

FROGLOG

Newsletter of the IUCN/SSC Amphibian Specialist Group



Amphibian Conservation from Global to Regional

The sixth World Congress of Herpetology, held in Manaus last week, opened with an Amphibian Conservation Symposium hosted by the ASG. Thirteen speakers representing six continents presented their visions for amphibian conservation in their respective Regions. The Symposium was designed to facilitate the translation of the Amphibian Conservation Action Plan (ACAP) from global to regional scales through the development and implementation of context-specific action plans.



Priya Nanjappa Mitchell from Partners in Amphibian and Reptile Conservation (PARC) stresses the importance of engaging partners

VOL 88 AUG 2008

WHAT'S INSIDE

Cover story

Amphibian Conservation: from Global to Regional Page 1

Around the World

Research on *Salamandra atra aurorae* in Italy Page 2

Impact of myths on the population of Gymnophionan amphibians among the inhabited areas of Kerala, India Page 7

Seychelles Amphibian Conservation Priorities Page 6

Seed Grants

DAPTF Seed Grants Page 8

Announcements

Euogenics offers commercial test for Chytrid Page 8

Publications

Are we in the midst of the sixth mass extinction? Page 8

Date for the Diary

Symposium: Halting the Global Decline in Amphibians Page 9

Instructions to Authors Page 9

Continued from Cover page

The session was opened and closed by ASG Co-Chairs Claude Gascon and Jim Collins respectively. Presentations were made by Paula Valdujo (Brazil), Santiago Ron (Ecuador), Cesar Molina (Venezuela), Federico Bolaños (Costa Rica), Jose Mora (Mesoamerica), Priya Nanjappa Mitchell (USA), Phil Bishop (New Zealand), Sanjay Molur (South Asia), Jodi Rowley (Southeast Asia), Steffan Lotters (Central and East Africa), Franco Andreone (Madagascar) and Shi Haitao (China).

The presentations were inspir-

ing and highlighted the level of commitment and dedication to protecting amphibians and their habitats around the world. In all Regions represented, a workshop has been held, or is planned, to develop a Regional or National Action Plan for amphibian conservation. Some are impressively far along in the process and have gained significant support from governments and the broader community to implement priority actions.

The ACAP (which can be downloaded from www.amphibians.org) was released

in 2007 to serve as a stimulus and guide for amphibian conservation globally. Translating it into Regional and Action Plans is an important next step in setting targets to achieve tangible outcomes. The Symposium provided a forum for the exchange of ideas and approaches and helped to nurture a global community devoted to amphibian conservation, and to which all those who are still reading belong. We look forward to working with all of you to achieve a brighter future for amphibians and ourselves.

AROUND THE WORLD

Research on *Salamandra atra aurorae* in Italy

Wouter Beukema

Salamandra atra aurorae is a endemic subspecies of the Venetian Prealps, Italy, which has been isolated since the Pleistocene glaciations on the Sette Comuni Plateau. This subspecies is characterised by its yellow patches, which are ancestral to the genus *Salamandra* (Bonato & Steinfartz 2005) but absent in the much wider spread nominate subspecies. *S. a. aurorae* has a fragmented distribution with an area of 15x2 km, making it one of the rarest salamanders in

Europe. In comparison with other Italian salamanders such as *Speleomantes* ssp., *Salamandrina* ssp. and *Salaman-*

S. atra aurorae is one of the rarest salamanders in Europe



Salamandra atra aurorae

SALAMANDRA ATRA AURORAE RESEARCH

Continued from previous page

dra lanzai this subspecies has received little attention since its discovery.

During fieldwork from May to July 2007 for the European LIFE project 'Sistema Aurora', directed to the conservation of amphibians in the Italian Prealps, distributional and ecological data were gathered for *S. a. aurorae*, to assess conservational status. The first locality within the autonomous region of Trentino-Alto Adige was discovered (Beukema & Brakels 2008), although highly threatened by human influences. Overall, *S. a. aurorae* seems to be severely fragmented through its entire distribution, and is threatened by multiple human influences such as water extraction from the karst, logging and turning brooks into roads.

Processing of additional data gathered during the project is underway.



***Salamandra atra aurorae* habitat showing impacts of logging and water extraction**

Acknowledgements

This work was partially funded by an Erasmus scholarship for international studies by the Van Hall Institute, The Netherlands & University of Udine, Italy and the LIFE project 'Sistema Aurora' (LIFE04 NAT/IT/000167).

