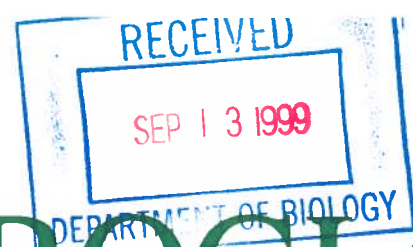
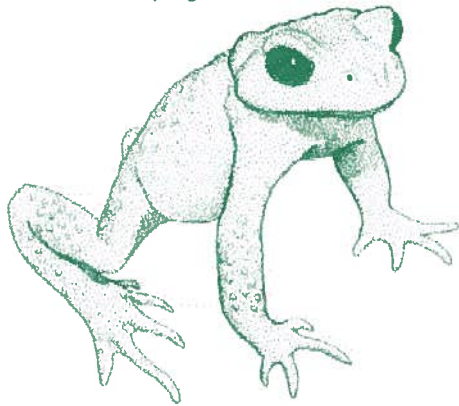


Bufo perigrines



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FROGLOG

Newsletter of the Declining Amphibian Populations Task Force

August 1999, Number 34.



Report from the DAPTF Chair

By W. Ronald Heyer

Fundamental actions that impact amphibian conservation were taken by the DAPTF Board at its meeting on 13-14 June 1999, and at a meeting held on 21-23 June 1999 by the Species Survival Commission to recommend how amphibian and reptile conservation should best be approached within the SSC.

The DAPTF Board endorsed a plan that will provide a comprehensive summary of the declining amphibian phenomenon in 2001. The plan consists of three main elements: (1) a multi-authored book providing an assessment of knowledge to date, including an analysis of the ecogeography of declines, evaluation of causal factors and case studies of particularly well-studied declines; (2) a compact disc containing the DAPTF data with database software that will allow users to exhaustively query the data; (3) a compilation of reports from Regional Working Groups that have not published their reports elsewhere.

The DAPTF Board agreed that the Seed Grant Program should be continued.

The DAPTF Board, after considerable thought and discussion, concluded that it was most unlikely that, although substantial progress had been made, not all of the causes of amphibian declines would be resolved by 2001. Given that situation, it was concluded that it would be a mistake to disband or significantly change the Task Force in 2001. The DAPTF will be needed to keep an international presence and activity on the scientific issues involved. It was thought that some level of metamorphosis of DAPTF would be appropriate in 2001 upon completion of the comprehensive summary targeted in the paragraph above. Both Tim Halliday and I

expressed our convictions that new DAPTF leadership was necessary for the Task Force beyond 2001. In order to phase the new leadership in, a search committee will identify a Chair-elect as soon as possible to work with the DAPTF Board to determine the appropriate role and structure of the DAPTF beyond 2001. The Chair-elect will assume full duties at an appropriate point of the annual DAPTF Board Meeting to be held in conjunction with the joint ASIH-HLSSAR meeting in Baja California in June 2000.

The SSC sponsored meeting recommended to SSC Chair David Brackett that new specialist groups be established for (1) amphibians, (2) snakes and (3) lizards not currently covered by existing SSC specialist groups. These would complement the existing lizard, turtle and crocodylian specialist groups. It was recognized that each of these new groups would require support in terms of a program officer. The SSC is unable to provide such support under current and projected budgets. For amphibians, the meeting recommended enthusiastic acceptance of an offer put forward by Conservation International to pay for salary and support costs for a program officer for a global amphibian specialist group and for the non-marine turtle specialist group already in existence. The to-be-formed global amphibian specialist group would concentrate on amphibian conservation issues that are outside of the DAPTF mandate, such as red-listing and action plan activities. This new specialist group was also encouraged to establish a small-grants program for on-the-ground amphibian conservation work. The DAPTF will remain a separate unit within the SSC structure rather than a unit within the new SSC global amphibian specialist group.



NEW SEED GRANT ROUND

We are pleased to announce a new round of Seed Grants for 1999. These awards are intended as one-time awards of between \$500 and \$2,000 for the support or initiation of research projects which further the DAPTF's mission to determine the nature, extent and causes of amphibian population declines. The awards will be divided into several categories:

(1) CONSERVATION INTERNATIONAL AWARDS.

