V. EXPEDITIONS AND OTHER EXPLORATION

a) Field Work *(continued from page 2331)*

I n d i a

The western part of Manipur State and the Gandhamardan Hills in Orissa were botanized for about one month each by Shri K. C. M a l i c k of the Calcutta Museum, who took 900 and 400 numbers respectively. Forest in N. Bengal was botanized by Shri B. K r i s h n a, who in 3 weeks took 400 numbers.

The Botanical Survey of India reports that a many-discipline expedition to Subansiri District in Arunachal Pradesh yielded over 8000 specimens. Collections were also made in the Garo Hills, south-western parts of Khasi Hills in Meghalaya, Nagaland, Manipur, Mussoorie, remote areas of Ladakh, Chamoli Garhwal and Kumaon in NW. Himalaya; Seoni District in Madhya Pradesh; Ranjagarh Kapilas hills, Koraput District, Gandhamardan hills in Orissa; Bikaner, Pali & Barmer Districts in Rajasthan; semi-arid regions of Karnataka State; Periyar Wild Life Sanctuary, Neyyar Wild Life Sanctuary in Kerala, Nilgiris; Katchal and Viper Islands, Nicobar Islands, Car Nicobar Islands, Little Andamans, Great Nicobar, Baratang and Long Islands.

A report received from the Andaman & Nicobar Circle of BSI reads as follows: An exploration trip to Great Nicobar Island in August 1975 consisting of 4 members and lead by Dr. N.P. B a l a k r i s h n a n yielded about 1600 specimens consisting of 256 different species. A master set of 2 specimens each will be deposited in Port Blair Herbarium and another set at Calcutta herbarium. The rest are for exchange, particularly for SE. Asian materials. Among the specimens of Great Nicobar studied so far there are three new species, one each in Cyrtandra (Gesner.), Ophiorrhiza (Rubiac.) and Phacelophrynium (Marant.). Another interesting plant collected from Great Nicobar is the long lost Cyrtandra acuminata Kurz never collected since the type collection more than a century ago. This species should now be transferred to Cyrtandromoea belonging to Scrophulariaceae as shown by Dr. B.L. Burtt in Bull. Bot. Surv. India 7 (1965) 73-88. Notes are being prepared on the above specimens. Further many species known so far only from Malaysia and Indonesia have been collected from Great Nicobar, for example Fagraea auriculata, Mapania cuspidata, Cymbidium pubescens, Ceratostylis subulata, etc. The flora of Great Nicobar Island shows more closer affinity to Sumatran and Malaysian floras than other islands of this group.

Ophioglossum pendulum and Psilotum complanatum have also been collected but they are obviously very rare, and only a few plants could be spotted. One specimen each have been collected for herbarium leaving the rest to survive and multiply.

Exploration trips to Car Nicobar and Katchal Islands yielded many interesting new records. Among them mention may be made of Diospyros multibracteata (so far only known from the Philippines), Alangium ebenaceum, Rinorea longiracemosa, Spathoglottis plicata, Pteroceras alatum, etc.

The total field numbers collected so far by the Andaman-Nicobar Herbarium (see page 2180, 2342) since 1973 is 3850 and the herbarium has now 2855 mounted identified specimens. The library has about 280 books and is subscribing to about

55 foreign and 20 Indian botanical journals. Address: Marine Hill, Port Blair, Andaman 744101, India.

T h a i l a n d

From November 1974 to January 1975, Mr. R. G e e s i n k of Leiden, together with Dr. Paul H i e p k o of Berlin, collected in Peninsular, Central, South-East and North Thailand 900 numbers with emphasis on Leguminosae and Opiliaceae. The material is available in the course of 1976.

The c. 1200 Thailand collections, gathered in 1969-70 by Dr. C. F. v a n B e u s e k o m and left by him after his departure from the Rijksherbarium, have now been pre-identified and will be distributed in the course of 1976.

I n d o n e s i a

A warning: From authoritative sources, word has been received that foreign scientists may not be admitted in most areas during 1977 because of elections in that year.

S u m a t r a

On the homeward journey from New Guinea, Dr. J. F. V e l d k a m p of Leiden collected 41 numbers (for L and BO) in the islet of Samosir in Lake Toba. Of interest is the collection of a possibly new Garnotia (Gram.), near G. stricta var. longiseta, known only from the Philippines, Moluccas, New Guinea and Queensland, and plentiful in sawahs Rotala diversifolia (Lythrac.), known only from N. Thailand, Celebes, and the Vogelkop Peninsula.

