



progress report

Stories from our partners around the world

APRIL 2017
AMPHIBIAN SURVIVAL ALLIANCE
NEWSLETTER



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cmhansen@amphibians.org

AArk: Keeping threatened amphibian species afloat



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During the past two months Amphibian Ark has been involved in a number of projects.

We are continuing to facilitate national Conservation Needs Assessments, and at the moment we are concentrating on species from the Western Ghats in India, and North American salamanders. With several groups keen to establish *ex situ* conservation programs for species in the Western Ghats, a complete assessment of the species found in the region will identify those species that are most in need of *ex situ* rescue, and species that might be used as analog species for them. Analog species are generally less-threatened species which are often used to develop husbandry protocols for more threatened, related species. As well as providing protocols which can subsequently be applied to more threatened species, working with analog species is an ideal way to improve husbandry skills.

For the North American salamander assessments, we are trialling a new method of working on assessments,

which will hopefully mean less work for the expert assessors, and will increase the number of assessments that can be completed. We have enlisted 10 very eager and capable volunteers, who are currently drafting assessments, based on the data in previously-published species accounts. Once the draft assessments have been made, using all available data, we will then ask the appropriate species experts to review the drafts, update any additional data, and then approve them. This process of pre-filling assessments has been used for amphibian assessments in the IUCN Red List, and has proven to be very beneficial.

Our Training Officer is planning for a couple of capacity-building courses in the coming months - the Biology, Management and Conservation of North American Salamanders course will be held at Zoo Atlanta, Georgia, USA, September 18th–22nd, and the Guatemalan Amphibian Biology, Management and Conservation Training Course will be held at the Universidad del Valle de Guatemala in November 2017. Information about both courses can be found on the AArk web site, www.AmphibianArk.org.

And finally, we are currently calling for applications for AArk Seed Grants, with grant applications due May 1st. These competitive \$5,000 grants are intended to fund start-up rescue projects for species that cannot currently be saved in the wild. More information and grant guidelines can be found on our web site, www.amphibianark.org/aark-seed-grant/. We hope to announce several new grant recipients in the next edition of the Progress Report.



Amphibian love at Detroit Zoo



The Detroit Zoological Society has hired a new Director for our National Amphibian Conservation Center: Dr. Ruth. Dr. Ruth Marcec, more affectionately known as the “amphibian sex doctor,” earned both a doctorate of veterinary medicine and a PhD in animal physiology, with an emphasis on amphibian reproduction. Her prior research focused on “setting the mood” for amphibians in captivity, using both natural stimuli and artificial methods.

Since joining the Detroit Zoo in January of 2017, amphibian love has already been in the air with the captive production of a number of frog and newt species. The Detroit Zoo is involved in multiple, multi-institutional breeding programs that include releasing captive-bred offspring into the wild. Some of these programs have the ultimate goal of wild release, but have been waiting to release offspring until suitable habitat is found. One such program is that of the Dusky Gopher frog. Just this year, government agencies



have approved a trial wild release of offspring of this species produced in captivity. The Detroit Zoo will be one of two institutions to participate in providing offspring for this release. The Dusky Gopher Frog is notoriously difficult to breed in captivity, but, using Dr. Ruth’s techniques, we anticipate successful production of offspring.

The Detroit Zoological Society is excited to have Dr. Ruth on board in order to help amphibian conservation efforts move forward, and to help support the partnership between the Detroit Zoo and the global ASA.



At ASA, we spend a lot of time thinking about how to diversify this fantastic partnership. Developing strategies to mitigate the amphibian extint crisis demands a multi-faceted and creative array of potential solutions, that are of course mutually reinforcing. We want ASA to be representative of the range of approaches and geographical locations necessary to help conserve amphibians globally. This newsletter demonstrates that our partners

are already active in many fields and across many regions. Within this brief update, we have global news of habitat protection, captive breeding, capacity building, and producing films to communicate amphibian stories. In addition, we hear from the Asian Species Action Partnership to ASA, who are working to protect the most threatened land and freshwater vertebrates in Southeast Asia, including 10 Critically Endangered frog and toad species. We hope our respective partnerships can work together to promote amphibian conservation in Southeast Asia. As we continue to build ASA, we are keen to attract initiatives that address different aspects of the Amphibian Conservation Action Plan, in all of its holistic complexity! And we are of course very interested in hearing about new approaches too.

