



progress report



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August 2020

AMPHIBIAN SURVIVAL ALLIANCE

NEWSLETTER



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World's largest fully aquatic frog faces uncertain future as threats continue to mount

By Lindsay Renick Mayer, *Global Wildlife Conservation*

In July, Global Wildlife Conservation, Amphibian Survival Alliance, Amphibian Ark, and the IUCN SSC Amphibian Specialist Group worked together to get the word out about the plight of the Titicaca Water Frog (*Telmatobius culeus*). Together the organizations called on NGOs and the governments of Bolivia and Peru to continue and even bolster bina-

tional conservation measures for the Titicaca Water Frog to prevent the extinction of one of the world's largest fully aquatic frogs.

A recent assessment by the IUCN has determined that the Titicaca Water Frog is Endangered, rather than Critically endangered, as previously reported. The change in status does not reflect a change in the severity of threats to the species, but instead revises the rate of

population decline over the last 40 years or so to 50-70 percent, putting it in the endangered category under Red List criteria.

“The 2004 listing was precautionary based on the information available at the time,” said Arturo Muñoz, regional co-chair of the Bolivian branch of the Amphibian Specialist Group. “But the reality on the ground is unchanged—or even worse than it was 16 years ago when



the last assessment was conducted. The Titicaca Water Frog continues to experience mass die-offs and could go extinct in our lifetime unless conservationists and the governments of Bolivia and Peru remain vigilant and advance our binational conservation work for the species.”

The frog is found only in Lake Titicaca—South America’s second largest lake—and its adjacent water bodies, which are shared by Peru and Bolivia. Lake Titicaca is a Key

Biodiversity Area, or a site of global importance to the planet’s overall health and the persistence of biodiversity. In addition, the lake is a Ramsar Site of International Importance.

Amphibian conservation experts are now calling on the governments of Bolivia and Peru to continue to implement the actions laid out in a binational plan developed in 2018, which include reducing the illegal trade and sale of the spe-

cies; strengthening the cross-border comprehensive management of the ecosystems where the species lives to mitigate the threats of pollution, invasive species and disease; and increase outreach efforts to local communities about the importance of conserving the Titicaca Water Frog.

Experts are also encouraging the governments to work with local conservationists on undergoing regular, systematic population surveys across the lake to better understand how many frogs still exist, where they live, threats to the largest populations, and the best way to implement conservation measures.

Read the full story in [English](#) and [Spanish](#).



**GLOBAL
WILDLIFE
CONSERVATION**



Herp Conservation Ghana receives award to save the Critically Endangered Intermediate Puddle Frog



By Herp Conservation Ghana

Francis Osei-Gyan from Amphibian Survival Alliance partner Herp Conservation Ghana just got the Future Conservationist Award offered by

the **Conservation Leadership Programme**. Francis and the team will use the grant to save the Critically Endangered Intermediate Puddle Frog (*Phrynobatrachus intermedius*). This is an evolutionarily distinct frog endemic to the Ankasa conservation area, a key biodiversity site in southwestern Ghana. It occurs in a single sub-population and because of this there is growing fear that any stochastic event could wipe out the entire global population. The quality of the frog's habitat is in constant decline. This loss of habitat quality is caused by the illegal extraction of raffia palm from the frog's riparian habitat to feed a growing furniture industry, as well as upstream water pollution by local farmers. Worst, information required to make informed management decisions is non-existent.

This project will reduce threats to the extinction of this species and provide information required for

urgent conservation planning. Specifically, Francis and the team will implement a time-tested behaviour change program in ten communities aimed at reducing illegal logging (raffia) and poisoning of the aquatic system. Also, they will survey ten forest sites, including the Ankasa conservation area and adjoining areas, to determine the species distribution and concurrently collect both landscape and habitat quality predictor variables. Important outcomes of this project include improved habitat conditions; a species conservation action plan; and enhanced understanding of both the distribution and habitat requirements of this Critically Endangered frog.



Cultural association and its role in garnering support for conservation: the case of the Mountain Chicken Frog on Dominica

By Daniel J. Nicholson, Arun Kanagavel, Josh Baron, Stephen Durand, Cassandra Murray and Benjamin Tapley. *Zoological Society of London*

The cultural significance of a species can play an important role in garnering local support for conservation. In a paper recently published in the journal *Reptile and Amphibian Conservation*, we used the Critically Endangered Mountain Chicken Frog (*Leptodactylus fallax*) on Dominica as a case study to understand whether a species' cultural associa-

tion affects local opinion towards its use and conservation. The Mountain Chicken is an emblematic species on Dominica and was once widely consumed as an unofficial national dish, it also appears on the coat of arms and features in local proverbs. We used picture-choice questions to explore the effect of the cultural association with the Mountain Chicken on public preference in comparison with other species in three different contexts; 1) which species people would choose to consume; 2) which amphibian species people would

choose to conserve and 3) which animal people would choose to support conservation efforts for. The Mountain Chicken Frog was the least preferred choice for consumption and the most preferred choice for the amphibian species people would like to conserve. The Mountain Chicken fared poorly when compared with other charismatic flagship species and was the least favoured species. People were more in favour of supporting conservation efforts focused on the Sisserou Parrot (*Amazona imperialis*), the national bird and



© Benjamin Tapley

the Hawksbill Turtle (*Eretmochelys imbricata*). Despite the importance of cultural association when garnering local support, our study revealed that this association can be easily eroded when there is competition from other more accessible, charismatic species. This is important to consider, especially if a species

is highly threatened and there are on-going population declines, in such instances the cultural association is also likely to become threatened. The association a community may have with a species is subject to change; conservation biologists should consider the potential for such associations when initiating

conservation programmes, particularly if the programmes are hinged on the cultural significance attributed to the species.

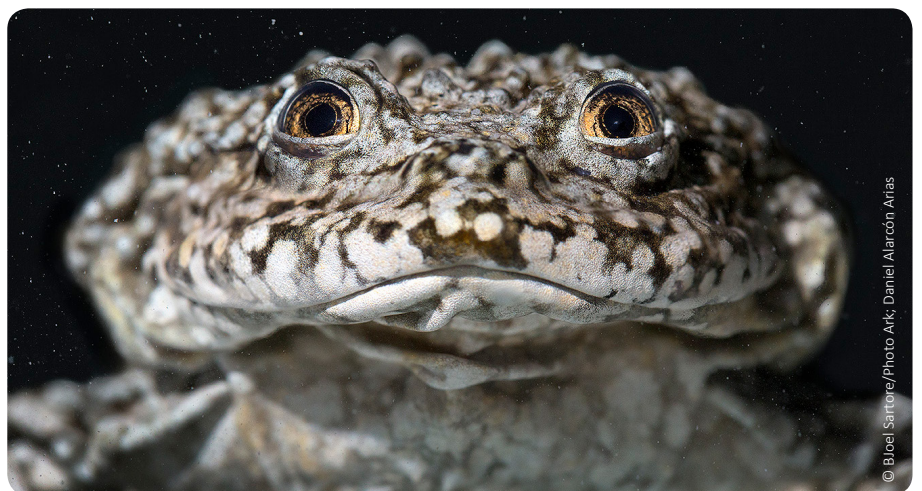
ZSL | **LET'S WORK FOR WILDLIFE**

Together to conserve: Natural History Museum Alcide d'Orbigny has joined the Amphibian Survival Alliance

By Eliana Lizarraga Heredia and Ricardo Céspedes Paz, Museo de Historia Natural Alcide d'Orbigny

This month, the Museo de Historia Natural Alcide d'Orbigny from Cochabamba, Bolivia, celebrates joining the Amphibian Survival Alliance. Under the motto "we take care of life", the museum is convinced that activities related to research, education and conservation of threatened species and ecosystems are a joint task, a philosophy that we share with our partners.

