

VI. MISCELLANEOUS INFORMATION
(contd from p. 999)

a) Research and Publications:

Mr S. S a v a g e, F.L.S., formerly the Linnean Society's Librarian and Assistant Secretary, has now completed the catalogue of the Herbarium of the Society's first President, Sir James Edward Smith, which contains nearly 20,000 sheets.

The MS. consists of over 1400 foolscap pages and includes a preface; a list of 83 contributors and over 500 collectors.

Pacific Botanists 1963. Mr E. H. B r y a n Jr composed this very useful booklet which gives reference to c. 1250 persons, arranged both by names with full address and by an interest index. Mimeographed at the Pacific Scientific Information Centre, B.P.Bishop Museum, Honolulu.

American Scientists to Indonesia. A team convened at Hawaii University by Prof. M. S. D o t y, algologist, was sent to Indonesia, on request of Dr S a r w o n o Prawirohardjo, president of the Council of Sciences for Indonesia (now M.I. P.I.), to advise in the development of programs for botanical study in that country and to promote closer cooperation with Hawaii University. The team included Dr G.W.Gillett, botanist, Dr P.J.Scheuer, chemist, Dr E.Nussbaum, nuclear physicist, Dr S.Wortman, rice researcher, and Dr A.C.Smith, botanist.

Contour map of western New Guinea. None of the existing maps gives contour lines, except one. This is a collection of hydrographical maps which cover parts of the country. They accompany a printed text in Dutch and English; the whole was prepared by the Dutch Ministry of Internal Affairs for internal use in 1959, under the title "Waterkracht Nieuw Guinea".

Malesian Rhododendron flowering in Holland. Since 1955 seeds and cuttings, particularly of New Guinean mountain Rhodos, have been tried in cultivation under glass by experts in the peaty soil of Boskoop, East of Leiden. Graftings of Malesian material of *R.ponticum* failed. Germination takes 3-6 weeks. Out of 46 species, 30 have survived, 6 flowered, all in autumn. It is remarkable that the larger the leaves of a species, the better seems its chance of survival. The Malesian Rhodos have orangish and yellowish hues which are still unknown in the present (central-Asia-based) assortment. The new *R.leucogigas* produced carnation-scenting flowers 14 cm in length; in the wild state they may attain 16-20 cm, making the largest of the genus.

WONG merged into WOTRO. The Dutch Ministry of Education established in 1957 a foundation to promote and coordinate scientific research in Netherlands New Guinea (Wetenschappelijk Onderzoek Nieuw Guinea). In the course of three years, this Foundation spent about £ 24,000 on research projects. When western New Guinea came under Indonesian government, the foundation WONG stopped its activity. In July 1964 WONG published a final report of 53 pp. It is now merged with another Netherlands foundation called W.O.S.U.N.A., which has been very successful in scientific exploration and research in Surinam and the Netherlands Antilles. The new foundation, called WOTRO, has a much larger budget than the combined WONG

and WOSUNA but also a larger field as it covers all Netherlands exploration projects in the tropics. It is administered separately from Z.W.O.

The Netherlands Buitenzorg Fund, administered by the Royal Netherlands Academy of Sciences, has been saved and been incorporated in a Foundation "Melchior Treub Stichting" which remains subsidized by the Government. Its aim is widened and is intended for biological research in all tropics.

North Atlantic Biota, and their history. Pergamon Press 1963. £ 5. During this symposium at Reykjavik, July 1962, many interesting data became known; viz paleobotanical evidence of interglacial flora in Iceland, even *Alnus*, *Salix*, and *Betula*, in support of the glacial survival theory. Generally one was inclined to assume former land or landbridges to explain the flora, not long-distance dispersal which pleases me. -- v.St.

Flora of China. A copy of volume 68 obviously containing Scrophulariaceae: *Pedicularis* reached Kew early Jan. 1964. In 1963 we were told by Dr Holttum that Tang & Wang's volume 11 on Cyperaceae "were waiting publication". A copy was received by Mr J.H.Kern in Sept. 1964. The printed date on the volume is Nov. 1961.

Nova Guinea, Botany. The redaction of this journal, published by J.Brill N.V., Leiden, is now in the hands of Dr H. Sleumer, Rijksherbarium, Leiden.

Catalogus Hortus Bogoriensis. A new Catalogue has been published at Bogor by Kebun Raya Indonesia in 1963, to replace the one published in 1957. The work is following the scheme of that of the old one, the size is 268 pp. It was advertised that a separate Catalogus Hortus Tjibodasensis was printed but we have not seen a copy of either catalogue.

