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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

OFFICE OF THE DIRECTOR



November 27, 1984.

Dear Tommy -

What a pleasant surprise to get your letter of October 24th with all the news!

Please convey my best congratulations to Wil when you return.

This seems to be the year of awards! The President of the Republic of Colombia conferred on me the Cruz de Boyacá, the nation's highest decoration that rarely goes to foreigners. It was established by Bolivar in 1819. They gave it to me in recognition of more than 40 years of botanical research in the Colombian Amazon. It was a delightful evening "wing dining" in the palace in Bogotá. Then later, I was given the World Wildlife Fund's annual gold medal by the Fund's President, H. R. H. Prince Philip. All I can do with these medals is pin them on my academic gown, & Dorothy says that I am in danger of stooping over with the weight of the medals!

Lecture in June, 1985. But I shall have a room and lab, and hopefully will be able to get a lot of my own work done. With teaching a full load (in the autumn semester) and administration, I find little time for my own research.

The family has grown up. My older son (25 next month) was graduated from Lowell Univ. in industrial engineering and has an excellent job with United Parcel.

The twins are doing well — they will be 24 in January: Alexandra was graduated magna from Wellesley and is in her 2nd year in medical school in Worcester; Neil was graduated from Harvard summa and is a graduate student (2nd yr.) in DNA genetic engineering, concentrating on yeasts in the Harvard Medical School (but for a Ph.D., not an M.D.).

I am able to do quite a bit of travel in the 2nd semester in consultation work. I go each year to Malaysia as a member of the Palm Oil Research Institute and the Rubber Research Institute. I also, on the same trip, go to Ceylon and Switzerland and England. I continue to go to Colombia at least twice a year and continue my research in the Amazon. Last year, I was on a factability tour for the Rockefeller Foundation concerned with the possibilities of domesticating the native oil palm *Jessenia* — this trip took me to Brazil, Peru, Colombia and Costa Rica. I have not worked in the orchids for many years now.

It would be nice to have lunch together if you ever get to Cambridge. Just give me a few days' notice so that I can be sure to be free. Thanks again for your letter. I enclose a card with telephones, etc.

Yours,

Dick Schultz



RICHARD EVANS SCHULTES

EDWARD CHARLES JEFFREY PROFESSOR OF BIOLOGY
DIRECTOR, BOTANICAL MUSEUM OF HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE, MASSACHUSETTS

TEL (617) 495-2326

HOME 78 LARCHMONT ROAD
MELROSE, MASSACHUSETTS
TEL. (617) 662-8449

Rec. 27 Nov. 1984

RES

WGD - WGD

OFFICE OF THE DIRECTOR



Rec. 24 Mar 76

March 20, 1976.

Dear Tommy -

Thanks for your letter of March 18. I am turning it over to Dr. L. A. Garay, Curator of our Orchid Herbarium of Dakes Ames to whom I recall giving your specimen. (*Habenaria repens*) emerging medicinal plants

We certainly appreciate the tear sheets, as they are from a not - too - easy to find journal. Revista Chilena de Historia Natural

I am just out of hospital (1 1/2 mos.) - a bilateral inguinal hernia which got a staph infection & had to be opened & drained, followed by a pinched nerve & left arm paralysis. All is now well, though the arm is still a bit numb.

It was wonderful to hear from you, and I hope we can see each other sometime soon.

All the best,

Dick

Schultes

I am now exalted to Paul C. Mangelsdorf Professor of Natural Sciences Bowlow!!!

Yale University *New Haven, Connecticut 06510*

SCHOOL OF MEDICINE
*Department of Epidemiology
and Public Health
60 College Street*

18 March, 1976

Dr. Richard E. Schultes
Botanical Museum of Harvard Museum
Oxford Street
Cambridge, Massachusetts 02138

Dear Dick,

In December I sent you (by hand) a Trinidad orchid herbarium specimen (Habenaria repens), as well as flowers in alcohol and a letter dated 10 December, 1975. I haven't received an acknowledgement so am concerned about your finding the specimen (you were away the day the plant was delivered).

A while back I was tearing apart an old journal (Rev. Chilena Hist. Nat., 42, 1938) and came across a number of articles which I thought might interest you as they deal mainly with medicinally important plants. I enclose these for what they are worth.

medicinally

Sincerely yours,

Tommy

Thomas H. G. Aitken, Ph.D.

THGA:cb
Encl:

File Copy

10 December, 1975

Dr. Richard E. Schultes
Botanical Museum of Harvard University
Oxford Street
Cambridge, Massachusetts 02138

Dear Dick,

Some of our grad students are visiting the insect department at the MCZ and I am taking advantage of this opportunity to have Andy Main bring you an herbarium specimen for your collection.

The orchid, I believe is Habenaria repens which Wil Downs and I collected in the Nariva Swamp, Trinidad, 16 April 1972. The specific locality is along the boatline going in to Bush Bush Forest from the 46 milepost of the east coast road (see enclosed reprint "Bush Bush Forest and the Nariva Swamp" for details of the area). This locality is considerably north of those listed in your book. The dried specimen will have to be transferred to the prepared herbarium sheet. There is also included a flower specimen in alcohol. I believe other specimens were deposited in the Botany Dept., U.W.I., St. Augustine, Trinidad as well as the Trinidad Regional Virus Lab (now called Caribbean Epidemiology Centre).

I'm afraid I don't get up your way much these days. Jinnie's mother hasn't been well this past year. She is presently staying with us. Last March I underwent cranial surgery for a subdural hematoma. Am glad to report I'm feeling fine. Shirley and family will probably come here for Christmas. All the best for a happy holiday season.

Sincerely yours,

THGA:cb
Encl:

Thomas H. G. Aitken, Ph.D.

J P W	<i>[Handwritten initials]</i>
J B	
R H G A	/
F P P	
B	
PA	

5 January 1968

Dr. Richard E. Schultes
 Botanical Museum of Harvard University
 Oxford Street,
 Cambridge
 Massachusetts 02138

Dear Dick,

This is to acknowledge receipt of "BIRDS OF LOWER AMAZONIA" by Griscom and Greenway. Thank you very much for your help; my thanks also to Dr Payter who I gather was involved in locating the copy.

We are very sad. Our two boys left this noon to return to school. They were here a little over two weeks.

Best wishes for the new year,

Sincerely yours,

[Handwritten signature]
 Thomas H.G. Aitken

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Oxford Street
Cambridge, Massachusetts 02138

December 20, 1967

Dr. Thomas H. G. Aitken
Belem Virus Laboratory
Instituto Evandro Chagas
Avenida Almirante Barroso 492
Belem, Para, Brazil

Dear Tommy:

I am just getting around to answering your letter of October ninth. Actually it came late because it was delivered to the Museum of Zoology. We were very happy to have you here even though we did not see too much of you in the Museum. Perhaps on another visit you will have more time and take advantage of space here again.

Holmstedt of Stockholm and I were able last summer to test a number of regions on the intoxicating snuff prepared from the Virola bark by the Waika Indians. I am sorry that we could not see you but we returned from Manaus directly to Colombia on the Colombian Airways which was much quicker and cheaper than returning by Belem.

* I am trying to get your book, "Birds of the Lower Amazonian", from the Museum of Zoology. If I cannot get it, I will send for it after the Christmas mail rush. With all best Christmas and New Year wishes, I remain,

Sincerely yours,

Dick

Richard Evans Schultes
Curator

RES:SHR

*Dr. Raymond Payson of MCZ is looking this up
but thinks it is unavailable. He will
write you.*

THG	
AM	
LC	ll
DPS	21st July 1966.
ET	EST
GM	ll

Dr. R.E.Schultes,
 Curator of Economic Botany,
 Botanical Museum of Harvard University,
 Oxford Street,
 Cambridge, Massachusetts 02138,
 U.S.A.

Dear Dick,

I have your letter of 18th July and was very pleased to learn that it will be possible for me to work in the Botanical Museum next year.

Thank you very much for making the museum facilities available to me.

Sincerely yours,

Thomas H.G.Aitken.

THGA:pl

c.c. Dr. W.G.Downs,

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

*Oxford Street
Cambridge, Massachusetts 02138*

July 18, 1966

Dr. Thomas H. G. Aitken
University of the West Indies
Trinidad Regional Virus Laboratory
P.O. Box 164
Port-of-Spain, Trinidad

Dear Tom:

I have your letter of July 12th which I shall hasten to answer before I leave for São Paulo. I shall be back here on August 2nd and I am expecting to finish up on the orchid manuscript in August, before I leave for the Amazon of Colombia for two months.

Concerning working space here at Harvard next spring, you should not worry any further. We will be very happy to give you space in the Botanical Museum, and you may of course have easy access to the Museum of Comparative Zoology from our part of the building. We will be very happy to have you here and to do anything possible to facilitate your work.

It was good to see you in Belem. I want to thank you for the plants which you sent up from Trinidad with Nevling.

Sincerely yours,

Dick

Richard Evans Schultes
Curator of Economic Botany

RES:mg

12th July 1966.

Dr. R.E.Schultes,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Massachusetts,
U.S.A.

Dear Dick,

I have now heard from Phil Darlington, regretfully, that while they would like to have me they don't have room - what with increased staff and students.

Under the circumstances, I am writing to you to inquire if your offer in Belem of work space still holds true? We are due to leave Trinidad early in December. Before starting a new assignment in Belem, I am anxious to clear up a number of Trinidadian projects. I would like to have some desk space where I can work up my papers. There would probably be a minimum of microscope work. What I am mainly interested in is access to library facilities and a place to spread out.

I shall have two months holiday due me and then about four months to work on the papers. Thus the time I might be at Harvard would probably be March - June - or perhaps a little earlier if I decided to split my holiday.

I would appreciate knowing how you feel about such an arrangement.

Sincerely yours,

Thomas H.G.Aitken.

THGA:pl

July 19, 1966

Dr. R. E. Schultes,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38,
Massachusetts,
U. S. A.

Dear Dick,

Under separate cover I'm sending you in a mailing tube two additional orchids (alcoholic specimens) which you might like to see. I'm not sure of the identifications.

- (1) Pleurothallis acutissima ? - Turure Forest, 26 mile post (Eastern Main Road), 15 July 1966, R. Martinez and T. H. G. Aitken. Whole plant.
- (2) Triphora surinamensis - Bush Bush Forest, Nariva Swamp, 18 July 1966. Whole plant. Unfortunately the leaves are badly eaten by insects, but the character of the leaves encircling the stems is nicely shown.

Sincerely yours,

Thomas H. G. Aitken

THGA:gc

THGA	
AHJ	
LS	<i>e</i>
RNPS	
ET	<i>EST</i>
CBW	<i>CBW</i>

30th June 1966.

Dr. R.E.Schultes,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Massachusetts,
U.S.A.

Dear Dick,

I am taking advantage of Loren Nevling's return to Harvard to send you the outstanding Trinidad orchids in my possession. All are alcoholic floral specimens. I hope they travel OK. I've tried to keep the package as light as possible.

If you run into trouble with the Leschilus scriptus and the Macradenia, I might add that for a while they had been stored in the same jar; when separating them, I noted a broken petal and ? lip and dropped them in the Leschilus bag.

Sincerely yours,

Thomas H.G.Aitken.

P.S. See also my letters to Garay (30 April and 3 May 1966) re Cychnoces chlorochilon and Leschilus labiatus.

Since the original finding of Endophridium maculatum at Tucker Valley, U.S. Naval Station, the species has been seen in several ~~other~~ other places. My technician, Raymond Manuel collected it in May 1964 at Grand Fondre Bay, Monos Island (in the Bocas) and I have seen it growing above the Hilton Hotel here in Port of Spain. I have also seen it growing ^{THGA:pl} ~~propagated~~ in another part of Tucker Valley on the east side as contrasted with the earlier collections on the West side of the valley. *THA*

TRINIDAD ORCHIDS SENT TO DR. RICHARD E. SCHULTES
BY. DR. LOREN NEVLING

30 JUNE 1966

TRVL #

- 448 Xylobium sp., Roxborough-Bloody Bay Road, 8 mile post elev. 1700ft., Tobago, 20/XI/65, epiphytic, R. Martinez. Plant and flower in alcohol.
- 401 Epidendrum imatophyllum, Las Hermanas Estate, (Arena Forest) San Raphael, Trinidad, 17/III/65, epiphytic. T.H.G.Aitken. Leaves and flower in alcohol.
402. Epidendrum secundum, Rodriguez House, Scotland Bay, Trinidad, 20/V/56, Terrestrial. T.H.G.Aitken & W.G.Downs. Leaves and flower in alcohol.
- 399 Epidendrum sp. possibly ibaguense var. Schomburgkii Morne Poui Road, Aripo Valley, Trinidad, 25/II/65. epiphytic T.H.G.Aitken. Flowers faded but said to have been more brick red. Flowers in alcohol.
- 397 Maxillaria trinitatis, Heights of Mt. Chaguaramal, Trinidad 14/IV/64. epiphytic. R.Martinez & R. Manuel. Flower in alcohol.
- 396 Maxillaria alba?, Heights of Mt. Chaguaramal, Trinidad, (Northern Range), 14/IV/64. Epiphytic. R. Martinez & R. Manuel. Flower in alcohol.
- 406 Catasetum barbatum (or cristatum?), Morne Bleu, Las Lapas Trace, Northern Range, Trinidad. 28/III/65. Epiphytic. T.H.G.Aitken. 3 Flowers in alcohol.
- 398 Epidendrum ibaguense var. Schomburgkii, Main Ridge, Roxborough, Tobago, 9/VIII/63, epiphytic. T.H.G.Aitken. Flower in alcohol color orange-yellow.
- 400 Phalaenopsis sp., Los Atajos, Flanagin Town, Trinidad, Aug. 1962. epiphytic; (Note: This was a malformed plant in somebody's house and believed to be an introduction). R. Manuel, coll. Flower in alcohol.
- 386 Spiranthes acaulis?, Near Cyril Bay, Northern Range, Trinidad. 1962, terrestrial, Mrs. G. Black, Terrestrial. 1 flower in alcohol.
- 382 Spiranthes acaulis?, Bush Bush Forest, Nariva Swamp, Trinidad, 1963. terrestrial T.H.G.Aitken, 2 flowers in alcohol.
383. Spiranthes acaulis? (same as 386)
- 393 Eulophidium maculatum, ^KTucker Valley, U.S.Naval Station, Trinidad, 1963, Brian T. Aitken, terrestrial, flower in alcohol.

TRVL #

- 381 Bifrenaria aurantiaca, Santa Cruz Valley, Trinidad. 29/X/62,
T.H.G.Aitken through R. Kytan, epiphytic. 2 flowers in alcohol.
- 455 Le^oychilus scriptus, Upper Lopinot Valley, Northern Range, Trinidad,
15/I/65, epiphytic, J. Price & J. Kenny. flower and plant in
alcohol.
- 456 Macradenia lutescens? Ft. Read, Trinidad, Oct. 1964, epiphytic
J. Price and J. Kenny. Flower and plant in alcohol.
- 454 Leochilus labiatus, River Estate, Diego Martin, Trinidad, 28/IV/66,
B. Bartley & T.H.G.Aitken, epiphytic, flower in alcohol.
- 395 Epidendrum Hombersleyi, Waller Field (Ft. Read), Trinidad, Sept.
1964, J.Price & J. Kenny, flower, stems and leaves in alcohol.

3rd. May, 1966.

Dr. Leslie A. Garay,
Ames Orchid Herbarium,
Harvard University,
Cambridge 38,
Massachusetts,
U. S. A.

Dear Doctor Garay,

Since writing you the other day, I have had another flower of the queried orchid. (Also pickled in alcohol and to be held for you). It would appear that we are dealing with Leochilus labiatus, but somewhat on the small size. The sepals and petals are distinctly three lined in maroon on a yellow-green background. I find this more apt for our specimens than the color indicated by you and Dunsterville for Venezuelan specimens.

Sincerely yours,

THGA:jj

.....
Thomas H.G.Aitken

April 30, 1966

Dr. Leslie A. Garay,
Ames Orchid Herbarium,
Harvard University,
Cambridge 38,
Massachusetts,
U. S. A.

Dear Doctor Garay,

Under separate cover I am sending you a small orchid collected 28 April by Dr. Basil Bartley and myself from a cocoa tree at River Estate, Diego Martin, Trinidad. At first, I thought it might be a Notylia but when a flower opened today, I had second thoughts. It seems to resemble somewhat Leochilus scriptus but is a miniature. Possibly it is something new to Trinidad. The inflorescence is about 11 cm. long, longest leaves about 6 cm. by 1.5 cm. wide, coriaceous and with a tendency to be mauve ventrally. Pseudobulbs about 1.5 cm x 1 cm wide, oval, flattened, rough and ribbed, 2-3 leaves arise laterally from base of pseudobulb (at least one on either side of pseudobulb) and another leaf arises from apex of pseudobulb. Inflorescence arises from base of pseudobulb. The flowers are small (6 mm. across from dorsal sepal to lip, sepals about 4 mm long); basic color of sepals and petals yellow-green but with maroon mottling in three lines (laterally and down the center of each sepal and petal). Lip largely bright-yellow but with maroon spotting basally. (Flower in alcohol).

Dr. Bartley first found this little orchid about the time of our Annual Flower Show (26-27 March). So far, it has been found on only 3-4 cocoa trees in one small area of the estate. In addition to the flower, I inclose two plants with inflorescences, carrying TRVL Herbarium #454.

I am also including a flower (TRVL 453) of Cychnoces chlorochilon from Mt. Beck (elev. 1482') near Cumaca in the Northern Range, Trinidad, which was collected 11 April 1966 by Mr. George Black and myself. Mr. Black has the plant in his garden under cultivation. We believe this to be an addition to the Trinidad orchid list.

Sincerely yours,

THGA:gc

Thomas H.G. Aitken

February 14, 1964.

Dr. R. E. Schultes,
Orchid Herbarium of Oakes Ames,
Botanical Museum, Harvard University,
Oxford Street, Cambridge 38,
Massachusetts,
U.S.A.

Dear Richard,

Your book on orchid generic names has just
come to hand. Thank you very much for the personal
copy. I greatly appreciate this and hope to find
it very useful.

Sincerely yours,

Thomas H.G. Aitken

THGA:gc

December 23, 1963.

Dr. R. E. Schultes,
Orchid Herbarium of Oakes Ames,
Botanical Museum, Harvard University,
Oxford Street, Cambridge 38,
Massachusetts,
U.S.A.

Dear Richard,

I was very pleased to hear from you as I had given you up for lost. Thank you for the identifications. I may ask for help if I can't decipher Mr. Schweinfurth's handwriting. It was good news to hear that the orchid section of the Trinidad Flora would be appearing in print soon. Purseglove had told me the same the other day. I will send him a copy of this correspondence as I believe you have a deadline to meet.

I inclose copies of my letters to you of 25 February and 18 March 1961 giving corrections to the first edition. In addition, please note the following.

Page 184: Coryanthes macrantha collected by THGA and WGD at Tamana Four Roads, 31 March 1957; it flowered for the second time in TA's garden 29 Sept. 1961, TRVL Herb. 349 (date of first flowering not recorded). This plant still living in my garden.

Page 185: Coryanthes speciosa collected by THGA and WGD 1 March 1957 on the Rio Claro-Guayaguayare Road, 6 mile post. Plant flowered in TA's garden but eventually died June 1961. I give you these two records to verify the country origin of both species as most of your records are from Port-of-Spain gardens.

Page 190: Koellensteinia graminea. I have a specimen in my garden collected by George Black at Cumaca, 13 Sept. 1962. It flowered 11 Oct. 1962; specimen sent to Garay (TA letter 12 Nov. '62) and identification confirmed (Garay letter 4 Feb. '63).

Page 237: Oncidium ampliatum. The Downs-Aitken collection #78 (Herb. Ames 67859) came from Mafeking Road, Mayaro. We also have this species (in my garden) from Bois Neuf, Nariva Swamp, 5 May 1961 (Downs and Aitken).

Page 238: Oncidium luridum. Common name: Brown Bee

Page 241: Oncidium pusillum. Downs-Aitken collection #103 (Herb. Ames 68423, 69802, 69803). These came from Moruga Bouffe.

Page 69: Insert Eulophidium maculatum (Lindl.) Pfitz. About a dozen plants collected by Mrs. William (Jane) Jones and Mrs. Joan Bird 3 October 1962 at the U.S. Naval Station, Tucker Valley (in a bamboo grove near the golf course). A plant flowering in TA's garden 23 July 1963 (flowers preserved for Ames Herbarium).

Reference my letter of 15 August 1957, here are some Tobago records of possible use.

Epidendrum anceps, Main Ridge, Roxborough (1200 ft. elev.), 31 July 1957 (THGA), TRVL Herb. 325

Epi. ramosum Ibid (seen, not collected)

Epi. oncioides Ibid

Hexisia reflexa Ibid.

Maxillaria trinitatis, Main Ridge, Roxborough, same date as well again this year in same locality 7 August 1963. New record. I believe I have pressed plants somewhere.

Caularthron bicornutum, the only orchid seen on Little Tobago island 3 August 1963.

I look forward to seeing your new book. I believe it would be quite safe to send it to the lab.

With best regards for a profitable and happy New Year,

Sincerely yours,

Thomas H.G. Aitken

c.c. Prof. Purseglove, U.W.I.,
St. Augustine, Trinidad.

THGA:gc

Incl:

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

December 14, 1963.

Dear Tommy:

I hang my head in shame for neglecting you and your requests for so long, but I thought that Garay was taking care of the identifications of your material. Now I am rewriting the orchids of Trinidad for the flora and I find several bottles of Trinidad and Surinam flowers which you sent in 1961 (March 15 letter from Wil) still undetermined. I have, as you know, left the orchids and have not had time in the last 3 years even to look at one -- expect for finishing a book to be published next week. So will you pardon this neglect of a friend. Lesley Garay is in southeast Asia and has been for 5 months, so I am hastening (I like the poetic license) to send you the determination of the two Trinidad flowers in the collection, leaving the Surinam material for Schweinfurth after the holidays.

TRVL PLANT 327 *Spiranthes acaulis*
TRVL PLANT 333 *Leochilus labiatus*
TRVL PLANT 338 *Campylocentrum fasciola*

As soon as I get a copy (due out December 20) of the Schultes & Pease "Generic names of orchids -- their origin and meaning" Academic Press I will be happy to send you one. Let me know if there is a safer way of sending it through your office than direct.

Richards called last month for the Orchids for the flora before the middle of December. The best I can do in about Christmas time. I am glad the flora is finally continuing. In Wil's letter of March 15, 1961, he said you had a few corrections to suggest in case of a second printing. If you have them listed, please send them to me to incorporate.

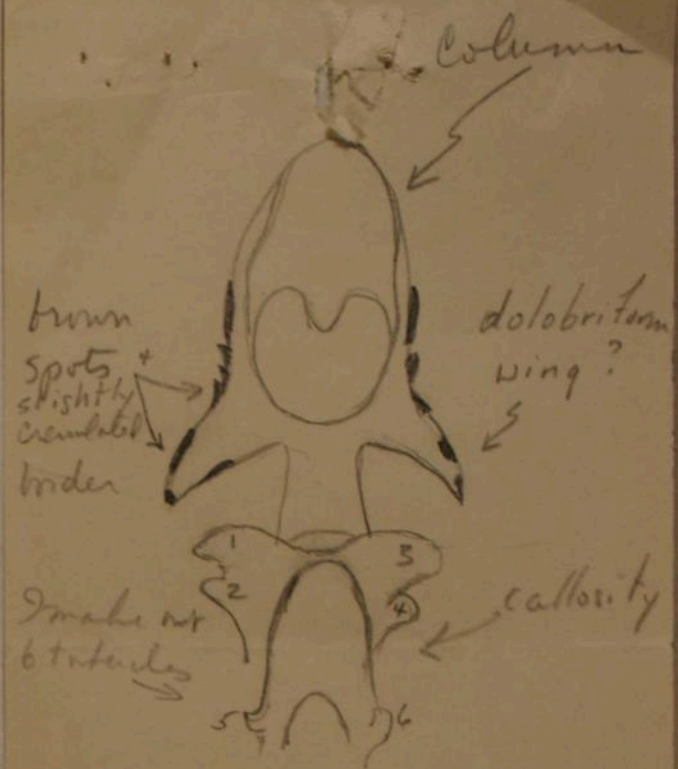
With the excessive amount of work teaching, administration and research in Economic Botany, I can never get back now to serious work in the orchids. But we have a highly capable man in Garay if he does not wear himself out with overwork.

What is news from Wil and where is his son studying now -- he must be in college by now.

All the best,

Rich

R. E. Schultes



Oncidium ensatum?

Panama

Callus doesn't fit
description

TRINIDAD REGIONAL VIRUS LABORATORY

(MAINTAINED JOINTLY BY THE GOVERNMENT OF TRINIDAD
AND TOBAGO AND THE ROCKEFELLER FOUNDATION)

WILBUR G. DOWNS, M.D., M.P.H., DIRECTOR

WRIGHTSON ROAD

MAIL: P. O. BOX 164
TELEPHONE: POS 7763
CABLE: ROCKFOUND, PORT OF SPAIN

25 May, 1960

Dr. Richard E. Schultes,
Gray Herbarium,
Harvard University,
Cambridge,
Massachusetts.

Dear Doctor Schultes,

An orchid plant I acquired from Sandy Fairchild's garden in Panama last year has started to flower. Using the key in "Orchids of Guatemala", I make it out to be Oncidium ensatum, but am not satisfied that description of the lip callosity agrees with the plant - see inclosed illustration and pressed flower.

The plant has long flattened pseudobulbs and very long grass-like leaves. Inflorescence stalk a good meter.

Wil and I were in Surinam for two weeks last January and brought back a number of plants. Since then he has been around the world (Japan, Malaya, India) and presently is touring Africa - due back 10 June. I shall be in the States on holiday for a couple of months this summer, and will be in Massachusetts for much of August and a bit of September. Will try to get in to see you if you will be around. Any news of the Trinidad opus?

Sincerely yours,


Thomas H. G. Aitken

THGA:mr

Incl.

Oncidium sphaerolatum Swartz.
Det by C. Schweinfurth

Determinations by Charles Schweinfurth.

337 - E 105 = *Maxillaria uncinata* Lindl.

340

"

"

"

336

Epidendrum Veapa Vell.

339 - E 144

Notoplia sagittifera (HBK) Lindl., Kl. + Otto

334 - E 139

Ornithocephalum aviculare R. & Schlegel

341

Catasatum discolor Lindl. v. *fimbriatum* R. & Schlegel

335 E 145

Stelia argentata Lindl.

COPY

THE ROCKEFELLER FOUNDATION
49 WEST 49TH STREET
NEW YORK 20, N. Y.

15 March 1961

Dr. Richard Evans Schultes,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Mass.

Dear Dick:

The long awaited book arrived and is an excellent job. I have not had a chance to go over it in detail, but Tommy Aitken has done a thorough job on it. He is noting a few corrections, in case there is another printing.

Am bringing north with me on March 19 a parcel containing the following items, from Trinidad and British Guiana:

TRVL Plant # 327	✓ <u>Spiranthes</u> sp.	Morne Jean, Diego Martin, Trinidad, 24/I/60, Coll. T.H.G. Aitken.
	<i>acaulis</i>	
TRVL Plant # 333	✓ <u>Leochilus labiatus</u>	Blue Basin Road, Diego Martin, Trinidad, flowering 5 March, 1961. Coll. THG Aitken and WG Downs.
TRVL Plant # 334 (WGD # E139)	<u>Ornithocephalus</u> sp.	Matta, Surinam, flowering 25/II/61. Coll. WGD and THGA.
TRVL Plant # 335 (WGD # E145)	<u>Stelis</u> sp.	Surinam, flowering 5/II/61. Coll. WGD and THGA.
TRVL Plant # 336 (Brassia-like plant)		From Surinam (probably Affobakka), Upper Surinam River, Jan. 1960, flowering Feb. 1961. Coll. WGD & THGA. Sketch enclosed.
TRVL Plant # 337 (WGD # E105) (small woody plant)		Paramaribo, Surinam, flowering Feb. 27/61. Coll. WGD & THGA.
TRVL Plant # 338	✓ <u>Campylocentrum fasciola</u>	Talparo, Trinidad - epiphytic on half dead grapefruit tree 7 March 1961. Coll. WGD & THGA.
TRVL Plant # 339 (WGD # E144)	<u>Notylia</u> sp.	Surinam, flowering 25/II/61 Coll. WGD. & THGA.
TRVL Plant # 340 (same as #337)		Ganzeer, Surinam, Jan. 1960 flowering Oct. 1960. Coll. THGA & WGD.
TRVL Plant # 341		Zanderij, Surinam, Jan. 1960 Coll. THGA & WGD.

This will be mailed to you from New York.

Many thanks for the book you sent. I shall always have great pleasure in working with it.

We have heard that your family has been increasing rapidly in size. Congratulations.

Sincerely yours,

Wil Downs

Wilbur G. Downs.