Finally, we are grateful to Dr. Ruth Marcec, the newly appointed Director of the National Amphibian Conservation Center at the Detroit Zoological Society, for joining the ASA Global Council. With Spring very much in the air of the northern latitudes, it is great to welcome Ruth (who is affectionately known as the “amphibian sex doctor”—please read her update above for further details!) to the team—breeding species everywhere are sounding a chorus of approval!

Dr. Helen Meredith
Executive Director
Amphibian Survival Alliance

Species on the brink

The Asian Species Action Partnership (ASAP) is an IUCN Species Survival Commission initiative, created to address the extinction risk among the most threatened land and freshwater vertebrates in Southeast Asia. Southeast Asia is home to incredible biodiversity, and a region of global biodiversity importance and species richness, yet it has by far the highest concentration of species on the edge of extinction of any region in the world. ASAP species are those land or freshwater vertebrates listed as Critically Endangered on the IUCN Red List of Threatened Species™ and found in Southeast Asia. There are currently ten amphibian ASAP species on the list (see Table 1), and ASAP is working to catalyse conservation action for these species.

ASAP aims to focus attention on a region that, without more serious conservation intervention, is likely to see the demise of much of its unique diversity. ASAP brings



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together organisations (ASAP Partners) and uses their synergistic strength to be more effective in achieving ASAP species conservation. By mobilising support where it is urgently needed, drawing on the collaborative expertise of conservation practitioners, pooling resources and efforts to maximise efficiency, and raising the profile of the lesser known species, ASAP hopes to minimise the extinction risks which could be imminent in the next two to three decades. As a new Partner to the ASA we are keen to hear from organisations working on conservation efforts for ASAP amphibian species. For more information, interest in collaborations or to become an ASAP Partner please contact asap@iucn.org or visit our website www.speciesonth brink.org.

Table 1: ASAP amphibian species

Scientific Name	Common Name
<i>Duttaphrynus sumatranus</i>	
<i>Leptobrachella palmata</i>	Palm Borneo Frog
<i>Leptolalax botsfordi</i>	Botsford's Leaf-litter Frog
<i>Leptophryne cruentata</i>	Bleeding Toad
<i>Megophrys damrei</i>	
<i>Oreolalax sterlingae</i>	Sterling's Toothed Toad
<i>Pelophryne linanitensis</i>	
<i>Pelophryne murudensis</i>	
<i>Philautus jacobsoni</i>	
<i>Platymantis insulatus</i>	Gigante Island Frog

Hope for a species

Harlequin frogs (Bufonidae: *Atelopus*) are among the most threatened amphibian taxa in the world, and are emblematic of tropical amphibian declines caused by the chytrid fungus (*Bd*). At least 40 of 97 described species of *Atelopus* are known to have disappeared in the past 20 years, with three species formally listed as Extinct (although

this number is suspected to be very conservative) and 82 species listed as Endangered or Critically Endangered. The Limosa Harlequin Toad (*Atelopus limosus*) is classified as 'Endangered' by the IUCN because of its small geographic range in Central America and impacts of habitat fragmentation and degradation. The spread of *Bd* in eastern Panama is

taking a toll on this species even though parts of its range include areas of pristine habitat within and outside of protected areas (e.g., Chagres National Park).

However, a seemingly wild breeding population of *A. limosus* is known to exist at the Cocobolo Nature Reserve (CNR) in Eastern Panama in spite of it being in the range of *Bd*. This unique population now provides hope for this genus and a unique opportunity for research that could benefit conservation efforts worldwide. CREA, a not for profit organization—and ASA Partner—that manages the reserve, has been attempting to protect, while investigate this wild population, and [this video](#) shares some of our passion for this work.



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Registration deadline for ASA Partners extended until May 15, 2017.
Please register at www.amphibians.org/acrs.



