MALAYAN FLORA

GENERAL NOTES

TABLE Orographic boundaries in the Malasian-Papuan mountainflora. (fixed after tge method of SENDTNER)

Altitude in m.	Lowest limits (minim.)	Highest limits (maxim.)	Totals.			
-5 - 1				→ LITORAL ZONE. (Seegrasses and weeds)		
-1 - 1/4				→ MANGROVE.		
1/4 - 1				→ SANDSTRAND.	Low-land-zone	
1 - 5				→ BARRINGTONIA-formation or DUNES.		
5 - 500				→ LOWER ZONE.		
500-- 1000				→ COLLINE ZONE		
<u>1000</u>	<u>114</u>	<u>20</u>	<u>134</u>			
1100	13	11	24			
1200	44	11	55	Closed highstemmed	Submontane zone	Highstemmed closed forest
1300	33	16	49	forest poor in moss		
1400	48	13	61			
<u>1500</u>	<u>61</u>	<u>39</u>	<u>100</u>			
1600	25	11	36		Montane zone	forest
1700	34	19	53	Closed highstemmed		
1800	40	24	64	forest above 2000 m		
1900	16	9	25	alt., with decreasing		
<u>2000</u>	<u>45</u>	<u>32</u>	<u>77</u>	stemdiameter and in-		
2100	21	29	50	creasing quantity of		
2200	10	22	32	moss		
2300	11	16	27			
<u>2400</u>	<u>38</u>	<u>82</u>	<u>120</u>			
2500	29	40	69		Subalpine zone	Low; shrubby forest and thicket
2600	8	30	38	Dense mossy forest		
2700	12	38	50	with single higher		
2800	9	25	34	trees		
2900	0	6	6			
<u>3000</u>	<u>21</u>	<u>46</u>	<u>67</u>			
3100	<u>34</u>	19	53	→ FORESTLIMIT		
3200	5	14	19	Rather open low, very crooked thicket.		
<u>3300</u>	<u>18</u>	<u>52</u>	<u>70</u>			
3400	7	4	11	→ TREELIMIT	Alpine zone	Open vegetation
3500	2	6	8	Low shrubs isolated or in clumps		
3600	<u>25</u>	13	<u>38</u>			
3700	9	<u>27</u>	36	→ SHRUBLIMIT		
3800	7	22	29	Grasses, sedges, herbs		
3900	1	22	23			
<u>4000</u>	<u>4</u>	<u>46</u>	<u>50</u>			
4100	0	0	0			
4200	0	1	1	Stone-desert with mosses, lichens and algae, few	Nival zone	
4300	0	0	0	Phanerogams, mainly gras-		
4400	0	0	0	ses.		
4500	0	0	0			
4600	0	0	0			
4700	0	0	0	ETERNAL SNOW		

Thus 114 (but of my 750 species) attain their lowest limit at 1000, 61 at 1500, 45 at 2000, a.s.o.
and 20 their highest limit at 1000, 39 at 1500, 32 at 2000, 82 at 2400 a.s.o. C. Heuvelink
Jan 1933.

Anderson

Kawah Baroe
illt Tapandapan
crater

foreground on wet sandy
soil. *Equisetum debile*

Ch

Malaya - Borneo - Sumatra Aug. 29/5/35.

Dear Henderson,

unclimbable

|| The pinnacles of Lingga Peak are
↓ unclimbable, at least Bünnemeijer, our
former plant collector told us so.

Can you send me on loan for short time
the Triobolus material of the Malay Ichni-

Dula? If you have Photinia, that also. There
seems to be a lot of confusion in our herbarium
in these genera which are hardly separable as
it seems. With many thanks
Sincerely yours
C. Walker

HERBARIUM EN MUSEUM
VOOR SYSTEMATISCHE BOTANIE
VAN
'S LANDS PLANTENTUIN
BUITENZORG, JAVA, D.E.I.

BRIEFKAART

M. R. Henderson

Curator of the Herbarium

Botanic Gardens

Singapore

NOTES ON CAMERON HIGHLANDS.