Mr. Johanis P. M o g e a, Herbarium Bogoriense, and Mr. Z a m z a m i Fachrurozi, Botanical Garden, explored the areas of Padang Sidempuan, Sibolangit, Gn. Sibayak, Gn. Barus, Gn. Sinabung (N. Sumatra), and Gn. Kemiri (Aceh) from 27 October to 28 November 1975. They collected 500 numbers of herbarium specimens, of which 200 numbers are palms, for the Herbarium Bogoriense.

Between 18 February and 18 March 1975, Messrs. Made Sri P r a n a and R. E. N a s u t i o n, Botanical Garden, made a collecting trip to various parts of South and West Sumatra. The collection was mainly living specimens of orchids to be reared at the Botanical Gardens, Bogor.

In November 1975 Dr. S e t i j a t i D. Sastrapradja, Dr. S o e j a t m i Soenarko and Mr. Made Sri P r a n a, all of the LBN, Bogor, made a trip to North Sumatra resulting in a collection of about 170 numbers.

Dr. John D r a n s f i e l d of Kew and companion visited N. Sumatra from 30 August to 11 September 1975. He wrote: "After finishing in Kuala Lumpur, I flew to Medan for what I promised myself was to be a real holiday. Jim Comber and Rusdy Nasution from Bogor met me at the airport and whisked me straight off to Berastagi where we rented a bungalow for two weeks and went off everyday after orchids (and palms). Interestingly I found only one palm I had not collected before - an odd little Calamus growing on limestone. This was a relief in a way allowing me to enjoy myself photographing orchids and learning from Jim's unrivalled knowledge of the Sumatran orchids. Rusdy came too to collect montane orchid for Cibodas before they all disappear in the wild - a very good thing as really some areas have been dreadfully depravated and few of the super plants have ever been cultivated."

Gunung Leuser area. In continuation of their exploration in 1972 (see page 2162), and again supported by a WOTRO-grant Dr. W. J. J. O. d e W i l d e and Mrs. B.E.E. de Wilde-Duyfjes paid a second collecting visit to the Gunung Leuser Nature Reserves in Atjeh, from 20 January to 2 June 1975. Again, the base camp was at Ketambe, the place of the now well-known Orang Utan Rehabilitation Station. Besides incidental collecting in the nearby primary lowland forest three expeditions to high mountain tops were made.

Following for the greater part the same path as in 1972, the Gunung Bandahara was climbed; this time the triangulation top pillar (3012 m) was reached the ninth day, after passing a deep ravine two days before climbing the summit crest. This has nine tops; the pillar is on the central one. Remnants of camps and cutting traces of the topographer Clements in the early thirties were found on several places.

Starting from the village Penosan, West of Blang Kejeren to the North of the Reserves, the Gunung Leuser West top (c. 3440 m) was climbed. The pillar, also built by Clements, in 1936, was reached the tenth day. Their route followed was largely the same as that of Van Steenis' expedition in 1936, and Vanderbilt's mostly zoological tour to the area in 1937.

Several minor preliminary expeditions to the direction of the Gunung Mamas, SW. of Ketambe, were performed, and in May a larger trip of 18 days was made, with which an altitude of c. 2850 m was reached, but apparently not the top of this never climbed mountain. There were several interesting 'blang' areas, but as far as known no botanical novelties were discovered here. Another lofty mountain, never climbed, the Gunung Simpali (c. 3400 m) appeared to be rather close by, but a deep rift prevented ascent. All three expeditions were seriously hampered by bad weather of much fog and rain, preventing sight.

Altogether 2516 numbers (14461-16977) were collected; the first three sets will be distributed to BO, L, and K; other sets will go to various other herbaria, among which KEP and PNH, and US. Specimens of rare or possibly new species (among which apparently new species in Xanthophyllum, Symplocos, Gordonia, and others) were collected in the high montane forest as well as in lower montane and lowland rain forest.

Promising collecting areas, never explored botanically before, appear to be the lower montane and lowland forest areas in the Central and Southern part of the Reserves, and Dr. and Mrs. de Wilde will opt for a third tour in the area.

Mr. Alan P. N. H o u s e of Southampton University will for two years work in Siberut, Mentawai Is. W. off Sumatra, to investigate food plants of the Dwarf Gibbon.