Conservation International (CI) is providing \$10,000 in seed grant funds for projects that meet joint CI-DAPTF goals. The criteria for these awards stipulated by CI are: (a) the proposed work would be undertaken in one of the biodiversity hotspots and wilderness areas identified by CI (California Floristic Province; Caribbean; Mesoamerica; Choco/Darien/ Western Ecuador; Tropical Andes; Brazilian Cerrado Atlantic Forest Region; Central Chile; Amazon Basin; Mediterranean; Caucasus; Guinean Forests of West Africa; Congo Basin; Eastern Arc Mountains and Coastal Forests of Tanzania and Kenya; Cape Floristic Region; Succulent Karoo; Madagascar and Indian Ocean Islands; Western Ghats and Sri Lanka; Indo-Burma; Mountains of South-Central China; Philippines; Sundaland; Wallacea; New Guinea; northeast Australia; southeast Australia; New Zealand); (b) the projects should contain one or more of the following characteristics - be primarily field-based, involve local herpetologists, provide training and/or equipment that will be used subsequently, determine the status of poorly-known species, and result in the publication of results. We would appreciate seed grant applicants self-identifying whether they meet these criteria in their seed grant application.

(Continued next page.....)



(2) UNRESTRICTED AWARDS.

The currently identified priorities identified by the DAPTF Board include: Obtaining data on the status of amphibian populations from geographic regions where data are not currently available (e.g. tropical Africa, SE Asia); basic natural history and environmental physiology studies that would give insight into understanding the declining amphibian phenomenon; testing of declining amphibian population hypotheses including collaboration across disciplines; studies on the role of hormonal disrupters in the DAP phenomenon and determining the current status of amphibian populations in localities for which good historical data exist. Researchers should not be constrained by this list, as not all promising research lines of inquiry relating to the phenomenon may have been identified at this time. Proposals will be evaluated solely on the basis of how well they address the declining amphibian population phenomenon combined with scientific rigor.

(3) WORKING GROUP "HARVEST GRANTS". These awards are intended to provide small amounts of funding for DAPTF Working Groups (WGs) to collate and prepare information for submission to the DAPTF Central Office to contribute to the collected Working Groups Report which is intended for publication as the DAPTF completes its present mandate in 2001 (see Ron Heyer's report, above). Projects may take the form of field surveys, meetings, statistical analysis or collation of existing data, communication with regional co-workers etc. Proposals will be evaluated on the same basis as for category (2). For further details of the type of information we will be looking for from WGs, please see the appeal by John Wilkinson later in this issue. Potential applicants are welcome to contact John at the address on the back of this *Froglog* or by e-mail on DAPTF@open.ac.uk to discuss how they may best contribute. Please make all submissions with the knowledge of and/or in cooperation with your national or regional WG Chair. WG Chairs will also be contacted directly with requests for specific information.

APPLICATION PROCEDURE. Proposals (for all categories) of less than 4 pages should be addressed to Tim Halliday, DAPTF International Director, at the address on the back of this *Froglog* or by e-mail on T.R.Halliday@open.ac.uk. All proposals should contain the following information; (1) principal investigator and, where appropriate, institution; (2)

other investigators and institutions; (3) project title; (4) description of the intended work including the localities and species involved; (5) start date and duration of the intended work; (6) details of how the project will further DAPTF's mission; (7) breakdown of proposed budget and details of any supplementary funding you are applying for from other sources for the same project (please note that we are unable to provide funds to cover salary); (8) references (if any); (9) any other pertinent information; (10) all information acquired with support from the DAPTF remains the intellectual property of the grant recipient, but must be freely available to the DAPTF and for the DAPTF's use in furthering its mission. The closing date for applications is 31st October, 1999, although outstanding applications for Category (3) may be considered after this date.



Amphibian
Decline
Monitoring in
the Leuser
Management
Unit, Aceh,
North Sumatra,
Indonesia

By Djoko T. Iskandar

I have been recently involved in teaching the local authorities amphibian monitoring methods in the Leuser Buffer Zone (for 10 working days in April 1999). I have designed a working plan to monitor amphibians quantitatively about nine nights each lunar cycle so that we will obtain about 12-13 data sets from each station each year.

We have set about 94 stream plots, each 30 meters long and about 5-10 meters wide. These plots represent: (1) An undisturbed stream in undisturbed forest (20 plots - this is a small enclave of undisturbed forest); (2) A relatively undisturbed stream in selected logging forest (57 plots); (3) An undisturbed stream, but between the sampling area and the head of the river there is a village and a saw mill (the forest is only about 50-100 m wide along the stream, and the stream frequently suffers from fish poisoning. (17 plots); (4) A night trail transect of about 2000m to be surveyed three nights each lunar cycle.

