



progress report

Stories from our partners around the world

JUNE 2017

AMPHIBIAN SURVIVAL ALLIANCE

NEWSLETTER



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Captive Flatwoods Salamanders going strong

In February's edition of the Froggress Report, we at the Amphibian Foundation shared our conservation work with the Frosted Flatwoods Salamander (*Ambystoma cingulatum*). A quick recap: we work with partners like the Amphibian Survival Alliance to save amphibians from extinction by raising awareness and leading one-of-a-kind conservation and research activities.

A large part of this work focuses on Frosted Flatwoods Salamanders, which have suffered a 90 percent loss in population since 2000. The Amphibian Foundation holds the world's only captive population, and is working to produce offspring that can be released into protected and properly managed habitat in the wild. In January, we received water-stressed eggs collected from the Apalachicola National Forest (ANF) in Florida's Panhandle. Consistent with recent years, there was not enough

rain to fill the ponds holding the eggs, so they were drying out. We successfully hatched 89 of these larvae in our Atlanta salamander lab.

The salamanders are housed in a biosecure lab, with applied lessons we learned over the past 5 years to keep them healthy and growing. We collected grass and water from their ANF habitat to help acclimate them to captivity, and the water also had their first meals of macro invertebrates. When older, they will move to our outdoor field research center for breeding. Their offspring will be released into the wild, with the ultimate goal of the species no longer needing the protection of the Endangered Species Act.



amphibianfoundation



It has been a busy past couple of months for ASA partners! As this edition shows, several ASA partners have been very active on a number of fronts, from searching for “Lost” species, to ASA partner-to-partner collaborations on habitat protection in Sub-Saharan Africa, to reconstituting IUCN’s network of amphibian experts to serve amphibian conservation over the next four years, and so much more. Indeed, it is this diversity, collaboration and commitment that give ASA its strength, and it is something that we aim to expand and augment in the months ahead as we seek to recruit new partners to the ASA.

As many of you may be aware, ASA Executive Director Helen Meredith and the ASA team have worked very hard to develop the foundational ASA Strategic Plan 2017-2021 and a working operational plan, both of which will guide ASA’s development in the months and years to come. As Helen embarks on a new role and journey (she has just started her maternity leave), it is my pleasure to join the ASA team as interim executive director. I look forward to working with such an inspiring alliance of partners in the months ahead, and hope that you will join us in both highlighting the important work that your group or organization does for amphibian conservation and in celebrating amphibians around the world.

Ariadne Angulo, PhD
Interim Executive Director
Amphibian Survival Alliance



Identifying priority areas for frog conservation in Madagascar

Madagascar is home to more than 350 frog species, 45% of which are threatened. In Madagascar, people generally neglect frogs. Even within protected areas, they are rarely listed among the key target species. Supported by ASA Partner Rainforest Trust, Madagasikara Voakajy’s team conducted field surveys to identify important but unprotected sites for amphibian conservation and assess the feasibility of protecting them. We focused in the northern half of Madagascar, from Antananarivo (the capital) to Antsiranana (northern tip). Research was carried at eight sites based on the presence of threatened amphibians outside of the actual protected areas network. We found that many historical sites for amphibians were already destroyed and populations at these sites disappeared. This was the case for *Boophis andrangoloaka* at Andrangoloka forest (east of Antananarivo), where the native forest was replaced by secondary vegetation and Eucalyptus trees. In Antsiranana, we identified four non-

protected sites with the Endangered Golden Green Frog *Mantella viridis*. The next step will be to work with Rainforest Trust through their **SAVES challenge** to explore ways in which these sites can be formally protected. This project is part of larger effort to address specific habitat conservation targets outlined in the regional amphibian conservation action plan **ACSAM 2**. Center Valbio has also been conducting a similar project in partnership with Rainforest Trust to assess important amphibian areas in other parts of the country.



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Amphibian Ark Seed Grants

Amphibian Ark's (AArk) \$5,000 competitive Seed Grants are designed to fund small start-up projects that are in need of seed money in order to build successful long-term programs that attract larger funding. We're very excited to announce two great new projects that have recently been awarded Amphibian Ark Seed Grants. We look forward to seeing great progress and success for both of these programs.

Reintroduction of the Northern Pool Frog to the UK, Jim Forster, Amphibian and Reptile Conservation Trust, Bournemouth, United Kingdom

The Northern Pool Frog (*Pelophylax lessonae*) became extinct in the UK in 1995, largely as a result of habitat loss and deterioration. A reintroduction program initiated by ARC Trust and partners in 2005 has restored one population to a specially prepared UK site using wild-to-wild translocation of Swedish founders. Whilst that intervention appears to be successful to date, the result is that the UK has had only a single population of Northern Pool Frogs in recent years. This is

clearly a perilous situation: should any harm come to that population, the species would again risk being extirpated from the UK. Therefore, the ARC Trust has been working to establish a second population. The outcome of this carefully planned *ex situ* intervention will be that the UK conservation status of the Northern Pool Frog will be considerably improved, via the establishment of a second viable population. The Northern Pool Frog is the UK's rarest amphibian species, and is strictly protected by national and European legislation.

