

V. HERBARIA, GARDENS, ORGANIZATIONS

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The Asian Wetland Bureau is one of the largest international non-profit, non-government organizations active in wetland conservation and management in the Asia-Pacific region. Legally based in England, AWB has offices in Kuala Lumpur and Bogor. It was established in 1983 and now employs 55 staff on an annual budget of over US\$ 1.5 million. The organization gradually evolved from a collection of loosely knit short-term migratory bird species conservation projects, to one of integrated longer term wetland programs operating to a large extent on core rather than project funding. The AWB is affiliated with the International Waterfowl and Wetlands Research Bureau (IWRB) and represent it in the Asia-Pacific region.

In Indonesia, AWB-Indonesia has a standing agreement with the Indonesian Directorate-general of Forest Protection and Nature Conservation (PHPA), to provide expert services, technical assistance and transfer of knowledge to PHPA and other government agencies. It provides short-term in-service training-courses to PHPA and other counterpart agencies in wetland assessment, monitoring and management techniques, and has developed a National Wetland Data Base. The growing library on Asia-Pacific wetland literature (c. 1800 titles) and a reprint collection (c. 2000 titles) provides rapid access to recent data on wetlands through a PC-based catalogue.

AWB issues an international Newsletter in English, Asian Wetland News, while a first issue of an international letter in Indonesian, Warta Berita Lahan Basah, was published in early 1993. Besides other work a field guide to the plants of Indonesian mangroves is in preparation. Addresses for more information are:

- AWB, IPT, University of Malaya, Lembah Pantai, 59100 Kuala Lumpur, Malaysia.
- AWB-Indonesia, POB 254/BOO, Bogor 16001, Indonesia.
- AWB-Philippines Foundation Inc., 4th Floor, Albulario Building, General Maxilom Avenue, Cebu City 6000, Philippines.
- AWB, 61 Charterhouse St., London EC1M 6HA, U.K.

BSIP — Following the upgrading of the herbarium building and the updating of information it stored since 1990, the so-called Honiara or Forestry Herbarium now has a new name: 'The National Forestry Herbarium of the Solomon Islands'. Plans are under scrutiny to change the acronym BSIP (British Solomon Islands Protectorate). As the country obtained independence in 1978 the acronym seems out of place and date. The staff has increased by 200% to two officers and an assistant.

Plans are underway to redevelop and improve the **Honiara Botanical Gardens**.

Centre for Plant Biodiversity Research — A memorandum of understanding was signed on 3 February, 1993, to establish a Centre for Plant Biodiversity Research. The Chief Executive Officers of the Australian National Parks and Wildlife Service (ANPWS) and the CSIRO, Dr. P. BRIDGEWATER and Dr. J. STOCKER, signed on behalf of the Australian National Botanic Gardens and the CSIRO Division of Plant Industry.

The Centre will combine the activities of the herbaria at the Australian National Botanic Gardens (ANBG) and the CSIRO Division of Plant Industry (CANB) to operate as a single national collection, the Australian National Herbarium. It will also bring together the research activities of the two organizations in the areas of plant systematics, horticulture, and conservation biology – continuing and expanding the on-going collaborative work between ANBG, the Endangered Species Unit of the ANPWS and the CSIRO on rare and threatened plants.

The Centre will take responsibility for the coordination, maintenance, and upgrading of important national botanical databases developed by ANPWS and CSIRO, including the Australian Plant Name Index, the Census of Australian vascular Plants, and the Economic plants of Australia. The Centre will also take an active role in the development of national and international standards of botanical data exchange through involvement in such projects as the National Herbarium Information Standards and Protocols for the interchange of data (HISPIS), and the International Organization for plant Information (IOPI) World Vascular Plant Checklist.

The operations of the Centre will be modeled on those developed by the Commonwealth for the Cooperative Research Centres program. It will be established with existing facilities made available by CSIRO and ANBG on Black Mountain and will take full advantage of the extended herbarium facilities to be constructed at the CSIRO site in 1993. Staff from both parent organizations have been meeting in working groups for some months to decide on the mechanisms for the amalgamation. Staff for the Centre will be seconded from the Botanic Gardens and CSIRO Plant Industry.

The Centre will be managed by a Board, with representatives of both CSIRO and ANPWS and an independent chair. Professor D. ANDERSON, the Pro-Vice Chancellor of Sydney University, has agreed to chair the Board once the Centre becomes a reality with the signing of a legal agreement.

The Center for Tropical Forest Science (CTFS) is an initiative of the Smithsonian Tropical Research Institute and aims to foster interdisciplinary collaboration in field research with the following objectives:

- To better understand the socio-economic causes of tropical deforestation, and to define policies which encourage sustainable use;
- To describe the composition and dynamics of representative forests, and the demography of tree species populations in order to build predictive models for optimizing sustainable management for multiple use.