WGD:mq

Encl. Sketch by THG Aitken of
TRVL Plant # 336.

January 13, 1964.

Prof. Richard E. Schultes,
Oakes Ames Orchid Herbarium,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38,
Massachusetts,
U. S. A.

Dear Richard,

I have sent off two additional shipments of orchids to you as per the attached lists.

One lot, containing flowers in alcohol, largely refers to specimens collected in Surinam, but also containing material from Jamaica, Grenada and Trinidad. The Trinidad material is of no immediate concern for the Flora. Concerning the Brassavola from Jamaica I had thought ^{it} was nodosa, but George Black said it was "cordata"? and I note that floral measurements of my specimen are smaller than those given for nodosa.

The second lot contains pressed herbarium specimens which are of more immediate interest to the Flora. The Coryanthes speciosa flower was included but unfortunately the ^{beys} got at it and practically obliterated it, so I'm afraid it isn't much good, but I included it for the record anyway. *bugs*

Unfortunately these two shipments have had to be sent by surface mail. Air mail charges would have been excessive.

Sincerely yours,

Thomas H.G. Aitken

c.c. Prof. J.W. Purseglove

THGA:gc

<u>TRVL Herb. #</u>	<u>Name</u>	<u>Locality</u>	<u>Date</u>
344	Epidendrum	Source unknown (found in N.G. Downs coll.)	
374	Pleurothallis discoidea (Lindl.)?	Trinity Hills, Trinidad, West Indies	3/III/63 *
373	Epidendrum vespa (Vell.)?	Affobaka, Upper Suriname River, Suriname	Jan. '60
370	Caularthron bilamellatum	Gov't House Grounds, P.O.S.	19/II/63
371	Brassavola	Near Amnity Hall, St. Thomas, Jamaica	11/XII/63
372	Epidendrum	Km. 94 Belem-Brasilia Highway, Brasil	²⁶ 2/IV/62
375	Brassia bidens (Lindl.)?	Suriname	Jan. '60
348	Maxillaria rufescens	Alusabanya Rapids, Kabel Upper Suriname River, Suriname	7/I/60
343	Pleurothallis	Suriname	Jan. '60
342	Epidendrum difforme	Ganze, Suriname	Jan. '60
346 (Downs-A.H. #E172)	Maxillaria	Near Alusabanya Rapids, near Kabel, Upper Suri- name River, Suriname	³ 7/I/60
347	Trigonidium accuminatum?	"	"
376	Epidendrum oncioides var gravidum	Melajo Forest	25/I/58
377	Epiphytic	Grand Etang, Grenada, W.I. R. Martinez coll.	23/X/63
378	Terrestrial	Grand Etang, Grenada	23/X/63

* lateral sepals in one flower connate; in the other they are free.

Trinidad Regional Virus Laboratory

PRESSED ORCHIDS SENT TO PROF. R.E. SCHULTES - 10 Jan. '64TRVL Herb. #

- 332 Affobakka, Suriname, 7 ^{Jan.} ~~June~~ 1960, T.H.G. Aitken coll. ^{+ W.G. Downs} (woody plant)
- 310 Orind⁴ⁱ ~~ck~~ Falls, British Guiana, 7 ^{Feb.} ~~April~~ 1959, W.G. Downs coll.
- 282 Diacrium bicornutum - Bacolet Guest House, Tobago, W.I. 3 Aug. '57
T.H.G. Aitken coll. Epiphytic - Sea level
- 274A Catasetum macrocarpum(?) Main Ridge, Roxborough, Tobago, W.I.
31/VII/58 Epiphytic in cocoa zone Alt. 1200' T.H.G.A.
- 274B Catasetum macrocarpum(?) Main Ridge, Roxborough, Tobago, W.I.
31/VII/58 Epiphytic in cocoa zone Alt. 1200' T.H.G.A. coll.
- 278 Epidendrum cristatum Ruiz & Pavon Tableland, Trinidad, W.I.
22/VIII/57 Epiphytic Alt. 200 ft. Aldred Fenwick coll.
- 295 Malaxis umbelliflora ^{Mt.} Chaguaramas, Northern Range, Trinidad, W.I.
14 Dec. '58 W.G. Downs & T.H.G. Aitken coll. Terrestrial
Alt. 2500 ft.
- 296 Elleanthus? ^{Mt.} Chaguaramas, Northern Range, Trinidad, W.I. 14 Dec. '58
W.G. Downs & T.H.G. Aitken coll. Epiphytic Alt. 2817 feet.
- 358 Eulophia alta Long stretch, 2 1/2 mile post, Valencia, Trinidad, W.I.
20 Aug. '63 T.H.G. Aitken coll. Terrestrial.
- 349 Coryanthes macrantha Four Roads, Tamana, Trinidad, W.I. 31 March '57
T.H.G. Aitken & W.G. Downs coll. Epiphytic in natural forest
alt. 200'
- 325 Epidendrum anceps Main Ridge, Roxborough, Tobago, W.I. 31 July 1957
T.H.G. Aitken coll. Epiphytic Alt. 1200 feet.
- 259 Gongora atropurpurea Main Ridge, Roxborough, Tobago, W.I.
31/VII/57 T.H.G. Aitken coll. Epiphytic Alt. 1400 feet.
- 275 Agavisia pulchella? Aripo Savannah, Trinidad, W.I. 22/VII/58
R.E. Schultes & W.G. Downs coll. Scandent. Alt. 100 feet.
- 292 Epidendrum verrucosum Hardwar Gap, Newcastle, Jamaica, W.I.
18 Nov. '58 T.H.G. Aitken coll. Terrestrial. Alt. 4000 feet.
- 306A Lady Chancellor Hill, Port-of-Spain,
Trinidad, W.I. 1956. T.H.G. Aitken coll. Terrestrial
- 306B Lady Chancellor Hill, Port-of-Spain,
Trinidad, W.I. 1956 T.H.G. Aitken coll. Terrestrial
- * 281 Coryanthes speciosa (Hooker) Rio Claro-Guayaguayare Road, 6 mile
post. Trinidad, W.I. 10 March 1957. T.H.G. Aitken & W.G. Downs
Alt. 50 ft. Epiphytic in mora forest.
- 328 Cleisthes rosea Aripo Savannah, Trinidad, W.I. 12 March 1960
T.H.G. Aitken ^{+ W.G. Downs} coll. Terrestrial.
- 286 Octomeria grandiflora Las Cuevas Bay, Trinidad, W.I. Nov. '58.
W.G. Downs & T.H.G. Aitken coll. Epiphytic Alt. 500 feet.

* Flowers (2) bright yellow with red mottlings on inner surface of cup.

Trinidad Regional Virus Laboratory

W J D		
THGA		
LS		
A H J		
CBW		
EST		

January 8, 1964.

Prof. Richard E. Schultes,
Oakes Ames Orchid Herbarium,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38,
Massachusetts,
U. S. A.

Dear Richard,

Under separate cover I am shipping you two Trinidadian orchids for confirmation of identification and retention in the museum collection. They are as follows:-

1. TRVL Herb. #369 - Eulophidium maculatum. This is a plant from the same collection made by Mrs. Jones and mentioned in my last letter. From Tucker Valley, U.S. Naval Station, 3 Oct. '62.

2. TRVL Herb. #379 - Cryptarrhena lunata? from the 7th. mile post, Rio Claro - Guayaguarare Rd., Feb. '63, George Black collector. (inflorescence and pseudobulb). I include this as the flowers don't fit your description. The lip is pointed and bears two backward directed lateral lobes. Also the plant definitely has pseudobulbs, one of which is included which has lost its terminal leaf. The plant is growing in my garden and I believe Mr. Black has others.

I'm not sure if I have deciphered correctly Mr. Schweinfurth's names of Surinam orchids. Here is the list; please correct any mistakes.

- TRVL 337 - Maxillaria uncata Lindley
 340 - " "
- 336 - Epidendrum vespa Vell.
 339 - Notylia sagittiflora (HBK)?
 334 - Ornithocephalus avicula Reichb. f. & Wulfs.
 341 - Catasetum discolor Lindley var. fimbriatum Rchb. f.
 335 - Stelis argentata Lindley?

Also a plant from Sandy Fairchild (Panama) which I thought might be close to Oncidium ensatum and which Mr. Schweinfurth has pronounced as Oncidium sphacelatum Lindley?

Sincerely yours,

Thomas H.G. Aitken

P.S. Please note I have no record of receiving an identification on a ground orchid sent to you 21 July 1958 (TRVL Herb. #265A, 265B, 265C, Downs-Aitken sp. #112, Long Stretch, Valencia, 4 March 1958.) In fact, there does not seem to be a report on the entire shipment: TRVL Herb. #212, 213 A & B, 214, 215, 216, 217, 219, 220, 221, 225, 227, 232, 246, 247, 264 and 266. All are specimens from Trinidad and Tobago.

P.S. I see in your last letter of 14 Dec. '63 that you did identify our plant (TRVL 338) as Campylocentrum fasciola. Under the circumstances, please note my comments in letter of 18 March 1961.

c.c. Prof. J.W. Purseglove,
U.W.I., St. Augustine

THGA:gc

February 8, 1963.

Dr. Leslie A. Garay,
Ames Orchid Herbarium,
Harvard University,
Cambridge 38,
Massachusetts,
U.S.A.

Dear Doctor Garay,

Thank you very much for the orchid identifications
contained in your letter of 4 February.

I wish I could do as well with Schultes. He has
quite a number of outstanding orchid identification requests
still to fill.

Sincerely yours,

Thomas H.G. Aitken

THGA:gc

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

February 4, 1963.

Dr. Thomas H. G. Aitken
University of the West Indies
P.O. Box. 164
Port-of-Spain, Trinidad

Dear Dr. Aitken:

I am sorry for this belated answer to your letter of January 2nd, but I just couldn't get around to do it sooner. Many thanks for the alcoholic material which arrived in an excellent condition.

The Peristeria-like plant (of which I am very glad to have the complete alcoholic material; the first in our collection) is Xylobium Colleyi (Ldl.) R.f. This species is quite rare and we have only a few collections of it in our herbarium. Schultes reports it from Trinidad and British Guiana, but my friend Dunsterville has just found it in Venezuela.

Your identification of Koellensteinia graminea is correct. This species seems to be fairly common locally throughout tropical South America.

I should answer here also your letter of Nov. 12, 1962. I would have done it sooner, but the announced material came only recently with Xylobium. It is Brassia Allenii L.O. Wms. and is endemic to Panama.

Please, do not hesitate to send material for identification when ever you encounter some problems.

Sincerely yours,
Leslie A. Garay
Leslie A. Garay
Curator

LAG/gp

January 2, 1963.

Dr. Leslie A. Garay,
Ames Orchid Herbarium,
Harvard University,
Cambridge 38,
Massachusetts,
U.S.A.

Dear Doctor Garay,

Under separate cover, I am sending along another orchid (inflorescence, leaf and pseudobulb in alcohol) which has just been flowering in my garden. Unfortunately, I can't be sure of the plant's origin. I believe I picked it up in Surinam in January 1960, but on the other hand it may be something I have found in Trinidad.

From the leaves I would take it to be a member of the Gongorinae - perhaps near Peristeria, but the flowers look something like Maxillaria. They have a rather unpleasant scent similar to that of Batemannia. *This is Xylobium Colleyi (Ldl.) R.F.*

I am also inclosing a copy of a letter written you 12 November, which I now discover was addressed in error to Howard University. I hope you received the flowers.

*See Garay letter
4 Feb 63*

Sincerely yours,

Thomas H.G. Aitken

:gc

Trinidad Orchids (ex The Orchid Review,
Bradley - 1926 + 1927)

Epidendrum Hartii Rolfe Generally distributed in island where
frosts are located & conditions generally cool.

E. floribundum H.B.K. Maraval (plant aspect resembling moyotambo,
but with thread-like whitish petals).

E. raniferum Lindley var. lutescens Lindley Maraval & occasionally
elsewhere (Large leafy stems bearing bracts at top and parts
where the inflorescence terminates. Flowers yellowish-green, tinged red & brown &
hang downwards.)

E. ciliare L. "Spider Orchid" Fairly common on trees, but
localized

E. stenopetalum Hook. Very common

E. rigidum Jacq. Very common, with stenopetalum. Shows
green in color.

E. strobiliferum Reichb. f. Frequently occurring with above two.

E. atropurpureum Wild. = (macrochilum) Maraval & Chacachacare (Pseudobulb
shrubby.)
rounded, glossy green, pliable stiff. Greenish-rose-purple & white flowers large &

E. Schomburgkii Lindley Maraval, Caparo (Stems long, leafy bearing
a small cluster of crimson flowers at tips.)

E. Bradfordii Griseb. Small & uncommon (Whitish flowers do not
always open. ^{gynostemium} = (secundum) of very soft & waxy).

E. elongatum Jacq. Bocas islands & other low areas. Uncommon (Very
yellowish green & slender stems above the leafy parts. ^{gynostemium} = (secundum) of very soft & waxy.)
venustum Lindley Heights of Anapo. Small epiphyte.

E. trinitatis Lindley (Never seen by Broadway. Flowers yellow & numerous on terminal nodding inflorescence. Leaf stems 2-edged).

E. lanceolatum Bradf. Pitch Lake? (Never seen by Broadway, flowers whitish & stems leafy).

E. ottonis Rehb. f. Moruga Road via Princes Town, Trin.
(Numerous pseudobulbs, upright stems of whitish blossoms, small plant).

E. discolor (Lindley) Benth. Agua Santa, Arima, Matura & Blanchisseuse, Las Cuevas. (This is on little boat-shaped leaved plant from Takaguti.)
= Schlechterianum

Dichaea graminoides Lindley

Dichaea picta Rehb. f. (Recorded by Cogniaux)

Pleurothallis archidiaconi Ames. Blanchisseuse Rd, 8 mile post.
(Flowers orange, few leaves, standing erect).

Maxillaria alba Lindley (Reported by Fritsch only).

Maxillaria palmifolia Lindley (Reported by Fritsch only)

Maxillaria rufescens Lindley Common (Maraval, Caparo, Arigo, Arena, Arima & Blanchisseuse Rd)

Maxillaria trinitensis Ames Heights of Arigo (January flowering)
Flowers white & brown-lined.

Maxillaria albiflora Ames & Schweinf. pub. - Similar in size to trinitensis but has white flowers. El Tucuche

Oncidium guttatum (L.) Rehb. f. or O. luridum Lindley "Brown Bee"

Huntleya meleagris Lindley. Rare. Arigo Road

(In size it becomes a prostrate epiphyte, without pseudobulbs, & throws its few flowers up from the basal part of the leaves in an erect position on a fairly long stalk. Blossoms are mixture of white, yellow & rose tint)

= H. monarheja (Sw.) Reichb. f. 1788

Habenaria maculosa Lindley 1835 Uncommon. Santa Cruz Vally, ^{Totapo} Open spots.
Flowers whitish (early month). Found in numbers together.

Habenaria setacea Lindley (a possibly H. Leprieuxii). Arigo Savannah
Found singly amongst grasses. Upright golden-colored flower spikes.
About four tall. Blossoms around August (during rain)

Habenaria mesodactyla Griseb. Arigo Savannah, Piarco Savannah (Pinaro
Arriba + Dabadie). Dwarf, delicate plant. Flowers greenish.

Habenaria repens Nutt. Cedros. Deep fresh water pond.

Flowers white

Habenaria alata Hook.

Epistegneum parviflorum Lindley. Arigo Savannah + Eastern Mac
Road near Valencia. 2 1/2 - 3 feet tall. Purplish flowers shimmering
sunshine. Delicate stiff + hard to the touch.

Tetragamestus modestus Reichb. f. Uncommon. Mature plant
hang down with leaf stems two or more feet. Blossoms tiny, short-
lived.

Epidendrum ganiticum Lindley. Maracas (near sea). Flowers papery,
sepals + petals greenish yellow with pinkish lines, lip pale yellow,
marked with many violet lines. Flowers in December.

Selenipedium palmifolium (Lindley) Reichb. f. - Long Street.
Tall reedy looking plant, bearing at top ends of leafy stems
purplish-colored flowers. Blossoms short-lived.

Polystachya luteola Hook. Common

Polystachya foliosa Reichb. f. Uncommon. Smaller than luteola
mountain.

Habenaria setifera Lindley. St. Joseph. Hill side, natural savannah. Flowers
whitish? Similar in stature to H. maculosa + H. repens.

Habenaria Cullenii Cogn. Arigo Savannah. Rare. May. Long plant

Ornithocephalus gladiatus Hook. Common. Flowers white
with lip basally yellow. Roots hairy

Ornithocephalus Cruegeri Rehb. f. Uncommon. Roots smooth

Cattleya Skinneri ^{Lindley} pariflora Hook.

Pseudobulbs long shining green, bear a pair of rigid leaves.

Flowers with lip, rich dark rosy purple & sepals & petals glaucous
& pale in comparison to labellum but ^{sometimes} similarly colored.

Notylia punctata Lindley

" incurva "

" apiculata Cogn.

" Broadwayi Cogn.

" angustifolia Cogn.

" nana Cogn.

Relatively uncommon.

Flowers borne in pendulous
racemes, usually white, with
or without spots on sepals & petals.

Aspasia variegata Lindley Uncommon, Small.

Flowers (1-3) borne on short stalk at bottom part of pseudobulb,
color whitish with violet spots or markings on lip.

Bulbophyllum pachyrrhachis Friest. Not uncommon

Rodriguezia secunda Kunth

Trigenxis falcata Lindley Common

Hexisia reflexa Rehb. f. Grass-like in character.

Hexadema fusiformis Griseb. Restricted distribution

Found with Hexisia. Shrub-like plant with a number of quill-like
leafy stems with one or more joints on them & at upper parts of which
are developed small whitish flowers. Leaf stalks often turning reddish.

Brassandra cucullata (L.) R. Br. Exposed situations on hanging see.
Leaves terete, flowers white, large & odoriferous. Found also
Tokyo.

Skenea pallida Lindley. Rare. Small. Leaves soft.
Large pale whitish flowers. Pendulous inflorescence.
Single flower has pseudo-bulbs.

Brassia caudata Lindley. "Cricket Orchid". Fairly common.
Flowers yellowish & spotted in chocolate or purple coloring.
Some of the floral parts long & nail-like.

Brassia lanceana Lindley. Totap.

Zygopetalum cochlear Lindley. Uncommon.

Flowers large bluish-white arising from basal parts of
with pliage. No pseudo-bulbs. Shade-loving.

Ocostyleis brachystalex (Reichb. f.) Schltr. "The White Arise Orchid"

Flowers stalks erect, bearing several terminal white flowers, with a
carmine colored mark on the lip. No pseudo-bulbs. Doliage fairly long, green &
proportionately wide. Flowering freely, especially during wet months, May
to December. Never successfully cultivated.

Catasetum macrocarpum Rich.

Casuaridium ochroleucum Lindley. Fairly common.

Bifrenaria aurantiaca Lindley. Uncommon. Cap-de-Ville,
Maraval. Pseudo-bulbs; 3-6 flowers produced on scape arising from
below pseudo-bulbs. Flowers orange, last several days. Doliage stiff, the
leaves bearing black dots.

Diacrium bicornutum Benth. The Virgin Orchid. Coastal
districts.

Santa Cruz Valley

Diacrium bicornutum ^{Benth.} var indivisum Cogn. Little Virgin
Flowers borne on ends of leafless pseudobulbs.

Jonopsis utricularioides Lindley

Jonopsis pygmaea Cogn. Capard Woods (Carr Estate)
Leaves spotted brownish red. Flowers pale purple (March).
Now known as Trizaxia pygmaea (Cogn.) Schltr.

Jonopsis teres Lindley - Small, uncommon, Maraval.
Flowers pale mauve to white? Leaves terete?

Jonopsis pallidiflora (Present according to Frost)

Cyrtopera Woodfordii Lindley Ground orchid, widely distributed, but uncommon. Damp places. Foliage long & fairly wide across maximum portion of leaf. Lower stems become several feet tall, branched, bearing quantities of greenish-purple flowers.

Cyrtopodium Andersonii R. Br. Bocas Islands, including Chocohacane
Grows on rocks & small shrubbery. Plant develops into thick leaf, stem & pseudobulb propertions.

Cyrtopodium Broadwayi Ames = cristatum (Nanthon) (see Lindley)
Exposed, sandy parts of Arigo Savannah. Distinct pseudobulbs. Reddish-
brown ^{yellow} flowers on erect stems. Fairly plentiful.

Trichocentrum indifolium Lodd. Rare, small

Cryptantha pallidiflora Rehb. Copais forest, etc.
Small. Flower (June - Nov.) white.

Cryptantha lunata R.Br. Not seen by
Broadway

Cranichis mucosa Sw. El Duceche & other mountain
areas. Terrestrial, shade & moisture loving.
Small, bearing erect spikes of white flowers.

Habenaria monarheiza (Sw.) Cogn. San Juan, terrestrial. Flower
in winter. Hard, dry land intermixed with grasses & clumps of bamboo.
Blowers green. Attains height of 1-2 feet. Tuberos root.
= Habenaria alata Hook.

Erythodes trinitatis Ames. Terrestrial. St Ann's (found
once only). Variegated foliage. Flowers whitish? Plant small.

Pleurothallis consimilis Ames. Valencia. Epiphytic -
plant has running, rooting habit. Small greenish-
white flowers.

Spiranthe bicaudata Ames. Heights of Arigo. Flower
said to be white & minute. Collected in March.

Kegelia Houtteana Reichb. f. Heights of Guanapo ^{Rare}
Epiphytic. Small. Back of leaves distinctly purplish. Sepals pale
green outside, spotted & marked pale crimson internally. Petals smaller &
similarly colored. Lip spotted & barred in deeper crimson, column broadly
winged, bright green, anther cap yellow. Flower stalk clothed with black
pubescence. ^{Bulbous}

Aganisia pulchella Lindley Arizo Savannah, in shaded gullies. Epiphytic. Runs along branch. Blossoms yellowish, white.

Campylocentrum micranthum Benth. & Hook. Not uncommon

Campylocentrum pachyrrhizum (Rehb.) Rolfe Agua Santa
Leafless
= Maxillaria

Ornithidium confertum Griseb. Locally common in trees. Small thick-stem plant, which in hollows contains a numerous pendulous portion. Flowers whitish with purplish markings.

Stelis ophioglossoides Sw. Tufted little plant bearing many upright slender spikes of yellowish-green flowers in large quantities.

Stelis trinicensis Ames Height of Arizo Larger than above, but similar in appearance. Flowers with rose tint on yellow-green background.

Loebhartia acuta Rehb. f. Rare

Loebhartia elegans Hook. Local in det.

Cleistis rosea Lindley Terrestrial. Granville (near Cedra), Valencia via Arena, & Sabadie via Arena. Damp, sandy soils. Fairly large plant. Flowers rose.

Cleistis lutea Lindley (Orinoco Savannah according to Griseb.)

Peristeria cerina Lindley Siparua Rare

Flower shining pale yellow, strongly fragrant. Inflorescence 4-flowered, pendulous from base of rather prominent pseudobulbs, which are 2-bayed, flat-shaped, obscurely 2-edged, + shining green, $2\frac{3}{4}$ -3 in. long, $1\frac{1}{2}$ inches wide at lower part, upper narrowing. Leaf $1\frac{1}{2}$ feet long, tapering at tip and at the basal part, $3\frac{1}{2}$ inches at widest part in, mid-rib + four parallel veins conspicuous underneath.

Jenmani a elata Rolfe Arisa Savannah. Uncommon terrestrial. Foliage similar to Stanhopea. Flower with lip yellow, throat white + sepals light red.

Stanhopea grandiflora Lindley Fairly widespread "Lady's Slipper Orchid" Pseudobulbs with single rather stiff, green leaf of fair proportions. One to three flowers on short, pendulous scape, issuing from base of pseudobulbs, large waxy-looking objects, full of odor, white with few pinkish markings about throat which last only short time.

Catasetum trifidum Hook. Rather uncommon. "Little Devils". Color of male flower, green, white + purple. Smaller plant than mauricarpum

Pleurothallis semipellucida Rehb. f.

Largest of local Pleurothallis, large, dark glossy green leaves. Blossoms yellowish-green, tiny + on slender spikes. Likes shade.

Gongna maculata Lindley (= quinquenervis R. & P.)
"Jack Spaniard Orchid" - common
Blossoms brown & yellow.

Gongna atropurpurea Hook. - Rare
Dark wine- or dark- colored flowers.

Gongna sp. (near atropurpurea)

Gongna sp. white flowers - One plant known,
in possession of Mr. T. J. Potte - collected at Blanchisseuse.

Oncidium lanceanum Lindley

"Cedar Bee" - Southern part of island. In upper part
of trees, foliage mottled with chocolate-colored markings on pale
green background. Blossoms are yellowish, or light green, suffused
with pretty brown or reddish spots, & the lip, in the normal form, has violet
or rose color about it. Fragrance strong & pleasant. Occasionally
one meets a yellow-flowered variety possessing a white & purplish lip.

Oncidium haematochilum Lindley (Erie & one or two other southern spots)

Considered by some to be a hybrid between lanceanum & lividum
Bonadway describes. Inflorescence longer than that of lanceanum, flowers smaller,
more numerous & more marked in green, yellow, rich brown & bright red. Foliage
narrower & stiffer & lacks the liberal spotting of lanceanum.

Oncidium ampliatum Lindley - Become scarce.

"Yellow Bee". Plant with squabbed, rounded pseudobulbs &
glossy green leaves. Yellow blossoms lost for many weeks.

Rehb. f.

Oncidium pusillum (= iridifolium Rtho.)
 A pretty little yellow-flowered plant with the
 habit of Amidlocephalus.

Oncidium citrinum Lindley Uncommon, Maraval,
 Maracas. Flower stems tall, bearing light yellowish flowers.
 Pseudobulbs flattish, longer than broad & the foliage narrow.

Oncidium luridum Lindley (= guttatum Rehb. f.)
 Common
 "Brown Bee" Long, stiff, green or reddish-brown-green
 leaves + sometimes pink above. Flowers remain fresh
 for many weeks.

Oncidium cebollata Sw. (= Sprucei Lindley)
 Doubtful native as found only in Port. J. Spain. The long
 leaves, unlike most of our orchids, are round in shape, instead of
 being flat.

Orchid identifications from R. E. Schultes

Letter 25 May 1956

- Sp. # 94 1) Pleurothallis ovalifolia (Focke) Rchb. f.
(= P. rhomboglossa) ^{Note:} This is the tiny plant found by Wood + sent up on a card.

Letter 21 May 1956 -

Sp. # 13 1) Pleurothallis leptopetala Cogn.

13a 2) ? ?

13b 3) ? ?

Sp. # 28 4) Leochilus labiatus (previously incorrectly listed as Hullsclaegelia)

Letter 22 May 1956 -

Sp. # 80 1) Epidendrum ottonis Rchb. f.

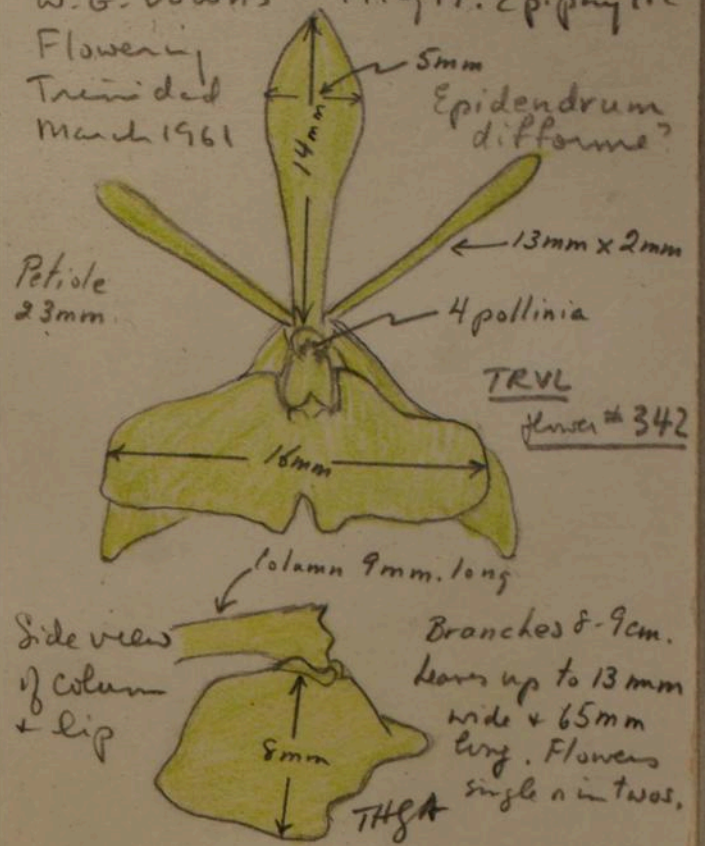
Sp. # 81 2) Broughtonia sanguinea (Sw.) R. Br.

