## V. EXPEDITIONS AND OTHER EXPLORATION (contd from p. 477)

Malaysia general.

Dr P. V e r m e u l e n, Amsterdam, who had obtained the 1955 grant of the Netherlands Buitenzorg Fund went via India, where he spent a month above Darjeeling, to Bogor; he also paid a visit to Queensland, his chief interest being the study of Orchidaceae. In returning he made a trip in Central Sumatra with Dr M e ij e r; he arrived in Holland end Dec. 1956.

Mr L.L. Forman, Kew, who was granted a year leave for work at the Herbarium Bogoriense, Bogor, made various trips in Indonesia, collecting in W. Java, Bali, North-east Celebes, and joining Dr K ostermans on a forest survey in East Borneo.

The large collections made in Malaysia by Mr A.H.G. A 1 s t o n, British Museum, London, have now been arranged and ticketed and are available for study.

Sumatra.

In Sumatra West Coast Dr W. Me ijer is very actively engaged in exploring several mountains, specially Mt Sago, Mt Singgalang, Mt Tandikat, the lowland forest of W. Indragiri, and the limestone hills S. of Sidjundjung. A preliminary checklist of the flora of Mt Sago was mimeographed. Mr M. Jacobs joined him in a ascent of Mt Kerintji etc. in July 1956. A shelter has been built on Mt Sago at 1000 malt. At the Faculty Dr W. Me ijer has built a local herbarium.

Dr A.J.G.H. K o s t e r m a n s made a collection of about 500 numbers in South Sumatra. Musi River basin, Tjaban Forest Reserve, near Muara Enim, 15 Nov. 1955-6 Febr. 1956.

Malay Peninsula.

Mr H.M. B u r k i l l, Assistant Director of Botanic Gardens, Singapore, visited and collected at Pulau Satumu, Biola and P. Senang, 30th March-3rd April 1956 and 3rd-7th August, 1956 (186 numbers). Horsburgh Light, 27th-28th June, 1956 (27 numbers), P. Pisang, 6th-7th July, 1956 (31 numbers), P. Angsa and P. Selatan, 18th-22nd November, 1956 (78 numbers) and Port Dickson, 11th-13th September (66 numbers). Marine algae were collected, as well as some land plants. He collected on the Cameron Highlands, Pahang from 27th August-10th September, 1956, and obtained 152 numbers of Angiosperms. The visit included the ascent of Gunong Batu Brinchang, 6666 ft., now made accessible by an approach road to the radio station at the summit. He reports that the European gorse (Ulex europaeus) is now established there.

Dr C.X. Furtado and Mr J. Sinclair determined a large number of specimens collected by the Forestry Departments of Lae (New Guinea), Sandakan (Br. North Borneo), Sarawak and Brunei, as well as specimens collected in Sarawak by Mr G.H. Pickles of the Oxford University Expe-

dition, 1955-56.

Mr J.W. P u r s e g l o v e, Director of the Singapore Botanic Gardens, has completed his determinations of over 1,100 numbers collected by him in Sarawak in 1955-56. Duplicates of these specimens have been distributed to Kew, Leyden, the Arnold Arboretum and Sarawak Museum, Kuching, while further duplicates of some numbers are available for distribution to other institutions. Duplicates of individual genera and families have been distributed to specialists in various parts of the world for critical determination.

Mr H.M. B u r k i l l, Assistant Director of Botanic Gardens, has named the algae and angiosperms collected by him in various areas in the Federation of Malaya. Duplicates

of these are being distributed.

Professor H.B. G i l l i l a n d is making a study of the seedlings of woody vegetation on Singapore island in connection with his ecological work.

Borneo.

Mr J.W. P u r s e g l o v e, Director of the Botanic Gardens, Singapore visited Sarawak from the period 15th May to 13th June, 1956 and collected 616 numbers. The first week was spent making a preliminary investigation of the flora of the newly-established Bako National Park at the mouth of the Kuching river, where there is extensive heath—woodland on the padang, as well as lowland forest on Karen—ga sands. Later he spent a fortnight on the Tau range of mountains, reached by the Tatau and Tau rivers, an area hitherto unvisited by botanists.

Mr T. H a r r i s o n, director of the Sarawak Museum, Kuching started spring 1957 on a long expedition to Niah Caves; a plant collector of the Luseum is on his suite.

Mr J.R. S e a 1, now in charge as honorary curator of the Sarawak Herbarium (Sarawak Museum, Kuching) continued to make collections in Sarawak and is remounting the Herbarium collections and make them available for study by specialists.