References

Beukema, W., P. Brakels. 2008. Discovery of *Salamandra atra aurorae* (Trevisan, 1982) on the Altopiano di Vezzena, Trentino

(Northeastern Italy). *Acta Herpetologica* 3(1): 77-81.
Bonato, L., S. Steinfartz. 2005. Evolution of the melanistic colour in the Alpine salamander *Salamandra atra* as revealed by a new subspecies from the Venetian Prealps. *Italian Journal of Zoology* 72: 253-260.

Author e-mail: wouter_beukema@hotmail.com

Deep-rooted myths and their impact on the population of Gymnophionan amphibians among the inhabited areas of Kerala, India.

K.Ramachandran and Oommen V.Oommen

Kerala is one of twenty eight states in India, lying at the peninsular tip. Blessed with abundant rainfall, the state is verdant with rich for-

ests and teeming with wildlife. It has numerous rivers, a lush coastline and scenic backwaters. Geographically it falls within the Western Ghats- a 1,600 km

range of mountains that runs through Kerala, and has contributed to the high ranges. This enormous diversity of microhabitats has contributed to immense

Continued from previous page



Ichthyophis tricolor and *Gegeneophis ramaswami* (the smallest one)

biological abundance. As with the rest of India, the people of Kerala maintain a symbiotic relationship with nature and live in harmony with it

Blessed with abundant rainfall, Kerala is verdant with rich forests and teeming with wildlife

The many mythological beliefs passed down through generations have animals as their protagonists. The epics Ramayana and Mahabharata have

magnified the prowess of their animal heroes. These beliefs have contributed largely to the veneration for wildlife and their natural habitat. However, in the case of caecilian amphibians, the much maligned animal has been wrongly implicated as dangerous and ruthlessly butchered on being encountered.

From the numerous field visits we have learnt that it is considered deadly by the common people. A tribal man in the Agasthyavanam Biological Reserve informed us that *Ichthyophis tricolor* was more poisonous than a King Cobra. When questioned as to the veracity of this claim he admitted that he

had no personal knowledge of any casualties but was steadfast in his belief that it was dangerous. Thus, this poor harmless animal through its sheer similarity to the poisonous snake is brutally exterminated.

However, it is puzzling as to why the snake is venerated and the caecilian is massacred. The state is dotted with protected sacred groves that are dedicated to the Cobra.

Currently, almost 16 species of caecilians are reported from this tiny state and the number will hopefully go up considering the recent surge in field work. Interestingly, only a few are discovered or reported from the prevalent highly protected areas like Wildlife sanctuaries, Tiger reserves and other reserve forests. Instead, the sightings are more from the human inhabited areas, mainly agricultural fields and plantations. This clearly shows that a considerable number of species live in harmony with man provided not many pesticides are used. In many areas people allow even the deadly cobras to flee but not caecilians. Recently, when we inquired about the presence of caecilians in one village called Nileshwar in Northern Kerala, the reply was quite alarming.

Continued from previous page

The house owner said that they had killed one the other day and burned it using salt and kerosene! It is clear that the people fear caecilians that much that they even do not want to bury the dead animal in their soil and instead prefer to reduce it to ashes. In most parts of Kerala, people believe that it won't die even after many blows and this may be another reason for using kerosene and salt. It is true that adult caecilians can show much resistance.

One proverb in Wyanad district in the North Kerala goes like this 'Daivam kurudikku kannum kuthirakku kombum kodukilla' which means God has not given eyes to caecilians and horns to horses for the deadly poison and the extreme muscle power can be used disastrously by the two animals ! Interestingly, though many of

In many areas people allow even the deadly cobras to flee, but not the caecilians

the caecilians have externally visible eyes. That means these false myths had originated be-



Ichthyophis tricolor

cause of some completely blind species like *Gegeneophis ramaswamii*. In some areas caecilians are known as double-headed animals and in some other parts as blind-snakes. Hence many times the field searches result in the capture of actual blind snakes or other snakes of the Uropeltidae family.

Thus the deep-rooted myths can contribute to the decline of caecilians. This can have serious implications in the long run as already many caecilians are succumbing to pesticide uses, changing land use patterns and accidental deaths during agricultural work. So it is high time people are educated to do away with baseless myths.

People have to be convinced of the harmlessness of these animals and the best method is to

prove it so by handling them with confidence and displaying it. These myths prevail today mainly because of the lack of field study, especially in the Northern Kerala region.

People are educated but not environmentally aware. There have been no quantitative studies on the role of these myths on the decline of these 'snake-like frogs'. There is much to do for the long-term survival of these elusive animals.