M a l a y a

Palm collecting was done by Dr. J. D r a n s f i e l d of Kew, under the Colombo Plan to advise the Malayan Government on growing rattans commercially. Assisted by Kepong Forest Ecologist N. Manokaran he spent 8-12 July 1975 in Perak (numbers 4466-4521), 13-20 July in Selangor, Negeri Sembilan, and Pahang (4522-4548), 22-26 July in Pahang (4549-4592), 27 July-3 August in Selangor (4593-4610). "In Malaya", he reported, "even oft visited places yielded all sorts of interesting things. For instance on the main East Coast road between Endau and Pekan growing in Peat swamp forest is a gigantic Plectocomia - this is not the common P. griffithii but a taxon new to Malaya - probably P. muellerii of Borneo. We pulled an individual down with a landrover!" He then went to Sarawak; see there.

Dr. M. M. J. v a n B a l g o o y made collections in 1974-1975; see Personal News.

J a v a

Meru Betiri is a reserve in East Java 25 km SE of Jember, 600 sq.km in area, by the Indian Ocean, the coast 45 km in a straight line. Access is poor, the terrain very rugged (mountains to 1223 m), and mostly under tall forest with Dipterocarpus retusus or hasseltii, and in many places a dense undergrowth of bamboo, rattans, and gingers. It was gazetted as a 'game reserve' in 1972, the chief game being tigers.

A. H o o g e r w e r f, who toured the reserves in E. Java in August-November 1971, gave a brief description in Dutch in a 60 page report submitted to the Netherlands Committee for International Nature Protection in November 1972. It contains

a list of 51 names of plants collected by Hoogerwerf in Meru Betiri and now in the Rijksherbarium.

R. v a n d e r V e e n, emeritus professor at Utrecht of plant physiology, and a weed scientist, visited the place in August 1971 (he wrote a 4 page account appended to Hoogerwerf's report); in July 1975 he went there again and also made a small plant collection, of which the interesting ones are now in the Rijksherbarium. Among them are Hemigraphis nemorosa (Acanth.), Uncaria lanosa (Rub.) first record for Java, Trigonostemon macgregorii (Euph.) new for E. Java, and Balanophora fungosa ssp. fungosa new for Java.

These collections are amateurs' ones, and a description of the vegetation is still to be made. More interesting findings may come up, but visitors beware of mite fever, Rickettsia. Symptoms are sudden fever and mental inertia; Van der Veen was transported half dead to Holland, where after weeks he fortunately recovered. The other five of his party, however, had nothing. Nor had Dr. J. D r a n s f i e l d, who botanized there on 20-23 May 1973 for palms. His report:

At the mouth of the river Sukamade there are small stands of Nypa fruticans; it was noteworthy that no flowers or fruit were observed in these stands. Behind the beach, there is a raised area with sandy soils which is almost devoid of palms. Behind this, however, is a fresh water swamp rich in rattans. The most conspicuous rattan here is Calamus horrens easily identifiable by its ecirrate leaf (leaf without terminal whip) and flagella (whips derived from sterile inflorescences), the moderate size, and the regular leaflets. The diagnostic thorn on the leaflet midrib present in Sumatran and West Javanese populations of this species, is rarely present. With this species grows Calamus burckianus, a very robust rattan with cirrate leaves, without flagella, with reddish young leaves, and axillary sprays of flowers and fruit, and Daemonorops melanochaetes, a very horrid rattan with the inflorescences enclosed in boat-shaped overlapping spathes. More rarely found is Calamus unifarius, with all parts dull green, and broad remote leaflets and a terminal cirrus to the leaf. With the rattans grows the fan palm Licuala spinosa, unmistakeable with its wedge-shaped leaflets.

As soon as one enters the Sukamade reserve, rattans are everywhere abundant on the hillslopes. The terminal flowering Plectocomia elongata with its beautiful pendulous sprays covered in orange brown overlapping bracts is everywhere abundant; it differs from West Javanese P. elongata in the leaf sheaths being very sparsely spiny, almost free of indumentum, the leaflets free of indumentum below, and in the much slenderer inflorescences the Sukamade plant may represent a distinct East Javanese taxon. Calamus burckianus and

C. unifarius (the latter sometimes in a minute slender neotenic form) are common. Calamus ornatus, a very robust species with ecirrate leaves with great broad leaflets, and flagella often over 6 m long appears to be a new record for East Java. The slender low Calamus reinwardtii is occasional - this has ecirrate leaves, and leaf sheaths densely covered with pale green spines. Daemonorops melanochaetes is abundant throughout the area and a second species of Daemonorops occurs rarely; this latter approaches West Javanese D. oblonga. Instead of the highly characteristic oblong fruit, the Sukamade plant has an oval fruit. This plant is of particular interest as it lies in between D. oblonga and D. hystrix. Palms other than rattans include Areca catechu, probably planted by man, or birdsown Arenga pinnata, the sugar palm, Caryota mitis, with doubly pinnate leaves with fish-tailed leaflets, and pendulous basipetally produced inflorescences, and the common Pinanga kuhlii.