The amphibian assemblage in the undisturbed stream in an undisturbed forest is represented by about 13 species. Some species, such as *Rana picturata* and *Rhacophorus pardalis*, are present in every plot. In the second category

stream, only about 200 m away from the first stream (both flow into the Alas river), the same species are found but at only about 20% of the abundance of the undisturbed plot.

The third category stream has only about 3 species, two of which are very abundant, *Bufo asper* and *Rana hosii*. In the undisturbed forest we find another 12 species essentially not recorded from the selective logging area.

Although our preliminary study only involved 10 working days, the number of species is still going up. Even on the last day we obtained three more new records. However, with this minimum data, we can conclude that selective logging apparently gives no opportunity to insects and microorganisms to break down the leaf litter. The leaf litter in logged areas is dry and thin. The forest litter in the undisturbed forest is extremely wet, the litter is decaying and full of small insects.

From the whole area, we obtained *Bufo asper*, *B. biporcatus*, *Ichthyophis* cf. *paucisculus*, *Microhyla palmipes*, *M. heymonsi*, *Calluella volzi*, *Megophrys nasuta*, *Fejervarya limnocharis*, *Rana chalconota*, *R. hosii*, *R. nicobariensis*, *R. signata*, *R. picturata*, *Limnonectes laticeps*, *L. paramacrodon*, *L. blythii*, *L. kuhlii*, *L. sp. 1*, *Rhacophorus bimaculatus*, *R. pardalis*, *Polypedates colletti*, *P. leucomystax*, *P. macrotis*, *P. otilophus*, *Nyctixalus pictus* and a number of lizards and snakes. There are some ricefields close by, and these probably accounted for the presence in our study area of a number of tramp species such as *Bufo biporcatus*, *Fejervarya cancrivora*, *Kaloula baleata* and *K. pulchra*.

The Leuser Management Unit (LMU) is working in the Buffer zone of Leuser National Park. Although they have a lot of problems, it is planned to continue this kind of monitoring. The LMU is principally financed by the European Community and is working tightly with the Indonesian Government. We expect that the amphibian monitoring programme will be continued and that the data could be evaluated for each month, season or year based on the data obtained from each local station. We still need some hard data, especially from a completely undisturbed area such as Ketambe or from elsewhere close to Leuser National Park.

For further information, please contact me:

iskandar@bi.itb.ac.id or Dr. Kathryn Monk r m i d - l m u @ i d o l a . n e t . i d



Expansion of
Rana ridibunda
in the Urals - a
Danger for
Native
Amphibians?

From Vladimir Vershinin &
Irina Kamkina

In the last 20-30 years, due to thermal pollution, an active expansion of the lake frog (*Rana ridibunda*) has occurred outside its natural area in Russia. The main sources of introduction are fish-breeding farms and medical and biological institutes, which are using this species in their own experiments.

The first information on the introduction of lake frogs in the Urals dates to 1977 (Toporkova, 1977, 1978; Vershinin, Toporkova, 1981). Its presence in Ekaterinburg (Sverdlovsk) was noted in 1967 in a report by E.L.Shchupak. Several populations of *R. ridibunda* have been found in the city since that time. Some of these (3) have disappeared and 6 new ones have been formed. Reproduction occurs only in the warmest years. So, last year (1998) in connection with unusual summer warmth, reproduction was noted in the city, city suburbs and in forest parks.

Similar processes occur in Nizhny Tagil - a city with heavy industrial contamination. Anecdotal reports date the appearance of this species in the city to 1978. During a survey in 1988, only one population was found in the city. Now, the lake frog inhabits 14 sites in the city area and reproduction has been noted in 10. The situation in Nizhny Tagil differs from that in Ekaterinburg as *R. ridibunda* is displacing native species of amphibia. This process is leading to the decrease or disappearance of some natural populations. The same has been observed in Europe (Arano et al., 1995) and in some regions of the USA (Moyle, 1973) with the bullfrog (*Rana catesbeiana*). Our assessment of the situation is that *R. ridibunda* is becoming dominant because of its higher tolerance to industrial pollution. Research supported by the Russian Fund of Fundamental Investigations (# 97-04-48061).