Being an institution dedicated to the conservation of biodiversity in Bolivia for 17 years, the museum has been able to identify that each part of the ecosystem is important.



© B. Joel Sartore/Photo Ark, Daniel Alarcón Arias

At the same time, we recognize that there are groups that are more sensitive to changes in the environment and that are also key points in the food chain, as is the case of amphibians.

With that in mind, and being aware of the critical situation of some amphibians in our country, in 2008 we started the first captive breeding program for the Titicaca Water Frog (*Telmatobius culeus*) and the Valley Water Frog (*Telmatobius hintoni*).



This program was later consolidated as the Centro K'ayra de Investigación y Conservación de Anfibios Amenazados in Bolivia.

The *in situ* and *ex situ* conservation work on the genus *Telmatobius* has allowed the museum to strengthen several lines of action and to expand our work to other species such as the Sehuencas Water Frog (*Telmatobius yuracare*), the Sucre Water Frog (*Telmatobius simonsi*) and the Giant Water Frog (*Telmatobius gigas*). All this effort is made with the vision of reintroducing the species to their natural habitat.

As we mentioned before, this is a joint work between the researchers that make up the museum, the communities where the research is carried out, and the institutions that have joined our efforts to guarantee the conservation of these species. Some partners are Amphibian Ark, IUCN SOS - Save Our Species, Kansas City Zoo, Global Wildlife Conservation, Durrell Wildlife Conservation Trust, The Rufford Foundation, National Geographic Photo Ark. Even though we have made a lot already, there is still much to be done, so it is important to continue working together, now with the Amphibian Survival Alliance. As the saying goes

on in Bolivian coins, "together we are stronger"!



Amphibian Ark awards five conservation grants



By Kevin Johnson, Amphibian Ark

Amphibian Ark (AArk) has offered grants since 2009, and in the past eleven years, we have provided funding totalling just over US\$194,000 to forty-one projects in twenty-one countries. We offer a range of grants, including start-up grants, which provide initial funding to help newly-launched projects get started at the very beginning of their life; start-up grant extensions, which are additional funds, available

to provide continued support for AArk seed or start-up grant projects that have met their stated objectives over the previous year; workshop attendance grants providing partial funding to assist attendance at *ex situ* amphibian conservation-related workshops; and mentorship grants, which support organizations that have previously received an AArk seed or start-up grant, to bring in a designated outside expert to assist with an aspect of their amphibian conservation efforts. Details of all of

our grants, including guidelines and deadlines for lodging applications, can be found on the Conservation Grants page of the AArk web site, www.amphibianark.org/conservation-grants/.

Last year, we changed the application process a little, requiring all potential applicants to lodge a 200-word Project Outline, prior to submitting their full application. The outline is required to summarize the proposed outcomes of the project,

provide brief details on the species, its conservation status, and other funding sources. All project outlines are reviewed by our Grant Review Committee, with the principal investigators of approved outlines then invited to submit a full application. Feedback received from the Review Committee is provided to the applicants, which can then be considered when full applications are being written. We received seventeen project outlines this year, with thirteen of them resulting in full applications. Overall, the quality of the applications received this year was much higher than in previous years – no doubt the result of initial feedback and suggestions being factored into the applications.

Of the thirteen applications received, we are excited to announce that we are able to fund three start-up projects (US\$5,000 each, based

in Ghana, India and Venezuela), US\$4,000 for a start-up extension grant based in Argentina, and US\$1,500 for a mentorship grant for capacity-building in Uganda. The successful projects this year are:

- *Ex situ* conservation of a Critically Endangered frog (*Conraua derooi*) in Ghana. Caleb Ofori-Boateng and Michael Gyapong Akraasi, Herp Conservation Ghana (Herp-Ghana); and Hamdia Mahama Wumbeidow, Forestry Research Institute of Ghana (FORIG)
- Developing *ex situ* facilities for the conservation of the Indian Caecilian *Gegeneophis tejaswini*. Dr Ramachandran Kotharambath, Central University of Kerala, India
- Merida's Harlequin Frog is back after three decades! A proposal to rescue the species *Atelopus*

oxyrhynchus. Enrique La Marca, Rescue of Endangered Venezuelan Amphibians (REVA) program of the BIOGEOS Foundation, Venezuela

- Rescuing the southernmost Marsupial frog species (*Gastrotheca gracilis*) in Argentina. Dr. Mauricio Sebastián Akmentins, INECON, UNJu-CONICET, Argentina
- Capacity Building of Uganda's in-country *ex situ* husbandry and captive amphibian breeding expertise. James Watuwa and Dr. James Musinguzi, Uganda Wildlife Conservation Education Centre, Uganda



Championing amphibian conservation in Uganda

By James Watuwa, Elgon Wildlife Conservation Organization

Amphibians are the most threatened vertebrate taxon on Earth, dealing with massive population declines due to habitat loss, introduced species, and emerging infectious diseases among others. Unfortunately, studies have shown that the global distribution of threats to amphibians strongly overlap with regions of highest amphibian diversity. In Uganda, only basic amphibian conservation efforts have been conducted so far.

In this context, [Elgon Wildlife Conservation Organization](#) (EWCO) is Uganda's first nonprofit organization dedicated exclusively to amphibian conservation. EWCO is working to promote conservation of endangered amphibians through research, conservation education, habitat restoration, advocacy and community engagement, including provi-

sion of alternative livelihoods to reduce pressure on habitat resource use. Our projects combine basic research, awareness raising, citizen science, and conservation activities.

Education

EWCO recognizes the importance of public education and communication as an integral part of conservation outreach, with the ultimate goal of changing attitudes towards conservation, resulting in pro-conservation behavior. With this in mind, we are currently working with Dr. Leida Dos Santos, co-chair of the Communication & Education Working Group at the IUCN SSC Amphibian Specialist Group, to develop the first Amphibian Communication and Education Strategy for Uganda.

