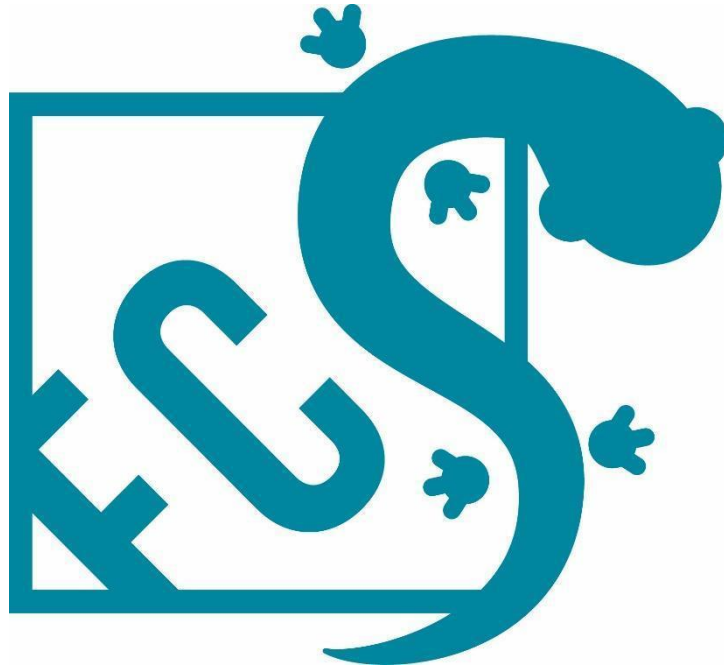


FCSal Funding Update



Grant Recipient

Jose Luis Pérez-González - Fundación Atelopus

Date Funding Awarded

28/02/2023

Date of Update

6/09/2023

Título del proyecto:	Ensuring the endemic salamander conservation (<i>Bolitoglossa savagei</i>) through community-based conservation actions in Sierra Nevada de Santa Marta (SNSM) Key Biodiversity Area, Colombia.
Principal Investigator (PI) name: Job title: Institution: Address: Phone: Fax number: Email address:	Jose Luis Pérez González Principal Investigator Fundación Atelopus
Amount of Grant Award:	\$ 5000
Collaborator name: Job title: Institution: Address: Phone: Fax number: Email address:	Jose Daniel Barros Castañeda Environmental Education Coordinator Universidad del Magdalena
Collaborator name: Job title: Institution: Address: Phone: Fax number: Email address:	Aldair Alberto Barros Granados Communications Coordinator Fundación Atelopus

Project description

Our project provides a unique case where we will use the only endemic and threatened species of salamander in the Sierra Nevada de Santa Marta (SNSM) to unite visions and promote effective actions and strategies for its conservation in conjunction with local communities. We will also provide relevant information to build the baseline population and epidemiological monitoring for the species, whose data will provide scientific tools for the construction of Colombia's national amphibian plan, as well as data for the improvement and management of protected areas by environmental authorities.

Progress Report

To date, we have conducted two field trips, finding a total of 32 individuals, corresponding to 13 juveniles and 19 adults, and during the month of July the abundance of *Bolitoglossa savagei* was higher than in May (Fig 1). It has been observed that *B. savagei* is more abundant in native wooded areas and at a considerable distance from streams, probably avoiding the wind observed in these places. Preferring places such as bromeliads that can provide shelter from dehydration, as well as perching in shrubs and grasses. In the pine forest and pasture area, it is more difficult to find individuals due to the homogeneity and lack of variety of microhabitats used by the species. The smallest individual was a juvenile 38.54 mm weighing 1.12 gr and the largest 152.23 mm weighing 9.75 gr; this observation is very important for our population monitoring, because we found almost the entire life stage of the species (Appendix 1). In addition, we have performed 20 epidemiological samples of Bd, 10 per field trip, which are currently in the process of analysis.