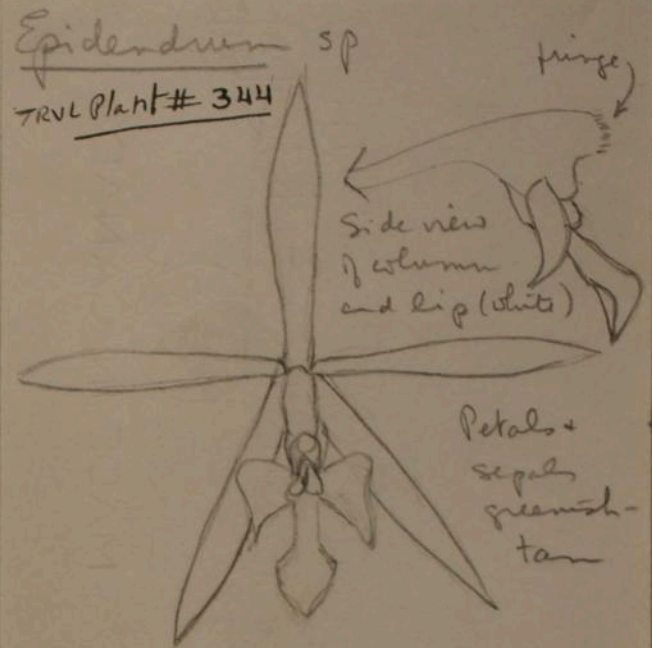
Sp. # 82 3) Leochilus scriptus (Scheidw.) Rchb. f. (Our little Tenebris thing)

Sp. # 83 4) Spiranthes costaricensis Rchb. f. (The thing we thought isn't an orchid - for Spiz. Hill, etc.)

Sp. # 84 5) Habenaria monarkija (Sw.) Rchb. f.

Orchid from Gansee,
 Surinam, Jan. 1960
 W.G. Downs + THGA. Epiphytic
 Flowering
 Trinidad
 March 1961





Source: Unknown
W.G. Downs found it in
his collection. Flowering
Part of Spain April 1961

November 12, 1962.

Harvard

Dr. Leslie A. Garay,
Ames Orchid Herbarium,
~~Howard~~ University,
Cambridge 38,
Massachusetts,
U. S. A.

Dear Doctor Garay,

Under separate cover, I am sending you alcoholic material of two recently flowered orchids.

One is Koellensteinia graminea (Lindley) from Cumaca, collected by Mr. George Black 13 September 1962. Neither Wil Downs nor I had seen this species at the time Schultes was preparing his book.

The other orchid is one which I obtained from Dr. Graham Fairchild in Panama a few years ago. I would be grateful if you could name it for me. It looks rather like a Brassia except that the plant apparently has no pseudobulbs. The sepals and petals are bright orange and the lip yellow with a dark ring near the base.

This is
Brassia Allenii L.A.
sa Garay
4 Feb 63

You and Schultes will be interested in learning, we have a new Trinidad record in the form of Eulophidium maculatum (Lindley). About a dozen plants were collected by Mrs. Jane Jones and Mrs. Joan Bird 3 October 1962 at the U.S. Naval Station (Tucker Valley) growing in the shade of bamboo stools near the golf course. Prof. Purseglove tells me that they have also recently picked it up in another locality. I can't be sure of the identification as I only have a plant with an old inflorescence bearing two seed pods, but it is the very image of Dunster-ville's illustration. If and when I get it to flower again, I will send along the flowers for confirmation.

Sincerely yours,

Thomas H. G. Aitken

:gc

The Wild Orchids of Tobago.

W.E. Broadway.

Little was known of the Native Orchids of Tobago until the writer investigated them with Mr. Humphrey, Sworder during the last few years. We found fiftytwo distinct varieties. Tobago has yielded one new plant, an *Ornithidium*.

The Tobago Orchids so far known are:-

1. *Brassia lanceana*, Lindl. Flowers Greenish yellow blotched fragrant show
Apparently not found in the other West Indian Islands.
- ✓ 2. *Brassivola cucullata*, L. Flowers white large leaves round and fairly long
found on trees near Kingsbay.
3. *Camridium ochroleucum* L. Blossoms of a whitish yellow lasting but a day or
two. Central range retting wood.
- ✓ 4. *Catasotum macrocarpum* L. Monkswood male and female flowers on separate plants
Low Altitudes.
5. *Campylocentrum jamaicense* Rich. found attached to shrubs Belmont and A dolphi
flowers white and tiny.
- ✓ 6. *Campylocentrum facyhyrrisum*, rich. A leafless orchid producing short strings of
white flowers. Grows with number 5.
7. *Coryanthes speciosa* Hook. Bat Orchid. Flowers stalks at first upright then
hanging always accompanied by stinging ants in the ball of roots. Flowers
yellow or spotted with reddish brown blotches fragrant. In the forest on trees.
8. *Cranichis luscosa* S.W. A small ground orchid met with in one place near the Widow.
9. *Dichaea muricata*, L. A small plant with whitish flowers. Trees in forest.
10. *Hiccrum bicornutum*, Benth. The Virgin. Flowers on long stalks white with mauve
markings on lip grows on rock and trees in full blast of sea breezes.
11. *Epidendrum anceps*, Jacq. Found at the Widow on trees and shrubs.
12. *Epidendrum bradfordii*, Griseb. Trees at main central forest, scarce.
13. *Epi. bicolor* L. Occasionally met on trees in Forest
14. *Epi.* A small plant on trees near Caledonia flowers seldom if ever open.
15. *Epi. fragrans* Vanilla orchid flowers on short stems white and fragrant.
16. *Epi. fulgens* Bron. Forest flowers on long stalks purplish.
17. *Epi. globosum* Jacq. A little grassy plant with white flowers A dolphi Hanna etc.
18. *Epi. harti* Rolfe. On a tree at Mount Dillon flowers primrose scented white
tinged green stems marked with reddish colored lines.
19. *Epi. nocturnum* Jacq. The larger form with white flowers is found on trees in the

- 20 *Epi. Ramosum* Jacq. On trees in forest Th Widow.
21. *Epi. Rigidum* Jacq. Flowers yellowish green on exposed trees Adelphi.
22. *Epi Schomburghii* L. Flowers yellow on trees in clumps recommended for cultivated collections.
23. *Epidendrum Stenopetalum* Hook Flowers rose colored on exposed trees at Adelphi etc.
24. *Epi. Strobiliferum* Rich. Grows with number 21 and 23.
25. *Gongora Atropurpurea*. Hook Forest woods attached to trees Scarce. Flowers on hanging stalks claret colored.
- 26 *Habenaria Maculosa*. L. Terrestrial on banks at Adelphi where in the early months of the year the whitish flowers show out among the grass.
27. *Habenaria Monorrhiza* S.W. Banks at Adelphi and at Highmoor Flowers green.
28. *Hexisia Reflexa* Rich. Clumps of this hang from trees and look like grass.
29. *Ionopsis Utricularioides* S.W.L. On a Calabash tree in sunlight Providence, Flowers pale purple upright stems rare.
30. *Ionopsis Teres*. L. Central part of Island smaller than 29. Flowers pale lavender.
31. *Leochilus labiatus* S.W. Found on small trees at Adelphi, conspicuous in flower.
32. *Liparis* sp. Found a small plant near Mason Hall in fruit.
33. *Microstylis Umbrelliflora*. S.W. Ground Orchid found near Caloedonia. Flowers green.
34. *Maxillaria* sp. A single unflowered specimen met near Honna.
35. *Ocoteoria Graminifolia* L. Caloedonia a small species running on bark of trees.
36. *Oncidium Cuttatum*. L.O. *Luridum* Lindl. King Peters Bay along the sea shore, this is the only *Oncidium* found in the Island.
37. *Ornithidium Broadwayi* Cogn. A new species Plant small Road between Belmont and Adelphi Tobago only.
38. *Ornithidium Confortum* Grise. Found with no 37 and in one or two other places.
39. *Ornithocephalus Gladiatus*. Hook. A small fan shaped orchid it flowers profusely. Les Coteaux. on under shrubs.
40. *Pleurothallis Sertularioides*. Plant small running along branches of shrubs.
41. *Physurus Plantagineus*. L. Grows in the ground under forest trees flowers white.
42. *Poconia* sp. Trafalgar in the ground only two small plants where found species doubtful.
43. *Polystachia Lutea*. Hook. On a tree Pigeon Hill Flowers pale yellow scarce.
44. *Prescotta Stachyoides*. S.W.L. a ground orchid seldom met.
45. *Staphiglottis Proligera*. Trunks of large trees in Forest. Species small flowers white.
46. *Spiranthes Acaulis*. Smith. Found in ground among rotten leaves foliage ornamental flowers greenish white unpleasant odour.

Cont.

47. *Stelis Ophioglossoides*. Jacq. Flowers yellow plants small on trees in forest.
48. *Stenorrhynchos*. *Oreohides*. Terrestrial in dry exposed places flowers reddish yellow syn *spiranthes*. Blossoms in early part of the year before the leaves appear
49. *Tetraganostus Molostus* On forest trees.
50. *Vanilla Hartii* near Easterfield.
51. *Vanilla inodora*. The Widow.
52. *Vanilla phacantha*. near Easterfield.
53. *Rodriguesia Secunda* Mount Dillion.

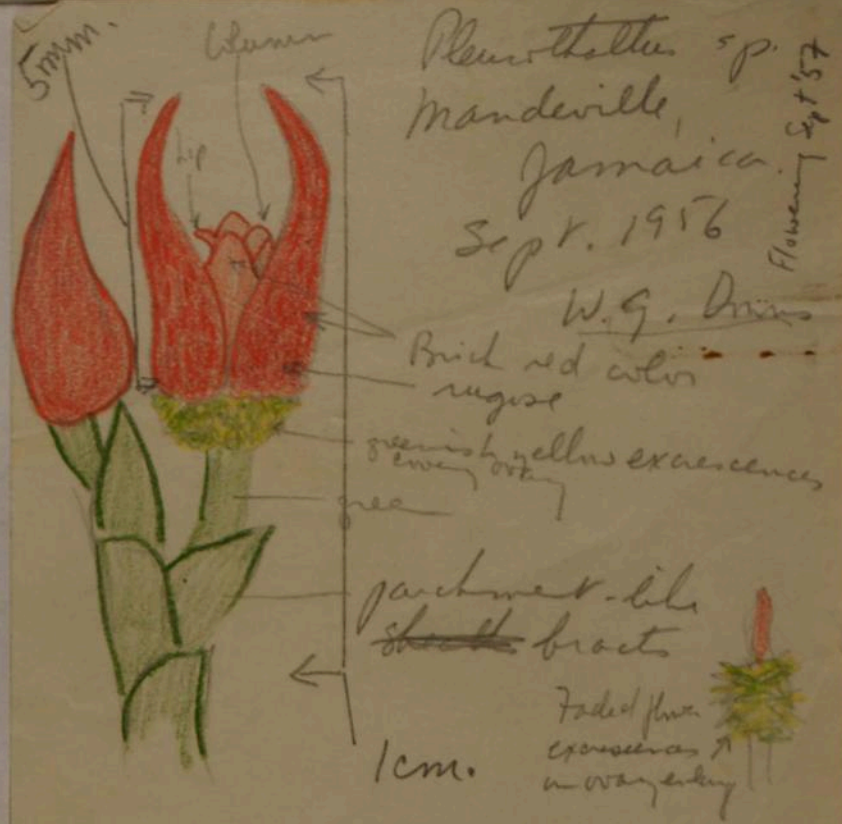
N. Dams

TRINIDAD ORCHIDS

Aganisia pulchella
Aspasia variegata
Batemanian Colleyi
Bifrenaria aurantica-Syn. Lindleyella aurantiaca
Brassavola cucullata
Brassia caudata
Brassia lanceana
Bulbophyllum pachyrrhachis
Cattleya Skinneri (Lindl.) var. parviflora (Hook.)-Syn. C. Deckerii
Camadirium ochroleucum-Syn. Ornithidium album
Campylocentrum micranthum
Campylocentrum pachyrrhizum
Catasatum macrocarpum
Catasatum trifidum
Cleistes lutea
Cleistes rosea
Coryanthes macrantha
Coryanthes speciosa
Cranichos mucosa
Cryptorrhena lunata
Cryptorrhena pallidiflora
Cyrtopera Woodfordii
Cyrtopodium Andersonii
Cyrtopodium Broadwayi-Syn. C. cristatum
Diacrium bicornatum var. indivisum
Dichea graminoides
Dichea picta
Epidendrum atropurpureum-Syn. E. macrochilum
Epidendrum Bradfordii
Epidendrum ciliare
Epidendrum discolor
Epidendrum elongatum Sw. E. secundum
Epidendrum floribundum
Epidendrum fragans
Epidendrum graniticum
Epidendrum Hartii
Epidendrum lanceolatum
Epidendrum nocturnum
Epidendrum ottonis
Epidendrum patens
Epidendrum raniferum var. lutescens
Epidendrum rigidum
Epidendrum Schomburgkii
Epidendrum stenopetalum
Epidendrum trinitatis
Epidendrum Vincentinum
Epistephium parviflorum
Erythodes trinitatis
Gongora atropurpurea
Gongora maculata-Syn. G. quinquenervis
Habenaria Cruegeri
Habenaria maculosa
Habenaria mesodactyla
Habenaria monorhiza-Syn. H. alata
Habenaria repens
Habenaria setacea-Syn. H. Leprouri
Habenaria setifera
Hexisia reflexa
Hexadesmis fusiformis
Hexadesmis fusi formis
Hormidium tripterum-Syn. Epidendrum pagmasum
Huntleya meleagris-Syn. A. albido-fulva
Ionopsis pallidiflora
Ionopsis pygmaea-Syn. Triseuxis pygmaea
Ionopsis teres
Ionopsis utriculariodes

Isochilus linearis
Jenmania elata-Syn. *Rolfea elata*
Leochilus labiatus
Loekhartia elegans
Maxillaria alba
Maxillaria albiflora
Maxillaria palmi folia
Maxillaria rufescens
Maxillaria trinitensis
Notyia apiculata
Notyia augusti folia
Notyia Broadwayi
Notyia incurva
Notyia mena
Notyia punctata
Oncidium ampliatum
Oncidium cebollota
Oncidium citrinum
Oncidium haematocylum
Oncidium iridi folium-Syn. *O. pusillum*
Oncidium lanceanum
Oncidium luridum-Syn. *O. guttatum*
Oncidium papilio
Oncidium papilio var. *Latouras*
Ornithidium confertum
Ornithocephalus Cruegeri
Ornithocephalus gladius
Otostylis brachystalix
 Syn. *Cyrtopodium cristatum*
 Syn. *Cyrtopodium Crisebachii*
 Syn. *Eygopetalum brachystalix*
Paphinia cristata
Pleurothallis archidiaconi
Pleurothallis cicilata
Pleurothallis consimilis
Pleurothallis leptopetala
Pleurothallis orbicularis
Pleurothallis polygonoides
Pleurothallis compellucida
Pleurothallis certularioides
Polystachia foliosa
Polystachia luteola
Prescottia atachyoides
Rodriguezia secunda
Selenipedium palmi folium
Spiranthes acaulis-Syn. *S. picta*
Spiranthes apiculata
Spiranthes biscaudata
Spiranthes bicolor
Spiranthes elata
Spiranthes Hostmanii-Syn. *S. guianensis*
Spiranthes scopulariae
Spiranthes simplex
Stanhopea grandiflora
Stelis ophioglossoides
Stelis trinitensis
Stenia pallida
Stenorrhynchus orchicoides - Syn. *S. aphyllus*
Tetragamestus modestus
Trichicentrum iridifolium
Trichopilia nutica
Trigauxia pymaca
Triphora (Fogonia) surinamensis
Trissuxis alcata
Vanilla Martii
Vanilla indora-Syn. *V. anaromatica*
Vanilla phacantha
Vanilla planifolia
Wulfschlaegalis calcarata
Zygopetalum cochleare
Zygopetalum trinitatis

Specklinia Lindl.
Lepanthes S.W.
Liparis Rich.
Bulbophyllum Theo.
In Isochilus R.E.
Cattleya Lindl.
Triseuxis "
Macrodonia R.E.
Cryptarrhena R.E.
Fernandezia S.W.
Angraecum Thov.
Pelexia Poix
Stelis S.W.
Polystachya Hook
Xianodes Lindl.
Cyrtoptera Lindl.
Notylia Lindl.
Borlingtonia
Dickson Lindl.



TRINIDAD REGIONAL VIRUS LABORATORY

P.O. Box 164,
Port of Spain,
Trinidad,
West Indies.

June 19, 1962.

Dr. Leslie A. Garay,
Ames Orchid Herbarium,
Harvard University,
Cambridge 38,
Massachusetts,
U. S. A.

Dear Doctor Garay,

On 19 September 1961 I wrote you regarding
sending me a bill for Vol. 2, Venezuelan Orchids.

I am embarrassed that I still haven't settled
this account. I would appreciate it if you could send
me a bill.

I shall be in the States this summer on
holiday, part of which will be spent with my parents-
in-law in Boxford. I hope I shall have the opportunity
of getting in to see you and Dr. Schultes one day.

Sincerely yours,

Thomas H. G. Aitken

:gc

TRINIDAD REGIONAL VIRUS LABORATORY

P. O. Box 164,
Port of Spain,
Trinidad,
West Indies.

June 19, 1962.

Prof. Richard E. Schultes,
Botanical Museum,
Howard University,
Oxford Street,
Cambridge 38,
Massachusetts,
U. S. A.

Dear Dick,

Just a note to say we are coming up on holiday
this summer. I shall be at the Gale's in Boxford from
about 14 to 28 July and 30 August to 14 September. We
leave here 8 July.

I will try to get in to see you one day. How
about all those identifications you promised me?

Sincerely yours,

Thomas H. G. Aitken

:gc

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

19 September 1961

Prof. Richard E. Schultes,
Botanical Museum,
Harvard University,
Cambridge 38, Mass.

Dear Dick,

I want to thank you for the pleasant luncheon with you at the Faculty Club recently and for all the publications you gave me. I have written Garay to send me a bill.

Don't forget you owe me a bunch of identifications - after you are finished with your latest book MS.

I thought you might be interested in the inclosed clipping from today's Trinidad Guardian. Have you heard anything of the incident?

Yours sincerely,

Thomas H.G. Aitken

THGA:mq
encl.

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

19 September 1961

Dr. Leslie A. Garay,
Ames Orchid Herbarium,
Harvard University,
Cambridge 38, Mass.

Dear Dr. Garay,

This is to advise you officially that Dick Schultes provided me with a copy of Vol. 2, Venezuelan Orchids when I was in Cambridge recently.

I would be much obliged if you would send me a bill when it is convenient.

You and Mr. Dunsterville are to be congratulated on another fine volume. I am sorry I missed you on my recent visit to the herbarium, and hope on your next trip to Venezuela you will find time to visit us here in Trinidad.

Sincerely yours,

Thomas H.G. Aitken

THGA:mq

WGD		(104)
THGA		
LS		
AHJ		ca
CBW		CBW
EST		EST
		S

19th. June, 1961.

Dr. Richard E. Schultes,
 Curator,
 Botanical Museum of Harvard
 University,
 Oxford Street,
 Cambridge 38,
 Massachusetts,
U. S. A.

Dear Dick,

Sorry I shall not be around this summer when Soegeng is here as I shall be taking an Acarology course at University of Maryland.

Wil, however, will be here until August so Soegeng will have a contact.

I'm glad to hear you are going to work on the orchids. I had about given up hope and was going to write and suggest that one of your associates might be able to help out. I have another Surinam orchid for you which is quite characteristic (TRVL Plant 347). I may bring it up with me on 24 June - photos and colored sketch inclosed. Also inclose photos of TRVL plant 336 sent to you recently.

I shall be at Gale's in Boxford from about 5 August until about 17 August, so if you're around, may look you up.

Sincerely yours,

Thomas H. G. Aitken

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

*Oxford Street
Cambridge 38, Massachusetts*

June 9, 1961.

Dr. T. A.G. Aitken,
Regional Virus Laboratory,
Box 164,
Port of Spain, Trinidad, B. W. I.

Dear Tommy:

One of my graduate students, Mr. Wertit Seegeng, who is studying at Harvard for his doctor's degree, will be spending three or four weeks this summer at the Imperial College working with Barkley and Cope on cacao. Seegeng is an Indonesian and is doing outstanding work at Harvard. He will go from Trinidad to Brazil, Colombia, Ecuador and Costa Rica.

I would deeply appreciate any help that you may be able to give Seegeng in such things as getting around the island if you make any short trips and have room to fit him in. I knew that you will enjoy his company. It would be especially interesting if you make a trip to any area which has cacao plantations, but Seegeng is a well-rounded botanist who will profit by any trip to the hinterlands of Trinidad.

Now that I am free, I shall look into the orchids you sent me. This has been a very hectic year with teaching, complete remodeling and redecorating of the Museum and the birth of twins in January.

All my best to you and to Will Downs if he is still in Trinidad.

Sincerely,

Reck

Richard Evans Schultes
Curator

15 March 1961

Dr. Richard Evans Schultes,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Mass.

Dear Dick:

The long awaited book arrived and is an excellent job. I have not had a chance to go over it in detail, but Tommy Aitken has done a thorough job on it. He is noting a few corrections, in case there is another printing.

Am bringing north with me on March 19 a parcel containing the following items, from Trinidad and ~~British~~ Guiana:

TRVL Plant # 327	<u>Spiranthes</u> sp.	Morne Jean, Diego Martin, Trinidad, 24/I/60, Coll. T.H.G. Aitken.
TRVL Plant # 333	<u>Leochilus labiatus</u>	Blue Basin Road, Diego Martin, Trinidad, flowering 5 March, 1961. Coll. THG Aitken and WG Downs.
TRVL Plant # 334 (WGD # E139)	<u>Ornithocephalus</u> sp.	Matta, Surinam, flowering 25/II/61. Coll. WGD and THGA.
TRVL Plant # 335 (WGD # E145)	<u>Stelis</u> sp.	Surinam, flowering 5/II/61. Coll. WGD and THGA.
TRVL Plant # 336 (Brassia-like plant)		From Surinam (probably Affobakka), Upper Surinam River, Jan. 1960, flowering Feb. 1961. Coll. WGD & THGA. Sketch enclosed.
TRVL Plant # 337 (WGD # E105) (small woody plant)		Paramaribo, Surinam, flowering Feb. 27/61. Coll. WGD & THGA.
TRVL Plant # 338	<u>Campylocephalum fasciola</u>	Talparo, Trinidad - epiphytic on half dead grapefruit tree 7 March 1961. Coll. WGD & THGA.
TRVL Plant # 339 (WGD # E144)	<u>Notylia</u> sp.	Surinam, flowering 25/II/61 Coll. WGD. & THGA.
TRVL Plant # 340 (same as #337)		Ganzeer, Surinam, Jan. 1960 flowering Oct. 1960. Coll. THGA & WGD.
TRVL Plant # 341		Zanderij, Surinam, Jan. 1960 Coll. THGA & WGD.

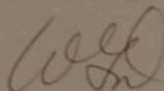
whole plant →

This will be mailed to you from New York.

Many thanks for the book you sent. I shall always have great pleasure in working with it.

We have heard that your family has been increasing rapidly in size. Congratulations.

Sincerely yours,



Wilbur G. Downs.

WGD:mq

Encl. Sketch by THG Aitken of
TRVL Plant # 336.

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Oxford Street
Cambridge 38, Massachusetts

March 12, 1961.

Dear Tommy -

Thanks for your letter of February 25th.

I, too, am sorry about the various errors in the plates. I was never able to see the final disposition of the plates. Regarding the error about the title on the front piece, I copied off exactly what Purseglove gave me, because, as you know, I do not know the Trinidad Spanish at all.

It was a real pleasure to write the book and you & Will certainly lifted it from the status of just another herbarium job.

My next book on orchids (jointly with Prof. Pease, eminent prof. of Latin & Greek here) - "Generic Names of the Orchids - Their Meaning & Origin" is now ready & we are looking for a publisher. It will have 300 line drawings & be in dictionary form.

All the very best,

Dick

Photo copy for
Schultes + Parrymore.

March 18, 1961.

Dr. Richard Evans Schultes,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Mass.

Dear Dick:

I've gone over the book and have the following additional corrections to call to your attention:

1. p.15, line 4, SORZANO
2. p.17, par. 3, line 2, Mr. N.W. Simmonds
3. p.102, Epidendrum ciliare Trinidad localities:
"Montserrat" D&A #37 refers to Harris, island of
Montserrat and not Trinidad. However, we have collected this
in the Northern Range on numerous occasions. A specific locality is Spring Hill Estate
4. p.119, penultimate line, Morne Poui Arima Valley; slopes of El
Tucuche is another. HfK
5. p.132, 1st dichotomy, Caularthron bicornutum
6. p.154, line 10, Paria Road
7. p.171, line 11, D&A #6 is Cumaca only (~~delete Arima Valley~~) (We also have
it from Spring Hill Estate, Arima Valley 9 March '53)
8. p.265, line 4, Caratal

Wil Downs has written you that he is bringing to the States some more orchid species. A word of comment is in order regarding the little Campylocentrum plant from Talparo collected just recently. Using your Key we first thought it was pachyrrhizum because it reminded us of our earlier specimen (D&A #3 cited by you from Arima Valley) and the roots of several plants (the tree was loaded with them) all appeared fleshy. However, on closer examination of the flower and dissection, we feel that the lip is "more or less 3-lobed"; furthermore, the flowers are minute (petal and sepal measurements those of fasciola) and definitely not spreading. Under the circumstances, we feel this plant is fasciola. We are now wondering about the earlier identification, as Downs' photos of flower close-ups clearly suggest that specimen D&A #3 was also fasciola. Isn't it a bit odd that there are many collections of fasciola, but only the old Bradford (ex Cogniaux) record of pachyrrhizum until our plant came along? The "fleshy" root character would appear to be misleading, and, indeed, the lip character is not satisfactory, judging from what looks like a "more or less 3-lobed lip" for pachyrrhizum (vide your plate).

Length.....

Dr. Richard Evans Schultes,
Botanical Museum, Mass.

March 18, 1961.

Length of sepals and petals would appear to be the best criterion
for separating the two species judging from your descriptions.

We are interested in having your opinion of this little problem.

With kindest regards,

Sincerely yours,

Thomas H. G. Aitken.

THGA:ac

Photo copy for
Schultes + Pausglow

25 February 1961

Professor Richard E. Schultes,
Harvard Botanical Museum,
Cambridge,
Mass.

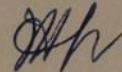
Dear Dick,

"Native Orchids of Trinidad and Tobago" arrived in this morning's mail and a very fine botanical contribution it is. You are to be congratulated on an excellent job.

It was too bad about the Stelis - Pleurothallis mix up on page 70. We note an unfortunate lapsus regarding the frontispiece which should read Maracas and Tyrico bays rather than Las Cuevas and Tyrico. The Stenia photo is still upside down and apparently the Dichaea is also reversed. We haven't had an opportunity to go over the text, but will let you know if any printer's errors come to our attention.

I am most happy to have this book and thank you very much for your gift. I know Wil and I both feel proud to be associated with it.

Sincerely yours,



Thomas H. G. Aitken

THGA:mr

P.S. We have one or two exotics from Surinam which will be sent to you shortly - a Notylia and what originally we thought might be a Brassia (from plant habitus) but which has flowered and looks rather like an Epidendrum.

Oxford Street
Cambridge 38, Massachusetts

Dear Tommy

June 21, 1960.

If I can get a moment before I leave next week for 2 months in the summer in Colombia, I shall look at the orchid drawing of Decidua ensatum that you sent on May 25th.

We have been frightfully busy on our courses during the second half of this year; and now, of course, I am getting ready for field work.

The Orchids of Trinidad & Tobago is promised by the Pergamon Press for early August. All proofs, etc. have long been ready. They have delayed a long time on this book. First, the printers' strike, which put certain books with dead lines ahead of mine; then the press & its offices packed up & moved from London to

Oxford. But they have done a wonderful job on it, and I shall be happy when I can send you + Wil each a copy. They say August, but I don't dare hope for it so soon, even though everything seems to be ready for the press.

Cheerio,

Dick

I hope to see you when you are here in Massachusetts. I return from Columbia on Sept. 1st.

25 May, 1960

Dr. Richard E. Schultes,
Gray Herbarium,
Harvard University,
Cambridge,
Massachusetts.

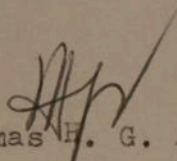
Dear Doctor Schultes,

An orchid plant I acquired from Sandy Fairchild's garden in Panama last year has started to flower. Using the key in "Orchids of Guatemala", I make it out to be Oncidium ensatum, but am not satisfied that description of the lip callosity agrees with the plant - see inclosed illustration and pressed flower.

The plant has long flattened pseudobulbs and very long grass-like leaves. Inflorescence stalk a good meter.