Cameron Highlands comprise an area of Hill country lying in the North West corner of the State of Pahang and bounded on the west by Perak and North by Kelantan. Access is by metal road from the town of Tapah on the main road. Tapah is 6 miles from the Tapah road Station, F.M.S.R.

This road is a first class tarred all weather road, reasonably graded and for most of the distance reasonably wide, although there are a number of curves where caution must be exercised. At the 30th mile from Tapah the road leaves Perak and crosses the main divide and descends into the first part of the Highlands.

The Highlands do not comprise a plateau but consist of the upper waters of the Bertam river flowing through a narrow valley; the area known as Ringlet; then higher up stream the flatter area of Tana Rata with the head waters of the same stream and thirdly, once more across a mountain divide the head waters of another stream in the valley of Ulu Telom.

These three areas named Ringlet, Tana Rata, Ulu Telom form the three official divisions of the Highlands and differ considerably in their characteristics.

Ringlet Average elevation of occupied land 3000 - 4000 ft, comprising about 140 small agricultural holdings of 4500 acres in area in all of which about one half are owned by European settlers, mostly men who retired there. Cultivation is principally fruit vegetables and flowers and spreads up several subsidiary small valleys. In addition there are (several) approximately 100 acres at the lowest part of the valley occupied by Chinese Vegetable farmers. The houses are less formal in their construction than in the Tana Rata, whilst the village of Ringlet which serves this area comprises some 20 plank shop houses. At about the 32nd mile a narrow road leads to Boh plantations, a large tea Estate which is actually situated in the Ulu Telom area.

Between Ringlet and Tana Rata there is preserved a forest belt to protect the higher land from possible flies and pests from the lower area.

Tana Rata. is the commercial residential and recreational centre of the Highlands. "and here is only given out in small building lots with a requirement that houses built shall be of a permanent nature .

The altitude of Tana Rata is between 4700 and 5000 feet with isolated houses still higher. There are two centres here 1. around Tana Rata village-some 30 permanent shop houses (Cold Storage Agency)(Petrol Pump, Post Office, Medical dispensary, Police Station and Government Offices). adjoin the main road- here is situated the Government Rest House, The Convent School, (Pengerang Notre Dame) a Hotel, a number of private houses and the Government Agricultural station of 200 acres. 2. around the Golf course two miles further on and 40 miles from Tapah town are 2 Hotels (One large and one small) and a number of private residences. In all in Tana Rata there are some 70 holders of building land many of whom have constructed permanent houses, although lack of building materials has hindered ~~from~~ progress considerably since 1939. The Golf course is reputed to be of a high class but only of 9 holes. Here is situated the second school for European children.

The Government Agricultural station comprises some 200 acres of land where considerable experiments have been carried out in the cultivation of tea, vegetables, cardamoms, chincona and tung oil and in the rearing of pigs and poultry.

There is a piped water supply in both Ringlet and Tana Rata and a small oil engine installation provides electric light at nights. Communication with Tapah town by car, bus and lorry is easy and regular. A telephone exchange is installed and most houses are connected to it.

ULU TELOM. ranges from valley levels of 4000 ft. to parts of the main range up to 6500ft. Like Ringlet it is an agricultural place but land is taken up on much a larger scale, the total alienation amounting to 9400 acres, amongst 52 holders. Tea is the principal plantation and there are 3 considerable tea estates. Cameron Highlands tea is of the black Ceylon type and has received favourable reports from London. There is some planting of coffee.

The first class road does not penetrate far beyond the golf course but access in light cars carefully driven, particularly in wet weather, is possible well into the Ulu Telom area. Branch roads in Tana Rata are well metalled.

Mean temperature in Tana Rata- max. 72°F. min. 56°F. but low temp. down to 40 degrees have been known. Rainfall is about 100 in. a year, with its peak in September, October and November, and July, August and the dry months.

