



FROGLOG

IUCN/SSC Declining Amphibian Populations Task Force

June, 1992, No. 2



Coordinator's Column

Task Force activities continue to enlarge and accelerate. Thanks to a generous grant from Claude Albritton of Dallas, Texas, the Board of Directors was able to meet in early May, the activities of which are summarized in the adjacent columns.

David B. Wake completed his tenure as DAPTF Chair on July 1. His replacement, as yet unnamed, will be appointed by George B. Rabb, Chair of the IUCN/SSC, in the near future.

Because of space limitations the contributions of Working Group Chairs and others reporting on U.S. activities will be presented in Number 3.

We have expanded our participation by active Working Groups to approximately 40 teams in 22 countries. New listings of Working Group Chairs are included in this issue to supplement those published last March in FROGLOG No. 1. Production Assistant for this issue is Meg Kuster.

We welcome inquiries and/or participation in the Task Force activities by all interested parties. The address and telecommunication numbers of the Coordinator are listed on page 4.



DAPTF Directors Convene

Inaugural meetings of the DAPTF Board of Directors were convened at St. Helena, Napa County, California, during the weekend of 7 - 10, May 1992. Directors in attendance were William R. Branch (South Africa), Alain Dubois (France), Timothy R. Halliday (United Kingdom), Sergius L. Kuzmin (Commonwealth of Independent States), James B. Murphy (USA), Jaime F. Pefaur (Venezuela), Michael J. Tyler (Australia), David B. Wake, Chair (USA), William Winner,

ex officio (USA), John W. Wright (USA). Delegates were David M. Green, substituting for Robert Johnson (Canada), and Tim Sullivan for George B. Rabb, (USA). James L. Vial (USA) was present as Task Force Coordinator.

An international Bibliographic Working Group will be organized by Alain Dubois and Sergius Kuzmin to supplement those resources being assembled by the separate regional Working Groups. This catalogued information will be made available to all participants in the DAPTF.

The following formal actions were initiated and adopted by the Board:

1. MISSION

To determine the nature, extent and causes of declines of amphibians throughout the world, and to promote means by which the declines can be halted or reversed.

GOALS:

1. Catalyze, catalogue and coordinate efforts to gain an understanding of declining amphibians.

2. Identify target populations, species and regions which merit immediate attention.

3. Gather and critically examine evidence concerning causal factors contributing to amphibian declines and identify remedial action.

4. Promote data collection on amphibian populations on a long term basis.

5. Enlist the support of appropriate scientific disciplines needed to address issues.

2. STATEMENT ON TRADE AND EXPLOITATION

The Board of Directors of the IUCN/SSC Task Force on Declining Amphibian Populations recognizes that trade in amphibians is proving detrimental to many species. There is reason for concern at the documented ecological damage associated with excessive harvesting of frogs from the wild for human consumption. The introduction of alien species such as *Rana catesbeiana* to supply frogs for human consumption into new environments as an exotic species is demonstrably harmful.

Similarly, the export of live amphibians for the pet trade is attaining alarming proportions in countries such as Madagascar, the Solomon Islands and the Commonwealth of Independent States.

The Board of DAPTF calls upon governments to take actions to prevent illegal import and export of amphibians and to implement measures to reduce

the harmful impacts of frogs collected or reared for human consumption.

The Board encourages the SSC Trade Specialist Group to work with members of the DAP Task Force to identify and promote actions to protect amphibians under the provisions of CITES.

3. STATEMENT OF ETHICS

Herpetologists should ensure that their actions do not jeopardize the viability of any native population, and they should discourage such practice by others.

4. STATEMENT OF PUBLICATION RIGHTS AND DATA MANAGEMENT

The DAPTF has no desire nor intent to intrude upon priority use of original data obtained by any individual investigator, nor of any collaborating unit. Essential data regarding the status of amphibian populations provided to the DAPTF will be with the understanding of any use being limited to achieving the specifically defined Mission and Goals of the Task Force. Priority for publication rights (authorship) is to be restricted to the data collector(s) for a period for five (5) years following completion of any study; subsequent access and use of the material would then be in public domain, unless specifically excluded.