Philippine waterplants. Mr D.R.M e n d o z a and Dr R. d e l R o s a r i o, Manila, are working to compose a checklist and manual of Philippine Aquatic Flowering Plants and Ferns.

Ecological studies.

From the stencilled newsletter E.S.A., issued by the Ecological Society of Australia, news can be learned about ecological work going on in Australia and Papua.

In New Zealand ecological contributions are found printed in interesting Proceedings of the New Zealand Ecological Society, numbers of which are often representing a kind of symposia on a certain subject treated by various authors from different angles.

During the 1st, and especially during the 2nd Royal Society Kinabalu Expedition in North Borneo, ecological studies were performed on Mt Kinabalu, North Borneo, results of which will be published in the Proceedings of the Royal Society.

From a pamphlet "Current Projects on Plant Ecology in the Pacific Area" compiled by Mr R. S t o r y, Chairman of the Subcommittee on Pacific Plant Ecology, no 1, the following items are extracted relating to Malesia:

Mr P. C. H e y l i g e r s, of the Division of Land Research and Regional Survey, Canberra, is planning to study the ecology of Themeda-Eucalyptus savannahs in the Moresby area, S.Papua, with special reference to the soil factors.

Dr J. M. P a l l o t, associated with the University of Malaya, Kuala Lumpur, expects to make some preliminary studies of the peats and probably Quarternary sediments of South Johore State, Malaysia, primarily on the basis of pollen analysis.

Prof. M. E. D. P o o r e, University of Malaya, Kuala Lumpur, has examined in a 60 acre block of lowland dipterocarp forest in Jenka F. R., Pahang, all woody plants over 3' g.b.h.

b) Herbaria, Gardens:

Edinburgh Herbarium. In 1964 the new, 3-storeyed, modern-built Herbarium & Library in the Edinburgh Botanic Gardens was opened by Her Majesty, the Queen. It is entirely air-conditioned. Adequate benches before large windows provide ample working space for visitors with a magnificent view on the town and garden; herbarium is in steel cabinets. Visitors of the Congress enjoyed the excellent conditions of this important acquisition to botanical science.

Building activities are in progress for an extension of the Kew Herbarium, where a new wing is under construction, and an extension for the Library, which is to be more centralized. The Jodrell Laboratory will be housed in a large new building.

Rijksherbarium, Leiden. Since the issue of the last Bulletin, two Annual Reports (in Dutch) have been published, 2 parts of Blumea and Persoonia, volume 1 of the Flora of Java by C.A.Backer & R.C.Bakhuizen van den Brink, and an instalment of Flora Malesiana, and three Identification Lists. At present, there are a regular scientific staff of 21, and a technical staff of 30. Out on loan went 9,232 sheets, last year (from Sept.1 to Aug.31) 12,567. Received on loan were 22,029 sheets, last year 9,032. Duplicates distributed amount to 9,403, last year 8,326. Received were 29,369 phanerogams and 10,028 cryptogams; last year 26,127 phanerogams and 3,276 cryptogams. The Rijksherbarium staff produced last year

92 papers with a total of 1926 pages. Fifteen Ph.D. theses are in preparation. In the course 1963-1964, seventeen students in biology of Leiden University worked for periods of 6-9 months on various subjects. Each student is attached to a member of the staff, under supervision of the Director. All work is directed in such a way that a published paper is the result, because the view is held that a student should be taught how to participate in the actual making of science. Last year, students produced 9 papers with a total of 83 pages.

At last, the former wool-factory of Parmentier has been rebuilt to accommodate the Rijksherbarium Provisorium as a temporary abode at 500 yards from the old site, is ready to be moved into. When this Bulletin issue comes from the press, the address will be:

! Rijksherbarium !
! Schelpenkade 6 !
! Leiden, Netherlands !

Telephone number: 01710-30541

US-type collection. According to the Annual Report 1963 of the Smithsonian Institution, the (segregated) type collection of the Washington Herbarium contains 59,302 specimens.

Room at Kepong. A new air-conditioned herbarium building is to be completed at the end of 1964. It will greatly increase storage and working space, relieving the present congestion.

The Singapore Herbarium buildings were overhauled and enlarged, the work having been finished in July 1964.

