

### **DANCED and OEPP Sponsor Biodiversity Summit**

During 14-19 January, 1976, an "International Meeting on Biodiversity" was held at the Rim Kok Resort Hotel, Chiang Rai. It was organized by the Office of Environmental Policy and Planning (OEPP) of the Ministry of Science, Technology and Environment, and supported largely by the Danish Cooperation on Environment and Development (DANCED). The meeting was well planned and conducted, and attracted around 200 people from 16 countries. The week-long series of talks, panels and field trips was particularly interesting because of the large number of experts on biodiversity and biodiversity databases present, mostly from Denmark, Sweden, U.K. and various international agencies.

According to the OEPP the primary objective of the meeting was to "provide a forum for international and Thai researchers and experts to exchange knowledge and opinions on the conservation and utilization of biodiversity, and to seek possible cooperation on taxonomic data transfers and researches in Thailand". It did serve this purpose to some extent, but it seemed to this observer that the sponsoring agencies had some additional agendas in mind. One was to muster increased support for the International Convention on Biological Diversity which has yet to be passed by the Thai Parliament. Nearly all biologists and conservationists favor the treaty but there has been some opposition from some lawyers and a few other individuals concerned about loss of intellectual property rights, and low level of readiness of Thailand to implement the treaty.

Another purpose the meeting served was for DANCED to gauge the opinions of local and foreign experts on the priorities for biodiversity conservation and research. DANCED is spending several million U.S. dollars on biodiversity-related projects in Thailand, and wants them to be effective. The message received from the scientific experts was fairly consistent, that more support should be given for basic surveys of the fauna and flora, for taxonomic research and to museums and herbaria which are short of funds and scientific personnel. These are things which DANCED is not supporting to any significant extent. The agency instead gives priority to biodiversity projects which stress sustainable use and protection of biological diversity in close cooperation with local communities, and which are integrated with socio-economic or developmental objectives. It has not supported basic biological surveys or research alone. It is unclear how DANCED's funding priorities will be altered as a result of this meeting.

On the last day of the meeting, recommendations based on discussions held earlier were presented and discussed. As reported in the Biodiversity Data Management (BDM) News (Vol. 2 No. 1) of the OEPP, 12 recommendations were adopted. The first five recommendations, which were the most significant and relevant to the meeting, were as follows:

1. Thailand should ratify the United Nations Convention on Biological Diversity as soon as possible to enable more effective conservation of biodiversity in the country. The ratification would also enhance international co-operation on biodiversity related activities and facilitate greater transfer of knowledges and technologies between Thailand and other countries.

2. Information on the status of biodiversity in Thailand should be compiled in the format that can be exchanged with other countries.

3. Co-operate with other South-east Asian countries in establishing a regional action plan on the conservation of biodiversity and seek possible co-operation on research activities between countries in tropic and temperate region.
4. Establish international cooperation on collection of plant and animal samples for future analysis.
5. Encourage the government to pay greater emphasis on taxonomy and biogeography related works and, consequently, enable more human resource and facilities for such works as well as more support for botanical gardens, herbariums and museums.

*Warren Y. Brockelman*

## OEPP Establishes National Biodiversity Data Management Project

The Office of Environmental Policy and Planning in 1995 launched a Biodiversity Data Management (BDM) Project", with help from the United Nations Environment Program (UNEP) and the World Conservation Monitoring Center (WCMC), and funding under the Global Environment Facility (GEF). The project, based in the Natural Resources Section, Natural Resource and Environment Management Division of OEPP, is managed by Dr. Yenchai Vasuvat. The project aims to develop the ability of OEPP to collect and store biodiversity information and to develop linkages between existing agencies that collect, store and use such information. Activities conducted under the project include surveys of institutions in Thailand receiving or storing biodiversity information, meetings on biodiversity, workshops and training courses on data management and publication of the newsletter *BDM News*. The OEPP also plans to initiate a national database on biodiversity, and a "metadatabase" indicating where all distributed information on biodiversity is being held in Thailand.

Two members of the BDM Project of OEPP, Mr. Narong Veeraviataya and Ms. Sita Pholpoke, participated in a Biodiversity Data Management Induction Course at WCMC, Cambridge, England, in October of 1995. A larger training course in biodiversity data management is being conducted by OEPP, WCMC and UNEP experts in Kanchanaburi in July of this year.

In addition to the BDM Project, the OEPP has also begun publishing works on biodiversity in Thailand. Many of these are checklists or inventories of biodiversity in the Kingdom, and others deal with the Convention on Biodiversity. The publications as of March 1996 are listed below. They, as well as the *BDM News*, may be obtained from the OEPP, located at 60/1 Soi Phibun Wattana 7, Rama VI Road, Bangkok 10400; Tel. 279-9182; Fax 271-3251.

*Her Majesty the Queen and Conservation on Biological Diversity* (Thai and English), 64 pp.

*Basic Explanation of the 1992 Convention on Biological Diversity*, by Chonapat Viyawat (in Thai), 105 pp.