Data management should assure the preservation in standard form of all information gathered, both as to field records and disk storage, at a repository of record for up to five (5) years, then archived at some national or international agency.

5. SEED GRANT AWARDS

The DAP Task Force has limited funds available to individuals or Working Groups for support of projects directly relating to the mission and goals of the program. Awards will provide seed money for initiation of new projects or for resampling of lapsed population studies, and will usually be limited to amounts of \$500-1,000. No funds are to be used for indirect or overhead costs by any agency or institution.

Proposals are to be submitted to James L. Vial, Coordinator DAPTF, ERL-C 200 SW 35th Street, Corvallis, Oregon 97333, USA. The Coordinator and two anonymous members of the Task Force Board of Directors will evaluate and decide upon awarding of these grants. No deadlines are currently in effect. Further information may be obtained from the Coordinator.

Criteria for evaluating a research proposal will include:

1. Research is directly related to the goals of the DAPTF.
2. Probability of integrating research with collaborative studies.
3. Ranking for scientific and technical merit; feasibility of study.
4. Probability of receiving external support for expansion or continuation of project.

FORMAT: Proposals should be typed on one side of page and limited to five (5) pages.

Title page - should include (only)

- a. Project title (ten words or less)
- b. Amount of funds requested
- c. Proposed duration of project
- d. Location of work to be done
- e. Abstract of proposed research
- f. Relevance of study to DAPTF objectives

Following pages - In order.

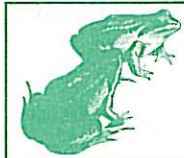
Introduction - Concise statement of specific objectives and relevance of study to the DAPTF mission and goals.

Methods - Describe where the work is to be done and protocols followed. Identify the responsibility of each participant; include a proposed work schedule. Describe any collaboration with other investigators.

Equipment and Supplies - Identify items specifically needed to complete the project.

Budget - Specify items, including travel, services, etc.

All information acquired with DAPTF support, while being the intellectual property of the grant recipient, must be freely available to the Task Force.



Canada
Enlarges
Agenda

The Canadian Working Group moved quickly to establish its coordinating body and prepare for the 1992 field season. The Group has benefited greatly from the participation of a number of pre-existing organizations, such as the Ontario Herpetofaunal Survey and the *Atlas des amphibiens et reptiles du Québec* which have been documenting amphibian sightings since the mid-1980's, and pre-established research programs in Ontario, Quebec and British Columbia. The Canadian Association of Herpetologists has also been instrumental in organizing the group through its nation-wide membership and its *Bulletin*, which has become the official news medium.

The Working Group will function as a clearing-house for information about projects being pursued in Canada, an information service for world-wide events, and a standards setting organization reviewing protocols and methods.

The second general meeting of the Canadian Working Group is scheduled for October 17 and 18, 1992, at the Redpath Museum of McGill University in Montreal. A flier will be circulated later in the year with more information.

EASTERN CANADA - Agriculture Canada will review the use of the pesticide fenitrothion in forest spraying. A survey team from the Canadian Wildlife Service and New Brunswick Museum found that populations of mink frogs (*Rana septentrionalis*) were reduced in areas of Northern New Brunswick subjected to long-term spraying. In contrast, although there have been great fluctuations in sizes of egg masses of the wood frog (*Rana sylvatica*) and *Ambystoma* in Fundy National Park in New Brunswick no trend is evident. The once common green frog, *R. clamitans*, has all but disappeared from Newfoundland in the last decade. Monitoring is being activated on Prince Edward Island and Labrador.

QUEBEC - The *Atlas des amphibiens et reptiles du Québec*, which records the recent and historical observations on each species in Quebec, is in its fifth year. Early analysis suggests reduction in numbers of certain species, particularly the striped chorus frog (*Pseudacris triseriata*). An expanded surveillance program is planned for 1992.

