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VANDA BRUCE ASHBY

A FAREWELL MESSAGE TO THE ORCHID CIRCLE OF CEYLON

FROM

H. E. SIR HENRY MOORE, G.C.M.G.,
GOVERNOR-GENERAL OF CEYLON.

QUEEN'S HOUSE,
COLOMBO,
CEYLON.

29th June, 1949.

As Patron of the Orchid Circle of Ceylon, it gives me great pleasure to send you a farewell message on my departure from the Island.

Thanks to representations made by the Orchid Circle of Ceylon, six Ceylon Orchids have been protected under the provisions of the Fauna and Flora Protection Ordinance between the years 1938 and 1948. But there are more species that remain to be added to this list.

Thanks to efficient propaganda, the village population of Ceylon has now become more "orchid-conscious", and the Vesak Orchid (*Dendrobium Macarthiæ*) in particular is now protected from vandalism.

But a new type of vandal has arisen from the awakened interest in Orchid culture in the person of the itinerant Orchid vendor, and it now looks as if our propaganda should be directed towards the cities and towns.

The clearing of jungles and forests in Ceylon for irrigation and settlement schemes is also an added threat to indigenous Orchids, and I wish the Orchid Circle all success in dealing with these new menaces to the natural Orchid flora of the country.

Neither my wife nor I are likely to forget some of the beautiful results of Orchid breeding in Ceylon we have seen at Orchid Circle shows. The success of Orchid seed germination by laboratory methods now used for raising new hybrids should also enable perpetuation of indigenous species in quantity without having to gather plants from the jungles.

I wish all success to these experiments, and feel sure that Orchid Circle of Ceylon will do even more useful work in the future than it has done in the past.

(*Sgd.*) HENRY MOORE
Governor-General

ORCHID TALES RETOLD

Abstract of an Address delivered to the Fifteenth Anniversary Meeting of the Orchid Circle of Ceylon by*

S. J. PERERA
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THROUGHOUT the ages Orchids have been treasured and their distinctive merits appreciated in their wild abodes. They have been grown in ancient temples and been featured in religious ritual. Among uncivilized tribes they have been cherished, venerated with superstition, and respected with fear. Orchids became popular in civilized countries only a little over a hundred and fifty years ago. The first tropical Orchid to be imported to England was in 1734, and about twenty-five years later Orchids began their reign not only in England but also in Europe and America, among the enterprising and the wealthy.

Growing in remote regions of the world, little was known of these plants in days when exploration was tedious and dangerous. But enterprising horticultural firms began sending travellers to scour the uttermost parts of the earth in search of new Orchid species. One firm of Orchid dealers employed forty travellers, and built a private railway siding near its hot houses outside London so that plants could complete their journey from the tropics with the least risk of casualties. Even ships have been chartered to rush their precious cargoes to England from distant lands.

With such a large and prolific field for exploration, there have been innumerable stories, anecdotes and episodes connected with this most romantic of nature's flowers families. At the Fifth Anniversary meeting of our Orchid Circle held in March, 1939, we listened with interest to Mrs. Clement Black's talk on some tales of romance and adventure in the Orchid world. Today, I want to tell you of some more old Orchid tales— some of mythological interest, stories of adventure and a couple of legends about Orchids of Ceylon.

No other family in the vegetable kingdom displays such diversity of form and colouring as that of the *Orchidaceæ*, and many fanciful names have been applied to the various genera and species, some of them bearing allusion to mythology, such as the tale of Arachne of ancient Greece, whose tragic fate is recalled by the genus established for the Malayian Spider Orchids. Arachne was the daughter of a dyer of fine raiment and she acquired such skill at weaving that she ventured to challenge the goddess Pallas Athene for a contest. Her tapestry was so perfect in execution that the goddess in a furious rage tore it to shreds. Arachne hanged herself in despair but the goddess, taking pity on her, changed the rope into a cobweb and the maiden into a spider. The eminent Dutch botanist Blume coined the generic term Arachnanthe from two Greek words arachnis, for spider, and anthos, for flower, for these quaint spidery flowers.

Cypripedium Argus is a distinct Slipper Orchid with ornamental foliage, discovered by Gustave Wallis in 1872 in Luzon, the largest and most northerly of the Philippine Islands. From amidst its leaves, beautifully tessellated in yellow-green, rises a flower scape 18 to 24 inches high, bearing a large, showy, whitish flower striped in green towards the base with rosy tips and a brownish purple lip. Its distinctive characteristic is the heavy decoration of its wavy petals with dark purple, warty, spots like eyes. When this species was first examined by Prof. Reichenbach, the celebrated Orchidologist, these eye-like spots suggested the specific name of Argus to his mind. In 1878, F. W. Burbidge, travelling on behalf of Messrs. James

*The author expresses his acknowledgments for materials gathered for this address from *Reichenbachia, The Orchid Grower's Manual* by B. S. Williams, *The Orchid Review, The American Orchid Society Bulletin, The Australian Orchid Review,* and *Orchidologia Zeylanica.*

Veitch & Sons discovered another ornamental leaved Cypripedium in Borneo, which was named *Cypripedium Lawrenceanum* in honour of Sir Trevor Lawrence, a celebrated patron of Orchids and one time President of the Royal Horticultural Society. Soon afterwards, these two species, *Cypripedium Argus* and *Cypripedium Lawrenceanum*, were crossed with each other, and when the resulting hybrid flowered, it came for description to Reichenbach himself. Recognising the ocellate or eye-like markings of one parent, *Cypripedium Argus*, and in order to indicate the points of similarity between parent and offspring, Reichenbach thought of the associated name of Io, and called it *Cypripedium Io*. These two Slipper Orchids recall another tale of Greek mythology. The goddess Juno had a priestess named Io (daughter of King Inachus), by whose beauty the god Jupiter was smitten. Io, having smiled too graciously upon Jupiter, incurred the jealousy of Juno, his wife, who punished her by transforming her into a white cow, and had her guarded by the ever watchful monster, Argus, of whose hundred eyes, only two slept at a time. The tale goes on to relate how the god Mercury, at Jupiter's wish went to remove Io from the guardianship of Argus. He lulled the monster to sleep with his wand and slew him; how Juno, after transplanting the hundred eyes of the dead Argus on to the tail of her pet bird, the peacock, sent a gadfly to torment Io, who wandered though Europe and Asia in misery and at last found refuge in Egypt, where touched by the hand of Jupiter she regained her original form.

What a great debt we owe to those intrepid Orchid hunters of old, whose efforts have given the world many of the most beautiful and precious species of this natural order of plants. Orchids often grow in locations cut off by dangerous seas, crocodile-infested rivers, malarial swamps, snake-ridden jungles, forests haunted by wild beasts. Tropical regions, with their dangers have been the hunting ground of intrepid searchers for Orchids.

Burbidge, recording his travels in Borneo, says that he found a large flowered form of *Renanthera matutina*, with white flowers blotched and spotted with rosy lilac or crimson on a tiny coral islet 30 or 40 yards wide. The roots of the Orchid were lashed to the rocks, its flower spikes resting on low bushes. The islet was so thickly infested with serpents that Burbidge and his companions had to frighten the reptiles off by shouting and beating the bushes with their canoe paddles before they could land.

Leon Humblot, a French traveller, met at Tamatavé, the capital of Madagascar, six compatriots (one being his brother) exploring the country with various scientific aims. Within four years the other six had died, leaving him the sole survivor. One of these unfortunates, an Englishman named Brown, had shot at a bird, missed it but accidentally hit a native idol, damaging it. The priests and elders of the jungle tribe were so infuriated that they soaked Brown with paraffin and burnt him alive tied down to a table, perhaps their sacrificial altar. Humblot himself had some awful experiences. The existence of a mysterious scarlet Cymbidium had been rumoured for years and two travellers had lost their lives searching for it. In 1882 or 1883 Humblot undertook to look for this elusive Orchid in the deadly swamps of the interior of Madagascar. He collected a number of other plants, a few of which survived the voyage home and caused much excitement in Europe and England. One species was named *Phaius Humblotti* in his honour, and the other *Phaius tuberculosus* on account of the delicate spotting on its lip two of the finest species in the genus. Humblot came back very sick, physically unfit to go back again. But the demand for these novelties was so great that he undertook a second expedition three years later but at a dreadful cost. He collected many Orchids, but he was obliged to spend a year in hospital at Myote in Madagascar, and on his arrival at Marseilles with his plants, doctors gave him no hopes of recovery. Great credit is due to these intrepid Orchid hunters who have enabled us to enjoy the beauty of the creations of nature. Of the long list of such names mention may be made of celebrated collectors such as Micholitz, Warscewicz, Skinner, Rœzl, Veitch, Hartweig, Benson, O'Reilly, Bowman, Blunt, Kramer and Linden. All glory to those unfortunate hunters who lost their lives hunting for Orchids, suffering, as it were, martyrdom for the cause of horticulture, for instance, Brown in Madagascar, Klabosch in Mexico, Falkenberg in Panama, Arnold on the Orinoco

in Venezuela, Andre at Rio Hacha in Columbia, Wallis in Ecuador, Digane in Brazil, Schrœder in Sierra Leone, and White in New Guinea.

Thrilling are the tales of hair-breadth escapes, of Orchids collected and discarded as worthless by one man only to be picked up and proclaimed as a rare discovery by another.

Bulbophyllum barbigerum was introduced to Europe by Messrs. Loddiges in 1833. Many importations were made from the West Coast of Africa, but very few of the plants reached England alive. Bulbophyllums are fly catchers equipped with a specially adapted lip and column to entrap insects and imprison them long enough to ensure fertilisation of the flower. *Bulbophyllum barbigerum* is a minute species with pseudobulbs less than an inch in height and flowers proportionate, but in no way lacking in charm. Fascination lies in the lip which hanging upon a very delicate thread-like connection lengthens to the form of a brush or beard, which explains the specific name meaning beard-bearing. The lip rocks ceaselessly and its long, silky, black hairs oscillate at every breeze. This Orchid of quaint, uncanny appearance is connected with serpent worship, and thereby hangs a tale. To a place called Wydah between Lagos and Sierra Leone was sent an Englishman named Bowille as clerk to a factory. Young and enterprising, he began exploring the bush in his spare time when he chanced upon a plentiful supply of this Bulbophyllum and started collecting the plants unknown to his superior, a veteran in the district. He hung his spoils in the lattice around his bedroom pending shipment by a vessel that called once in three months. One evening his boss visited his quarters, just as Bowille was hanging up his latest acquisitions, some in flower. Being familiar with the superstitions of the native tribes, he raved on seeing the Orchids, which were sacred to the natives. The news of Bowille's collecting the plants had leaked out and before anything could be done the natives suddenly surrounded his house, threatening him with fierce gestures, dancing frenzedly and beating their drums. Emerging from the swarming crowd the leader, adorned with strings of human teeth and bones and wearing a cap painted with red snakes, searched Bowille's house. With a bundle of the Orchids dangling from his spear, the chief came out, touched Bowille with his wand of office and said : " Come, the snake god calls you ", and Bowille was escorted by the priests to the fetish place, or snake temple, a dark hut encircled by the dwellings of the priests. Approaching the low door of the temple, Bowille attempted to resist but he was thrust in bodily, falling upon a platform in the centre. A movement overhead caught Bowille's eye — he saw hundreds of gleaming snakes coiled upon the walls, heads swaying down towards him. Shouting in fear he burst out of the snake temple to find that the little foreign community had gathered outside hoping to influence the chief of the tribe, who unfortunately was led by the chief priest. Sentence had already been decreed on Bowille, namely, that he should be punished the same as a man who kills a snake by being cut and hacked till he reached water. Bowille was held prisoner till evening the time fixed for execution of this sentence. Towards dusk, the priests and elders took their places surrounded by men with torches still unlit and the whole population swarmed around. Bowille's boss then brought him hope and courage. " They are going to put you unbound into that pit, cover you with reeds and set them alight ", he said. " You must immediately jump out and run to the nearest water with all those brutes after you. I have managed to arrange with many of them and they will intercept the others. They expect you to make for the river behind, which is far away, but there is a tiny pond in front by the edge of this clearing between the torches and the temple. Make straight for it.", and he wrung Bowille's hand. Amid a tumult of singing, dancing, screaming and beating of drums Bowille was hurried into the shed and thrust into the pit into which were hurled the combustible reeds which flared up. Bowille jumped out and ran pursued by the savages till he reached the pond and jumped into safety. Bowille escaped with a few minor burns and lived to become the richest trader in Wydah and a special favourite with the natives— but he collected Orchids no more.

Bulbophyllum barbigerum from West Africa and *Bulbophyllum Beccarii* from Borneo, nearly 8,000 miles apart, have certain features in common. Both flowers have a fœtid carrion-like

odour, and, strangely enough, both are known in their jungle habitats as Snake Orchids. When *Bulbophyllum Beccarii* first flowered at Kew Gardens, a lady artist was commissioned to paint a picture of it. The foul odour in the Orchid house was so overpowering that the lady fainted. Regarding this same Orchid, the late Sir Jeremiah Colman has mentioned a little episode which appears in his correspondence with Dr. E. Soysa as recorded in our bulletin. The great botanist R. A. Rolfe, founder and first editor of the *Orchid Review* of London was a contemporary of Sir Jeremiah. He did not approve of species or varieties being named after personages, and desired that the specific or varietal name should be descriptive of the plant or its flower. Sir Jeremiah appreciated these views but felt that Mr. Rolfe was trying to rub it in a little too thick. So one day he got hold of a variety of this Bulbophyllum which he had raised from seed, and which had inherited the same fœtid odour, and he wrote to Mr. Rolfe : " Here you are, Mr. Rolfe, here is a lovely, fine variation. The characteristics are so well marked that it is fully deserving of varietal rank. But I cannot possibly name it after any one of my friends. So, in deference to your wishes, I propose to name it after its characteristic by calling it 'Bulbophyllum Bad-smellianum' ". Sir Jeremiah does not tell us what reply he received from Mr. Rolfe.

The establishment of the genus Cattleya centres around an interesting anecdote. At the beginning of the eighteenth century, Sir William J. Hooker, one of the leading botanists of the age requested a collector named Swainson in Rio de Janairo, to send him some lichens from Brazil. For packing the lichens Swainson used some plants which he had found in abundance. When the parcels arrived in England, Hooker took charge of his lichens, while the packing material was discarded. Somebody collected the plants used for this packing, and one of them, at least, appears to have reached the green house of the Rev. Mr. William Cattley, of Barnet, who collected rare and curious exotic plants. The plants with strap-like leaves and strange bulbs was a welcome addition to Rev. Cattley's collection of plant curiosities where it flowered in November, 1818. The like of this magnificent flower, had never been seen in England. It was sent for identification to the greatest botanist of the day, Dr. J. Lindley, who founded on this plant a new genus of Orchids which he named Cattleya in honour of the first person to flower it in England. Because of its large lip the specific name of *labiata* was given to the plant. The species remains the largest in the genus and typifies the most popular section of the Cattleyas. Although *Cattleya labiata* was the first species to bear the generic title of Cattleya, the plant we know as *Cattleya Loddigessi*, originally described *Epidendrum Loddigessi*, is probably the first Cattleya known to botanists.

The English firm of Sanders despatched one of their collectors, Arnold, to Tovar in New Grenada, in quest of a rare Orchid, *Masdevallia tovarensis*, a species with creamish white flowers. Arnold shipped to England a first consignment of 40,000 plants of this desirable species in very much less time than he had anticipated. He then looked about for another quest, *Cattleya Mossiæ*. From information gleaned locally he decided to follow a different trek from the one he originally intended, and soon arrived at a little mountain village 15 miles from Caracas in Venezuela. Beside the dwelling of a native coffee planter he beheld a giant clump of this Orchid. It enclosed two huge branches of a tree rising from a fork with a mass of pseudobulbs four feet thick and five feet high. The old spikes might have numbered a thousand, each bearing not less than three flowers measuring at least six inches across. The planter, José by name, told Arnold that his grandfather planted the Orchid, since when it had been the privilege of the family to decorate a portion of the neighbouring church with its flowers during the annual festival. Nothing that Arnold could offer would tempt the planter to give up his Cattleya or any portion of it. Arnold then tried to interest his daughter, a pretty girl, but failed. He then tried the girl's lover, who seemed willing to use his influence in exchange for an English gun. Arnold could not spare his gun and he had no other; so negotiations fell through as the young Indian was not prepared to accept promises. Arnold collected many Orchids which he shipped to England but he returned without *Cattleya Mossiæ*.