Fishing

An attempt has been made to introduce trout, *Salmo iridens* and *Salmo fario* into two streams. Some success has been attained but as far as can be ascertained the water temperature seems to be too high for natural reproduction and stocking has been maintained by the importation of ova from England these ova are hatched out and do so extremely well and the young fish are later hatched and liberated into the streams when they are about 3" to 4" long.

THE FLORA OF SOEMATERA.¹⁾

The Plantfamily Orchidaceae.

by

S.M. Latif, Kajoe Tanam, Soematera.

While Mr. Sojira Sutch says, should the study of the art of flower-arrangement be considered as the easiest and commonest step leading to the more profound study of Japan's culture²⁾, I dare to say in my turn, the study of some plants of the forests of Indonesia in particular of Soematera is the most conveniently situated window through which the grand panorama consisting of valuable national possession (the forests) could be seen at its best.

Within the equatorial zone, twelve degrees on either side of the equator - the zone which includes the Malay Archipelago and much of the continents of Africa and South-America - tropical Orchids are generally distributed and monopodial Orchids reach their greatest development.

Indonesia is part of those humid tropical regions where innumerable species of Orchids either may hang down, sometimes in large numbers from the trunks and branches of trees and shrubs or grow terrestrially not seldom in heaps not far from the sea-shore.

Longer than an era the westerners have obtained in quantities of orchidaceous plants being important things for the horticulture so called Orchid-houses in Europe. For the commerce-orchids the principal conditions are: large flowers, special colours, long-lived bloom and long stalks.

Collectors then and now spare no pains and money to own handsome kinds of Orchids. Lives and health stand at a great risk, and through their energy the stock of many Orchids that have been greatly increased thereby, giving all cultivators a chance of procuring

1) Usually (unjustly) spelled: Sumatra. Other names of the island are: Poelau Emas (Golden Island), Poelau Pertja (Island of Ficus elastica Roxb.) and Poelau Andalas (Island of Morus macroura Miq., being a tree with excellent kind of wood).

2) Sojira Sutch, The Study of Japanese Sword, Cultural Nippon, March 1937.

Marsden, the author of the first book of history of Sumatra, circumstantially writes about the name of this island in his Histoire de Sumatra, Tome premier, Paris 1787.

During the era of the fifteenth century was introduced the celebrated cha-no-yu or tea ceremony and ikebana, the art of flower-arrangement was another aesthetic amusement and is still practised in all social society (J. of J. Higginson Bay, H.K., d. 1871, p. 12).

plants at a cheaper rate, for many of the most beautiful kinds can be obtained for a few shillings at present day, when at one time they were only within reach of the rich at exorbitant prices. Those words of Mr. Williams longer than a half ~~of~~ century ago in his work about Orchids ¹⁾ are also in force in our time.

There is no room to deal with this subject historically ~~archaeologically~~ in the space of this article. I am an enthusiast and it is on this ground I have traversed in all directions the forests of Soematera in particular of the Barisan-mountains of the westcoast of the island. Any body who has made the trip for instance from the coast cross the Barisan to the lake of Singkarak will remember the overpowering beauty and impressive magnificence of the mentioned lake. The overwhelming majesty of the taller and larger trees and the luxuriance of the herbaceous elements of the flore are enhance by the freshness which moisture brings to tropical vegetation. The very magnitude of the trees, their heavy burden of epiphytes, the density and the vast expanses of the forest, rendered mysterious by mist sometimes seem almost hopeless the chance of finding among it all special Orchids.

I was frequently accompanied by pupils of the Sekolah Ekonomi, so about the only institution in Indonesia that can be considered as the founder of the economic significance of orchidology for the native. Instead the pupils are striving to make the theoretical science meaningful by way of a merger of the two.

It is in the first place my proposal to attempt to draw the attention to the importance of Indonesia in the field of ~~taxidemia~~ botany specially of the plantfamily Orchidaceae. As appears from literature ²⁾ Japan is poor in Orchids poorer even than China and Siberia. It has only a small genera as Cymbidium, Cypripedium, Aerides, Angracum falcatum, Calanthe, Luisia and Vandopsis, while according to Prof. Schlechter as the prominent northern representatives are Dendrobium, Bulbophyllum, Oberonia, Gastrochilus and Aerides ³⁾.