Wil and I were in Surinam for two weeks last January and brought back a number of plants. Since then he has been around the world (Japan, Malaya, India) and presently is touring Africa - due back 10 June. I shall be in the States on holiday for a couple of months this summer, and will be in Massachusetts for much of August and a bit of September. Will try to get in to see you if you will be around. Any news of the Trinidad opus?

Sincerely yours,


Thomas H. G. Aitken

THGA:mr

Incl.

W G D		WGD
THGA		
LS		LS
E A B		EAB

4 May, 1959

Doctor Richard Schultes,
Curator, Botanical Museum,
Harvard University,
Cambridge, Mass.

Dear Doctor Schultes,

Some time ago, Angus Simmonds (botanist, Imperial College of Tropical Agriculture) called my attention to a lapse on our part with regard to our herbarium specimen labels - namely that they give the impression of being a part of the series of the Flora of Trinidad. This is not true, as our collections are separate from those of the Herbarium of I.C.T.A. Therefore, I suggest you modify our labels to read "T.R.V.L. Herb. No....". A sample of our new label is inclosed.

We have heard rumors that your opus will be in print shortly. We are anxious to see it.

It seems to me there are still a few plants that haven't yet received determinations. If convenient, we would certainly appreciate receiving diagnoses. I recall in particular one ground orchid from the Long Stretch (Spec. 265A-C) which had us puzzled (dried and alcoholic material); also Spec. 206-209, same thing, I believe.

Wil has been in New York this past week and I had three weeks up there recently, returning by way of Panama - where I picked up a few orchids and bromeliads in Sandy Fairchild's garden.

Sincerely yours,

Thomas H. G. Aitken

THGA:mr
Incl.

D. W. Purcell
5 Wright St.
Cambridge, Mass. U. S. A.



AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

DR. WILBUR G. DOWNS
TRINIDAD REGIONAL VIRUS LAB.
P. O. BOX 164
PORT-OF-SPAIN
TRINIDAD

NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

Cambridge, Mass
June 12, 1959

Dr. Wilbur G. Downs
Trinidad Regional Virus Lab,
Port-of-Spain
Trinidad

Dear Dr. Downs,

Dr. Schultes showed me your letter of June 3, and I am writing to thank you for your very kind offer of hospitality to me this summer. Since Dr. Schultes wrote you, my plans have changed somewhat. I am accompanying a small group led by Dr. Grady Webster of Purdue on a botanical study trip through the Lesser Antilles, so that I shall probably not arrive in Trinidad before August. However, I look forward to coming, and I should be very grateful indeed to use some of your facilities should I have the opportunity to do so.

Very sincerely yours,

Dennis W. Purcell
Dennis W. Purcell

COPIES OF THIS LETTER MAY BE ATTACHED
IF ANYTHING IS ENCLOSED, THIS LETTER
IS PART OF QUARTER MAIL

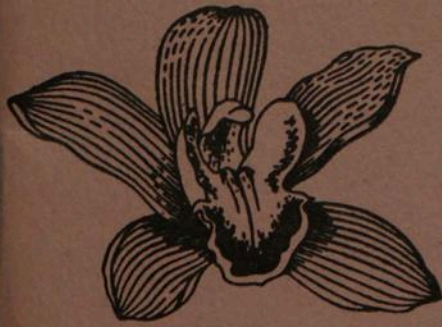
Helmut Schmidt

~~Colto~~ Apartado 1053

Bogota

Aganisia ^{cyanea} bulbos —
cyanea

Amateur Orchid Growers' Society



**THE
JOURNAL**

VOL. 7 No. 1

Winter 1958

BOTANICAL MUSEUM LEAFLETS
HARVARD UNIVERSITY

CAMBRIDGE, MASSACHUSETTS, MAY 9, 1940

VOL. 8, No. 6

THE GENUS PALMORCHIS

BY

CHARLES SCHWEINFURTH AND DONOVAN S. CORRELL

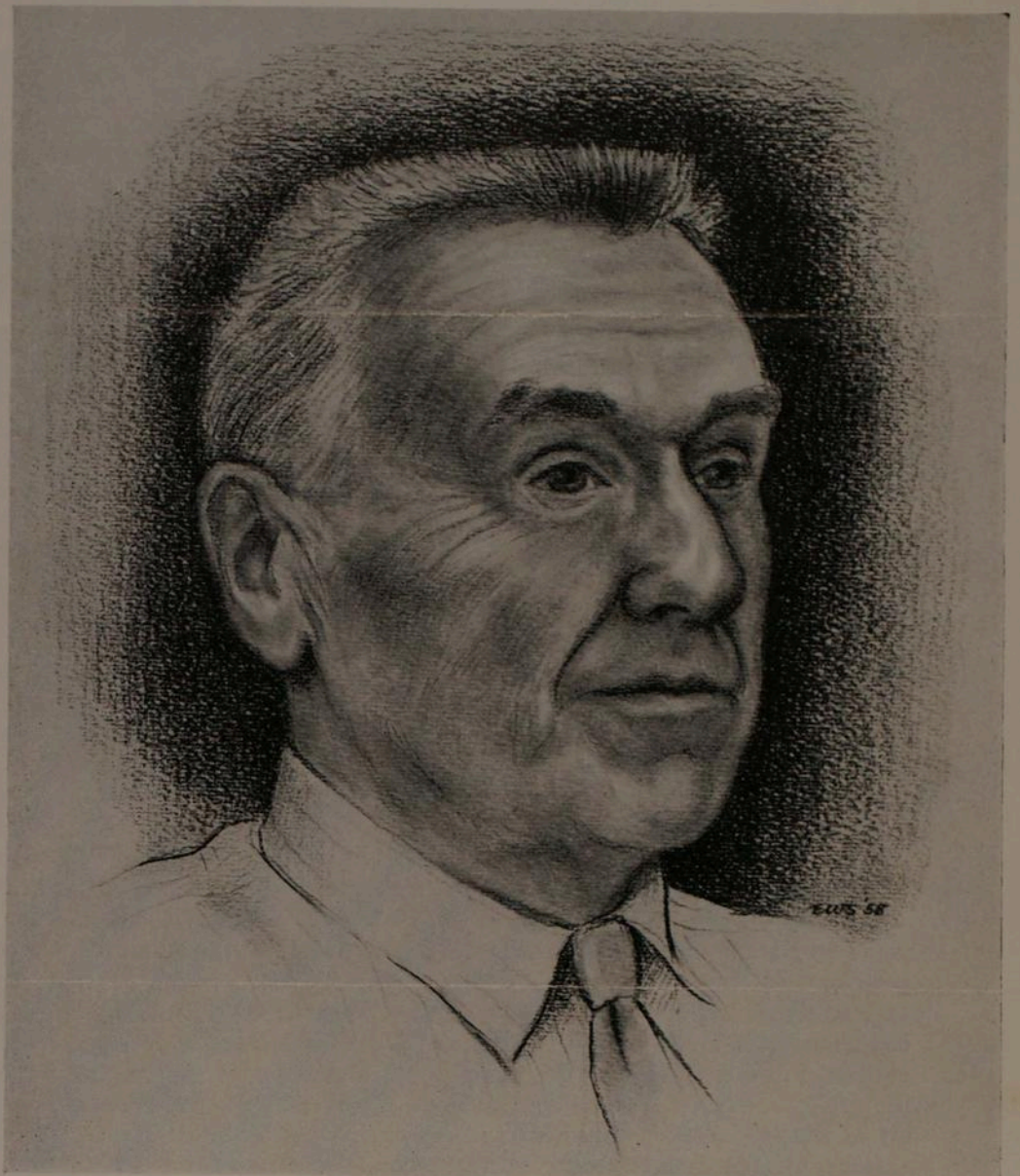
THE HISTORY of the genus *Palmorchis* is not only interesting but instructive. In 1877, this genus, including two species, *P. pubescens* and *P. sobralioides*, both natives of Brazil, was proposed by Barbosa Rodrigues.

In 1898, R. A. Rolfe published *Jenmania* typified by *Jenmania elata*, a plant of Trinidad and British Guiana. In the same year, Zahlbruckner changed the name *Jenmania* to *Rolfea* in honor of Rolfe, because the name *Jenmania* was preoccupied by that of a lichen.

In the original diagnosis of *Jenmania elata*, Rolfe compared it with the genus *Palmorchis* and considered it to be distinct. However, in view of a later published figure and description of *Rolfea elata* (Hook. Icon. Pl. 10, pt. 4 (1913) t. 2989), the separation of these two concepts seems to us unjustifiable.

In a comparison between the description of *Palmorchis pubescens* and of *Rolfea elata*, the only significant differences appear to be that in *Palmorchis* the petals are described and illustrated as being slightly broader than the sepals and the clinandrium as being provided on each side with a small tooth—characters which do not appear in *Rolfea*.

In 1901, Cogniaux referred the two species described under *Palmorchis* to *Sobralia* naming them *S. pubescens* and *S. Rodriguesii*. It seems to us inconceivable, how-



CHARLES SCHWEINFURTH *(From pencil drawing by Elmer W. Smith)*

WGD		<i>WGD</i>
THG		<i>THG</i>
LS		<i>LS</i>
EAC		<i>EAC</i>

3 June, 1959

Dr. Richard Evans Schultes,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Mass.

Dear Dr. Schultes,

A recent spate of work has resulted in very dilatory correspondence. Please forgive me for not replying earlier to your letter of May 1 concerning Mr. Purcell. We shall be glad indeed to have this young man look us up should he come here this summer. I shall not be here, but Aitken will. He could go on field trips as he might wish, and would also be free to work in the lab at a microscope, particularly in afternoons when our instruments are usually free. He could stay quite reasonably at a house near the laboratory where we have had several lab visitors stay, one Mrs. Jenvey at Cornelio Street. Let us know if he would like to do this and we can make arrangements. Also, should he so wish, he could "camp out" at our field lab in Sangre Grande. With a gas burner, he could be quite at home there and would be very close to wet forest and could go out with our field crews daily.

With all best wishes,

Sincerely yours,

Wilbur G. Downs

Wilbur G. Downs

"GD:mr



WGD	<i>[Handwritten initials]</i>
TNG	<i>[Handwritten initials]</i>
LA	<i>[Handwritten initials]</i>
EA	<i>[Handwritten initials]</i>

May 1, 1959

Dr. Wilbur G. Downes
 Regional Virus Laboratory
 Box 164
 Port of Spain, Trinidad, B.W.I.

Dear Dr. Downes:

You will be interested to know that the final page proofs of my book on "The Orchids of Trinidad" are expected next week. When these are corrected, printing will begin immediately.

The reason for this letter is to ask you and your group if it would be possible for a Harvard student who may visit Trinidad during the summer to contact your people and to accompany you on any of your trips into the hills or forests of the Island. Mr. Dennis Purcell, whose father is Professor of Physics at Harvard, will be a sophomore and is very seriously interested in making biology his field of concentration. I have been very favorably impressed with his serious and inquiring approach. He has asked me where it might be best for him to visit this summer preparatory to acquiring an introduction to and acquaintance with tropical flora. There are several places, but I have suggested Trinidad because of the lack of language barrier, its relatively small size, its excellent forest reserves, and its good system of roads.

If it would be possible for you to help Mr. Purcell when he arrives in Trinidad by recommending a place for him to stay and by possibly outlining trips which he could take by bus, I would appreciate it as a personal favor to one of our students.

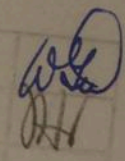
With all best regards to you and the family and to Aitken, I remain,

Very sincerely yours,

Richard

Richard Evans Schultes
 Curator

res:er

WGD		
THOR		
LS		
ESG		

16th February, 1959.

Dr. R. Schultes,
 Botanical Museum of Harvard University,
 Oxford St.,
 Cambridge 38,
 Massachusetts.

Dear Dr. Schultes,

Replying to your letter of 13 February, I have been remiss also about the airphoto. So to-day, went to Lands and Surveys office and was shown airphotos of the northern Range. These are photos taken at 14000 feet with a 6" lens, and are very sharp and clear. Unfortunately, the office here has only master copies and cannot spare any. However, they outlined the procedure necessary to get a copy, and said they would write the office in England, and arrange for clearance.

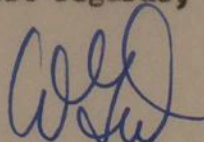
Looking over the snaps, I liked a shot which shows the sea and beaches at Las Cuevas and Tyrico Bay, and the country in back including the peak of El Tucuche.

If you want to go ahead with this, on my selection of this airphoto print, which may not be what you would select, following is suggested procedure:

Write the publisher in London and tell him to get from the Director Overseas Surveys, Tolworth, Surrey, a print of 34 / TT2/#102 taken 15 October 1957, 14000' ^{above} / 6". As I mentioned ~~the~~, the local authorities will arrange clearance with the office in England.

Haven't been doing much with orchids lately. Got Octomeria grandiflora at Las Cuevas several months ago, and in December Tommy Aitken and I got an Elleanthus species (the plant with leaves like palm leaves I showed you in my sheds), also a Malaxis umbelliflora, and a Spiranthes, species unknown (no flowers) near the peak of Chagauramal. Tommy picked up an Epidendrum imatophyllum recently in the Caratal Forest, Nariva Swamp. This is only the second time we have found this species in Trinidad, the first being near Tabaquite. I have a fine bunch of seedlings started in a jar, from this plant.

Best regards,



Wilbur G. Downs

WGD:he

cc - Deputy Director, Lands & Surveys. Dr. J. Purseglove.

Director of Orceus Surveys
Tolworth, Surrey

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Las Cuevas
Tynes -
Summit of Tucudee

34/TT 2/ #102

15 Oct 1957

14000' / 6" lens.

Oxford Street
Cambridge 38, Massachusetts

February 13, 1959.

Dear Dr. Downe:

Prof. Purseglove told me that a Trinidad govern-
ment (survey?) bureau was going to send me a suitable
air photo of the Northern Range (Tucudee, etc.) to use as
a frontispiece of the Orchid Book. I jugged them through
him just before he had to go to England for his eye
treatments & he again wrote that they would send it to
me. So far there has been nothing. I am wondering if
you might be able to help. I cannot hold the book up
much longer. If you do not know what govt. bureau
it is (I don't), perhaps through some other agency
you might get me a similar terrain photo. Since there
are so many orchid drawings & photos in body of book, I
thought this would be helpful as a reference.

I am back now after pneumonia & pleurisy to-
gether (4 weeks), but I get rather tired by day's end. I
hope you are all well & that the orchid work goes along
well.

Yours,

Dick Schultz

AMERICAN ORCHID SOCIETY, INC.

Botanical Museum of Harvard University
Cambridge 38, Massachusetts

WGD	✓ WSD
CRA	
THCA	✓
LPS	

FRANK J. LIND
PRESIDENT

HAROLD E. ANTHONY
TREASURER

O. WESLEY DAVIDSON
SECRETARY

FROM THE OFFICE OF
GORDON W. DILLON
EXECUTIVE SECRETARY

March 18, 1958

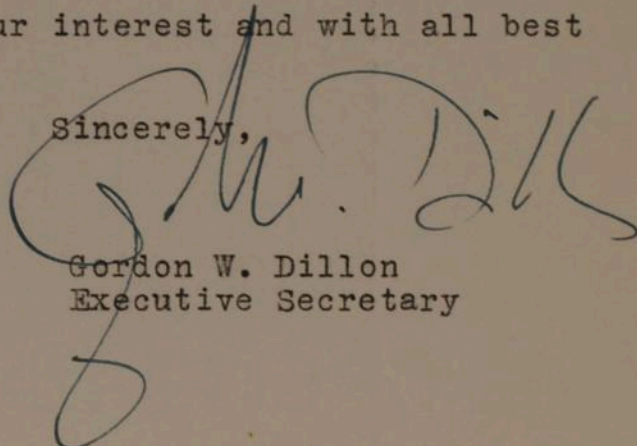
Dr. Wilbur G. Downs
P. O. Box 164
Port-of-Spain, Trinidad
British West Indies

Dear Dr. Downs:

Your recent letter of March 9th to Dr. Schultes has just been drawn to my attention with reference to your interest in having reprints or copies of the February Bulletin. We did not have extra reprints of this made for ourselves and it is not possible for me to send the full 20 copies, since we run on a rather restricted edition, so that we do not build up useless inventories. However, I am pleased to send you, with the compliments of the Society, six or eight copies of the American Orchid Society Bulletin, and trust that they will be of some use to you.

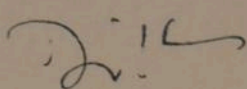
Thanking you for your interest and with all best wishes, I am

Sincerely,



Gordon W. Dillon
Executive Secretary

GWD-hh

P.S. - In reply to your letter re reprints of "Orchids & Oil Birds in Trinidad" they are being sent to-day via P.O.-registered - Cut of Broadway being sent from our printers - Many thanks - 

P.O.Box 164
Port of Spain, Trin.
March 9, 1958

Dr. R.E. Schultes, Curator
Botanical Museum of Harvard University
Cambridge, Mass.

Dear Dr. Schultes:

This is a long overdue letter, and first I want to offer congratulations on your appointment as Curator of the Botanical Museum. You will be much missed by us, and I dare say, by many others, and I can only hope that you will make good on your wish to get a replacement in the orchid museum.

Next, do plan to stop here in May. Aitken and I would be delighted if we could get the opportunity to get out on a trip to Cropouche with you, realizing at the same time that you have a coterie of professional botanists at the Imperial College of Tropical Agriculture who will doubtless have heavy demands on your time. Any time you could spare us would be most welcome for us.

Have just received the Feb. Am. Orchid Soc. Bulletin, and find the writeup of yours very attractively presented. Will you be kind enough to send a reprint to Aitken and to myself? In fact I would like to buy about 20, if you could arrange this, and if you would send the bill without fail to me. The Orchid Society people here would snap them up like hotcakes. (And indeed it would attract favorable attention to the Bulletin, which many of them do not receive).

Also am glad to hear the monograph on T'bad orchids is coming out soon; and better still, that you are planning to get out an illustrated edition through the Pergamon Press.

I am enclosing photos with this letter as follows:

Species 86 This is a puzzling species which we have encountered several times at Quare Dan, and at Valencia. Pseudobulbs are 15-20mm long by 10 mm wide (on one plant) and 30mm long and 15 wide on another, pyriform, with two articulated leaves at apex. Bulb us often sheathed in papyraceous bracts. Leaves 50mm long x 12 mm wide, lanceolate, acuminate. Flower is greenish in color with dusky purple faint lines, most prominent on lip. Outer aspect of sepals purple; of lip and petals, greenish purple. Lips is scarcely modified from petals, and is uppermost in flower (I hope I had the plants right side up). We sent you a blossom once, and now have several more in spirits to send up to you in due course.

Species 117 Macradenia lutescens (identified by Downs & Aitken from your key) a lovely little spray plant, collected on two occasions by Derek Serzano, in the Cat's Hill region of south Trinidad.

Species 115 a small Pleurothallus species from Todd's Road, Trin, and from Rio Claro, which I am quite unable to work out. We have material on hand to send to you if we have not already sent you some.

Species 119 Dichaea muricata. Some time ago, you identified Species 22 as D. muricata, but the leaves on this sp. 22 are articulate, and we judge it to be D. picta.

Species 118 Dichaea Rendlei resembles D. picta quite closely, but as you state in your key, the leaves are apiculate. We also find them to be somewhat more spaced in the stalk, i.e. somewhat farther apart. A blossom of D. Rendlei is here now, in spirits, awaiting shipment to you.

Species 120 Dichaea hystericina, a very odd little plant indeed.

We had a day in the Aripo Valley several months ago, when on the same tree we picked up muricata and hystericina, and not far away, Rendlei. Aitken had earlier noted Rendlei in some collections, but I had been obstinate in allowing it to be separated from picta, but we were beginning to despair of ever getting the other species. The hystericina plant died, by the way.

We picked up a nice plant of Palmerchia (we suppose it to be this) on the same day in the Aripo Valley, and note that you have the genus in the generic key, but do not have the species in the manuscript descriptions of species.

Derek Sorsano has recently brought me a plant with large, soft, conduplicate leaves, and very little in the way of bulbs, from South Trinidad. You must have a look at it when you get here in May. We have seen nothing like it.

Also, a year ago in the Oropouche region, we collected a plant with long, grass like rather soft leaves, about 10mm wide and 150mm long. I had fears that, coming from a wet region, we would lose the plant, but it has stayed alive for a year, but so far no blossoms to help us. Sorsano recently brought in two more plants from Cat's Hill, so that will make chances better of getting flowers some day.

Just a week ago we collected good flowering material of a species we located last year (Hubert Wood drew our attention to it) flowering at the roadside in the Long Stretch Road near Sangre Grande. Leaves may be present at the ~~max~~ base, but often are not evident, and a stalk goes up 12-15 inches, with a number of reddish-orange blossoms on the terminal 2 inches. We rather confidently expected it was a Spiranthes, but can make no headway with this, or indeed with any other possibility. Flowers and entire plants have been saved, and photos taken. (You have photos: Sp. 112)

Checking over my records, we would certainly appreciate any help you can give with our species #108, on which you have photos, and I believe also flowering material.

In your key to genera in Feb. ACSDull you list only one species for Ionopsis. Surely I. utricularioides and I. pygmaea are both acceptable?

By the way, also, where is Schomburgkia in your key to genera? We have picked up what we take to be S. undulatum several times under what are apparently wild conditions.

Will leave a little space here because Mitken may have some additional to put in.

Sincerely

Wilbur G. Downs

Map
lacking. It
will be used as
frontpiece

Orchids in Trinidad and Tobago ' and Their Collectors

By RICHARD EVANS SCHULTES *

THE GOVERNMENT of Trinidad and Tobago has been publishing the flora of the Colony, family by family, over a period now of about 30 years. A study of the native orchids of these West Indian islands has recently been completed at the Orchid Herbarium of Oakes Ames of the Botanical Museum of Harvard University and is scheduled to be published shortly as a part of the "Flora of Trinidad and Tobago." Time and again during the preparation of this work, we have had occasion to admire and to thank those enthusiastic plant-lovers, amateur and professional, who have, through the past 150 years, penetrated the fastnesses of these islands, amassing for our herbaria so many collections and enriching the horticultural world with so many superbly beautiful species of orchids.

Trinidad and Tobago are two small islands constituting a British Crown Colony, situated in the southern part of the Caribbean Sea, north of the Orinoco Delta. Trinidad lies only seven miles off the coast of Venezuela. Their areas are 1,754 and 114 square miles respectively, and their combined population was 697,000 in 1956. Although they are commonly included in the Antilles, their geological formation is South American; and they only very recently were separated from the continent by the formation of the shallow Gulf of Paria between the southwestern tip of Trinidad and the Venezuelan coast. Trinidad is not volcanic, as are so many of the neighboring Antillean islands; most of the rocks are sedimentary in origin, dating from the Upper Jurassic to the Pleistocene. The fact that Trinidad and Tobago are, geologically speaking, not true islands is shown by the low number of endemic plants — 7% of the total flora. So-called true islands — land masses which have never been connected with a continent — are usually high in endemic species: Hawaii, 75%; St. Helena, 90%.

The larger of the two islands, Trinidad, is divided topographically, according to the ecologist Beard (Beard, J. S.: *The Natural Vegetation of Trinidad* [1946] 8 ff.), into five areas. The mountains (1), which run more or less east to west along the north of the island, are called the Northern Range. The highest peaks are El Tucuche and Aripo, both surpassing 3,000 feet. The Northern Range represents a prolongation of the Venezuelan coast. It is from this mountain mass that the greatest number of orchids are known. In the central part of Trinidad, there is a limestone table mountain arising to over 1,000 feet: Mount Tamana; it is of interest because many of the orchids found here are not represented in the Northern Range. The hills (2) are grouped mainly in two chains: the Central Range, cutting across the center of the island and rising to 800 feet, and a lesser range along the southern coast. There are, in addition, occasional isolated domes scattered throughout the peneplain, but these are, in general, much lower. The alluvial terraces (3), lying mainly between the Northern and Central Ranges, are great, flat plains cut up by water courses. They are considered to be of recent age, dating from the Pleistocene. The several extensive savannahs with their characteristic vegetation, such as those at Aripo and Arima, representing flat and poorly drained areas with impermeable subsoil, are situated on the alluvial terraces. These savannahs support a large number of extremely interesting orchids. The dissected pene-

* Curator of Orchid Herbarium of Oakes Ames, Botanical Museum of Harvard University, Cambridge, Massachusetts.

Trinidad Orchid Society Library Rules

1. Only bound books may be placed on loan.
Unbound periodicals may be read in the library.
2. Books on loan must be signed for.
3. No more than two books on loan to an individual at one time.
4. Books may not be loaned for longer than one month.
5. The individual signing out a book is responsible for same, If lost books must be replaced by the borrower or they will be charged the value.
Books are non-transferrable.
6. Books will be rotated to the Assistant Librarian, South Trinidad for six month intervals.

Library of the Trinidad Orchid Society

BOOKS

1. Orchids of Guatemala
by Oakes Ames and Donovan S. Correll.
Published by Chicago Natural History Museum,
Fieldiana: Botany, Vol. 26, No. 1 (1952), Vol. 26, No. 2 (1953)
2. Home Orchid Growing
by Rebecca T. Northen.
Published by D. Van Nostrand Company, Inc.,
Princeton, New Jersey, 1950, 286pp., illus.
3. American Orchid Culture
by Edward A. White.
Published by A.T. De La Mare Company, Inc.,
New York, 1939, 256 pp, illus.
4. Orchids, Their Description and Cultivation
by Charles H. Curtis.
Published by Putnam and Company, Ltd., London,
1950, 274 pp., illus.
5. Orchid Growing
by John W. Blowers.
Published by W. and G. Foyle, Ltd., London,
1955, 94 pp., illus.
6. Successful Orchid Culture
by P.R.C. Rittershausen.
Published by W.H. & L. Collingridge, Ltd.,
London, 3rd. ed., 1956, 136 pp., illus.
7. Orchids for Everyone
by O. Eigeldinger.
Published by John Gifford, Ltd.,
London, 1957, 144 pp., illus.
8. Orchids and their Cultivation
by David Sander.
Published by Blandford Press.
London, 3rd. ed., 1956, 135 pp., illus.
9. A Revised Flora of Malaya. Vol. I. Orchids of Malaya
by R.E. Holttum.
Published by Government Printing Office,
Singapore, 2nd. ed., 1957, 759 pp., illus.
10. Malayan Orchid Hybrids
by M.R. Henderson and G.H. Addison.
Published by Government Printing Office,
Singapore, 1956, 191 pp., illus.

Library of the Trinidad Orchid Society (Cont'd)

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1. The Orchid Journal
Bound: Vol. 1 (1952), Vol. 2 (1953)
Unbound: Vol. 3, No. 1 - 5 (1954-55)
2. American Orchid Society Bulletin
Bound: Vol. 14 (1945) & 15 (1946), Vol. 18 (1949), Vol. 19 (1950),
Vol. 20 (1951), Vol. 23 (1954), Vol. 24 (1955), Vol. 25 (1956)
At bookbinders: Vol. 5-8 (1936-40), Vol. 9 (1940-41), Vol. 10 (1941-42),
Vol. 11 (1942-43), Vol. 12 (1943-44), Vol. 13 (1944-45), Vol.
16 (1947), Vol. 22 (1953).
Paper binding: Consolidated index, Vols. 1 - 13.
Unbound: Vol. 17, 1, 3 - 12, index (1948)
Missing: Vol. 17, No. 2 (1948)
3. The Orchid Review
Bound: Vol. 3 (1895) - Vol. 5 (1897), Vol. 32 (1924) - Vol. 47 (1939)
Unbound: Vol. 48 (1940) - Vol. 52 (1944), Vol. 54 (1946) - Vol. 55 (1947).
Missing from bound series: Vols. 1, 2, 6 - 31.
Missing from unbound series: Vol. 53 (1945), Vol. 56 (1948) to date
Unbound duplicates: Vol. 34 (1926, Feb. - Aug.), Vol. 35 (1927, Jan. -
May, Aug. - Dec.), Vol. 36 (1928, Feb.), Vol. 42 (1934, March,
May), Vol. 43 (1935, Jan.), Vol. 49 (1941, Jan. - April), Vol.
53 (1945, Jan. - April, Sept. - Dec.), Vol. 56 (1948, April,
May, Nov.).
4. Orchidologia Zeylanica
Unbound: Vol. 6 (1939), Vol. 8 (1941), Vol. 9 (1942), Vol. 10 (1943),
Vol. 13 (1946), Vol. 14 (1947), Vol. 16 (1949).
Incomplete issues: Vol. 1, No. 1 (1934), Vol. 4, No. 2,3,4, (1937),
Vol. 5, No. 2,3,4 (1938), Vol. 7, No. 1,2,4 (1940), Vol. 11,
No. 3,4, (1944), Vol. 15, No. 1,2 (1948).
5. Australian Orchid Review
Unbound and incomplete issues: Vol. 1, No. 3,4 (1936), Vol. 2, No.
1,2,4 (1937), Vol. 3, No. 1 - 4 (1938), Vol. 4, No. 2,4 (1939),
Vol. 5, No. 1,3,4 (1940), Vol. 6, No. 1 - 4 (1941), Vol. 7,
No. 1 - 4 (1942), Vol. 8, No. 1 - 4 (1943), Vol. 9, No. 1
(1944), Vol. 12, No. 4 (1947), Vol. 22, No. 2,3,4 (1957).
6. Pacific Orchid Society of Hawaii
Unbound: Vol. 8, No. 1 - 4 (1949 - 50), Vol. 9, No. 1 - 4 (1950 - 51),
Vol. 10, No. 1 - 4 (1952), Vol. 11, No. 1 - 4 (1953), Vol. 12,
No. 1 - 4 (1954).
7. Orchids of Hawaii (The Honolulu Orchid Society)
Unbound: Vol. 1, No. 1 (1951)
8. Philippine Orchid Review
Unbound: Vol. 2, No. 1,2 (1949), Vol. 3 No. 1,2 (1950)
9. The Orchid Digest (Orchid Society of California)
Unbound: Vol. 12, No. 1 (1948).
10. The Malayan Orchid Review
Unbound: Vol. 1, No. 1,2 (1931 - 32), Vol. 2, No. 1 (1934), Vol. 5, No. 1,
2 (1958).
11. De Orchidee
Unbound: No. 3 (1936).

