Naming rights for five new snail-sucking snake species auctioned to save forests in Ecuador

June 14 2018

The newly described species *Dipsas bobridgelyi* trying to suck a snail out of its shell. Credit: Matthijs Hollanders

Five new species of eye-catching snakes with curious eating habits were

found to dwell in forests in Ecuador. Their unusual taste for snails—a rather unusual diet among typical snakes—has even sculpted their jaws in such a way that they can suck the viscous slimy body of a snail right out of its shell.

With four out of the five already deemed at risk of extinction, the international research team decided to auction their naming rights and use the money to purchase and save a previously unprotected 72 ha (178 acre) plot of land where some of these species live.

In its turn, Fundación Jocotoco is to add the purchased plot to the Buenaventura reserve, thereby expanding the only protected area where two of the new snakes are found, and prevent these endangered snake species from going extinct.

The new snail-sucking snakes are described by Alejandro Arteaga, an Ecuadorian-Venezuelan Ph.D. student at the American Museum of Natural History and scientific director of Tropical Herping and his team. Their study is published in the open access journal *ZooKeys*.

Three of the five species were discovered during a series of expeditions to three rainforests in Ecuador between 2013 and 2017, conducted by Alejandro and Dr. Alex Pyron, The George Washington University and National Museum of Natural History, USA.

In another habitat type, the dry forest, Ecuadorian scientists Dr. Omar Torres-Carvajal, Pontificia Universidad Católica del Ecuador (PUCE), David Salazar-Valenzuela, Universidad Tecnológica Indoamérica, Diego Cisneros-Heredia, Universidad San Francisco de Quito, Juan Carlos Sánchez, Universidad del Azuay, Mario Yánez-Muñoz, Instituto Nacional de Biodiversidad (INABIO), and Peruvian scientist Pablo Venegas, CORBIDI, noted the existence of the other two new species.

The new species *Sibon bevridgelyi* is arguably the prettiest of the lot, according to the research team. Credit: Alejandro Arteaga

In order to confirm these five snakes as new species, the team of researchers, particularly Drs. Konrad Mebert, Universidade Estadual de Santa Cruz, Nicolás Peñafiel, Universidad Tecnológica Indoamérica, Gabriela Aguiar, Tropical Herping, and Timothy Colston, The George Washington University and National Museum of Natural History, USA, counted scales and gathered measurements from more than 200 museum specimens, and extracted DNA from nearly 100 individual snakes.

Having made the highest bid at the auction, the Rainforest Trust (RT) and Bob Ridgely got to name three of the five new snakes.

Thus, the species name *Dipsas georgejetti* was chosen to honor George Jett, who supported the inception of Fundación Jocotoco's reserves in Ecuador; while *Dipsas bobridgelyi* is a tribute to Dr. Robert "Bob" S. Ridgely himself—a leading ornithologist and distinguished conservationist, who helped the establishment of the Buenaventura reserve. In his turn, Bob, who was at the auction, chose the name *Sibon bevridgelyi* (Bev Ridgely's Snail-Eater) to honor his father.

The remaining two snail-eating species, *Dipsas oswaldobaezi* and *Dipsas klebbai*, were named after Dr. Oswaldo Báez and Casey Klebba, respectively, in recognition for their passion for Ecuador's biodiversity and conservation.

"We had to let people know that these cool snakes exist," Alejandro said, "and that these species might soon stop to exist, and we need people's help to protect the snake's habitat."

The species *Dipsas klebbai* is the only one of the newly described not currently threatened with extinction. Credit: Alejandro Arteaga

"Several companies let you name a star after a loved one," he noted, "but, generally, such names have no formal validity. Naming an entire species after someone you love or admire is different. With few exceptions, this is the name that both the general public and the whole scientific community will use. So, why not let people choose the name of a species in exchange for a donation that protects its habitat?"

The act of naming species is essential in raising awareness about the existence of a species and its risk of extinction, but it also provides an opportunity to recognize and honor the work of the people and

institutions fighting to protect the species.

"Naming species is at the core of biology", says Dr. Juan M. Guayasamin, co-author of the study and professor at Universidad San Francisco in Quito. "Not a single study is really complete if it is not attached to the name of a species, and most species that share the planet with us are not described."

"Everybody knows elephants and orangutans," says Dr. Martin Schaefer of Fundación Jocotoco, "but some reptiles and amphibians are even more threatened. Yet, we still lack even basic information needed to protect them better. This is why the work by scientists is so important; it provides the necessary information to guide our conservation decisions."

"Through photography or by joining a scientific expedition, the general public can learn more about hidden biodiversity and how threatened it is," says Lucas Bustamante of Tropical Herping. "This is a model to obtain support for research and conservation while recruiting more environmental ambassadors."

More information: Arteaga A, Salazar-Valenzuela D, Mebert K, Peñafiel N, Aguiar G, Sánchez-Nivicela JC, Pyron RA, Colston TJ, Cisneros-Heredia DF, Yánez-Muñoz MH, Venegas PJ, Guayasamin JM, Torres-Carvajal O (2018) Systematics of South American snail eating snakes (Serpentes, Dipsadini), with the description of five new species from Ecuador and Peru. *ZooKeys* 766: 79-147. doi.org/10.3897/zookeys.766.24523

Provided by Pensoft Publishers

Citation: Naming rights for five new snail-sucking snake species auctioned to save forests in