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To download photos of the froglet, visit the National Zoo's [Flickr](#) page.



Newly Described Poison Dart Frog Hatched for the First Time in Captivity

Smithsonian Conservation Biology Institute (SCBI) and Smithsonian Tropical Research Institute (STRI) scientists working as part of the Panama Amphibian Rescue and Conservation Project hatched the first *Andinobates geminisae* froglet born in captivity. The tiny dart frog species only grows to 14 millimeters and was first collected and described last year from a small area in central Panama. Collaborating scientists collected two adults and shared them with the PARC project to determine the potential for maintaining the species in captivity as an insurance population.

“There is a real art to learning about the natural history of an animal and finding the right set of environmental cues to stimulate successful captive breeding,” said Brian Gratwicke, amphibian conservation biologist at SCBI and director of the Panama Amphibian Rescue and Conservation Project. “Not all amphibians are easy to breed in captivity, so when we do breed a species for the first time in captivity it is a real milestone for our project and a cause for celebration.”

Scientists simulated breeding conditions for the adult frogs in a small tank. The frogs laid an egg on a bromeliad leaf, which scientists transferred to a moist petri dish. After 14 days, the tadpole hatched. Scientists believe adult *A. geminisae* frogs may provide their eggs and tadpoles with parental care, which is not uncommon for dart frogs, but they have not been able to

determine if that is the case. In the wild, one of the parents likely transports the tadpole on his or her back to a little pool of water, usually inside a tree or on a bromeliad leaf.

After the tadpole hatched, scientists moved it from the petri dish to a small cup of water, mimicking the small pools available in nature. On a diet of fish food, the tadpole successfully metamorphosed into a froglet after 75 days and is now the size of a mature adult.

Panama Amphibian Rescue and Conservation Project scientists are unsure if *A. geminisae* is susceptible to the amphibian-killing chytrid fungus. However, since it is only found in a small area of Panama and is dependent on primary rain forests, which are under pressure from agricultural conversion, they have identified it as a conservation-priority species.

“This species seems to have a clumped distribution within the small area where it has been found,” said Roberto Ibáñez, staff scientist at the Smithsonian in Panama and in-country director of the PARC project. “Apparently, their populations are associated with certain ridges bordering stream valleys. This could complicate its conservation, requiring several of these sites to be included within protected areas.”

The Panama Amphibian Rescue and Conservation Project breeds endangered species of frogs in Gamboa, Panama and El Valle, Panama. The Panama Amphibian Rescue and Conservation Project is a partnership between the Houston Zoo, Cheyenne Mountain Zoo, New England Zoo, SCBI and STRI. This study was supported by Minera Panama and Biodiversity Consultant Group.

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Captions: The first *Andinobates geminisae* froglet to hatch in captivity.
Photos: Jorge Guerrel/Smithsonian Tropical Research Institute