Draft Programme Version 1.1
Subject to changes



Amphibian Conservation Research Symposium 2017

Saturday 24th to Sunday 25th June, 2017. University of Kent, Canterbury, UK

Saturday 24th June

09:00–09:45	Registration and refreshments
09:45–10:00	Welcome address. Bob Smith (Director of DICE, University of Kent)
Session 1:	
10:00–10:30	KEYNOTE The Amphibian Ark: One Amphibian Survival Alliance partner's role in implementing the Amphibian Conservation Action Plan. Anne Baker (Amphibian Ark)
10:30–10:45	Do captive golden mantella frogs recognise wild conspecifics calls? Responses to the playback of captive and wild calls. Gerardo Garcia (Chester Zoo)
10:45–11:00	The Panama Amphibian Rescue and Conservation Project. Brian Gratwicke (Smithsonian Conservation Biology Institute)
11:00–11:30	Refreshment break
11:30–11:45	Development and application of assisted reproductive technologies in several species of endangered <i>Atelopus</i> sp. for optimal genetic management of captive populations. Gina Della Togna (Smithsonian Conservation Biology Institute)
11:45–12:00	Brumation, an essential reproductive adaptation in a North American anuran, <i>Rana muscosa</i> . Natalie Calatayud (San Diego Zoo Institute for Conservation Research)
12:00–12:15	Understanding the nutritional requirements of the Critically Endangered mountain chicken frog (<i>Leptodactylus fallax</i>). Stephanie Jayson (Zoological Society of London, London Zoo)
12:15–12:30	TBC
12:30–12:45	Spawning success: Head-starting, reintroduction and conservation management of the agile frog (<i>Rana dalmatina</i>) on Jersey, British Channel Islands. Robert Ward (University of Kent)
12:45–13:00	Saving very small populations. Kåre Fog (Amphiconsort)
13:00–14:00	Lunch
Session 2:	
14:00–14:30	KEYNOTE Amphibian Conservation an Australian Perspective. Jean-Marc Hero (IUCN Amphibian Specialist Group / Griffith University)
14:30–14:45	Diversity and species composition of amphibians of the Aripo Savannas Scientific Reserve, Trinidad, West Indies. Renoir Auguste (University of the West Indies)
14:45–15:00	Improving our knowledge of threatened amphibian assemblages in Hispaniola. Jeff Dawson (Durrell Wildlife Conservation Trust)
15:00–15:15	Amphibian diversity and Community-Based Ecotourism in Ndumo Game Reserve, South Africa. Fortunate Mafeta Phaka (North-West University / Youth 4 African Wildlife NPC)
15:15–15:30	Pragmatic suggestions for an up-to-date IUCN Red List of Threatened Species in amphibians and other taxa with high rates of species discovery. Christopher J. Michaels (Zoological Society of London, London Zoo)
15:30–16:00	Refreshment break
Session 3:	
16:00–16:15	Ripple effect: expanding eDNA monitoring in ponds from great crested newt (<i>Triturus cristatus</i>) to whole vertebrate assemblages. Lynsey R. Harper (University of Hull)
16:15–16:30	Amphibians and Plant Protection Products (PPPs) in the EU: Is relevant data available for risk assessments on terrestrial stages of amphibians? Nicolá Lutzmann (RIFCon GmbH)
16:30–16:45	Tracking amphibian pathogens using lateral-flow technology. Michael J. Dillon (University of Exeter)
16:45–17:00	Do frogs really eat cardamom? Understanding the myth of cardamom consumption by amphibians in the Western Ghats, India. Sethu Parvathy (St. Albert's College)
17:00–18:00	Poster session / refreshments
19:00 onwards	Social evening; Optional symposium dinner

Amphibian Conservation Research Symposium 2017

Saturday 24th to Sunday 25th June, 2017. University of Kent, Canterbury, UK

Sunday 25th June

09:00–09:45 Registration and refreshments

Session 4:

- 09:45–10:15 KEYNOTE *Batrachochytrium salamandrivorans*: emerging threat to European urodelan diversity. **An Martel (Ghent University)**
- 10:15–10:30 A bumpy business: effects of Dermocystid infections on the fitness of two palmate newt populations in the Netherlands. **Tariq Stark (Reptile, Amphibian and Fish Conservation the Netherlands)**
- 10:30–10:45 Host-pathogen persistence in a post-outbreak system: they got by with a little help from their AMPs. **Gonçalo M. Rosa (University of Nevada)**
- 10:45–11:00 Can host population genetic structure predict susceptibility to chytridiomycosis in naïve populations? **Donal Smith (University of Salford / Zoological Society of London)**

11:00–11:30 Refreshment break

Session 5:

- 11:30–12:00 KEYNOTE Title TBC. **Phil Bishop (IUCN SSC Amphibian Specialist Group)**
- 12:00–12:15 Saving Stream Dwelling Frogs (Paha) in the remote mountains of Manaslu Conservation Area, Nepal. **Biraj Shrestha (SAVE THE FROGS! Nepal)**
- 12:15–12:30 The Titicaca water frog in times of amphibian extinction. **Arturo Muñoz Saravia (Ghent University / Natural History Museum Alcide d'Orbigny)**
- 12:30–12:45 Setting objectives and indicators for amphibian reintroductions: the case of the northern pool frog *Pelophylax lessonae* in the UK. **Jim Foster (Amphibian and Reptile Conservation Trust)**
- 12:45–13:00 The golden tree frog (*Phyllomedusa auratus*) in Venezuela: what do we know so far and what remains to be known? **Mayke De Freitas (California State University)**
- 13:00–13:15 Assessing the demographic impacts of conservation management in the European Tree Frog in Switzerland. **Sam Cruickshank (University of Zurich)**
- 13:15–14:15 Lunch

Session 6:

- 14:15–14:30 From micro-endemism to a whole country: what can we learn from the *Melanophryneiscus admirabilis* project and the ASG Brazil Amphibian Conservation Actions Review? **Luis Marin da Fonte (Universität Trier, Trier, Germany / IUCN SSC Amphibian Specialist Group for Brazil)**
- 14:30–14:45 Frogs & Friends: Big stories from small messengers. **Björn Encke (Frogs & Friends)**
- 14:45–15:20 Madagascar: Life on the Edge (short film)
- 15:20–15:35 Closing remarks & awards. **Richard Griffiths (University of Kent)**
- 15:35–16:10 Refreshment break

16:30 onwards Optional visit to see the University's amphibian field study site (located on campus)

We are extremely grateful to our sponsors



amphibian and reptile
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ZOO





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Working together for the amphibians of Ecuador

ASA Partners Rainforest Trust and Tropical Herping are collaborating this year to help identify and protect critical sites for amphibians in Ecuador. The two conservation groups are working together, in coordination with local conservation NGOs, to identify priority areas that are home to threatened amphibians and which are in need of formal protection. This initiative is part of an ongoing effort by Rainforest Trust to identify and help protect the most critical sites for amphibians around the world.

During the project, the team will be collating a list of potentially “lost” amphibians and conducting searches to confirm that they still exist in the wild. The hope is that if these species are found, the team will be able to work with their local partners to establish new protected areas that will safeguard the species into perpetuity.

“We are really excited to be working with the Tropical

Herping team,” said James Lewis, Director of Conservation Programs for Rainforest Trust. “The hope is that by working with ASA partners around the world, we will be better positioned to help support the creation of new protected areas for amphibians. We actively encourage all ASA partners to reach out to us to discuss how we can work together.”



Rainforest Trust is working on similar projects in Madagascar and Guatemala, and is dedicated to the identification of important amphibian areas through support to both the Key Biodiversity Areas process and amphibian Red Listing.

For more information about Rainforest Trust’s work to conserve amphibians please contact James at james@rainforesttrust.org.

Dendrobatids: Rainforest jewels

Spotlight

A typical Costa Rican specimen of the blue jeans frog (*Dendrobates pumilio*)

COLORFUL AND POISONOUS DENDROBATIDS
RAINFOREST JEWELS

Technicolored, tiny and often dangerous, the gem-like frogs lurking on the Central and South American rainforest floor come in a dazzling variety of liveries

GOOGLE EARTH COORDINATES [VIEW](#)

Read about the tiny, often colorful and occasionally poisonous jewels of the Central American rainforest—the Dendrobatid frogs—in Andrea and Antonella Ferrari’s free online magazine *Anima Mundi - Adventures in*

Wildlife Photography’s latest blog post by [Cesar Barrio Amorós](#), noted and respected herpetologist from Costa Rica: <http://www.animamundimag.com/dendrobatids-rainforest-jewels/>



Anima Mundi - Adventures in Wildlife Photography—an ASA Partner—is a quarterly pdf magazine (100+ fully illustrated, fully interactive full-screen pages) permanently available for free downloading and free subscribing at <http://www.animamundimag.com>

Anima Mundi is always interested in amphibian-related, high-quality features from field researchers and wildlife photographers on a free, unpaid contribution basis. Do drop us a line at editor@animamundimag.com!