In this sense, EWCO has also recently partnered with the Makerere University and Josh's Frogs, from whom we received a small grant, to facilitate a presentation about



amphibian conservation awareness for students. This will help us to develop education and communication packages about amphibian conservation. These activities will be articulated around a student poster contest, where prizes will be awarded, to call the attention of students to amphibian conservation issues.

Citizen Science

Through our EWCO Citizen Science [HerpMapper Uganda](#) project,

we seek to contribute to protected areas management by gathering and updating information to their databases. The project uses an online platform, accessible through a phone application, to gather data on amphibians and reptiles. EWCO is using HerpMapper to generate records of observations of herps (frogs, toads, snakes, lizards, tortoises) by the general public, which can submit their observations or images through the application. The collected data is then made available to all HerpMapper partners and groups, who can use the recorded observations to raise awareness about conservation, research and education purposes. With HerpMapper Uganda, we aim to use technology to map amphibian and reptile distributions through time in Uganda, by collect-

ing amphibian and reptile observations submitted through photos taken from anywhere in Uganda. Our observations are already making valuable contributions to the knowledge of amphibians and reptiles in our country.

Ex situ conservation

Understanding the many facets of amphibian biology is paramount in establishing a successful Conservation Breeding Program. Dr. James Watuwa, EWCO founder and one of ASA's Future Leaders of Amphibian Conservation, has recently received an Amphibian Ark Conservation (mentorship Grant) for the project "Capacity building of Uganda's in-country *ex situ* husbandry and captive amphibian breeding expertise". This project aims to establish

the first *ex situ* supporting program for Uganda's amphibian species. It will be housed at the Uganda Wildlife Conservation Education Centre (UWEC), where Dr. James Watuwa is a zoo veterinarian, under the supervision of Dr. James Musinguzi (UWEC's Executive Director), and the mentorship of Ian du Plessis (Johannesburg Zoo, South Africa).



Where there's a will there's a way: working together for the conservation of Darwin's Frogs



By IUCN SSC Amphibian Specialist Group

A paper published in *Oryx*—The International Journal of Conservation outlines the development of a multi-participatory binational conservation strategy for Darwin's frogs (*Rhinoderma* spp.), an initiative that was led by ASG's Chile Regional Working Group. These two frog species, found in the temperate forests of Chile and Argentina, display an

unusual behaviour not known in any other amphibian - the adult male frogs take the eggs into their vocal sac, where they grow, protected, into tadpoles and young froglets.

However, both species are threatened: the southern Darwin's frog (*Rhinoderma darwinii*) is listed as 'Endangered' on The IUCN Red List of Threatened Species, while the northern Darwin's frog (*R. rufum*) is listed as 'Critically Endangered –

Possibly Extinct', having not been recorded since 1981 despite intensive surveys within the species' range.

Concern for the future of these species prompted the development of the conservation strategy.

"Many people, and much effort and resources are dedicated to species conservation worldwide. However, coordinating existing work and planning future actions under a species conservation strategy, is one of the most effective ways to halt species extinctions" explains Dr Claudio Azat, lead author of the study, Co-chair of the IUCN SSC Amphibian Specialist Group for Chile and Associate professor at Universidad Andres Bello, Chile.

The bulk of the planning process was undertaken at the Huilo-Huilo reserve, where a range of stakeholders representing varied interests, including representatives from local and international NGOs, zoos, aca-

Estrategia Binacional de Conservación de las Ranitas de Darwin



Chile - Argentina 2018 - 2028

demographic institutions, government and private industry, gathered to review the species' status, undertake a threat analysis, and develop conservation priorities.

Dr Ariadne Angulo, Co-chair of the IUCN SSC Amphibian Specialist Group, who co-facilitated the strategy development workshop, said "It is inspiring to witness different sectors joining forces to support the conservation of Darwin's Frogs. By working together across political boundaries and under one umbrella approach, range state countries and members of the international conservation community have an opportunity to make a substantial difference in the conservation of Darwin's Frogs and their habitats".

As part of the conservation planning process, workshop participants developed the following Vision:

Darwin's frogs, unique in the world for their reproductive peculiarity, are conserved and valued as an emblem for the protection of the native forests of southern Chile and Argentina.

A threat analysis carried out as part of the strategy development identified habitat loss, infectious disease, and climate change as the major threats to the survival of the Darwin's frogs. Actions to mitigate the effects of these threats were developed during the workshop, which included both in-situ and ex-situ management activities.

"The National Zoo of Chile is continuing its work as a reference centre for the captive breeding of *Rhinoderma darwinii*, by committing to undertake some of the actions developed under the *Rhinoderma* Strategy" said Guillermo Cubil-

los, Head of the Conservation and Research Unit, National Zoo of Chile. "These include the development of captive husbandry protocols, and improving communication and collaboration between the different breeding centres to expand the genetic representation of the captive population of this species."

This conservation strategy promotes collaboration and coordination of all conservation efforts towards a common goal; all parties working together increases the chances of succeeding in conserving these unusual frog species.

"The conservation of Darwin's frogs is relevant from an evolutionary, ecological and cultural point of view" said Andrés Valenzuela Sánchez, president of the local-based organization ONG Ranita de Darwin. "Darwin's frogs are special not only for their unique reproductive behaviour, but because they are evolutionarily distinct from most other amphibians. Second, these frogs used to be one of the most common and abundant amphibians in the Southern South American temperate forest and may play a critical trophic role in this threatened ecosystem. Last but not least, Darwin's frogs appear in the Pitrén complex pottery (with vessels dating to 1200-2000 years BP) and remain as an important component of our present-day biocultural heritage".

The full Darwin's frog conservation strategy can be found here: <https://www.estrategiarhinoderma.org/>



HABLEMOS DE ANFIBIOS

Un evento online para conocer los esfuerzos de conservación de anfibios en Sudamérica

1^{AL} 7
JUNIO

Horarios de Transmisión

18:00
(GMT-4)

Bolivia
Chile
Paraguay
Venezuela
Brasil (MN, PV, BH)

19:00
(GMT-3)

Argentina
Uruguay
Surinam
Guayana Francesa
Brasil (SP, RJ, BH)

17:00
(GMT-5)

Colombia
Panamá
Perú
Ecuador
Brasil (RB, CS, SM)

20⁹
Expositores
Países



CICLO DE CHARLAS

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En vivo por la página de
Bolivian Amphibian
Initiative



Con el apoyo de:

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LAPAZ
Biodiversa

Hablemos de Anfibios

By Arturo Muñoz, Patricia Mendoza, Gabriel Callapa, Omar Miranda (Bolivian Amphibian Initiative); and Luis F. Marin da Fonte (Amphibian Survival Alliance)

During the first International Amphibian Week (June 1-7, 2020), the Amphibian Survival Alliance (ASA) provided support to the Bolivian Amphibian Initiative (BAI) and Iniciativa La Paz Biodiversa in organizing the online symposium Hablemos de Anfibios (Let's talk about amphibians). Due to the worldwide quarantine situation imposed by the COVID-19 pandemic, BAI and its partners decided to use social media channels and the internet as a tool to share and discuss amphibian conservation in South America.

