

FROGLOG

IUCN/SSC Declining Amphibian Populations Task Force

May 1996, Number 17

News from South Asia

Zoo Outreach Organisation/CBSG, India Amphibian Special Interest Group have begun the task of networking amphibian biologists in South Asia, in collaboration with DAPTF South Asia (formerly DAPTF Indian Sub-continent) and Friends of Rare Amphibians of the Western Ghats. An initial objective of this joint venture is to gather information regarding the extent of amphibian research in India. Questionnaires sent to Zoology departments and known amphibian workers have yielded replies indicative of a high level of activity.

A goal of this initiative is to assess the amphibian taxa of the region using the CBSG's process of Conservation Assessment and Management Plan (CAMP) workshops.

The first issue of a new bi-annual newsletter, *DAPTF-SA* will be issued in April to DAPTF-SA members, and also as a supplement to *ZOOS' PRINT*.

Contact: Sushil K. Dutta, Department of Zoology, Utkal University, Vani Vihar, India, fax: 0674-407000 or:

Sanjay Molur, Programme Officer, Z.O.O., 65 Bharati Colony, Peelamedu, Coimbatore, T.N. 641004, India, fax: 0422-573269.

Email: zooreach@zoo.frlht.ernet.in

Aliens Exterminate Amphibians

The following abstracts/summaries, highlighting the role that introduced aquatic organisms can have in the decline of amphibian populations have been compiled from various sources.

Fish Introductions and Aquacultural Practices are the Most Serious Threat to Upper Midwestern Amphibian Populations

Fish introductions affect amphibian populations by making historical amphibian breeding sites, such as permanent wetlands, uninhabitable. These impacts may be direct (predation by salmonids, centrarchids, and esocids) or indirect (through competition by cyprinids and catostomids, through habitat disturbance, and by isolating remaining populations making them less able to recover from stochastic extirpations or droughts). Aquacultural practices adversely affect amphibian populations. For example, rotenone kills amphibian larvae at concentrations of 1:500,000. Weirs allow fishes direct access to fringing wetlands. Introduced bullfrogs affect populations of smaller vertebrates, including other amphibians. Dredging and aeration of basins facilitate colonization of wetlands by fishes, over and above direct introductions. Applications of the herbicide aquazine favor algal-dominated ecosystems and affect the community structure of both the algal and the invertebrate prey base.

Finally, predatory amphibians (salamanders) tend to feed nocturnally, while fishes feed during daylight and choose prey based on visual conspicuousness. This distinction has ecological consequences. In response to hypoxic conditions invertebrates such as zooplankton metabolize hemoglobin pigment (and hence become red). Fishes prey preferentially on red zooplankton and therefore contribute to a decrease in zooplankton abundance, invertebrate species diversity, and overall wetland productivity.

Michael Lannoo, DAPTF US Coordinator, Muncie Center for Medical Education, Indiana Univ School of Medicine, Ball State Univ, Indiana, email: 00mjlannoo@bsu.edu Abstract from First Great Lakes Declining Amphibians Conference (see page 2).

Declines in Great Central Valley, California

Declines in pond breeding amphibians in the Great Central Valley are unequivocal, although they vary in intensity within this region and between the species involved (Fisher & Shaffer 1996). Combining extensive monitoring and analysis of museum records, Fisher and Shaffer detected a decline in seven

species (*Ambystoma californiense*, *Taricha* species [*Taricha granulosa* and *T. torosa torosa*] *Rana aurora*, *Bufo boreas*, *Pseudacris regilla*, *Scaphiopus hammondi*). Declines were most evident in the Sacramento and San Joaquin Valleys, whereas the Coast Range showed little or no sign of declines. Declines also tended to occur at lower, rather than at high altitude. *Rana aurora* and *Bufo boreas* were the most severely in decline, whilst *Pseudacris regilla* was the least affected. Introduced predators, such as fish, including the biological control agent, *Gambusia affinis*, and bullfrogs are regarded as the principal causal agents of decline. The authors believe that the relatively coarse scale at which they carried out their analysis (the county level) negates the potential error that local population fluctuations may have on amphibian population status assessment.

Fisher, R.N. and Shaffer, H.B. (1996) The decline of amphibians in California's Great Central Valley: historical patterns and anthropogenic causes. *Conservation Biology* (in press).