*Convention on Biological Diversity: Background and Progress* (in Thai), 28 pp.

*Thailand's Biodiversity* (Thai and English), 35 pp (illustrated).

*Algae in Thailand*, by Khanjanapaj Lewmanomont, Ladda Wongrat and Chatcharee Supanwanid (in English), 334 pp.

*Bryophytes in Thailand*, by Renoo Sornsamran and Obchant Thaitong (in English), 234 pp.

*Checklist of Forest Insects in Thailand*, by Chaweewan Hutachareern and Napachon Tubtim (in English), 342 pp.

*Warren Y. Brockelman*

## **BIOTEC Launches Major Program in Biodiversity**

In the past, researchers in Thailand have always looked abroad to international agencies or to Western institutions for funding to carry out major research projects. Research was not a priority of the government, and competent university researchers were expected to secure funds from wealthier institutions outside the country. They did, but such funding was never freely available for anything the researcher wanted to investigate. Agencies, understandably, always had their own agendas to accomplish, or a biased set of funding objectives. For example, public health and tropical disease research have been well funded, but not basic ecology or pollution biology. Ecologists usually have sought funds from conservation organizations interested in saving particular endangered species or habitats. Biologists have always felt, however, that basic taxonomy, natural history, ecosystem ecology, population biology and species surveys and inventories were being neglected, but in the long run, very important. But these subjects have never had any well-healed benefactors or concerned vested interests. This situation is now changing. During 1995–96, a mechanism has been set up to greatly increase support of these areas in Thailand and reverse the long period of neglect.

During the past few years, a handful of influential Thai scientists and engineers have, with considerable effort, managed to persuade the government that it is in the best long term interests of the kingdom to support basic science in certain broad priority areas in a serious way. This would be necessary to promote the technological development and competitiveness of Thailand, and also to reduce the scientific and professional “brain drain” to the U.S. and other richer countries where opportunities are much greater for scientists.

The government has set up two semi-independent agencies to administer grants for scientific and technological research and related projects. These are the Thailand Research Fund (TRF) and the National Science and Technology Development Agency (NSTDA). Three “national centers” have been set up under NSTDA to support research in three priority areas: materials science, information technology, and genetic engineering and biotechnology (BIOTEC). BIOTEC has been giving broad support to projects in genetics, crop development and improvement, fermentation and other processes using microbes, natural products research and development of useful wild species.

It has become clear in these endeavors that lack of knowledge of taxonomy, distribution and ecology of native species will continue to be a major impediment to the discovery and development of useful animals, plants, and microorganisms, particularly those living in the tropical forest. Hence BIOTEC, in collaboration with the TRF, has established a new Special Program for Biodiversity Research and Training (BRT), which is expected to eventually become a new center under TRF/NSTDA. Prof. Visut Baimai, a geneticist at Mahidol University, has been appointed director of the program, which has been given a budget of 77 million baht (about U.S. \$3 million) for the first year of operation (1996).

BRT, as the special program is called, is supporting research and training activities under the following headings:

- I. Program in Research and Training in Biodiversity
  1. Systematics, genetics and ecology
  2. Monitoring of populations and ecosystems
  3. Economics, society and traditional knowledge related to biodiversity
  4. Information coordination
    - a. Biodiversity databases
    - b. Long Term Ecological Research Site (LTERS) inventory and monitoring programs
    - c. *Thai Biodiversity Monographs*, a new publication
  5. Human resource development and training in tropical biology
  
- II. Program in research and development in biodiversity policies and technology
  1. Development of technological proficiency for sustainable social and commercial uses of biological resources
  2. Policy development and management of biodiversity

To obtain more information about the BRT Program and information for prospective applicants for funding, contact:

Secretary  
Special Program for Research and Training in Biodiversity  
BIOTEC, NSTDA  
Ministry of Science, Technology and Environment  
Rama VI Road, Rajathevi  
Bangkok 10400.  
Tel. 246-7373, 245-7185

At its first full meeting in March, the Executive Committee of the Special Program for Biodiversity Research and Training (BRT) approved five projects for funding in 1996. These projects and their sponsoring institutions are as follows:

1. Assessment of genetic resources in teak and makha mong (*Afzelia xylocarpa*) using molecular markers (Royal Forest Department).
2. Study of flora and sustainable use of biological resources in the eastern region (Moo Ban Huay Hin Foundation).
3. Development of industrial (large-scale) production of medicinal products in rural public health programs (Bang Kratoom Hospital).
4. Taxonomy of lichen species found at Phu Teen Suansai, Loei Province (Department of Biology, Ramkhamhaeng University).
5. A study of forest biodiversity: gibbon foods, trees and plant products (Center for Conservation Biology, Faculty of Science, Mahidol University).