The event publicized the work on amphibian conservation conducted by several institutions and organizations in South America. Its main goals were to inform the general public, to inspire the new generations and to create an welcoming environment where amphibian conservationists could share their work, learn and start new collaborations. In total, 24 speakers from 10

countries, including 7 ASA partners (Amphibian Ark, IUCN SSC Amphibian Specialist Group, Global Wildlife Conservation, Instituto Boitatá, Fundación Atelopus, COANA and Grupo RANA) and 3 ASA Future Leaders of Amphibian Conservation, gave talks about their work both in Spanish and Portuguese. Gender equality among speakers was ensured. The event was held on Zoom and was live-streamed on BAI's Facebook page, where records of all talks are available (as well as on BAI's [website](#)). In total, the live transmissions on [Facebook](#) reached more than 25,000 people, with the recorded videos being played more than 10,000 times so far.

Given the immense success of this initiative, ASA is currently exploring options to copy this model across the ASA partnership to bring together partners from different regions of the world and/or thematic areas to potentially create further opportunities to collaborate/share resources etc., or to hold discussions of the issues that many partners are currently facing such as the impacts of COVID-19 on their conservation activities.



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In search of Green Toads



By Kristofer Forsäter, Foundation Nordens Ark

Foundation Nordens Ark has been involved in the Swedish Species Action Plan for the European Green Toad (*Bufo viridis*) since 1995 with the main involvement being head-starting wild collected eggs and tadpoles to toads before release into newly restored historical sites in southern Sweden.

Since 2003 Nordens Ark together with the County Administrative Board of Kalmar has worked to bring back the Green Toads to the Baltic Island of Öland where the toads were once considered the most common amphibian. During the 20th century the population started declining and was subsequently considered locally extinct at the end of 1990s.

The main reason for decline and extinction is not confirmed but is most likely a combination of multiple factors such as eutrophication, lowering of ground water and the draining of wetlands and reduced pasture on shore meadows.

During 2020 Nordens Ark was approached by County Administrative officials and asked to carry out surveys on Öland to confirm the presence of toads in any of the release sites. Green Toads are notoriously hard to find. The most widely used method is to listen for males calling during the night in late spring early summer. The other way is simply by doing nightly survey walks to look for toads out hunting or to look for eggs and possibly tadpoles later in the summer.

To maximize the possibility of findings we did two periods. The first one in mid-May revealed bufonid tadpoles in two sites on the north western part of the island and one on the north eastern. Two of these are really interesting as one is in the same site as the first reintroductions between 2003 and 2007, and the other is in the area currently used for release.

Survey period number two was conducted during the last week of May. This also included releasing approx. 15.000 tadpoles and 27 adult toads in Ottenby nature reserve in the south and another 15.000 tadpoles

in Högby hamn nature reserve in the north. All tadpoles are the result of captive breeding at Nordens Ark which means collecting eggs from the wild is no longer needed.

During this period all sites used for releasing toads were visited at least once. In Ottenby nature reserve juvenile green toads were observed out foraging at night. Besides this no other confirmed sightings of Green Toads were done in any of the locales.

The two sites where bufonid tadpoles were found during the last survey did not show any signs of life with one of the ponds completely dried up. Water samples were collected on the other site and handed over to the County Administrative to test for Green Toad e-DNA. Water samples were also collected by the County Administrative from the other ponds where tadpoles were found during surveys conducted by staff from Nordens Ark.

NORDENS
ARK

Amphibian conservation in Togo



By Kafui Jeanne DEKAWOLE, Délagnon ASSOUE & Gabriel Hoinsoudé SEGNIAGBETO, Togolese Society for Nature Conservation (AGBO-ZEGUE NGO)

The Togolese Society for Nature Conservation (NGO AGBO-ZEGUE) organizes annual work on the various components of Togolese biodiversity, including amphibians. During the last rainy season, we have carried out field works in the Fazao - Malfakassa National Park (the most important protected area of Togo in terms of its biodiversity and size: 292,000 hectares): the Missahohoe classified forest and the Kovié community forest.

The last activity took place in August 2019 and the data was collected by a team consisting of Dr. Gabriel Hoinsoudé Segniagbeto, two students (Kafui Jeanne Dekawole and Delagnon Assou) and a field assistant guide.

Several sites in the Fazao-Malfakassa National Park were randomly visited, during the day for the observation of litter frogs, and at night for

nocturnal species. At Missahohoe (1,400 ha) and Kovié (11,269 ha), two visits were made for ecological population monitoring of the Togo Slippery Frog (*Conraua derooi*) and the West African Brown Frog (*Aubria subsigillata*). During these fieldwork activities, some specimens were collected for identification and further research activities. Moreover, data on hunting activities was gathered and sensitization of local communities were carried out.

We found that the populations of Togo Slippery Frog at the Missahohoe and Yikpa sites are relatively stable. They remain highly fragmented in small surface units along the torrents. As for the West African Brown Frog population, contrary to previous years, we were not able to find any individuals. However, their presence has been reported by local frog hunters who have been made aware of their presence. We assume that the population of this species in Togo is highly endangered.

The frog specimens encountered in the Fazao-Malfakassa National Park are those reported in the literature.

However, there is an abundance of individuals of the following species: *Arthroleptis poecilonotus*, *Leptopelis spiritusnoctis*, *Hyperolius* spp compared to individuals of *Phrynobatrachus* spp, *Ptychadena* spp and others. These findings could be due to the period of the surveys, bush fires and other factors that need to be explored for a better understanding of the dynamics of amphibian populations in the Park.



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Application deadline: September 15th, 2019.

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Amphibian Ark George and Mary Rabb Research Fellowship

This fellowship supports early or mid-career scientists and conservationists in research-based professional development that furthers amphibian conservation. Proposals that address species research priorities indicated in the Amphibian Red List and/or the Amphibian Ark Conservation Needs Assessment (CNA), or thematic research priorities indicated in the Amphibian Conservation Action Plan (ACAP) will be given preference. Applicants must be formally associated with a mentor or lead scientist at a relevant university, NGO, zoo/aquarium, or other established institution. The fellowship carries a \$5,000 stipend and is open to applicants from all countries.

Applications must include: current

CV, a letter from the mentor with whom the applicant is intending to work, the names and contact information (email addresses) for two additional references who may be contacted by the Amphibian Ark, and a Statement of Purpose. This Statement should be no longer than two pages and should provide specifics of the proposed research as well as the applicant's academic and professional experiences relevant to the research. Proposals to work directly with live animals must be accompanied by copies of appropriate governmental and institutional animal-care and collecting permits as relevant, and invitations or acceptance letters from hosting institutions or programs. Fellowships are for one year, with potential for an additional one-year renewal

depending on need and progress towards research goals.