As part of the research facilities at a number of sites large, usually 50 ha plots are accurately surveyed, and all trees exceeding 1 cm dbh are mapped, measured, and identified. This gigantic undertaking provides up to 350,000 named, mapped, and labeled trees for a wide range of research studies – including field description and collection of elite material for systematic research. Interested researchers are encouraged, and should seek sponsorship and approval from the sponsoring institutions.

The first large-scale forest dynamics plot in the Malesian region was completed in 1989 at Pasoh Forest Reserve, Peninsular Malaysia. It was chosen because it well represents then lowland dipterocarp forests of Malaysia and western Indonesia, because extensive forest ecological, including wildlife and soils research has been carried out there since the seventies, and because it is a good example of an isolated forest in the agricultural landscape of a middle-income country of low population density undergoing rapid urbanization and industrialization. Five publications have appeared, three have been submitted to journals, and three are in preparation. The plot contains 820 species, or 55% of the tree flora to be expected from this region.

Sponsored by the FRIM and funded by it and the U.S. National Science Foundation, Smithsonian Institute, Conservation Food and Health Foundation, and UNESCO, forest ecological work started in 1986, and socio-economic and wildlife research in 1991.

Collaborating scientists are Messrs. S. APPANAH (silviculture), J. KLAHN, K.M. KOCHUMMEN (forest botany), J.V. LAFRANKIE (CTFS field representative, forest ecology), H.F. LIM (social anthropology), N. MANOKARAN (Malaysian co-principal, forest ecology), and L. RATNAM (wildlife).

A second plot was begun in 1990 at Lambir National Park, Miri District, Sarawak, not far from the Brunei border. It is now a small, isolated forest in a sea of plantations and shifting agriculture, distinguished by its poor, unstable soils prone to erosion and landslips which are typical of many other regions in Borneo, and by its biodiversity containing perhaps more tree species for its area than any other surviving forest in the Old World. Current research is concentrated on understanding how tree biodiversity is maintained in the heterogeneous, unstable landscapes, ecophysiological research on tree seedlings, and study of canopy insects. The first five hectares yielded 990 tree species. One paper has been submitted.

It is sponsored by the Sarawak Forest Department as a joint venture with a Japanese team led by T. YAMAKURA, Osaka City University, and T. INOUE, University of Tokyo, and funded by the U.S. National Science Foundation, Rockefeller and Alton Jones Foundations, the John Merck Fund, and the Japanese Ministry of education (Monbusho). Vegetation and entomological research started in 1991.

Collaborating scientists are Messrs. E. CHAI (silviculture), S. DAVIES (*Macaranga* ecophysiology), J. GROGAN (CTFS field representatives, forest ecology), T. INOUE (ento-

mology), J. V. LAFRANKIE, H. S. LEE (Malaysian co-principal, silviculture), P. PALMITO (seedling establishment in relation to soils), I. YAMADA (forest botany), and T. YAMAKURA (Japanese co-principal, forest ecology).

An herbarium has been assembled at Lambir that now consists of roughly 6000 sterile specimens representing over 1000 species of trees and shrubs. Additionally, about 1000 fertile specimens were collected during the general flowering of 1992. These are cited as Perumal & LaFrankie 1-900 and LaFrankie 7000-7200 deposited in KUCH with duplicates in A and K.

Authors of family treatments for the newly initiated Tree Flora of Sarawak and Sabah are encouraged to make use of the materials assembled at Lambir.

A third plot has been established at the Huai Kha Khaeng Wildlife Sanctuary, Thailand, and startups are expected in 1993 at sites in Sri Lanka, Indonesia, and peninsular India. — P. S. Ashton & J. V. LaFrankie.

EC Human Capital and Mobility Grant to Study the Botanical Diversity of the Indo-Pacific Region — Just before this issue went to the press the informal news reached us that the European Community has awarded a substantial grant to fund a scientific cooperation network for the study of the botanical diversity of the Indo-Pacific region. The network has nine 'nodes': Aarhus (AAU), Aberdeen (ABD), Dublin (TCD), Kew (K), Leiden (L), Mainz (MJG), Oxford (OXF), Paris (P), and Reading (RNG). It is established to intensify European cooperation on related flora projects such as the Flora Malesiana, Flora of Thailand, Flore du Cambodge, du Laos et du Viêtnam, and Flore de la Nouvelle Calédonie. The network will be co-ordinated from Leiden. With the grant a number of post-doctoral projects can be funded to study the systematics of various genera with a largely Indo-Pacific distribution. In this way talented young botanists can receive specialist systematic training, while at the same time it will contribute significantly to the flora projects mentioned above.