Contact: Vladimir Vershinin & Irina Kamkina at wow@ipae.uran.ru

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Advances
in the
Conservation
Status of
Uruguayan
Amphibians

By Raul Maneyro & Jose A.
Langone

Using as a basis the work by Reca et al (1994, Conservación de la fauna de tetrápodos I. Un índice para su evaluación. *Mastozoología Neotropical* **1**(1): 17-28), the SUMIN (addition index) values for the 41 species of Uruguayan amphibians so far recorded were calculated. In order to better reflect the variability of native species, the variables used by the cited authors were modified and one of them was not used. The resultant matrix was constructed using eleven variables: (1) continental distribution (transformed into regional distribution); (2) national distribution; (3) spread of habitat use; (4) spread of vertical space use; (5) body size; (6) reproductive potential; (7) trophic spread; (8) relative abundance; (9) taxonomic singularity; (10) singularity & (11) extractive actions (e.g. hunting, collection for trade).

For the treatment of results, data for all the species were ordered in an 11 (columns = variables) by 41 (rows = species) matrix. The data obtained allowed us to conclude that the Uruguayan species of amphibians can be divided into three groups. One of these is composed of seven fragile taxa (SUMIN >= 12) that require efforts for their conservation and that are endemic or with a restricted distribution (*Melanophryniscus devincenzii*, *M. montevidensis*, *M. orejasmirandai*, *M. sanmartini*, *Argenteohyla siemersi*, *Pleurodema bibroni* and *Lysapsus limellus*). Another group (SUMIN between 8.5 and 12) is composed of 12 species that are occasionally found or have a marginal distribution, but are not endemic (*Chthonerpeton indistictum*, *Ceratophrys ornata*, *Limnomedusa macroglossa*, *Physalaemus fernandezae*, *P. henselii*, *P. riograndensis*, *Hyla minuta*, *H. nana*, *H. uruguayana*, *Scinax fuscovarius*,

Phyllomedusa iheringii and *Elachistocleis ovalis*). The other group (SUMIN < 8.5) is composed of 22 species with regional distribution, wide trophic amplitude and stable populations (*Bufo arenarum*, *B. dorbignyi*, *B. fernandezae*, *B. paracnemis*, *Melanophryniscus atroluteus*, *Hyla pulchella*, *H. sanborni*, *Scinax berthae*, *S. engiophila*, *S. squalirostris*, *Leptodactylus chaquensis*, *L. gracilis*, *L. latinasus*, *L. mystacinus*, *L. ocellatus*, *L. podicipinus*, *Odontophrynus americanus*, *Pseudopaludicola falcipes*, *Physalaemus biligonigerus*, *P. gracilis* and *Pseudis minutus*). The implementation of a National System of Protected Areas is evaluated as being an important factor to favour the conservation of the amphibian fauna of Uruguay.

Aknowledgements: The authors would like to thank John W. Wilkinson, Marcelo Loureiro and Br. Diego Nuñez for language corrections.

For more information, contact: Raul Maneyro, Secc. Vertebrados, Facultad de Ciencias, Igua 4225, 11400 Montevideo, URUGUAY rmaneyro@fcien.edu.uy

Jose A. Langone, Depto. Herpetologia, Museo Nacional de Historia Natural, CC 399, 11.000 Montevideo, URUGUAY jiangone@hotmail.com



Request for
Information
from Working
Groups

As discussed in Ron Heyer's report and in the information for the new Seed Grant round, the next few years will be particularly important for the DAPTF because we will be publishing information on what we have collectively found out so far about the declining amphibian phenomenon. A crucial part of this will be information from our national, regional and issue-based Working Groups which we hope to have published as a Collected Report. Much of this information will also contribute to the DAPTF Database CD-ROM.

Working Groups are always asked for an annual report as a means of reporting any progress in understanding amphibian declines, but this time we will be asking all Working Groups to begin preparation of a comprehensive report which will elucidate amphibian declines in their particular area. We will, in particular, be looking for decline data for particular sites which have suffered declines (or are known NOT to have

suffered declines) as well as for overviews of the state of knowledge of amphibian declines with respect to particular issues or geographic areas. Many *Froglog* readers may wish to contribute to this information, and we would ask that everyone does so through their respective Working Group Chair. Contact details of Working Group Chairs are available from John Wilkinson at the address on the back of this *Froglog* or, if you live somewhere which does not have a formal DAPTF Working Group, contact John Wilkinson directly.