Many of the Sukamade palms show differences from their West Javanese relatives, and it seems likely that the relatively moist coastal fringe of East Java, separated from wet West Java by the relatively drier Central Java has been an area of incipient speciation.

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

Bali. Dr. W. M e ij e r, on the way to Celebes (see there), collected c. 200 numbers in the western part of the island. He learnt that the nature reserve was being cleared from native forest and re-planted with teak, with knowledge and cooperation of the local Forestry Department, and quickly reported this to the Director of the Nature Conservation Service, Ir. Prijono. This resulted in a cable by the Secretary General of Forestry to the Governor to stop further destruction.

On his way back from Papua New Guinea, Dr. J. F. V e l d k a m p of Leiden collected 47 numbers (for L, BO, and Ruteng) between Penibel and Pacung, near Bedugl, Benoa, Kuta, Tanjungsari, and Penulisan.

Flores. Dr. J. F. V e l d k a m p, in mid-1975, as a guest of Father J. A. J. V e r h e ij e n at Ruteng, spent a few weeks, collecting 161 numbers (for L, BO, and Ruteng). Areas visited were the Lusang Pass (1600 m), Poco Gurung (1750 m) with a marshy grass-area below the summit in Podocarp forest, Wae Garit River (900 m), Poco Kasteno (1450 m), and Poco Ranaká (2200 m), the latter two summits with Dr. R. D. H o o g l a n d, Australian National University. The P. Ranaká, the highest mountain of the island, is still covered by primary forest (Drimys!), which is under heavy attack, as a paved

highway is under construction to the summit to service a projected radio relay-station. The native population was observed to be very busy in cutting fire-wood along the finished parts of the road.

A few days were spent in Bogor to study the Herbarium.

Dr. J. M e t z n e r of the South Asia Institute, Heidelberg, after completing geographical field work of 4 months in Sumba, Flores, West Timor, earlier in 1975, left for a year's field work in Flores on September 2. Main subjects: land use, erosion, ecology.

Sumba & Timor. Between January 5 and February 5, 1975, Messrs. Harry W i r i a d i n a t a, Dedy D a r n a e d y (Herbarium Bogoriense), Djunaedi G a n d a w i d j a j a (Botanical Garden) and Taka N u m h a r a (BIOTROP) visited various parts of Sumba and Timor. Collected were 285 numbers, mainly herbarium, and 127 living ones for the Garden.

B o r n e o

Sarawak (all from the SAR Herbarium, Kuching).

The last collecting trip in 1974 (Nov. 3-22) was to the Apo Duat Range in the 4th Division at the Kalimantan border. Little primary forest was left as the forest at the lower levels had been felled for rice cultivation by the Kelabits. A few days were spent collecting in the old secondary forest. A total of 318 numbers were taken.

The 1975 field season began in mid-February. A one-month trip was spent in Bukit Goram and Bukit Bakar in Ulu Sg. Kapit, 7th Division. Both are relatively small mountains reaching 3000 to 4000 ft in altitude. This was the department's first botanical exploration to the area where a number of rare and interesting plants were collected. Herbs, especially Gesneriaceae, were locally abundant in the forest floor and along stream banks. Total collection: 407 numbers.

In conjunction with the visit of Mr. B. L. B u r t t from Edinburgh, one trip was organized to the Pedawan and Bau limestones in the 1st Division, in May. Some interesting Monophyllea were collected. In June, a joint expedition with Mr. Burtt visited the Gunung Mulu National Park in Ulu Baram. While Mr. Burtt was engaged in collecting, the botany staff concentrated on a survey of the vegetation of the Park by establishing plots in the various forest types. Mr. Burtt collected about 257 numbers during the two trips.

Another expedition was organized to Gunung Buri, c. 750 m, about 80 miles from Kuching, from 10 to 25 September 1975. The sandy-clay soil is of igneous origin. Most of the trees were beginning to flower and fruit: 319.