The highly competitive EC Human Capital and Mobility programme covers all sciences. In view of a very low success rate (c. 7%) of applications the award of a grant of ECU 700,000 (c. US\$ 824,000) to a plant systematic network is a break-through for tropical plant systematics in the Brussels arena. It is also a great stimulus to continue our fund-raising efforts for Flora Malesiana at all possible international funding agencies. — P. Baas.

International Working Group on Dipterocarps — The 5th Round Table Conference on Dipterocarps entitled 'Recent Advances in Dipterocarp Research for Sustainable Forest Management' will be held in Chiang Mai, from 7-9 March 1994. For further information: Mr. Somyos Kijkar, Director of Asean-Canada Forest Tree Seed Centre (ACFTSC), Muak Lek, Saraburi 18180, Thailand, tel. (36) 341 305, fax (36) 341 859.

Kebun Raya Purwodadi — The Purwodadi Botanical Garden is located about 70 km South of Surabaya, East Java. It was officially established in 1939 by Dr. D.F. VAN SLOOTEN as an extension of the Bogor Botanical Garden and covers an area of 85 ha at an elevation about 300 m above sea level. The garden has always been devoted as an ex situ conservation site of the Indonesian flora especially for plants requiring a relatively dry climate and of lowland origin. Some collections native to other countries with a dry climate have been introduced as exotic plants.

At present there are 11,998 specimens representing 149 families, 898 genera, and 3,021 species. Among these are 460 species of orchids, 35 of *Zingiberaceae*, many local rare vari-

eties of e. g. *Mangifera indica* L., cultivated varieties of banana (*Musa* spp.), and a number of cacti, and other border plants.

A comfortable Guest House is available in the Garden for Rp. 15,000–25,000 p. d., incl. breakfast. Simple eating houses are close-by. East Java dishes are more spicy than West Java ones!

Oxford University Herbaria (OXF and FHO) — Teaching and research in Plant Taxonomy at Oxford has recently (before November 1992, Ed.) been reviewed by a Panel chaired by the Director of the Royal Botanic Gardens, Kew. Acknowledging the increasing commitment to the plant sciences at Oxford, the Panel recommended that taxonomic research be developed through an integrated programme of restructuring. The first step in this reorganization will be the securing of funds for the comprehensive refurbishment of the herbaria and associated laboratories. Changes are already being made but throughout these improvements there will be no restriction on loans. However, inquiries should now be addressed to the Acting Curator, Dr. D.J. MABBERLEY.

One of the Panel's recommendations was that the Fielding Herbarium (OXF, p.p.) cease to accumulate new material and that the Forest Herbarium (FHO) be the repository for new specimens. The Druce Herbarium (OXF, p.p.) will continue to be the repository for all British material and the Forest Herbarium will now be that for material from the rest of the world. The FHO will accordingly be known henceforth as the Daubeny Herbarium as it will no longer be merely the repository of forest plants. The name commemorates Charles Giles Bridle Daubeny, M.A., M.D., F.R.S. (1795–1867), Professor of Botany from 1834, having been Professor of Chemistry from 1822. He did much to restore the teaching of botany at Oxford, reviving the Botanic Garden and introducing experimental techniques into subject. He was instrumental in the University's acquisition of the Fielding Herbarium in 1853. To quote H.N. Clorie (1964), 'An account of the herbaria of the Department of Botany in the University of Oxford', p. 47: "Professor Daubeny is one of the most outstanding of the Oxford Professors of Botany. His greatness lay chiefly in his ability to get botany taken seriously in the University, in his capacity to read and assimilate data on the latest ideas in botany, chemistry, geology and agriculture, and to work in the same directions, producing papers which might be of use to his students in their work and generating his own infectious brand of enthusiasm."

The disposition of the Herbaria is now as follows:

Fielding-Druce Herbarium (OXF): herbaria of Fielding, Sherard, Dillenius, Sibthorp, Morison, DuBois, Bobart, Druce, of which only the last is accepting new (British) material.

The Department of Plant Sciences is pleased to announce the conferment of the title of Distinguished Research Curator on F. WHITE, M.A. (Oxon.), Sc.D. (Cantab.) until retirement, in recognition of his outstanding research work, notably on the taxonomy and ecology of African plants. — C.J. Leaver & H.G. Dickson.

Together with Dr. S.H. Sohmer and Dr. B.C. Stone, formerly of BISH, the **Philippine Flora Project Office** has moved to 'BRIT', the Botanical Research Institute, 509 Pecan St., Forth Worth, Texas, 76102, U.S.A.

