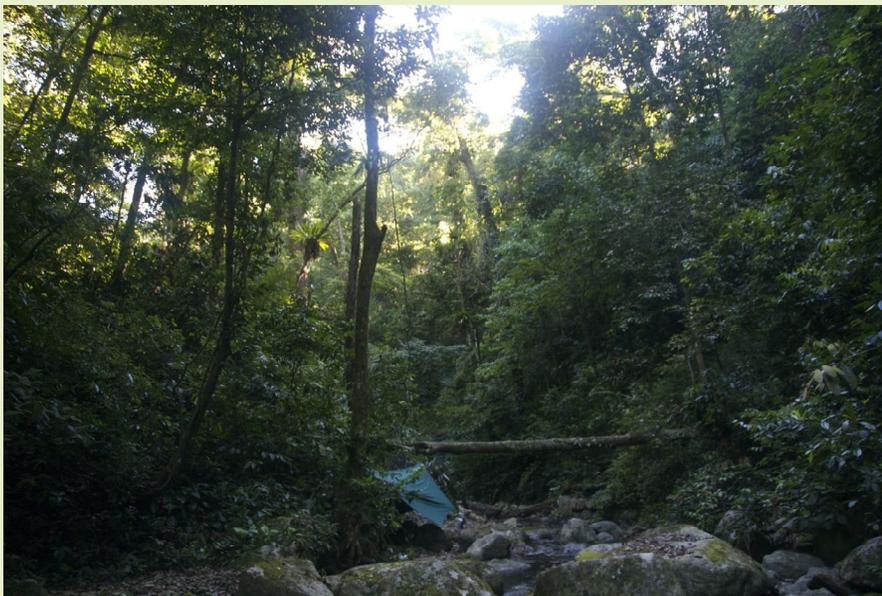




## Diaries of a Field Herpetologist

Conducting field research in the tropics can be a demanding pursuit. Few are as tirelessly passionate about it as Jodi Rowley of Conservation International, whose quest to document the amphibians of Vietnam and Cambodia and raise awareness about the plight of amphibians is inspiring. Jodi shares some of the diaries she keeps whilst in the field.



*Study site and hammock in Vietnam*

VOL 85 FEBRUARY 2008

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## DIARIES FROM THE FIELD

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### VIETNAM

21/7/07: Today I discovered the hard way that our three young local guides had no idea where they were or how to get where we were supposed to be going. We scaled 70° cliffs comprised entirely of loose debris, carrying heavy backpacks. I had a relatively large panic attack at one stage, where I was frozen in place on the side of a cliff. I was convinced that absolutely every move I could possibly make would result in me falling to my death. If I'm climbing and there are no hand-holds, and a hideous drop below me, I'm useless. If there's something to hold on, and I don't look back, I'm okay. On this particular instance, we had been climbing up a mountain via a stream, and had encountered a 500 m high, vertical waterfall that we had to somehow go around. Climbing up streams is rarely the easiest way to get up a mountain.

22/7/07: Woke up at 4am. Had been in and out of sleep for some time, with the vague notion that