Application materials and the letter of support from the mentor should be e-mailed to: Joseph Mendelson, Scientific Advisor, jmendelson@zooolanta.org. Submission deadline: 1 September 2020.

A committee appointed by the Amphibian Ark will review all nominations and then submit their choice for award recipient to the Amphibian Ark Executive Director for endorsement.

About George and Mary Rabb

This fellowship honors Dr. George B. Rabb and his life-long partner Mary Rabb. From his boyhood days studying herps in Charleston, South

Carolina through the remainder of his life, George was passionate about amphibians, conservation, and providing encouragement to developing scientists. A noted scientist, long-time Director of the Chicago Zoological Society, Chair of the Species Survival Commission of the International Union for Conservation of Nature (IUCN SSC), and recipient of numerous awards, George was a thoughtful, quiet, humble person. He never sought the limelight, and never cared about being right, only that the right thing was done. He played essential roles in stimulating, provoking and initiating new directions in amphibian conservation,

ranging from the Declining Amphibian Populations Task Force (DAPTF), the Amphibian Conservation Action Plan (ACAP), the Amphibian Ark (AArk) and the Amphibian Survival Alliance (ASA). George was a steadfast supporter and advisor to the Amphibian Ark from its inception, and this fellowship recognizes that which George held dear.

About the Amphibian Ark

The AArk is a joint effort of three principal partners: the World Association of Zoos and Aquariums (WAZA), the IUCN SSC Conservation Planning Specialist Group (CPSG), and the IUCN SSC Amphibian Spe-

cialist Group (ASG). AArk is a partner in the Amphibian Survival Alliance (ASA). We were formed to address the captive (*ex situ*) components of the Amphibian Conservation Action Plan. Our vision is the world's amphibians safe in nature, and our mission is ensuring the survival and diversity of amphibian species focusing on those that cannot currently be safe-guarded in their natural environments.



An introduction to Photo Wildlife Tours



© Jaime Culebras, Photo Wildlife Tours

threatened amphibians, with special attention to the genus *Atelopus* and frogs of the Centrolenidae and Dendrobatidae family.

Our work has been recognized by some of the main nature photography festivals such as Wildlife Photographer of the Year, Big Picture Photo Competition, Nature Best Photography, GDT European Wildlife Photographer of the Year, Montphoto, among others, and published in media such as National Geographic.

By Jaime Culebras, Photo Wildlife Tours

Photo Wildlife Tours is a Ecuadorian company formed in 2016 which intends to awaken the astonishment of those who accompany us into knowing nature; and, at the same time support various research, education, conservation and sustainable tourism programs.

Research and conservation work of amphibians and reptiles is one of our main focuses as they are 2 of the most unknown animal groups and carry the burden of having nearly the worst reputation among them besides being mostly ignored by society.

Through science, photography and video production, in collaboration with different institutions, we want to spread the beauty and importance of these creatures to achieve greater representation of them in conservation proposals and a change in social perception.

We carry out scientific expeditions to collect information on the natural history and distribution of herpetofauna in tropical areas, especially Latin America, as well as co-authoring the description of new species for science, such as *Pristimantis mutabilis* and *Hylanobatrachium yaku*.

We have carried out expeditions aimed at the search and rescue of



To the rescue of endangered Venezuelan amphibians

By Enrique La Marca, REVA (Rescue of Endangered Venezuelan Amphibians) Conservation Center

Small pools filled with tadpoles were drying out at the periphery of a Venezuelan town. Our interest was to find specimens of a little amphibian of the genus *Leptodactylus* that we are calling the Merida's Whistling Frog, although it is still an undescribed species to science. Yes! It's amazing that new species are even appearing in urban environments, but we have to remember that this city itself is immersed in one of the richest biodiversity spots on Earth: the Tropical Andes. A few months later we returned to the location to release the froglets metamorphosed in our lab. To our surprise, the entire place was now filled with precarious human settlements and all pools entirely vanished. Without knowing it, we rescued specimens that otherwise would not have had a chance of survival. We finally located a place for the liberation of the now grown-up specimens: a remnant of secondary seasonal forest with water springs close to a residential development. There, we found another frog that is also losing ground to the urban development: the Merida's Collared Frog (*Man-*



nophryne collaris). To our dismay, a few months later we got the notice that the place was intended to house a sports field and a religious chapel. We joined an organized local group that was defending their "urban vegetable lung" from destruction. The couple of threatened frogs never heard off by the people were now a focus of attention, along with other more appealing animals and plants, to stop the forest destruction, what it finally happened.

Several lessons were drawn from the incident. There are still new data to gather on local amphibians, there are environmentally concerned groups that do not handle info on frogs but that could joint efforts to work with, and most important, we had two local frog species that were threatened by the urban development and that everyday are having less natural spaces to live in. We also know that several amphibians

from nearby ecosystems are facing extinction risk. With all this in mind, we started a conservation project that finally ended in the creation of the Rescue of Endangered Venezuelan Amphibians (REVA) Conservation Center to attend not only this couple of threatened frogs, but also other species in need of conservation actions.

REVA is relying on three main conservation-related components: *in situ*, *ex situ*, and community empowerment. We think conservation should be addressed with a multifactorial approach involving the threatened species, their environments and the local communities adding efforts with researchers and other knowledgeable people to attend the biodiversity crisis.



Fieldwork during the Corona Pandemic

By Jesper Berendsen, RAVON

The work of RAVON, which is the organization for amphibian, reptile and fish conservation in the Netherlands (www.ravon.nl) is highly dependent on fieldwork. Our 60 staff members and over 1,500 volunteers monitor and study wild fish, reptiles and amphibians, hence the covid-19 pandemic has influenced our work. Luckily to a limited extent. Even though the government explicitly stated that monitoring was allowed

when due observance of the rules, some nature areas were closed, or volunteers couldn't or were afraid to go out.

From mid-March until early July, the Netherlands was in an 'intelligent lockdown'. This meant that non-essential shops were closed, social distancing (1.5 meter) was implemented, and meetings with more than three people were prohibited. Everyone was advised to stay at home as much as possible. Abid-

ing these rules, going outside was possible, which was fortunate, since the breeding period of most Dutch amphibians takes place in spring. Therefore this is a period in which a lot of field work is done. The 'intelligent lockdown' meant that most professional and voluntary fieldwork on amphibians (and fish and reptiles) by RAVON and our volunteers could continue. Of course, several adjustments were implemented, as carpooling was not allowed, and the group size (for excursions) was



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smaller, but we do not feel that this has affected the outcome and quality of our work.

The Covid-19 restrictions differed significantly between countries. It

can be expected that amphibian research in Italy or Spain has suffered from the measures, and that studies could not continue. As the COVID-19 pandemic is still running rampant and the future is uncertain, it is in-

teresting to discuss the effect of this human pandemic on global amphibian conservation. Do populations profit from the reduced pressure on their sites (less visitors) and the cleaner air, or will the limitations on the movements of researchers and the expected economic crisis affect nature conservation budgets and threaten population persistence? We encourage everyone to share their experiences and expectations, so we can learn and anticipate.



