** Urban development in Mexico City tripled during this period, causing the loss of natural habitat.
- 1970:** The Mexican government introduced carp and tilapia into Xochimilco to create jobs in freshwater fishing.
- 1987:** Xochimilco is declared a World Heritage Site by UNESCO.
- 2000:** The community-led program "Umbral Axochiatl" is established to preserve Xochimilco's local culture and ecosystem.
- 2002:** The Biology Institute's Ecological Restoration Laboratory is established, both from UNAM.
- 2018:** The Axolotl's genome is sequenced, the largest for an animal species.

**ANATOMY**  
Females tend to be bigger and more robust.

**25 cm**  
Average size

Average weight in males:  
**125-130 gr**

Average weight in females:  
**170-180 gr**

Average lifespan:  
**8-10 years**

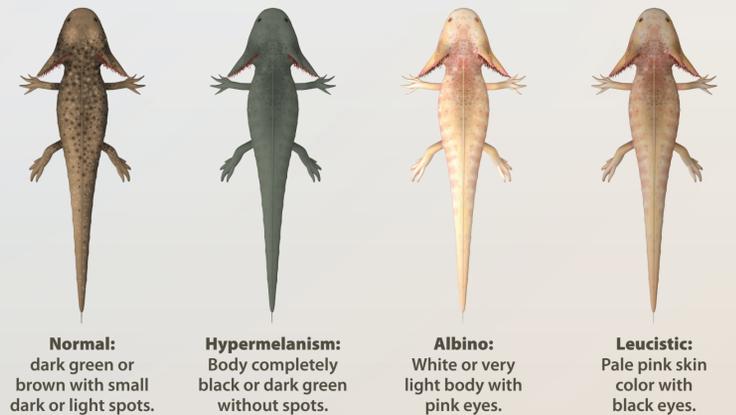
**DISTRIBUTION**

The Mexican axolotl was originally distributed throughout the entire Texcoco Valley, which included Chalco and Tlaxcala. Today, it only inhabits the Xochimilco channels.



**40 km²**  
estimated area of its remaining natural habitat.

**COLOR**  
4 color patters depending on genetic mutations:



**Neoteny:**  
It retains characteristics of the juvenile or larval stage throughout its entire life.

**Regenerative capacity:**  
It can regenerate limbs, skin, organs, and even parts of the brain.

Wide head compared to the rest of the body

Small eyes without eyelids

Nostrils on the front of the head

**600-1,500**  
Number of eggs a female can lay.

**15 days**  
Duration of incubation period.

Skeleton is made up of calcified cartilage

The mouth stretches entire width of face

Vestigial teeth, but the feed through suction

**BEHAVIOR**

- Usually solitary but interacts with others to reproduce.
- Completely aquatic.
- Prefers areas with slow currents, cloudy water and abundant vegetation.

**16-18°C**  
Preferred water temperature.

**50 vertebrae**  
approximately in total

Dorsal fin extends to the end of the tail

Tail is long and laterally compressed (**30-35 vertebrae**)

Back legs with **5 fingers** without nails

Front paws with **4 fingers** without nails

**ECOLOGICAL IMPORTANCE**

- Controls its preys' populations.
- It is an indicator of good water quality.

**THREATS**

- POLLUTION:** Fertilizers and untreated water are discharged into the channels.
- LOSS OF HABITAT:** Urbanization and changes in land use have resulted in loss of wetland cover.
- INVASIVE SPECIES:** Introduced species compete with native species for resources and feed on axolotls during their larval stage.

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