The DAPTF has been established by the International Union for the Conservation of Nature (IUCN), Species Survival Commission (SSC) to organize a global monitoring program for (1) determining the status of amphibian populations, (2) assessing the implications of any declines (3) studying potential causative factors and (4) making appropriate policy recommendations based upon these findings. The Coordinating Council, administered by the Coordinator, includes researchers, liaison officers of societies and agencies as well as other interested parties, all of whom serve as communicators.

As of the last week in January, the Task Force became equipped and manned at the proposed level when it occupied its present facilities at the Environmental Research Laboratory in Corvallis, Oregon. In addition to the recent acquisition of computer hardware, we now have a full time Information Systems manager in the person of Tony Clem. Once our system is interfaced we shall initiate an electronic database and other activities designed to serve as a viable communications network.

We are still in need of Regional Working Group Chairpersons for the U.S. Great Lakes area (WI, MN, MI).

Priority has been given to organization of a Working Group to assist in compilation of a comprehensive bibliography of reports relating to amphibian populations that will be generated and maintained at the Coordinator’s office. We wish to include titles of primary and secondary literature, theses and dissertations, as well as names of earlier investigators who have archived their field notes at a repository. This resource will be freely available to those wishing to make comparisons with contemporary studies.

Anyone interested in these or related studies are invited to join the DAPTF. Please send your name, address and telephone numbers to the Coordinator’s address.

Canada Launches Major Initiative

(The following is edited and condensed from a report by Hinrich Kaiser, Redpath Museum, McGill University, on the workshop “Declines in Canadian amphibian populations: a national monitoring strategy held at the Canada Centre for Inland Waters in Burlington, Ontario, on October 5 and 6, 1991.” Bull. CAH/ACH 5(2):1-4.)

The workshop in Burlington, organized by Christine Bishop (Canadian Wildlife Service) and Bob Johnson (Metro Toronto Zoo), constituted the first comprehensive attempt to address the declining amphibian phenomenon in a Canadian viewpoint. The problem of amphibian declines has become an urgent concern among Canadian herpetologists. Participation of researchers in universities, government, and private organizations was truly exceptional. This meeting was the largest gathering of Canadian herpetologists in memory.

In her opening remarks, Bishop stated that the aim of the meeting was to create a framework to monitor Canadian amphibian declines and the factors causing them. Johnson, a DAPTF Board of Directors member, highlighted the problem. Speaking on the various provinces gave depressing status reports on amphibian populations throughout Canada. In many cases, these were anecdotal accounts, although causal relationships between declines and anthropogenic events can be confirmed in all too many cases. Inevitably, each speaker referred to the basic lack of knowledge about the amphibians in question: distributions are insufficiently known, causes behind disappearances are uncertain, and habitat surveys are insufficiently detailed.

The introduction of non-native amphibian species and sports fish, mismanagement of wetlands, human intrusion, and logging, all have been identified as damaging to amphibian populations in more than one province. All were cited as being at least partly responsible for population declines in British Columbia. In Nova Scotia fragmented habitats and the resulting inbreeding within many species have produced increased frequencies of albinism and extra-limbed individuals. A well-documented problem is shown by Rana piperi, stemming from the sale of over a million frogs to biological supply companies in the U.S. until die-offs began in 1975. In the middle 1970s, the famous Manitoba frog holes were empty, and despite an eight-year ban on picking frogs their numbers have not much increased.

Natural events, such as droughts, may be in part responsible for declines observed in populations in Saskatchewan. An outbreak of red leg disease in 1976 resulted in many deaths of Rana piperi in Alberta. Recent observations on Rana catesbeiana in the Algonquin Park showed that the average weight of calling bullfrogs at two separate sites differed significantly. It is unknown whether life history, social structure, or harvesting contributed to this phenomenon.

In Ontario and Quebec, amphibian monitoring has been going on for some time. Since 1984, Ontario has received a total of 52,000 records from 2,700 volunteers and has also compiled a bibliography of herpetology including ca. 1,400 references. In Quebec, 5,400 records are reported.

However, it is puzzling that some species seem entirely unaffected. It has been suggested that certain ones may be rebounding from natural, cyclical events and that there may be positive changes observed in many areas within the next few years.

The afternoon talks centered on the monitoring of amphibian populations, including reports of projects that have produced quantitative data. Data show the best estimate is gained by intensive study. This method has actually been employed in a four-year study of Fowler’s toads at Long Point. These toads have dramatically increased in numbers since the study began, likely an effect of the water level rise in Lake Erie.