Herp Conservation Ghana wins Amphibian Ark Conservation Grant

By Michael Gyapong Akraasi and Caleb Ofori-Boateng, Herp Conservation Ghana

Michael Gyapong Akraasi and Caleb Ofori-Boateng from Amphibian Survival Alliance partner Herp Conservation Ghana just got one of the **Amphibian Ark 2020 Conservation Grants** to work with the Critically Endangered Togo Slippery Frog (*Conraua derooi*). This is an **Evolutionarily Distinct and Globally Endangered (EDGE)** amphibian that is known from two localities in Ghana: the Togo-Volta highlands, which is along Ghana's border with the Republic of Togo and the Atewa Hills, one of the last upland evergreen forest in Ghana. The Atewa population is however recognized as a distinct species and a paper is currently being completed to name it (Blackburn *et. al.*, in review). It is feared that this distinct frog will become extinct even before it is named due to a planned bauxite mine in the Atewa Hills to repay loans secured from China. In late 2019, the bulldoz-



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ers moved in to reopen roads and national security operatives secured the main entrances to the reserve. A recent map of the proposed mine coincides directly with the Slippery Frog's habitat and it is highly unlikely that this Atewa endemic frog has any chance of survival should the government proceed with its plans to mine the reserve in December.

The goal of the awarded project is to save the distinct subpopulation of

the Togo Slippery Frog in the Atewa Hills. Michael and Caleb propose to establish an *ex situ* conservation program in collaboration with the Forestry Research Institute of Ghana (FORIG) and Fisheries and Aquaculture Department of the Kwame Nkrumah University of Science and Technology (KNUST). Herp Conservation Ghana has been studying this frog in the wild for the past ten years. Therefore, they already have a fair amount of understanding of its habit requirements. Notwithstanding, they plan to conduct additional field visits with one of their collaborators from the London Zoo to gather additional habitat parameters. They believe this will help them to construct the breeding facility to mimic their natural habitat.



A significant range extension for one of Vietnam's most highly threatened amphibians



By Benjamin Tapley, Luan Thanh Nguyen, Christopher Portway, Timothy Cutajar, Chung Thanh Nguyen, Hao Van Luong, Daniel Kane, Luke Harding, and Jodi J. L. Rowley (Zoological Society of London, Asian Turtle Program, Indo-Myanmar Conservation, Australian Museum and Hoang Lien National Park)

Sterling's Toothed Toad (*Oreolalax sterlingae*) was first described in 2013 and is the only member of the genus known from Vietnam. The species is thought to be endemic to Vietnam's highest mountain, Mount Fansipan, in northern Vietnam at elevations exceeding 2700 m a.s.l. Sterling's toothed toad is one of just two Critically Endangered amphibians currently known from Vietnam and has an "Extent of Occurrence" (EOO) of just 8 km². One of the recommended conservation actions for the species is to determine its distribution. Over a period of three years

our team surveyed other sites on Mount Fansipan and high elevation sites in the Hoang Lien Range and we encountered Sterling's Toothed toad larvae at relatively low elevation on Mount Pu Ta Leng in the newly created Bat Xat Nature Reserve, 20 km northeast of the type locality. This greatly increases both the elevation range of the species (from 2900 m a.s.l to 2345–3108 m a.s.l) and the EOO (from 8 km² to 639 km²). We suggest that Sterling's Toothed Toad is reassessed as Endangered in accordance with the IUCN Red List of Threatened Species categories and criteria B1ab(iii).

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Indo-Myanmar Conservation



Instituto Boitatá in the fight for the conservation of the Brazilian fauna

By Iberê Farina Machado, Gabryella de Sousa Mesquita, Pedro L. V. Peloso, Tatianne P. F. Abreu-Jardim, Vinicius Guerra Batista and Werther Pereira Ramalho, Instituto Boitatá

The Instituto Boitatá was created in 2014 with the commitment to study and preserve species and ecosystems in Brazil. Since its foundation, we have led and participated in a series of scientific and educational activities. With the overarching goal of promoting long-term conservation, our work aims to create and disseminate science-based information to the civil society and traditional communities. With our work, we hope that people will learn to love and protect amphibians, a group of animals very sensitive to impacts and threatened nationally and globally.

Educational activities

Considering the importance of scientific knowledge dissemination, the Instituto Boitatá focuses on educational and cultural activities for both the civil society and the academic community. To help dispel myths and tales that cause fear and mistrust about amphibians and reptiles, we have created special commemorative dates such as “Save the Amphibians”, “Snake Week”, “Turtle Week”, and “Save the Crocs”. During these weeks, lectures, exhibitions with biological material,

and recreational activities are held in schools, universities, and public spaces in different Brazilian regions. Booklets and prizes are also distributed during these events. So far, the commemorative dates have been celebrated in the Brazilian states of Goiás, Rio Grande do Sul and Bahia. Disclosures about these events on television and social media networks have obtained national reach. These activities, combining scientific dissemination and environmental education, have contributed to the demystification of popular beliefs that negatively affect amphibians and reptiles. The implementation of commemorative dates helps to promote relaxed learning and emphasizes the importance of environmental conservation for children, adolescents, and adults.

Amphibian Conservation

Among several projects, we are currently carrying out the update of the global IUCN Red List assessments for all Brazilian amphibian species. This project is supported by the IUCN SSC Amphibian Specialist Group and the Amphibian Red List Authority (ARLA), and is funded by ASA partner Global Wildlife Conservation. We also collaborate directly with the execution of National Action Plans for threatened amphibian and reptile species of different Brazilian regions, including the Atlantic Forest and Cerrado biomes, and the Southern region of Brazil. We also collaborate with an Action Plan for endangered Rivulid fishes in Brazil.

Moreover, over the past few years we have studied an endemic and threatened amphibian species of the Santa Catarina

island. Within a project funded by the Fundação Grupo Boticário, we have worked on the taxonomic status of *Ischnocnema manezinho*, an endemic and highly endangered frog species. Recently, populations discovered in the coastal slopes of the Santa Catarina and Arvoredo islands have been attributed to this species. However, bioacoustic and morphological differences suggest that these populations may represent different taxonomic units.

Documenting Threatened Species

Last but not least, the project Documenting Threatened Species (DoTS) aims to study, document, and build a communication platform about Brazilian species threatened with extinction. The project is led by Pedro Peloso, one of the Amphibian Survival Alliance’s Future Leaders of Amphibian Conservation, and is funded by Fresno Chaffee Zoo Wildlife Conservation Fund, and Columbus Zoo Fund for Conservation.