This Orchid is very floriferous, bearing three to five large, long-lasting flowers measuring 6 to 8 inches in diameter. There is such diversity of colouring from dark to light mauve, from crimson to rose on the lip, with yellow markings in the throat, that there are over forty distinct varieties. The value of new variations of this species may be gauged by the fact that some years ago a highly coloured form with flowers 9 inches across and a lip nearly 2½ inches wide with deep yellow veining in the throat fetched the sensational price of 10,000 dollars in America. The first plants of *Cattleya Mossiæ* were imported from Venezuela by Messrs. Loddiges about 1834 and flowered for the first time in England in the collection of Mrs. Moss of Otterspool, near Liverpool after whom the species was named by Hooker. The popularity and demand for this Cattleya being so great, the firm of Sanders decided to attempt another importation, and commissioned Arnold to go again three years after his first quest. This time Arnold took an extra gun, and made for that little village in the mountains of Venezuela. The giant clump of *Cattleya Mossiæ* had grown even bigger, but the scene had changed. José's house seemed empty and in ruins. The other houses looked recently rebuilt. The village padre told Arnold a tragic tale. An officer in command of an enlisting detachment had made his recruiting headquarters at José's house. He was young and good looking, and sentimental complications followed. One evening the girl's lover was seen rushing along the road dripping with blood, the officer with drawn sword pursuing him. Rushing to his house the Indian seized a gun, but too late, for the other cut him down instantly. When the other villagers returned home after work and heard of the episode they attacked the officer. In the melee that followed the village was racked, later many were wounded, the dead lay where they fell but old José's pretty daughter was not among them. Guessing that she had been abducted, the padre rode into Caracas. The officer had delivered his report and the Government in Spanish America resented interference by the clergy. The officer got away with the explanation that the girl had followed him of her own accord. Arnold found José sullen in his house, with the girl's lover severely disabled by injuries to his neck and right arm. Abruptly they told Arnold that he could not lodge there. As he began withdrawing he heard the two men hurriedly whispering to each other. Soon José came out and called Arnold back and asked him if he would buy the Orchid for fifty dollars and a good gun. The bargain was settled and with it the destiny of that Cattleya and the fate of the Spanish officer at Caracas. The great clump of Orchids was removed whole and intact by sawing through the tree below the fork, carefully packed and with much difficulty transported to England. When it was unpacked at the nurseries of St. Albans the gigantic clump was found much too large to go through any door of that establishment. The late Mr. Henry Sander, head of the firm and known as the Orchid King, rather than reduce that magnificent specimen, ordered the end of one glass house to be broken down to admit this clump and had it rebuilt immediately.

Ceylon has a strange legend connected with *Ipsea speciosa*, the Daffodil Orchid. The tale is said to emmanate from the Veddah folk of Bintenne. One of its several versions was related by Mr. F. A. E. Price in the last issue of *Orchidologia Zeylanica*. There is another which I have previously mentioned in *Orchidologia Zeylanica*, and which may bear repetition.

An ancient royal chieftain of the hill country was facing an attack by a rival. Anticipating defeat he was solicitous for the safety of his son and step-daughter, and advised them to flee for safety to a hill fortress in Badulla escorted by a few trusty retainers. Night overtook them as they had reached Sitha Eliya and they encamped on an open patna hillside. The prince stuck his spear into the ground beside his rough bed where were growing some plants of *Ipsea speciosa*. After the night meal, the prince and his retinue wanted to chew betel leaves, but found they had no lime. The prince unearthing his spear dug up a bit of limestone and daubed it on his betel leaves. It so happened, the legend says, that when the prince's spear was first stuck into the soil, its point had pierced the tubers of the Orchid, *Ipsea speciosa*, which is supposed to possess powerful aphrodisiac properties. The prince had for a long time been a secret and silent admirer of his beautiful young step-sister. His in-

fatuation now inflamed by the potency of the drug unwittingly self-administered, he seized the opportunity to press his suit. The young princess was taken aback by this strange and sudden solicitation from one whom she had believed to be her blood brother. In shame and resentment she fled to the jungle pursued by the prince. When the retainers went in search, they found her lying dead on the ground, killed by the spear of her step-brother. And that legend explains why the Daffodil Orchid, *Ipsea speciosa* is known as Naga-maru-ala, which means " the tuber which caused the sister's death.

A strange and striking phenomenon of the upcountry patnas in the home of the Daffodil Orchid is their encrustation with black earth making the soil appear burnt. This peculiar soil feature connects these upcountry patnas with a legendary event of 40 centuries ago, related in the epic, Ramayana, by the Indian poet Valmiki. Rama, eldest son of the King of the Ayodhya (the Indian Province of Oudh) had won for his bride the beautiful Princess Sitha, daughter of King Janneka. While wandering in the forests of Central India, Sitha was captured and abducted by Ravana, the legendary demon-king of Ceylon. Rama collected an army to rescue his bride from Ceylon. Chief amongst his allies was Hanuman, the monkey god, a giant ape with a long tail. It is said that the struggle took place around the hills of Nuwara Eliya. After a siege of a dozen years, Lankapura, Ravana's capital was taken and razed to the ground. In an epic battle Hanuman was taken prisoner and the demon-king sought to torture him. He set fire to his tail wrapped in bandages soaked in oil. The enraged monkey god sprang in his agony from house tops to trees, causing a great conflagration over all those highlands. This, says the legend, is how these upcountry patnas, the home of the Daffodil Orchid became encrusted with black earth.

Orchid dinners were social events in Ceylon towards the close of the last century, and at the dawn of the present one. The late Mr. W. P. D. Vanderstraaten related a good tale of such a dinner to me many years ago.

In those days Cattleyas were rare and precious, and the pride of a good collection was a Cattleya no matter what species it happened to be. When a Cattleya bloomed it was an occasion for the owner to give a dinner party in its honour to his Orchid friends. On one such occasion the Orchid occupied the place on honour in the centre of the dining table, and with each round of toasting, the merits of the Cattleya were commented upon. After the celebration, several applications were made to the owner for sale or exchange of even a divided portion of the Cattleya, all of which were refused. One day the Cattleya mysteriously disappeared from the collection leaving no trace behind. In time the loss was forgotten, but two years later the owner was invited to another celebration dinner. The same company of Orchid friends assembled to do honour to another Orchid which had rewarded its owner. But memories were not short, and before long that flower was identified with the previous flower which had been similarly honoured; only then was the mystery of how that Cattleya came to lose itself from one collection to find its way to a new home revealed! This was not an uncommon occurrence among those few good Orchid friends of the old days, and they had to be particularly careful of their Cattleyas as a Cattleya in flower alone possessed the proud and enviable privilege of giving cause for an Orchid dinner.

A recent recruit to the Orchid cult, being very enthusiastic, gathered together a fairly good collection of Orchids. After a time his wife began to observe that on Saturday afternoons this usually sober man was indulging in alcoholic liquor. One day she took him to task. His apology was unique for its originality: "I am not a drinking man" said he, "I love my Orchids. But the only time I have to spend with my Orchids is on Saturday afternoons. So, when I go into my Orchid house on Saturday afternoons and see only a flower or two or none at all, I get so exasperated that I have enough drinks to enable me to see my whole Orchid house in full bloom at the same time!" No doubt, he deserved to get away with it for that tall tale.

ORCHID NOTES FROM JAMAICA

G. C. GUNTER
Half Way Tree, Jamaica

IT is now sometime since I have written anything for *Orchidologia Zeylanica*, and though I did make several promises to myself to do so during the past eighteen months, I could not find leisure to make the effort because of pressing official duties. This is no mere excuse or exaggeration, as for fully one year I had the unenviable job of Trade Controller, the duties of which were very arduous and involved overtime work, Sundays and holidays included. However, when I retired after my year's work I had the satisfaction of a record of achievement which showed that I had succeeded in reducing dollar expenditure by 15 million dollars, as compared with the preceding year's figures. Now that I am free again, I am trying to overtake my private correspondence and am bringing my hobbies—my Orchid and stamp collections in particular—up to date. I am taking an early opportunity of sending some notes for your bulletin, having just seen, in the last issue for 1948, the call for more support from the Governor-General and Prime Minister of Ceylon.

I have been able to increase my Orchid collection since I last sent you my notes from Jamaica, and as a result I am never out of Orchid blooms. A Ceylon Orchid, which I received from Dr. E. Soysa about 16 years ago, still remains one of the most admired species in my collection—it is the light grey flowered variety of *Vanda tessellata* with bluish purple lip. I have also a plant of the dark flowered variety of this Vanda which produces flowers of slate-grey, almost blackish grey, with a contrasting vivid purple lip; this variety also came from Ceylon, but I have lost the name and address of the sender. Of the two varieties, the lighter grey is the more universal favourite, though the darker form with its contrasting tints may, perhaps, be the less common one. The former is the weaker plant with two feeble lateral growths, and looking as if it might deteriorate further in health; the dark flowered plant is very vigorous, having six strong side shoots issuing from its two main growing stems. I sent some blooms from each of these varieties of *Vanda tessellata* to my friend Mr. Jean Merkel, of Jacksonville, Florida, who tells me they were enthusiastically admired by all who saw them, especially the light grey variety. He has sent me two fine photographs of the flowers which now adorn the walls of my study. I am sorry to read the disturbing news that this desirable Vanda, with its fragrant blossoms of unique colouring, which has been protected by legislation in Ceylon, is being destroyed in masses in the process of clearing forests for food production and other economic purposes. Could not something be done to salvage the Orchids that are condemned to such wholesale destruction? For instance, could arrangements not be made to collect some of them at least for cultivation in the botanic gardens and public parks in Ceylon? And, why not make some economic use of these Orchids going to waste? They would, I feel certain, find a ready sale among nurserymen and private Orchid growers in your country. Surely, there must be excellent possibilities of earning some useful dollars and pounds if these Orchids are exported abroad?

The Editorial in the last issue of *Orchidologia Zeylanica* mentions this and at least six other Orchids in my collection, *Dendrobium crumenatum*, *Vanda Miss Joaquim*, *Dendrobium phalænopsis*, *Phalænopsis amabilis*, *Rhynchostylis retusa* and *Vanda cærulea*.

I have an enormous clump of *Dendrobium crumenatum* growing lustily, but, strange as it may appear, there have been no flowers on this Orchid for the past nine months. We have had a drought lasting for at least five months, and the rains have at last come, but this Dendrobe, which my friends frequently refer to as the "garden barometer" has failed to register the change in weather by flowering.

Vanda Miss Joaquim has not been as generous this year as "she" was last year with "her" colourful tribute of blossom, but *Dendrobium phalænopsis* has put up a truly resplendent

display with heavily laden spikes; one plant of remarkable strength with 14 large cane-like pseudobulbs gave me three spikes with 15 large dark purple flowers each; another plant of this Australian Dendrobe, almost as large, produced 30 lovely flowers of a lighter hue.

Phalænopsis amabilis, always a favourite in Jamaica, was the delight of the season; my plant produced a long lasting spike of lovely flowers which compared favourably in size and beauty with any of its previous blooms.

Rhynchostylis retusa, from Ceylon, is another ever popular plant in my collection, and its generosity in presenting me with a pair of pretty purple-spotted white "fox-tails" each year is equalled only by the beautiful sight of this Orchid in bloom.

Vanda cærulea, alas, no longer lives in my collection. I had a well grown plant which had put out two flower spikes, but before these could mature the plant was dead. I could see no obvious reason for this sudden collapse of the plant, which was growing on a carefully selected, well seasoned block of tree fern root fibre. I believe, however, that at my elevation (500 ft. above sea level) the climate is not suited to the requirements of *Vanda cærulea*.*

Thus far I have mentioned only the Orchids referred to in the last Editorial, but I have a few others of interest to note in passing. My plant of *Renanthera Storiei* has grown to a height of over 16 ft. and regularly produces a spray with six, sometimes seven branches, as at the time of writing. The raceme now open has a span of 36 inches, by 23 inches with all its seven branches closely set with blood-red, spidery flowers, larger and more deeply coloured than those of *Renanthera coccinea*, and differing slightly in shape from that species. These epiphytes from tropical Asia have an erect, climbing habit, clinging firmly to their hosts by strong, succulent, fleshy roots emitted from all along their stout, cane-like, woody stems. They require a sunny, hot, moist atmosphere, and grow best right out in the open, appreciating a liberal supply of water during hot, dry summer days. Under such treatment the plants will increase in height a foot or more a year, and if free exposure to light and air be ensured they will respond with large racemes of flowers between March and October. When resting after flowering, these Renantheras should be given only sufficient water to prevent the foliage from turning yellow or shrivelling. It would be interesting to know whether the cultural treatment given to these fine Orchids in Ceylon corresponds to that I have described. Their tidy habit, easy growth and floral beauty make them popular garden Orchids in Jamaica.

Another striking plant in my collection is *Grammatophyllum speciosum*, which has grown into a large clump with 16 stout, club-shaped, woody pseudobulbs, some exceeding 10 ft. in height, clothed in their upper portions with sheathing, leathery leaves 1½ to 2 ft. in length. I grow this giant epiphyte in one of my garden beds. It was established about three years ago in a pit, roomy enough to take a large whisky barrel; this was filled with lumps of tree fern root (measuring about 6 or 8 inches by 3 or 4 inches) rammed firmly in, the Orchid placed in position and top-dressed with a 3-inch layer of cow tongue fern root fibre. The outstanding feature of this plant is its remarkably vigorous and healthy growth, which attracts the attention of visitors, but my one regret is that my plant has not yet flowered. The description of its flowers by Mr. A. C. Splinter, of Honolulu, who gave me this plant, makes me long to see them. As far as I know, this is the only specimen of *Grammatophyllum speciosum* in Jamaica. I believe that only a few plants have flowered in Ceylon collections, and that too after many years' cultivation. I wonder whether any of our colleagues in Malaya or Java, where this Orchid flowers freely and regularly, would kindly advise me how to treat my plant in order to enable me to make it produce its striking and showy flowers.

**Vanda cærulea*, which comes from the foot-hills of the Himalayas, where it sometimes pushes its lovely blue flowers out of snow-laden boughs of trees, cannot possibly be expected to succeed under climatic conditions where Orchids from the hot, arid planes of the dry zones of Ceylon, such as *Vanda tessellata* or *Rhynchostylis retusa*, flourish and flower.—*Editor*.

When I write next I hope to send some notes about other Orchid collections in my district, and perhaps I may have something to report about my Cattleyas, Vandas and Phalænopses, which should come into flower before long. Also, I hope to send an illustration of my specimen of *Dendrobium aggregatum* which gave me 27 spikes with a total of over 500 blooms at its last flowering.

The number of Orchid enthusiasts in Jamaica has increased considerably in recent years, and it is pleasant to hear talk of reviving the Jamaica Orchid Society, which has been dormant for several years. If only one of the younger enthusiasts would undertake the secretarial duties there should be little or no trouble in resuscitating the Society. Experience has, however, taught me that unless one of us of the older generation of Orchid lovers would undertake responsibilities of this nature the younger folk are generally not anxious to come forward for such work.

DENDROBIUM TOFFTII

J. GORDON SMITH
Brisbane, Queensland.

DENDROBIUM Tofftii is probably one of the most beautiful of the Queensland Dendrobes, yet it is one of least known. Unfortunately, we very seldom see a plant here in Brisbane, because of the popular belief that the plant cannot be grown here. Hence very little is known of its culture.

The habitat of this plant is the swampy areas from Innisfail to Deeral and in the tidal areas of the Daintree River and Bailey's Creek. In the swampy areas the host is the swamp mahogany and swamp palm. In the tidal areas, both the white and black mangroves are the selected hosts, while tea-trees are scattered through both areas they do not appear to appeal to *D. Tofftii*. Both of these districts have high rainfalls so that this plant can appreciate both moist and humid conditions.

The general flowering period is from April to September and a good spike carried 30 to 40 blooms. Many growers have told me that *D. Tofftii* does not take kindly to a glass-house and that it will not grow in a pot as it dislikes having its roots covered. Strange as it may seem, the finest display of the blooms of this plant that I have seen were in the central coastal area and the plants were growing in pots in a glass-house. Consequently, I have come to the conclusion that a certain amount of experimenting is necessary to find out what conditions best suit the plant.

I have five plants, two are on a lemon tree, one is potted, two are tied on to blocks of hardwood and let into the ground in the full sunlight. All are at present in growth, but one plant which flowered last year is outstanding; it has three growths and is about six inches off the ground, which I water each morning; apparently the humidity so created is helping the plant in its growth.

I am prefectly satisfied with the progress of these plants, some of which I have had for 12 months and the others for 18 months, but, of course, as it is rather early to say just how they will progress, I think it would be wise to see what the future brings forth.

CLIMATIC OBSERVATIONS

CHRISTIAN HALBINGER
Mexico City, Mexico

IF the gardener takes the view that even delicate and sensitive plants will grow like weeds if provided with the same conditions of growth that prevail in their native country, he is undoubtedly right. The modern Orchid grower turns this truth to advantage by trying to get behind the secrets of his nurslings. If we look at photographs taken of Orchids growing at their natural sites, we notice how virtually overladen the branches of their host-trees are. The natives therefore often refer to Orchids as *parasitos*, *i.e.* parasites. Or else they call them *injertos* which means as much as ' the grafted ones '.

A good gardener will readily see from the shape of a plant how it wants to be treated. He knows that hairs or prickles have the function of preventing the evaporation of water, that bulbs are the reserve for a necessary period of rest, that a greyish-green colour is indicative of the plant's predilection for plenty of light, that round leaves can stand the sunlight, and so on. The beginner, however, will be successful only if he is able to realize under what conditions his pets are growing *in situ*.