May these lines therefore contribute towards the team-spirit between Japan and Indonesia!

During last quarter of our century there are many publications about the Orchids of Indonesia distributed in very many periodicals of Natural History. From the hand of Dr. J.J. Smith, celebrated

1) B.S. Williams, F.R.H.S., The Orchid Grower's Manual, fifth ed. London 1877.

2) Julien Constantin, Orchidées Cultivées, Paris s.a.

3) Prof. Dr. R. Schlechter, Die Orchideen, zweite Aufl. Berlin 1927.

7 on the mounts

botanist-orchidologist for south-west Asia, an amount of works and pamphlets have seen light. An important book, The Enumeration of the Orchedaceae of Sumatra and Neighbouring Islands ¹⁾ contains thousands of kinds of Orchids but most of them have only scientific (botanical) and few economic (commercial) value. The work is not nearly complete.

Java bears 750 species in its bosom. A small species enjoy in the importance of the growers and collectors.

Herebeneath follows a list of a grip of the most beautiful number of species being usually attractive for collector and lovers also for foreign markets descend from Soematera with mention of geographical distributions elsewhere in parentheses ().

The genus Cypripedium or Paphiopedilum is wellknown. Many species to this genus have beautiful foliage as well as flowers, and on this account are worth a place in every collection. They are of easy culture and require but little space. The form of the flowers is curious being that of slipper; hence, they are generally called our Lady's Slipper:

Cypripedium chamberlainianum Pfitz. endemic; C. curtisii Pfitz. item; C. javanicum Pfitz. (Java); C. lowii Pfitz. (Java, Borneo, Celebes, Malay Peninsula). The latter is curious and beautiful with oblongligulate light green leaves. It produces its flowers on a spike, generally two or more together. The dorsal sepal is downy outside, pale green within petals long, the basal half greenish spotted with purple, wholly purple towards the end, the margins being ciliated; lip large, smooth, and shining, bluntly oblong, light brown in colour suffused with purple. Farther C. rotschildianum Pfitz. (Borneo); C. tongsum Pfitz. endemic and C. victoriae mariae Pfitz. endemic.

Under the genus Habenaria may be called H. medusa Willd. (Java, Celebes) and H. paradiseoides Willd. endemic.

Platanthera has two representations: P. angustata Lindl. and P. blumei Lindl. (Java). They are interesting and pretty, herbaceous Orchids.

The Sundanese compares Macodes petola Lindl. (Java) - peculiar the venation of the leaves - to javanese writting-characters, the Javanese sees in it a filmy reticular texture. In former times on Friday-mornings the native sometimes dropped the juice expressed from the leaves into their eyes in order to get more proficient in the art of writing. *Se non è vero...!* ²⁾

1) Verlag des Repertoriums, Sonder-Abdruck, Dahlem bei Berlin, 1933.

2) R.C. Bakhuizen van den Brink. Vernacular Names and Use of Orchids.

The love of flowers is, I mean, specific oriental. The Chrysanthemum Festival in Japan for instance was one in which every body in the family enjoyed viewing chrysanthemum, as these flowers are traditional symbolical of long life.

"The Japanese boys", Prof. E.A. White said, "are the real flower-lovers. They all turn out enthusiastically for the course and ~~xxxx~~ never miss a class" 1).

Reading about China and Japan I found the name "orchid" is a girl's name, while Dendrobium moniliforme ("Pur-ran") in the 17th century in Japan was one of the most handsome ornaments of temples.

To Macodes petola Lindl. is linked a very beautiful javanese legend.