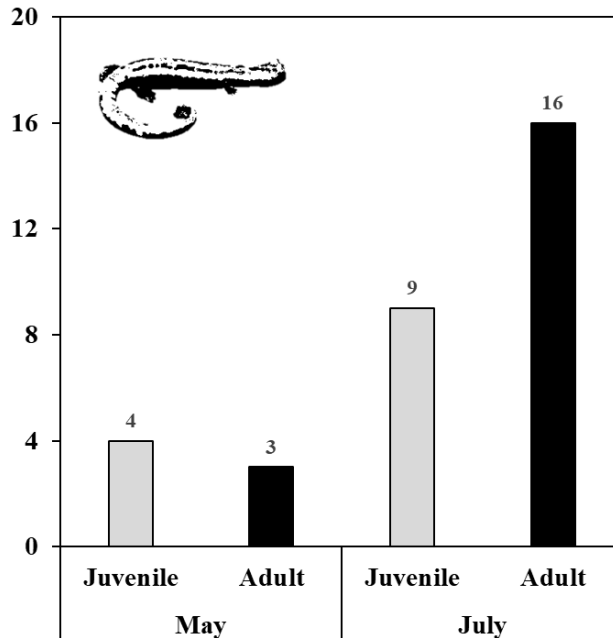


Figure 1. Abundance of juveniles and adults of *B. savagei* during the samplings carried out so far.

Celebration “Salamander Saturday” and Education workshops with communities

One of the objectives of us as an NGO is to involve local communities and make visible the problems of threatened endemic amphibians of the Sierra Nevada de Santa Marta. Therefore, taking into account the initiative by FCSal in the celebration of Salamander Saturday, we conducted our first educational workshop with 24 children from the community in the village of Minca, SNSM (Appendix 2). A space that allowed us to observe the children's perceptions about the mountain salamander, a playful talk was given about the generalities and importance of *B. savagei* in our environment. In addition, before the talk, a semi-structured survey was executed and the results were interesting, where 71% of the children have not observed the Salamander Serrana (Fig 2), but 67% know that the salamander is endemic to the SNSM (Fig 3), however, only 30% are aware that it is under threat. When asked questions about the environment, such as whether water was important for the salamander, 67% answered yes, unfortunately there is uncertainty as to whether this resource is of good quality or clean, 70% answered maybe and this is probably due to threats such as: poor waste management (54%), motorcycle washers (13%) or both of these activities (33%) (Fig 4). These responses

provide us with a local perspective of the possible threats to *B. savagei* in its habitat.

HAVE YOU EVER SEEN A SALAMANDER?

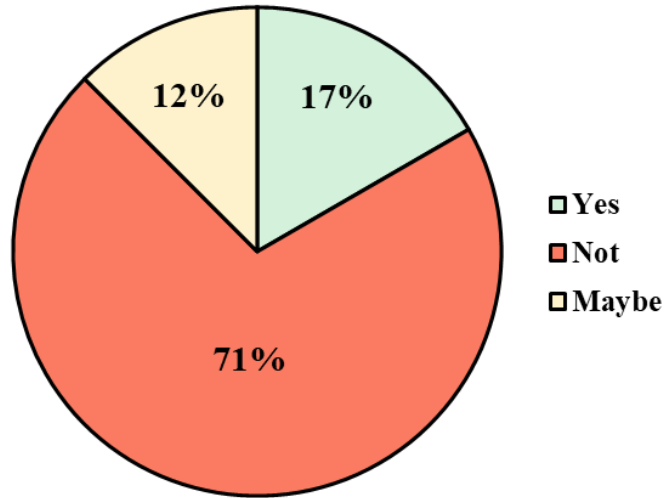


Figure 2. Introductory question about the presence of the Serrano Salamander in the locality.

DID YOU KNOW THAT THIS SALAMANDER IS FOUND ONLY IN THE SIERRA NEVADA DE SANTA MARTA?

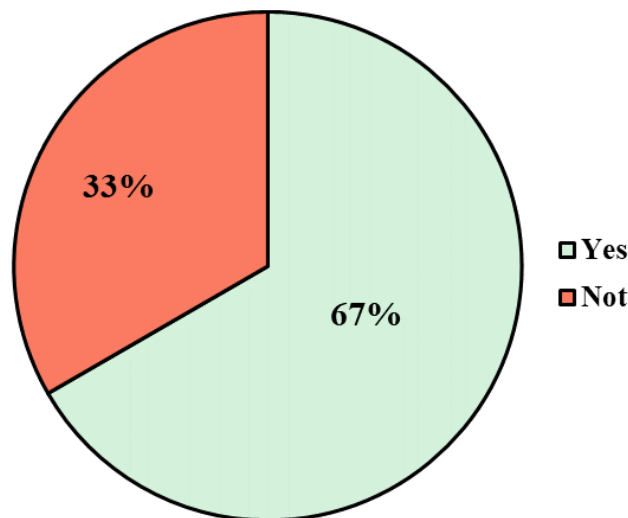


Figure 3. Question about the endangered status of the Saw-toothed Salamander.