Oxford University Expedition to Borneo, 1955-1956. The first three months were spent in the Plieran valley (tributary of the Rejang R.), May 21-July 8, 1955. Mr G.H. Pick-les collected forest trees on the Usan Apau Plateau, assisted by A h m a d b in T o p in and A in i b in H a j i M o h a m a d, both employees of the Sarawak Museum. Mr P. S h a w A s h t o n, Botany School, University

Mr P. S h a w A s h t o n, Botany School, University of Cambridge, is going to Brunei as Forest Botanist for several years to investigate the systematics of the Brunei—timbers, in particular Dipterocarpaceae. Though the flora of Brunei will be much the same as that of North Borneo and Sarawak, nevertheless extremely few collections have been made there, and Borneo, as a whole, still presents the major problem of botany in western Malaysia. His address will be c/o State Forest Department, Brunei.

Dr Peter B e 1 1, Lecturer in Botany, University of London, arrived in Kuching, June 1956, to stay about 6 months, exploring Mt Poi and other high peaks, paying particular attention to ferns for the B.M.

The collections made by Miss W.M.A. Brooke have been preliminarily identified by Dr C.G.G.J. van Steen is (phanerogams) and Dr A.H.G. Alston (Pteridophytes).

Dr A.J.G.H. K ostermans continued his large scale collecting work for forestry purposes with a tour in W. Kutai (Belajan and Kelindjau Rivers) 20 July-10 Oct. 1956.

Mr Anwari D i l m y made an orientating trip to Muara Teweh, Central Borneo, to prepare future exploration in this area in 1957.

Mr Anwari D i 1 m y made trips in W. Java (Janlappa near Djasinga, 20-27 April 1956), East Java (with Mr L.L. F o r m a n), collecting about 200 numbers.

Celebes.

Mr L.L. F o r m a n, Kew-Bogor, was in North-east Celebes, 21 June-5 July 1956 and made a collection of about 234 numbers.

Moluccas & Lesser Sunda Islands.

Mr J. v a n B o r s s u m W a a l k e s, Mr D.R.

P l e y t e and Mr N.G. B i s s e t made an expedition to the islands of Timor, Babar and the Tenimber group. 20 Febr.—

—11 May. 1956.

New Guinea.

The following brief summary was received on the Fifth Archbold Expedition to East New Guinea from Mr L.J. Brass, leader and botanist of the expedition to the D'Entrecasteaux and Trobriand Islands. "Nine months were spent in the field. Field work was finished at Christmas time, 1956, and I arrived back in New York on February first. Work was begun on Normanby Island in the D'Entrecasteaux group. From there we went to Fergusson Island, then on to the Louisiades Archipelago, where we visited Misima, Sudest and Rossel Islands. Next was Woodlark Island. After that, Peterson collected mammals on Kiriwina in the Tro-briands, while I spent about three weeks in Milne Bay and on the Suau Coast of the New Guinea mainland. We had mountain and lowland camps on all the islands except Kiriwina, which is flat coral limestone. The plant collections, totalling 2682 numbers, were somewhat short of expectations. A good deal of time was lost in moving from island to island. There was a progressive depauperization in the flora as we proceeded away from the mainland. When possible, I collected eight sheets of herbarium specimens. The average number of sheets per collection number of vascular plants is just a little short of six. The first set of duplicates will go to Lae, the second to Leyden, third to the Arnold Arboretum, and the fourth to washington. The collection will be provided with additional provisional names and be distributed by the Rijksherbarium, Leyden.

Netherlands Expedition to the Eastern central part of Netherlands New Guinea. A large expedition is planned by

various Dutch scientists which was expected to start in Jan. 1958. Extensive use will be made of helicopters for transport. A dozen scientists will participate in the biological, social, and other branches. A temporary Foundation has been set up for this aim under presidency of Prof. Dr H.J. L a m, Leyden, who has primarily initiated it. The general leadership is entrusted to Dr L.D. B r o n g e r s m a, Lecturer in zoology, Leyden University.

Dr R.D. Hoogland & Mr Pullen of CSIRO Land Surveys, Canberra, in 1956 made various trips in the Mount Hagen area, Eastern Peninsula, collecting between 6

June-22 Sept. about 1000 numbers.

Mr M. B l a c k contemplated to make a trip to Papua, March 1957, intending to make a collection of plants, and obtain living seeds and fruits of Begonia and Rhododendron for the R. Bot. Gard. Edinburgh.

News was received from Mr C.O. G r a s s l, U.S. Dep. Agric. of an expected 4-months trip to Netherlands New Guinea in 1957 for the special aim of collecting sugar-canes and related wild grasses (Saccharum, Miscanthus, Brianthus, Eulalia, and other members of the Andropogoneae).

## Pacific.

Mr R.M. C o o p e r of the Auckland Inst. & Mus. was awarded a Yale-Bishop Mus. fellowship for work on cytogenetics, exp. tax. and biogeography of Taro, as well as the principal food plant introduced in pre-Cook times from the New World, the sweet potato. He started field work on Fiji & Samoa, and plans to extend his research to eastern Polynesia and if possible to Micronesia.

Dr H. Š t. J o h n started a study of Pandanus under a National Science Foundation grant received by the Universi-

ty of Hawaii.