We know that warmth, light and moisture are the decisive factors for the growth of plants. The important point, however, is to apply them in the proper doses. This is particularly true with regard to the raising of Orchids, and any one who wishes to be successful in this field, must precisely inquire into the climatic conditions prevailing in the native localities of the various genera and species. Not every gardener knows what great differences there are between the climate on the Atlantic coast and that on the Pacific. Satisfactory results can, accordingly, never be attained, if Orchids, coming from diverse localities, are all treated in the same way.

Years ago, during the November holidays, I made an excursion to the town of Huachinango, Pue., situated at a height of 4,600 feet, and to Necaxa which supplies the capital with electric power. Huachinango is a town of gardeners. Azaleas, camellias and gardenias are raised there which grow to a height of several meters. During the month of October it had rained there for three weeks practically without stopping, and on the roads both men and horses were sinking knee-deep into mud. The warm, rainy season, lasting from June till October, is followed by the cooler winter rains which continue until March and alternate with heavy fogs. The so-called spring and the summer do not arrive before the months of April and May when numerous plants are in flower. But even during these two months it does not happen that the rain stays away for more than a fortnight. In this climate thrive *Stanhopea tigrina*, Brassias, *Epidendrum vitellinum*, *E. cochleatum*, *E. radicans*, Chysis, *Lycaste aromatica*, *L. Deppei*, *Oncidium incurvum*, *O. ornithorhynchum*, etc.

In contrast to this climate, the Pacific coast enjoys a regular rainfall only from June until October, while occasional precipitation and fog occurs until the end of February. From March until June there is a drought which lends that region the character of a desert. Many trees cast their leaves, and the impression is caused as if this drought, which has the same effect as the winter, had been caused by a fire.

This explains why in this climate so many aloes and cactuses are growing together with Orchids. These include the following groups :—Barkerias, Catasetum, Cyrtopodium, *Epidendrum ciliare*, *E. nemorale*, *Lælia acuminata*, *L. rubescens*, *Odontoglossum Londesboroughianum* *O. Insleayi*, *Lycaste crinita*, *Oncidium guttatum*, *O. suave*, *Sobralia decora*, etc.

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Cattleya majalis, the most beautiful of the Mexican Orchids, grows at heights ranging from 6,000 to 8,000 feet, and, according to information given by the Mexican Ministry of Agriculture, it can stand temperatures as low as 8 degrees centigrade below zero. I have seen them growing on Opuntias, and at the same time I have found various Mamillarias on the ground. These Orchids, which yield flowers measuring up to 22cm. in diameter, I planted in the capital on fruit-trees which cast their leaves during the winter. From October until February they are exposed to the winter sun which colours the bulbs reddish. Although throughout the summer they are deeply shaded by the foliage, they flower profusely in the spring.

These comparisons show that it is just the most beautiful Orchids that demand a marked period of rest and do not like to be continually watered.

I assume the ideal place for Orchids to be a ravine, because in a single ravine I have found as many as 26 different Orchids growing equally well on trees and on rocks. Let us try to visualize such a ravine in the vicinity of the Pacific Ocean at an altitude of about 3,000 feet above the sea, so as better to understand what the Orchids of the warm region are fond of. Down below is the riverbed which dries up after the rainy season. Only at a few places water puddles remain which serve as a playground for various kinds of fish. Dotted about we see large boulders grown with many kinds of Orchids and other plants. Only late the sun penetrates into the ravine. You can hear the wind blowing across the heights, but down here in the ravine the air does not move. Picture a dense, pleasantly warm air, saturated with moisture, and you have the conditions under which Orchids grow best during the rainy season.

Whereas the Orchids which thrive in the above-described ravine love close air, those Orchids that grow on the heights prefer a light breeze, providing them with fresh air include: *Cattleya citrina* and *C. majalis*, *Lælia autumnalis*, *L. furfuracea*, *Odontoglossum pulchellum*, *O. Cervantesii*, various varieties of *Lælia anceps*, all of which I grow in the capital at an altitude of 7,500 feet out in the open on trees. Even *Lælia Gouldiana*, which grows together with cactuses, has become adapted to the climate of the capital and is flowering well. It is interesting to observe that *Cymbidium giganteum* and *C. Lowianum* thrive well in the climate of the capital and that *Vanda cærulea* is the only Vanda in the sub-tropical climate of the Pacific Coast that may be kept in the open throughout the year and flowers well.

To make a clear-cut distinction between the various altitudes would not be relevant, because the same altitudes may have absolutely different climates if one of them is protected in the North by mountains, and because the varieties of various Orchids, for instance, *Lælia anceps*, have come about by adapting themselves to the different climatic conditions of the two oceans.

Winding up, it may be of interest to compare the climate of South America with that of the Pacific Coast of Mexico. Medellin, the capital of Colombia, has three months rain and three months rest, a process which repeats itself twice a year. The days are mostly sunny, the warm rains falling only after dark. The temperature ranges from 22 to 30 degrees centigrade. Exceptionally it may drop to 14 degrees c. above zero. During the rest period practically no rain falls, and there is merely dew in the mornings. The moisture, however, suffices for the Lælias to get along without having to be watered. At that they even flower profusely. According to Schlechter, Medellin has a mean rainfall of 1,596 mm. (62·9 in.), whereas Brazil, where the Sephronites grow has an annual rainfall of four or five meters (ca. 160—200 in.).

If, therefore, many amateurs have no luck with the various kinds of Orchids, this will mainly be due to the fact that Orchids react sensitively to variations of moisture and temperature, and stop growing if we cannot provide them with the same conditions which they find at their natural sites.

Postscript: The author has never been either in Colombia or in Brazil. The observations quoted above were made by Orchid collectors and botanists.

COMPOSTS AND ATMOSPHERIC CONDITIONS*

MILES R. FOX
Brisbane, Queensland.

THE membership of the Queensland Orchid Society includes many successful Orchid growers and I think I am safe in saying no two of them are adopting exactly the same potting methods. We have, of course, to realise that their bush and glass houses are of different types of construction and individually situated in different localities with varying aspects. These growers have, during their years of experience, adapted their methods of culture to meet their own particular problems. This is what we all have to do if we are to attain the best results.

In deciding which is the best compost to use to suit the particular Orchids we wish to grow, there are certain definite factors we must not lose sight of. It is, of course, of great assistance to have a knowledge of how and under what conditions any particular Orchid grows in its native habitat. It has been my experience, however, that this knowledge can only be used as a guide, and it is frequently necessary to vary drastically, sometimes in most unexpected directions, the treatment accorded when we attempt to cultivate these Orchids under artificial conditions.

Speaking generally, epiphytic Orchids are found growing naturally on trees and rocks. They produce a mass of roots, the majority of which are exposed to the atmosphere. They grow, in positions that ensure complete and rapid drainage of surplus water. Drainage is, therefore, of utmost importance in preparing a compost and neglect of this factor can only end in disaster. Orchids in their wild state frequently grow in little or no compost; with some, a little moss or fern root fibre (usually Polypodium species) on the bark of their host acts as a temporary reservoir for moisture and collects particles of decayed bark, leaves, etc. that wash down the trunks of the trees during rainy periods. This material, no doubt, provides some food for the plant. Their habitat is frequently very circumscribed, and with many confined to localities where the relative humidity is maintained at a comparatively uniform level over long periods, but with a free circulation of air. Atmospheric conditions therefore constitute another factor that must be considered when growing Orchids artificially. I do not wish to convey the impression that all Orchids require a heavy moist atmosphere, as their individual requirements vary considerably. Dendrobiums of the *D. phalænopsis* type grow naturally in localities where the atmosphere is dry for many months of the year, and would be killed outright in a single season if placed under the conditions demanded by, say, *D. Falconeri* which, I am given to understand, is found growing in a continually humid atmosphere on trees that are covered all the year round with living moss.

This serves to emphasise the necessity of having some knowledge of the habitat of the Orchids we wish to cultivate, and it also indicates the impracticability of successfully growing all species in one house under the same conditions.

I have referred to the fact that the majority of Orchids, when growing in their natural state, produce a root system exposed to the atmosphere. Some don't seem to bother whether their roots are growing in a compost or not. For instance, Mr. Glindemann informs me he has collected *Phalænopsis Rosenstromii* plants that were flourishing with only one root attached to the tree, the balance just hanging in the air.

However, in England and other countries experts have reduced Orchid culture under artificial conditions to a fine art, and they in their methods completely ignore this. Take for example their culture of Cattleyas. They grow these Orchids in a compost consisting of chopped osmunda fibre and sphagnum moss so tightly packed into comparatively small pots

*This was one of the last lectures delivered by the late Mr. Fox before the Queensland Orchid Society.

that we could almost believe it was done with a hydraulic press. By some means of control they induce the roots to penetrate this compost. I have to confess that in attempting to follow their methods I have not met with success in the growing of this particular Orchid genus.

Under my conditions the majority of roots do not enter a tightly packed compost but content themselves by rambling all over the surface, and the plant develops a large proportion of aerial roots. These aerial roots, by the way, will immediately decay if later they are surrounded by a compost of any sort. I have found the centre portion of this, what I shall call English compost, shortly become a decayed mass and any roots that have unwisely penetrated it rot away. Whenever I receive a new plant potted in this manner I repot it, as soon as the condition of the plant permits, removing every particle of the old compost with a hose. I have found Cattleyas, Dendrobiums, etc. thrive better in a comparatively loosely packed compost of osmunda and polypodium fibre and grown in small baskets rather than in pots. These are suspended from the roof of the glass house where the air is drier and freely circulating. The roots under these conditions penetrate the loose fibrous compost and grow all over the wood of the basket where they are exposed to the atmosphere. This compost will dry out reasonably rapidly after dipping, thus preventing souring and decay.

We will now consider plants of the Vanda and Saccolabium type with large fleshy roots that love to ramble all over the place. When I started growing these plants I found the recognised method was to fill a pot of suitable size with broken crocks and top off with a cone of sphagnum moss, keeping this well up the stem. Of course, I adopted this method which has been apparently successfully followed by many growers. I noted, however, that when the moss lost its vitality, as it rapidly does under our open bush house conditions, many of the roots in it decayed, and it occurred to me that the finest Vandas exhibited at our monthly meetings were grown in chunks of Elkhorn (*Platycerium elicorne*) or similar fibre, the compost being kept well open and aerated with large pieces of crock, etc. I now use the latter method, but, to be quite candid, I have come to the conclusion that the compost used, provided it is well drained and open, is of secondary consideration, the vital factor being the atmospheric conditions under which the plant is growing.

When I refer to atmospheric conditions I mean this to include such matters as correct shading and temperature. As far as Saccolabiums are concerned I believe, given correct conditions, one can grow them well without any compost at all merely providing a block, basket or pot for them to attach themselves to. I have one or two plants that support this theory. Their long, thick, aerial roots hang out in all directions. By the way don't follow one of my earlier mistakes and cut these roots off in an endeavour to force them to root into a compost or make a neat looking basket. This immediately weakens the plant. I am almost tempted to say the forerunning applies to any epiphytic Orchid.

I tried to grow *D. bigibbum* and *D. phalaenopsis Schroderianum* in all sorts of composts under varying conditions in the bush house, out in the sun, and elsewhere. The plants steadily became weaker and in two or three years produced a few weak aerial growths and gave up the ghost. I removed the aerials, about two inches long, wired them on to pieces of well-bleached bones, and hung them in the glass house near the glass. Each season they have grown larger bulbs and flower regularly, yet they have abolutely no compost to root into and get practically no water. We can only come to the conclusion that it is the atmospheric conditions that count with this species and they are now growing in an atmosphere that suits them. I have potted up one or two of the same species in different composts, placed them under the same conditions, and find they are growing splendidly.

Some years ago a few of us purchased from an Ormiston lady who is quite ignorant of the principles of Orchid culture, plants of a hybrid Dendrobium of the *D. Ainsworthii* type. This lady grew her plants in an orthodox bush house situated at an elevation of about a couple of hundred feet surrounded by forest trees and really got magnificent results. She grew her

Orchids exclusively in sections of hollow timber, and the compost used didn't matter. Some grew in ashes from the kitchen stove, others actually in sandy loam dug out of her garden. They all grew well and have done so for over thirty years, but I have not yet seen a plant from her collection that has thrived elsewhere. Most of those removed to a lower level a mile away at Cleveland are dead. Our champion of good potting, Mr. Hayes, and I, myself, have plants that after three years still show signs of life but that is all that can be said of them. Here then is another instance : it is not a question of compost but of atmospheric conditions.

One of the finest specimens of *Cattleya Triana* I have seen was growing in a bush house in an old bleached sheep's skull. It was eventually broken up into several five and six-bulb plants. This Cattleya thrived without any compost whatever and was watered only by the rains from heaven and tank water during the dry period. An expert Orchid grower a mile away from that bush house obtained a portion of this plant. He never flowered it—it sulked and wouldn't grow—and he eventually gave it to another expert in Brisbane who under his conditions is growing it into a splendid plant.

The same arguments apply in the case of Cypripediums, the majority of which are terrestrial. On one of my trips south I had the opportunity of inspecting several fine collections of Slipper Orchids. One was growing them in large boxes of leaf mould and had some magnificent specimens. Another warned me against using leaf mould; he had a fine lot of plants growing in chopped osmunda and sphagnum. Another said: "Don't use osmunda, use todea fibre", and still another told me he used the old decayed osmunda-sphagnum compost he obtained when repotting his Cattleyas, etc. Some advised using the smallest pot possible, others recommended large pots and plenty of cowdung. All these growers were producing fine plants and flowers because, in my opinion, they had, consciously or unconsciously, provided the cool moist atmosphere and shady conditions the majority of these Orchids revelled in.

And so, I could go on citing further similar experiences in connection with Cymbidiums and other Orchids until I wearied you. The cases I have referred to are typical ones out of many that have come under my notice. They will serve to bear out my contention that provided a compost is open and well drained, it is, within reason, of secondary importance in the growing of Orchids, to the vital factor of atmospheric conditions.

Not a lot can be done in the direction of altering and improving the atmospheric conditions in a glass house or even a bush house. A house should be in the first place so designed and equipped as to provide means for maintaining inside a reasonable set of conditions, whatever variations occur outside. Orchid house design is, however, a subject that does not come within the scope of this address.

It is considered by many that a large house is more easily controlled than a small one, and also that a new house for some reason or other will not produce the best results it is capable of until it has been what I will call matured, that is had plants growing in it for a period up to a couple of years. Likewise most Orchids will flourish better in a well-filled house than in one that is sparsely filled. I do not infer that it is necessary to fill the house with Orchids; foliage plants of almost any description will serve the purpose. On entering a house that is balanced in this respect one can smell and feel that the atmosphere is sweet and buoyant, and provided correct attention has been given to the watering it is of secondary importance what compost has been used for the Orchids. If the roots of the Orchid are sound and healthy, and the plant does not grow as it should, or looks sickly, or develops leaf rot, etc., then it is ten chances to one, it is your atmospheric conditions that are at fault.

PROCEEDINGS OF THE ORCHID CIRCLE OF CEYLON

COMMITTEE MEETING

A meeting of the Committee of the Orchid Circle of Ceylon was held at Alfred House Colombo, on Monday, 7th March, 1949, at 6-15 p.m. by invitation of Mr. J. A. Clubb.

Present : Mr. J. A. Clubb (Chairman), Lady Tarbat, Dr. E. Soysa, Gate Muhm. J. C. S. Fonseka, Mrs. J. C. Kelly, Mr. G. A. Andries and Mr. C. M. Abeyesinhe (Honorary Secretary and Treasurer).

Excuses of absence were tabled from Dr. H. C. P. Gunawardena, Messrs. F. C. Charnaud, B. O. Ashby and E. G. O. de Silva.

After the minutes of the previous meeting were read and confirmed, the following were elected to membership of the Orchid Circle :—*Overseas*—Mrs. Maud Stewart (Australia), Mr. R. P. Kirk (Australia) and Lt.-Comdr. A. G. Bond (England).

The Chairman, Mr. J. A. Clubb, proposed that Lady Tarbat, Mrs. Leonard Peiris, Gate Muhandiram J. C. S. Fonseka and Mr. E. G. O. de Silva be entrusted with the arrangements for the XVth Anniversary Meeting. Mrs. J. C. Kelly suggested that the Anniversary Meeting be held on the 28th May, 1949, at 5-30 p.m. This was agreed to by the Committee.

The Secretary was requested to inform H. E. the Governor-General and the Prime Minister of these arrangements and to invite their presence at the Anniversary Meeting. The Committee also decided that the show should be on the same lines as the October Show of last year. It was also decided to include the Competition for the best Lowcountry and Midcountry exhibits at the Anniversary Show as these two groups were not competed for at the last October Show.

Gate Muhm. J. C. S. Fonseka offered a trophy to perpetuate the memory of the late Mr. Victor Casie Chitty. The Committee gratefully accepted the offer and decided that the trophy be awarded to the best indigenous Orchid species in bloom exhibited at the Annual General Meeting each year, the plant to have been the property of the exhibitor for twelve months prior to the Show. The trophy is to be called the " Victor Casie Chitty Memorial Cup ".