Among other concerns presented was the importance of: experimental design, timing and length of study; preservation of natural conditions of the habitat; measuring both natural and anthropogenic environmental factors; generating a genetic database during monitoring; larval stages in relation to reproductive success and gene flow; pathological conditions present in the populations; and determining the effects of contaminants upon entire populations.

Open discussions began on the second day. It was first determined that the Working Group will be a research coordinating body for investigating the hypothesis that amphibian populations are in decline. If this hypothesis is supported, the group should then seek ways to reverse the declines. It was agreed that...
this goal is best served by separately considering historical data, intensive monitoring studies, and extensive monitoring projects.

The intensive monitoring group discussed how to approach the monitoring process. Life history research must be concurrent with the monitoring process. The group also decided on a number of indicator species for intensive monitoring, chosen to include as many families as reasonably possible, in a variety of habitats and ecosystems, and with a range of genetic and morphological variation.

The Canadian working group will be most active at the provincial level, with Regional Coordinators. Details for each study population and site will be communicated to Eastern and Western Coordinators and the Coordinator for Canada, who will consult with the IUCN Task Force. This hierarchical setup should keep Coordinators in touch and allow the regions to act both individually and in cooperation with each other and with comparable regional groups in the United States. To facilitate communication to all participants, the CAH/LAH Bulletin was chosen as the official news medium.

The complete final report is to be published in March of 1992 as a Canadian Wildlife Service Technical Report. For further information contact Christine Bishop, Canadian Wildlife Service, Box 5050, Burlington, Ontario L7R 4J7, Canada.

Netherlands Conference

Annie Zuidervijk, Chair of the Western European Working Group, represented the DAFFP at an International Symposium on the "Impact of Climate Change on Ecosystems and Species," convened in Amersfoort. The Netherlands in December. Exemplified by two different parts of the world, prepared evaluations of regionally important ecosystems.

Workshop sessions focused on identifying key areas where habitat selection research has been conducted, identifying the main responses and determining various rates of change. Publication of reports from the symposium, expected soon, are intended to provide assessments applicable to issues in conservation, species diversity, and management of ecosystems.

In the United Kingdom

Tim Halliday, chair of the UK Working Group and a Task Force Director, reports that action is being taken to establish liaison and collaborative activities with the Western European Group. UK sites of amphibian populations known to be "healthy" 10-15 years ago are being identified so that they can again be surveyed during the coming breeding season. A grant proposal for DAFFP-related research has been submitted. Halliday is also arranging an October/November planning meeting.

AUSTRALIANS TAKE ACTION

A $47,000 grant from the Australian government was awarded to Michael J. Tyler, a Director of the Task Force, to organize a meeting of amphibian scientists and produce an Action Plan for Australia as a framework for new legislation, and for developing conservation and management goals for the next five years. To obtain an information base for this endeavor, a "frogwatch" survey is being conducted in which conservation organizations are participating in distribution of 600,000 (sic) questionnaires.

An organizational workshop convened by Tyler met in Canberra, ACT, last July. This initial meeting was attended by a nucleus of 15 representatives from the several States and Territories. The first half of the program addressed broad overviews and individual project case histories, the states of distribution maps, current legislation and the character of native population cycles. The subsequent general discussions dealt with causal agents, the use of museum records, sampling strategies, pathological studies, etc.

As the present date, the Action Plan has been partly completed. The establishment of the Australian Working Group and its participating members is underway.

Reports from U.S. Working Groups

CAL/NEVA

The California/Nevada Working Group met for the first time at Point Reyes National Seashore on February 4, 1992. The group, chaired by Gary Fellers, included 14 representatives from the U.S. National Park Service, U.S. Forest Service, University of Nevada - Las Vegas, St. Mary's College, University of California - Davis, California Academy of Sciences, University of California - Los Angeles, California Department of Fish and Game, and U.S. Fish and Wildlife Service. Each member of the Working Group provided a short summary of their research relating to amphibians. Most of these reports provided compelling evidence for dramatic declines in amphibian populations throughout all or part of a species' range. Though some of the losses resulted from obvious factors (e.g., habitat loss), numerous cases were noted in which declines occurred with no identifiable reason. There appears to be strong evidence that acid precipitation is not the cause of the declines, though it might be acting in concert with other environmental stressors.

The status of the U.S. National Museum of Natural History handbook on monitoring protocols was addressed at some length. Further discussion was centered on the need to gather data that are compatible among studies of different species and/or habitats. A form designed for use by the U.S. Forest Service (see report from Rocky Mountains Working Group) was examined in detail with the goal of determining the minimum data that should be collected as part of any amphibian field study.