***Rana muscosa* Declines in Nevada**

Howard Panik has surveyed 54 sites (including eight historical locations) in the Carson range in Nevada and in neighbouring southern California, from 1994 to 1995 (Panik, 1995). *Rana muscosa* was not found at any of the sites and Panik considers that this frog is now extinct, or near to extinction in Nevada. Panik proposes that introduced fish are a likely causal agent. There are established populations of salmonid fish at six of the eight sites where *Rana muscosa* was historically recorded.

Panik, H.R. (1995) An ecological survey of the mountain yellow-legged frog (*Rana muscosa*) in Nevada. Nevada Division of Wildlife.

Fish and Crayfish - a Threat to Amphibian Populations?

During the last decade or so, introduction of crayfish to both old and newly created ponds has been common in the south of Sweden. Introduction of both crayfish and fish requires permission from the regional environmental or fisheries authorities.

This used to be a straightforward procedure. However, more recently, the authorities have begun to consider the possible consequences for amphibians, and the Regional Authorities Department of Fisheries commissioned a literature review on the effects of fish and crayfish on amphibian populations.

The review is written in Swedish, but the list of references should be of use to those not familiar with the language. It deals with direct and indirect effects of crayfish, effects of fish, defences in eggs and tadpoles (jelly coat, toxicity, behaviour) and considers habitat complexity, adult choice of breeding pond and source-sink aspects.

The literature cited shows that fish introductions often wipe out amphibian populations, but that the effects of crayfish are less certain. Although crayfish can, and in the laboratory do, eat amphibian eggs and tadpoles, their effect on habitat complexity (and the 'restoration' of ponds prior to crayfish introduction) may also be of significance. A reduction in the amount of vegetation may reduce the availability of amphibian refuges from predation.

The review, *Utsättning av kräftor och fisk - ett hot mot amfibiepopulationer?* (Introductions of crayfish and fish - a threat to amphibian populations?) has been deposited in the DAPTF office and can be e-mailed on request from Björn Lardner (Department of Animal Ecology, Ecology Building, S-223 62 Lund, Sweden.

Email: bjorn.lardner@zoekol.lu.se.

Björn Lardner & Johan Sidenmark

DAPCAN VI
and
The Boreal Dip Net

The first meeting of the Working Group on Amphibian and Reptile Conservation in Canada, and the sixth meeting of the IUCN/SSC Task Force on Declining Amphibian Populations in Canada (DAPCAN), will be held on the campus of the University of Calgary, in Calgary, Alberta from Saturday, October 5 to Monday, October 7, 1996. People should contact the National Coordinator for more details. Thanks are due to host and Local Organizer Tony Russell and Working Group/DAPCAN Provincial Coordinator for Alberta, Larry Powell, both of the Department of Biological Sciences, University of Calgary.

CALL FOR PAPERS Presentations for Working Group sessions must relate to the conservation of amphibians and/or reptiles. DAPCAN sessions are focused on the questions surrounding declining amphibian populations in Canada. A formal Call for Papers will be sent out in May with the official registration forms.

WORKSHOP A workshop on herpetological atlasing is being organized. For more information please contact: Andrew Didiuka, Regional Co-ordinator for Western Canada, Saskatchewan Amphibian Monitoring Project and Saskatchewan Herpetology Atlas Project, 314 Egbert Avenue, Saskatoon, Saskatchewan, Canada, S7N 1X1. Phone: 306-975-4087 Fax: 306-975-4089.

Email: didiuka@desoto.wx.sk.doe.ca

To receive registration forms please contact: Stan Orchard, DAPCAN National Coordinator, 1745 Bank Street, Victoria, British Columbia, Canada, V8R 4V7. Phone/Fax: 604-595-7556.

Email: sorchard@islandnet.com

The Working Group on Amphibian and Reptile Conservation in Canada has launched its own newsletter, *The Boreal Dip Net*. It will be distributed twice a year to DAPCAN participants and will include announcements, press releases, conference summaries, and reports on the on-going projects of DAPCAN.

US Great Lakes
Declining
Amphibians
Conference

The first Great Lakes Declining Amphibians Conference was held on March 30, 1996, at the Milwaukee Public Museum, and was a great success. Over 150 people attended, from 5 states and Ontario. Local television, radio and newspaper coverage was extensive. Frogs appear to be loved by the media. In attendance was a mix of scientists, educators, students, and the general public. Groups also met to discuss the NAAMP proposed standard methods for surveying amphibians, and how they might apply in the Great Lakes region.