Protecting Mount Manengouba



With funds from Rainforest Trust, CAMHERP-CBF is working to upgrade Mount Manengouba as a Protected Area. This complex heterogeneous mountain is of outstanding amphibian diversity and endemism on the African continent. More than 100 species of amphibians are found there, of which more than half are the most threatened Cameroonian frogs and toads.

Of special importance are three Critically Endangered amphibian species: *Cardioglossa trifasciata*, *C. manengouba*, *Leptodactylodon erythrogaster* only known from few sites around the summit of this mountain. In collaboration with the Cameroonian Government and ERuDeF, CAMHERP-CBF has been carrying out outreach campaigns with the communities around the mountain. The organization raises awareness about the importance

of frogs and the preservation of its habitats. This special mountain, as well as the amphibians found there, is of cultural importance to the Bakossi tribe living in the area. As a result, sustaining amphibian populations found there will imply the long term sustainability of the cultural importance these frogs provide to the Bakossi tribe.

Over the past years, CAMHERP-CBF has been monitoring the population of the world's largest frog (*Conraua goliath*) around Nkongsamba. Regular exchange visits with the communities are ongoing to prevent over exploitation, as well as the use of pesticides and herbicides in rivers and streams where these frogs breed. The Goliath frog is highly collected for food and the pet trade in this region, and these practices seem to be impacting the wild population around these sites. Recent campaigns with the communities indicated that they are becoming difficult to find. Campaigns are planned to change community attitudes towards this frog.



"Toxic Midgets of Colombia"



Frogs & Friends just released its new video documentary about the joint-research-project of Zurich Zoo, Cali Zoo, Wildlife Conservation Society Colombia and Parques nacionales naturales de Colombia.

Zurich Zoo has been cooperating with Cali Zoo in amphibian conservation for years, in 2016 this cooperation has undertaken a re-launch: under the lead of WCS Colombia a first extensive amphibian assessment in five Colombian national parks will be executed, and a long term investigation has been set up to investigate the *Phylllobates terribilis* population in the community of Joaquinquito in the Rio Naya delta. This area at the Pacific coast had been under control of the FARC-guerrillas for decades and difficult to access. In November 2016 Frogs & Friends accompanied Chief-Curator Martin Bauert from Zurich Zoo on an excursion to the Rio Naya. They were the first non-Colombians to visit the indigenous village in over 20 years. The inhabitants of Joaquinquito form part of the nation of Eperara-Siapidara Indians. This group originated from farther south from the region along the Rio Saija and started settling in Joaquinquito in the 1920s. Since they used to live mainly off their hunting—with the help of the poison from the Terrible Poison Frog.

Carlos Galvis, chief-curator of Cali Zoo now suggests that it actually might have been the indigenous who established *Phylllobates terribilis* on their island as a sort of sustainable ammunition.

In five chapters and several additional content elements [the video-report](#) gives an insight into the various aspects of this project.



The EDGE Fellowship Programme

Building capacity to save the world's most extraordinary species



The call for 2017 EDGE Fellowship applications is NOW OPEN

We are only receiving applications from Latin America and the Pacific Islands.



One of the most effective ways ZSL's EDGE of Existence programme (www.edgeofexistence.org) is working to secure the future of EDGE species is by awarding two-year Fellowships to future conservation leaders "EDGE Fellows" working on poorly-known EDGE bird, mammal, amphibian, reptile or coral species.

EDGE Fellows follow a comprehensive two-year training programme comprising of:

- A grant of up to £10,000 to undertake a 2-year project on a priority EDGE species
- A 4-week Conservation Tools training course
- Ongoing technical support and mentoring
- A 2-week Conservation Leadership training course in London

Eligibility:

- Focus your work on an EDGE species included on the 2017 curated list
- Be an early-career conservation biologist or wildlife manager (less than 10 years' experience).
- Be a resident of the country in which the proposed focal species occurs.

The EDGE Fellowship application deadline is **16th June 2017**. Successful applicants will be announced by the end of August 2017.

ZSL's EDGE of Existence Programme is kindly supported by Fondation Segré, investing in the next generation of conservation leaders.