WHY DO YOU THINK THE WATER IS DIRTY?

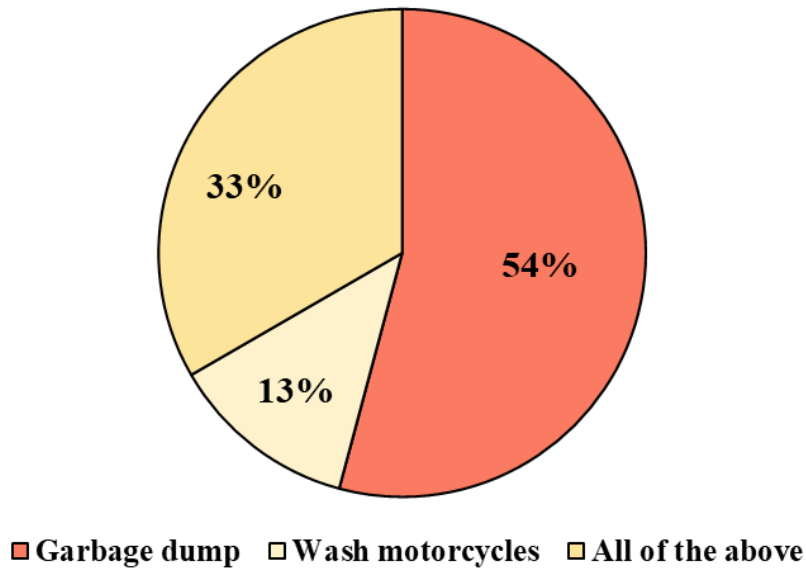


Figure 4. Question regarding water quality in the Minca sector, Sierra Nevada de Santa Marta.

Education workshops with local schools to raise awareness about the importance of protecting the habitat of *Bolitoglossa savagei*

Our second workshop was held with students of the Agroecological Educational Institution "Sagrado Corazón de Jesús" in the locality of Vista Nieve, Sierra Nevada de Santa Marta. In this opportunity, to make visible the presence of *B. savagei* for this locality, in addition to aspects related to its biology, the importance of water for its development and conservation of the native forest. The active participation of the local communities has been fundamental. Undoubtedly, they have benefited from multiple perspectives during the project because they have developed interest, commitment, sensitivity and empowerment towards biodiversity conservation in general. At the same time, they have also benefited from the community cohesion promoted through active participation in the development of strategies to promote sustainable development and improve the quality of life of their community (Appendix 3).

Budget allocation

Budget category	Item/Import	Amount spent	Remaining funds
Travel and local transportation (including fuel)	Gas, brake fluid and oil change for car. Each rountrip to our sampling sites needs on average 20 gallons of gas	100	100
Lodging/Food	Lodge for 3 team members for 2 sampling seasons (4 days each) / Three meals per day for 3 team members for 3 sampling seasons (4 days each)	820	946
Workshops	workshops, refreshments and transportation in the local school and workshops with community leaders	450	480
Outreach/education activities and materials	Posters, brochures and education materials	170	200
Scientific/ Field equipment and supplies	Waterproof field notebooks Digital Pocket Scale PESOLA Data Logger HOBO 2 Garmin Hand GPS eTrex Touch Lamp Headlight Head Ambidex Disposable Nitrile Gloves. Powdered x 50 Pairs Flagging Tape Plastic Fluorescent	659	0
Equipment/Lab	Crioviales x 500 units	500	0

	1.000 Swaps x 500 units Analysis of the fungus (Bd)		
Boat/engine/truck (include car hire)	auto insurance	350	225
Total		3049	1951

Next steps and future directions

The remaining field trips will continue, increasing the collection of data on the population dynamics of *Bolitoglossa savagei*. Similarly, the epidemiological analysis to determine the presence and prevalence of the fungus, these samples are currently in the process of analysis. In addition, the remaining threat mapping workshops and land use mapping, including the different coverages in the habitat of this endangered salamander.

Appendix 1



Appendix 2



Appendix 3