WESTERN CANADA - The provincial coordinators for Western Canada met at Brandon University, Manitoba, in mid-February. The formal report on the conservation of amphibians and reptiles will be published soon. The British Columbia Ministry of Forests has agreed to fund a biogeographic analysis of the British Columbian herpetofauna. Recent media attention to the DAP has swelled the ranks of volunteers for the program.

Edited from a report
submitted by David M. Green



Commonwealth
of Independent
States Organizes
Working Groups

Investigations on amphibian ecology in the former USSR have been conducted for several decades, the results of which were reported at the All-Union Herpetological Conferences and published in Russian. The last, 7th Conference, was convened at Kiev in 1989.

Recent dismemberment of the USSR and last year's crisis has had a severe impact upon scientific communications, collection of materials and data analysis. Batrachological research supported by public sources was much affected.

Establishment of DAPTF/CIS Working Group in the winter of 1992 provided the grounds for arranging contacts within a new political framework. Most all the leading CIS specialists on amphibian ecology and conservation have joined the Group. Because of the diversity of the region and numbers of participants (40 persons as of May, 1992) the Group has been subdivided into nine sub-regional teams. A separate computer Database Group was also founded. We hope such structure will provide the optimal mode of communication for exchange of data.

The main fields of activity of the CIS Working Group are: inventoring and mapping of geographic ranges and local distribution; amphibian peculiarities on the range margins; monitoring; anthropogenic influences; biological indicators; conservation; pathological events; habitat use; population ecology; developmental biology; behavioral ecology. Our action plan will also include retrospective analysis of formerly published and unpublished studies, to determine any long term changes in the status of amphibian populations in the CIS. There is presently evidence indicating a decline in many populations because of anthropogenic factors; however, some species having broad ecological plasticity have shown increases in numbers.

Our studies included most of the species of CIS batrachofauna, e.g. Caudata: *Salamandrella keyserlingii*, *Onychodactylus fischeri*, *Mertensiella caucasica*, *Triturus v. vulgaris*, *T.v.lantzi*, *T.vittatus ophryticus*, *T.cristatus*, *T.karelini*; Anura: *Bombina bombina*, *B.orientalis*, *Pelodytes caucasicus*, *Pelobates fuscus*, *P. syriacus*, *Bufo bufo*, *B.viridis*, *B.calamita*, *B.raddei*, *B.verrucosissimus*, *B.gargarizans*, *Hyla arborea*, *H.japonica*, *Rana temporaria*, *R.arvalis*, *R.macrocnemis*, *R.amurensis*, *R.chensinensis*, *R.ridibunda*, *R.lessonae*, *R.esculenta*, *R.nigromaculata*. Up to present, the most complete data collected were for *S.keyserlingii*, *T.vulgaris lantzi*, *T.vittatus ophryticus*, *T.karelini*, *B.viridis*, *R.temporaria* and *R.arvalis*.

The following sub-regions are being included in our studies: Russia (districts of Moscow, Novgorod, Nizhny Novgorod, Belgorod, Ivanovo, Arkhangelsk, Ekaterinburg, Novosibirsk, Tomsk, Krasnoyarsk and Magadan); Northern Caucasus; Kolsky Peninsula; Karelia; Ural; Transuralia; Tatarstan; Amoorland; Southern Far East - Primorye; Islands of Sakhalin and Kuriles; Byelorussia; Ukraine; Georgia; Central Kazakhstan; Uzbekistan.

Due to the current political and economic instability in the CIS, conferences among members of the Working Group are presently impossible, therefore scientific exchange and organizational activities must be done through correspondence. The main activity of the CIS Working Group will be at the sub-regional level. In such conditions the work of the Chairs of Regional Groups is especially important. The Chairs will be in regular contact with the members of their Groups. Data from each Regional Group will be communicated and synthesized by its Chair, who will communicate to the Chair of the CIS Working Group and DAPTF Coordinator. Such generalized information on the Regional Group activities and membership will be regularly submitted to the Chair of the CIS Working Group. Due to the inability of most foreign researchers to read Russian, our batrachologists intend to expand submission of their articles in English to official media of IUCN/DAPTF. The CIS Working Group encourages the participation of new members.