ROCKY MOUNTAINS

Stephen Corn and Bruce Bury, co-chairs of the Rocky Mountains Working Group, are compiling a database of research activity on amphibians throughout the region. The Working Group is being organized in two tiers: those with current or recently completed research or monitoring programs, and those with more general interests regarding conservation activities. No formal meeting has yet been scheduled; however, the co-chairs participated in the Cal/Neva meetings at Point Reyes, California in early February to coordinate activities of the contiguous regional groups.

search Station, Gen. Tech. Rpt. PNW-GTR-275.) were evaluated during the joint meetings for potential application to all meetings (ADD). The recommended changes will be incorporated in a revised form for further review and consideration of adoption by other Working Groups.

**NORTHEAST**

The first meeting of the Northeastern Working Group, chaired by Richard Wyman, was held at the Pennsylvania State University on August 9, 1991. Following a brief introduction regarding the objectives of the DAPTF, the group discussed focused on the regional organization and development of an action plan. Priorities to be addressed include a survey of all active herpetologists in the region; assembly of all available regional data relating to the status of amphibian populations, identification of particular characteristics of species that would make data as to their presence or absence environmentally significant, and establishing a mechanism for maintaining a long-term monitoring network in the NE region.

The group is also initiating a search for thesis and dissertations that may contain usable density data, and for relevant records that may have been maintained at biological field stations. Wyman has also generated a questionnaire for a mail survey as to the status of amphibian populations in the region. Copies of this form, which may be applicable for use by other Working Groups, may be obtained by contacting him (see address and telecommunications number, on page 4).

**SOUTHEAST**

A network of 40 cooperators in Florida, Alabama, Georgia and South Carolina will serve as the communication resource for data on SE US amphibians. Lists of currently recognized taxa are being generated for a status review by the Working Group. Ken Dodd, chair of the Working Group, has assumed the presidency of the Southeastern Association of Ichthyologists and Herpetologists and plans to enlarge the attention of the herpetological community upon the Task Force activities.

Carolyn Sekerak (M.S. student, Univ. Florida) is finishing her thesis work on the structure of amphibian temporary pond breeding sites. She has taken a position with the U.S. Fish and Wildlife Service in Jackson, MS. Her responsibilities include monitoring the status of amphibians and preparing federal listing proposals for the dusky gopher frog and other amphibian species.

A habitat conservation plan is being developed for the Red Hill salamander. The plan will involve the U.S. Fish and Wildlife Service, The Alabama Natural Heritage Program (conducting a survey of the Siegel Creek watershed (Necturus sp.) in Alabama).

Pablo Delius and Henry Mushinsky (Univ. South Florida) are analyzing data on amphibian population fluctuations in Florida sandhill habitats based on 6 years' data.

Carlos Camp (Piedmont College) reports declines in relict populations of Rana sylvatica and Ambystoma maculatum in northeast Georgia. Wetland habitat alteration is suspected as the cause.

Dodd’s paper on the biotic diversity of amphibians and reptiles in a Florida sandhill is being accepted in the new journal Biodiversity and Conservation. Population declines due to drought (best guess) are noted, but long-term effects cannot yet be demonstrated.

**Amphibian Bioassay as Assessment Tool for Superfund Sites**

The U.S. Department of Defense has initiated an interagency agreement (IAG) with the Environmental Research Laboratory - Corvallis and several others to evaluate test procedures involving the effects of several classes of chemicals on amphibians. Initial studies will employ the Frog Embryo Teratogenesis Assay: Xenopus (FETA). The utility of this test in ecological site assessment has been demonstrated at Superfund sites using in situ exposures of mature amphibian species. Applications of the test procedures may provide information as to possible factors involved in declines of indigenous amphibian species and the use of mature amphibians as biomarkers of the health of wetland ecosystems.

**Current Reports of Declines**

The Estonian herpetofauna consists of ten species of amphibians and five species of reptiles, apparently the result of post-glacial immigration from southeast (Bufo viridis), south (majority of species) and southeast (Bufo calamita). Earlier recorded Rana ridibunda and Emya orbiculata have become extinct. From the perspective of distribution and degree of commonness, three groups of herps can be identified: rare and vulnerable species (Triturus cristatus, Bufo calamita, B. viridis, Pelobates fuscus, Lacerca agilis); less common species with sporadic distribution (Rana arvalis, R. lessonae, R. esculenta, Anguis fragilis, Natrix natrix), and common, widely distributed species (Triturus vulgaris, Rana temporalis, Bufo bufo, Lacerca vivipara, Vipera berus).