The Regional Training Course in plant taxonomy: Methods and approaches on the preparation of the flora of biosphere reserves and other protected areas in South-East Asia was held from 14 September to 17 October, 1992, at the

Herbarium Bogoriense. The course was attended by 12 participants: from Indonesia (4), Papua New Guinea (3), the Philippines (3), Thailand (1), Vietnam (1), and 9 observers from the Bogor Agricultural University. Lectures were given by scientists from Indonesia (6), the Netherlands (L: 2), India (1), and UNESCO (1). The organization was in hands of representatives from BO, UNESCO-MAB Indonesia, and L. The subjects of the course included techniques of plant collecting, herbarium preparation, systematics, ecology, and some computer programs related to those subjects. — Rugajah.

Rijksherbarium/Hortus Botanicus co-founder of Dutch Graduate School 'Biodiversity' — Research and graduate teaching of systematic botany and zoology will be closely coordinated in a Graduate School ('onderzoekschool') 'Biodiversity' combining a number of key institutes in the Netherlands. Graduate Schools, formally to be recognized by the Royal Dutch Academy of Sciences, were established in the Dutch university system several years ago. Their funding is guaranteed to some extent, and their recognition is based on high quality requirements. The initiative to create a Dutch Graduate School for Systematics and Evolutionary Biology was taken by the Institute of Taxonomic Zoology of the University of Amsterdam. This initiative has now culminated in a formal application to the Academy of Sciences for recognition of a 'Biodiversity' school. The 5 key partners are the Amsterdam Institute of Systematics and Population Biology, the Utrecht Herbarium (U), the Centraal Bureau voor Schimmelcultures (Mycological Institute, Baarn/Delft, CBS), the National Museum of Natural History (Leiden), and the Rijksherbarium/Hortus Botanicus (L). Amsterdam will be the administrative centre, while the scientific directorate will be at the Rijksherbarium/Hortus Botanicus.

One of the main tasks of the Graduate School will be to offer high quality training courses for the c. 30 Ph.D. students who are working on systematic research projects in the Netherlands at any given time. Integration of courses with an Erasmus programme for graduates throughout Europe is also considered. Within the Graduate School there will be a strong concentration on Malesian biodiversity in 3 of the 5 key institutes. — P. Baas.

The **Second Flora Malesiana Symposium** was held in Yogyakarta between 7 and 12 September, 1992. It was followed by a Workshop, the Recommendations of which were appended to the previous issue of the *Flora Malesiana Bulletin*, Chapter XVI (p. 97–101).

It is planned to organize a **Flora Malesiana Workshop** at the XVth Botanical Congress in Yokohama in August 1993.

The **Third Flora Malesiana Symposium** will be held in Kew on 10–14 July 1995, followed by the **Holttum Symposium** to commemorate the Centennial of his birthday dedicated to orchids (17–21 July). See also Chapter IX.

The **Second Meeting of the Papua New Guinea Botanical Society** was held on 2 and 3 September 1992 at the Cendrawasih University, Manokwari. The Society has been renamed to the **Biological Society of New Guinea**. Twenty-three papers were presented to the 50 attendants. The Wau Ecology Institute will host the 1993 meeting.

Singapore Botanical Garden. — The old Director's house has been converted into two self-contained flats for visiting VIPs and a large reception/meeting area. It has been baptized 'Burkill Hall', named after I.H. BURKILL, former Director of the Strait Settlement

Gardens and author of the famous 'Dictionary of the economic products of the Malay Peninsula', and his son, H. M. BURKILL (who was born there), former Director of the Singapore Gardens, and author of the ongoing revision of Dalziel's 'Useful plants of West tropical Africa'. Dr. H. M. Burkill attended the opening ceremony.

Vernacular names in the Solomon Islands — Mr. M. Q. B. M. SIRIKOLO Jr. (BSIP) has been making lists as part of an ongoing ethnobotanical research project. The following languages have now been covered: Alu (Shortlands), Babatana (Choiseul), Bilua (Vella Ila Vella), Bellona (Bellona), Maringe (Isabel), Ngella (Florida), Rennell (Rennell), Roviana (New Georgia), Ulawa (Ulawa), and Vasiqasiqa (Choiseul). These local names will supplement the well-known Kwara'ae (Malaita) names. The research is aiming to collect, conserve, and promote the traditional knowledge and names throughout the country which have started to die out due to the change in lifestyle from traditional to increasing westernization. A lot of young people today do not have the interest of acquiring traditional information about plants from their elders, and because of the various changes accompanying development and modern technology. The results will be published by the end of 1994.