

V. EXPEDITIONS AND OTHER EXPLORATION
(continued from p. 1688)

C e y l o n

The Flora of Ceylon Project (continued from p. 1684). This project of the Smithsonian Institution stands in Ceylon under the responsibility of Dr. R. R e a d, who himself is working on Monocots. Otherwise it is performed by visiting botanists who get transport, drying facilities, and can amply do field work in their groups, by being given land-rover transport (and driver) and subsistence. From Dr. F. R.

F o s b e r g, who is in general charge, we received the following list of participants (up till Oct. 1969) and the groups they have agreed to revise: Dr. Tetsuo Koyama: Cyperaceae (part) - Prof. Delbert Wiens: Loranthaceae - Prof. William Theobald: Bignoniaceae, Gesneriaceae, Pedaliaceae - Dr. Herbert Huber: Apocynaceae, Asclepiadaceae - Prof. William Macnae: Rhizophoraceae, Lecythidaceae, Sonneratiaceae - Prof. E.J.H. Corner: Moraceae - Dr. A.J.C. Grierson: Compositae - Dr. André Robyns: Bombacaceae, Tiliaceae, Sterculiaceae - Dr. R.D. Hoogland: Dilleniaceae, Magnoliaceae - Dr. A.J.G.H. Kostermans: Lauraceae, Mimosaceae, Guttiferae - Prof. Louis C. Wheeler: Euphorbiaceae (part) - Dr. Robert Read: Palmae, Typhaceae, Pandanaceae?, Xyridaceae?, Bromeliaceae, Aponogetonaceae, Pontederiaceae, Juncaceae, Eriocaulaceae? - Mr. Amaratunga: Proteaceae, Nepenthaceae, Droseraceae, Oxalidaceae, Malpighiaceae, Buxaceae, Bixaceae - Mr. N. Wirawan: Capparidaceae - Dr. Thomas R. Soderstrom: Gramineae (part) - Mrs. Annette Hladik: Umbelliferae, Araliaceae - Dr. D.N.A. Jayaweera: Orchidaceae - Dr. L.H. Cramer: Scrophulariaceae - Mr. C.F. van Beusekom: Sabiaceae, Gaertnera.

T h a i l a n d

Mr. C. F. v a n B e u s e k o m and Mrs. R. v a n B e u s e k o m - O s i n g a, of the Rijksherbarium, Leiden, started on a second 5-month expedition to Thailand Sept. 1969. This will be largely centred in unexplored parts in the northwest.

Mrs. Ch. C h a i a n a n and Mrs. L. P h u p h a n a - t h a p h a n g, of the Royal Forest Department, Bangkok, have a 10-months grant to work on Thai plants and get a further training in plant systematics at the Rijksherbarium, Leiden. They arrived end August 1969 and work on grasses and Ulmaceae.

M a l a y a

In conjunction with the 'Tree Flora of Malaya' or 'Manual for Foresters' (see p. 1791 of this Bulletin) collecting drives have been made in Malaya, especially to remote areas. They have yielded several new generic and specific records and even some new tree species. See Mal.For. 32 (1969) 70-72. Standard procedure is to collect 6 sets, the main receiving centres being Arn, K, L, and Sing. In Sept. 1966/Sept. 1967 a total of 4287 collections. The professional botanists use the new FRI series, junior staff members continue with the KEP series.

Mr. P. F. C o c k b u r n, who graduated in 1967 at Oxford with honours in Botany arrived on 24 August 1967 at Kepong for 2 years Voluntary service under the British Voluntary Service Overseas (V.S.O.) scheme. Within 4 days of arrival he left with Dr. Whitmore for a whole month in Ulu Kelantan. He made important, prolific collections in virgin territory along the east coast of Malaya and wrote up several families for the Manual of Foresters. He left Kepong Dec. 1968 to proceed to Sabah.

Field work Botany Department, University of Malaya, Kuala Lumpur: The Honours Course Field Trip (20 students) spent a month on G. Jerai (Kedah Peak). The civic disturbances make travels in certain parts of Malaya more difficult.

B o r n e o

Sarawak. Recent collections were made by Dr. J. A. R. A n d e r s o n in the Ulu Melinau, on the Hose Mts, and on Mt Murud.

In June 1969 he made a botanical expedition to Mt Batu Tibang, in the extreme Ulu Balleh, the centre of Borneo. No collecting had been made there apart from a superficial visit by Mjöberg. The results Dr. Anderson tells us are most interesting.