Guanajuato Program for the rescue of the Big-footed Leopard Frog (*Lithobates megapoda*), L.A.E. Rubén David Rocha Lemus, Leon Zoo, Guanajuato, Mexico

Given the situation that amphibians face nowadays and the little study that exists in their regard in the state of Guanajuato, Mexico, the Leon Zoo decided to join global amphibian conservation efforts. We intend to do this by developing a Conservation Program for the Big-footed Leopard Frog (*Lithobates megapoda*) that includes the

creation of efficient protocols for *ex situ* breeding and husbandry, mitigation of the identified threats that this species faces, and working along with the community about the importance of conservation and protection of the Big-footed Leopard Frog. The Amphibian Ark funds will help start the project and obtain the necessary equipment and materials that will be required in the *ex situ* conservation laboratory.

Past recipients of AArk seed grants can be seen on our web site, www.amphibianark.org/seed-grant-winners/.

AArk will be calling for the next round of grant applications in September 2017.



**amphibian
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Join the Search for Lost Amphibians

This spring Global Wildlife Conservation launched the first phase of the Search for Lost Species, the largest-ever quest to find and protect species not seen in at least a decade. GWC collected more than 1,200 lost species nominations from scientists around the world and has narrowed that list down to the top 25 “most wanted” species—those species that are currently the focus of fundraising and will be the focus of expeditions. The top list includes two amphibians: the Scarlet Harlequin Frog and the Jackson’s Climbing Salamander.



Want to join the search? Get out in the field on your own quest and report an observation on our Lost Species iNaturalist page. Check out our full list of 1,200 lost species nominations and let us know if you have any additions or changes. Or become an institutional partner by contacting us at info@lostspecies.org. The search begins at <https://lostspecies.org/>



**GLOBAL
WILDLIFE
CONSERVATION**

Gearing up for the 2017-2020 IUCN period: The Amphibian Specialist Group (ASG)



Over the last few months ASG has been busily involved in the process of reconstituting its membership for the new 2017-2020 IUCN period. IUCN commissions are reconstituted every four years to coincide with World Conservation Congress, so ASG was due for this process as part of the Species Survival

Commission (SSC). We have been focusing on returning 2013-2016 members and also on bringing in some new members. At this time, we have 234 returning members and 44 new members for a total of 278 members. However, this number is expected to increase in the months ahead as we 1) wait for some returning members to complete their application process, 2) have received prospective member lists from ASG leaders, and 3) have also received independent expressions of interest to join ASG. All instated ASG leaders have received their respective group’s member lists and all ASG members should have received an ASG welcome letter in early

June, thus completing the reconstitution process. Please refer to [regional](#) and [thematic](#) leadership webpages for details on ASG’s current leadership. New members will be added to ASG and the SSC in four month cycles.

In other news, ASG will be present at both the Joint Meeting of Ichthyologists and Herpetologists (JMIH, 12–16 July, Austin, Texas) and the XI Latin American Congress of Herpetology (CLAH, 24–28 July, Quito, Ecuador). At JMIH, ASG has been invited to participate at a symposium in honour of Ray Semlitch entitled “The Science, Management, and Policy of Amphibian Conservation: Extending the Legacy of Ray Semlitch.” At CLAH there will be a regionally-led ASG symposium entitled “Joining Efforts for Amphibian Conservation in Latin America.” Spearheaded by ASG Brazil, the symposium seeks to provide a medium for Latin American ASG regional groups to both share experiences and strengthen relationships. We look forward on reporting on these events in a future edition of the Froggress Report.





Protecting globally imperiled amphibians in the highland forests of Ghana

The Togo-Volta Hills of Ghana near the border of Togo contain many species isolated from the more expansive rainforest blocks to the west and east. The unique biodiversity of this region makes it a priority conservation site for endemic plants and animals. The Critically Endangered Togo Slippery Frog's (*Conraua derooi*) extremely limited distribution lies within these forests, and the Endangered Ukami Reed Frog (*Hyperolius torrentis*) depends on this area as well. Critically Endangered Hooded Vultures, Vulnerable Black-bellied and White-bellied Pangolins and a plethora of endemic butterfly and amphibian species all reside within this forested habitat.

Despite their biodiversity value, the forests have no formal protection and are severely threatened by habitat conversion from logging, charcoal production, slash-and-burn

agriculture and disruption of aquatic ecosystems. "Unless something is done now, we risk losing a unique and irreplaceable ecosystem and species" says project lead Caleb Ofori.

ASA Partners Rainforest Trust and Herp Conservation Ghana are working together to support the establishment of the 789-acre Amedzofe Amphibian Sanctuary in the Togo-Volta Hills. In collaboration with residents of Amedzofe and other villages, local government officials, and Wildlife Division staff, Herp Conservation Ghana will develop a management plan, community rangers will be trained and equipped and alternative water sources for communities will be created to prevent further degradation of the forest stream and associated habitat.