**Warren Y. Brockelman**

## Second International Asian Hornbill Workshop

During April 10–18, approximately 80 persons from 17 countries gathered in Thailand for the Second International Asian Hornbill Workshop. Initiated in 1992, the hornbill workshop is becoming a regular event (like the World Cup—every four years?) that is worth looking forward to. The event consisted of a symposium with more than 30 technical papers presented at the Siam Intercontinental Hotel in Bangkok, a presymposium field trip to Huai Kha Khaeng Wildlife Sanctuary, and a series of technical workshops conducted at Khao Yai National Park. The presentations covered diverse topics such as hornbill ecology and distribution, reproduction and nesting behavior, diet and feeding ecology, captive breeding, conservation, vocalizations, and molecular genetics. Several other papers covered habitat characteristics and the ecology of other animal species that share the forest with hornbill such as elephants, gaur, jackals and smaller birds. The technical workshop in Khao Yai covered five major topics: food and feeding, habitat and ecology, vocalizations, home range study (by trapping and radio-tagging), and canopy access techniques. Many persons, including this reporter, found the hands-on workshop on vertical rope climbing techniques for entry into the forest canopy, given by Phil Hurrell the BBC Natural History Unit (UK), to be extremely exciting and useful.

Hornbills are large and spectacular birds which occur mainly in primary evergreen forests in southern and southeastern Asia. They are much more than just interesting oddities; their fate is tied up with the large trees that provide them with food and nesting holes. Their numbers are not great and they are destined to become endangered as their forest habitats shrink. They typically have low reproductive rates and long lifespans, characteristics which suggest that they will slowly but surely decline to extinction in most areas. They are among the best indicators of the health of the forest—if the hornbills survive, then just about all the other big animals will be able to survive also. For these reasons, hornbill conservation will become extremely important and challenging. But we most know enough about their biology—nesting, feeding, ranging, population trends—to know when they are in trouble. There are signs that some species are in trouble now.

The workshop was sponsored and supported by the Seub Nakhasathien Foundation, Green World Foundation, Royal Forest Department, Faculty of Science of Mahidol University and Faculty of Forestry, Kasetsart University. The local organizers who made the workshop such a success are too numerous to mention, but most are dedicated participants of the Thai Hornbill Project, led by Dr. Pilai Poonswad, under the Hornbill Research Foundation (President: M.R. Smansnid Svasti). The Siam Society has agreed to publish the proceedings of the workshop as a supplement to the *Natural History Bulletin*.

*Warren Y. Brockelman*

## Databases for Wildlife Conservation

A "Workshop on Databases for Wildlife Conservation" was held at the Department of Biology, Chiang Mai University, on 18–19 April. There were two primary objectives of the workshop: 1) to demonstrate to potential users some of the computerized databases currently being developed in Thailand to help plan conservation of plant and animal communities, and 2) to provide a forum for discussion of the collection, analysis and distribution of data needed for the conservation of wildlife in Thailand. The workshop was attended by about 40 participants representing both government and non-government organizations concerned with natural resource protection and utilization in Thailand. It was supported by the Department of Biology, Faculty of Science, Chiang Mai University, and World Wildlife Fund (U.S.).

The workshop featured lectures, demonstrations, discussions and a field site visit. The capabilities of three database systems were demonstrated in the workshop. The first was the Northern Thailand Plant Database for managing plant ecological data and herbarium specimens. The second was the Terrestrial Vertebrates Database of Thailand, concerning wild birds, mammals, reptiles and amphibians in protected conservation areas of Thailand, which is maintained at Mahidol University. The third was the Thai Captive Asian Elephant Database. A round table discussion was held and topics covered included data collection, database design, data access, database security, etc. Participants also visited the nearby Doi Suthep National Park and the Forest Restoration Unit of the Department of Biology, Chiang Mai University. The objective of this project is to develop the capability of reforesting degraded areas on Doi Suthep (and other mountains) with seedlings of hundreds of native species germinated from seeds collected from the native forests near the site (see Commentary in the Winter 1995 issue of the *NHB*).

*Chen Nan*

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## Natural and Cultural Environment of Central Asia

During a recent United Nations mission to Turkmenistan, this reporter had a rare glimpse not only of the re-emerging countries of the Old Silk Road but also of what remained of ancient civilizations now reclaimed by the natural environment.

The three accompanying photos show the remains of ancient NISA, capitol of the Parthian Empire that, at the time of Sparticus, was as powerful as Rome. In fact the Roman general who defeated the slaves lead by the ex-gadiator Sparticus was in turn defeated by the Parthian army at the eastern flank of the Roman Empire.

At the time NISA was a fort, straddling East–West trade on the Old Silk Road. Its kings amassed immense wealth. The hills shown in the photos were covered with vineyards and the plains below could feed the large Parthian armies. At the square halls shown in the photo once large royal celebrations were held, where the wine cups were hollow carved and richly decorated elephant tusks, now called “ritons” by archaeologists, since they served the ritual of communal celebrations, going around among the celebrants gathered around the holy fire. The Parthians were Zoroastrans.

Where has all that gone? The natural environment (a desert) has reclaimed everything. Now, however, with immense natural gas resources under these hills, the Phoenix may well rise again!

*Steven J. Török*





Remains of ancient NISA. Photos by S. Török.