C I S WORKING GROUP

Chair - Sergius L. Kuzmin (Institute of Evolutionary Morphology and

Ecology of Animals, Academy of Sciences of Russia, Leninsky prospekt, 33, Moscow 117071 Russia. Phones: office 954-32-62; home 458-32-33; Fax (7095) 129-13-54.

Regional Chairs - Vladimir B. Bobrov, (European Russia 1, Kolsky Peninsula; Karelia; districts of Novgorod, Moscow, Belgorod and Rostov; Povolzh'e; Tartarstan; Krasnodar area); Natalia M. Okulova, (European Russia 2, districts of Ivanovo and Arkhangelsk); Vladimir L. Vershinin, (Ural 1 - urbanized territories); Vladimir G. Ishchenko, (Ural 2 - natural landscapes); Valentina N. Kuranova, (West Siberia); David N. Tarkhnishvili, (Caucasian Region); Mikhail M. Pikulik, (Byelorussia); Andrei N. Misyura, (Ukraine); Kaisha Y. Atakhanova and Aitkhoja B. Bigalie, (Kazakhstan and Uzbekistan).

Computer Database - Urgdijl Ts. Tebleeva ("Ekoinformatika" Institute of Geography, Academy of Sciences of Russia, U1.Starmonetnaya, 29, Moscow 109017 Russia. Phones: office 235-68-08 or 235-71-32; home 394-19-43.

Edited from a report submitted by Sergius L. Kuzmin



The Mallorcan Midwife toad (*Alytes muletensis*) was thought to be extinct until 1980 when relict populations of the toad were found living in remote gorges on the Mediterranean island of Mallorca. The toads are now known to inhabit eight separate gorges. Initial population estimates ranged from only 500 to 1500 pairs. Conservation efforts initiated by the Mallorcan Conselleria D'Agricultura i Pesca and the Jersey Wildlife Preservation Trust included the establishment of a captive breeding programme with the aim of introducing captive-bred toads into new areas of the island, and monitoring the population size through annual tadpole censusing. Two release sites were chosen. The first was unsuccessful, probably as the result of predation by snakes (*Natrix maura*) and frogs (*Rana perezi*). The toads have become established at the second site, however, as evidenced by successful breeding among the released toads and metamorphosis of their tadpoles. The results of the tadpole censuses suggest that although the number of tadpoles in any one gorge may fluctuate widely from year to year, the overall population size on the island has remained relatively constant. In light of the fact that the toads do not appear to be on the brink of extinction as was formerly feared, the captive breed-

ing programme at the Jersey Wildlife Preservation Trust is being phased out. The Mallorcans involved are establishing their own captive colony on the island, and any future releases will use Mallorcan-bred animals.

Edited from a report submitted by Tim Halliday



Mass killings of amphibians during migration to and from their breeding ponds is a fact generally well known in Switzerland, however, during the winter of 1990/91 an alarming number of observations of dead and dying amphibians were reported, mostly *Rana temporaria*, in hibernation ponds. As this phenomenon was previously unknown in Switzerland, the BUWAL (Bundesamt für Umwelt, Wald und Landschaft) together with KARCH (Coordination office for amphibian and reptile protection in Switzerland) initiated an investigation. A private environment agency (BICON AG) was commissioned, and questionnaires were distributed to all who reported die offs. The media also assisted by informing the general public.

From September 1991 to April 1992, 500 pond owners and naturalists participated in the study using the location, size of ponds, water quality, vegetation, species, etc. An interim report is expected by Fall 1992.

Edited from a report submitted by René E. Honegger



W.R. Breckenridge, one of the Co-chairs, addressed a group of teachers and high school students on the Amphibia of Sri Lanka drawing special attention to the possible causes for the reduction in amphibian numbers.