James Lewis, director of conservation programs for Rainforest Trust

concluded "Amedzofe Amphibian Sanctuary is precisely the type of focused habitat protection effort that can make a significant difference to range restricted threatened amphibians. We encourage all ASA partners to identify similar sites in their countries/region that require formal protection and then reach out to Rainforest Trust to explore ways in which we can work together."

Please visit <https://www.rainforest-trust.org/saves-conservation/> to learn more.



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TANKS FOR TEMPORARY AMPHIBIAN AND REPTILE KEEPING

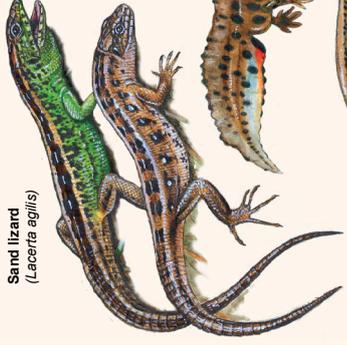
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Introduction

NaturaServis s.r.o. has developed tanks for temporary keeping of amphibians, reptiles and other animals (e.g. crayfish and bivalves) living in nature in the Czech Republic, but under direct threat from unfavourable biological impacts (e.g. parasitism, epidemics) or human activities (e.g. railroad and motorway development and maintenance, urban and industrial development, mine and quarry expansion).



Sand lizard
(*Lacerta agilis*)



Edible frog
(*Pelophylax esculentus*)



Smooth newt
(*Lissotriton vulgaris*)

Location of tanks

The Herpetological station in Hradec Králové (Czech Republic) houses more than 80 tanks, enabling the rearing of a large quantity of animals. In the various types of tanks, we are able to simulate natural conditions suitable for different animal species and thereby facilitate their survival and reproduction.

Technical description and function

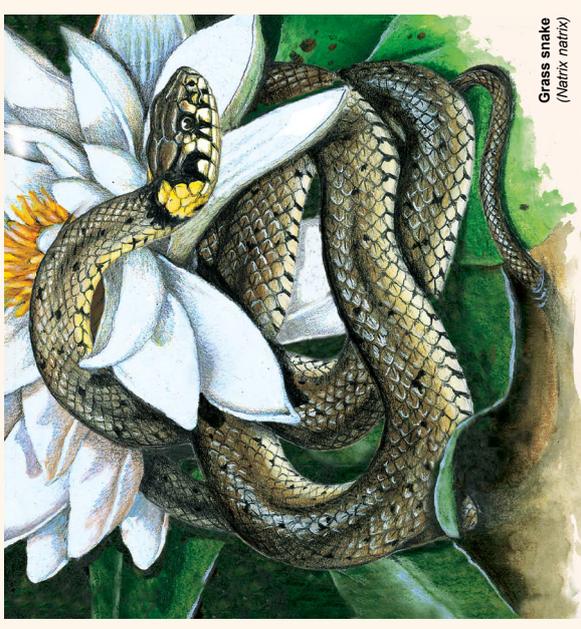
Tanks are outdoor technical facilities of varying size and structure suitable for keeping amphibians, reptiles and other small animals, such as molluscs and crustaceans. Special fences on these facilities ensure that kept animals cannot escape and, at the same time, that local species cannot get inside. Netting protects against predator attacks while allowing free passage of insects (providing a natural supplement to their feeding). Another adequate barrier against animal escape is a bottom covered by a strong, impermeable foil. All vegetation is placed in mobile containers or floats. This allows easy upkeep and management of facilities. When needed, a facility may easily be drained, the animals caught, and the area cleaned and sanitized before next use. If required, pumps, filters and other equipment may be installed. The temperature, pH, oxygen content and conductivity inside facilities are constantly monitored. The same measurements are made in original habitats as well so that we may adjust the monitored values to match natural conditions. Natural light and temperature are maintained in the facilities, and the proportion of water and terrestrial environment may be adjusted. All kept amphibians are tested for the fungal disease chytridiomycosis.

Use of tanks

We are able successfully to capture adult individuals as well as specimens at all development stages at endangered localities. Thereafter, we keep them in tanks with simulated optimal conditions for continuous care and upkeep. We place great importance on genetic cleanliness and maintenance of natural feeding habits of individual species, helping us to ensure their successful reproduction. Tanks are used especially in cases of unexpected events, such as devastation or degradation of natural habitat or the risk of such incident. They also can be used successfully to protect populations from the spread of epidemics (e.g. crayfish plague, chytridiomycosis).



Along with animal conservation in tanks, we aim to eliminate impacts endangering original habitats with the objective of releasing kept animals back to their natural environment. If the damage is irreversible, however, we keep the endangered animals in the tanks until we are able to release them to a new suitable biotope in cooperation with nature conservation authorities. Sometimes animals are kept only a short time, while in other cases they may be kept for a number of years.



Grass snake
(*Natrix natrix*)



Tanks for temporary amphibian and reptile keeping was supported by Technická agentura České republiky, Program Alfa

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