Acknowledgements: The authors thank the University Grants Commission (No. F-15/2007-SAP-II) for financial assistance.

Author email: oommenvo@yahoo.com

Seychelles Amphibian Conservation Priorities

Justin Gerlach

The following provides a summary of the primary threats and conservation and research priorities for the amphibians of the Seychelles.

Threats

1. Development
2. Habitat degradation
3. Population fragmentation
4. potential threats – competition, disease, climate change

General measures

1. Protection of key populations – Prevention of development in key sites (i.e. road development proposed for Silhouette island) is the highest priority. All protected except Silhouette island. Protection of Silhouette announced (2007) but not implemented yet. Priority sites: Silhouette island

2. Habitat management – Severe habitat degradation is occurring in all areas due to invasion by alien plants. This is particularly severe in high forests and cloud forest refugia which are highly vulnerable to climate change. Habitat management is needed to halt the deterioration and maintain dynamic habitats that may be

able to adapt to climate change. Priority sites: Jardin Marron and Mon Plaisir, Silhouette island

Specific measures

Sooglossus thomasseti

VU (high forest Mahé & Silhouette). Needs re-evaluation due to impacts of climate change.

Conservation - protection of Silhouette population from road development (threatens lowest altitude populations). Habitat restoration: Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)

Research – moss forest & climate monitoring, population genetics

Sooglossus sechellensis

VU (high forest Mahé & Silhouette). Needs re-evaluation due to impacts of climate change

Conservation - protection of Silhouette population from road development. Habitat restoration: Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)

Research – moss forest & climate monitoring, population genetics. Population monitoring ongoing.

Sooglossus gardineri

VU (high forest Mahé & Silhouette). May need re-evaluation due to impacts of climate change

Conservation - protection of Silhouette population from road development. Habitat restoration: Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)

Research – Population genetics. Population monitoring ongoing

Sooglossus pipilodryas

VU (high forest Silhouette). May need re-evaluation due to impacts of climate change

Conservation - protection of Silhouette population from road development. Habitat restoration: Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)

Research – Reproductive biology, population genetics. Population monitoring ongoing

Tachycnemis sechellensis

LC (lowlands Mahé, Silhouette, Praslin & La Digue)

SEYCHELLES AMPHIBIAN CONSERVATION PRIORITIES

Continued from previous page

- Conservation** – no known threats but recently identified potential threat of competition from *Ptychadena mascariensis* needs investigation.
- Research** – larval competition with *Ptychadena mascariensis*, population genetics
- Praslinia cooperi*
VU (high forest Mahé & Silhouette) [should be upgraded to CR on basis of development proposal]
- Conservation:** protection of Silhouette population from road development (threatens 50% of range). Habitat restoration: Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)
- Research** – high forest & climate monitoring, population monitoring, population genetics
- Hypogeophis rostratus*
LC (forests Mahé, Cerf, St. Anne, Silhouette, Praslin, Curieuse, La Digue, Grande Soeur & Fregate)
- Conservation:** protection of Silhouette population from road development. Habitat restoration – Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)
- Research** – monitoring, population genetics
- Grandisonia alternans*
LC (forest Mahé, Silhouette, Praslin, La Digue, Fregate)
- Conservation:** protection of Silhouette population from road development. Habitat restoration – Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)
- Research** – monitoring, population genetics
- Grandisonia brevis*
EN (high forest Mahé & Silhouette)
- Conservation:** protection of possible Silhouette population from road development. Habitat restoration – Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)
- Research** – distribution (need to confirm its presence on Silhouette), high forest & climate monitoring, population monitoring, population genetics
- Grandisonia larvata*
LC (forest Mahé, Silhouette, Praslin, La Digue)
- Conservation:** protection of Silhouette population from road development. Habitat restoration – Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)
- Research** – monitoring, population genetics
- Grandisonia seychellensis*
LC (forest Mahé, Silhouette & Praslin)
- Conservation:** protection of Silhouette population from road development. Habitat restoration – Jardin Marron (Silhouette), Morne Seychellois National Park (Mahé)
- Research** - monitoring, population genetics

Author email: jstgerlach@aol.com

DAPTF Seed Grants

Tim Halliday

Recipients of DAPTF (and now ASG) Seed Grants are generally expected to publish the results of their projects in refereed journals, or as articles in Froglog. They are also required to send us reports, so that their results can be made available to ASG

members. Below are reports that we have received recently. Anyone wanting a copy of either should contact the author in the first instance; if you cannot reach the author, contact Tim Halliday - t.r.halliday@open.ac.uk.