Thomas H. G. Aitken
Librarian

Trinidad Orchid Society

WGD	✓ WGD
CR	
THCA	WGD
LPS	

27 March, 1958

Dr. Richard Evans Schultes,
46 Hewlett Street,
Roslindale,
Boston, Mass.

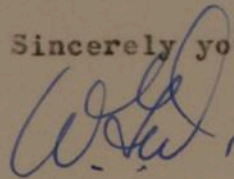
Dear Dr. Schultes:

Thank you for your letter of March 23. We note that you have assigned Ionopsis pygmaea to Quekktia. I shall be here in Trinidad in June and July, but Aitken goes north on leave on or about July 5. We shall hope to see you in June, if we are lucky. The change of Diacrium to Callarthron is noted. This created consternation among the local orchid society members, who have grown to recognize the name Diacrium.

I hope you succeed in getting Mr. Garay to act as curator of the Orchid Museum.

With all best wishes,

Sincerely yours,



Wilbur G. Downs

WGD:mr

March 23, 1958.

Dear Dr. Downs-

Thank you for your good letter of March 9th.

As Curator of the Museum, I shall not abandon orchidology, but plan to put one day a week on it. I can tell you that we have hopes of appointing Mr. Leslie A. Garay for this place. He is an outstanding and very productive orchidologist, now assistant curator of the Toronto Herbarium. He has been offered the post as of July 1st, but there are several technicalities regarding immigration which he, as a Canadian citizen, must take care of before he can say "yes" and resign his job in Canada. I hope things will be able to work out. He has been with us as a Guggenheim Fellow for a year and we all like him very much.

I still have purposely not opened the last box of alcohol specimens you sent, because I just had to draw a line somewhere to finish off the monograph. It would be well to include everything up to date, but that is not always practicable when one wants to finish a job. I will get to these in the fall when I return to work and can breathe more easily. This has been a hectic year - with my administrative work as Curator of the Museum, carrying on as acting Curator of the Orchid Herb (which is, as you know, part of the Museum), teaching, and supervising 3 Guggenheim scholars who are here with me and several other students as well. I feel right now that I could sleep for a month!

I am hoping to have time and enough funds to visit Trinidad, but it cannot be in May. The Peruvian congress of Botany will be May 8 - 18. There are 5 going from our little Museum. One the way back, I want to spend some time in Colombia - my "second homeland". Then, one of my students who has finished a book now ready for publication on "Poison plants of Venezuela" wants me to stop a few days in Caracas & make a short trip to southern Venezuela with him. After that I could probably go to Trinidad. Mr. Garay will go with me to Lima if he gets enough money. Then he would fly from Lima to Rio & we had hoped to join in Caracas & visit Trinidad together. Would you please let me know if you & Aitken might be in Trinidad in June and July?

I shall send you under separate cover a number of reprints of my recent article. They will be of much more value in Trinidad than anywhere else. It will not be necessary to pay for these. I was sorry that there was no room for any more of your photos in that article. I asked Mr. Dillon to send you a few of the entire issue of the Feb. issue so that you might interest some of

The orchidophiles in taking it. I think it is a nice little journal, and, of course, there are many other advantages to membership.

There is only one sp. of Lonopsis in Trinidad apparently. Garay & I transferred Lonopsis pygmaea to Quekettia recently in an article in Rhodora. I thought I had sent you a reprint, but will send another anyway. Your interesting notes on the Dichaea species are good to have. I am far from satisfied with our treatment of Dichaea and good pickled material & photos will help. I am certainly not sold on the separation of D. Rendlei & pecta, but, on the evidence, it seems best to keep them apart for the present. Schomburgkii we at the Ames Herbarium lump together with Laelia, and you will find your sp. under Laelia undulata.

An error crept into the key in the AOS Bulletin article but this will be corrected in the final book. This article will, with enlargement, be the introduction of the book. I think we may have perhaps 80-100 illustrations. I am shortly sending to Dr. Simmonds the unillustrated manuscript for publication in the Flora of Tr. & Tob. You should visit him & see it. I have only 2 copies besides the one I must keep here, so cannot send you one for yourself.

Did you get the Bot. Museum leaflet in which I had to alter the name Diacrum to Caularthron? The 2 spp. in Trinidad are now C. bicornutum & C. bilamellatum.

Sincerely,

Richard Evans Schultes

Dear Dr. Downs -

February 1, 1958.

Just a hasty note from home to let you have advance copies in the form of tear-sheets of the article on orchid collectors in Tr. & Tob. It will be out in the February Bulletin, and I shall have separates, if you want any number. I may send you separates to put in the post for Gillette & some of the other local orchidophiles.

The Flora (orchids) is finished. The final typing is now being completed. Then I shall read the proof and send it down to Dr. Simmonds for the Flora of Tr. & Tob. I imagine they will reduce it substantially to conform to their format. However, the illustrated edition, which I have wanted so much to publish, will be done as soon as I can send the material to London. It will be put out by Pergamon Press. We shall have line-drawings & half-tones. I may delay somewhat on this if they want me to insert references to culture of the various spp., etc. It might make it more worthwhile from the pt. of view of the popular interest in it.

I am sorry that I seem recently to have neglected orchids and you & Arken. The truth is that this fall, I have been up to my neck in work. As of January 1, 1958, I am no longer Curator of the Orchid Hb., but my appointment is Curator of the Bot. Museum & Lecturer in Econ. Bot. I will spend only about 1 day a week on orchids when things return to normal after considerable renovation and work at the Museum to which I fell heir. I shall act as curator of the Orch. Hb. until June, when we hope to get a real live - eric & first-class orchidologist who will, I am sure, carry on the work with you and give you much prompter service than I have been able to do.

On page 84 of the tear-sheets, you will find a misleading statement that I have struck out. The editor did not use any of your photos in this article.

You will receive reprints of several orchid articles by sea-mail. One is changing the generic name Diacremia to Caularthron. Trinidad has Caularthron bicinctum and C. bilamellatum (= D. indivisum). Your material of flowers of these was critical in

my study of the genus.

I plan to go to the S. Am. Bot. Congress in Lima in May
(11-18th). Perhaps on the way back, I can stop off in Trinidad
and make one trip to Oropouche or elsewhere with you for or-
chids.

Sincerely,

R. S. Schultes

16 November, 1957

Dr. Richard E. Schultes,
Ames Orchid Herbarium,
Harvard University,
Oxford Street,
Cambridge 38, Massachusetts,

Dear Dr. Schultes:

We have read with great interest your revised
ms on Trinidad orchid collectors. Three mistakes were noted
as follows:

- p. 16 - Ayliffe not Aycliffe
- p. 17 - Gregor not Gregory
- p. 20 - Selenipedium not Selenipedilum

Hurriedly,

Yours sincerely,


Thomas H. G. Aitken

THGA:mr

29 October, 1957

Dr. Richard Evans Schultes,
Orchid Herbarium of Oakes Ames,
Botanical Museum, Harvard University,
Oxford Street,
Cambridge 38, Mass.

Dear Dr. Schultes:

Have read over your article on "Orchids in Trinidad and Tobago and their Collectors", and find it very interesting and well written. Various items have been pencilled in the text by THGA and myself. The article will be a valuable contribution to orchid history of this part of the world.

Other local people who have been interested in local orchids and who have collections of local orchids of great interest include:

Dr. G. A. C. Herklots - Principal of the Imperial College of Tropical Agriculture (and author of the "Orchids of Hongkong").

Dr. Horace P. S. Gillette - Director of Medical Services.

Mr. E. C. Kong - pharmacist.

Mr. Gregor Duruty - retired government civil servant.

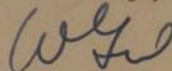
Mr. E. H. H. Wells - barrister.

Mr. Derek Sorzano - geologist.

By the way, I shall be very interested to hear what you have to say about the two collections of Epi. hartii from the same plant on different years, one with well developed floral bracts and the other lacking them.

Dr. Aitken adds the following note in connection with Gongora.

Sincerely,



Wilbur G. Downs

P.S. We are not happy with your key to Gongora. The character of the dorsal sepal falls down as typical maculata from Trinidad have dorsal sepal widths falling within the limits you set for atropurpurea (about 8 mm. wide). Also we find it difficult

Continuation of letter to Dr. Schultes

29 October, 1957

to interpret your lip character (sub-sessile as compared with long and narrowly clawed).

A flower from a plant collected by THGA in Tobago which we consider to be atropurpurea as it is uniformly deep maroon except for some greenish color on the external surfaces of the sepals, shows the following differences from maculata. The portion of the column beyond the petals is much more elongate and graceful in atropurpurea. Also the basal portion of the lip (to the 1st and 2nd appendages) is much more contracted than in maculata. Flowers from a Trinidadian atropurpurea plant in WGD's possession also confirm these points.

Thomas H. G. Aitken.

WGD:mr

RICHARD EVANS SCHULTES,
46, HEWLETT STREET,
ROSLINDALE, BOSTON, MASSACHUSETTS.

Oct. 20, 1957.

Dear Dr. Downe -

Just a line to call your attention
to Broadway's interesting note (in
Orch. Rev. 34 (1926) 204) which I think
you have in photostat form concern-
ing an aquatic *Habenaria* in a fresh
water pond at Cedros. To the best of
my knowledge this has never been
collected in flower. It might well
be a new or very rare species. Just
thought you'd like to keep it in
mind.

Sincerely,

R. Schultes

19th October, 1957.

Dr. Richard E. Schultes,
Botanical Museum of Harvard University,
Oxford Street,
Cambridge, 38,
Massachusetts.

Dear Dr. Schultes,

Reference your letter of 23 September, I have initiated an investigation of the various people you mention which has met with partial success. For the moment I can give you little or no information about Bradford and Bruins-Lich. I have written the Director of Agriculture concerning these two, and, in the case of Bradford, have also asked Dr. Waterman, a medical historian, if he could help. One of my orchid grower friends, Mr. Durity, tells me Bruins-Lich was probably a Swiss, that he studied or worked at Kew and after leaving his post of curator of the Botanical Gardens here, he took a similar post in Johannesburg, S.A.

Now for Archdeacon Arthur Hombersley (1866 - 1941). Born in the north of England. Came to Trinidad in 1894 where he was rector of All Saints Church, P.O.S. until 1931 when he retired. He was friendly with Broadway and the two botanized together extensively. He became an authority on Trinidadian ferns, and at the time of his death, had completed a m.s. on the subject. This ms. was left with Government for publication but seems to have been lost. Information received from Canon Rooks, rector of St. Crispin's Church, Woodbrook, P.O.S., 5/X/57. Canon Rooks knew Archdeacon Hombersley well.

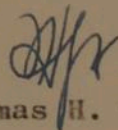
Father L.J. Graf, B.A., C.S.Sp., born 10/II/83 at Aachen, Rhineland. Came to Trinidad in 1905. Present status, Dean of Studies, St. Mary's College, P.O.S. Has taught both science as well as classics. He is a mine of information on Trinidad flora.

You ask about Dr. H.P.S. Gillette. While he has made no herbarium collections of orchids, nevertheless he has been collecting and growing native orchids (but mainly exotics) for years. He is the largest orchid grower in Trinidad. He is presently Director of Medical Services, and before this, Director of the Malaria Division. (Your information was wrong).

Several other people who possibly should be mentioned because of their association with local orchids are: Mr. Gregor A. Durity, born in Trinidad in 1894. Retired civil servant, Port-of-Spain. Growing orchids (native and exotics) since 1915. Knew Broadway and collected with him. Mr. Felix Anduze, born in Trinidad of Venezuelan parentage. Retired planter. Growing and collecting orchids (native and exotic) for over 50 years. Then there is Angus Simmonds at the Imperial College of Tropical Agriculture, who has collected many of the specimens you have been studying. Also Professor G.A.C. Herklots, Principal of the Imperial College of Tropical Agriculture, who has a large collection of living native species and has undoubtedly contributed to the College's herbarium collection (Wil tells me he wrote the orchids of Hong Kong), and Mr. E.H.H. Wells, a local barrister (Treasurer of the Orchid Society of Trinidad) who has exhibited considerable interest in collecting native species.

As for ourselves, we are both Staff Members of the Rockefeller Foundation. Wil came to Trinidad in 1953 and I arrived early in 1954. Wil is the Director of the lab and I am the entomologist. It is impossible to say how many field trips we have made, as in the course of the virus field work we have kept an eye out for orchids. The hobby of ~~ef~~ growing natives became a game when we tried to see how many of the known species we could recover and perhaps find some thing;new to Trinidad. And, of course, you are familiar with Wil's interest in photographing flowers - particularly the tiny botanicals.

Sincerely,



Thomas H. G. Aitken

THGA;eat

Dear Drs. Downe & Attkin:

Oxford Street
Cambridge 38, Massachusetts

Here is the first draught of my popular article for the Bull. Am. Orch. Soc. Please check it & make any changes or suggestions you think necessary. If you can help me get the date of Broadway's arrival in Trin, it will be appreciated (p. 11). Do not take this generic key as the final one, for I see several changes I shall make when I go over it critically next Monday, the day I send the final Orchid Flora to the typist. I hope to have in this popular article several additional of your good photos, a photo of Prof. Baker and a map of orchid localities in Trin. & Tob. Since I want to try to get this into an early issue of the Bulletin, I hope that you will both have time to give to this manuscript soon.

I have appreciated all your wonderful help. I have had to refrain from adding the material in the last shipment of bottles in the monograph, in order to meet the printer's date.

Sincerely,

Richard Evans Schultes

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

October 15, 1957.

Dear Dr. Downs:

I have finally got the Trinidad Orchids ready for the final typing. A carbon copy will go to you, as there are some changes & additions which you have not had yet. Dr. Simmonds at ICTA says Govt. Printing Office there will be starting on it soon. I had to drop, at least for now, plans for illustrated edition.

Please change your #100 from *Pogonia rosea* which, in a mental blank, I reported to *Epistephium parviflorum* Lindl. I shall not have time to look at the large box of alc. specimens which came during the summer, as Dr. Simmonds wants to give the ms. to the printer as soon as possible. However, we can publish anything additional in the Orchid Bull. later.

I shall also send you and Aitken shortly for criticism my little article for Bull. on Orchids in Trin. & Tob. & their Collectors, together with a map of Orchid Collecting localities. Please read it critically. I have had a devil of a time getting material on some of the collectors. Your article came out nicely and is a good contribution.

Hope you can visit us when you come to the USA.

Sincerely,

Richard Evans Schultes

Richard Evens Schultes

*Please send me the
titles & dates of residence at
Orchid work in Trinidad of
you & Dr. Aitken.*

Trinidad Field Naturalists' Club

You are invited to attend a Meeting of the Trinidad Field Naturalists' Club, at the Library Room of St. Mary's College, on Thursday, 17th October, 1957, at 5.00 p.m.

AGENDA

1. Confirmation of Minutes.
2. Correspondence.
3. Bats, Bat-Traps and the Carlsbad Caves
A lecture by Mr. A. M. Greenhall.
4. Exhibits and Miscellaneous Notes.
5. Other Business.

VICTOR C. QUESNEL

Hon. Secretary

1 Palm Ave. East,
Petit Valley,
Diego Martin,
Microbiological Research Inst.
Phone 24261

Horsford

Belostomatidae

T. and Regional New Lab.
Wrightson Rd.
705.

Field Specimens
Dr. J. H. S. J.
C. J. H. S. J.

Dr. J. H. S. J.
Dr. J. H. S. J.
Dr. J. H. S. J.
Born at Aachen Rhineland
10.2.1883
Came to Trinidad in 1905.
Dean of Studies, St. Mary's College

Archdeacon Arthur Humberley

1866-1941. Born in north of England. Came to Trinidad in 1894 where he was rector of All Saints Church, Port of Spain until 1931 when he retired.

Information received from Canon Roche, St Crispin's Church, St. James, P.O.S.
5/1/57 J.H.H.

Two additional collectors worth mentioning:

1. Mr. Gregor A. Durutz,

Born in Trinidad 1894 -

Retired civil servant, Port of Spain.

Growing orchids (native + exotics)
since 1915.

Knew Broadway; and collected with him.

2. Mr. Felix Anduze

Born in Trinidad of Venezuelan
parentage.

Planter.

Collecting - growing orchids for over
50 years.

Arthur Humberley
1856 - 1941

All Saints Church
Trinidad

Came in 1894 to Trinidad
Stayed at All Saints until 1931.
When he retired

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Oxford Street
Cambridge 38, Massachusetts

Dear Dr. Downe & Aitken -

September 28, 1957.

Back at work again and am making the orchid flora now, as Dr. Summons of the ICTA tells me that the government printing house is ready to start on it. The last shipment of your orchids has just come, but I shall have to forbear adding them to the flora because of time. However, I am now adding to the flora all of your previous collections. I am also preparing a short article for the Am. Orch. Soc. Bull. called "Orchids in Trin. & Tob. and their collectors". The collection map I had made for this article I am going to try to have photographed and sent to you for criticism, as I do not know the terrain. In connection with this article (which will have 3 parts: 1) brief survey of topography & vegetation types, 2) orchid collectors and 3) key to genera), I should like to ask your help on several data. Although Bradford was one of the best and earliest orchid collectors in Trin., I can find little or nothing about him. His collections are cited in Griseb's Flora. Could you, through some local historical center, find out his whole name, dates of life, profession (I think he was an M.D.) and anything else about him. He collected in the 1830's, I think. Also, if you by telephone could ask the local Anglican bishop for the dates and name of church of Archdeacon Humberley (also first name)? All I know is that he was archdeacon in Trin. & was a keen botanist, specialising in the ferns. Prof. Ames named Pleurothallis archidiaconi for him. Father Graf now lives in Trinidad but must be very old - he is Science Master at St. Mary's College. If without embarrassment you could let me know when he came to Trin. & from where, it would help. The same goes for Bruin-Lich (first name?). I think he was Curator of Bot. Gardens during the 1930's, but am I right and where did he come from - is he French or Belgian or what?

I corrected proof on your excellent article recently, and I think it will be out next month. There will be quite a rash of Trinidad orchid articles. I

am still hoping the later we may be able to publish an illustrated orchid
flora of Trinidad, and I am now on the trail of 3 foreign (German and Italian)
journals.

Incidentally, please do not fail to let me know - both of you -
your official titles and how long you have been in the Colony and any
other pertinent information, such as numbers of trips made, etc. for
my article which I am bringing right up to date. I would also appreciate
your confidential advice as to whether or not I ought to mention Mr. Gillette.
He has apparently made no herb. collections of orchids, but I understand
that for yrs. he was the sparking plug of orchidology in Trin. & was a good
friend of Broadway. A word from you will be welcome. If I should mention
him, what is his full name, what was his job & how long did he live
in Trinidad. I understand he is still there, working in an institution for
the blind.

All the best,

Richard Simeon Schultze

This one beginning to become normalised at
home after 1 1/2 months of serious hospitalisation
of my father who had an successful operation for
sigmoid cancer, then 2 heart attacks necessitating
oxygen & then pneumonia. All at 84. He is at
home & progressing & I can now get back to the job
at hand full-time.

Mr. George A. Dwyer
Notary Public Trinidad 1894
Riding and...
1915 - from Broadway + collected with
Mr. W. H. ...
Mr. ...
Plants - ...

AMERICAN ORCHID SOCIETY, INC.

Botanical Museum of Harvard University
Cambridge 38, Massachusetts

August 7, 1957

FRANK J. LIND
PRESIDENT

HAROLD E. ANTHONY
TREASURER

O. WESLEY DAVIDSON
SECRETARY

FROM THE OFFICE OF
GORDON W. DILLON
EXECUTIVE SECRETARY

Dr. Wilbur G. Downs
Trinidad Regional Virus Laboratory
P. O. Box 164
Port-of-Spain, TRINIDAD

Dear Dr. Downs:

Just a brief note to acknowledge receipt of your letter of July 26th and the cut of Broadway. Thank you very much for your efforts and interest.

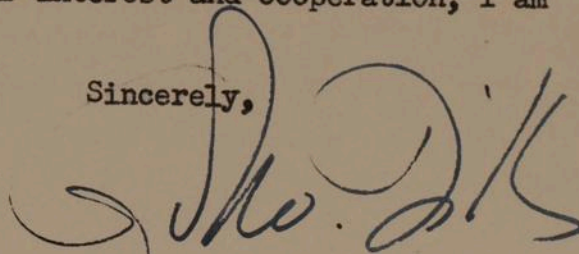
Since writing you, Dr. Schultes has returned and has assembled a group of the photographs which you had sent him. We are planning to use as many cuts as we can, concentrating on those species mentioned in your article and, if the number must be more limited, those which have the greatest illustrative value.

In addition, Dr. Schultes may prepare a short "story" on the orchid collectors of Trinidad, to be published with a locality map in the same issue in which your article will appear, thus running a "double feature" on Trinidad.

We note your request for 100 reprints and will have them printed and shipped at the earliest possible moment.

Thanking you again for your interest and cooperation, I am

Sincerely,



Gordon W. Dillon

File
Down

15th August, 1957.

Dr. Richard E. Schultes,
Orchid Herbarium of Oakes Ames,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38,
Massachusetts.

Dear Doctor Schultes,

Yours of 5 August acknowledged.

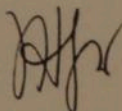
I have just returned from a two week holiday in Tobago, and among other things, brought back a number of orchids (about 18 species). Most of these are in duplicate or else sufficiently common so that herbarium specimens have been put up in most cases.

As several represent new island records, I had thought of getting up a note for the orchid journal, but thought I'd ask your opinion first. The list is as follows: Diacrium bicornutum, Epidendrum stenopetalum, E. rigidum, E. strobiliferum, E. fragrans, E. laxum? (I am not sure of this as the dead inflorescences are in poor shape. I shall probably have to await Downs' return from leave, as I don't have access to his files; I have also mounted material for growing, so may also eventually get flowers. This would be a new record), E. oncioides (don't know if it is the typical form or var. gravidum; mounted for growing. New record). E. ramosum (seen up in a tree but unobtainable. I feel quite sure about this, but I suppose it should be queried. New Record), Gongora sp. (could this be atropurpurea, known from Tobago, or maculata, a new record? Mounted for growing), Catasetum sp. (presumably macrocarpum), Jaquiniella globosa, Maxillaria conferta, M. trinitatis (not in flower, but broken scapes a good 9 cm. long, as well as large single-leaved pseudobulbs rules out liparophylla and Broadwayi. Previously considered a Trinidad endemic. Plants also mounted for growing), Stelis ophioglossoides? (shall have to await Downs' return as I'm not up on Stelis and Pleurothallis), Octomeria graminifolia? (no flowers, but description of leaves and stems fits. Have also mounted plants for growing), Hexisia reflexa (New Record). On a previous visit, I also got Polystachya luteola. In addition I have mounted one small plant for growing which looks as if it is a miniature Gongora, however the pseudobulbs are very slender. I hope to get this to flower some day as I don't think it is Gongora even though taken from the same tree.

It would seem I might have five or six new records to add to the list, and possibly a seventh, if the Gongora-like thing turns out to be interesting. Of these, E. laxum, M. trinitatis and Hexisia have had herbarium specimens put up. Ramosum wasn't obtained and E. oncidoides and the Gongora-like thing were single plants and hence mounted for growing to get additional information. Perhaps I should wait until we are more sure of these and make herbarium specimens before proceeding any further.

I note from your letter you have prepared some maps showing collecting localities. Would you care to send copies here for checking and additions? Would be glad to help out in any way.

Sincerely yours,



Thomas H. G. Aitken

THGA:eat

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

August 5, 1957.

Dear Dr. Aitken:

Thanks for your letter of July 17th which I received the other day on my return from Cuba.

Now, as soon as I can rest up, I am sitting down to finish up in final shape the Orchids of Trinidad & Tobago. I appreciate your letter. It will be a great help in the final checking. But I should point out that I have gone along making additional changes to my own manuscript here, & your copy is still the imperfect original. Nevertheless, I am glad to have all your remarks as a double check.

I have read Dr. Down's wonderful little article. Mr. Dillon & I are choosing some of his photos to put in the article, & I may put in the same issue a short squib on the other collectors — mainly to get published a map I have had made on "orchid localities" in Tr. & Tob.

It now seems absolutely impossible to publish the desired illustrated edition, & I am readying the ms. for the Imperial College to publish in their flora. Perhaps later we might get out a second & illustrated edition — since the plates will cost nothing. I hope the Imp. Coll. does not chop down the descriptions too much.

Very sincerely yours,
Richard Evans Schultze

June 30th, 1957.

The General Meeting was held at 10.00 a.m. at the home of Dr. H.P.S. Gillette.

Members Present

Dr. Gillette, Mr. Palmer, Mr. & Mrs. C. Ulrich, Mr. & Mrs. Cramer, Mrs. Barclay, Mr. & Mrs. Cox, Dr. Downs, Dr. Atkin, Mr. Wells, Mrs. Smith, Mrs. Andrew, Mrs. Shrubsall, Mr. & Mrs. Meyers, Mr. & Mrs. Duruty, Mr. Bolton, Mr. O'Brien, Mr. Sorzano, Mr. R. Dear, Mr. & Mrs. Edwards, Mr. Moore, Miss Brown.

The Minutes of the last General Meeting were read and confirmed.

World Orchid Conference:

Dr. Gillette announced that he had been asked to tell the Society that the sponsors of the conference were hoping that more members would attend. He also explained briefly a controversy which had arisen between the American Orchid Society, the British Orchid Society and the International Botanical Committee concerning the Registration of new hybrids and Nomenclature of orchids. He stated that he had been requested to come to the conference with the views of the Society he was representing. In order to clarify these views he proposed the formation of a small Sub-committee to discuss in detail various information he had received on this subject, so that this Committee could report back to the General Meeting and a decision could be reached before he left for the conference in September.

Orchid Show:

Reasons for postponement clarified.

Location for Show in early 1958 discussed.

It was reported that the Marian Hall could not be made available over such a long period. Mrs. Duruty reported unsuccessful attempts to contact the Mother Superior of St. Joseph Convent, but promised to try again early next week. Dr. Gillette made one other suggestion - the Hall of the Extra Mural Department, St. Ann's.

Growth of Society

Dr. Gillette made an earnest appeal to all members to make a great effort to bring the Society into the top class. He stated that the two primary aims of the Society should be :-

- (1) To bring orchid loving people together and
 - (2) To make the subject of increased interest to all members.
- He suggested that the best way of cultivating this interest was by topical talks on the subject and the expansion of the use of the Exhibition table at monthly meetings.

Exhibition Table:

It was emphasized that all members should attempt to bring exhibits to all meetings and should not be shy of bringing their plants. Dr. Gillette stated that he would exhibit but would not compete.

Suggestions

1. To award points for all exhibits. There was some difference of opinion as it was thought the collecting of points over a period may engender ill-feeling and may also prevent shy exhibitors from bringing specimens when some people had built up a large number of points.
2. An award of a cup to be presented to the best exhibit at the meeting and to be held by the exhibitor for one month only.
3. Higher Awards:-
 - (a) F.C.C. First Class Certificate.
 - (b) A.M. Award of Merit.
 - (c) Cultural Award.
4. The same exhibit should not be put up more than once in a year.

July 30, 1957

Dr. R.E. Schultes
Orchid Herbarium
Harvard University
Oxford Street
Cambridge, Mass.

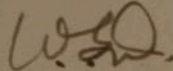
Dear Dr. Schultes,

We are getting off another shipment of orchid blossoms in alcohol, with blossoms of *Coryanthes speciosa*, *Pleurothallus* sp. 115 (possibly a new record for the island), *Lonopsis pygmaea*, *Lochneria ?acuta*, *Triphora surinamensis* and *Diacrium indivisum*, with two types of flowers (from different plants). A list accompanies the shipment.