Groups of students are already working under the guidance of Anslém de Silva of the University of Peradeniya, monitoring and collecting data on the amphibia in the central part of the island. These groups are to meet in June to review the information they have collected and plan future work.

The Sri Lanka strategy includes setting up of working groups in different parts of the island, which will liaison with the two Co-chairs. Their action plan includes preparation of keys for field identification; a survey of current research activities on amphibians in Sri Lanka; preparation of an amphibian bibliographic publication inventory; ascertaining the distribution of the different

amphibian species and their numbers in the different regions of the country.

Active support for this work is expected from the Universities, and the many organizations in the country currently engaged in the study and conservation of Sri Lanka's biota.

Edited from a report submitted by W.R. Breckenridge



The work of the Smithsonian Institution team compiling the "Measuring and Monitoring Biological Diversity: Standard Methods for Amphibians" is nearing fruition. Editors for the volume are W. Ronald Heyer, Maureen A. Donnelly, Roy W. McDiarmid and Lee-Ann C. Hayek. Mercedes S. Foster is the series editor.

Target date for submitting the more than 600 page MS to the Smithsonian Institution Press is July, with a tentative publication release by next spring. Efforts are being made to subsidize costs of publication to reduce the purchase price to consumers.

The editors will respond to specific queries from DAPTF Working Groups regarding the publication, but draft copies will not be available.

Chapter headings for the book are: (1) Introduction (2) Amphibian Diversity: An Overview (3) Essentials of Standardization and Quantification (4) Research Design for Quantitative Amphibian Studies (5) Keys to a Successful Project-Associated Data (6) Standard Techniques for Inventorying and Monitoring (7) Supplemental Approaches to Studying Biodiversity (8) Estimating Population Size (9) Analysis of Amphibian Biodiversity Data (10) Conclusions and Recommendations.

Upon publication of the work Roy McDiarmid will succeed Ron Heyer as chair of the Monitoring Protocols Working Group.

Edited from a report submitted by W. Ron Heyer



Grants are awarded to individuals affiliated with an institution, or an institution itself, for projects which address specific conservation concerns for a particular species or assemblage of species, or more broadly conceived topics in conservation biology throughout the world with current emphasis on *third world countries*. Grants have ranged from \$150 to over \$100,000, with an average grant of under \$20,000. WCI does not support conferences, airfares to sci-

entific meetings, legal actions, erection of permanent field stations, salaries at institutions, overhead costs nor expensive laboratory analyses. The grantee has certain responsibilities to the host country which include training and education of local nationals. Preference is given to proposals for work by local nationals and for work that is an outgrowth of staff-run field projects. Send a brief letter of inquiry before submitting a full proposal. Further information is available from: Dr. Mary Pearl, New York Zoological Society, Bronx Zoo, Bronx, NY 10460, Phone (212) 220-5123. Deadlines are July 1, September 1, January 1, for start-up dates of November 1, March 1, and June 1, respectively.



Recent Donor Support

The Task Force operations continue to benefit from the patronage of numerous organizations and individuals.

The recent meetings of the DAPTF Board of Directors at St. Helena, California, were made possible by the generous sponsorship of Mr. Claude Albritton of Dallas, Texas. An anonymous donor has guaranteed \$120 thousand for Task Force operations over the next two years.

Continued support is being provided by the World Conservation Union (IUCN), Center for Analysis of Environmental Change (CAEC) in Corvallis, Oregon, and Frog's Leap Winery in St. Helena, California, USA.