New Bogor Herbarium. On Aug. 19, 1963, President Soekarno of Indonesia laid the first stone of a new 12-storey building on the site where two buildings of the former complex had been demolished. Meanwhile, two semipermanent buildings were constructed to accommodate the collections. During the years that it may take to construct the new building, material is available for loan as usual.

The Kuching Herbarium during 1963. The Forest Department made 1844 collections; duplicates were distributed in 1964, most to Kew, Leiden, Singapore, Sandakan. Many determinations were received from Mr P h i l c o x of the Kew Herbarium. All trees in the Arboretum have now been numbered and checked; collecting is continued and accurate naming begun, with a view on future ecological studies. Dr P. S. A s h t o n began a field study of the Sarawak palms; many photographs and specimens have already been collected. Mr A. J. N. R i c h - a r d s has made a list of Iban names for rattans. Dr J. A.

R. A n d e r s o n has started a new ecological and palynological study of the 250 sq.miles Maludan peat swamp, the largest of Sarawak, in Division II.

The Sandakan Herbarium during 1963. The new collections were never so large: the 1961 fire consumed 15,000 specimens, now there are 17,000. Another record number make the 15,021 duplicates distributed (11,188 in 1962). The emergency Herbarium was just crammed when, at the end of 1963, the new building could be occupied. The great collecting drive was continued by Dr. W. M e i j e r and his helpers in many places; they realise that collecting should now become increasingly selective. Numbered tree series were also continued, now totalling 2683. The MS. of the Forester's Manual of Dipterocarps went to the (offset)printer in Hongkong early in 1963. In total 160 species are known for Sabah, 55 having been added since 1953. For the 2 volume Forester's Manual of Non-dipterocarp trees (about 400 species of 80 families) the material are still being collected. The flora on ultra-basic soils and in the swamps on the East coast are projects for 1964.

Manila Herbarium. The mounted collections at PNH now total 88,000. Dr. E. Q u i s u m b i n g, the former Director, succeeded in the recovery of 3,299 sheets, including 134 types, of pre-war loans to the Arnold Arboretum.

Data of FB-collections saved. When the Manila Herbarium was destroyed in World War II, the associated collection of wood specimens and accompanying handwritten "register" were marvellously saved, and now kept at the Institute of Wood Technology, FPRI college, Laguna, Philippines. The register consists of 8 bound volumes each containing 400 + quarto pages. The data consist of a numbered list of woody plant specimens (identifications, collector's names, localities, and miscellaneous notes) collected by personnel of the Forestry Bureau between 1903 and the beginning of World War II. These data pertain to herbarium specimens which are no longer existent in Manila, but of which duplicates have been distributed to many Herbaria. Often there are more data in this "register" than on the labels affixed to the duplicates. Mr W. L. S t e r n, F.A.O. Forestry Officer and Wood Technologist, is now making efforts to have the data in the "register" copied and distributed to those Herbaria which possess FB-duplicates to which they refer.

Mr W i r a w a n of the Bogor Herbarium is expected to take charge of the Forestry Herbarium in Manokwari, New Guinea; in Dec. 1964.

New Lae Herbarium. In Dec. 1963 work started on this £ 110,000 project. It will probably be ready in March 1965, a two-storey, completely air-conditioned structure, 124 by 44

feet. The office is planned in the lower storey, the collections (by now + 51,000) and library in the upper storey. It is anticipated that the new building provides for 15 years of expansion.

Honiara, Solomons. The Forest Herbarium was in Aug. 1963 moved into an airconditioned room which is hoped to be adequate for 18 months, until the Forest Department can occupy more spacious quarters. Like at Lae, plants are collected in bags of thick plastic with a small quantity of 70% alcohol awaiting their being dried in a small preparation room in addition to the Herbarium.

Owing to shortage of funds for 1964 the building of the new Brisbane Herbarium has been postponed to 1965.

c) Symposia, Congresses, Societies, and Meetings:

End July to begin Aug. the 10th International Botanical Congress was held at Edinburgh, a huge affair with c. 3500 participants. The printed Abstracts of the Congress contained 749 abstracts belonging to symposia and c. 400 to contributed papers and demonstrations. Most of the time the sun smiled on the congressists and all are very grateful to our Scottish hosts for this well-organized satisfactory event, which must have cost them many head-aches in advance. We hope they have by now recovered from the successful effort of being host to this international invasion. From a remark overheard in a bus, a Scotsman saying that "we Scots" think this or that, but "Europeans" are of another opinion, a Congress may help to overcome this sort of discrimination. With the growth of the congresses and expansion of biological topics even the system of symposia with invited speakers cannot prohibit that there is serious overlapping, as the time allotted to a congress remains about 8-10 days and everybody is exhausted by then. Especially for those interested in taxonomy, evolution, geography of plants etc. a choice had to be made. The pre-Congress meetings of the Section Nomenclature were quite a trial; fortunately, by dragging on, we could sit them out. Many trivial 'proposals' could be easily dealt with by means of the mail-vote, but the first day was mostly spent with 'warming up'. Fortunately sometimes lively, even moments of heated debate, and some joking kept interest, and some participants, awake. All "Special Committee" reports were accepted and the Code remains as it is, showing after all the wisdom of the congregation. Botany cannot simply afford to make essential changes in basic concepts; it is too late for that. During the last two decades the Code has proved quite satisfactory as far as any a posteriori made Code can and the name giving of many Floras and monographs is based on it.

Association of Tropical Biology Bull. 2 (1964) pp. 1-63 contains the Incorporation and By-Laws and a Member List.

Ceylon Symposium on Medicinal Plants. This second UNESCO symposium on the subject is to be held at Kandy, on Dec. 15-18 1964. Participants are from S. and SE. Asian countries.

Tropical Delta Problems was the subject of a UNESCO symposium at Dacca, East Pakistan, from Febr. 24 to March 2, 1964, attended by 49 delegates from 16 countries, who presented 52 papers which will be published by UNESCO. Geomorphology, sedimentation, soils, hydrology, biology, and human ecology were discussed; delta regions are in many respects favourable for settlement, if the danger of flooding is avoided.

Hydrologic Decade 1965. More thought about water is circulating in the atmosphere. UNESCO plans an International Hydrologic Decade next year. By measuring rivers, to open study of erosion, precipitation gauging, research on soil moisture and underground water, on hydrological forecasting, on man's influence on the quality of continental waters, etc., one hopes to meet the threat of a world shortage of unpolluted water, in wet areas as well as in dry. Because water itself constantly ignores and oversteps national boundaries, it is felt that study of it must be enabled to do the same.

East Pakistan Vegetation Problems. UNESCO expert H. J. Neubauber reported the results of a study which the government had asked him to do for 3 months. This report contains a program for further ecological study of plant communities wild and cultivated, of the mangroves in the Sunderbans and the Chittagong forests, including research on the microclimates, soils, and waters and their seasonal fluctuation.

"The expert recommends ecological investigation of lianas and similar climbers which constitute the most important category of weeds (in the rain forest). It is suggested that special effort should be directed to the study of living conditions of young seedling stadia in the first months of their existence."

"The expert recommends that collections of herbarium specimens of the plants are established."

"The expert believes that botanical research cannot be easily undertaken in East Pakistan, because of lack of collections of plants He estimates that a national or at least regional herbarium for East Pakistan can be developed out of the collections of the Botany Department of the University of Dacca." -- From the Humid Tropics Newsletter no 3 of UNESCO. We readily emphasize the fact that lianas are badly known in any stage; that therefore ecological study on them requires much collecting of, in the first place fertile, materials for taxonomic study. We hope that an extensive dis-

tribution of good-quality duplicates with wood-samples will be included in the program. Special care is needed while taking the material because lianas are apt to be confused with other lianas and with the supporting trees.

Humid Tropics Meeting at Bandung. The 4th session of the UNESCO advisory committee was held on Dec.2-7, 1963. Satisfaction was expressed with the work done by the Visiting Committee for Tropical Herbaria (see p.998). The Training Expeditions were extensively discussed, and the Flora Neotropica Project. It has been agreed that this will consist of monographs; New York Botanical Gardens offered to function as headquarters of the project. Protection of the Javanese Rhinoceros, and of Orang Utan was discussed, and much more.

d) Conservation:

Nature Protection in Borneo. Scientists all over the world will praise the wisdom of the Government of North Borneo:

No. 98

No. A. 103/14/5

DECLARATION OF KINABALU NATIONAL PARK

Ord.No.5
of 1962.

In exercise of the powers conferred upon him by section 12 of the National Parks Ordinance, 1962, the Yang di-Pertua Negara has declared from the date hereof that the land specified in the First Schedule shall be a National Park to be known as the Kinabalu National Park subject to the rights and privileges mentioned in the Second Schedule.