With this letter I am enclosing two additional sketches, sp. 115 and sp. 116. Also photos of *Peucezia arisa* and *Triphora surinamensis*.

Am sending a couple of articles for possible acceptance in American Orchid Society bulletin. I have in my possession now the cut of Broadway if this can be of any use. Also, am hoping you may be able to get a few more of the photographs printed.

Sincerely yours



Wilbur G. Downs

Orchids seen in Tobago (July 1917)
HGA

1. Diacrium bicomutum ✓ (abundant along coast)
2. Epidendrum stenopetalum ✓ (common in wawa areas)
3. E. rigidum (ibid.) ✓
4. E. strobiliferum (ibid.) ✓
5. E. ~~laxum~~ ^{anceps} (wawa areas, but of Roxburgh) NR
6. E. ramosum (Main Ridge, Roxburgh) seen, not collected NR
7. Gynera ~~maculata~~ ^{atropurpurea} (Main Ridge, Roxburgh) NR
8. Cataselen macrantha (Main Ridge - Roxburgh - wawa area)
9. Jacquinella globosa ✓ (common in wawa areas)
10. Maxillaria ~~compita~~ (quite common in wawa areas, see on main ridge, Roxburgh)
11. M. trinikatis (Main Ridge - Roxburgh - in fruit) NR
12. Stelis ~~aptychota~~ ^{ophioglossoides} (Main Ridge, Roxburgh - wawa area) NR
13. Octomeria ~~grandiflora~~ ^{graminifolia} (Main Ridge, Roxburgh - fruit)
14. Epi. fragrans ✓ (quite common in wawa areas, seen on Main Ridge at Roxburgh - in wawa + in fruit)
15. Epi. oncidioides var.? (Main Ridge, Rox. / fruit) NR
16. Hexisia reflexa - NR
17. Polytachya luteola ✓ - in previous visit

Orchids reported for Totapo

1. Brassia lanceana
 2. Campylscentum micranthum
 3. Camp. pachyrhizum
 4. Catasatum macriscarpum
 5. Coryanthes speciosa
 6. Diacrium bicornutum
 7. Dichaea graminoides
 8. Epidendrum pagani
 9. E. Hartii
 10. E. nocturnum
 11. E. rigidum
 12. E. stenopetalum
 13. E. strobiliferum
 14. Gompha atropurpurea
 15. Habenaria alata
 16. H. monorbiza
 17. Jasquinella globosa
 18. Leochilus labiatus
 19. Maxillaria Bowdwayi
 20. M. conferta
 21. M. lipanophylla
 22. Octomeria graminifolia
 23. Oncidium luridum
 24. Ornithocephalus gladiatus
 25. Pleurothallis walipolia
 26. Polystachya leucola
 27. Spiranthes acaulis
 28. S. orchioides
 29. Stelis ophioglossoides
 30. Vanilla Hartii
 31. V. phaeantha
 32. V. planifolia
- Plus 6 additional species collected by H. H. H.

W.G.D.

ORCHIDS IN ALCOHOL - Jar X

Dr. Richard E. Schultes
Orchid Herbarium, Harvard University, Cambridge, Mass.

Species	Locality	Date	Collector
Sp. 111 <u>Corvanthes speciosa</u> (Remarks) This flower has no maculations inside cup or hood.	Blanchiseuse Road, Trinidad	-	Mr. Watkin-Williams
<u>Pleurothallus</u> sp. Sp. #115	Todds Road, Trinidad.	May 1957	W. G. Downs
<u>Ionopsis pygmaea</u> (Remarks) flowering	Caparo, Trinidad.	10/III/57	R. Martinez
Sp. #25 - <u>Lockhartia acuta</u> ? (Remarks) flowering 21/III/57		21/III/57	W.G.Downs & T.H.G.Aitken
Sp. 114 <u>Triphora surinamensis</u> (Remarks) flowering 29/IV/57	Blanchisseuse Road, Trinidad	-	C. Gritchlow
Sp. 15. - <u>Diacrium indivisum</u> (Remarks) 2 flowers with deeply trilobed lip from Vega de Oropouche - 1 ml. from sea. 1 flower with lightly trilobed lip from St. Augustine - 6 mls. from sea.	Vega de Oropouche and St. Augustine	-	W.G.Downs & T.H.G.Aitken

THGA:eat
TRVL:8/VII/57

AMERICAN ORCHID SOCIETY, INC.

Botanical Museum of Harvard University
Cambridge 38, Massachusetts

July 23, 1957

FRANK J. LIND
PRESIDENT

HAROLD E. ANTHONY
TREASURER

O. WESLEY DAVIDSON
SECRETARY

FROM THE OFFICE OF
GORDON W. DILLON
EXECUTIVE SECRETARY

Dr. Wilbur G. Downs, Director
Trinidad Regional Virus Laboratory
P. O. Box 164
Port-of-Spain, TRINIDAD

Dear Dr. Downs:

I was delighted to receive your letter of July 13th and the accompanying manuscript entitled "Orchids and Oil Birds in Trinidad." A quick glance shows it is eminently suitable and acceptable for publication in the Bulletin, and we shall schedule it for early appearance, possibly September or October.

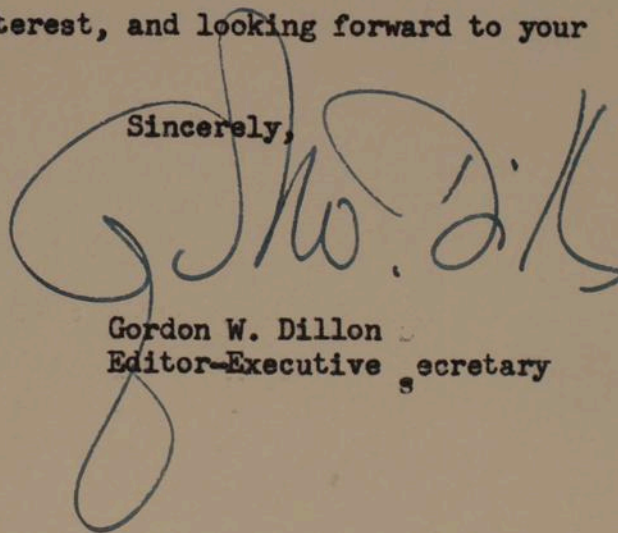
Your offer to locate a cut of W. E. Broadway is very kind. If the cut cannot be found, we would be pleased to have a photograph. Perhaps Dr. Schultes has such a photo but he is at present in Cuba and I cannot ask him at once.

Dr. Schultes and I have discussed the matter of illustrations of orchids from photographs you had submitted to him, prior to the appearance of your manuscript. We will be pleased to use as many as is practical and economically possible, so as to do all we can to make this article an attractive feature.

Do you wish to have reprints of this article when it is published? As a matter of policy, we provide 50 reprints free of charge to contributors upon request. We should know if you desire these or more before the manuscript goes to press.

Thanking you for your interest, and looking forward to your reply, I am

Sincerely,



Gordon W. Dillon
Editor-Executive Secretary

9th July, 1957

Dr. Horace Gillette,
5 Hart Street,
Port-of-Spain.

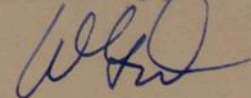
Dear Dr. Gillette:

Dr. Aitken and I have studied over the documents you sent us from the Nomenclature Committee of the Second World Orchid Conference with some care.

While some of the problems in nomenclature are beyond our capabilities either to assess or to propose recommendations upon, we do recommend that the club endorse the proposal that at the Second World Orchid Conference an International Orchid Commission on Classification, Nomenclature and Registration be established to handle orchid problems and that this commission be instructed to have the Code Committees:

- (a) make a change in the article (Article 38-1952 publication of Code of International Committee on Botanical Nomenclature) on "Names of Plants in Cultivation" to recognize international commissions on nomenclature and registration for any plant group
- (b) make use of the commissions in reviewing changes to the Code
- (c) tie in with the International Registration Authority for a particular family of plants with these commissions
- (d) permit the International Orchid Commission on Classification, Nomenclature and Registration to submit a Code for Orchids, if found necessary, and to have it become an appendix to the Code.

Sincerely,



Wilbur G. Downs

WGD/kdh

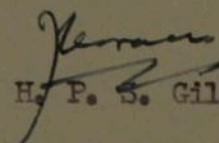
Health Department,
5 Hart Street,
PORT OF SPAIN.

5th July, 1957.

Dear Dr. Downs,

I doubt whether I will receive before the middle of this month the further papers from the Nomenclature Committee of the Second World Orchid Conference. I send, you, however, some papers that I already possess and I would be grateful for yours and Tommy's views on some of the points raised particularly in respect of documents reds 2, 3, and 4. I hope you both will have time to look through and to drop me a note with any comments you may have to make on them. Kindly re-turn the documents when finished with.

Sincerely yours,


H. P. S. Gillette,

Dr. W. G. Downs,
Director,
Trinidad Regional Virus Laboratory,
Caribbean Medical Centre,
Wrightson Road,
PORT OF SPAIN.

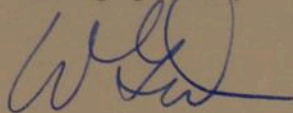
July 17, 1957.

Office of Publications,
The Caribbean Commission,
Kent House,
Maraval.

Dear Sirs:

This will advise you that I have in my possession a block, obtained with your permission from Yuille's Printerie Ltd., of Mr. W. E. Broadway. This block, I understand, is your property and was used by you to illustrate an article about the Trinidad Field Naturalists' Club in your Bulletin. I hope to use the block to illustrate an article to be published in the American Orchids Society Bulletin. When they have finished with it, which may not be for several months, I will see that the block is returned to you.

Very truly yours,



Wilbur G. Downs.

WGD:ac

File W.G.D.

17th July, 1957.

Dr. Richard E. Schultes,
Oakes Ames Orchid Herbarium,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge, Mass.

Dear Doctor Schultes,

I had occasion to check your generic key to Trinidad orchids against the discussion of species in the main body of your m.s. and noted several omissions.

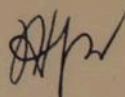
The genus Palmorchis appears on the second page of the key, but there is no mention of the genus elsewhere or the species pertaining to it. Three genera are missing from the key: Aganisia, Kellensteinia and Stanhopea.

Again may I call your attention to what appears to us to be a misconception of the facts with regard to the species you choose to call Epidendrum tipuloideum (our former Rousseauae). In your key it will not run into complet 1A "Stems without true pseudobulbs" because the plant definitely has pseudobulbs, although they are not large. If you feel the plant definitely is tipuloideum, the key should be modified (also any description of the species).

By the way, in your final m.s., don't forget to remove Rousseauae from the key as well in the discussion of species.

In your letter to W.G.D. of 5 June, you mention a Vanilla sp. (Jar V) (s.n.) not yet determined. It is quite possible you will find a pressed specimen with leaves in a shipment going off shortly.

Sincerely,



Thomas H. G. Aitken

THGA:eat

July 13, 1957

Dr. Gordon W. Dillon
Editorial Office of American Orchid Society, Inc.
Botanical Museum of Harvard University
Cambridge 38, Mass.

Dear Mr. Dillon:

Enclosed is a manuscript entitled "Orchids and Oil Birds in Trinidad", which it is hoped you may find acceptable for publication in the American Orchid Society Bulletin.

I believe I can locate in Trinidad a cut of W.E. Broadway which was used in a local magazine here a few years ago. Also, should you desire illustrations of any of the orchids mentioned in the text, Dr. R.E. Schultes has a considerable file of photos of most of these orchids, which I have earlier submitted to him, and it is possible you might find some of them acceptable.

Hoping this manuscript receives your favorable consideration,

I remain,

Very truly yours

Wilbur G. Downs

BOTANICAL MUSEUM LEAFLETS
HARVARD UNIVERSITY

CAMBRIDGE, MASSACHUSETTS, JUNE 26, 1956

Vol. 17, No. 7

ORCHIDACEAE NEOTROPICALES I
DE ORCHIDACEIS INDIGENIS INSULARUM TRINIDAD
ET TOBAGO NOTULAE

BY

RICHARD EVANS SCHULTES

THE following miscellaneous notes have accumulated during the preparation of a monograph on the orchids of Trinidad and Tobago.

Trinidad's place in orchid horticulture has been very important. This was especially so during the first half of the 19th Century. Some of the species mentioned below have been collectors' prizes. Others represent curious or little known "botanicals" of great interest to the taxonomist and phytogeographer.

There have been two comprehensive taxonomic treatments covering the orchids of Trinidad and Tobago. The earlier one is A. H. R. Grisebach's "Flora of the British West Indian Islands"; it was issued from 1859 to 1864 and enumerated 97 species of orchids from the Colony. In 1910, A. Cogniaux published a treatise on the orchids of the West Indies in volume six of Urban's "Symbolae Antillanae"; he recognized 148 species and a few varieties as native to Trinidad and Tobago.

Since 1910, the number of orchids known from Trinidad and Tobago has grown appreciably as a result of careful and persistent collecting. This is due in great part to the remarkable field work of the late Mr. Walter

ORCHID HERBARIUM OF OAKES AMES
 BOTANICAL MUSEUM, HARVARD UNIVERSITY
 OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

6/5/57.

Dear Dr. Downs:

I have finished looking at the latest shipment of alcohol specimens and send you the following determinations. To-day, a new batch of photos and diagnostic drawings came in from you and are most welcome, but I shall have to put off working on them until I return from Cuba in September.

Nos. 86 (an Epidendrum), 108 (apparently rel. to Maxillaria) and 89 cannot be determined because of imperfect flowers or other deficiencies. A specimen without number "from Tabaguite" which you stated to be "near Epidendrum nocturnum" is in bud only and cannot, especially lacking vegetative parts, be identified.

Follows your own list that accompanied specimens.

- 93 *Cyrtopodium punctatum* (L.) Ldl.
 104 *Eulophia alta* (L.) Fawc. & Rendle
 101 *Brassavola cucullata* (L.) R. Br.
 100 *Pogonia rosea* (Ldl.) Reichenb. f.
 88 *Notylia punctata* (Ker) Ldl.
 97 *Habenaria Leprieurii* Rchb. f. var. *heptadactyla* (Rchb. f.) R.E. Schult. *(We called this H. setacea)*
 96 *Cyrtopodium Broadwayi* Ames
 98 *Epidendrum secundum* Jacq.
 99 *Epistephium parviflorum* Ldl.
 106 *Paphinia cristata* Ldl.
 95 *Catasetum macrocarpum* L.C. Rich ex Kunth
 91 *Otostylis brachystalix* (Rchb. f.) Schltr.
 Plant 381 *Epidendrum ibaguense* HBK. var. *Schomburgkii* (Ldl.) C.
 Jar iii (s.n.) *Coryanthes speciosa* Hook. Schweinf.
 92 is not *C. speciosa* and may be *C. maculata*, but we must await fuller material of it. Is it known to be wild?
 Jar iii (s.n.) *Diacrium bicornutum* (Chacachacare)
 Jar iii (s.n.) *Aspasia variegata* Ldl.
 74 *Epidendrum ibaguense* HBK. var. *Schomburgkii* (Ldl.) R.E. Schult.
 53 *Pleurothallis plumosa* Ldl.
 108 More material needed.
 109 *Spiranthes acaulis* Cogn.
 Jar ivi (s.n.) *Epidendrum ciliare* L.
 Jar ivi (s.n.) *Epidendrum cochleatum* L.
 Jar v (s.n.) *Vanilla* (not yet determined) Do you have photo of leaves?
 95 *Catasetum macrocarpum* L.C. Rich ex Kunth
 Jar. vii *Coryanthes speciosa* Hook.
 107 *Epidendrum imatophyllum* Ldl.
 59 *Brassia caudata* (L.) Lindl.
 64 *Maxillaria Reichenheimiana* Endres & Rchb. f.
 Jar viii (s.n.) *Pleurothallis tribuloides* (Sw.) Ldl. (Jamaica)
 87 *Batemannia Colleyi* Ldl.
 85 *Epidendrum oncidoides* Ldl. var. *gravidum* (Ldl.) A H&S

Jar I (s.n.) *Epidendrum wrightii* (König)
 Jar I (s.n.) *Wulfschlaegelia calcarata* Benth. (Hortat West, Rincon)

By all means write up the article you mention. We still must get more of your photos published, even though there can be no illustrated edition of the *Orchids* as a whole.

Sincerely,
Richard Evans Schultes
 Richard Evans Schultes

- 86 From Ouare Doue
Sp. 108 - Valencia - coll AB Fenwick
- 109 Spiranthes acaulis
- 110 Donopsis pygmaea
- 111 Coryanthes speciosa
- 112 Habenaria ? - Long Stretch
- 113 Peristeria cerisea
- 114 Triplaris surinamensis
- 115 Plennothallus Todd's Road
- 116 Pogonia
- 117 Macradenia lutescens
- 118 Dichaea rundleri
- 119 Dichaea muricata
- 120 Dichaea hystericina
- 121 Valencia - Kegel's? -
Epidendrum crestatum

The Staff of the TRSL
 requests the presence of
 your company of the
 cocktails, luncheon,
 March 31
 6:30 to 8:00
 at the residence of
 Dr & Mrs. Wilbur G. [?]
 6 Roshery [?]
 Madrasal
~~in house to meet~~

R.S.V.P.

- 112 Heterocarpus ?
- 113 Centropogon
- 114 Triplocha
- 115 Chromolaena
- 116 Pogon
- 117 Macaranga
- 118 Dielsia
- 119 Delonix
- 120 Delonix
- 121 Delonix

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

*Oxford Street
Cambridge 38, Massachusetts*

June 12, 1957

Dr. Wilbur G. Downs
Box 164
Port-of-Spain, Trinidad, B.W.I.

Dear Dr. Downs:

One of our graduate students who is receiving his doctorate in biology this June has received a Fulbright Scholarship to work in Trinidad on forest ecology. He is Philip Ross.

Mr. Ross will be going down with his wife and young child and will be returning some time in September, I believe. I have told him to contact you for information which might help him to get started in his field work.

I know that you will enjoy Mr. Ross who is a serious and bright student. He has done most of his work at the Harvard Forest and has never been in the tropics before, but I know that he is adaptable enough to make a go of it. My principal interest is that he get off to a good start in knowing one or two people who have travelled in forested parts of Trinidad.

Thanking you in advance for any help you may be able to give Mr. Ross, I remain

Sincerely yours,

Richard Evans Schultes

Richard Evans Schultes
Curator: Ames Herbarium



May 29, 1957.

Dear Dr. Downs:

I have had to put the Trinidad Orchids by this first half year because of teaching and other duties. I also was rather waiting word from the Linnean Society as to whether or not they might publish the illustrated edition of the Orchids before the unillustrated one appears in the Flora of Trinidad. I must tell you that I have been unsuccessful, so that in the early autumn, when I return to Boston from teaching my course in Tropical Botany in Cuba, I shall finish off my paper and send it for publication in Trinidad.

I have been anxious to get into your latest shipment of flowers in alcohol. Only to-day was I able to do this. I note in your letter of March 8th that there are several numbers you want identified straightway. No. 64 is a most interesting find: Maxillaria Reichenheimiana Endres & Rchb. f., hitherto known only from Costa Rica and Honduras! No. 86 is an Epidendrum, but the flowers are imperfect and cannot be determined further. No. 87: Batemannia Coleyi Lindl. No. 88: Notylia punctata (Ker) Lindl. No. 100: Pogonia rosea (Lindl.) Rchb. f. I shall be able to work on these a few days before commencement, and then, on the night of commencement day I leave for Cuba. I wish it were not so expensive to fly from Cuba to Trinidad. I would like to say that I had once collected an orchid on the Island!

My best regards to Dr. Aitken and to your boy whom I feel I know through the wonderful photographs in which he often holds an orchid.

Sincerely yours,

Richard Evans Schultes

Richard Evans Schultes
Curator: Ames Herb.

JRM

P.O.Box 164
Part of Spain, Trin.
June 3, 1957

Dr. R.E. Schultes
Arns Herbarium

Dear Dr. Schultes:

We were very pleased to get your letter of May 29, and to hear of the new find for Trinidad, namely Maxillaria Reichenheimiana, a plant we have picked up on several occasions, on El Tucuche and in the Cumaca region. Also the Notylia punctata is a very welcome identification. This is a rather unusual plant. I have seen it as a most attractive miniature, with the inflorescence possibly 5 cm long, rather tightly packed with the small white blossoms, and I have also seen plants with spikes 10 and 15 inches long, but very certainly the same plant, upon careful examination of minute details of flowers.

There are several interesting items in material earlier sent you and I shall try to recall some. There are some flowers of Epidendrum Hartii with floral bracts as long as the blossom. And also some flowers of earlier (or possibly later) date, with floral bracts quite inconspicuous. These two sets of flowers came from the same plant on different years.

Species 89, 90 and 112 are three terrestrials collected in recent months. I am enclosing sketches, and if you do not have floral material, this will be coming along in due time. I do not have photos as yet of these species. Species 105, of which a photo has been sent, is a Vanilla with quite small almost round leaves, which I have picked up only once on a palm tree on the Aripo Savannah. The plant died, unfortunately, and there is no record except the photo. We are very interested in hearing what Species #108 may be. I am also enclosing sketches of this plant. Have recently picked up Triphora surinamensis and Peristeria cerina and photographs and alcoholic material of flowers will eventually be arriving in your hands.

Enclosed with this letter, along with the sketches mentioned above are the following:

- Sp. 25 Lockhartia acuta except that I can't jibe the single flowers of this plant with your description of the plant. Flowers are on hand to be sent to you.
- Sp. 15 Three photos of flowers of Diacrium. The tri-lobed lip fellow is from a plant collected at Vega de Oropouche, 1 mile from the sea. The flower with lip only barely lobed is from a plant growing on a tree at St. ~~Augustine~~ Augustine, possibly 5 miles from the sea. A sketch of the flower parts is also enclosed.
- Sp. 110 Ionopsis pygmaea photos and sketches enclosed.
- Sp. 111 Coryanthes speciosa (I have this same item as Sp. 92 Coryanthes maculata) In the photos of 92, it is evident how spotted the interior of the cup and hood are, but in this 111, there was no spotting at all, the interiors being a pale yellow.
- Sp. 112 Habenaria sp. photos and sketches.

It is too bad you cannot get out an illustrated Orchids of T'idad. Is it still worthwhile for me to get an article out on collecting plants in T'idad. I know where a photo of Broadway can be located, and Aitken and I can get out an item on a recent trip to Cumaca where we logged some 44 species of orchids, with some side items of interest on guacharo bird caves and blind cave catfish. Then you could select out some orchid photos which you might want plates of.

Sincerely

P.O.Box 164
Port of Spain, Trinidad
April 23, 1957

Dr. R.E.Schultes
Botanical Museum of Harvard University
Cambridge, Massachusetts

Dear Dr. Schultes:

Enclosed are some further photographs of Trinidad orchids, some fair, and some not so good, as usual.

<i>Spiranthes acaulis</i> (as we have keyed it out)	3 photos
<i>Pleurothallus plumosa</i>	3 photos
<i>Epid. ibaguense</i> var. <i>schomburgkii</i>	3 photos
<i>Epid. oncidoides</i> var. <i>gravidum</i>	8 photos
sp. 108	7 photos

We sent several jars of plant material to you recently and I hope this arrived safely.

Haven't had much time for field collecting recently. And indeed, it is becoming increasingly difficult to pick up new items. The other day we did get *Ionopsis pygmaea* near Caparo. The single plant we got, with inflorescence, is now being pressed, and will be placed in your hands this summer., when I plan to take North with me a lot of the pressed material we have on hand. This pygmaea plant was no pygay, and I doubt if the name would have been applied on the basis of the specimen we obtained.

Sincerely yours

WGD

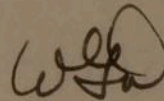
8th March, 1957.

Dr. Richard E. Schultes,
Botanical Museum,
Harvard University,
Cambridge 38,
Mass..

Dear Dr. Schultes:

Enclosed is a list of material recently
dispatched to you via a returning traveller. We'd sure like to
have an identification on species 64, species 86, species 87, species
88, species 95, and species 100, among others. I have sent you
photos on most of these, and more photos will be sent to you soon.

Sincerely yours,



Wilbur G. Downs

WGD:eat

Encl.

P.S. Species 64 interests us particularly.

ORCHIDS

JAR I

<u>Species/Plant #</u>	<u>Name</u>	<u>Collector</u>	<u>Locality</u>	<u>Date</u>	<u>Comments</u>
Sp. 93 Downs- Aitken	Cyrtopodium punctatum	T.H.G. Aitken	Chacachacare Isl.	1956	
Sp. D - A	Epidendrum moyobambae	T.H.G. Aitken	Cumaca	30/XI/54	Flowering June '56.
Sp. D - A		Hubert Wood	Rincon las Cuevas	16/IV/56	Terrestrial
Sp. #104	Eulophia alta (Cyrtopera woodfordi)	Downs & Aitken	Fort Read, Waller Field, San Rafael	27/XII/55	Flowering June '56
Sp. #101 D - A	Brassavola cucullata	THGA & WGD	Scotland Bay		Flowering Aug. 1, '56
Sp. #100	Cleistes cleistes rosea?	WGD & THGA	Aripo Savannah	24/V/56	Terrestrial - boggy ground
Sp. #89		H.E. Wood	Trinidad		Terrestrial flowering 14/IV/56
Sp. #88, plant #333	Macradenia?	W.G. Downs	Melajo Forest		Flowering 18/V/56

THGA:eat
TRVL/6/III/57

ORCHIDS

JAR II

<u>Species/Plant No.</u>	<u>Name</u>	<u>Collector</u>	<u>Locality</u>	<u>Date</u>	<u>Comments</u>
Sp. #97 Downs - Aitken	Habenaria setacea	A.S. Fenwick	Aripo Savannah		Boggy ground flowering 22/V/56.
Sp. #104 D-A	Eulophia alta	T.H.G. Aitken & W.G. Downs	Aripo Savannah		Flowering 30/VI/56.
	Epidendrum ibaguense var. Schomburgkii	R. Martinez	St. Patrick's Estate Arima	Oct. '56	Flowering Dec. '56
Sp. #96 D - A	Cyrtopodium broadwayi	A.S. Fenwick	Aripo Savannah		Flowering 22/V/56
Sp. #98 D - A	Epidendrum secundum	T.H.G.A.	Rodriguez Bay, 1st Boca Bay		Flowering 20/V/56
	Epidendrum sp. (near nocturnum)?	THGA & WGD	Charuma Forest, Tabaquite	28/VII/56	Epiphytic
Sp. #99 D - A	? Epistephium	A.S. Fenwick	Aripo Savannah		Flowering 22/V/56
Sp. #106 D - A	Paphinia cristata	R. Martinez	Old Valencia Rd.		Flowering 14/7/56
Sp. #95 D - A	Catasetum trifidum	W.G.D.	Melajo Forest		Flowering 18/V/56
Sp. #91 D - A	Otostylus brachystalix	W.G.D.	Aripo Savannah		Flowering 29/IV/56
D - A (plant #381; flowers: carmine:	Epidendrum ibaguense var. Schomburgkii?	WGD & THGA	St. Patrick's Estate, Arima Valley		? endemic flowering 1/VII/56

THGA:eat
TRVL:6/III/57

ORCHIDS

JAR III

<u>Species/Plant No.</u>	<u>Name</u>	<u>Collector</u>	<u>Locality</u>	<u>Date</u>	<u>Comments</u>
	Diacrium sp.	A.S. Fenwick	Plum Road		Flowering 14/I/57
Downs - Aitken	Coryanthes maculata	A.S. Fenwick	Valencia		Flowering 5/V/56
	Diacrium bicornutum	A.S. Fenwick	Chacachacare Isl. (sea coast)		Flowering 14/I/57
	<u>Aspasia</u> variegata?	T.H.G. Aitken	Charuma Forest	25/IX/55	Flowering Dec. '56
Sp. #74 D - A	Epidendrum ibaguense var schomburgkii(?)	W.G. Downs	Rapsey Estate Aripo Valley		Flowering 26/I/57

JAR IV

Sp. #53	Pleurothallus plumosa	W.G. Downs	Rapsey Estate Aripo Valley		Flowering 26/I/57
Sp. #108 D - A		A.S. Fenwick	Valencia		Flowering 12/XI/56
Sp. #109 D - A	Spiranthes acaulis	Hubert Wood	Five Islands, T'dad		Flowering 26/I/57
	Epidendrum ciliare	W.G. Downs	Harris, Monts- errat	IX/56	
	Epidendrum cochleare	WGD	Mandeville, Jamaica	IX/56	

JAR V

Vanilla sp.		T. H. G. A.	Cumaca Sangre Grande	16/X/56	
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THGA:eat
TRVL:6/III/57

ORCHIDS

JAR VI

<u>Species/Plant No.</u>	<u>Name</u>	<u>Collector</u>	<u>Locality</u>	<u>Date</u>	<u>Comments</u>
Sp. #95, plant #250	Catasetum	Downs & Aitken	Melajo Forest		Flowering 15/XI/56

JAR VII

	Coryanthes speciosa	A.S. Fenwick	Valencia		Flowering 14/I/57
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JAR VIII

Sp. # 107 Downs Aitken	-Epidendrum sp.	Hubert Wood	Tabaquite		Flowering 1/IX/56
	Pleurothrallus sp.	W.G. Downs	Belvidere, Grenada	Aug. '56	
Sp. #59 plant #248	Brassia caudata	WGD	Tabaquite		Flowering 10/X/56
Sp. #64 D - A	Maxillaria? sp. (not albiflora)	WGD & THGA	Cumaca	10/II/57	Flowering 10/II/57
	Pleurothrallus sp.	WGD	Mandeville, Jamaica	IX/56	

JAR IX

	Epidendrum sp	W.G. Downs	St. Lucia	IX/56	
Sp. #87 Downs- Aitken		A.S. Fenwick	Valencia		Flowering 30/IX/56
Sp. #86 D - A		Critchlow	Long Stretch, Sangre Grande		Flowering 16/XI/56
Sp. #85	Epidendrum onc- idioides var. Gravidum & Aitken	R. Martinez Downs & Aitken	Melajo Forest		Flowering 29/XII/56

THGA:eat
TRVL:6/III/57

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

February 4, 1957.