Rodrigo Aguayo Vedia. (2006) Abundancia, estructura pobla-

cional y fenología reproductiva de seis especies amenazadas de anfibios en el Parque Nacional Carrasco, Cochabamba, Bolivia. (phrynopus@gmail.com)

Umilaela et al. (2008) Frog Conservation in Bengkulu, Sumatra - Indonesia (me_laela@yahoo.com)

ANNOUNCEMENTS

Ecogenics offers commercial test for Chytrid fungus

Benedikt R. Schmidt

The swiss company Ecogenics (www.ecogenics.ch; info@ecogenics.ch) will be offerering commercially a PCR-based test for the detection of chytrid fungus

from amphibian tissue samples and non-invasive swabs. The test is the real-time PCR test developed by Boyle et al. (2005, Diseases of Aquatic Organisms 60: 141-148). Please contact Ecogenics di-

rectly for pricing and further details. Establishment of the test by Ecogenics was financed by the swiss federal office for the environment through a contract with KARCH.

PUBLICATIONS

Are we in the midst of the sixth mass extinction? A view from the World of amphibians

David B. Wake and Vance T. Vredenberg

The above article, published this month in PNAS (August 12, 2008 vol. 105) provides an excellent overview of the current amphibian crisis placed in a historical context. The paper has generated considerable media attention, with CNN and CBS amongst those running prominent features.

Links to video coverage - CBS: CNN:

<http://www.cnn.com/video/#/video/living/2008/08/12/simon.pip.frogs.cnn>

<http://www.cbsnews.com/stories/2008/08/12/evening-news/main4346151.shtml>

To find out more about Vance Vredenberg's research, visit: <http://web.me.com/vancevredenberg>

Symposium: Halting the Global Decline in Amphibians

Organizers: Lesley Dickie (EAZA & Amphibian Ark), Kevin Zippel (Amphibian Ark) and Jennifer Pramuk (WCS)

Dates: 20 - 21 Nov 2008

Times: 9:00 am - 5:00 pm

Location: Zoological Society of London, London, UK

With a large number of amphibian species facing an uncertain future, this symposium will bring together researchers and conservation practitioners working in the field and in captive collections to discuss the current threats and present potential solutions to avert this imminent biodiversity crisis.

Sir David Attenborough is amongst the speakers who will assess the current knowledge of amphibian declines worldwide and detail the methodology being employed both in- and ex-situ to combat losses. The role of the 2008 global cam-

paign by the world's zoos, the 'Year of the Frog', in catalyzing required funding and stimulating both government and public action will also be described.

Registration is now open:

Please find further information at the website below including a programme for this 2-day event. Please note updates to the programme will be available from this website as soon as possible.

Present a poster of your research or work in this area:

posters relating to the symposium topic will be displayed throughout the meeting and attendees will have plenty of time to study posters during tea/coffee breaks. Posters will be accepted on a first-come first-served basis and abstracts of no more than 250 words outlin-

ing poster content should be emailed to joy.hayward@zsl.org by 27 October 2008 for consideration. You will find a word document version of the poster submission form at the website below.

Tickets and enquiries:

All tickets for attendance must be purchased in advance and will be available on a first-come, first-served basis; please complete and return all registration forms along with payment to Joy Hayward, Scientific Meetings Co-ordinator, Zoological Society of London, Regent's Park, London NW1 4RY, UK. e-mail: joy.hayward@zsl.org.

Please visit www.zsl.org/science/scientific-meetings for more information and forms.

Instructions to Authors

FROGLOG publishes a range of articles on any research, discoveries or conservation news relating to the amphibian decline phenomenon. We encourage authors describing original research to first make submissions to a refereed journal and then, if appropriate, to publish a synopsis in Froglog. Submissions should be in English, normally no more than

1000 words and follow the style of FROGLOG Vol 83 (as should references). You may also submit images, maps, figures or tables. We encourage the submission of photographs to accompany text. Short news items and press releases are also acceptable. Please submit potential contributions to Robin Moore at the address in the box to the right.

FROGLOG is the bi-monthly newsletter of the Amphibian Specialist Group (ASG). Articles on any subject relevant to the understanding of amphibian conservation, research and / or assessments should be sent to: Robin Moore, Editor, Conservation International, 2011 Crystal Drive, Suite 500, Arlington, VA 22202, USA. E-mail: rdmoore@conservation.org