On behalf of the Committee, Lady Tarbat thanked Mr. J. A. Clubb, the Chairman, for the great interest he has taken in all matters pertaining to the Circle and also for his hospitality at our meetings, and wished him a pleasant holiday in England. Mr. Clubb thanked the Committee for the good work done and promised the Orchid Circle his help at any time.

The meeting terminated with a vote of thanks to the Chair proposed by Dr. Soysa.

XVTH ANNIVERSARY MEETING

The XVth Annual General Meeting of the Orchid Circle of Ceylon was held at the Galle Face Hotel, Colombo, on Saturday afternoon, May 28th, 1949. His Excellency the Governor-General, Sir Henry Moore, G.C.M.G., Patron of the Orchid Circle, and the Prime Minister, the Hon. Mr. D. S. Senanayake, our President were both not able to be present. In their absence and that of Mr. J. A. Clubb, the Chairman who was away from the island, Dr. Soysa proposed that Gate Muhandiram J. C. S. Fonseka take the chair.

The minutes of the XIVth Annual General Meeting which previously had been circulated to the members were taken as read and confirmed. Mr. E. G. O. de Silva proposed and Sir John Tarbat seconded the adoption of the Annual Report and Statement of Accounts.

The following office-bearers and committee were elected for the year 1949—50 :

President : Hon. Mr. D. S. Senanayake.

Committee : Mr. J. A. Clubb (Chairman), Lady Tarbat, Mrs. Leonard Peiris, Mrs. J. C. Kelly, Dr. E. Soysa (Honorary Literary Secretary), Gate Muhandiram J. C. S. Fonseka, Mr. S. J. Perera, Mr. A. Mamujee, Mr. C. H. Pearce, Mr. G. A. Andries and Mr. C. M. Abeyesinhe (Honorary Secretary and Treasurer).

Honorary Auditor : Mr. Norbert Alwis.

A cut-flower display and exhibition of Orchid plants were held. This was followed by tea. The success of the soiree and tea was largely due to the excellent plans and efforts of Lady Tarbat, M.B.E., to whom the Orchid Circle owes a deep debt of gratitude. Our thanks are also due to the management of the Galle Face Hotel for the splendid arrangements made for this occasion.

Mr. S. J. Perera then entertained the gathering with an interesting talk, "Orchid Tales Retold". He spoke of the grave dangers that used to beset the pioneers who searched the tropics in quest of Orchids and of the reward of beautiful Cattleyas and other species for their courage and endurance, and also reminded us how thankful we should be to these brave people for the many known species of Orchids that adorn our collections. Mr. Perera's originality expressed itself in a charming model of a spider's web with the Spider Orchid, *Arachnis flos-æris*, in the centre and around the periphery, representing the Orchid Circle trying to enmesh members within its web.

Mrs. C. J. Black proposed a vote of thanks to Mr. Perera and complimented him on his excellent lecture.

She also proposed a vote of condolence on the death of Mr. Victor Casie Chitty, a great lover of Orchids and a pioneer member of the Orchid Circle.

The meeting terminated after Sir John Tarbat proposed a vote of thanks to the Chair.

FIFTEENTH ANNUAL REPORT OF THE ORCHID CIRCLE OF CEYLON

Membership.—19 new members were enrolled during the year, 11 overseas and 8 local. We have lost one founder member, Mr. Victor Casie Chitty, by death and 3 members through resignation, on departure from Ceylon. We would like to remind members leaving Ceylon that they can continue to keep in touch with our activities and receive our bulletin by having themselves transferred from our local to our overseas register. We also appeal to all fellow members to introduce this interesting hobby to their friends and invite them to join the Orchid Circle. Our membership register now comprises 171 local members and 121 overseas members, making a total of 292.

Office-Bearers.—The following appointments were made during the past year :—

Committee : Mr. J. A. Clubb (Chairman), Lady Tarbat, Mrs. Leonard Peiris, Mrs. J. C. Kelly, Gate Muhandiram J. C. S. Fonseka, Messrs. B. O. Ashby, A. Mamujee, G. A. Andries, E. G. O. de Silva, C. H. Pearce, Dr. H. C. P. Gunawardene, Dr. E. Soysa and Mr. Chas. M. Abeyesinhe (Honorary Secretary and Treasurer).

Exhibition Sub-committee : Lady Tarbat, Mrs. Leonard Peiris, Mr. E. G. O. de Silva and Gate Muhandiram J. C. S. Fonseka (Hony. Secretary).

Board of Judges : Dr. E. Soysa (Chairman), Mr. B. O. Ashby, Mr. G. A. Andries and Mr. S. J. Perera (Hony. Secretary).

Honorary Literary Secretary : Dr. E. Soysa.

Representative on Flora and Fauna Committee : Dr. H. C. P. Gunawardene.

Honorary Auditor : Mr. Norbert Alwis.

Orchidologia Zeylanica.—We are pleased to report that the Honorary Editor, Dr. E. Soysa, has received more literary support in the last year than during the preceding one.

Two half-yearly bulletins, totalling nearly one hundred pages, were published for 1948, comprising 28 original articles on numerous aspects of Orchids and Orchid culture, besides other material. But it has to be mentioned that half of these contributions came from our overseas members. While expressing our sincere gratitude to our friends in other lands for their splendid co-operation, we would endorse the advice given by His Excellency the Governor-General and the Hon. the Prime Minister, at our last Anniversary Meeting, that more Ceylon members should take an interest in their Orchid Circle, and not merely be content to leave too large a share of its literary activities to overseas members. No better appreciation of the honorary services of our Editor could be expressed than with a practical effort to ease his difficulties in finding material for publication. The limited time at Dr. Soysa's disposal does not permit him to keep on writing to members asking for articles for the bulletin. There can be no doubt that every member, expert or novice, must have something to say or ask about Orchids. If even a part of such material could be put into print, quite a useful and interesting contribution would be forthcoming from those members who have hitherto hesitated to put their thoughts on paper.

Finance. Lest our financial position as indicated in the Annual Statement of Accounts give cause for undue optimism, it should be mentioned that a big item, the publication costs of the second issue of *Orchidologia Zeylanica* for 1948 has not been included in last year's accounts for the reason that this bulletin was completed long after the closing date of our financial year, owing to delay in collecting enough material for the issue.

Memorial to Very Revd. Fr. M. J. Le Goc, O.M.I.—It has been decided to secure a trophy in memory of the late Revd. Fr. Le Goc as soon as the amount collected (at present Rs. 275) is sufficient for the purpose. This has been undertaken by Gate Muhandiram J. C. S. Fonseka to whom further contributions should be sent as early as possible.

Orchid Shows.—We are pleased to report the success that attended the resumption of Orchid shows after the war. The first post-war show was held in October, 1948, and though not so big or varied as those of pre-war days, this show reflected the present trend of Orchid growing in Ceylon both as regards time-honoured species and newly created hybrids. The following awards were granted by the Board of Judges :—

CERTIFICATE OF HONOUR

Phalænopsis amabilis var. grandiflora : Gate Muhandiram J. C. S. Fonseka.
Vanda cærulea : Mr. F. C. Charnaud.

CERTIFICATE OF MERIT

Vanda Marguerite Maron : Mr. J. A. Clubb.
Vanda Pride of Lanka : Mr. B. O. Ashby.
Dendrobium spectabile : Mr. F. C. Charnaud.

FLORAL COMMENDATION

Cypripedium The Queen : Mr. F. C. Charnaud.
Vanda Merrillii : Gate Muhandiram J. C. S. Fonseka.
Spathoglottis Vanoverberghii : Gate Muhandiram J. C. S. Fonseka.

Cultural Commendation

Phalaenopsis Schilleriana : Gate Muhandiram J. C. S. Fonseka.

Dendrobium undulatum : Mr. Chas. M. Abeyesinhe.

The response to the Cultural Competition advertised during the preceding year was disappointing. The only entries were two fine specimen Dendrobes for the upcountry section of the competition. The prize for this section, donated by Dr. E. Soysa, was awarded for a vigorous, well grown clump of *Dendrobium nobile* exhibited by Mrs. C. J. Paterson of Uda Pussellawa.

It is hoped that the prizes offered by Messrs. J. A. Clubb, C. H. Pearce and B. O. Ashby for the other sections of this Cultural Competition will be competed for during the coming year. The Alles Memorial Trophy was awarded to Gate Muhandiram J. C. S. Fonseka as the most successful exhibitor of the year.

Protection of Wild Orchids.—Information from various sources has reached the Committee that masses of *Vanda tessellata* (one of the Orchids scheduled under the Fauna and Flora Protection Ordinance) were being destroyed with the burning of trees felled in large scale clearing of forests for food production in certain parts of the Island. The matter was mentioned in the Ceylon Senate by Senator Col. T. Y. Wright, and the Committee has drawn the attention of the authorities to this ruthless massacre of one of Ceylon's finest species of Orchids. It has been suggested that these plants, or some quantity of them, be collected from felled trees and supplied to Botanic Gardens, public parks and nurserymen, or even to the general public, with a view to preserving the Orchid in cultivation. The Committee is, unfortunately, not able to report any satisfactory outcome from these proposals.

Library.—We have to acknowledge with grateful thanks an extremely valuable gift of a set of volumes of *Reichenbachia*, most generously donated to our library by Mr. J. A. Clubb, our Chairman. The Orchid Circle of Ceylon is now the proud possessor of two sets of this magnificient and historic publication depicting Orchids in natural colour, all volumes having long been out of print. Few other Orchid societies can claim to have our good fortune in this respect.

The following publications have been received in exchange for *Orchidologia Zeylanica* :—

The American Orchid Society Bulletin,
The Australian Orchid Review,
The Bulletin of the Pacific Orchid Society of Hawaii,
Orquidea (Bulletin of the Brazilian Orchid Society),
Deutsche Orchideen Gessellschaft (Bulletin of the German Orchid Society),
The Tropical Agriculturist.

At the request of Sir Oliver Goonetilleke, K.C.M.G., K.B.E., Ceylon's High Commissioner in the United Kingdom, a complete set of issues of *Orchidologia Zeylanica* was supplied for display at Ceylon House in London.

The Committee wish to express their grateful appreciation of the honorary services of Mr. Norbert Alwis in auditing the accounts for the past year, and to the management of the Galle Face Hotel for the facilities provided for holding our meetings and Orchid Shows at the Hotel.

On behalf of the Committee of the
Orchid Circle of Ceylon,
Chas. M. Abeyesinhe
Hony. Secretary.

STATEMENT OF RECEIPTS AND PAYMENTS FOR YEAR ENDED 28th FEBRUARY, 1949

Receipts			Rs.	cts.	Payments			Rs.	cts.
Balance as at 1-3-48			3,694	90	OFFICE ACCOUNT:				
					Postages	Rs.	120.31		
								120	31
SUBSCRIPTION ACCOUNT:					PUBLICATION ACCOUNT:				
Local: Arrears	Rs.	20.00			Printing *Orchidologia Zeylanica*	,,	712.39		
Current	,,	35.00			Blocks for do.	,,	152.50		
Advance	,,	5.00			Honoraria	,,	15.00		
			60	00	Clerical Assistance	,,	25.00		
								904	89
Overseas: Arrears	Rs.	18.13							
Current	,,	128.51							
Advance	,,	106.06							
			252	70	MISCELLANEOUS ACCOUNT:				
					Bank Charges and Commission	Rs.	15.42		
ADVERTISEMENT ACCOUNT:					Exhibition Expenses:				
Local	Rs.	820.00			Teas for Guests, Press,				
Overseas	,,	50.00			Gratuities to Waiters	,,	41.00		
			870	00	Honorarium to Artist for Designing Orchid				
SUNDRY RECEIPTS:					Stamp	,,	50.00		
Sales of *Orchidologia Zeylanica*			337	88	Library—Binding Vols.	,,	45.00		
								151	42
					CASH:				
					At Grindlay's Bank and in Hand			4,038	86
		Rs.	5,215	48				5,215	48

Audited and found correct
(*Sgd.*) Norbert Alwis
Hony. Auditor.

(*Sgd.*) C. M. Abeyesinhe
Hony Treasurer.

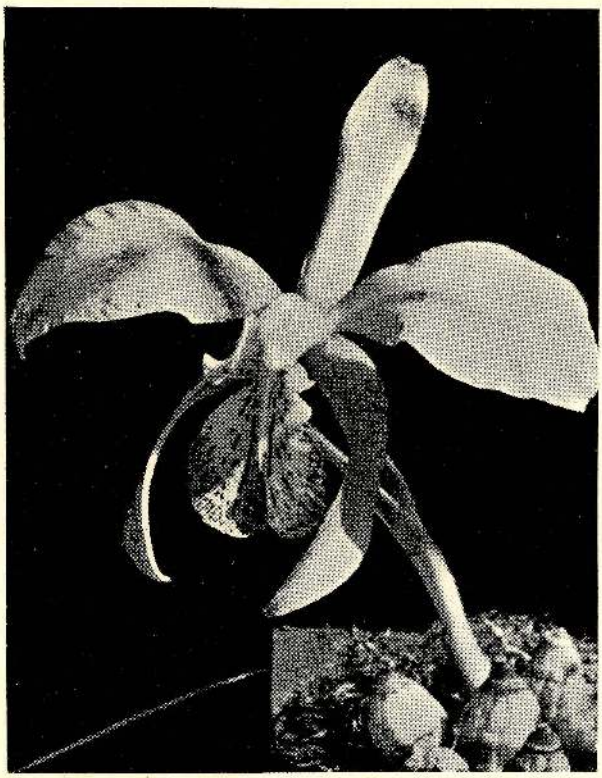
LÆLIA SPECIOSA

REG. S. DAVIS
4209, 46th St., San Diego, S. California, U. S. A.

DURING the past several years a considerable number of hardy species of Mexican Orchids have been introduced into Southern California for cultivation as garden plants. These include plants belonging to the genera Lælia, Epidendrum, Oncidium, Lycaste and Stanhopea as well as several of the more obscure ones. The humidity and precipitation in Southern California are both much lower than is encountered in the areas of Mexico from which the plants were originally collected, but the plants can be induced to grow if they are sprayed frequently to provide supplemental moisture.

Lælia speciosa is one of the most handsome of these hardy species introduced from Mexico, and can be flowered successfully with a little care. It has proven its adaptability to withstand the cooler climate of this area, for during the winter of 1948-1949 the temperatures fell to an unusual low level of about 25°F. along some of the coastal areas and still the plants survived to produce their lovely flowers during the following May.

Lælia speciosa is a plant that has a cluster of smallish ovoid, pale green, wrinkled pseudobulbs about 1 inch in diameter and 1½ inches long, each terminated by a single leaf 5 to 6 inches



Courtesy : Mr. R. S. Davis

LÆLIA SPECIOSA

long. The flower, which is usually produced singly, develops on a stem about 5 inches long issuing from between the leaf at the top of the pseudobulb. The flowers are from 5 to 6 inches in diameter, and the sepals and petals are a pale lilac. The three-lobed labellum is marked with white and pale lilac and lined with yellow. This species is a variable one and some flowers have a distinct rose shade.

This Lælia has had an interesting horticultural history having being one of the first of the Mexican Orchids to be introduced to science. It was described as *Bletia speciosa* and *Bletia grandiflora* by early authorities. However, when Lælia was established as a genus, it was naturally transfered to that genus. When designated Lælia it was given the specific name *majalis* which is Latin for the native name of the plant, Flor de Mayo, or May Flower. In accordance with the modern arrangement of nomenclature, however, the species should be referred to as *Lælia speciosa* because of prior usage of that specific name. This species has also been referred to as *Lælia grandiflora*.

PHAIUS MACULATUS

B. H. GHOSE
Town-end, Darjeeling, India

IN the sub-tropical damp and swampy forests of West Nepal Wallich I came across a plant which is now known to science as *Phaius maculatus*. It was also found dwelling in dells and on banks of streams in shady forests in Sikkim, Bhotan, Khasia Hills, extending to far off China and Japan in the East and to the Malayan Archipelago in the South.

This plant belongs to the *Epidendreæ* section of the great Orchid family. It grows on the ground and has thickened ovoid pseudobulbs, which are crowded together, 4 to 5 inches tall, with the wider end resting on the ground, dark green and quite naked, 2 to 3 inches in diameter near the base. A well grown plant of this Phaius consists of a few old pseudobulbs with annular rings on the top, while others have their apex produced into leafy stems bearing on each five or six elliptically shaped leaves, 14 to 20 inches in length and 3 to 4 inches in breadth. The leaves are thin in texture and plaited like a fan, sometimes ornamented with dull yellow circular spots. The top of the leaf suddenly narrows into a point and in appearance is like a lance; it also tapers down towards the base.