Dr. Wilbur G. Downs,
Trinidad Regional Virus Laboratory,
Port-of-Spain, Trinidad, B.W.I.

Dear Dr. Downs:

This will acknowledge with thanks your letter of January 28th with the enclosed specimen of Pleurothallis. I shall report on the specimen later when I have had a chance to study it. It does not look like anything we have already had from the Colony, but it may be a depauperate form of a species in the key.

I feel certain now that what I erroneously reported as Epidendrum Rousseauae in my manuscript and paper is E. tipu-loideum Lindl. Your recent full collection of a good specimen shows this. I fell into error because I based my identification on photos and a flower, but now I am able to see the inflorescence complete. This is a rare species and we have little of it indeed. It may be that when fuller representation of it is available in our herbaria, we may have to reduce Ames' E. Broadwayi. As I explained in Dr. Aitken's letter, an ample collection of this species is desirable.

Now the terms that bother you: "lip clawed" means that the blade of the lip, instead of being sessile, is held out on a more or less elongate "claw" which is the narrowed base actually of the lip; you will also find this called "lip unguiculate", but I prefer a good Saxon term instead of Latin, if one is available. "Spathe" is usually a rather conspicuous bract enclosing an inflorescence or subtending it. "Scape" refers to a naked (leafless) inflorescence axis or peduncle. "Rhachis" in orchids refers to the axis of the inflorescence alone, as contrasted to "scape" which usually, I think, includes the flowers in its context.

You would find B. D. Jackson's A glossary of botanic terms a very handy vademecum. It has been reprinted in England and is rather inexpensive.

I am still toying with the Linnean Society to try to publish my illustrated edition of the orchids, but I fear we shall have to be content with the unillustrated one published in the series of the Flora of Trinidad & Tobago. It is a shame, as we have all the cuts made and it would cost nothing extra.

Very sincerely yours,
Richard Evans Schultes
Richard Evans Schultes Ph D

R. E. Schubert
Harvard Bot. Museum
Cambridge, Mass.



AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

Dr. Wilbur G. Howe,
~~Box 151,~~ *Box 151*
P.O. - of - Spain *Trujillo*
Trinidad, *British West Indies*

NO TAPE OR STICKER MAY BE ATTACHED
IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

Dear Dr. Downs:

February 4, 1957.

I have just had a chance to look at the *Pleurothallis* (your no. 53) and can report that it is referrible to *P. plumosa* Lindl.

Very truly yours,

Richard Evans Schultes

14th February, 1957.

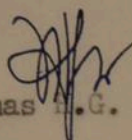
Dr. Richard Schultes,
Oakes Ames Orchid Herbarium,
Harvard University,
Oxford Street,
Cambridge, Massachusetts,

Dear Doctor Schultes,

After posting my recent letter to you regarding E. rousseaui, I subsequently discovered I had mistakenly made reference to Polystachea luteola when in reality I meant Scaphyglottis fusiformis. You were probably wondering how on earth I could imagine the plant of rousseaui resembling that of luteola.

Last Sunday Downs and I went on a hiking excursion to the Oropouche Cave in the Northern Range. We kept track of the numbers of species of bromeliads and orchids seen in the Cumaca - Oropouche Cave area and by day's end had counted 18 species of bromeliads and 36 species of orchids. Several nice things included among the latter were: Pleurothallus Archidiaconi (flowering), Epidendrum ibaguense Schomburghii (flowering), a small plant very much resembling Stenia pallida but which had a six inch delicate pendulous simple raceme (withered), and a small plant which had leaves coming out alternately as in some of the Vandas (no inflorescence, unfortunately)

Sincerely yours,


Thomas H. G. Aitken

THGA:eat

9th February, 1957.

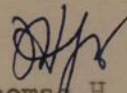
Dr. Richard E. Schultes,
Ames Orchid Herbarium,
Harvard University,
Oxford Street 38,
Massachusetts,
U. S. A.

Dear Doctor Schultes,

Regarding the little plant which we had been led to believe was Rousseauae, your recent suggestion that it might be tipuloideum has us confounded. The reason being that our plant definitely has pseudobulbs which throws it into a completely different section of your key.

juviformis While it is true the pseudobulbs are not oversized, *Scaphylothe* nevertheless they are distinct (almost as prominent as those of Polystachya ~~luteola~~, which species this one resembles very much in habitus). There is this point, however, when the plant sends out a new leaf stem from the base of an old pseudobulb, this stem (which eventually may produce both a leaf and a flower) is not enlarged into a pseudobulb. This enlargement comes later. A plant is usually characterized by a lot of pseudobulb stumps and a few new stems which bear leaves and flowers. I'm inclosing some dried material (illustrating these points) from the same plant sent you a few weeks back (ex Spring Hill Estate, Arima Valley, Northern Range, elev. 1,200 ft, 13/1/57, T. H. G. A.). This is the flowering season, and it is not really uncommon in the higher parts of the Northern Range.

Sincerely,



Thomas H. G. Aitken

THGA:eat
Incl.

P. S. The Pleurothallus plumosa you recently identified for us is listed from Trinidad in the "Orchids of Guatemala", but you do not include it in the Trinidad manuscript.

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

January 21, 1957.

Dear Dr. Aitken:

Thank you for sending the pressed specimen of the Epidendrum, showing its terminal inflorescence. It has corrected an error on my part -- unfortunately, an error which I put into print. I see that what I called *E. Rousseauiae* in my "Leaflet" article is not that. We were fooled by the flower in alcohol which seemed to have an obtuse midlobe to the lip (the tip was apparently damaged or abnormal) and by the photographs which seemed to show a lateral inflorescence.

I do not want to give you a definite determination for a few days until I study this very carefully. It belongs to the *E. tipuloideum* complex. I may call it *E. Broadwayi*, described by Ames but which we suspect is a variant of Lindley's *E. tipuloideum*. The trouble is that we have had very limited material of both concepts. I probably will keep *E. Broadwayi* in the monograph, even though I may feel quite certain that later work will cause its reduction.

There is one great help which you and Dr. Downs can do in this matter. It would be very helpful to have either from a field station or from your cultivated material a series of specimens of this concept. I realise it would be hard to make much of a series from your cultivated material, limited as it must be. However, if you could collect say fifteen or twenty plants in the field (either in one locality or in several) we could get a better idea of the variation in the lip and other parts. I realise how much I am asking, but if you can do this it would enable us to settle the problem probably.

I still plug away at the monograph and soon will add the Downs-Aitken material. It does not seem possible to put out the illustrated edition of the flora, so I may have to be content with the unillustrated edition in the FLORA OF TRINIDAD & TOBAGO.

We have had the coldest winter in 70 years, they say. There are 2 feet of snow on the ground and it has not been above freezing for two weeks, except yesterday when it "soared" to 36/. Up in Townsend, where I have a house, it was -45/; in Boston, it got as low as -18/.

Very sincerely yours,

Richard Evans Schultes
~~Richard Evans Schultes~~
Curator

POBos 164
PoS, Trin;

Dr. R.E. Schultes
Botanical Museum of Harvard University
Oxford Street
Cambridge 38, Mass.

VIA AIR MAIL

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

November 1, 1956.

Dear Dr. Downs:

I am beginning the final revision of my Orchids of Trinidad and I wonder if you have had chance to make any comments. Corrections or suggestions on place-name orthography would be especially helpful.

I recall that it was one year ago to-day that Dr. Aitken was here at the Herbarium.

Sincerely,

Richard Evans Schultes

Richard Evans Schultes

*Two additional
genera!*

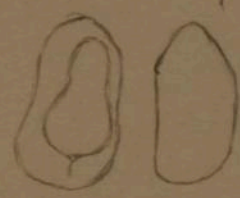
W.G.C.	<i>W.S.</i>
C.A.A.	<i>W.S.</i>
<i>W.S.</i>	<i>W.S.</i>
<i>W.S.</i>	<i>W.S.</i>
<i>W.S.</i>	<i>W.S.</i>
W.G.C.	<i>W.S.</i>
<i>W.S.</i>	<i>W.S.</i>
<i>W.S.</i>	<i>W.S.</i>
<i>W.S.</i>	<i>W.S.</i>
<i>W.S.</i>	<i>W.S.</i>

Under description ?
E. halfordii

"Flowers greenish with
reddish brown lines and
white lip." - "

and later

"Flowers white"



Photos to Dr. Schultes accompanying letter of Nov.10,1956

- sp. 13 *Pleurothallus leptopetala*: 1 photo showing 4 blossoms in single axil
- sp. 59 *Brassia cuadata*: 5 photos
- sp. 69 *Stanhopea grandiflora*: 1 photo
- sp. 87 *Batemannia colleyi*: 2 poor photos
- sp. 101 *Brassavola cucullata*: 3 photos
- sp. 103 *Oncidium pusillum*: 1 photo
- sp. 104 *Eulophia alta*: 8 photos
- sp. 106 *Paphinia cristata*: 4 photos
- sp. 107 *Epidendrum* (? possibly *E. imatophyllum*): 4 photos

JW

Jan. 28, 1957

Dear Dr. Schultes:

Am enclosing in this envelop one plant in flower of Species #53 Downs and Aitken. The original specimens of over a year ago were collected in the Aripo Valley, on the slope of Morne Poui. Although I saw plants in flower at this time, I was unable to collect any. The plants have remained in my sheds since, and have thrown out several flowering stalks, but these invariably are cleistogamous, and go ahead to development of seed pods without ever having the flowers open.

On Jan. 26, I was at the Rapsey Estate, in the Aripo Valley, not far from the earlier location, and spotted several of these plants, as per the enclosed specimen. We have tried to key this out, and have gotten no farther than to feel that it belongs in Pleurothallus. We cannot make it go to species in the Pleurothallus key. We shall be very interested to hear what you may have to say about this species. By the way, we have never seen it anywhere except in the Aripo Valley. The plants collected Saturday came from citrus trees, some 10 feet above ground.

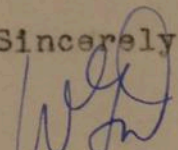
We are interested to hear about the tangle with the Epidendrum Rousseauae, and shall be on the lookout for more plants of the species in question. Unfortunately we do not often encounter this plant.

The other day, on a climb up El Tucuche, I had the opportunity of seeing a Stenia pallida, in full flower, and in undisturbed state. The lip was lowermost. Apparently I was growing this plant upside down in my shed. Why the stem did not twist to let the blossom assume normal position, I cannot imagine.

We are puzzled on several terms in the keys. One of them which comes to mind at this moment is 'lip clawed'. We cannot figure just what this refers to. Also, what is the difference between spathe, scape and rhachis?

With best regards,

Sincerely yours


Wilbur G. Downs

mounted specimen of *Spideudum rousseauae* collected at Spring Hill
on Jan 13/1957 by T.H.B. Attkin - with terminal inflorescence. Jan 14/57

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

November 30, 1956.

Dear Dr. Downs:

Thank you for your letter of the 10th with the list of corrections of locality names and the enclosed photographs. The pile of herbarium sheets with your mounted photographs is really imposing and is, indeed, a valuable addition to the herbarium. I hope that we may be able to use many of them in the illustrated edition that I want to publish, but there is now some doubt that I can publish an illustrated edition at all before the non-illustrated flora comes out. It is too big a job to publish at our Museum press, as the type at our press is wearing away, and this kind of type has been discontinued so that our printer cannot replace it as it wears. * It will be a shame not to publish it illustrated, for we have copper plates of line drawings for nearly all the genera (at least one per genus), so it would not entail any extra cost. I am getting estimates from local printing shops outside the University, but it will certainly run to \$15.00 at least. So that part of the flora is still in doubt. Of course, it will be published by the Trinidad Govt. anyway as a part of the Flora, but I had rather toyed with the idea of dressing the work up in a previous, illustrated edition.

It was not possible (mostly because of time) to swing through Trinidad on my return from Colombia. I had a promising graduate student with me, and I felt it was best to give him as much of my time as I could, especially since he hopes to go back to Colombia for a year alone.

I hope that you will be able to publish some of your pictures in the sketch you write for the Am. Orch. Soc. Bull. They will then be available for my article, if an illustrated edition comes out. We will be glad to help you in any way on it.

Mr. Leslie A. Garay of the Toronto Herbarium, who, in his evening hours, is doing fine orchidological work, tells me that he has found, in some undetermined orchid he borrowed from Viera, an old *Craeger* specimen, ^{from Trinidad} presenting a new species of *Erythrodus* which he will describe before my

* and we would have to publish the book in 2 kinds of type. It will be several yrs. before we can change completely to the new type.

monograph appears, so that we may include it there.

When I get the geographical introduction written, I am going to count on you, Dr. Aitken, Dr. Simmonds and Dr. Hooker to try it to pieces and make it worthwhile. You see, I know little or nothing of Trinidad and Tobago and will have to poach from Beard's "Phytogeography", for the most part. You who know the colony & have collected can help me very much - at least, keep me from putting my foot into it too often.

I am now nearly ready to return to the College the orchids of the Herb. Trin., so you will then have that aid in your own work.

With all good wishes, I am

Sincerely yours,

Richard Evans Schultes

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

WGD	✓	<i>WGD</i>
WGA		<i>WGD</i>

Oxford Street
Cambridge 38, Massachusetts

October 19, 1956

Dr. Wilbur G. Downs
Post Office Box 164
Port-of-Spain
Trinidad, British West Indies

Dear Dr. Downs:

I have just come back from South America and am sorry to say that it was impossible for me to make the swing around through Trinidad. My student and I had so much work to accomplish (although it was vacation for me!) that we stayed until the last possible moment in Colombia.

On my return I found your packet of photographs of additional orchids, and the letter dated July 17, 1956. These have been mounted up for our Herbarium and will be worked upon shortly, as soon as I come to the surface in the sea of correspondence which has accumulated.

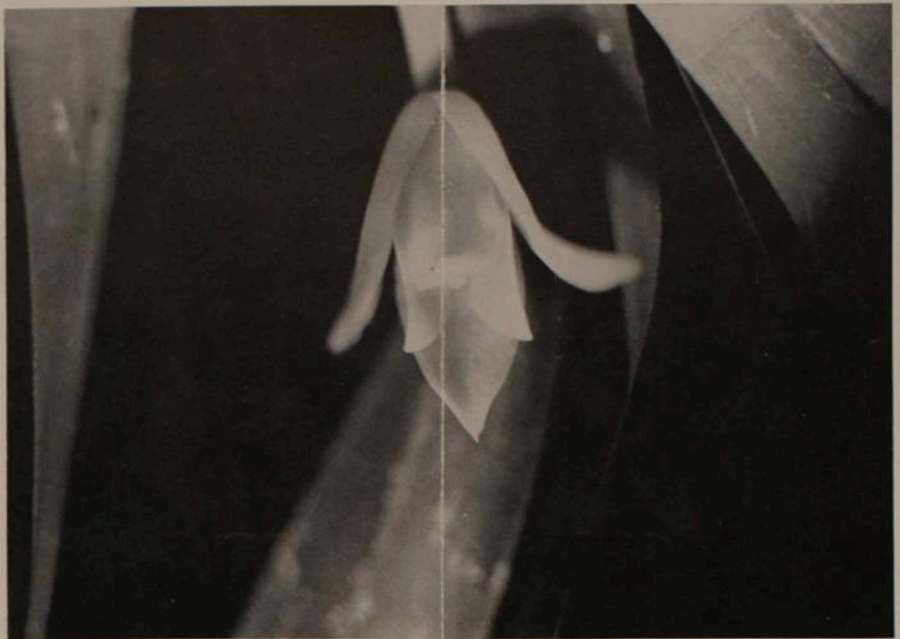
I would like to have any impressions which you may have on the Orchids of Trinidad manuscript which I sent to youⁿ uncorrected form. I am beginning to work it over in final form, and find that we have material of two genera which were not included because the specimens had not come to light. These genera are Koellensteinia and Aganisia. It would be interesting if you could find additional material of these genera, especially the latter.

I hope that it may be possible for you to come up and visit with us this year. It seems to me that I remember Dr. Aitken's saying a year ago now that you were due for leave within a year. If you care to stop at Harvard for any length of time and are alone, I should like to offer you the facilities of the Harvard Faculty Club, where you would be both comfortable and handy. Women are not admitted to the Faculty Club, and that is the reason I say "if you are alone".

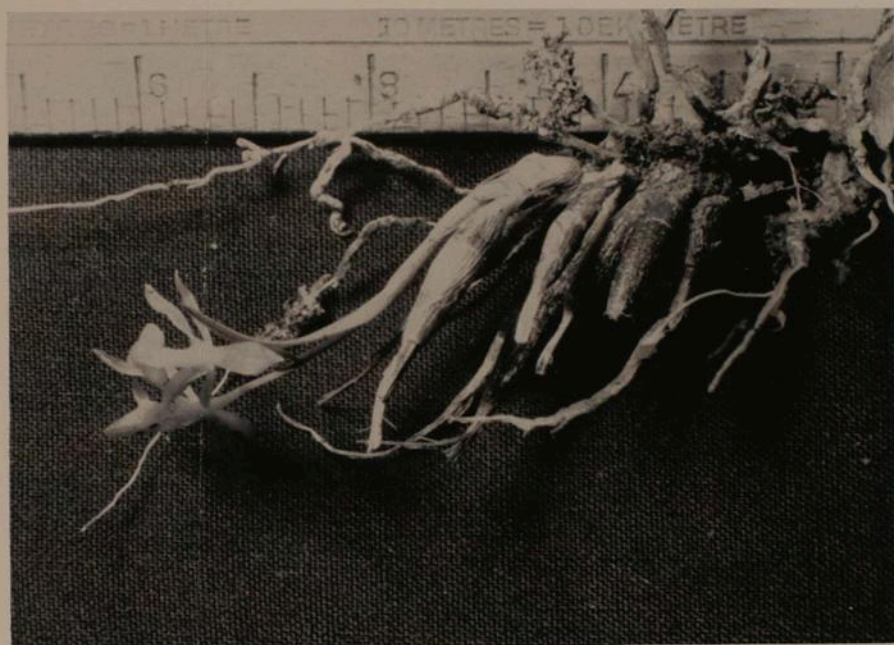
Very sincerely yours,

Richard Evans Schultes

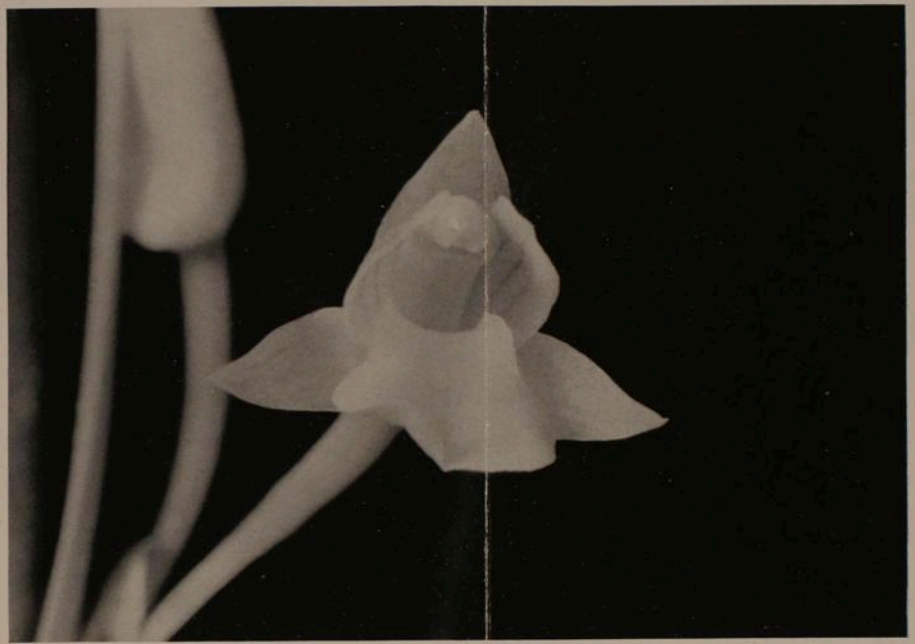
Richard Evans Schultes
Curator

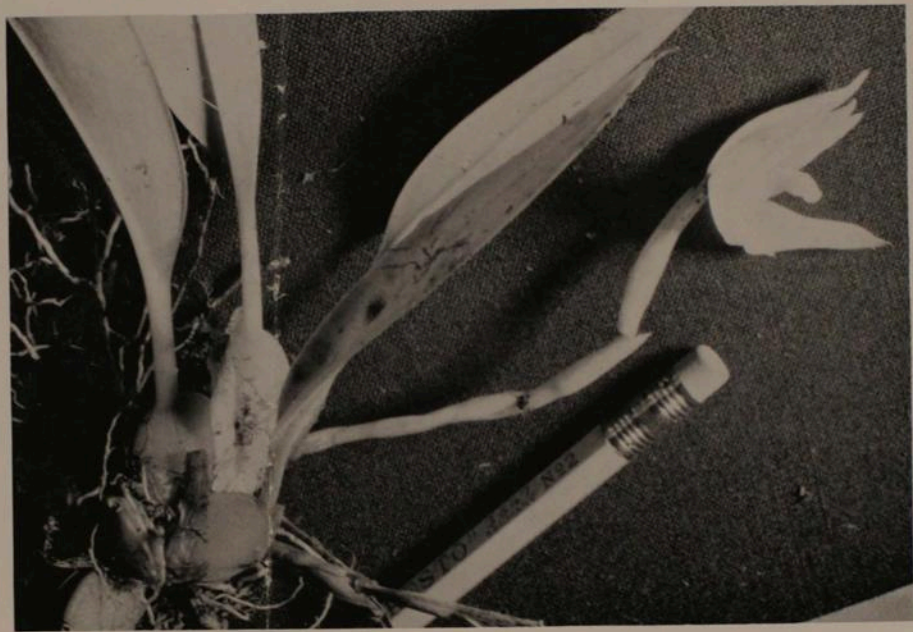


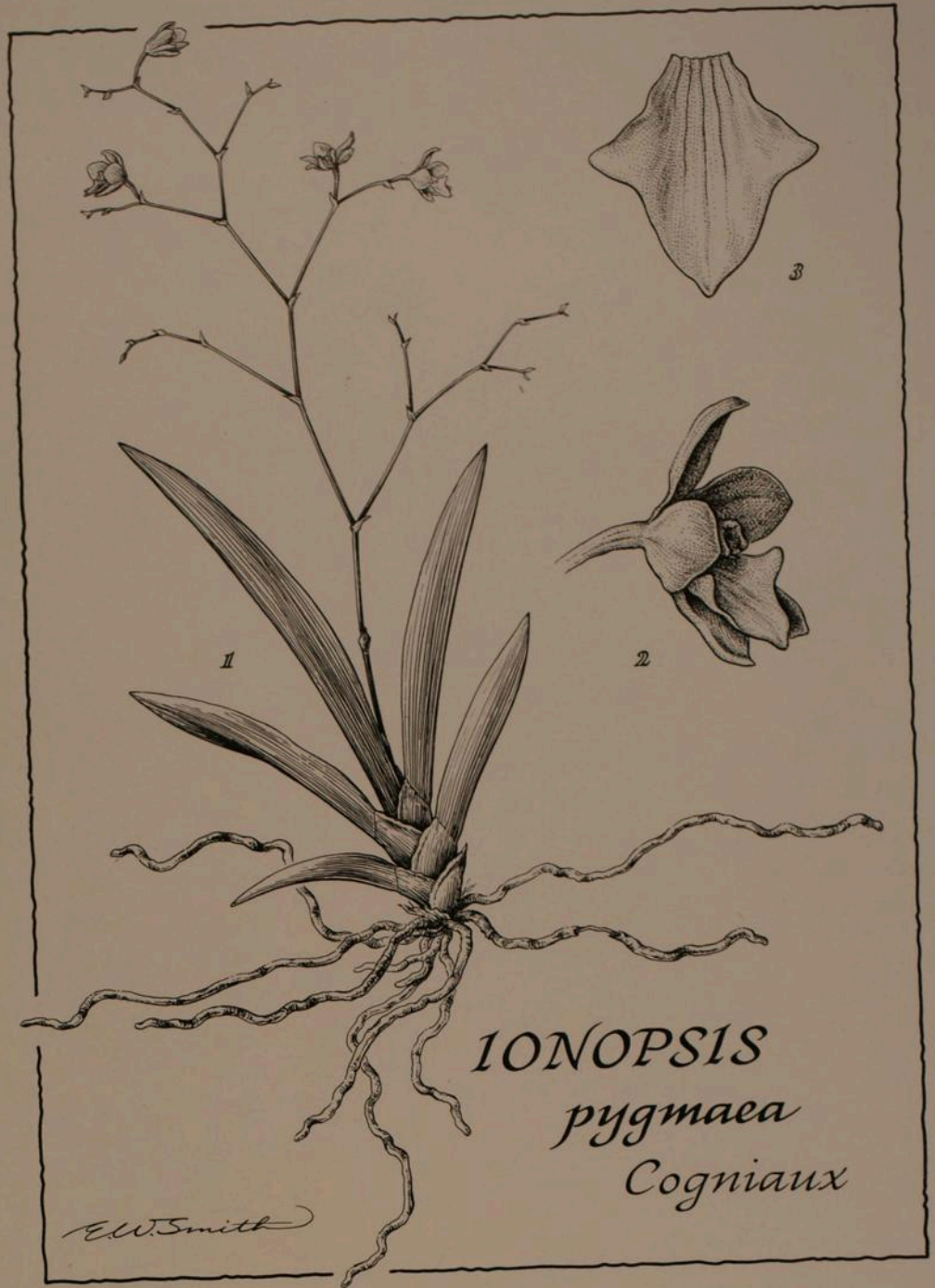








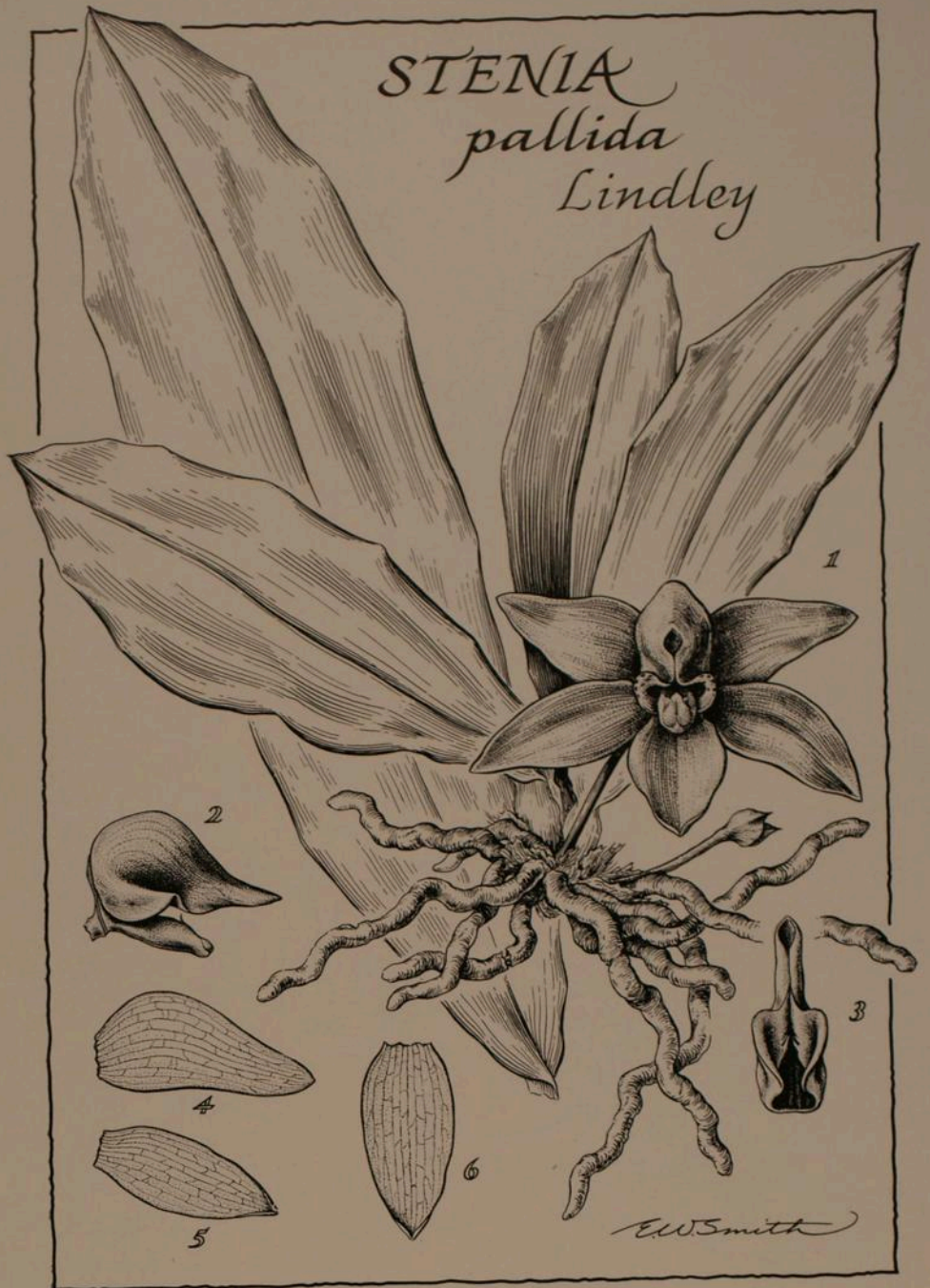




IONOPSIS
pygmaea
Cogniaux

E. W. Smith

STENIA
pallida
Lindley



BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Webster dictionary:

Caullescent - Having a leafy stem above ground.