New DAPTF Working Group Chairs

*Angel Alcala, *Philippines*
Silliman University
Dumaguete City
Negros 6501
PHILIPPINES

Claes Andrén, *Scandinavian Region*
(Sweden, Norway, Denmark, Finland)
University of Göteborg
Department of Zoology
Medicinaregatan 18
Box 25059 S-400 31
Göteborg
SWEDEN (Code 46)
Phone: Vaxel 031-85-30
Fax: 031-85 38-07

Jonathan Campbell, *Guatemala*
Department of Biology
University of Texas
P.O. Box 19498
Arlington, TX 76019, USA
Phone: (817) 273-2406
Fax: (817) 273-2855

*Alison Cree, *New Zealand*
Department of Zoology
University of Otago
P.O. Box 56
Dunedin
NEW ZEALAND (Code 64)
Phone: 03-479-7976
Fax: 03-479-7584

S.K. Dutta, *Indian Sub-Continent*
Zoology Department
Utkal University
Bhubaneswar 751004
Orissa
INDIA

S. Blair Hedges, *Greater Antilles*
Department of Biology
208 Mueller Lab
Pennsylvania State University
University Park, PA 16802, USA
Phone: 814-865-9991
Fax: 814-865-9131

Robert W. Henderson, *Lesser Antilles*
Milwaukee Public Museum
800 W. Wells St.
Milwaukee, WI 53233, USA
Phone: 414-278-2775
Fax: 414-278-6100

Mohammad Ali Reza Khan, *United Arab Emirates*
Dubai Zoo
P.O. Box 67
Dubai
UNITED ARAB EMIRATES (Code 971)
Phone: 9714-440462
Fax: 9714-231795

*James R. McCranie, *Co-Chair, Honduras*
10770 S.W. 164th Street
Miami, FL 33157, USA
Phone: 305-251-4270

*Dr. Herman Nuñez, *Chile*
Sesión Zoológica
Museo Nacional de Historia Natural
Casilla 787
Santiago
CHILE

Larry David Wilson, *Co-Chair, Honduras*
Department of Biology/Earth Sciences
Miami-Dade Community College
Kendall Campus
Miami, FL 33176, USA
Phone: 305-237-2136
Fax: 305-237-2964

Fang Zili, *People's Republic of China*
Sichuan Research and Monitoring
Institute of Environmental Protection
18# Section 4, Remin Nanlu
Chengdu, Sichuan 610041
PEOPLE'S REPUBLIC OF CHINA

U.S. Regions

Burrowes, Patricia, *Co-Chair, U.S. Puerto Rico*
Departamento de Biología
Universidad de Puerto Rico
Recinto de Rio Piedras
Rio Piedras
PUERTO RICO 00931, USA

Rafael Joglar, *Co-Chair, U.S. Puerto Rico*
Departamento de Biología
Universidad de Puerto Rico
Recinto de Rio Piedras
Rio Piedras
PUERTO RICO 00931, USA

Deana Olson, *Co-Chair, Pacific Northwest (WA, OR, AK)*
USDA Forest Service
3200 SW Jefferson Way
Corvallis, OR 97331, USA
Phone: (503) 750-7373
Fax: (503) 750-7329

Issue Based

Alain Dubois, *Co-Chair, Documentation*
Laboratoire des Reptiles
et Amphibiens
Musée National d'Histoire Naturelle
25, Rue Cuvier
75005 Paris
FRANCE (Code 33)
Phone: (1) 40 79 34 87
Fax: (1) 40 79 34 88

Serigus L. Kuzmin, *Co-Chair, Documentation*
Institute of Evolutionary Morphology
and Ecology of Animals
Academy of Sciences
Leninsky Prospekt, 33,
Moscow 117071
RUSSIA (Code 7095)
Phone: 954 32 62
Fax: 129 13 54

Elliott Jacobson, *Disease and Pathology*
College of Veterinary Medicine
University of Florida
Department of Small Animal
Clinical Sciences
Health Science Center
Institute of Food and Agricultural
Sciences
P.O. Box 100126
Gainesville, FL 32610-0126, USA
Phone: (904) 392-4751
Fax: (904) 392-6125

*Acceptance pending

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Newsletter of the IUCN/SSC Task Force on Declining Amphibians

Dr. James L. Vial
Task Force Coordinator, *Editor*
Center for Analysis of Environmental
Change
EPA Environmental Research Laboratory
200 South West 35th Street
Corvallis, Oregon 97333, USA
(503) 754-4798
Telefax (503) 754-4799

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