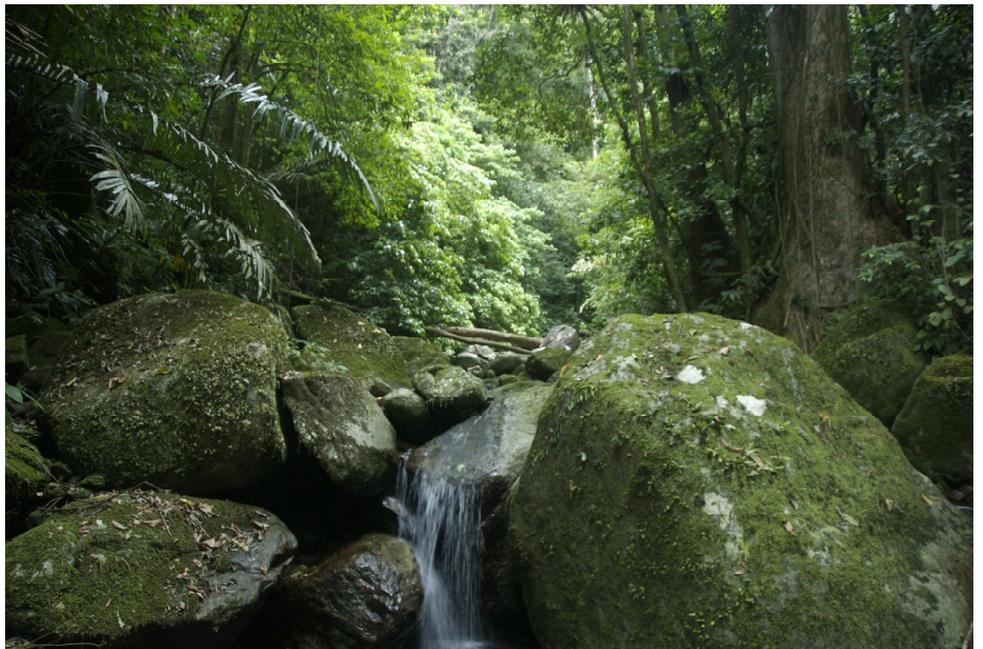


*Ophryophryne sp. calling*

my legs were sticky. It took a while to think seriously about investigating, as opposed to falling back to sleep. When I finally got out of my hammock, I found that I was completely covered in semi-congealed blood, from the knees down, but mainly on my left ankle. My sleeping bag was soaked in blood. While wiping down

the sleeping bag with a tissue, I found the culprit- a large black leech with a yellow stripe. One of the porters had been attacked by this type of leech earlier in the day, and when I saw the blood pouring down his leg, I thought that he'd had a serious accident. Turns out it was a "blue leech". Very unpleasant. Before falling back to sleep I thought of my friends back home in warm, dry beds without leeches.

24/7/07: Last night, while walking back to camp after the survey, I was dreaming of eating one of the sugary sponge cakes we brought with us. The walk was long, and I was starving. When we eventually made it back, I found out that the three local guides had eaten all 30 cakes that we had brought with us in only a few days, plus an entire bag of cookies, without my knowledge! I continued



*Study site in Vietnam*

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## DIARIES FROM THE FIELD

*Continued from previous page*

dreaming of cakes while eating instant noodles.

25/7/07: Today I attempted not to get any more leech bites, as my “blue leech” bite has swollen to the size of a golf ball on my ankle. In addition, I have about 20 other normal leech bites, ant bites and various other, unexplained bites on my body and arms, plus a rash on my hip, numerous scratches and deep purple bruises. Attractive!

Tonight during the survey, it started pouring. Thunder and lightning and all. Almost everyone instantly ran back to camp, but three of us continued our survey in the downpour until the stream was getting so full and fast that not even the frogs were braving it anymore.



*Rhacophorus sp. Vietnam*

In the last half hour, we almost drowned ourselves, found only a single frog, and began worrying about the status of our camp-site. We gave up and came back to a flooded camp. My hammock was

pooling water and leaking, so I spent about an hour in the rain, trying to fix it. The river next to our camp had risen so much it was lapping at our feet, and everyone was sitting up with worried faces, periodically shining torches at the raging river. Once I was relatively sure that my hammock would keep me somewhat dry overnight, I put on my only dry clothes, only to discover that I was covered in leeches that I had to extract and flick out the hammock. By morning, the water didn't rise any more, but we had all lost something in the mini-flood. I lost my hiking boots. They were on a rock near (but not that near) the stream. Other lost their shoes or various items of clothes that had been stretched out on rocks to dry in the afternoon.



*Limnonectes dabanus, Cambodia*

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**DIARIES FROM THE FIELD**

*Continued from previous page*

**CAMBODIA**

9/10/07: Today we set up a satellite camp deeper in the forest. To get there, we tromped through about an hour of grassland, slipping and sliding on wet clay and grass, then down a gully full of bamboo, across a stream, then through a swamp to evergreen forest full of mosquitos and leeches. We stopped briefly for lunch, a bag of rice and soy sauce, which was eaten whilst jumping up and down and flicking branches around us in an attempt to reduce the amount of mosquitos biting us. We then hiked up a hill, along a ridge and down through bamboo and rattan spines, to a suitable camp-site near a stream that looked promising for amphibians. The nights' survey was shorter than usual because we were all almost unconscious with tiredness and injured to some extent. I woke up at about 5am with a cricket loudly

chirping within 30 cm of my head. I tried in vain to locate and destroy it, but failed.