The distributions of Triturus cristatus, Rana esculenta (complex), Pelobates fuscus and Lacerca agilis seem to be relict in nature; some Estonian amphibians represent the northernmost distribution limits of the species (Bufo calamita, B. viridis, Pelobates fuscus). Many local populations of herps are reported as declining during the past ten to twenty years. (Talvi, 1991. Amphibians and Reptiles of Estonia: list, geographic relationships and current situation. Abst. 8th Ord. Gen. Mig. Soc. European Herp., Budapest)

W.S. Osborne, in a recent status report (in litt.) on frog populations in the Australian Capital Territory, noted the decline of Pseudophryne corroboree and P.ibirini, although both species are relatively common in other parts of their ranges. In contrast, there has been a complete disappearance of Litoria aurea and L. raniformis in the region, while L. verreauxii has become rare. Prolonged dry seasons are believed to be a contributing factor; however, the magnitudes of declines are such that other, yet unknown, factors are possibly involved.

In their recent report (Herp. Rev 22(4):125-129, 1991) E. La Marca and H.P. Reinhart have noted "drastically diminished" populations among five species of Atelopus in the Venezuelan Andes. Deforestation and expanding agriculture appear to be the dominant factors impacting upon A. carbonaria, A. mucusbajensis, A. oxyrhynchus, A. porongu and A. sonriente. Deforestation has scarred the montane streamside vegetation, and a high percentage of road kills in other areas are reported. The extent to which collecting may have reduced endemic Atelopus is also discussed. This report states (as with many others) that the effects of climate, change, pollution, as well as introduced species of plants and fish, are potentially significant factors in these declines and recommends action for both research and conservation.

**RIBBIT**

An earlier newsletter, Ribbit, was pioneered in the late 1960s by Bruce Bury and Stephen Con to report on the decline of amphibian populations in the western US. Because of administrative constraints but a single issue was released (1969). It will be superseded by FROGLOG beginning with this number.

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BOARD OF DIRECTORS

*William R. Branch
Port Elizabeth Museum
P.O. Box 13147
Humewood 6013
SOUTH AFRICA (Code 27)
Phone: (041) 561051 Fax: (041) 562175

Alain Dubois
Laboratoire des Reptiles et Amphibiens
Museum National d’Histoire Naturelle
25, Rue Cuvier
75005 Paris
FRANCE (Code 33)
Phone: (1) 40 79 34 87 Fax: (1) 40 79 34 84

*Timothy R. Halliday
Biology Department
The Queen’s University
Walt(en) Hall
Milton Keynes, MK7 6AA
UNITED KINGDOM (Code 44)
Phone: 0908-653831 Fax: 0908-654167

Sergius L. Kuzmin
Institute of Evolutionary Morphology
and Ecology of Animals
Academy of Sciences
Larinoky Prospekt, 33,
Moscow 11701
RUSSIA

Robert Johnson
Metropolitan Toronto Zoo
P.O. Box 280
West Hill, Ontario, M1E 4P5
CANADA
Phone: (416) 392-5968 Fax: (416) 392-4979

James B. Murphy
Dallas Zoo
621 E. Clarendon Dr.
Dallas, TX 75203, USA
Phone: (214) 670-7573 Fax: (214) 670-7450

Jaime F. Páfrero
Departamento de Biologia
Facultad de Ciencias
Universidad de los Andes
Mérida, VENEZUELA 5101 (Code 58)
Fax: 74 40 1286

George B. Rabb, IUCN/SSC
Chicago Zoological Society
Brookfield, IL 60513, USA
Phone: (708) 485-0263 Fax: (708) 485-3532

Michael J. Tyler
Department of Zoology
University of Adelaide
GPO Box 498
Adelaide, South Australia 5001
AUSTRALIA (Code 61)
Fax: 8 223 5817

David B. Wake (Chair)
Museum of Vertebrate Zoology
University of California
Berkeley, CA 94720, USA
Phone: (510) 642-3567 Fax: (510) 642-8328

William Winner (Ex officio)
Center for Analysis of Environmental Change
Oregon State University
Corvallis, OR 97331, USA
Phone: (503) 737-1744 Fax: (503) 737-3399

John W. Wright
Museum of Natural History
Los Angeles, CA 90024, USA
Phone: (213) 744-3371

* Also serves as Organizational Chairperson for Regional Working Group.