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Chasing Hope for Costa Rica's Golden Toad

By Trevor Ritland, co-founder of Adventure Term

In 1989, the last Golden Toad on the Brillante trail was witnessed in the misty cloud forest above Monteverde, Costa Rica. In the past, local residents and visiting biologists had observed thousands of the luminous orange amphibians, but their populations crashed over the span of a few years, and, since the toads were found nowhere else but the ridge-line of the Monteverde highlands, the species was declared extinct in 2004, 15 years after its last confirmed sighting. It would become the first terrestrial extinction to be linked to climate change.

The Golden Toad (*Incilius periglenes*), which is among Global Wildlife Conservation's most wanted lost amphibians, was a naturally secretive species, spending long months hidden underground and

emerging only after the first rains of the wet season had swept the mountains. In small pools of rain that collected among the tangled roots of the elfin forest, the toads would mate and deposit eggs before disappearing again beneath the earth. During the dry El Niño years of the late '80s, some biologists wondered if the toads were simply sheltering underground, awaiting wetter conditions; but when the rains returned in the 1990s and no gleaming orange toads appeared, many Monteverde residents made their peace with the toad's extinction.

Others are not so certain. I spent one summer exploring the long-shuttered Brillante trail, on the hunt for any sign of the Golden Toad's reemergence. I heard rumors of scattered sightings and unconfirmed encounters in the deeper reaches of the Children's Eternal Rainforest —

Costa Rica's largest private reserve — which sits adjacent to the Monteverde Cloud Forest Preserve: the only spot in the world where Golden Toads were recorded living and breeding. There is one story in particular, told by a well-known farmer-turned-conservationist in Monteverde: a story of a hidden pool discovered two years after the last sighting on Brillante, full of males, females, and juvenile golden toads; a remnant population, beyond the reach — so far — of climate change, chytrid, and extinction.

I believe these stories.

In a lot of ways, Monteverde is a microcosm of the world. Its ecosystems are fragile — more fragile than they look — and will be among the first to feel the full force of climate change. For many of its residents, there is no opportunity for escape if their little world changes. Mon-

teverde sits near the top of the continental divide; as the climate changes and the conditions shift, those highly specialized species will climb higher and higher up the mountain, but eventually there is no more mountain, and there is nowhere left to go. In Monteverde, we have the chance to look into our own potential future; someday we will all be at the mountain's edge.

But even more important than the possibility of the Golden Toad's return is this: the local people — the biologists, the farmers, the old Quakers who traveled to those green hills long ago — have prepared a place for it to come back to. Some are motivated by the hope that it's still out there; others are driven by the certainty of its extinction, committed to stopping the

same fate from befalling the other local residents — the quetzals, the glass frogs, the endemic orchids that lay hidden like immortal pearls. But all of them are working together to preserve a place for it — in memory, or in hope of its return.

When I walked out of the Brillante trail for the last time that summer, I wondered if I was any closer to the Golden Toad than I'd been at the beginning. I don't know for sure if it's still out there, but I hope it is. As the thread unspools and the world continues to change, it is hard to know what to expect for the Golden Toad, for Monteverde, and for the world.

But the wind will still be sweeping up from the Atlantic slope, twisting the trees on the Brillante into

crooked forms, molding the land into a woody tunnel through the dark. The residents of Monteverde will still be working to protect their little patch of planet — planting trees, preserving forest, and teaching the next generation about the Golden Toad: their own talisman of a world in continual evolution.

And I will still be searching.

Watch the full-length documentary, "El Dorado: The Search for the Golden Toad," from Adventure Term, at www.adventureterm.com/the-search-for-the-golden-toad



**GLOBAL
WILDLIFE
CONSERVATION**

ASA and partners celebrate the first Amphibian Week

By Luis F. Marin da Fonte, Amphibian Survival Alliance

Amphibian Survival Alliance (ASA), Partners in Amphibian and Reptile Conservation (PARC) and other organizations including Smithsonian's National Zoo, U.S. Department of Defense and U.S. Geological Survey, collaborated on the first International Amphibian Week, June 1st to 7th, 2020. The event was held across social media platforms with the aim of promoting the importance of amphibians and the partnerships formed to implement amphibian conservation actions to address the ongoing global amphibian crisis.

All Amphibian Allies were encouraged to participate in celebrating amphibians on social media. To provide additional information for everyone interested in taking part, a Social Media Guidance document was created and shared on both the PARC and ASA website. The guidelines included suggestions for posting, hashtags, accounts to fol-

low, and how people can join in. The guidelines also included the following daily themes:

- What are Amphibians?
- The Secret Lives of Amphibians
- Amazing Amphibian Facts
- Threats to Amphibians
- Amphibian Tweets from the Field
- Partnering for Amphibian Conservation
- Actions for Amphibians.

As a result of the situation on the ground during that week in the U.S., PARC and several ASA partners based in the country decided to pull back and to keep their social media platforms silent in support of the Black Lives Matter movement. Even though the involvement with Amphibian Week in North America was low, engagement was higher in other parts of the world such as Africa, Europe, Asia, Oceania and especially Latin America. Most posts related to the event were in fact published in Spanish and Portuguese, with the



hashtag #AmphibianWeek being adapted to #SemanaDosAnfibios and #SemanaDeLosAnfibios.

In total, 15 ASA partners and 8 ASA Future Leaders of Amphibian Conservation took part in the event, celebrating amphibians and amphibian conservation around the world. On ASA social media channels, the overall engagement during Amphibian Week was more than 100% higher than normal, with our posts reaching more than 70,000 people on Instagram, 43,000 people on Twitter and 22,000 people on Facebook. We will be adopting Amphibian Week as an official event to be held every year across the ASA partnership, to promote the work our partners are doing on amphibian conservation around the world and to celebrate the beauty of these amazing animals!

Amphibian conservation in Colombia by Fundación ProAves

By Fundación ProAves de Colombia

With 802 species of amphibians, Colombia is second only to Brazil as the most diverse nation on earth for these spectacular creatures. Sadly 46% of these species (368) are Threatened with extinction and with many new species being discovered restricted to the last fragments of natural habitat it is likely that number will rise.

The ProAves Foundation was born in 1998 with the dream of a group of people to save the Yellow-eared Parrot from extinction, and was legally established in 2001 in Jardín, Antioquia. Early conservation successes with the parrot spurred the group to broaden its approach to study and conserve other IUCN globally threatened species, especially birds and amphibians across Colombia.

At a time when many said it was impossible to study or even conserve threatened biodiversity in Colombia, the ProAves team was undeterred and grew to over 60 biologists working across some of the most hostile areas of the country to locate the rarest species and assess how they could be saved. This came at considerable cost, with many harrowing experiences. Overall, the team's persistence and dedication to conservation resulted in exceptional achievements that laid a foundation to protect many of the rarest species in the country that would be much more challenging now.

What we know today is that the establishment of a strategic network of 28 nature reserves in 13 departments of Colombia, totaling over 60,000 acres strictly protected for the most threatened species prior to 2016 - would now be virtually impossible. We are grateful for the foresight of many foundations and donors in Europe and U.S. to sup-



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port ProAves working to identify the most important and unprotected forests for threatened species and then funing their protection, whether land purchase, ecological easements or government declarations, during these uncertain times.