Duplicates of all specimens collected have been distributed to L, K, MO, A, KEP, SAN, CGE, OXF, E, ABD, and NY.

Palms were collected by Dr. J. D r a n s f i e l d of Kew on 4-16 August 1975, in various stations (numbers 4611-4746). His report: "Undoubtedly the highlight of the whole trip was a visit to Gunung Mattang. We managed to get security clearance on the last day in Sarawak to spend a day there. Miraculously the weather was excellent. Paul Chai and two tree climbers came with us and from dawn to not quite dusk we collected and managed to see about 55 taxa in all some of which were second collections ever, and one plant was my new genus (Howi Tebu Bruang) which I've observed in Kalimantan. This last was in male flower and I now have enough material to describe this extraordinary anomalous rattan. Fantastic to think that Mattang is so rich and diverse that even Beccari missed this. It was only towards the end of the day along the summit ridge (now terribly mucked around by a road and a television relay station - though so much more accessible and still lots left) that we found what I was most hoping to see: Daemonorops ursina, a weird rattan quite different from any other Daemonorops in both flower and vegetative state and possibly not even a Daemonorops. Like Beccari we were only able to find male plants. Besides Mattang we visited Semongok Arboretum (a planted Gronophyllum here is according to Jugah, quite common in peatswamp in the Baram - if so first record of the genus for Borneo - otherwise known from Celebes eastward - no herbarium specimens from the wild unfortunately), Sabal Tapang Forest Reserve (a forest of palm curiosities - really super place) and an area in the Ulu Rejang inland from Belaga - very interesting. What I suppose is so nice about field work in Sarawak is the marvellous people - really Paul Chai has an excellent staff."

Sabah. The SAN-Herbarium reports that collecting continues throughout the State with special emphasis on areas where few or no collections have been made before. Areas visited in 1974/75 include Ulu Tampias, Ganduman Forest Reserve in the Dent Peninsular, Bonggaya Forest Reserve, Tavai Plateau, Merungin, S of Mt Kinabalu, Ulu Segama, Ulu Kuamut, Sapulot and Gunung Mabuak in Ulu Paitan. 1460 collections were made in 1974, and 1748 to date in 1975.

Kalimantan. Mr. Harry W i r i a d i n a t a (Herbarium Bogoriense) and Mr. Soekarno Roesmarkam (Botanical Gardens) made a collecting trip to Long Bagun area, Upper Mahakam, and Kersik Luwai, East Kalimantan on 12 July-12 August 1975. They collected 392 numbers for the Herbarium Bogoriense, with duplicates sent to Leiden and Kew. Living specimens were also collected.

Mr. Tribinarko S u s e l o (BIOTROP) and Mr. Soedarsono R i s w a n (Herbarium Bogoriense) were at the Kutei Nature Reserve from 16 August to 15 September, to do a phytosociological study of the primary rain forest.

P h i l i p p i n e s

Luzon. From 20 November to 15 December 1975, Dr. K. I w a t s u k i and Mr. G. Murata, of Kyoto, together with Mr. H.G. Gutierrez of PNH and Mr. Michael Price of Los Baños, worked in Ilocos Norte, trying to climb Mt Sicapoo (in vain) and Mt Burnay, a little over 2000 m, successfully; then they visited Mts Makiling and Banahau. Altogether, 2500 numbers were taken, for KYO, PNH, and a smaller set for L. The itinerary is expected to appear before long in Kalikasan.

In April and October 1975, Dr. R. M. d e l R o s a r i o of PNH made a bryological exploration of Mt Pulog, Mt Data, and Mt Tabayoc.

Mr. E. J. R e y n o s o and Mr. Francisco de la Cruz, of PNH, November 1975, collecting trip to Camalaniogan, Cagayan, Luzon.

Negros Oriental. Messrs. D. A. M a d u l i d, W.F. Vendivil and E.J. Reynoso, of PNH, in May 1975, collected in Mt Talinis, Negros Oriental.