The abstracts from this meeting, listed below, can be viewed on the Great Lakes Working Group Web site:

<http://www.mei.com/other/mprm/collect/daptf.html>

Minnesota County Biological Survey: Summary of amphibian surveys, 1988 - 1995; Minnesota frog & toad survey: changes for 1996; Beyond plants and ducks - monitoring amphibians in created and restored wetlands; Habitat fragmentation and the distribution of spring peepers (*Pseudacris crucifer*) in South-Central Wisconsin; State Project Salamander in central Wisconsin; Marsh Monitoring Program; A short-term species inventory in Forest County, Wisconsin: methods comparison; Population trends from the Wisconsin Frog & Toad Survey: 1984-1995; A 1965 analysis of the amphibians of the Upper Peninsula of Michigan and Isle Royale National Park; Establishing a long-term amphibian survey at a Michigan Nature Conservancy Preserve;

Fish introductions and aquacultural practices are the most serious threat to upper midwestern amphibian populations; Amphibian ecotoxicology in Green Bay, Wisconsin: are toxicants influencing amphibian distributions?; Natural history and breeding biology of *Ambystoma laterale*; Investigation of deformed frogs in Minnesota; Decreased adult size and reduced reproductive competence in the northern leopard frog, *Rana pipiens*; Burns and kandiyohi morphs of the northern leopard frog (*Rana pipiens*): revised distribution with observations on relative prevalence; The woodland vernal pond: an oasis of diversity.

Gary S. Casper, Vertebrate Zoology Section, Milwaukee Public Museum 800 W. Wells St., Milwaukee, WI 53233, fax (414)278-6100.

email: gsc@csd.uwm.edu

Southwestern
US
Working Group

The Southwestern United States Working Group of the DAPTF met in Tucson, Arizona, USA, Jan. 4-5. The abstracts listed below are available from Michael J. Sredl, Arizona Game & Fish Dept., 2221 W. Greenway Road, Phoenix, AZ 85023-4312, USA, email: msredl@gf.state.az.us.

or at the US South West Working Group Web site:

<http://leopold.nmsu.edu/kboykin/swwg.htm>

Ageing two species of Arizona leopard frogs using skeletochronology; Variation in breeding activity and preliminary analysis of age-structure of a community of desert toads in north-central Maricopa County, Arizona; Preliminary evaluation of lowland leopard frog visual encounter surveys; Exotic species and the distribution of native amphibians in the San Rafael Valley, AZ; Native and introduced ranid frogs on the San Pedro River, Arizona; *Rana berlandieri*: new localities in Yuma and Maricopa counties, Arizona, and Imperial County, California; A pH/UV-B synergism decreases *Rana pipiens* embryo survival; Effects of water chemistry on red-spotted toad populations; Conservation and management of Arizona ranid frogs.

NAAMP Documents
and Web Meeting

The North American Amphibian Monitoring Program (NAAMP - a consortium of amphibian conservationists and researchers which

aims to "Provide a statistically defensible program to monitor the distributions and abundance of amphibians in North America, with applicability at the state, provincial, ecoregional, and continental scales") announces the availability of the following documents *Protocols and Strategies for Monitoring North American Amphibians*. Sections are available on: *Calling Amphibians, Terrestrial Salamanders, Aquatic Amphibians, Western Amphibians, Herp Atlases*.

These documents have been developed through extensive collaborative input and review from biologists throughout North America and advice from other parts of the world. The calling amphibian survey protocols are now complete; the other techniques are outlined and suggestions made for the types of research needed to rigorously evaluate their merits.

We challenge those concerned with amphibian declines and the development of scientific estimates of population change to help to implement a network of calling surveys and to test the effectiveness of other monitoring protocols. The documents can be downloaded from our web site at:

<http://www.im.nbs.gov>
or via anonymous ftp site:
<ftp://im.nbs.gov> (under /pub/naamp)

Those interested in participating in NAAMP email discussions can email Sam Droege at: FROG@NBS.GOV

3rd Annual Meeting of the North American Amphibian Monitoring Program (NAAMP)

An Internet meeting on the world wide web, open to all, will be held this fall. The purpose of this meeting is to present research, evaluations, re-evaluations, and commentary on the development of the monitoring program for amphibians in North America. Information from these sessions will be used by the NAAMP group to develop recommendations for broad scale monitoring programs.