Goodyera is an interesting class of terrestrial plants, often cultivated as ornaments, with a compact habit of growth. Many of them have dark velvety-like foliage, marked with gold and silver down the centre of the leaves, and some of the kinds have silver and gold markings spread over the ~~xxxx~~ entire surface of the foliage. The most wellknown kinds are: Goodyera beccarii Schltr endemic; G. bifida Bl. (Java, Celebes); G. colorata Bl. (Java); G. procera Hook (Java, India, China, Japan); G. rubricunda Lindl. (Java, Borneo, Celebes, Amboi, Boeroe, Ceram, New-Guinea, Malay Peninsula, Philippines); G. secundiflora Lindl. (India, China).

Coelogyne. There are numerous species of this genus of Orchids, many of which are very beautiful, the colour of the flowers of some being rich and most delicate hue. Coelogyne asperata Lindl. (Borneo, Celebes, Ceram, Halmahera, New-Guinea, Malay Peninsula, Philippines); C. cumingii Lindl. (Borneo, Borneo Singapore, Malay Peninsula); C. forsterianii Rehb.f., endemic; C. pandurata Lindl. (Borneo, Malay Peninsula), an attractive kind of on account of fine fancy as resembling of row of glossy pea-green frogs with black tongues, each three inches in diameter. C. dayana Rehb.f. (Borneo, Malay Peninsula), the spike of which is three feet long sometimes, is pendant wreath of buff yellow flowers broadly striped with chocolate.

Dendrobium is a magnificent genus of Orchids, producing in some of the species flowers which are very large and delicate in colour, and delightfully fragrant. There are not many Or-

chids that surpass the Dendrobium for their beautiful flowers are nearly every shade of colour,

1) Prof. E.A. White in Hawaiian Press, cited by The American Orchid Society Bulletin.

2) Prof. Herbert A. Giles, The Civilization of China, London, 1927

✓ (Repr.)

M.A., L.L.D.,

○ "All Chinese men, women and children seem to love flowers; and the poetry which has gathered around the blossoms of plum and almond alone would form a not inconsiderable library of itself," ~~xxxxxx H.A. Giles xxx~~ says H.A. Giles in his book about China 2).

and some of them blossom very freely. The most important sorts are endemic in the east of the Malay Archipelago (Larat, Amboen, New-Guinea, Australia). Soematera only produces little types of Dendrobium, economically said, of few value.

Moreover New-Guinea is very rich in Orchid-plants. Prof. Schlechter mentions in his standard work about Orchids, it is not exaggerated to say that it contains 2500 kinds. In the former German settlement in area hardly a quarter of the island, Schlechter found no less than 1500 kinds and 116 genera, 20 of which are endemic. Dr. J.J. Smith is of the same opinion in his contribution "Die Orchideen von Niederländisch Neu-Guinea" 1).

The genus Sarcochilus is not unknown in Soematera: Sarcochilus teres Rehb.f. (Java, Borneo, Celebes); S. teysmannii J.J.S. (Java). The Orchid Society of New South Wales has symbolized S. falcatum (N.S. Wales) by adopting it as its emblem, while the Queensland Orchid Society a symbolist in its emblematic fervency is no less than Dendrobium phalaenopsis Fitz., a native species from the island Larat, South New-Guinea and Queensland 2). The Orchid Circle of Ceylon adores its Dendrobium mac-carthiae, or "Wesak Orchid", that species being the emblem of the Circle 3).

Arundina speciosa Bl. and A. bambusifolia Lindl. are terrestrial Orchids (Java, Borneo, Celebes, Malay Peninsula) growing wild in the plains and the lower mountainous regions specially on little watered soils. They are also very frequently cultivated in gardens.

Nearly all the Calanthes (terrestrial or deciduous) have striking and attractive flowers. Their long spikes rise from the bulbs, and come up between the leaves. Foreign bulletins often make mention of this handsome plant 4). Calanthe veratrifolia R.Br. with white flowers is a noble Orchid (Java, Bali, Lombok, Borneo, Celebes, Selajar, Boeroe, Amboen, Cerau, Anambas Islands, Philippines, Malay Peninsula, ~~XXXXXX~~ India, Australia). C. vestita Lindl. (Borneo, Celebes, Malay Peninsula, Tenasserim). C. solmsgeri Rehb.f. According to Dr. J.J. Smith it appears impossible to distinguish varieties with respect to the length of the spur.