The intended format of the DAPTF database means that the information we receive does not have to be standardized. Paragraphs of information, paper abstracts etc. will be added, linked to geographic areas, decline issues or particular species. The database will also contain site-based information as described above. The information we require for each decline (or known non-decline) SITE should contain the following information:

1. Site name
2. Longitude
3. Latitude
5. Altitude
6. Did declines occur?
7. When did the declines occur? If this is unknown, can a date or dates before and/or after their occurrence be identified?
8. How many species declined at this site?
9. How many did not decline at this site?
10. What vegetation type(s) characterize the site?
11. Other comments about the decline or non-decline.

Additionally, for each SPECIES at these sites, we will need the following data:

1. Family
2. Genus
3. Species (and subspecies, where appropriate)
4. Does the species prefer shaded microhabitats or open areas?
5. What is the characteristic non-breeding habitat?
6. What is the characteristic breeding habitat (this may be the same as above)?
7. Is the species diurnal, crepuscular or nocturnal?
8. By how much (approximately, if known) has the species declined?
9. When was the decline in this species first noted?
10. Date of last available information on this species from this site
11. List any references which describe the decline of this species at this site
12. Other comments on the decline of this species.

In order to collect and collate all this information, it should be submitted to the DAPTF Office no later than 31st August 2000. For further details, help or information, please contact John Wilkinson. This request for information will be repeated in direct requests to the Working Group Chairs. Many thanks in advance to everyone who is able to contribute.

John Wilkinson, DAPTF
International Coordinator.



DONATIONS We gratefully acknowledge receipt of the following donations from 16 March through 30 June 1999. **Organizations:** El Paso Zoo, Royal Melbourne Zoological gardens. **Individuals:** Nadine Foley, Stefan Gorzula, Tim Guinee, Bonnie Raphael, Raymond Stein, Roland Wirth, John Wooding.

There is a new DAPTF Working Group Chair for Bangladesh: Dr. S. U. Sarker, Department of Zoology, University of Dhaka, Post Box 1000, Dhaka 2, BANGLADESH. sarker@bangla.net

and a Working Group has been formed to cover Singapore; the Chair is Tzi Ming Leong, 100, Lorong M, Telok Kurau, #04-08, Singapore 425403, SINGAPORE tziming@hotmail.com

If you would like to contribute to the activities of either of these Working Groups, please contact the respective Chairs, as above.

Please check out the amphibian t-shirts of Kathy Wildman at http://homepages.go.com/~kathy_wildman/catalogue.html If you make a purchase and identify it as a sale made through DAPTF, we will receive a donation. *Thanks, Kathy, for your offer to do this.*

The US National Wildlife Health Center is offering to examine, free of charge, properly prepared frog specimens for evidence of disease. Directions for preparation and mailing of specimens can be obtained from:

Carol U. Meteyer, DVM, National Wildlife Health Center, Biological Resources Division, 606 Schroeder Road, Madison, WI 53711. Tel: 608-270-2462

Fax: 608-270-2415 *or from* D. Earl Green, DVM, Wildlife Pathologist, at the same address.

Tel: 608-270-2482
Fax: 608-270-2415

Award for Frog Research At the Saturday night banquet of the Silver Anniversary Meeting of the Kansas

Herpetological Society on 6 November 1998, Travis W. Taggart, first-year doctoral student at the KU Medical Center in Kansas City, was chosen as the first recipient of the "Suzanne L. & Joseph T. Collins Award for Excellence in Kansas Herpetology." Taggart received a commemorative plaque and a check for \$1000.00. The Collins Award is the largest biological award given annually in the state of Kansas, and the largest annual presentation made nationally to further research on amphibians and reptiles.

Recipients of The Collins Award are selected from among those scientific talks and papers about Kansas amphibians and reptiles that were given or published in the preceding two years. The award-winning paper published by Taggart, "Status of *Bufo debilis* (Anura: Bufonidae) in Kansas," was sponsored by the Kansas Department of Wildlife and Parks, and provided extremely valuable information about the natural history and status of *Bufo debilis*, a threatened species in Kansas.

For verification and further details about the award, telephone (785) 749-3467.



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FROGLOG is the bi-monthly newsletter of the Declining Amphibian Populations Task Force.

Edited by: John W. Wilkinson, Department of Biological Sciences, The Open University, Walton Hall, Milton Keynes, MK7 6AA, U.K.

Tel: +44 (0) 1908 - 652274.
Fax: +44 (0) 1908 - 654167
E-mail: daptf@open.ac.uk