11/10/07: Tonight we decided to survey another stream, about 300-400 from our satellite camp. Unfortunately, 200-300m of this involved climbing down a gorge of slippery clay- similar to abseiling. Once down, the stream was steep, and full of huge boulders and waterfalls- yet devoid of life. Getting back to camp was even more difficult, and involved pulling ourselves up vertical, slippery clay slopes by trees, clawing into clay with our fingernails, and dislodging loose rocks upon each other.

12/10/07: I woke up early to the cricket in my tent again, and was anxious about the walk ahead. Packed up my wet gear (found the cricket), and waited for everyone else to do the same before heading out from camp at around 9am. There began a memorable five-hour march through miles of rattan, up and

down cliffs, over and under logs, through bamboo obstacle-courses, mud pits and rivers. It didn't help that we also lost our way and so chose possibly the longest and most difficult route possible. Vines kept getting stuck on our backpacks, driving us insane. Like turtles, we pulled forward and flailed with our arms behind our head, in an effort to release ourselves, desperate to continue always forwards. To step backwards was to admit defeat. We carried on until we eventually broke through to the edge of the grassland. My knee was hurting and I was exhausted. We stopped to eat rice for lunch and some sort of biting fly bit my hand, sending half of my lunch flying into the dirt. Whilst picking my lunch up off the ground, I realised that I'd managed to lose my rain jacket on the way down from the mountain. I was in a foul mood. We continued our march, convinced the worst was behind us. My shoelaces kept undoing and it took a lot of effort to bend over and tie them. We stopped at an abandoned hunters camp in a patch of forest, and saw a huge grassy hill in the distance. I thought that we couldn't possibly be about to climb up that. I was wrong. The main camp was on the other side of the hill. We hauled ourselves up the slippery hill, stopping every few minutes to catch our breath. I was bright purple by the time I got to the top, and everyone else was a deep shade of red. We threw our bags down and hunted for water, then put up our tents and hammocks to dry, washed in the stream and collapsed.



*Odorrana, Cambodia*

## Leaping into Year of the Frog

Year of the Frog was jump-started by Sir David Attenborough as he added the finishing touches to a frog sculpture at London Zoo on

New Year's day. 2008 promises to be a busy year for the frogs, with many events planned to celebrate amphibians and raise awareness about their plight. In celebration of Leap Day,

Conservation International will be hosting a series of media campaigns centered around frogs from 25-29 February. Please join us at [www.conservation.org](http://www.conservation.org).

## AZA Call for Proposals

The 2008 AZA Conservation Endowment Fund (CEF) application is now available on the AZA website at <http://www.aza.org/ConScience/WhatIsCEF/> <<http://www.aza.org/ConScience/WhatIsCEF/>> Proposals are due by 5:00 PM EDT, Friday, 4 April 2008.

### ABOUT CEF:

Since 1991, the AZA Conservation Endowment Fund has provided over \$4.5 million to 258 projects in over 50 countries worldwide. The AZA CEF supports the cooperative conservation, research and education initiatives of AZA members and their partners. We welcome a broad range of proposals relating to wildlife conservation and

care — research, field conservation, education, animal welfare, animal husbandry and management, and animal health. Please visit <http://www.aza.org/ConScience/PreviousCEF/> <<http://www.aza.org/ConScience/PreviousCEF/>> to view the list of previous award-winning projects.

### ABOUT AZA'S AMPHIBIAN FUND:

Created in honor of 2008 Year of the Frog, the AZA Amphibian Fund directly supports amphibian conservation projects around the world. Proposals must adhere to the CEF application format, timeline, and eligibility guidelines. Preference will be given to projects that build and strengthen AZA members' and partners' capacity to address the global amphibian con-

servation crisis.

We encourage submission of projects that are responsive to priorities outlined in the Amphibian Action Plan, as well as in situ and/or ex situ projects that address other high-priority amphibian conservation concerns that are not currently being met by ongoing efforts. Projects focusing on multiple taxa including amphibians will be considered for general CEF funding, not for support from the Amphibian Fund. Amphibian-related projects may be considered for general CEF funding as well as support from the Amphibian Fund, as appropriate. For more information, please visit [http://www.aza.org/ConScience/CEF\\_AmphibFund/](http://www.aza.org/ConScience/CEF_AmphibFund/).