C e l e b e s

Supported by grants of the U.S. National Science Foundation, National Geographic Society, and Missouri Botanical Garden, Dr. W. M e ij e r of Lexington, Kentucky, made a trip in the central parts in April and May 1975, to see what is left of the primary vegetation and nature reserves - much helped by ERTS satellite photos. After a mere 3 days in Jakarta to overcome all necessary formalities, and 3 days in Makassar, he arrived on 15 April at Palu, the capital of Central Celebes. He was welcomed by Ir. T o b i n g, head of the Forest Office, who helped him in many ways. Accompanied by N o e r t a, the mantri of Cibodas (who despite his age did extremely well and at times appeared tougher than even Meijer himself), he visited Lake Lindu and Mt Ngilalaki or Nokilalaki (2354 m), where at 1700 m he met Dr. Guy M u s s e r of the New York Museum of Natural History, who in two years intends to explore all the vegetation zones in western Celebes for small mammals, and to take some plants as well. The words of S. B l o e m b e r g e n, who in 1939 botanized in the region (see Fl. Males. i 1: 62), that much more was awaiting discovery, were amply confirmed. Meijer took 230

numbers on the mountain and c. 500 elsewhere in the area, on gneiss and granite. He expects December to be the best season for fruits. In a letter from the field he writes to have obtained 6 rattans, 3 pandans, 10 oaks (only 3 of them in Flora Malesiana, but this the editor finds hard to believe); Octomeles (Datisc.) is common in the valleys, and he saw lots of the palms Areca, Arenga, Caryota, and Pigafetta. In the 1500-1700 m region he found the magnificent white Rhododendron bloembergenii, also Bischofia (Euph.), Eurya (Theac.), Engelhardia (Jugl.), Neonauclea (Rub.), Podocarpus neriifolius (Conif.), Pyrenaria (Theac.), Symplocos. Lower down the Magnoliaceae: Aromadendron elegans, and Talauma; 3 spp. of Sapotaceae, Canarium hirsutum and Garuga (Burs.), Metrosideros (Myrt.), 3 spp. of Impatiens (Balsam.), Kibara (Monim.), Weinmannia (Cunon.), and many (tree) ferns. Interesting wild bananas were also found. A red-flowered Strongylodon (Papil.) abounds at 1000-2200 m; the small saprophytic herbs like Cotylanthera (Gent.), Epirixanthes (Polygal.), and Sciaphila (Triur.), were also well represented.

Three men, named Kulawi, Boro, and Tamaelo, were noted for excellence in the forest. Parties were confined to 8 men, who earn Rp. 600 a day for basic salary (Rp. 415 in a US $), plus 400 for heavy climbing; a guide Rp. 300 more again. Rice and dried fish are supplied as the main food, total cost Rp. 400-500 a man a day. Diplazium esculentum is a common vegetable. Money is, of course, to be closely watched while out. Spirit for preservation can be bought for Rp. 250 a Coke-bottle. Material is sent to Java by air.

A nature reserve named Loro Kalimata, 1310 sq.km in area, by Lake Lindu, was declared on 20 October 1973, but Meijer claims to have been the first to tell the population - who are hunting for Anoa, Babirusa, and Phalanger as happily as before. Good possibilities exist to extend the reserve; there is a wealth of birds, too. Ir. T o b i n g and Ir. M a n a, the latter of the Nature Protection Service, were both very much interested in development of this reserve and in having more naturalists there.

Unfortunately, after a month of field work, Meijer fell ill with a bad attack of malaria, suffered psychical side-effects from the medicines, but recovered at Bogor under the good care of the LBN management.

Before he left Celebes, he had given a couple of lectures, which were enthusiastically received, and hope now exists that local interest will grow in the fine botanical opportunities that Celebes (or, in Indonesian, Sulawesi) has to offer.

From 22 September to 11 October 1975, Dr. S o e j a t m i Soenarko (Herbarium Bogoriense) and Dr. Ian Glover (archeol-

ogist of the University of London) visited Maros area, SW. Celebes. Dr. Soenarko collected 200 numbers of herbarium specimens, including 5 orchids, 2 wild species of Saccharum, and Dinochloa.

New Guinea

West. Dr. P. Hiepko and Dr. W. Schultze-Motel of Berlin on 10 January 1975 went off for 3 months of field work.

East. Mr. Richard T. Corlett of ANU, Canberra, worked for 3 months in 1975 on Mts Wilhelm, Giluwe, and Amungwiwa, observing the effects of the 1972 fires on Giluwe and the contrasting situation on Amungwiwa where there is apparently no human disturbance. (Although a climatic timberline is not reached by the summit at 12,400 ft, there are patches of Gahnia dominated grassland along the summit ridge.)