The flower scapesing from the base of the pseudobulbs are about a cubit high bearing many subtubular sheaths. The flowers are showy, closely arranged towards the top of the scape and are ten to twelve in number. The individual flower is yellow, 2¼ inches long, bearing large, broad, lance-shaped bracts longer than the shortly-stalked ovary. The sepals of the flower are subequal, oblong, obtuse, concave; the petals are oblong, oblanceolate; the lip stands erect, is shorter than the sepals or petals and is oblong concave; the lower part of the lip is tubular and has a hollow projection or spur; the side lobes are narrow but the terminal lobe is deflexed conchiform, its edges fringed or corrugated, beautifully coloured with dark orange-brown. This colouring gives the flower a charming appearance.

The pollen masses or pollinia are of a waxy consistency and are snugly placed on the top of the column covered by a small cap. The pollinia are 8 in number, broad and flattened, attached in groups of fours to a membrane, but without any gland derived from the stigma. The stigma lies immediately beneath the apex of the column opposite the lip and is a distinct cavity, circular or oval in shape, containing a viscid, sticky cellular pie-like substance much sought after by insects. It is not always the honey that insects seek in flowers.

If a little portion of the pollinia is transferred to the stigmatic cavity, the flower becomes fertilised and in a few hours the showy parts of the flower begin to wither, and the sides of the stigma begin to contract, finally closing the cavity so securely that no insect can remove

the pollen, nor can water or other foreign matter enter it. The ovary gradually changes to form a fruit, ovoid in shape, beautifully ribbed, and, when full grown, measuring 1½ inches.

The pseudobulb of this Orchid is unusually large; this enables the plant to withstand dry, rainless periods of the year in its native home. During the rains when the ground is drenched by ceaseless showers that fall from May to October, the cells of the pseudobulbs are filled with liquid nourishment and the plants grow very fast. Even when the rains cease Orchids absorb enough moisture from the forests as the ground where they grow is covered with leaves in various stages of decay, holding large quantities of moisture as in a sponge.

Further, the cuticle or thin membrane extend to all external parts of plants even surrounding the hairs and sheathing them like fingers in a glove, is provided with millions of breathing pores called stomata through which plants inhale air and exhale gaseous substances transformed in their tissues from the watery nutriments received through their roots. In Orchids this cuticle is rather thick and the stomata over the surface are comparatively few, while the liquid food absorbed by the roots is not so watery as in other plants, but consists of a gelatinous or slimy substance filled in the pseudobulbs. The loss by evaporation is therefore very slow indeed, even when the sunheat becomes powerful and the dry air robs all the moisture in the soil. Orchids perched on rocks and trees can endure extreme hardship for want of liquid food during the dry and difficult periods of the year, being provided with special contrivances against such conditions.

It is probable that the origin of *Phaius maculatus* was in Western China, bordering on India. This species must have multiplied and distributed itself gradually towards Nepal in the West, Japan in the East, and the Malay Archipelago in the South. The climatic conditions in such a wide area vary considerably. The plants coming gradually under the influence of changed conditions, where they successfully contended with new environments by adapting themselves or by undergoing variations, survived and flourished as varieties of the type plant.

Botanists in different localities labelled this Orchid with different names. While Blume in Java called it *P. flavus*, Wallich in the Eastern Himalayas called it *P. maculatus*. Botanists in China and elsewhere called the same plant by other names. These botanists working in widely separated countries had little chance of comparing each other's specimens in the fresh state, finding differences in plants or fruits, or observing the various changes of growth from young to old foliage, etc. The effect of climate and environment on the specimens should be borne in mind, and these must have been very marked. Illustrations or published descriptions are not very profuse, and from the meagre writings left by botanists there is little opportunity to unravel the intricacies of synonyms or varietal differences of the plants collected in widely separated territories. Diagnosis becomes difficult when we are provided only with illustrations or dried specimens.

I do not know if the presence of *Phaius maculatus* has been recorded in Burma. But recently its existence in the Shan States has been proved, and it is therefore not impossible that the seeds of this plant have been disseminated southwards by winds, and there the climate and the soil being suitable it may have made its marches into the Malay Archipelago.

Some people doubt that it was possible for wind to carry seeds of Phaius to Java across such wide expanses of sea. But it should be borne in mind that centuries ago Malaya and the adjoining islands were one land mass, but owing to severe earthquakes these masses have been separated. Further, millions of years ago the North Polar regions had large accumulations of frozen ice and snow, which, when the earth grew warmer, melted, and this water submerged a great portion of the earth's land surface, making seas, gulfs and bays where they did not exist before.

Phaius maculatus flowers in April and May at Messrs. Ghose's Orchid garden at Town-end, Darjeeling, situated at 6,000 ft. elevation above sea level. It grows in the open under the shade of a small shrub and does not seem to suffer much from the wintery frosts or snow.

A REPLY TO MR. SANDER

K. C. A. SYLVA, F.R.H.S.
Assistant Superintendent of Parks, Colombo Municipality

I READ Mr. David Sander's article, " Naturalisation ", in the last issue of this journal with mixed feelings. Mr. Sander is apparently not aware of conditions which have prevented an influx of plants to this country, and this reply is only of an explanatory nature regarding our position in Ceylon in relation to naturalisation of plants.

To draw an analogy between an outpost of the Commonwealth and England is absurd. As much progress as has been made in England in other spheres of human activity is evident in horticultural science, and the introduction of exotic plants grew by leaps and bounds in that country due to various favourable factors. This achievement has been the work of several decades, mainly through the efforts of travellers, botanists and commercial nurserymen.

The establishment of botanic gardens with adequate State support and the formation of societies in England, where foresight and enterprise in organising botanical expeditions abroad, have been well justified by collections representative of practically the flora of the entire world.

Such a state of affairs has not existed in Ceylon, which has been predominantly an agricultural country whose botanic gardens were originally planned as experimental stations for economic crops such as cinchona, rubber, tea and coffee. The transition of these stations to botanic gardens was gradual, and the introduction of exotic plants was mainly due to a few pioneer efforts and even then it was of a limited nature. The importance of agricultural crops in the economy of the island relegated all horticultural interests to an obscure position, and only in comparatively recent times was a beginning made in horticultural matters.

The Agri-horticultural Society of pre-war years, which concentrated more on exhibitional displays, rather than the introduction of new plants, is now defunct. The Orchid Circle of Ceylon is only fifteen years old, and its activities were curtailed by the Japanese war when actually gathering momemtum, bringing about a deterioration in the enthusiasm of Orchid growers and, consequently, in the size and quality of local collections. Exorbitant costs of labour and difficulties of those austere times further added to our troubles.

In the absence of horticulture promoting bodies and commercial horticulture of a high order, the development of local horticulture is, accordingly, not comparable to that in England. These are some of the factors which have prevented the introduction of exotic plants to Ceylon on a large scale as deplored by Mr. Sander.

Coming next to cultural difficulties, it must be stated that tropical plant growing conditions in Ceylon, at low elevations in particular, are extremely variable. A plant which grows well in one locality may fare badly in another, though in close proximity, and so on. This has almost brought about a trial and error method of cultivation as regards new introductions. Mr. Sander, I note, refers mainly to temperate types of Orchids suited to higher tropical elevations, and it would not be proper to consider that elevation alone in tropical countries can produce such conditions as are found in the original habitats of plants. As an illustration of such an instance, most Orchid growers in the highlands of Ceylon have found that mountain ranges play a great part in the precipitation of rain under monsoon conditions, so that one locality will continue to remain comparatively dry while another will experience a wet period a few miles away.

However, a few enterprising Orchid lovers have imported the types of Orchids Mr. Sander presumes are absent in Ceylon. Cattleyas, Oncidiums, Miltonias, Cymbidiums, Cypripediums, etc., have been actually introduced to botanic gardens in Ceylon, but the climate has proved uncongenial for such types with the result that persistence in their cultivation appears to have

ceased. The absence of a large scale market and the high cost of transport charges, etc., not to speak of the damage in transit, have been retarding factors in the growth of local collections.

Returning to Mr. Sander's doubts about naturalisation in Ceylon, his assumptions are entirely unjustified, as literary contributions on this subject in *Orchidologia Zeylanica* have been too few and far between for foreign Orchid lovers to know what has been actually achieved in this respect in Ceylon. I expect Mr. Sander has by now read my article on "Popular Orchids" in the last issue of this bulletin. If so, he would have noted that the more popular Orchids in Ceylon are exotic and I think that there can be no better criterion of the efforts of local Orchid growers to widen their field than this fact. The wide range of these Orchids also suggest that a considerable number of species may have been introduced to Ceylon in the early years, but a form of natural selection of plants under cultivation has obviously kept down the different species to those now commonly found. Many species have propagated themselves vegetatively in Ceylon so freely that they have become common garden plants, and for this reason they rarely figure in *Orchidologia Zeylanica* or at Orchid Circle exhibitions.

Though these Orchids are common among us, still they are of interest to our overseas members, and many Orchids in our village gardens may be considered prize specimens by European or American standards.

Mr. Sander may, perhaps, consider my statements hypothetical, but I would like to produce an extract from an article on "The principles of Orchid cultivation in the tropics", in an early issue of this bulletin by Mr. T. H. Parsons, late Curator, Royal Botanic Gardens, Peradeniya. "It is the object, therefore, of this chapter to ascertain some general means by which Orchids, and particularly exotic Orchids, in the tropics can be grown to satisfaction which only too often persistently refuse to attain this required standard. Why is it that certain Orchids considered quite easy to grow in European and American countries present many difficulties under our tropical and undoubtedly more compatible conditions?"

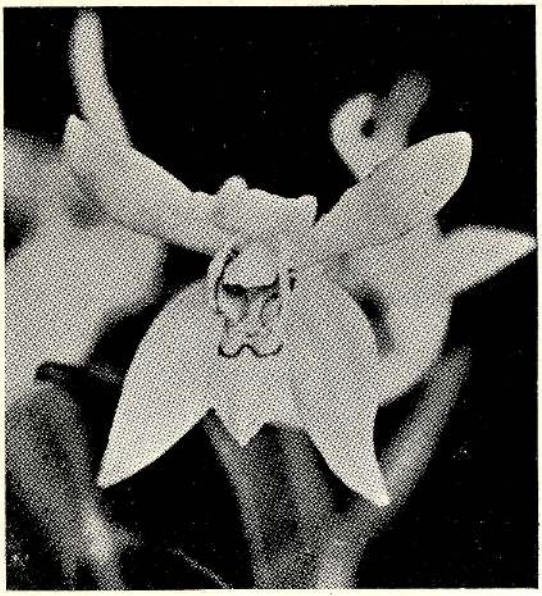
I believe my comments will convey to Mr. Sander some idea of our difficulties, and also the fact that attempts have actually been made in Ceylon to grow certain Orchids which, apparently, have failed to thrive.

MR. SANDER'S CHALLENGE

MRS. MILDRED BLACK
185/19, Havelock Road, Colombo

WHEN talking recently to Dr. Ernest Soysa, I was surprised to learn that Mr. David Sander's challenge to Ceylon Orchid growers regarding the cultivation and acclimatisation of foreign born Orchids had not been taken up by many readers. I can only surmise that, like myself, most readers thought that there would be such a rush of indignant articles and letters from members eager to defend the honour of Ceylon and their own "amour propre" that our Editor would be snowed under. Another possible explanation may be that coming from one of Mr. David Sander's wide knowledge of Orchid culture, the article was regarded in the light of a "leg pull", and possibly some readers may even have feared ridicule if they rushed to Ceylon's defence only to find there was no enemy!

However that may be, I think Mr. Sander has made it fairly clear that he was assuming ignorance to help our sorely harrassed Editor to fill the pages of his next issue, so, I for one, will enter the ring and weigh in with a few instances of naturalised Orchids that I have cultivated myself. They are all well known in Ceylon and grown by most of us, so I may be



Courtesy : Mr. A. N. Paine

CŒLOGYNE CORYMBOSA

crowded out of the ring. If so, I throw up the sponge and leave the floor to others who, by now I hope, will also be in the fray.

The first non-indigenous Orchids I cultivated were *Dendrobium crumenatum*, the Pigeon Orchid, *Arachnis flos æris*, (*A. moschifera*) and *Arachnis Maingayii*, the Brown and Pink Scorpion Orchids, all from the Malay Archipelago.

The Pigeon Orchid was already in the garden left by a former occupant of the house, but it may be of interest to note that the original plants of the two Scorpion Orchids actually came from Malaya, having been sent to me by my sister from Singapore, who was unaware that they were easy to obtain in Ceylon, so that these plants were truly naturalised, not the offspring of already naturalised parents.

The clump of *D. crumenatum* was in vigorous growth, but rarely flowered and then very sparsely. It had been tied in the rather deep shade of a large fleshy—leaved Plumeria, and faced west.

Judging by a great many clumps I see in various gardens, it does not seem to be generally realised that although this Orchid enjoys a good deal of sun, in common with many others it prefers to perform its sun worship facing the east. I have tested this by planting some clumps facing west and some east, but otherwise in identical conditions. The latter flower freely, and the former less often and sparsely in comparison. I broke up the bushy group beneath the Plumeria and established several smaller clumps in coconut husks tied to coconut trees facing east, and I always had a frequent wealth of bloom. As I expect is well known, this Orchid flowers most freely about a week or so after a good shower of rain falls during a dry period, but I have found that it flowers unexpectedly under other conditions also.

The two Scorpion Orchids I planted in the usual manner, in lightly manured soil using a compost of rotted leaves, cow manure, and fine earth with an admixture of sand near the surface, placing light stones, crocks and bones around the base of the stems. I trained the plants over a low wide frame in full sunlight but protected from the north and east winds by a wall and a summer house. I only introduced new blood to the group once as far as I can remember, in about eighteen years, and always had plenty of flowers any time from February to May and a few at odd intervals. When I had to leave that house lately, I sent Dr. Soysa an armful of vigorous shoots, yet the bed looked hardly despoiled. I also sent nearly all my Pigeon Orchid clumps to Dr. Soysa, and I am looking forward to seeing how they will fare at "Laughing Water", his riverside garden, where I feel they will be very happy in such naturally beautiful surroundings.

At one time I was particularly successful with several varieties of Spathoglottis, particularly with the pink-flushed yellow hybrid *S. Aureo-Vielliardi*, and in 1939 gained a Floral Commendation for a large pot of these in very fine flower. The purple, white and mauve varieties of Spathoglottis are so well known and easy to grow, that with some varieties of Vandas, such as *V. teres*, *V. Miss Joaquim*, I once thought they were indigenous to Ceylon, so fully were they blooming in most gardens I visited. When I first came to Ceylon the white Spathoglottis was quite common, but I had not seen any for a long time until on my way upcountry recently I saw a lovely group in full flower outside a cottage door. On considering the subject it seems to me that most of the Orchids I've cultivated have been naturalised—*Oncidium multiflorum* from S. America, *Renanthera coccinea* from Cochin China, and various Dendrobes such as *D. Pierardii*, *D. moschatum*, *D. macrophyllum*, *D. veratrifolium*, etc. which have all grown well and seem equally at home in many gardens I know in Colombo. Miltonias, Cymbidiums, Odontoglossums, Cypripediums and other cool type Orchids are grown with much success by many of our upcountry members, all of whom I hope are writing of their experiences. I have contented myself with naming only a few that I have grown myself, and I chose to give most space to the three exotic Orchids that are such common plants in lowcountry gardens as I thought it less likely that others would select them for special mention. Perhaps they are the best examples of Orchids that have been naturalised in Ceylon.

HERE YOU ARE, Mr. DAVID SANDER!

SENATOR COL. T. Y. WRIGHT, V.D.
Peradeniya, Ceylon

MR. David Sander's article in the last issue of *Orchidologia Zeylanica* has, evidently, been written in a critical spirit to provoke comments and replies from Orchid growers in Ceylon. I think he is quite right in saying that our Honorary Editor deserves much more literary support than he gets for our bulletin from local members of our Orchid Circle. I hope that Mr. Sander's provocative remarks and queries will result in some of our silent members taking up their pens in defence of Orchid culture in Ceylon.

After paying his compliments to other countries where Orchids are grown in profusion out of doors, Mr. Sander asks " What about Ceylon ? ". Now, here are a few points in answer to that question and its implications. I don't know whether Mr. David Sander has visited Ceylon, but he presumably knows nothing about our difficulties in growing Orchids out of doors. I have visited Orchid establishments in England and have some knowledge about the facilities available there for growing Orchids under glass. Let me assure Mr. Sander that conditions are totally different in Ceylon and England.

My first visit to the celebrated Sander Orchid Nurseries at St. Albans was in 1894—I wonder who got there first, Mr. Sander or I ? I went to St. Albans with Mr. Dodwell Browne, then District Judge of Colombo, a keen Orchid lover, and two of the Orchids I purchased there are still fresh in my memory—the quaint *Cattleya citrina*, with its citron-yellow, tulip-like flowers hanging head downwards, and the graceful *Phalænopsis amabilis* with its dainty, white moth-like blooms. These species acquired from Sander's among others formed the nucleus of my first Orchid collection, and I recall with pleasure how well both those Orchids flowered with me at Mousagalla Estate in the midcountry elevation of Ceylon.