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- 1) Nova Guinea, Tirage apart du vol. VIII. Botanique, Leyde, (1909).
 - 2) The Australian Orchid Review, March 1940.
 - 3) Some years ago a daily paper mentioned as if the emperor of Manschukwo wore a seal-ring (escutcheon?) with a Orchid (which?) as emblem.
 - 4) For instance The American Orchid Society Bulletin (September 1939) and the Australian Orchid Review (September 1940).

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Phajus is a fine genus of terrestrial Orchids which produce their beautiful spikes of flowers very freely, and well grown are noble objects. These plants are easy culture, and will amply repay any amount of attention and care. Phajus callosus Lindl. (Java, Malay Peninsula); P. tankervilleae (L'Hérit.) of which the Sundanese name is the flower "seneu" (fire) refers doubtless to the dark red or rufous brown colour of the inner side of the sepals and petals and to the dark red colour of the spoutlike projecting lip, by which characters, aided by some imagination the robust long-stalked inflorescences with their usually numerous very large flowers remind of flaming torches.

Spathoglottis is also terrestrial with fine flowers of various colours. S. plicata Bl. (Java, Soemba, Borneo, Celebes, Soela Archipelago, Ternate, Boeroe, Ceram, Amboen, Anambas islands, Malay Peninsula, Philippines) grows both in highlands as near the coast. A yellow variety (S. aurea?) can only cultivate in mountain regions.

Bulbophyllum. Soematera is a land of the genus Bulbophyllum par excellence. The flowers are curious, particularly the labellum, the least breath of air or the slightest cause of motion being sufficient to set up a tremulous or dancing movement in this organ. They are chiefly valued as curiosities and propagated by dividing the pseudobulbs. B. ericsonii J.J.S. is a large leaved Orchid creeping over the ground and against tree-trunks, with splendid large flowers, which spread an odour of carrion. The plant is highly prized in Europe. It can be compared with the B. binnendijkii J.J.S. in Java.

There are several species of Cymbidium. The following are admissible into a choice selection of orchidaceous plants. Some of them are indeed very handsome and delicate in colour. Some are large-growing, with short pseudobulbs, from which the leaves and (pendulous) flowers proceed. C. finlaysonianum Lindl. (whole Indonesia); C. lancifolium Hook. (Java, Malay Peninsula, Indo-China, Japan) belongs to distinguished plant, that often grows together with C. ensifolium (L) Sw. (China, Japan).

The genus Grammatophyllum is small. G. speciosum Bl. (Java, Bangka, Borneo, Malay Peninsula, Burma, Philippines, Cochin-China) is the largest epiphytic Orchid. Its robust long stems obviously remind the natives at once of sugar-cane. It grows five to ten feet high, producing

upright spikes from the bottom of the bulbs, which are very large. The flowers are also large, and of a beautiful yellow and brown colour. C. stapeliiflorum J.J.S. is the wellknown "Row-Orchid" with dark-coloured pendulous flowers (Java, Celebes, Malay Peninsula).

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Rhynchostylis retusa Bl. (Java, Kangean Archipelago, Malay Peninsula, Philippines, Siam, India) shares to popular names with the Aërides odoratus Lour., "Anggerik Lilin", in Java, because the pendulous terete dense light coloured or whitish inflorescences, seen from a distance, remind somewhat of candles (lilin).

Phalaenopsis amabilis L. (Java, Kangean Archipelago, Borneo, Celebes, Amboen, Boeroe, Ceram, Mol Islands, New-Guinea, Philippines in several varieties). The epiphyt "Anggerik Boelan" or "Moonlight-Orchid" grows in Soematera only in some islands at the west- and east-coast (Mentawai, Tombelan). Its culture is not easy, because it wishes low-land and sea-air. The atmosphere must be laden with salt. Nevertheless I may further point to different views about the growth of this Orchid in many professional journals 2). Mr. Frd. Boyle mentions remarkable things about "Phalaenopsis-houses" in England in his book 3).