Sabah. Throughout the year 1968 and for the first 6 months of 1969 collections of Sabah plants, mainly trees, continued on a broad front. Teams were at various times stationed in Beaufort, Ranau, Sandakan, Lahad Datu, and Tawau. Listed here are the areas of collection and SAN numbers collected for the State from 1/1/68 till 30/6/69:

| | <u>Dipterocarps</u> | <u>Others</u> | <u>Totals</u> |
|-----------------------|---------------------|---------------|---------------|
| Tawau | 76 | 397 | 473 |
| Kinabatangan | 24 | 291 | 315 |
| Weston/Beaufort/Tenom | 56 | 502 | 558 |
| Sandakan to Mile 30 | 12 | 429 | 441 |
| Kinabalu/Ranau | 2 | 687 | 689 |
| Lungmanis/Telupid | 1 | 93 | 94 |
| Lahad Datu | 3 | 17 | 20 |
| Mostyn/Semporna | 6 | 206 | 212 |
| Labuan and Islands | - | 21 | 21 |
| | | | <u>2,823</u> |

Visitors to the State for botanical collections included Messrs. K o k a w a, A n d o, and H o t t a of Osaka City University who spent 5 months between Oct. 1968 and March 1969 in many areas of the State. Especial attention was given to Tawau Hills and Silabukan, in the South and to Kinabalu and Trus Madi on the West Coast.

Dr. Ken O g a t a visited Sabah for the last 6 months of 1968 and collected a large number of wood samples with reference herbarium specimens.

Mr. H. P. N o o t e b o o m, Leiden, visited G. Lamaku and the Crocker Range in Febr. and March 1969, especially hunting for Symplocos. He was unfortunately injured towards the end of his tour; he may return next year.

J a v a

Early in 1969 Dr. W. v a n H e e l, Leiden, stayed for 4 months at Bogor for collecting selected material for morphological research; c. 500 species were pickled.

L e s s e r S u n d a I s l a n d s

Timor. Dr. J. M e t z n e r, of the Südasien Institut, Heidelberg, spent the months of July and August 1969 in Portuguese Timor to study the ethnography and vegetation, intending to collect voucher specimens.

C e l e b e s

The British Museum Botanical Expedition has as one of its targets the Latimodjong Mts in Central Celebes. Leader is Dr. A. C. J e r m y, participants are Mr. Martin S a n d s, Kew, for Begonia and other Phanerogams, and Mr. Alan E d d y as a bryologist. Its main aims are cryptogams and material for cytological studies. Dr. M. A. R i f a i, from Bogor, accompanied the expedition. The expedition left Bogor early Oct. 1969 and is estimated to take two months.

P h i l i p p i n e s

Following the concise report on the joint expedition by Dr. M. Jacobs and Mr. D.R. Mendoza to the Sierra Madre Mts, E. Luzon, a joint stencilled paper has been issued titled 'Opportunities and Suggestions for Botanical Exploration work in the Sierra Madre Mountains, Luzon', May 1969, 14 pp., 1 map. This is intended to lay out a design for a proposed future exploration of the area. Obtainable from the Rijks-herbarium, Leiden.

Mt Concord, Hinabangan and Mt Apoy, Llorente, Southern Samar: Messrs. H. G. G u t i e r r e z, R. A. E s p i r i - t u, and E. J. R e y n o s o of the Philippine National Herbarium, made a trip there from May 5 to June 3, 1969. These sites are two of the five to be explored in connection with the project 'Ecology of Southern Samar', which is partly

supported by American aid. Mounts Amangsaraken, Pasayahon, and Sohoton are scheduled for next 'summer', 1970. Incidentally, through the help of the Rijksherbarium, Leiden, the 'wet' method was used here for the first time in their field trips. The experience, in many ways, was a far cry from the 'dry' method. About 500 field numbers of vascular plants were collected (excluding other forms).

The National Museum, Manila, has also teamed up with the Osaka Museum of Natural History a study of the Natural History of the Philippines with the Museum's Botany, Geology, and Zoology divisions cooperating. The areas to be visited are Mt Makiling, Luzon; Mt Apo, Mindanao; Quezon, Palawan; and Ilo-ilo Basin, Panay. Members of the Japanese team are Dr. Manzo C h i j i, geology (micropaleontology), Mr. K o S e t o, botany (pteridology), Messrs. Isamu H u i r a and Yorio M i y a t a k e, entomology (zoogeography and systematics of Homoptera, respectively). The National Museum team members are Messrs. H. G. G u t i e r r e z with Ernesto J. R e y n o s o for botany, Romualdo E. A l a g a r, entomology, and Silvio M. L o p e z, geology.

N e w G u i n e a (sens. lat.)

Apart from the multiple explorations by the Botany Division at Lae, the following items are worth mentioning.

The British Museum Botanical Expedition led by Dr. A. C. J e r m y will explore in South New Ireland for six weeks, end 1969, largely for collecting material of Cryptogams, Begonia, etc. from which cytological data may be obtained. If sufficient money is available the expedition will extend exploration in the Bewani Mts, northern Sepik, T.N.G.