Information for authors, as well as the full meeting program will be available on August 15th.

For further information contact:
Sam Droege, NBS, 12100 Beech Forest Dr., Laurel, MD 20708, USA, email: FROG@NBS.GOV

Earthwatch Funding

The Center for Field Research invites proposals for 1997 field grants awarded by its affiliate Earthwatch. Earthwatch is an international, non-profit organization dedicated to sponsoring research and promoting public education in the sciences and humanities. All funds

awarded by Earthwatch are derived from the contributions of Earthwatch members who pay for the opportunity to join scientists in the field and assist with data collection and other research tasks. On average, each volunteer contributes \$600-900 towards the field grant and spends 12-16 days in the field. Grants range from \$8,000-100,000. Preliminary proposals should be submitted at least 13 months in advance of anticipated field dates. Full proposals are invited upon review of preliminary proposals.

Information about Earthwatch field grants is available on the Center's Web site:<http://gaia.earthwatch.org/WWW/cfr.html>, or by contacting:

Andy Hudson, Acting Executive Director, The Center for Field Research, 680 Mt. Auburn Street, Watertown, MA 02172 USA, phone: (617) 926-8200, fax: (617) 926-8532, e-mail: ahudson@earthwatch.org or Sean Doolan, Science Officer, Earthwatch Europe, Belsyre Court, 57 Woodstock Road, Oxford OX2 6HU, United Kingdom, phone: (865) 311600, fax: (865) 311383, email: ewoxford@vax.oxford.ac.uk

Endangered Species Bulletin

The US Department of the Interior publishes the *Endangered Species Bulletin* which frequently features items on amphibians.

The November/December 1995 issue (Vol. 20, No. 6) contains an article by Linda LaClaire on the Red Hills salamander (*Phaeognathus hubrichti*). This threatened species is confined to a small area of Alabama, where its survival is threatened by intensive logging and changes in forestry practice. It is now subject to a Habitat Conservation Plan, developed by the International Paper Timberlands Operating Company, that conserves 2590 hectares of habitat for this elusive, burrowing species.

The same issue reports that the rock frog *Eleutherodactylus cooki*, endemic to Puerto Rico, has been proposed for listing as a threatened species. Tim Halliday

More Donations to the Task Force

DAPTF profoundly thanks the following donors. All individual donors are listed who have contributed since an individual donation account was established (1994) through March 1996. Multiple

donations are indicated in parentheses. Aquarium, business, society, and zoo donations are those received since publication of FROGLOG 15. If any donation recognitions have been inadvertently missed, please bring them to the attention of the Chair, Ron Heyer. INDIVIDUAL DONATIONS: Kraig Adler (2), Ronn Altig, Lewis Anderson (2), Jim Andrews, Allison Argo, Neil Armantrout, Pim Arntzen, John Baker, Gale Belinky (2), Bill Belzer, Kenneth Blackwell, David Bradford, Mary E. Brewster, Robert Brooks, Jeffrey Burbank, Michael Burton, Charles Carpenter, Charlotte Corkran (2), Andrew Crawford, Paul Daniel, Carlos Davidson, Ted Davis, Phillip DeMaynadier, Mac Donofrio, Carol Dorff Hall (2), Beatrice Duffy, Harold Dundee, Donald Dunlap, Dinorah Echeverria, Scott Elliot, Carol Farneti Foster, Donald & Eugenia Farrar (2), John Ferner, Martin Fisher, Katherine Fite, James Fowler (2), Thomas Fritts, Jerry Gampper, Kelly Geer, George Gorman, Steve Gorzula (2), Susan Graf (2), P. A. Greenberg, Britta Grillitsch, Suzanne Gunderman, Scott Hajost, John Hall (2), Tim Halliday, Stephen Hammack, Benjamin Hammett, Judy Hancock, Janet Hardin, James Harding, Robin Harkness, John Hays, Lisa Hemesath (2), Kurt Henkel, Jane Hey, Ron Heyer, Stanley Hillman, Douglas Holmes, Rene Honegger, Moira Hope (2), Richard Hoyer, Huang Meihua, Ron & Dorothy Humbert, Roberto Ibañez D., Fui Lian & Robert Inger (2), Karen Jacobs, Mark Jennings, Jett (2), Tom Johnson, Robin Jung, Eric Juterbock, Ernie Karlstrom, Lee Kats, Kathryn Kelsey, Mary Kostalos, Linda LaClaire, Charlotte LaTier (2), Jeffrey Lang (2), Michael Lannoo, Ewald Lapioli, Michael Lau, Lauren Livo, Michael Long, Deborah Lynch, Jean Markarian, Bruce Matis, Alan McCready, Roy McDiarmid, Brian McHattie, Peter McLean, Giles Mead, Joseph Mitchell, Paul Moler, Edward & Judith Moll (2), Marla Mueller, Allan Muth, Christopher Norment, Kelly O'Neill (2), Marilyn Ortt (2), Tim Orwig, Hidetoshi Ota, Rebecca Papendick, William Parker, Debra Patla, Thomas Pauley, Oliver R. W. Pergams, James Petranka, Kathryn Phillips, Lona & Allen Pierce, Dwight Platt, Marion Preest, Stanley Rand, Jamie Reaser, Alan Resetar, Paula Reynosa, Christina Richards, David Rubin (2), Rodolfo Ruibal, Kent Russell, Martha Russell, David Saugey, Barbara & Alan Savitzky, Norman Scott, Jr., Janet Seeds, Owen Sexton, Andrew Sheldon, Heather Skadsen (2), Michael Soulé, Betsy Spettigue, Richard Spieler, Glenn Stewart, Margaret Stewart (2), Mark Stromberg, Sarah Talpey, Merrill Tawse, Graeme Taylor, Charles Thomas, Fred Turner, Kent VanSooy, P. E. Vanzolini, David & Marvalee Wake, Roger Waldman, Robin Walsh, Richard Wassersug (2), Robert Wiese (2), J. M. S. Williams, Don Wilson, Howard Youth, Richard Zweifel (2).