## DAPTF Seed Grants

Recipients of DAPTF Seed Grants are generally expected to publish the results of their projects in refereed journals, or as articles in Froglog. The following papers report work supported by a DAPTF Seed Grant awarded to Tibor Hartel ([asobeka@yahoo.com](mailto:asobeka@yahoo.com)) in 2004:

[asobeka@yahoo.com](mailto:asobeka@yahoo.com)) in 2004:

Hartel, T., Nemes, S., Demeter, L. & Öllerer, K. (2008) Pond and landscape characteristics - which is more important for common toads (*Bufo bufo*)? A case study from central Romania. *Applied Herpetol*: 5; 1-12.

Hartel, T., Öllerer, K. & Nemes, S. (in press) Critical elements for biologically based management plans for amphibians in the middle section of the Tarnava Mare basin. *Acta Scientiarum Transylvanica*: 15; 109-132.

## Conservation of Toads in Urban Areas

**Liron Goren**

Urbanization and farming rapidly reduce open lands in different parts of the world adversely affecting biodiversity. The dependence of amphibians on terrestrial as well as aquatic habitats makes this animal group especially vulnerable to habitat destruction. Indeed amphibians are the vertebrate group most threatened. We recently initiated a study aimed at assessing the probability of survival in urban areas of the green toad (*Bufo viridis*), an endangered species in Israel (see photograph). Our hypothesis is that an amphibian population enclosed by an urban area (a remnant of a population that existed in the site prior to urbanization) will survive and breed successfully provided that they have access (via a corridor) to a breeding pond as well as to a site of an open land (or alternatively to a large park) that can support their terrestrial activity. We compare three situations, one of a population entirely enclosed by a build up area but with an access to a breeding pond and to a nearby park; a second population that breeds in a winter pond that we dug a year

ago in an urban area in the vicinity of a stream park that provides riparian habitats; a third population is in a site that was recently modified and transformed from semi-natural state to an urban environment. In the latter case the green toad population, a remnant of a larger population that existed in the area, can either continue to breed in small puddles and drainage channels and carry on terrestrial activity in newly constructed city park, or move to a pond that was dug two years ago in a nearby agricultural area (within distance of 1 km). For the past 2-5 years we marked juveniles and adults of the green toad (with passive integrated transponder) in these sites and will continue to do so for the coming

years. During the breeding period we record individuals present in the in the breeding ponds and their vicinity. Outside the breeding period we will look for marked and unmarked individuals in terrestrial habitat within 1 to 2 kilometers of the breeding sites. We plan to assess movements of green toad individuals in an out of these urban areas, determine survivorship, population age structure, number of breeding females and assess breeding success (metamorphosis recruitment). We will gladly share information with other researchers with mutual interest.

Liron Goren (MSc student) – goren.liron@gmail.com

Department of Zoology, Tel-Aviv University, Ramat Aviv 69978, Israel



*A female green toad recorded in a residential park*

## The Amphibian Project

Payal Kapoor

The Amphibian Project is working with Amphibian Ark and Africam Safari (a zoo in Puebla, Mexico) to save the Critically Endangered Large-crested Toad (*Bufo cristatus*) from extinction. This rarely seen species was thought to be extinct until just recently. A field survey conducted by Africam Safari and partners located a number of tadpoles and metamorphs which confirmed the existence of this species in the wild.



*Bufo cristatus* habitat

To ensure the survival of the Large-crested Toad, The Amphibian Project is supporting Africam Safari in setting up a captive breeding program and education and awareness campaign for this species in Mexico. The Amphibian Project is also engaging school teachers in the U.S. to raise awareness about the global amphibian crisis and raise funds for the Africam project.



*Bufo cristatus* tadpole

The Amphibian Project is a collaboration of five conservation professionals brought together by the Emerging Wildlife Conservation Leaders program. To learn more about Africam Safari or The Amphibian Project or to support the protection of the Large-crested Toad visit [www.helpafrog.org](http://www.helpafrog.org).



*Bufo cristatus* metamorph



*Bufo cristatus* habitat

## 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](mailto:rdmoore@conservation.org)