FIRST SCHEDULE

Locality	Plan No.	Approximate Area
Ranau	F.214	275 square miles

An area of approximately 275 square miles lying between the Kundasang-Ranau road in the south and Mount Templer Forest Reserve in the north, and between the general lines Ranau-Hot Springs in the east and Kampong Kiau-Kampong Malangkap-Mount Templer Forest Reserve in the west, the whole delineated on Plan No. F.214 deposited in the Office of the Director of Lands and Surveys, Jesselton.

SECOND SCHEDULE

Rights and Privileges:

To the Natives residing in the villages of Pinawantai, Taruntongon and Nalumad subject to obtaining free Certificates of Identity from or under the authority of the Board of Trustees: the right and privilege of continuing with their traditional methods of agriculture in the vicinity of their villages and of taking forest produce for their domestic use.

Dated at Jesselton, this 16th day of January, 1964.

By His Excellency's Command,
Richard E. Yap
Minister for Natural Resources.

Sarawak is most fortunate in having both a good deal of its original vegetation and an understanding government willing to safeguard this priceless and irreplaceable treasure. Recently, the Forestry Department has submitted a scheme for the constitution of new National Parks.

Corner's words are well to remember that a nation shows its degree of civilization by the care it bestows on wild things. And it is not merely the "things"; clearer and clearer nature reveals itself to science as a vast fabric of invisible threads, each thread being a biological relation, and each biological relation means a balance. The forests and the soil and the rivers are great living organisms as a whole, with innumerable mutual connections.

The fabric of nature also envelops man in a shelter, invisibly as long as it is intact. When it is ripped apart (always for single limited purposes), man's physical and psychological wellbeing will suffer in ways manifold and unforeseen. With nature, man will also save the benefits he derives from her. Therefore, if cuts must be made in the fabric, the knife must be handled expertly, that is: guided by a wide and profound knowledge of ecology. This science is still in its infancy, and study of undisturbed areas of the greatest possible diversity is required for its development. It will be impossible, in the long run, to separate scientific from economic importance.

It is instructive to examine the "requirements for the selection of areas for National Parks" listed in the report mentioned, and abbreviated here:

- 1) Areas smaller than 1000 acres will generally be too small to remain unaffected by changes following destruction of the surrounding vegetation.
- 2) The areas should contain typical samples of every type of primary vegetation of Sarawak. As animals are dependent on plants, the zoologist's interest coincide with those of the botanist.
- 3) The areas should be scattered throughout the country,
- 4) be easily accessible,
- 5) preferably coincide with water catchment areas, land unsuitable for agriculture, and other topographic units which are best kept under primary forest.
- 6) Each area should have a site suitable for clearing as a camp-site and eventual erection as a hostel or resthouse. A river with clean water is required nearby.
- 7) All areas with dense population should have a park within easy reach.

8) All types of vegetation not represented in the great parks should be preserved for research, including small but peculiar plots.

For the time being, a total area of 0.3% of Sarawak is proposed for protection, to be extended when the interior is opened up. The proposed parks are: -- 1) Matang, including Vallombrosa, Beccari's famous collecting ground. -- 2) Gunong Gading, a group of small mountains near the Lundu River and growing Lundu town. -- 3) Sabal park, with kerangas and other interesting forest. -- 4) The well-known Pelagus Rapids in the Rejang River, with scenic surrounding country rich in plants. -- 5) Similajau, a piece of rocky coastline under forest. -- 6) Sungei Dalam, with kerangas forest. -- 7) Loagan Bunut, peat swamps undisturbed. -- 8) Lambir, poor soil with unique flora.

Realizing how much attention from biologists Bako National Park has already attracted, and how many unique data and materials it has yielded for study, we hope for science, and on the strength of their mutual advantageous relationship also for the country of Borneo, that soon these Parks will be established and developed.

In the Galapagos Islands (to Ecuador), this "living laboratory of evolution", the native forms of life and their associations are in mortal danger. UNESCO created in 1959 the Charles Darwin foundation and founded a laboratory which already has attracted much attention.

A Galápagos Symposium was presented to the 10th Pacific Science Congress in 1961; the papers have now been published in the Occ.Pap.Calif.Ac.Sc. 44 (1963) 154 pp., 50 fig.; they deal with bathymetry, climate, archeology, botanical opportunities, biosystematics, terrestrial fauna, shore fishes, evolutionary patterns in Darwin's finches, protection and conservation problems, and future studies.

VARIA

"Locality often makes plants a little different, but it has never changed one species into another, not even in the brain of any sane botanist."

C.Linnaeus, *Critica botanica* (1737)
§ 264, transl. A.Hort (1938).