AQUARIUM, BUSINESS, SOCIETY AND ZOO DONATIONS: the American Society of Ichthyologists and Herpetologists, Association of Reptilian & Amphibian Veterinarians, Central Florida Herpetological Society, Chelonian Research Foundation, Colorado Herpetological Society, Columbus Zoo, Desert Fishes Council, Frog's Leap Winery, Michigan Society of Herpetologists, National Aquarium in Baltimore, Pittsburgh Herpetological Society, Reptile & Amphibian Magazine, Sedgwick County Zoo, Zoological Society of Philadelphia.

Meetings

Ponds, Partnership and Practice

17 June, 1996, at John Moores University, Liverpool. A one-day conference, organised as part of the Pond *Life* Project (1995-1999), funded under the European Union *Life* programme. The meeting will bring together practitioners from planning, land management and nature conservation to hear from partners, involved in the £1 million project, including representatives from Belgium, Denmark and the Netherlands.

Conference fee is £40.00. Contact: Andrew Hull, John Moores University, Liverpool, 15-51 Webster St., Liverpool L3 2ET. Phone: +44(0)151 231 4044, fax: +44(0)151 258 1224.

The Biology of South Asian Amphibians and Reptiles

An International conference on the biology of South Asian amphibians and reptiles will be held August 1-5, 1996, at the University of Peradeniya, Peradeniya, Sri Lanka.

Contact: A. de Silva, Faculty of Medicine, University of Peradeniya, Sri Lanka. Phone: 08-88130, fax: 94-8-32572, email: anslem@med.pdn.ac.lk

IV Congress of Latin American Herpetology

This meeting will be held in Santiago, Chile, 14-19 October 1996. A workshop is planned to discuss conservation problems affecting neotropical amphibians, especially those in decline or threatened with extinction.

For further information contact: Jaime F. Péfaur, Departamento de Biología, Facultad de Ciencias, Universidad de los Andes, Merida 5101, Venezuela, fax: 00-58-74-401286, email: pefaur@ciens.ula.ve, or Alberto Veloso, Departamento de Ciencias Ecologicas, Universidad de Chile, Casilla 653, Santiago, Chile.