Leiden–Lae expedition to the Star Mountains. These mountains are situated on both sides of the Indonesian–Papua New Guinean border in the very heart of the island. In 1959 a Dutch expedition to the area W of the border ran into various difficulties, whereby little collecting could be done above 1500 m. The Rijksherbarium and the Division of Botany, Lae, planned a joint expedition to the area E of the border in 1974. The expedition was led by Mr. J. Croft, accompanied by Dr. W. Barker, and assisted by J. Lelean, A. Vinas, and J. Waikabiu, all from Lae, and all collecting Phanerogams only. The Leiden party was formed by Dr. A. Touw, who collected Bryophytes, and Dr. J. F. Veldkamp (Phanerogams). Halfway the expedition Barker was relieved by Dr. G.S. Hope, Australian National University, Canberra, palynologist and ecologist.

A base-camp was made in Busilmin, at 1600 m, N of the Star Mts in Papua New Guinea, 15 km from the border with Irian Jaya. The main body of the expedition was transported by helicopter to a large valley in limestone country (Tel Basin) at 3000 m on March 29th. The next fortnight was spent collecting in this area and near Tamanagabip, a hunters' shelter.

A second main camp was made E of Mt Capella at 3400 m (Dagabulon). Because of the confusing topography it was only later discovered, that the actual summit of Capella may be somewhat further W than originally thought. The peak taken for Capella and climbed several times was therefore designated 'False Capella'. With 3850 m it is only very little lower than the 'true' one. About three weeks were spent in collecting in this area.

In an unsuccessful attempt to reach Mt Scorpion a trail was made to Mt Auriga (3750 m), situated at the edge of a granodiorite area (Silil'katibin).

In the second half of May the Dutch joined part of the Lae-team at Folongonom (or Flomdebip), a hunters' shelter, at 2250 m in dense primary forest. Another part of the Lae-team made another attempt to reach Scorpion, which succeeded. Precise reports have not been received as yet. Traces of glaciation have been observed. (N.b.: the name has been misspelled as 'Scorpio' on the maps distributed with the collections!)

After the expedition the Dutch went to Canberra, Australia. Veldkamp went to Indonesia from there, while Touw went via Sydney and Hongkong (Victoria Peak) to Japan, where he visited a number of botanical institutes and bryologists.

The Leiden collections amount to 530 samples of Bryophytes expected to result in 3-4000 numbers with an average of 5 duplicates when the painstaking sorting has been done. Veldkamp obtained c. 760 numbers with an average of 5 duplicates. The Lae results have not yet been received. Several new species and new records for East New Guinea of plants sofar only known from the western part have already been spotted (e.g. Carex curta, Hedyotis valetoniana, Isoetes habbemensis, Trisetum flavescens). Veldkamp hopes to prepare a species-list for the Phanerogams found above 3000 m, together with distribution patterns for selected species. Touw intends to make a survey of the Bryophyte-flora from the new collections and those made previously by Dr. B.O. van Zanten in the western Star Mountains.

Grants W 85-86 (partly) and W 85-99 provided by the Foundation WOTRO are gratefully acknowledged.

b) Cyclopaedia of Collectors. Additions. I *(see Editorial)*

K a t e, H. F. C. t e n.

Herman Frederik Carel ten Kate (1858, Amsterdam, Netherlands; 1931, Carthage, Tunesia), who studied medicine, but mainly ethnology and anthropology in Leiden, Paris, Berlin, and Heidelberg. He took his Ph.Dr. in 1882 (Heidelberg, Germany). He travelled widely and made his studies in many countries, including Lapland, North and South America (also Suriname), Japan, and N. Africa. In 1890 he was sponsored by the Royal Dutch Geographic Society to travel in the Lesser Sunda Islands and Polynesia (1), where he made ethnological, zoological, and geological collections, the first two now at Leiden, the latter at Utrecht.

Collecting localities. As far as known only few plants have been collected, viz in Timor, in the extreme eastern part of West (former Dutch) Timor. Details will be restricted to that special trip.

1891. In the Lesser Sunda Islands (Feb.-Sept. 23), mainly visiting Timor (2), Flores (3), Sumba (4), and Roti (5). From Kupang by boat to Atapupu; to Lahoeroes, Fatoe Loké, G. Lakaân (March 12-13), and back to Atapupu and Kupang. Ten Kate supposed the altitude of Lakaân to be 1950 m, but in reality it is under 1600 m. The name Reedtz Thots Mts was given by him, but evidently not generally accepted.

Collections. See Cycl. Coll. Suppl. 2 (Fl. Males. I, 8, 1974, liii) and Ten Kate's paper p. 369 (vide infra).