ProAves efforts to protect amphibians were greatly encouraged by Dr. Don Church and Dr. Simon Stuart who mentored our efforts. Thanks to their support (such as via the TV producer and writer Matt Groening) in 2005 we established the world famous "El Dorado ProAves Reserve" in the Sierra Nevada de Santa Marta - an Alliance for Zero Extinction site - for 14 threatened amphibians, including *Atelopus nahumae* and *Atelopus laetissimus*. This 3,600 acre sanctuary is one of the most important private protected areas for endemic flora and fauna.

One of our most important achievements was saving two CR frogs - *Ranitomeya doriswainsonae* and *Ranitomeya tolimense* - through land purchase (thanks to IUCN Netherlands and Dendrobatidae Nederland) of the last forest fragments to create the Ranita Dorada ProAves Amphibian Reserve. This was the world's first "Amphibian Reserve"

and in a prime coffee growing area that was being cleared for coffee. The Reserve is located just above the city of Amero that was the site of the 1985 tragedy when a pyroclastic flow engulfed the city and killed over 23,000 people.

For Fundacion ProAves, it is a great satisfaction to be able to return as a member of the Amphibian Survival Alliance again. We will continue to work hard to prevent the extinction of amphibian species and to protect their habitat. Read the full story in [English](#) and [Spanish](#).



ASA'S Future Leaders of Amphibian Conservation Updates

The Future Leaders of Amphibian Conservation program is an award to a number of early-career conservationists from around the world that have been identified by the Amphibian Survival Alliance as the next generation of amphibian conservationists. So far we have awarded 19 Future Leaders from 12 countries (Bolivia, Brazil, Peru, Mexico, Ghana, South Africa, Uganda, India, Nepal, Pakistan, Australia and United States). You can learn more about some of the Future Leaders of Amphibian Conservation [here](#).

Long tales of long toes

By Kirsty Kyle, African Amphibian Conservation and Research Group – North West University, South Africa

Maybe it's just me but papers and articles I read always seem to shine with success stories about how well a project is going/has gone etc. Once again, maybe it's just me, but I'm sure that is not always the case. Anyway, I decided to tell a different story here. Perhaps it's because I'm only half-way with my project, but in my experience nothing has gone to plan - our theories have been blown out the water and, at this stage, I have more questions than when I started! But maybe this is an integral half-way mark of any project and is why articles are usually published at the end of projects!

One thing is for sure, just because things aren't going according to plan, it doesn't mean you can't learn and gather data. That said, if someone says to me one more time that negative results are still results, I may just spit in their eye!

If you'd asked me a year ago I'd have said that the subject of my work is a fairly typical South African frog, and I'd have assumed it would behave like a fairly typical South African frog; but I'd have been wrong. I grew up and have spent my life surrounded by wildlife, including tree frogs, and of all people I would have thought that I had a fair understanding of how unpredictable nature is. My professor has also worked on frogs all over the world for many



years and is the best in the game in my humble opinion, and yet he too has been flummoxed by aspects of this project. I think the bottom line is, one should never surmise too much or plan too rigidly at the beginning of a project - by all means plan, but don't hold onto those plans too tightly! Prof keeps reminding me that a Masters is a "skills degree", and I think the main skill I have learned so far is to roll with the punches and to adapt... or die!

Do I know more about this species than I did 18 months ago... YES! So much more and it's also revealed to me how much more there is to learn. The frogs are enchanting and I love the fact that we can never really know a species - there will always be more to learn. While it's really annoying to pit your wits against a frog and lose, I can't help but feel incredibly privileged to be doing this work; to be the lucky one

who gets to be outsmarted by a 5 - 10cm amphibian with exceptionally long toes.

To those reading this, who are also in the doldrums, where things are honestly going to pot and NOTHING seems to be working according to plan, please choose to adapt instead of dying! I'm confident that even we will be able to write articles one day that smooth out the wrinkles and answer, at least some, of the riddles we set out so confidently to solve!



Interview with Michelle Abadie



Can you tell us a little bit about you, Michelle?

I am a Brazilian researcher and amphibian conservationist. Since 2010, I am an active member of the Admirabilis Project, which aims to study and protect the Admirable Red-Belly Toad (ARBT, *Melanophryniscus admirabilis*). This is one of the most successful amphibian conservation programmes in Brazil. Because of my work on this project, I was invited to join ASA partner Instituto Curicaca, where I am a Project Coordinator at the Amphibian and Reptile Conservation Centre. Currently, I am finishing my PhD on the species at the Federal University of Rio Grande do Sul. From August 2020 on, I will start working at the National Centre for Conservation and Research on Reptiles and Amphibians (RAN) of the Chico Mendes Institute for Biodiversity Conservation (ICM-Bio), the governmental institution responsible for the conservation of threatened species in Brazil. I will be responsible for planning, organizing and reviewing the Brazilian Herpetofauna Conservation Action Plans.

What projects have you been involved in to promote amphibian conservation?

Undoubtedly, the Admirabilis Project is the most important amphibian conservation project I have been involved. The ARBT is a micro-

endemic toad from the southern Brazilian Atlantic Forest. In 2010, we started this project motivated by concerns about a plan to construct a small hydroelectric power plant just 500 meters upstream of the species' breeding site. Because of our work, the ARBT was evaluated as Critically Endangered at regional, national and global levels. Fortunately, through a multi-institutional effort, we managed to revert the government authorization to build the plant, and the given license was cancelled. It was the first time in Brazilian history that an amphibian prevented the construction of a big enterprise. This project also aims to create a protected area in the locality and to minimize threats such as deforestation and pesticide use in the region. To achieve that, we at Instituto Curicaca got a grant from the Amphibian Survival Alliance to rescue the production of the native Yerba-Mate in agroforestry systems as an alternative to the monoculture of tobacco and soybean. I believe this change in local production will benefit both local people and the entire population of the Toad.

What is your favourite amphibian species and why?

It's hard to say, because there are so many amphibian species in the world, and all of them are fascinating! But, yes, I have a favourite spe-

cies, and not oddly enough, it is the ARBT! Besides being beautiful and exclusive from a single place in the world, I think it is my favourite species because it still amazes me with its incredible behaviours and evolutionary life history, even though I have been working with it for so many years. Moreover, the species has already provided me many incredible and memorable moments. I have met most of my best friends during these field trips!

Has been recognized as a Future Leader of Amphibian Conservation by ASA made a difference in your career so far?

Absolutely! I think that, most of the time, the recognition for biodiversity conservation work does not come through scientific publications. Being awarded as a Future Leader by the Amphibian Survival Alliance, besides helping to make conservation grants possible, has also been an important motivator for me to continue developing my work in conservation. It was a great incentive for me not to give up! Also, I am sure that this recognition was important for my curriculum and helped me to get this fellowship to work at the ICMBio.