In former times growing copiously in many parts of Java and Mentawai (also Nias near Mentawai) but at present almost exterminated by the numberless orchid-gatherers and orchid-dealers. Indeed, this "Queen of Orchids" is a magnificent plant, produces its graceful spikes of flowers nearly all the year. The flowers are each three inch across, and arranged in a distichous manner along the spike. The lip of the same colour, but beautiful streaked inside with rose pink. They continue in perfection a long time (4-6 weeks).

Ph. violacea T. et B. (Borneo, Malay Peninsula) gives the prettiest of all Phalaenopsis, declared Mr. G. Weeramantry, B.Sc. in his article in Orchidologia Zeylanica. But unfortunately, the spike produces only one or two expanded flowers at a time 4).

The genus Vanda contains lovely species with magnificent-coloured flowers some of which are very large (Vanda suavis Lindl. and Vanda tricolor Lindl. These species were discovered in Java by Thomas Lobb, being introduced into England by Veitch and Sons during 1846, and subse-

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- 1) The word "anggerik" is javanese. "Angkrek" is sundanese and "anggerik" is Indonesian.
 - 2) F.i. to Mr. R. Dötte: Phalaenopsis, Ein kurzer Beitrag zu ihrer Kultur, in "Orchis", Blätter für Orchideenkunde, Febr. 1940, and to Mr. Frank U. Halfrey: Phalaenopsis are easy to grow, in The American Orchid Society Bulletin, Dec. 1939.
 - 3) Fred. Boyle, About Orchids, A Chat, London 1895.
 - 4) G. Weeramantry, B.Sc. (Lond.), Experiences of an Orchid, March 1937.

7 White is the symbol of its purity and its simplicity enhances its beauty.

subsequently described by Lindley in the Botanical Register, 1847). Soematera produces among others V. helvola Bl. (Malay Peninsula) is yellowish coloured, and fragrant. V. sumatrana Schltr. is darker and gleaming.

Arachnis flos-aeris L. is the universally known and often cultivated "Scorpion-Orchid" (green with brown ~~spikes~~ spots) with large flowers and long spike. It grows wild in the plains and the lower mountains regions. (Java, Bali, Borneo, Malay Peninsula). A. hookeriana Rehb.f. is reddish white (Borneo, Singapore, Malay Peninsula) and A. maingayii Schltr. is red-brown, and wellknown in Malay Peninsula.

The amount of the kinds of Orchids of Soematera is enormous. The beautiful species are not few, and the interesting forms of some genera worth collecting.

I have stated the above with the intention to endeavour to interest our Flora for Japan. Many fold I have traversed and explored the forests and mountains, and many articles about Orchids were published in different journals and papers. I have seen the increase of the amount of orchid-lovers and amateurs. In respect of one thing I could not succeed ~~from~~ the (then dutch) government: to make in the heart of the westcoast in a lovely situated town⁷a botanic garden, like Colombo in Ceylon, Calcutta, Bombay and other towns in India, Hongkong and Singapore in the Straits. More's the pity!

7 (Boekit Tinggi)

- Litterature: Dr. J. J. Smith, Enumeration of the Orchidaceae of Sumatra and Neighbouring Islands, Berlin-Dahlem, 1939.
 Prof. Dr. R. Schlechter, Die Orchideen, Ihre Beschreibung, Kultur und Zucht, zweite, neu-bearbeitete Aufl., Berlin, 1927.
 B. S. Williams, F.R.H.S., The Orchid Grower's Manual, 5th. ed., London 1877.
 R. C. Bakhuizen van den Brink, Synopsis of the Vernacular names and the economic Use of the Indigenous Orchids of Java, Leiden, 1937.
 Julien Costantin, Orchidées Cultivées, (Atlas des -), Livre I; Paris s.a.