Literature. (1) H.F.C. ten Kate: "Verslag eener reis in de Timorgroep en Polynesië" (Tijdschr.K.N.A.G. 2e ser., 11, 1894, p. 195-246, 333-390, 541-636, 659-700, 765-818, 819-823).

(2) Cf. l.c. p. 333-390.

(3) Cf. l.c. p. 199-246.

(4) Cf. l.c. p. 541-636, with map III (Sumba).

(5) Cf. l.c. p. 659-700.

Biographical data. Dr. L.B.Holthuis i.l. (Feb. 10, 1975); Tijdschr.K.N.A.G. 2e ser., 48, 1931, p. 370-372, 487-491, incl. partial bibliog. and portr. facing p. 487.

L o r r a i n, W. B.

(Cycl. Coll. Suppl. 2, Fl. Males. I, 8, 1974, lxii). Dr. F.A. Stafleu informed me that the 'Lorraine' mentioned in Index Herb. Pl. II (Regn. Veg. 86) 1972 is not a collector, but rightly Herbier Lorraine (= Lotharingen) at Nancy, France.

L u x b u r g, F. A. v o n.

Friedrich August Graf von Luxburg (1871, Germany; 1956, Würzburg, Germany) was about 1890 a law student at the University of Würzburg. In the same year he became a member of the then erected Bavarian Botanical Society (Bayerische Botanische Gesellschaft). During his diplomatic career he lived in Vienna, Rome, Munich, Berlin, Palermo, and in Munich once more. After 1945 he settled at Schloss Aschach, a family castle, near Bad Kissingen, but finally at Würzburg.

In his young days he was an eager collector of plants in Unterfranken. His collections (see below) included material from Asia and Indonesia.

Collecting localities. 1903. Java: at least on G. Papandajan (May 12), and G. Bromo (May 17).

Collections. Herb. Munich (pres. 1936): German (Bavarian) plants and a small collection from S. Asia, viz India (Dec. 1902), Burma, Ceylon (Apr. 1903), Japan, and Manchuria. Part of the Java material has been identified by Dr. van Steenis; it is in poor condition.

M e r t o n, L. F. H.
(Cycl. Coll. Suppl. 2, Fl. Males. I, 8, 1974, lxv) is: Lionel Francis Herbert Merton (1919, Maidenhead, Buckinghamshire, England; 1974, Sheffield, Yorkshire, England), educated at Marlborough and Downing Colleges, University of Cambridge 1937-39, 1946-47 (BA, Hons.). During 1940-45 a Member of the Friends' Ambulance Unit serving for 3 years in the Far East, mainly in SW. China. From 1947-50 Assistant Lecturer in Botany at Leeds University; 1950-55 Plant Ecologist and Officer in Charge of the Moroccan Locust Research Team, Cyprus; 1955-57 Plant Ecologist, Dept. of Agriculture, Cyprus; 1957-59 Special Lecturer, British Middle East Development Bureau, Beirut, Lebanon; 1960-64 Lecturer in Botany, University of Malaya, Kuala Lumpur (1963-64 Senior Lecturer); 1964 Temporary Lecturer in Botany, University College of North Wales, Bangor; 1965-74 Lecturer in Botany, University of Sheffield, Yorkshire, England.

Collecting localities. 1960-64. Malay Peninsula, collecting widely, especially in the Tasek Bera.

Collections. Herb. Kuala Lumpur. A later Aldabra (Mascarenes) collection will come to Kew.

Biographical data. Information supplied by Prof. A.J. Willis of the University of Sheffield and by Dr. M.E.D. Poore of I.U.C.N., compiled by G.E. Wickens at Kew.

R a y n a l, J.
Dr. J. Raynal, Laboratoire de Phanérogamie, Paris, participated in a Belgian expedition to West New Guinea, by ex-King Leopold III of Belgium, March-May 1972.

Collecting localities. Vicinity of Hollandia (240 nos), Merauke (130 nos), Balim Valley (300 nos), and S. slope of Mt Carstensz, 2000-4300 m, with the base at the Copper Exploitation 'Ertsberg'.

Collections. Specimens are mostly in 6-fold, but those of Mt Carstensz in 4-fold. They are deposited at Brussels, Bogor, Paris, and Leiden. Unfortunately there are many unicates and the material is in general scanty.

Marelaan 55 M.J. van Steenis-Kruseman
Oegstgeest, Netherlands