My last visit to Sanders' Orchid Nursery was in 1939, when I purchased a collection of hybrid Cattleyas, Dendrobiums, Oncidiums, Angræcums, Miltonias and Cymbidiums. Among them were some grand hybrids named after members of the famous Sander family—*Cattleya Fearnley Sander*, *C. Isabel Sander* (just now in bud), *Dendrobium Nelly Sander*, *D. Roger Sander*. I cannot recall meeting Mr. David Sander, but I was very glad to see Mr. E. W. Cooper. My wife and I had difficulty in getting a passage back to Ceylon after that visit, and eventually we got berths on the P. & O. " Strathmore " through the help of Sir Henry Moore, then at the Colonial Office and later our first Governor-General. My Orchids came ahead of us on the Bibby Liner " Staffordshire " and reached Ceylon in good condition.

All this diversion is merely meant to introduce myself to Mr. David Sander as an old client of his firm from Ceylon, and one acquainted with Orchids and Orchid culture at St. Albans. My experience of Orchid growing in Ceylon, originating with my first visit to Sanders' in 1894, has been typical of that of planters in this Island. Very few of us are owners of plantations, commonly referred to as " proprietary planters ", and, so, most planters are periodically moved from one estate to another by the estate agents who employ them. This usually involves changes of district, elevation and climate—particularly as regards temperature and rainfall. Planters cannot afford to have Orchid houses built every time they are transferred. Transporting a big collection may not always be a simple matter. Orchids established on garden trees may have to be rudely disturbed by uprooting them, or left to the tender mercies of a successor who may know nothing about Orchid culture. Sometimes, of course, Orchids left behind on trees in estate gardens continue to flourish and flower for years. I know several such gardens in the Bogawantalawa district adorned with masses of Orchids grown on trees. At Chapleton Estate is a fairly big tree absolutely covered with *Dendrobium nobile* which I have seue bearing thousands of blooms. In other gardens in that district I have seen Vandas

growing and flowering luxuriantly, seemingly without any attention. The worst fate of all that may befall a planter's Orchids is his transfer to a district quite unsuitable for his Orchids, for example, a man who has grown Miltonias, Odontiodas or Cymbidiums with success in the highlands will find these Orchids unable to survive the heat of low elevations. If left behind, on the other hand, they may fail to survive neglect or ill-treatment at the hands of an uninterested or inexperienced newcomer.

I write from personal experience of fifty-five years of Orchid culture in Ceylon, with recollections of success and failure since I got that first lot of Orchids from Sanders. At that time I owned a property and built a small conservatory leading out of the drawing room to house those Orchids. After two or three years I moved to another plantation taking my Orchids there and starting again. When, in 1914, I came down to Colombo and lived there for several years, I could not carry on with Orchid cultivation, living as I was in hotels and flats. Then my wife bought Mahakandé Estate in Peradeniya, where the midland climate was congenial to Cattleyas and many other Orchids. I built up an entirely new Orchid collection, to which the importations from Sanders again added interest and variety. The Mahakandé collection soon grew into a fairly large and varied one, and I turned my attention to hybridising experiments. Unfortunately, Mahakandé House has been recently acquired by the Government, and I have had to dispose of the bulk of my collection. I left behind large masses of *Arachnis Maingayi*, the Pink Spider Orchid, and *Epidendrum radicans*, the Crucifix Orchid, growing in profusion in the garden. The place has been in charge of the University for two or three months and already the Orchids are becoming overgrown with weeds which threaten to smother them if not controlled. We have now moved into a cottage in Peradeniya where I still keep a small lot of Orchids which continue to provide me with great pleasure and much interest.

Another disadvantage affecting Orchid growers in Ceylon is the lack of big commercial Orchid nurseries where, as in England, Europe, or America, one may see plants in bloom and pick out what one wants to buy on the spot. Importation, even from neighbouring countries takes some time and is beset with difficulties—currency and exchange control, air transport restrictions, plant quarantine regulations, etc. Even after surviving all that, the Orchids imported may turn out to be not quite suited, or even quite unsuited to the particular climatic conditions in which they are to be cultivated. This happened to me even in days of riper experience: I found that some of the Orchids I had imported from Sanders in 1939 were of too cool-growing a type for the midland climate of Peradeniya; so I sent those that survived to other collections at higher elevations. Some Cymbidium hybrids that I had sent to Mrs. Hugh Gordon of Bogawantalawa settled down very well in that climate and flowered well; a beautiful spray from one of those Cymbidiums sent to me by Mrs. Gordon last year bore testimony to that fact.

Mr. Sander asks what we have done about hybridisation in Ceylon. All we can boast of is the work of Mr. Bruce Ashby and Mr. Ernest de Saram, and we have reason to be proud of their success, achieved in small private laboratories with limited facilities. Has Mr. Sander not followed their work in past issues of *Orchidologia Zeylanica*? If we had half the amenities available to hybridists in England, I have no doubt Ceylon could give a better account of this branch of Orchid culture. I have been interested in hybridisation myself, and Mr. de Saram has raised seedlings from some of my crosses, *e.g. Brassavola Digbyana* × *Cattleya Pamela*, nine years old with about a dozen pseudobulbs and now due to flower; *Dendrobium moschatum* × *Dendrobium nobile*, also about nine years old but very, very slow in growth, being only three inches high; *Dendrobium moschatum* × *Dendrobium moschatum var. cupreum*, of which several plants are flourishing. There is nothing I'd like better than to go on raising crosses, but considering that I have passed my eightieth year, and realising that one of my hybrids has taken nine years to grow three inches, I am not particularly anxious to carry on with this

work. I think that if the Government Department of Agriculture devotes some attention to seed culture and hybridisation in Colombo, Peradeniya and Hakgala, a large range of hybrids suited to all climates in Ceylon could be raised, creating much more interest in Orchid culture by providing facilities for local purchase of locally-bred Orchids.

Cattleyas have been, and still are my favourite Orchids, but they can be exasperating in their behaviour—flourishing vigorously and suddenly going off for no obvious reason, or producing flower sheaths which, after days of watching and waiting, prove to be empty. Still, it is a great pleasure to flower a Cattleya, and always a treat worth waiting for. These Orchids require care during monsoon weather when they must be kept under cover to prevent new growths damping off and rotting in the heavy rains, while they must, on the other hand, be protected from the desiccating heat of the dry season which can also cause casualties.

We have several good collections on Ceylon estates, an outstanding one being that of Mr. F. C. Charnaud, who is a proprietary planter living in a good climate for his large variety of Orchids, both species and hybrids. Then there is Mr. P. P. Alder, who is very successful with Cattleyas in Dickoya, Mr. G. B. Foote who has a fine record of successes with a wide range of Orchids in the lowcountry, and others. Of course, the best of our collections in Ceylon cannot compare with the millionaires' collections in America, England, or Europe, and I have no doubt that it is not Mr. Sander's intention to draw any such unfair comparison.

There is one thing in which Ceylon can hold her own against any other country in the world, and that is our Orchid magazine. I hope that Mr. Sander will agree with me about this. *Orchidologia Zeylanica* caters for all tastes—novice and expert, the lover of species and the connoisseur of hybrids, the culturist and the scientist. It is a labour of love, maintained entirely on honorary service, and produced by Orchid lovers for Orchid lovers. The magazine has had a fine record over the past fifteen years, surviving the vicissitudes of war, and emerging from the era of control and restriction. The only thing that does not seem quite right is that of those who enjoy reading it, there are far too few who yet take their share in writing for it. I hope Mr. Sander's article will goad them to arise from their lethargy and come to the support of our Honorary Editor, Dr. Soysa, and show him their practical appreciation of his labour of love.

A WORD WITH MR. SANDER

MRS. LILIAN PATERSON
Allagolla Estate, Uda Pussellawa

I AM only a novice Orchid collector, and perhaps I should not butt in where the proverbial angel fears to tread, but I am also an observant gardener and as such I feel that Mr. David F. Sander, in his article in the last issue of this bulletin, on the subject of naturalising Orchids, is not quite fair to the Orchid lovers of Ceylon. Actually most of the Orchids grown in the Island, from whatever country of origin, must be classified as naturalised foreigners

because they are grown in the open with little care and attention, and generally allowed to acclimatize themselves to local conditions. My small collection of Orchids, admittedly through trial and error, thrive and bloom freely at an elevation of 4,500 ft. They consist of Cattleyas, Lælias, Cymbidiums, Dendrobiums, Cypripediums, Vandas, Epidendrums, etc., grown in baskets, pots or on tree fern logs for the convenience of being able to bring the plants indoors when in flower, so that they can be admired and protected from the weather. But many of my Orchids would do as well if grown naturally, *i.e.* epiphytes on trees and terrestials in beds like ordinary garden plants.

Here we can grow very fine specimens of *Dendrobium nobile*, *D. thyrsiflorum*, *D. chrysotoxum*, etc. Cymbidiums, natural species as well as most hybrids, do equally well with the same treatment. We have had fine sprays of *Cymbidium Lowianum*, *C. Traceyanum*, *C. Devonianum*, and, of course, some beautiful hybrids like C. *Nancy Harte*, *C. Lyoth*, *C. Goldcrest*, just to mention a few. My *C. Lyoth* flowers regularly, and this year it had five beautiful and healthy spikes measuring 4 ft. long and carrying 15 to 20 large blooms on each spray — a truly magnificent sight. I had also 15 lovely sprays on one of my plants of *Dendrobium chrysotoxum* and large numbers of *D. thyrsiflorum*, Cattleyas, etc. *Vanda Cærulea*, even in this comparatively dry district, thrives and bloom without attention out in the open, producing a profusion of bloom of large size and of exquisite deep blue colour. *Epidendrum radicans* and *E. O'Brienianum* have become weeds, almost a pest, they will grow profusely anyhow and anywhere. At any time of the year I can cut up to 300 fine big heads of bloom.

Miltonias and Odontoglossums have been tried at this elevation, but I think it is too dry and too hot for these Orchids at certain times of the year. They do much better in Nuwara Eliya.

All these Orchids and many more, I must point out to Mr. Sander, are grown as common garden plants in the Ceylon highlands, and not as princelings in super-heated glass palaces, with specialized, full-time gardeners dancing attendance on them. Our results must be judged accordingly. We grow them chiefly for pure fun, not to win awards (although, sometimes, we can't help doing so). We have no commercial interest in Orchids, but we get equally as much pleasure in growing them in our own way. I admit that we could, very probably, find many more that will flourish, but space is limited even in our gardens.

A RETORT COURTEOUS

A. MAMUJEE
Mamujee Villa, 34, Asoka Gardens, Colombo

THE article on the above subject by Mr. David F. Sander in the last issue of *Orchidologia Zeylanica*, Volume XV, Nos. 3 and 4, July—December, 1949, really surprised me.

Mr. Sander asks : " What can we find in Ceylon?" but admits that he speaks "without personal acquaintance, alas, of her Orchid gardens". Then, may I ask him, why discuss a subject of which he has no knowledge ?

I want first to bring to the notice of Mr. Sander that nearly everybody grows Orchids in Ceylon as a hobby, and hardly anybody does so for a living. If a census of plants grown in Ceylon were taken, he would find that there are relatively few species of Dendrobiums, although they can be easily and cheaply imported and grown. I should also like to acquaint Mr. Sander of the fact that we are near the equator, and plants like Odontoglossoms, Miltonias, etc. are difficult to grow in this zone even in our hills and very few of the Cattleyas and their relatives with warm blood can be grown successfully. Mr. Sander has heard of my friend, Mr. John Laycock of Singapore, whose plants, although garden hybrids, are not available to other Orchid lovers. But he does not seem to have heard of our Mr. Ashby and Mr. de Saram, whose plants are not only available in plenty to local Orchid lovers but are exported abroad. I am surprised that the names of de Saram and Ashby have not reached Mr. Sander.

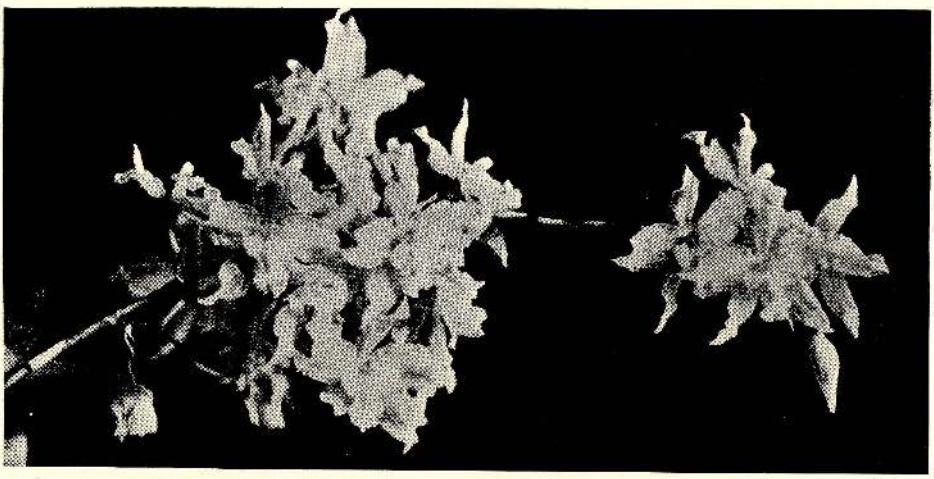
I am an ardent lover of Cattleya hybrids and have spent a fortune on them. If Mr. Sander were to refer to his firm's export orders he would find the names of several Ceylon customers during the past 50 years. During the war, and even now, the dealers in England were not able to meet our requirements in Orchids. They ask for exorbitant prices for the plants available, which before the war cost only a fraction of the present prices. Lately I received a folder from Messrs. Sanders offering 12 plants at £55 plus air freight at about £10. How many of us in Ceylon could afford to buy a dozen plants for £65? Mr. Sander would do a great service, if I might suggest, to amateurs like me and others in Ceylon, if he could, through his charming friend the Chairman of the B. O. G. A., advise British growers to offer plants at more reasonable rates. I can assure him that they will receive many more orders. It is of little use telling prospective customers that owing to shortage of coal and labour, and the absence of scientists, that the cost of production has gone high.

If we can only induce and encourage a few more like Mr. de Saram to raise hybrid Orchids on a commercial scale locally, we could bring prices down for the imported plants and even shut out foreign plants which require more care, energy and money to get them naturalised or acclimatized.

If Mr. Sander does not find evidence in *Orchidologia Zeylanica* regarding the growing of such plants as Cattleyas, etc., it is because such Orchids that are imported have already received publicity in the *Orchid Review*, and we should give more prominence to our local plants in our own bulletin.

If Mr. Sander were to read over again the back numbers of *Orchidologia Zeylanica* he will find a number of illustrations and articles on all types of Orchids, including Cattleyas, Miltonias, Cymbidiums, Cypripediums, etc., but we do not follow the likes and dislikes of other countries, we have our own.

Mr. Sander has concluded his article by saying that he anticipates many a retort courteous to follow his remarks. I hope that he will accept this as one of such retorts offered in all courtesy.



Courtesy : Mr. A. N. Paine

ODONTIODA BRADSHAWIÆ

"WHERE ANGELS FEAR TO TREAD"

G. B. FOOTE, F.R.H.S.
Malaboda Estate, Matugama, Ceylon

I FEEL that Mr. David F. Sander's article in the last number of *Orchidologia Zeylanica* demands a reply.

Mr. Sander appears to have fallen into the egregious mistake of imagining that Ceylon, because it is a tropical country, with a wealth of tropical jungle, is a heaven-made paradise for all Orchid growers. The late Sir Jeremiah Colman, of revered memory, wrote in the same vein, and I had an opportunity of disillusioning him on one of my visits to Gatton Park.

Ab initio, let me say that what I write about Orchid growing in Ceylon refers to the low-country, from sea level to 400 feet above such. Higher in the hills conditions are very different, and the range of plants which can be grown with advantage much larger.

First and foremost, much of Ceylon falls into a dry zone, which is comparatively sparsely populated, and a great portion of the remainder has a climate so rain-drenched, that many of the more delicate Orchids cannot be grown successfully except under glass; that is my personal experience with Cattleyas, etc. in the lowland wet zone, and I am sure many others will bear me out, Mr. B. O. Ashby for one. Once one starts on glass houses it becomes an expensive hobby.

Mr. Sander mentions that practically every known species of Orchid has been tried out in the narrow limits of glass houses and pits in the United Kingdom. And well they might. I have always maintained that, provided one has a long enough purse to build and maintain a series of houses, there is practically no limit to the range of Orchids that may be grown at home, except for the sun-loving Vandas, Renantheras, etc. Conditions as to temperature, moisture, etc. can be controlled to a nicety, and the growing of Orchids becomes as easy as falling off a log compared to conditions in the wet low-country zone in Ceylon. Here you may put up an open-sided glass house to protect your more delicate varieties, such as Cattleyas, Lælias, etc., from the drenching rains of the monsoon, and thus save them from damping off. During the past 51 days I have measured rain on 44 days, amounting to 25·84 inches. But short of putting up an ice house, and an air-conditioning plant how are we to get the temperatures down sufficiently to suit the flowering conditions of these plants?