Dr. D. S c h o d d e, Mr. R. P u l l e n, and Dr. A. K a n i s have been in the Owen Stanley Range mid-1969, also on Mt Wadimana, an eastern summit in the Simpson massif, the easternmost summit of the Owen Stanley Range carrying alpine grassland.

Mr. C. E. R i d s d a l e has published the Botanical Results of the New Guinea Border Demarcation Expedition 1967, edited by Dr. D. Shaw & Mr. J.S. Womersley in absence of the author. It gives an instructive account of the savannah and rainforest types in various places. Some maps of areas, a soil profile and two forest profiles are reproduced.

Dr. E. A. C. L. E. S c h e l p e, the South African pteridologist, of the Bolus Herbarium, planned to spend three weeks in Australia and New Guinea, returning early October 1969.

Itinerary of the bryological exploration by Dr. B. O. van Zanten, Groningen, from June till December 1968, enabled by a grant from Z.W.O. (Musci and Hepaticae). During the exploration he was accompanied by various colleagues: in New Guinea by Dr. D.N. MacVean and Prof. W. Weber; in Canberra by Prof. W. Weber; on Brown Mt by Dr. MacVean; in Victoria by Dr. J.H. Willis; the second tour in New Guinea with Mr. R. Johns). The total number of collections is approximately 12.000.

Australian New Guinea: Port Moresby (Brown R. Area, Musgrave R., Sogeri Plateau, Siritumu Lake), 8-13 June; Lae (Suru R. Area), 15-16 June; Wau (Macadam Memorial Park, Mt Kaindi), 17-19 June; Goroka (Marafunga, Daulo-pass), 21-23 June; Mt Wilhelm, 25 June-10 July; Mt Hagen (Baiyer R., Jimmy R., Mt Hagen), 11-13 July; Lae (Situm), 16 July.

Australia: Queensland: Cairns (Mossman R. Gorge, Babinda, Saddle Mt, Daintry, Mt Lewis), 19-29 July; Atherton (Great Dividing Range, Ravenshoe), 30 July-1 August; Cairns (Black Mt, Mt Lewis, Mt Bartle, Frere), 2-6 August. A.C.T.: Canberra, 14 August. New South Wales: Brown Mt, 16 August. Victoria: Melbourne (Anglesea, Bacchus Marsh, Grampions, Healesville), 17-22 August.

New Zealand: Napier (Taradale, Sugarloaf), 24-26 August; Urawera National Park (Lake Waikaremoana), 27-30 August; Napier, 31 August-2 Sept.; Urawera National Park (Lake Waikaremoana), 3-6 Sept.; Napier (Gentle Annie, Blow Hard Bush, Te Mata Peak), 7-17 Sept.

British Solomons: Guadalcanal: Honiara (Hailupa, western part of the island), 21-22 Sept.; Mt Popemanaseu (Mataruka, Tasi R., Malakuna, summit), 23 Sept.-2 Oct.; Honiara (Mt Austin, Poho R.), 5-6 Oct.

Australian New Guinea: Goroka (Daulo-pass), 13-15 Oct.; Gembogl, 16 Oct.; Mt Hagen, 18-22 Oct.; Mt Giluwe, 23-27 Oct.; Mt Wilhelm, 29 Oct.-4 Nov.; Owen Stanley Range (Efogi) 10-12 Nov.

Philippines: Luzon: Mt Makiling, 19 Nov.; Baguio (Mt Cabuyo, Mt S.Tomas, Asin), 20-21 Nov.; Bontoc (Mt Data, Mt Polis, Sagada), 22-24 Nov.; Baguio (Mt Cabuyo), 25 Nov.

Japan: Kiushu (Nichinan), 30 Nov.-4 Dec.; Miyajima Isl., 6 Dec.; Honshu (Nagoya, Mt Fujiwara, Mt Gozaisho, Ise, Tobe) 10-13 Dec.

P a c i f i c

In Dec. 1968-Jan. 1969 Dr. and Mrs. D e g e n e r made a 2-month collecting trip in New Zealand and the Fiji Islands.

The Royal Society of New Zealand has organized an expedition to Tonga and the Cook Is. as an event celebrating the Bi-centennial of Cook's first voyage to the Pacific. The Royal Society of London, one of the sponsors of Cook's voyage, is collaborating by sending some scientists to take part in it. The expedition left New Zealand in the research vessel "Endeavour" (which was the name of Cook's ship) on August 29, 1969, and returned on October 8, 1969. Botanical studies were made on Raratonga and Mangaya, Cook Is., by Prof. W. R. P h i l i p s o n, University of Canterbury, New Zealand.