Email: aveloso@abello.dic.uchile.cl, or Rafael de Sà,

Email: DESA@urvax.urich.edu

Vietnam to Host Conference

Interest has been expressed in an international conference, 'Conservation and Biodiversity of Amphibians and

Reptiles of Tropical Rain Forests'. The proposed venue is Hanoi, Vietnam, sometime in 1998. Comments or expressions of interest and/or intent to attend are welcome. Those responding should comment on interest in presenting a paper or poster, the best time of year, specific topics to be covered, and any potential funding sources. Contact one of the following: Dr. Harold Heatwole, Dept. Zoology, Box 7617, North Carolina State University, Raleigh NC 27695 USA, Tel: (919) 515-2741; FAX: (919) 515-5327; Dr. Natalia Ananyeva, Dept. Herpetology, Zoological Institute, St. Petersburg 199034, Russia, email: anv@zisp.spb.su.; Dr. Cao Van Sung, Institute of Ecology and Biological Resources, Nghia Do, Tu Liem, Hanoi, Vietnam. Tel: 361 440, fax: (844) 361 196, email: sung@iebr.ac.vn

Publications of Interest

Busby, W.H. and Parmelee, J.R. (1996) Historical changes in a herpetofaunal assemblage in the Flint-Hills of Kansas. *American Midland Naturalist* 135, (1) 81-91.

Casper, G.S. (1996). Geographic distributions of the amphibians and reptiles of Wisconsin. Order from: Museum Shop, Milwaukee Public Museum, 800 W Wells St, Milwaukee, WI 53233. Phone orders can be taken at (414)278-2795.

Dutta, S.K. and Manamendra-Arachchi, K. (1996). The amphibian fauna of Sri Lanka: a systematic review. *Wildlife Heritage Trust of Sri Lanka*, ISSN 955-9114-10-7, 144 pp. Expected publication: June 1996. Enquiries to Mrs. Tess Wijesekera, Phone: 1-699219/686579/698366, fax: 1-698433.

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George, S. (1995). Status of *Rana hexadactyla* (Lesson) in Kerala. *ZOO's Print*, 7 (July 1995), 11-12.

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Griffiths, R.A., Raper, S.J. and Brady, L.D. (1996) Evaluation of a standard method for surveying common frogs (*Rana temporaria*) and newts (*Triturus cristatus*, *T. helveticus* and *T. vulgaris*). Joint Nature Conservation Committee,

Peterborough, UK. Report number 259. Contact Chris Monk 44-1733-866869.

Herkovits, J., Perezcoll, C.S. and Herkovits, F.D. (1996) Ecotoxicity in the Reconquista River, province of Buenos-Aires, Argentina - preliminary study. *Environmental Health Perspectives* 104, (2) 186-189.

Kiesecker, J.M. and Blaustein, A.R. (1995) Synergism between UV-B radiation and a pathogen magnifies amphibian embryo mortality in nature. *Proceedings of the National Academy of Sciences of the United States of America* 92, (24) 11049-11052.

Laurance, W.F. (in press) Catastrophic declines of Australian rainforest frogs: is unusual weather responsible? *Biological Conservation*.

Laurance, W.F., McDonald, K.R. and Speare, R. (in press) Epidemic disease and the catastrophic decline of Australian rain forest frogs. *Conservation Biology*.

Meyer, J.R. and Foster, C.F. (1996). A guide to the frogs and toads of Belize. Krieger Publishing Company, 96 pp., ISBN 0-89464-963-9. This is the first guide to the frogs and toads of Belize. It also covers nearby Mexico and Guatemala, with colour illustrations of the 33 species described.

Murphy, J.C. (1996). Amphibians and reptiles of Trinidad and Tobago. Krieger Publishing Company, ISBN 0-89464-971-X. Covers entire herpetofauna of 129 species and subspecies. 38 keys, 111 distribution maps, 90 line drawings and 195 colour photographs. Krieger Publishing Company, Florida, USA - Phone: 407-727-7270, fax - 407-951-3671.

Pyke, G.H. and Osborne, W.S. (eds.) (1996). The green and golden bell frog (*Litoria aurea*): biology and conservation. Royal Zoological Society of New South Wales. Expected June 1996. Contains chapters on distribution, status and declines, predation by non-native fish and consideration of the effects of UV.

Sarkar, S. (1996) Ecological theory and anuran declines. *BioScience* 46, (3) 199-207.

New DAPTF Working Group Chair

South Asia Sushil K. Dutta, Chair of the South Asia Regional Working Group (Department of Zoology, Utkal University, Vani Vihar, Bhubaneswar 751004, Orissa, India) has appointed Sanjay Molur to co-chair the South Asia Working Group:

Sanjay Molur, Programme Officer, Zoo Outreach Organisation, Box 1683, 65 Bharati Colony, Peelamedu, Coimbatore, T.N. 641004, India, fax: 0422-573-269

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