Practically every Orchid named by Mr. Sander in his article is suited only to mid-country or up-country zones. He singles out Ansellia as a species suited to the coastal regions. I must plead complete ignorance of this genus beyond what I have read of it in Williams' *Orchid Growers' Manual*, and I must say that has not, in the past, filled me with sufficient enthusiasm to wish to secure it—though in this I may have been wrong. I do not remember even seeing an Ansellia at the Chelsea Shows, Gatton Park, or elsewhere; this is not to be wondered at, as I see it is a winter flowering species, but Williams talks of the cool house, and the young growths being liable to damp off, which is going to make it difficult to manage in this climate.

Mr. Sander speaks rather contemptuously of "Dendrobiums, and a few strong Burmese and Indian Orchids grown in Ceylon," though what exactly he refers to is not quite clear. As a matter of fact, comparatively few of the Dendrobiums, and still fewer of the modern hybrids are suited to our low wet zone. The exceptions are chiefly among the Ceratobium Dendrobes. *D. veratrifolium*, *D. superbiens*, *D. moschatum* and a few others flourish, but the large range of Dendrobes from Burma mostly requires a cooler climate.

Mr. Sander goes on to single out Mr. C. H. Lankester's garden at Las Concavas. I have corresponded and exchanged Orchids in the past with this gentleman, and can well imagine that his garden is a paradise, but here again, I believe, at a considerable elevation in the hills. Has Mr. Sander any grounds for thinking that similar gardens do not exist in Ceylon? If he

had studied his back numbers of *Orchidologia Zeylanica* more carefully, he would have read from time to time of that paradise at Mahakandé, the home of Col. T. Y. Wright, where he raised and flowered many beautiful Orchids, including a fine range of Cattleyas and their numerous hybrids, in most picturesque and beautiful surroundings, as I can personally testify. Now alas ! this beauty spot has been sold to Government, and one trembles to think of its ultimate fate.

Then there is the even more numerous and varied collection of Mr. F. C. Charnaud, which I have not had the good fortune to see yet, but of which I have read the most inspiring accounts again in *Orchidologia Zeylanica.*

Again Mr. Sander quotes the hedges of terete Vandas in Malaya. Has he any grounds to think that the same do not exist in Ceylon? Talking of my own poor cabbage patch, I have 2 hedges 12 ft. and 20 ft long, and 5 to 6 ft. high, which divide my upper lawn from my lower garden; during the early months of this year, and other years, they have been a mass of bloom, a mixture of *Vanda teres var. Andersoniæ,* and *Vanda Miss Joaquim.* The former are over for the year; *V. Miss Joaquim* still carries a few stray spikes, and will flush again in the autumn. In addition I have two other hedges coming on, and various clumps of terete Orchids, including a large one of *Vanda teres var. aurora,* in the lower garden, which carried a fine show of its almost white blooms for many weeks. On another side of my upper lawn I have a low pandal 36 feet long covered with Scorpion Orchids : a particularly large variety of *Arachnis flos-æris* (*Arachnanthe moschifera*) with very dark flowers, and two varieties of *Arachnis Maingayii,* one with a much larger and a red-brown flower. In the lower garden I have a bank 25 ft. long and 6 to 8 ft. high covered with Renantheras. I know of at least two, if not three, gardens in this district where *Vanda Miss Joaquim* is grown in even greater profusion than in mine. So, some people do grow Orchids in Ceylon !!!

My experiences over many years of Orchid growing (I started round about 1916) in the low, wet, coastal zone, may be of interest to some new readers, so I give a brief account once again, though I have written many times in *Orchidologia Zeylanica.*

For many years (1926-1942), while I was in the Avisawella district, I was fortunate enough to have a moderate-sized glass house, (building being cheap in those days) in which I could grow my more delicate plants, such as Cattleyas, Lælio-cattleyas, Miltonias, Sobralias, Cymbidiums, Cypripediums, etc. With the exception of Cattleyas and their hybrids, of which I had at one time upwards of 80 varieties, and a few Cypripediums the rest were, in more senses than one, a complete washout. I learnt by bitter experience, that it was folly, and waste of time and money, to struggle with Orchids unsuited to local conditions. I did manage to flower a fair number of Cattleyas, but my standby was *C. Skinneri,* a present from Mr. C. H. Lankester, and about the least interesting of the lot.

The subsequent history of my collection is indeed a case of " How are the mighty fallen ". In 1942 I retired. Up till then I considered I could put up as good a show as any one in Ceylon, and a good deal better than most, and I think the performances of my Orchids at Orchid Circle Shows have proved this. When I retired I broke up my collection, and I have not the half now of what I had at that time.

When I moved it was from an elevation of 365 ft. to a bare 100 ft. above sea level, and I have found that even this small drop of between 200 to 300 ft. has made a perceptible difference in the performance of many of my Dendrobiums and Cattleyas. The latter have now dwindled to a miserable half-dozen varieties, and the only ones showing any health are *C. Skinneri.* Here unfortunately I have no glass house to help me, and a rainfall of 140 inches, and a great deal of wind. When I came I had little or no shade in the garden, and this I have had to grow. Another little drawback, sent to make things easier for us in rubber districts, is *Phytophthora palmivora,* and I can assure Mr. Sander and other readers, that it has nothing to do with ladies' toilet soap, but it is something that may well destroy your most treasured Orchid.

Much bitter experience has taught me that monopodial Orchids are best suited to the wet coastal zone, so I have discarded most other Orchids, and concentrate on Vandas, Renantheras, and their hybrids.

In addition to the terete Vandas already mentioned, I grow with fair success *V. tesselata* (*V. Roxburghii*), *V. Hookeriana*, *V. Dearei* and the following hybrids, among others, *V. Marguerite Maron*, *V. Robina* or *V. Majestic*, *V. Maurice Restrepo*, *V. E. M. E. Dinger*, *V. Amy*, *V. Emma van Deventer*, *V. Madame Dubarry*, *V. La Paloma*. One of my rarities is the cross between *V. cærulea* x *Arachnis Hookeriana* (*alba*), *Aranda Queen of Purples*, with large scorpion-shaped flowers, almost as large as *Arachnis flos-æris*, and bright purple in colour. Mr. Sander wonders if there is one Ansellia in Ceylon. I wonder how many collections in England or elsewhere have this rare cross, which I obtained in Bandoeng, Java, in 1939. Unfortunately, at this elevation it is a shy flowerer, probably due to the *V. cærulea* strain, and has only bloomed three or four times in the 10 years I have had it. Still more unfortunately, while I was in England last year, the top of the plant was blown off in a gale, and, though it has thrown out new healthy growth, I fear the accident will delay its flowering for some years. Another monopodial species that flourishes with me is *Vandopsis* (*Arachnanthe*) *Lowii*, two plants of which have just finished flowering. One carried 6 flower spikes from 4 to 6 ft. long, with 105 blooms, and the other 5 spikes with 85 blooms. But for the severe and prolonged drought, this year growth would have been even better, as it was 2 years ago, when one plant carried over 150 blooms.

Yet another rarity in Ceylon is *Vanda Sanderiana*, of which I have two plants now in bud, one with 2 spikes, and one with a single spike; last year both had 2 spikes. Another fine plant was carried off by *Phytophthora palmivora* a few years ago.

Cœlogynes grow well, or some of them at least. The best of my bunch is a giant plant of *C. Burfordiense*, grown from a small plant presented to me many years ago by the late Mr. Taylor of Kew. It is growing in a large teak basket, and has attained such a size that it needs two men to carry it: this past dry season it had 13 flower-sprays, and many dozens of blooms much larger than either of its parents, *C. pandurata* and *C. asperata*. I have two or three more fine plants of this most attractive Orchid. *C. pandurata* also grows well, but is not free flowering. I am, however, not so successful with *C. asperata*, probably because I do not take enough trouble over it.

Another rarity is *C. Forstermanni*, which I obtained from Kuching many years ago, and it well bears out what Williams says in his *Orchid Manual*, as to it being an exceedingly shy flowerer. It has only obliged three times in all the many years I have had it. It has now grown into a very big plant, and this last May, no doubt due to our exceptional drought early in year, produced 26 erect flower spikes, and hundreds of snow-white medium-sized blooms with a little yellow marking on the lip. Unfortunately, I was away on holiday when it opened its flowers, and when I returned it was well past its prime.

Yet another rarity from Kuching is *Cymbidium pendulum var. atropurpureum*. It would be interesting to know whether many of these plants exist in English collections. The late Sir Jeremiah Colman had not got it in his collection in 1939, and was most interested in a painting of my plant I showed him, with its sprays of deep wine-red flowers with a snow-white lip flecked with bright pink. I promised to send him a division from the larger of my two plants, and this I did in the summer of 1940, but I fear the plant came to grief, by enemy action, or some other means. I cannot remember now, and I do not find the connected letters on my file. Anyway, not very long after that Sir Jeremiah passed over to the majority, mourned by many friends, who were attached to him by many acts of kindness. I was horrified to hear rumours, not confirmed as far as I know, that many of his treasured plants went up in smoke. My largest plant of *C. atropurpureum* grew to such a size that it required two men to lift the pot with difficulty. It had some 14 flower-sprays this year, and well over

150 blooms. I have now divided it, and am growing it in two large pots. I grow several, other plants of the pendulous species, but the normal hot house plants seen in England are quite unsuited for my elevation.

I grow many other strange varieties, if not very showy, at least very interesting, such as *Ceratostylis rubra*, of which I have two small pots in full bloom at the moment, with their quaint star-shaped red flowers; *Bulbophyllum Cummingii*, and another species very near it, which I picked up from Burma years ago, but much more free flowering, and with larger blooms; two large pots of this are just coming into full bloom; *B. Dearei* also does well.

Occasionally, one finds a plant of a genus not really suited to the elevation, which, through some freakish strain, will flower here. For very many years I have had a plant of *Cypripedium Maudiæ*, which has put out one new growth each year and presented me with one beautiful healthy bloom, with a green pouch, and its amazing snow-white dorsal sepal with bright green stripes that look as if they had been ruled in with a pen. A few days ago I happened to look at this plant, and to my delight I find three new growths just appearing, so that I hope I may have three blooms a year, and that the plant will gradually become a clump. *C. Thalia Welleslayana* also grows fairly well and flowers with me, but many other varieties, I have tried, have proved failures either from the start, or after a short time.

Two other very uncommon plants I have, are *Stanhopea Wardii*, and *Brassia Hatcherii*. The Stanhopea flowers most years, sometimes giving me as many as three sprays of its most peculiar and aromatic flowers, which beggar description, but *S. tigrina*, of which I have had two plants for many years, flatly refuses to flower.

Brassia Hatcherii I have flowered for many years. My original plant, which on one occasion gave me blooms 13 inches from tip to tip, and never less than 10 inches to 11 inches, has died, but a young plant, I raised from it, has flowered this year for the first time; naturally its first effort did not compete with the figures I have quoted above, but the blooms were very large. Two or three other Brassias flower with me, but none could compare with this.

Then, as to the cussedness of Orchids in general. Many years ago I bought a plant of *Dendrobium chrysanthum*. I kept it for a long time, but, as it refused to flower, I eventually disposed of it. In 1942 I was asked to auction a collection of Orchids for War Charities; most of them were Dendrobiums suited to mid-country or up-country zones, but I felt in duty bound that I should bid for one plant myself. As the proceeds were to go to War Charities, prices were ruling fantastically high, and plants were going for about ten times what it would then cost to import them from Burma. I picked on a plant of *D. chrysanthum*, making a mental reservation that I was merely adding one more dud to my collection. That plant has flowered every year since, and from back bulbs I have raised three or four more plants, which also flower regularly.

For very many years I have hankered after a good plant of *Grammatophyllum speciosum*. When in the Avisawella district I purchased three plants at different times from Singapore. Two I tried to grow in pits filled with crocks, etc., but both died after a time; the third I fixed in the fork of a big tree, but though it was alive when I left, it never flourished or flowered. Some years ago I got a single back bulb from my old friend, the late Major Harold North's plant, and placed it in a large pit filled with broken tiles, bricks, charcoal, coconut husks, etc. I shaded it lightly by growing a Gliricidia alongside it, keeping the latter judiciously lopped from time to time. It has grown very well, and is now quite a large plant. This morning my head gardener announced that it was about to flower, and sure enough there are four nice healthy spikes showing, which I am certain are flower spikes. Truly, successes like this, though deferred for many years, make up for many failures.

Calanthes do fairly well at this elevation, but not as robust in growth as round about 3,000 to 4,000 ft. I had 17 pots, and some 7 or 8 varieties, in bloom last November-December, some carrying 5 or 6 flower spikes. I hope for even more this year.

I have written at great length about my own rather poor efforts, but I feel sure there are many who can beat me. Certainly I cannot, these days, hold a candle to Mr. F. C. Charnaud. I have already mentioned Col. T. Y. Wright, and mention should be made of Mr. Bruce Ashby and Mr. Ernest de Saram with their collections of beautiful and modern Vanda hybrids. Mr. Mamujee used to go in largely for Cattleyas, and Dr. Ernest Soysa had an extensive and varied, collection, but these I have not seen for many years.

Then again Gate Muhandiram J. C. S. Fonseka in his collection, though somewhat small, has some choice plants, more especially of *Vanda luzonica* and *Renanthera coccinea*. And what about the late Miss May Tilly and the marvellous displays of *Vanda cærulea* she used to produce at Galkandewatte ?

Since writing this rather rambling and disjointed screed, I happened to run into Mr. F. C. Charnaud for a few minutes in Colombo, and we discussed Mr. Sander's article : he wanted to know " What exactly does Mr. Sander mean by naturalisation ? Does he mean that the plants have become wild, and spread and grow of their own free selves? " If so, Mr. Charnaud claims to have done this with *Epidendrum radicans* and *E. O'Brienianum*, which are becoming weeds in his garden.

I can well believe this. I grow both these plants with indifferent success here, but when on Wagga Estate they thrived better. In 1923 one of my sisters came down from India on a visit, and I gave her a few slips of these Epidendrums, which she took back to her coffee estate in South India. In 1944 and, again, in 1947, when I was staying with her, I was amazed at the way these Orchids had spread. In among a mass of natural rocks at the bottom of her garden, they had run riot, and if there was one head of bloom one could have picked, there must have been 5,000. Alas my sister has sold her estate, and gone home to England. I often wonder as to the fate of those Epidendrums, probably cleaned up as weeds !

I trust I have written enough to convince Mr. David Sander that he is mistaken, and that some people do grow a few respectable Orchids in Ceylon.

There is one aspect of Orchid growing I have not touched on as yet, and I fear in doing so, I shall also raise a hornet's nest.

There is I think much which Orchid growers do not appreciate or understand fully—and that is atmosphere. It is commonly supposed that Ceylon, situated in the tropics, and endowed with a liberal rainfall and a wide range of temperature, should be an Orchid growers' paradise. But is it ? In my travels in Malaya, Java and Sumatra I was often struck with the comparative ease, and the splendid results of Orchid culture in those countries as compared to Ceylon.

Consider the case of Ceylon, and her wild flowers, and the poverty of her wild Orchids compared to most other, if not all other, tropical Asiatic countries. There must be some reason governing this.

There are not more than five or six outstanding Orchid species among those found growing wild in Ceylon, and how does this compare with India, Burma, Borneo, the Philippines, or even Malaya and Java ? Not well I fear. Ceylon's outstanding Orchids may be listed as follows :—*Dendrobium MacCarthiæ*, *Dendrobium heterocarpum* (*D. aureum*), *Phaius bicolor*, *Rhynchostylis retusa*, *Vanda tessellata* (*V. Roxburghii*), the last with its rare red and yellow varieties.

Last week in Colombo, I met the new Director of the Coconut Research Scheme (being rather deaf I did not catch his name), but I discovered that he was a lover of Orchids and grew them in Malaya. He and I remarked on the hedges of *Vanda Miss Joaquim* in Kuala Lumpur, but he informed me that in Johore he grew this Orchid with difficulty. Yet further south again in Singapore it grows with great freedom. Why ? Atmosphere ? ? ?

ORCHID GROWING IN NUWARA ELIYA

A. N. PAINE
Algiewatte, Nuwara Eliya, Ceylon

NUWARA ELIYA is the hill station of Ceylon and is situated at an elevation of 6,200 ft. above sea level, so the type of Orchid one might expect to grow is that of the cool house. From January to the end of March is the fine weather season, bright fine days with occasional ground frosts at night. In April we generally have fine mornings with thundery showers in the afternoons, then a further short spell of fine weather till the south west monsoon rains come in towards the middle or latter end of May. June and July are almost always very wet months with a lot of rain, mist and wind. August is much the same but not so bad, while September is often fine with only a little rain and wind. In October the north east monsoon starts with fine mornings and heavy plumps of rain in the afternoons, and so on to the end of December or the beginning of January.