WORKING GROUP CHAIRS

K.D. Anuradhaparam, Co-Chair, Sri Lanka
University of Colombo
SRI LANKA

W.R. Breckenridge, Co-Chair, Sri Lanka
Department of Zoology
University of Peradeniya
Peradeniya
SRI LANKA

David M. Gnaed, National Coordinator, Canada
Redpath Museum
McGill University
Montreal, PQ H3A 2K6
CANADA
Phone: (514) 398-4068

*Kuang-Yang Lu, Taiwan
Department of Biology
86 Roosevelt Rd., Sec. 5
11179, Taipei, Taiwan
REPUBLIC OF CHINA (Code 86)
Phone: (02) 932-5234 Fax: (02) 931-3904

Jay M. Savage, Lower Central America-Costa Rica Panama
Department of Zoology
University of Miami
Coral Gables, FL 33142, USA
Phone: (305) 284-2130 Fax: (305) 284-3039

Annie Zuercher, Western Europe
Instituto de Taxonomía Zoologica
University of Amsterdam
P.O. Box 4766 - 1009 AJ Amsterdam
THE NETHERLANDS (Code 31)
Phone: (20) 5255624 Fax: (20) 5257238

*(Acceptance pending)

U.S. Regions

Ron Allig, Mississippi Delta (AR,MS,LA)
P.O. Drawer GD
Department of Biological Science
Mississippi State University
Mississippi State, MS 39762
Phone: (601) 325-7561 Fax: (601) 325-7399

Andrew R. Blaustein, Co-Chair, Pacific Northwest(WA,OR,AL)
Department of Zoology
Oregon State University
Corvallis, OR 97331-2914
Phone: (541) 737-3856

Ronald A. Brandon, Central (IA,MO,IIL,IN,OH)
Department of Zoology
Southern Illinois University
Carbondale, IL 62901
Phone: (618) 358-2314

Richard C. Bruce, Appalachian (KY,TN,N,VA, WV)
Highlands Biological Station
P.O. Box 583
Highlands, NC 28741
Phone: (704) 925-2690

R. Bruce Bury, Co-Chair, Rocky Mountains (MT, WY, CO, UT)
National Ecology Research Center
4512 McMurry Ave.
Fort Collins, CO 80525-3400
Phone: (303) 225-9270

Janicee P. Caldwell, Southern Plains (OK, TX)
Oklahoma Museum of Natural History
1335 Asp Ave.
Norman, OK 73019-0066
Phone: (405) 325-4712 Fax: (405) 325-7771

P. Stephen Corn, Co-Chair, Rocky Mountains (MT, WY, CO, UT)
National Ecology Research Center
4512 McMurry Ave.
Fort Collins, CO 80525-3400

C. Kenneth Dodd, Jr., Southeast (AL, GA, FL, SC)
National Ecology Research Center
412 NE 16th Avenue Room 250
Gainesville, FL 32610
Phone: (904) 372-2571 Fax: (904) 372-8080

Gary M. Fuller, Cal Neva (CA,NV)
Point Reyes National Seashore
Point Reyes, CA 94956
Phone: (415) 663-8522

A. Ross Kistler, Co-Chair, Pacific Northwest (WA, OR, AL)
USDA Forest Service
3200 SW Jefferson Way
Corvallis, OR 97331
Phone: (503) 750-7269

James E. Pez, Northern Plains (ND, SD, NE, KS)
Department of Biology
Creighton University
2500 California St.
Omaha, NE 68178
Fax: (402) 228-3267

Norman F. Scott, Jr., Southwest (AZ, NM)
Department of Biology
University of New Mexico
Albuquerque, NM 87131
Phone: (505) 769-3903

Richard L. Wyman, Northeast (MA, CT, RI, ME, NH, VT)
Edmund Niles Huyck Preserve, Inc.
P.O. Box 188
Rensselaer, NY 12140
Phone: (518) 797-3440

Issue Specific

W. Ronald Heyer, Monitoring Protocols
Division of Amphibians and Reptiles
US National Museum of Natural History
(932 Mail Stop 125)
Washington, DC 20560, USA
Phone: (202) 357-2195

Roy McDermid (Will succeed WH)
National Fish and Wildlife Laboratory
U.S. National Museum of Natural History
(NHP Mail Stop 160)
Washington, DC 20560, USA
Phone: (202) 357-2780

James L. Vial, Documental Resources
(Address given below)

FROGLOG
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 Whittier Street
Corvallis, Oregon 97333, USA
Phone: (503) 764-4799
Telefax (503) 764-4799

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