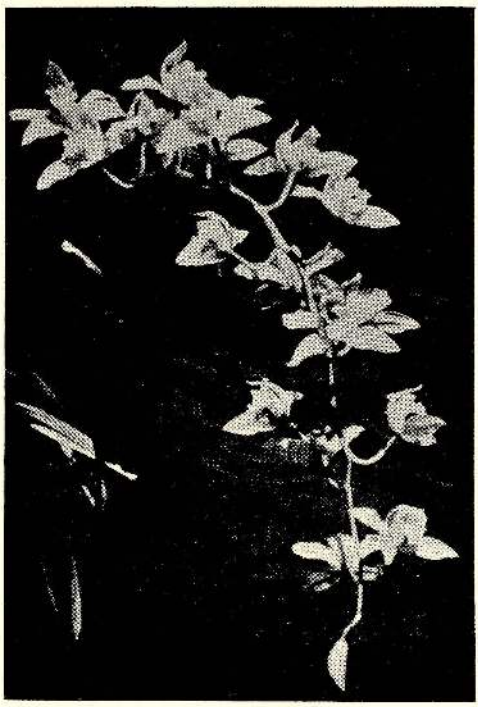
I have now been living in Nuwara Eliya for five years, and moved into this bungalow, nearly three years ago; the bungalow has a beautiful view over the lake on to Pedurutalagala, the highest mountain in Ceylon, nearly 8,300 ft. high, but is rather exposed and gets a lot of wind and mist in the south west monsoon which is naturally rather a handicap. The only trees I have are pine trees which are not the best for Orchids, so I have to grow practically all my Orchids in pots or baskets. These are my impressions of those I have grown out of doors in the garden.

Some of the Cœlogynes do well, especially *C. elata*, a tall, strong growing plant with leaves nearly 2 ft. long; *C. corymbosa*, a small dwarf plant with pretty white flowers; *C. ocellata* and *C. ochracea* (I cannot distinguish them, they seem almost exactly alike); *C. cristata* which grows well but does not like the north east rains; and *C. odoratissima*, so common in the jungles around, is very easy to grow.

A few Dendrobiums do well, especially *D. cœlogyne* (*D. amplum*) and *D. rotundatum* (these two are of the bulbophyllum type, having a short, thick pseudobulb on a creeping rhizome); *D. Falconeri* (one of the prettiest of the Dendrobes); *D. longicornu*, while *D. heterocarpum* grows wild in the garden, high up on the branches of the pine trees. *D. Wardianum* is fairly healthy and flowers regularly, but *D. nobile* grows very slowly and only occasionally flowers.

All the other Dendrobes as *D. thyrsiflorum*, *D. Findlayanum*, *D. chrysotoxum*, *D. fimbriatum*, etc., which do so well in Dimbula at about 4,500 ft. elevation are complete failures in the garden.

Cymbidiums are probably the best and easiest Orchids to grow in Nuwara Eliya. I had to repot most of them (and what a job it is repotting a big plant which has outgrown its tub, one took me three hours with a hammer and chisel to separate and free the pseudobulbs), and for a long time I was very disappointed at their growth as I had high hopes of them, and now they are extremely healthy and flowering well, especially *C. longifolium*, *C. Mastersii*, *C. Lowianum* and *C. Traceyanum*; *C. eburneum*, *C. elegans*, and *C. giganteum* have not flowered since last year's repotting but are very strong; *C. Devonianum* probably likes a lower elevation; *C. insigne var. Sanderæ*, the most beautiful of them all, has only flowered once and is not too happy. Of my hybrid Cymbidiums, *C. Goldflake* last autumn sent out an arching spray with 18 flowers, sepals and petals golden yellow, lip cream-coloured dotted with red, a really fine Orchid, and now, only a few months later, it has produced three spikes (apparently from unripened pseudobulbs), but the sprays are not so strong and do not carry so many flowers; *C. The Auk* which I had for a long time in Dimbula without its doing any good, is much happier here and flowered for the first time early this year, the flowers are much after those of *C. Goldflake* but not so big or bright very likely because the plant is not so big. *C. Schegelii* and *C. Dinkie* are both doing well but have not flowered after repotting.



Courtesy : Mr. A. N. Paine

CYMBIDIUM GOLDFLAKE

Of the cool Cypripediums probably the strongest growing is *C. villosum*, while *C. insigne* and its numerous varieties, especially *C. Sanderæ*, all do well and flower regularly, also *C. Charlesworthii*, *C. Fairrieianum* and *C. venustum*; unfortunately all these flower during the south west rains and are apt to get battered about and would do much better under cover, and the buds, especially of the last two, are very apt to damp off. The three South American Selenipediums I have did no good and deteriorated badly.

Epidendrum radicans and *E. O'Brienianum* do well in any sheltered spot.

A pretty dwarf Orchid, common in the jungle, is *Eria bicolor*, and is well worth growing.

I imported some Pleiones a couple of years ago which flowered very well the first year, but have not done so since though strong and healthy, they probably want a very long and very cold resting season.

The up-country Scorpion Orchid, *Arachanthe Clarkei*, does quite well and is free flowering; and the flowers, yellow barred with red last a long time. Its companion, *A. Catheartii*, an even better Orchid, should do just as well.

Phaius bicolor is very common and grows wild in the garden.

Unfortunately the beautiful *Vanda cærulea* will do nothing here, not only in my garden but anywhere in Nuwara Eliya, and the only Vanda-like, *Stauropsis undulata* grows almost wild and even sets seed; it has rather small white flowers and is not very attractive.

I was given a couple of plants of *Sobralia macrantha* last year by Mr. R. M. Fernando, and though it grows scarcely 2 ft. high it flowers freely at his bungalow up here and one of my plants flowered last month and this; flowers very big, dark crimson-purple with a white throat stained with yellow.

I have only two Miltonias, *M. Evening Star* and *M. Bright-eyes*; they flower every year, generally only one big flower on a stalk, and the plants do not look too healthy.

Oncidium flexuosum (?) does well but it has only small yellow flowers. I have lately brought back *O. varicosum Rogersii* (a fine species), and hope it will pick up and recover in this cool climate.

Mr. Charnaud sent me two Odontoglossum and a few Odontioda hybrids from Luckyland, where the elevation is too low for them, and they are all now strong and healthy, though the Odontoglossums have not yet flowered, but all the Odontiodas flowered last year, *Oda. Bradshawiæ* had some 20 flowers, each about an inch across, bright brick-red, streaked with white and a yellow cap on the lip, a very pretty Orchid, *Oda. Virginia*, *Oda. Linden Lea* and *Oda. Thora* partake of *Odontoglossum crispum*, with fairly large flowers blotched with red or magenta, while *Oda. Chanticleer* has small flowers of a brilliant vermilion red and a bright-yellow cap on the lip.

None of the Odontiodas have flowered this year, but they are very healthy looking and have nice strong new growths. Perhaps last year's first flowering took too much out of them, or else I kept them too long in the greenhouse which was too warm for them, when I took them in for shelter and show.

Cochlioda Noetzliana has flowered for the last three years.

A book which has helped me considerably, especially in importing Orchids from North India is "*A Guide to the Orchids of Sikkim*", by Paul Bruhl, D.Sc., and those Orchids marked as growing from 4,500 to 7,000 ft. do well here.

Wanting to grow some of my old favourites which I had at Carlabeck in Dimbula, (and also other plants as gloxinias and tuberous-rooted begonias, etc.) early last year I built a small greenhouse, 12 ft. × 10 ft. with dwarf brick walls 3 ft. high, and decided to keep half for Orchids and half for other plants, (but I am afraid the Orchids are encroaching). The Orchid stage is made flat, with expanded metal, and is level with the bottom of the windows, two of which are always kept half open, except during the south west monsoon, while the expanded

metal is covered with grass turves, over which moss is growing (though I think I shall remove this and lay down corrugated iron sheets well punctured with holes to allow of drainage and cover this with about six inches of gravel or clinkers) into which the pots can be plunged, and so retain moisture, as a glass house can get very dry in sunny weather. Overhead shade is of light calico sheets just below the glass roofing. I moved some of the Orchids which were not doing well into this and to date the results have been marvellous, (but as the house has been built scarcely 18 months it is far too short a time to speak of permanent results). I imagine I could grow most of the intermediate house or mid-country Orchids. Of those which would not do outside, *Vanda cærulea* at once sent up three new offsets, and two of these, though only about 6 inches high, flowered within six months, and this year again sent up flowering shoots which were unfortunately eaten down, probably by slugs : *Vanda Stangeana*, a Burmese species, in growth very like our *V. parviflora*, sent out four new offsets, and one spike of flowers, this year it had four spikes of flowers with about eight flowers to each sipke, but the offsets have not made much growth and probably want separating from the main stem. The flowers are a little over an inch across, light yellow, heavily barred with brown.

Aerides odoratum has sent up several flower spikes which are now coming into bloom.

Cœlogyne Brunnei, a dwarf plant with yellow flowers is perfectly happy and flowered last year and this. *C. Lawrenceana* (from Annam) and *C. speciosa* (Java) are really good, the former has pseudobulbs 4 to 6 ins. high, spindle-shaped, tapering towards the top, leaves 9 to 12 ins. long, flowers generally two, occasionally three, from the apex of the pseudobulb, very big, nearly 5 ins. across, sepals and very narrow petals buff coloured, lip very large, 3-lobed, front lobe white, disc orange, lighter behind, with several keels dark brown tipped. *C. speciosa* is a smaller plant, pseudobulbs very crowded, about 1 inch high, flowers nearly, but not quite so big as *C. Lawrenciana*, leaves lanceolate 9 inches long by 2 inches broad, sepals and narrow petals tawny red, lip yellow, brown inside with a white apex, keels fringed with dark brown.

C. corrugata, *C. flaccida* and one or two other Cœlogynes all seem quite well.

I took in *Dendrobium thyrsiflorum* which seemed most unhappy outside and the two plants sent up especially strong new growths and flowered well last month, *D. nobile* also improved but got badly attacked by insects, and several of the young growths and flower shoots were eaten off.

Cypripediums are very good, and besides those mentioned previously, some of which I keep inside, *C. Parishii* is fast recovering, and *C. hirsutissimum*, which was nearly dead is sending out new growth. This is about the time of year (June to September) for the North Indian Cypripedes to flower, and I have in flower (in the glass house) *C. insigne punctato-violaceum*, *C. insigne Sanderæ*, *C. Charlesworthii*, *C. Leeanum*, while *C. Fairrieianum* and *C. hirsutissimum* are showing buds. My *C. insigne*, *C. Adrastus* and *C. villosum* generally flower later, about August. *Selenipedium Sedeni*, which is in rather a big tub, refused to flower outside, but this year I have masses of flowers, while *S. caudatum* (or is it *S. grande?*) has twice flowered, with its twisted petals quite a foot long.

About Cattleyas I can say nothing, as I have only recently got four or five in very bad condition which I am trying to bring round, but am most doubtful if they will survive.

The chief insect pests to date in the glass house seem to be slugs and minute snails, but caterpillars, cockroaches and ants are rare.

With Dendrobiums especially, and with most of the North Indian and Burmese Orchids it is most advisable to turn them out of the greenhouse after growth is completed, and as soon as the weather turns fine and give them a thorough good rest under light shade, and then, when the flower spikes begin to show, give them a little watering and bring them back into the greenhouse when the young growths are sprouting well.

Courtesy : Mr. A. N. Paine

CŒLOGYNE LAWRENCIANA

I should like to comment briefly on naturalisation of Orchids in Ceylon in view of Mr. David Sander's reference to this subject in the last issue of this bulletin. What is the meaning of the term " naturalisation "—or are there more than one meaning of this word?

No plant can be said to be really naturalised unless it has the power to reproduce itself, and that is only possible, except in very rare cases, by seed propagation; but allowing that Mr. Sander uses the term naturalisation to mean the power of growing healthily under foreign conditions with but little human attention, many of the Indian and Malayan Orchids can and do grow exceedingly well in Ceylon. Taking Dimbula as an example (elevation 4,000 to 5,000 ft., with an intermediate Orchid house temperature) where I grew Orchids for twenty years, many Dendrobes, Cœlogynes and some Vandas, if grown on trees or, preferably, woody shrubs, require little or no attention for years, and two of the easiest and best to grow are *Vanda cærulea* and *Dendrobium nobile*. If only we had their particular pollinating insects (and many Orchids require special insects to fertilise their flowers) I imagine these two Orchids would in a short time become naturalised and common in the forests around. I have only once seen *Vanda cærulea* flowers set seed, but never a *Dendrobium nobile*, or any other exotic Dendrobe. Of the few American Orchids I have had or seen, *Epidendrum radicans* and *E. O'Brienianum* grow almost as healthily as weeds, and the former often produces seed pods, though whether the seeds are fertile or not I do not know; if they are, I imagine this species will in due course become naturalised if the fungus necessary for germination of the seed is available naturally in Ceylon. I have tried growing Cattleyas on trees with no success whatsoever.

At this elevation (6,200 ft. above sea level) certainly *Dendrobium cælogyne* will grow quite happily on trees, while some of the Cymbidiums, especially *C. Lowianum*, develop into huge clumps in tubs and, until repotting is absolutely necessary, require no attention whatever, but I do not think any of the very few Odontoglossums or Miltonias I have would thrive under natural conditions.

And, lastly Mr. Sander refers to—" garden hydrids ..... at prices ranging from thirty shillings to £30 ". Personally, I only wish I could afford even a few of the cheaper kinds, but I am afraid they are beyond my means.

ORCHID COLLECTING ON THE CHEAP

Dear Mr. Editor,

Your piteous appeal for " copy " for our Orchid magazine almost brought tears to my eyes. (By the way, are you a " Doodler "? I feel sure that you must be, as you are such a wonderful Wheedler, and " Doodlers " and " Wheedlers " were first cousins).

Well, I said to myself, I can't let my good friend Ernest Soysa down. So I seated myself at my desk and started off in great style. After an hour or two my wife, with some difficulty, owing to the floor of my study being about two feet deep in torn up paper, waded into the room and said: " What on earth are you doing, Idiot "? (Idiot is, of course, a term of endearment among newly-weds). Somewhat loftily I replied " Just knocking off an article for *Orchidologia Zeylanica*. Somewhat above your head, Dear, but we Orchid Experts must hang together and the Chief Expert has naturally turned to me for help on a difficult subject ". " Very well ", she said, " I won't interrupt, but don't drop a lighted cigarette on the floor or you'll set the house on fire ".

After another hour or so I gave it up. I'm *not* a literary bloke. When I was at school if I was told to solve a problem in higher mathematics I did it on my head, metaphorically speaking, but an essay on " The decline and fall of the U. N. P. (Unheard-of Nocturnal Peregrinators) " made me as tired as the peregrinators themselves after a night out.

No, what I now am is a would-be collector of Orchids. By that I don't mean a superior person who buys and sells wonderful epiphytes, etc.—you know the sort of merchant I mean.

FOR SALE—Pedigree Orchid. Father Prize Cattleya. Won Gold Cup at last Orchid Circle Annual Exhibition. Mother Beautiful Lælia Elegans, granddaughter of Lælia Sanderiana. Plant now offered is six months old, wormed and fully (Orchid) house trained.

Many, many, years ago, in the days when monkeys chewed tobacco, I was that sort of snob, and thought my collection, purchased at great price, was a thing of beauty and a joy for ever. But, during the War I was in England and collected more bombs and land mines than anything else. Now, I want to accumulate an Orchid collection again but I have no money. Taxation necessitated largely by the Government's efforts to turn this beautiful Agricultural Paradise into a sordid Industrial Monstrosity, has not left me enough to live on, much less purchase Orchids.

And that brings me to my point (and you too, Mr. Editor, if you have managed to read thus far). I believe that there must be many who like myself, are keen on collecting by means of exchange with others similarly placed. Would it not be possible to start a Correspondence and Exchange Section of *Orchidologia Zeylanica*? This section would include letters from both beginners and hardened sinners, giving their experience regarding certain types of Orchids in their collections and asking for help and teaching in connection with difficult specimens, etc., but mainly the section would consist of members' advertisements of Orchids which they have to spare and were willing to exchange for others which they required. Possibly they might put a price against their spare Orchids to attract some of our millionaire monstrosities, but the main idea would be exchange.

I realise that this Section would be of little interest to many of your readers, especially those living abroad, but there would be many interesting notes and articles for all to read and surely nobody would begrudge Ceylon members, who must be in the majority, a section all to themselves?

There, Mr. Editor, I must have exhausted your patience, but if this lengthy epistle does attract opinions for and against my proposition I will feel that my time has not been wasted. If, on the other hand, you prefer to consign this screed to the w.p.b. I will not feel hurt, but will try to think out some other means of " Orchid collecting on the Cheap ", and meanwhile I sign myself

" *An Epiphytic Idiot* ".

Nuwara Eliya,
Ceylon, June, 1949.

We heartily endorse this correspondent's plea for an Exchange Section and commend the idea to our readers for their views, comments and suggestion. The only thing " Idiotic " we can find in this idea is that there is no reason why exchange should be restricted to local members. Why not let overseas members benefit? They have done more than their share in keeping *Orchidologia Zeylanica* going.

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