Oxford Street
Cambridge 38, Massachusetts

June 8, 1956.

Dear Dr. Aitken:

I have received your letter with the query about the "error" in the *Mesfillaria* Key. Apparently, my letter explaining this to Dr. Downs was not delivered. I think that you will find it to be all right, if you realize that "caulescent" does not have anything to do with "leafy" or "non-leafy" characteristics. Caullescent means "bearing a stem" or "having a stem" or "growing a stem" and, in my Key, is contrasted with stemless plants. Hope this explanation will clear things up. If not, please keep hammering at me!

Enclosed are the illustrations to be used in the *Nestropisales* I paper. Thought you'd like to see them in advance.

I have decided (perhaps arbitrarily) to call all your plant collections Downs & Aitken # x. Some are Downs; some are Aitken; some are both. It will greatly simplify things if (since you have used one series of numbers) we have one series of collectors. Of course, I realize that you may collect some of them alone, Dr. Downs some alone, etc., but, after all, the use of collectors + numbers is primarily for reference to a definite specimen.

Very sincerely,
Richard Evans Schultze

P.O.Box 164
Port of Spain, Trinidad
July 17, 1956

Dr. R.E.Schultes
Botanical Museum of Harvard University
Oxford Street
Cambridge 8, Mass.

Dear Dr. Schultes:

Enclosed are a group of photographs of additional Trinidad orchids, also including some photographs of species of earlier date.

sp.#8 Ornithocephalus gladius 3 photos: these are included to show the character of smooth seed pod (the edges of petals and sepals are also smooth) and the fuzzy rootlets.

sp.#9 Ornithocephalus Gruegeri 1 photo: included to illustrate the character of rough seed pod (the petals and sepals are fuzzy edged also) and smooth roots.

sp.#23 Trizepis falcata seed pods 1 photo

sp.#25 Lochneria acuta plant 1 photo

sp.#35 Oncidium citrinum 3 photos

sp.#36 Maxillaria camaridii clump in flower 1 photo

sp.#40 Oncidium luridum 3 photos

sp.#87 sp.? 6 photos

sp.#88 sp.? 9 photos

sp.#91 Otostylus brachystalix 6 photos

sp.#92 Coryanthes maculata 3 photos

sp.#93 Cyrtopodium punctatum 7 photos

sp.#94 Pleurothallus ovalifolia 1 photo

sp.#95 Catasetum sp. 4 photos

sp.#96 Cyrtopodium Broadwayi 4 photos

sp.#97 Habenaria setacea 4 photos

ltr July 17/56 WGD to RES page 2

sp.#98 Epidendrum secundum 4 photos

sp.#100 sp.? (? Cleistes rosea?) 1 photo

sp.#103 Oncidium pusillum 3 photos

sp.#105 Vanilla sp. 1 photo. This small round leaved vanilla was collected on a palm tree in the Aripo Savannah. It was hoped that the plant might be kept until flowering, but unfortunately, it has not established, and has been lost.

We also have some alcoholic material on hand which we may hope to send on to you when some traveler comes passing through.

Sincerely yours

Wilbur G. Downs

P.S. The collection of essays 'Orchids in Retrospect' is very much appreciated, and makes very good reading.

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

*Oxford Street
Cambridge 38, Massachusetts*

June 5, 1956.

Dear Dr. Downs:

Please change your species no. 43 from *Epidendrum difforme* to *E. anceps* Jacq. It is an atypical one insofar as the short inflorescence is concerned.

I enclose for you and for Dr. Aitken proof leaves of my little check-list of Grenada orchids. I send these as there will be no reprints available. You will receive, I believe, your own copies of the *Orchid Bulletin*, but you might like these fly leaves to work with.

Sincerely yours,

Richard Evans Schultes

Richard Evans Schultes

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Oxford Street
Cambridge 38, Massachusetts

June 27, 1956.

Dear Dr. Aitken:

Thank you for your letter of June 21, 1956.

I am sorry that my leaflet, with the note on the flower of Stemodia pallida, was published before your warning on this point appeared. I suggest that if you can continue observing this point you might make a correction of my note in your own paper, if a correction seems necessary. From the photos of your specimen, I think that the flower is "inverted," and the original description of the species might seem to indicate this in spite of the fact that the coloured picture published with it does not show this character. This is an example of the really fundamental contributions that you & Downs can make, even though you are not professional botanists.

I should appreciate some authenticating material of the Coryanthes macrantha that you say was collected in the wild.

I am sorry I shall not see you this summer here, but you will be welcome to use the herbarium in July. It will be closed in August. In July, Mr. Schweinfurth will be there. I would like you to see how we have mounted up all the photos for eventual inclusion in the herbarium.

We consider Epidendrum elongatum a synonym of E.

secundum Jacq. You will find this in the ms. on Epidendrium which I hope has reached you by now.

This letter is rather hasty, as I am leaving to-morrow for South America & things are pressing.

Sincerely,

Richard Evans Schultes

P.S.

Try to get a copy of Dayton Jackson's "Glossary of Botanic Terms". You will find it a great help. I think it sells for 4/6 (shillings) - the reprinted edition. Almost all botanic sentences follow this, insofar as English terminology goes.

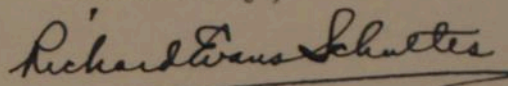
ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

June 9, 1956.

Dear Dr. Downs:

We have finally traced your No. 53 to *Pleurothallis plumosa* Lindl. It represents a somewhat atypical specimen which is cleistogamous, it seems. This sp. was described from Trinidad, but apparently has not since been re-collected there. It is known also from Costa Rica and Venezuela.

Sincerely,



~~Richard Evans Schultes~~
Curator

June 21st, 1956.

Dr. Richard E. Schultes,
Oakes Ames Herbarium,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Mass.

Dear Doctor Schultes,

A few comments on your letter of 8 June and others.

I am sorry I pulled a boner on the interpretation of the word caulescent, thereby calling for a bit of unnecessary botanical instruction on your part. Our source of definitions is a large Webster International Dictionary, and for caulescent it gives the following: "Having a leafy stem above ground". It all goes to prove that we are extremely green botanical novices, and we should invest in a botanical glossary of terms. I hope you will bear with all our failings.

With reference to your system of numbering our collections, it seems quite satisfactory to me.

The photographs and pictures for the Neotropicales I paper are excellent. May I, however, add my warning to that of Dr. Downes with regard to the illustration and notes on Stenia pallida. The flower in your drawing is upside down. All the blossoms of plants I have seen in the field and in my own collection have the lip ventral. Only yesterday I saw one in bloom at Dr. Downs' and the lip is ventral.

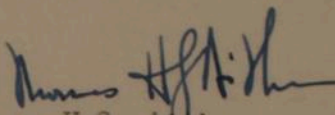
In your Neotropicales I manuscript I believe you questioned the presence of Coryanthes macrantha in Trinidad as a true native. Last week I had occasion to speak to Mr. Julian Kenny who collected the plant bearing the blossom photographed by Dr. Downes (his species #72). Kenny assures me he collected the plant in the wild some where in Trinidad, exact locality unknown. The plant is now in the Port-of-Spain garden of Mrs. Dudley.

We haven't had an opportunity to study the big manuscript as yet (WGD has been away the past week), but I did note that you haven't included Epidendrum elongatum. Recently I collected what

I assume to be this species (small pink flowers at the end of a very long stem) on the Trinidad shore of the 1st Boca, opposite the island of Monos; this is apparently the area where Broadway reported it from.

I am going on 2 months leave starting 7 July, most of which time will be spent in Boxford. Sorry to learn you won't be around.

Sincerely yours,


Thomas H.G. Aitken

THGA:eat

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

*Oxford Street
Cambridge 38, Massachusetts*

June 5, 1956.

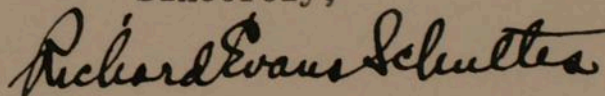
Dear Dr. Downs:

Here is about 3/4 of the orchid paper. I am hurrying to send it to you without any corrections, even typographic alterations, lest, in the last minute jam before leaving for the Amazon on June 30th, I should not have time to do so. In this way, it will at least be in your hands for you and Dr. Aitken to work on a masticate during the summer. Please remember that there are going to be certain changes, some abbreviating of descriptions, and a bringing to a standardised orthography of place names, but this I cannot do till fall. The rest of the paper our much-overworked secretary will finish before I leave and I will just put it in an envelope and send it on to you as is. For your information, I may say that I am sending a copy likewise to Angus Simmonds at the Imperial College. You two may like to compare notes on any boners you find in the paper!

The final paper, of course, will have a short introduction with phytogeographic and ecological notes on the flora of the islands. Most of this I can steal from Beard, but you and Simmonds can help me on it too.

I shall be happy to hear from you either here (I leave the evening of June 30 by aeroplane) or in Bogota (address: Instituto de Ciencias Naturales, Ciudad Universitaria, Bogota, c/o Dr. Lorenzo Uribe, Director).

Sincerely,



Richard Evans Schultes

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

June 15, 1956

Dr. Wilbur G. Downs
Box 164
Port-of-Spain
Trinidad

Dear Dr. Downs:

I enclose ^{one} ~~two~~ copies of the remaining pages of the Orchids of Trinidad and Tobago for you and Dr. Aitken. This will finish up the body of the paper.

Again may I remind you that I am sending them to you without first editing or making any changes. This I do because of the imminence of my trip and the realization that I might not get them to you for the summer unless I did it in this way.

I think that you have my Colombian address, but in case that I have not already sent it, it is c/o Instituto de Ciencias Naturales, Bogota, Colombia.

Sincerely yours,

Richard Evans Schultes

Richard Evans Schultes
Curator: Ames Herbarium

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Oxford Street
Cambridge 38, Massachusetts

June 2, 1956.

Dear Dr. Downes:

Thank you for your letter of last week inviting me on several short orchid-trips, should I be able to make a stop in Trinidad on my way home from Colombia.

Under separate cover, a copy of Professor Ames' "Orchids in Retrospect" is being sent to you. Please accept this token as a gift of the Orchid Herbarium. I hope that you will enjoy the wisdom and insight of the late Prof. Ames, who was my teacher.

Sincerely,

Richard Evans Schultes

ORCHID HERBARIUM OF OAKES AMES

Botanical Museum, Harvard University

Oxford Street, Cambridge 38, Massachusetts

April 17, 1956.

Dear Dr. Aitken:

You asked me, in your letter of March 30, 1956, what the principal characters separating M. rufescens from M. trinitatis are. I think it might be well to send you my Key to Trinidad and Tobago Maxillarias.

1. Plants caespitose (growing in clump, short stems) or without elongate stem
2. Leaves distinctly long-petiolate ----- M. albiflora
- 2a. Leaves not distinctly long-petiolate; at most long-conduplicate (folded together along mid rib) at base -----
3. Pseudobulbs 1 - foliate. Lip distinctly 3 - lobed -----
4. Scape short, up to 7 c.m. long. -----
5. Pseudobulbs 1 - 2 c.m. long. Mid-lobe of lip acute, thickened canaliculate (grooved) at apex ----- M. liparophylla
- 5a. Pseudobulbs 3 - 6 c.m. long. Mid-lobe of lip truncate, emarginate ----- M. rufescens
- 4a. Scape long, 13 - 19 c.m. long ----- M. trinitatis
- 3a. Pseudobulbs 2 - foliate. Lip obscurely 3 - lobed ----- M. Broadwayi
- 1a. Plants caulescent (~~leafy stem~~ ^{stemless} stem) -----
6. Pseudobulbs, usually 2 - 3 - foliate ----- M. samaridii
- 6a. Pseudobulbs, 1 - foliate -----
7. Peduncles very short, 2 - 4 m.m. long ----- M. conferta
- 7a. Peduncles long, 20 - 60 m.m. long -----
8. Lip clawed ----- M. coccinea
- 8a. Lip not clawed -----
9. Stems leafy. Lip usually conspicuously 3 - lobed M. alba
- 9a. Stems not leafy. Lip usually undivided, at most very obscurely 3 - lobed ----- M. variabilis

Of course you have a definite colour difference as well between M. trinitatis and M. rufescens.

Sincerely,

Sgd. Richard Evans Schultes

ORCHID HERBARIUM OF OAKES AMES

Botanical Museum, Harvard University

Oxford Street, Cambridge 38, Massachusetts

April 17, 1956.

Dear Dr. Aitken:

You asked me, in your letter of March 30, 1956, what the principal characters separating M. rufescens from M. trinitatis are. I think it might be well to send you my Key to Trinidad and Tobago Maxillarias.

- stems*
1. Plants caespitose (growing in clump, short stems) or without elongate stem
 2. Leaves distinctly long-petiolate ----- M. albiflora
 - 2a. Leaves not distinctly long-petiolate; at most long-conduplicate (folded together along mid rib) at base -----
 3. Pseudobulbs 1 - foliate. Lip distinctly 3 - lobed -----
 4. Scape short, up to 7 c.m. long. -----
 5. Pseudobulbs 1 - 2 c.m. long. Mid-lobe of lip acute, thickened canaliculate (grooved) at apex ----- M. liparophylla
 - 5a. Pseudobulbs 3 - 6 c.m. long. Mid-lobe of lip truncate, emarginate ----- M. rufescens
 - 4a. Scape long, 13 - 19 c.m. long ----- M. trinitatis
 - 3a. Pseudobulbs 2 - foliate. Lip obscurely 3 - lobed ----- M. Broadwayi
 - 1a. Plants caulescent (~~leafy stem~~) (*bearing a stem*) -----
 6. Pseudobulbs, usually 2 - 3 - foliate ----- M. Camaridii
 - 6a. Pseudobulbs, 1 - foliate -----
 7. Peduncles very short, 2 - 4 m.m. long ----- M. conferta
 - 7a. Peduncles long, 20 - 60 m.m. long -----
 8. Lip clawed ----- M. coccinea
 - 8a. Lip not clawed -----
 9. Stems leafy. Lip usually conspicuously 3 - lobed M. alba
 - 9a. Stems not leafy. Lip usually undivided, at most very obscurely 3 - lobed ----- M. variabilis

Of course you have a definite colour difference as well between M. trinitatis and M. rufescens.

Sincerely,

Sgd. Richard Evans Schultes

6275

April 17, 1956.

Dear Dr. Aitken:

You asked me, in your letter of March 30, 1956, what the principal characters separating M. rufescens from M. trinitatis are. I think it might be well to send you my key to Trinidad & Tobago Masillanias.
 (growing in clump, short stems)

1. Plants caespitose, or without elongate stem
2. ^{leaves} Lvs. distinctly long-petiolate _____ M. albiflora
- 2a. ^{leaves} Lvs. not distinctly long-petiolate; at most long-conduplicate ^{at base (folded together along mid rib)} _____
3. ^{Pseudo-bulbs} Pseudobulbs 1-foliolate. Lip 3-lobed (distinctly ^{to}) _____
4. Scape short, up to 7 ^{cm.} long
5. ^{bulbs} Pseudobulb 1-2 cm. long. Mid-lobe of lip acute, thickened ^{canaliculate (grooved)} ^{at apex} _____ M. liparophylla
- 5a. ^{bulbs} Pseudobulb 3-6 cm. long. Mid-lobe of lip truncate, emarginate _____ M. rufescens
- 4a. Scape long, 13-19 cm. long _____ M. trinitatis
- 3a. ^{bulbs} Pseudobulb 2-foliolate. Lip obscurely 3-lobed _____ M. Broadwayi
- 1a. Plants caulescent (leafy stem)
6. ^{bulbs} Pseudobulb, usually 2-3-foliolate _____ M. Cameridii
- 6a. " 1-foliolate _____
7. Peduncles very short, 2-4 mm. long _____ M. conferta
- 7a. " long, 20-60 ^{mm.} cm. long _____
8. Lip clawed _____ M. coccinea
- 8a. Lip not clawed _____ M.
9. Stems leafy. Lip usually conspicuously 3-lobed _____ M. alba
- 9a. ^{very} Stems not leafy. Lip usually undivided, at most obscurely 3-lobed _____ M. variabilis

Of course, you have a definite colour difference as well between
M. trinitatis and M. rufescens.

Sincerely,

Richard Evans Schultze

June 2nd, 1956.

Dr. Richard E. Schultes,
Ames Orchid Herbarium,
Oxford Street,
Harvard University,
Cambridge, Mass.

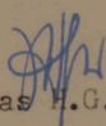
Dear Doctor Schultes,

Reference your letter of 29 May, the locality data for the Vanilla inodora specimen is Tractor Trace, Melajo Forest, Sangre Grande.

Reference your letter of 17 April, many thanks for the Maxillaria key. I had it typed so as to pass out copies to interested friends, and then I noted what appears to be an error in the latter part of the key. Dichotomy 1a, I translated caulescent as "leafy stem", which if correct, throws out dichotomy 9a "stems not leafy" ("M. variabilis"). Will Downs, I believe has already commented on this. Perhaps you can clarify the point.

I'm inclosing some sketches of our little species #88 (some of the pictures were inadvertently drawn upside down).

Sincerely yours,


Thomas H.G. Aitken

THGA:eat
Incl. 2

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

May 29, 1956.

Dear Dr. Aitken:

In the first shipment of alcohol-preserved flowers, there is a specimen which I have identified as *Vanilla inodora*. It has no number. The data are "Tract or Trace Sangre Grande (Melajo Forest), 4/viii/55, T.H.G.Aitken".

Sincerely,

Richard Evans Schultes

Richard Evans Schultes
Curator

Rec
11/11/56
RHS

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

May 21, 1956.

Dear Dr. Aitken:

I appreciate very much your letters of May 12th and 17th. I must have forgotten to warn you that the copy of the article and the key which I sent to you were not proof-read, so that many of the typographic errors that took your time to correct have been caught. In the matter of locality names, I copied exactly what each label said because Auguste Sumburda at the College of Trop. Agric. was to put them in a consistent + modern orthography. A number of the other points (botanical) I shall take up in a later letter, as I have been having a bout with malaria recently and do not feel tip-top yet.

I have delayed writing you about orchid #13. I have 3 sheets from you: 13, 13a, 13b. These seem to represent the same concept, although 13a + 13b I have with interrogation points. At present, I have them as

13	<u>Pleurothallis leptopetala</u>	Cogn.
13a	"	" (?)
13b	"	" (?)

However: I am at present studying a "snag". I think that this Cogniaux sp. might be the same thing which Lindley described from a Trinidad thing as Pleurothallis discoidea. It is known, apparently, only from the original drawings of which I finally secured. Kew will not

loan out Lindley material, so I have been a bit hampered. If you will give me a little grace, I shall send you the results of my investigation in a little while.

Number 28 has obviously been misidentified here - I believe that it was a mix-up in labels, for there is no question but that it is Leochilus labiatus* and very evidently not a Wulfschlegelia, which is leafless, as I point out in my key.

On July 1, I am going to Colombia, where, for 2 mos., I shall be in the headwaters of the Amazon - my old stamping ground for 12 yrs - with one, or possibly, two of my graduate students. I am trying with the idea of returning via Trinidad, but time is so short, I may not be able to do that.

Hastily,

Richard Waus Schultes

P. S. The latest shipment of plant material has arrived safely.

* L. labiatus (Sw.) O. Kuntze

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

May 22, 1956.

Dear Dr. Downs -

Here are several additional determinations of
your orchids:

- # 80 *Epidendrum Ottonis* Rehb. f.
- 81 *Broughtonia sanguinea* ^(Sw.) R. Br.
- 82 *Zerchilus scriptus* (Scheele) Rehb. f.
- 83 *Spiranthes costaricensis* Rehb. f.
- 84 *Habenaria monorrhiza* (Sw.) Rehb. f.

I am wondering if you could inform me at once
whether or not your 81 is a native orchid or not. So
far as is known, it is native only in Jamaica. This is
one of the few numbers for which you did not send a
page of notes. I would like to know as soon as possible,
because, if native, I must add it to the key and to
my miscellaneous paper.

Very sincerely yours,

Richard Evans Schultze

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

May 25, 1956.

Dear Dr. Downe:

Your tiny orchid #94 is Pleurothallis ovalifolia (Focke) Rehb. fil. (formerly known as P. rhomboglossa). It will be very interesting to see your photos of such a tiny thing.

You will be happy to know that I shall use 10 of your photos in the Orch. Neotrop. - I paper. There will also be a line drawing of Stencia pallida + Lonopsis pygmaea. The printer is setting it up now.

Sincerely,

Richard Evans Schultes

May 28th, 1956,.

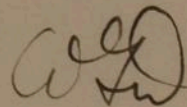
Dr. R.E. Schultes,
Botanical Museum of Harvard University,
Oxford Street,
Cambridge 38, Mass.

Dear Dr. Schultes,

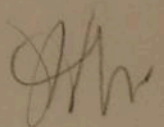
I have received your letter of May 22, 1956. The Broughtonia sanguinea plant is one which Mr. Hubert Wood received from a man living in Maraval. This person said he got the plant from the Tamana region. However, Wood noted that it was carefully blocked, more like one would expect with an imported plant. Anyhow, he cannot guarantee the plant is of local origin. In fact he feels it probably is not.

Aitken and I had a good day's outing at Moruga Bouffe, near the Trinity Hills, Guayaguayare, and to our delight collected many specimens of Oncidium iridifolium. Also a single plant of a Schomburgkia species.

Sincerely yours,



Wilbur G. Downs



WGD:eat

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

There are 2 spp. of Leochelia in Trinidad +
Tobago:

1. Inflorescence much exceeding leaves. Lateral
sepals connate for at least $1/2$ their length.

L. lobriata (Sw.) O. Ktze.

Known from 2 old collections (Cruze +
Bradford) without specific localities in Trin. or
Tobago, from Old Belmont + between Adelphi + Belmont.

2. Inflorescence not much exceeding leaves. Lat.
sepals free.

L. scripta (Scheidw.) Rehb.
fil.

Known from 1 coll from Arjo Rd.

My secretary is up to *Maxillaria* in typing (alpha-
betically) + I am tempted to send you the monograph
(still uncorrected) piece-meal instead of waiting till
it is finished.

May 19, 1956.

Dr. R. E. Schultes,
Botanical Museum of Harvard University,
Oxford Street,
Cambridge 38,
Massachusetts, U.S.A.

Dear Dr. Schultes:

There is an Indian Walk Estate, near Moriah, in
Tobago, according to Dr. H.P.S. Gillette.

Sincerely yours,

Wilbur G. Downs.

WGD:ac

May 12th, 1956.

Dr. Richard Evans Schultes,
Botanical Museum of Harvard University,
Oxford Street,
Cambridge 38, Massachusetts.

Dear Dr. Schultes:

Have read the paper on Trinidad orchids with great interest and have appended to this letter a few comments and corrections in spelling of collection localities. I note that you do not include Epidendrum Rousseauae and Pleurothallus ruscifolia among previously unrecorded species.

We are quite astounded to see how many species, particularly in the Epidendrum group, we have as yet failed to find. By the way, is Ames, Hubbard and Schweinfurth's "The Genus Epidendrum in the United States and Middle America" obtainable?

The key to genera also arrived and we shall study this over with much interest.

We are hoping to hear that our shipment of flowers arrived, and shall anxiously await identifications. This brings up an old question: "What is my species 13".

Sincerely yours,

Wilbur G. Downs, M.D.

WGD:eat

Encl: 1 (corrections to mss)

Corrections to mss. of "Orchidaceae Neotropicales I
De orchidaceis indigenis insularum Trinidad et Tobago notrelae" by
R. E. Schultes.

Page 1 para 3 line 6 of Urban's.....

Page 2 para 2 line 1 Wilbur G. Downs

Page 4 line 6 Princes Town (the apostrophe in Prince's is not used:
authority - Gazetteer #7, British West Indies and Bermuda: Official
Standard Names approved by the U.S. Board on Geographic Names,
Office of Geography, Department of the Interior, Washington, D.C.,
Sept. 1955)

Page 6 Concerning Cyrtopodium punctatum. Although Aitken was able to
collect a plant on Chacachacare Island early in 1956, he feels
that it can hardly be called "relatively common" there. It
appears to be present but uncommon.

Page 7 concerning Diacrium bicornutum var. indivisum we have not been
able to get adequate material but it is interesting to note that
several local persons acquainted with the small bulb inland form
state that it is almost always cleistogamous.

Page 8a line 5 Oropouche.

Page 12 line 7 locality should presumably be spelled Cunupia.

Page 13 under distribution of E. moyobambae
line 7 Princes Town (with%apostrophe)
line 16 Gaura Valley (instead of Coura)

Page 14 under distribution of E. oncidioides:
line 5 Melajo Reserve (instead of Melojo)

Page 17 under distribution of Habenaria Monorrhiza:
Tobago: Indian Walk is cited as a locality.
I know of no Indian Walk in Tobago, but there is one in Trinidad,
a bit south of Princes Town.

Page 17 next to last line on Page: do you mean to say "has apparently
been collected only once on the island of Trinidad." ?

Page 20 under distribution of Kegeliella Houtteana should be Heights of
Guanapo (instead of Guanajo)

Page 23 line 3 should it not read "highly untrustworthy" ?

Page 25 under distribution of Notylia apiculata
line 5 Princes Town (no apostrophe in Princes)
line 7 Quaré River (acute accent on e)
(Gazetteer #7 gives Cuare)

Page 26 under distribution of Pleurothallus citiata
line 5 - Quare~~s~~ (or Cuare)

Page 26 under distribution of Pleurothallus archideaconi
Aitken and Downs 11 (Herb. Ames. 67846)
The Aitken and Downs material represents the second collection of
this Trinidad endemic.

Page 27 under distribution of Pleurothallus ovalifolia
line 8 Cumuto - Tumpuna Road
(instead of Tumpuno)

Page 30 line 6 should be Madamus.

Page 31 under distribution of Stelis trinitatis
line 4: Aitken and Downs 34 (Herb. Ames 67843)
and below: "the Aitken and Downs collection was made in the
Cave Region."

Page 31a under distribution of Stenia pallida
line 4: Aitken and Downs 38 (Herb. Ames 67844, 67863)
and below: "alcoholic material sent in by Drs. Aitken and Downs
and from their excellent photographs" Actually, Dr. Aitken and I
are not very happy about the status of Stenia pallida. All of my
flowers, a dozen more or less, have had the lip inverted and
uppermost. Aitken says his flowers have had the lip in normal
position. The question is which one of us has our plant mounted
correctly? We shall probably not be able to settle this point
until next we see a flower in nature.

Page 32 under distribution of Triphora surinamensis:
line 2 O'Meara Savannah

Page 33 line 6 Melajo Forest (instead of Malajo)

P.O.Box 164
Port of Spain, Trinidad
May 17, 1956

Dear Dr. Schultes:

A couple of additional notes for the Orchidaceae Neotropicales I paper:

- 1) page 7, line 6 should be (Bradf.) instead of (Btadf.)
- 2) There are various citations of St. Anne's as a collection locality, cf. pages 13, 15, 31. The spelling should be St. Ann's
- 3) I have restudied my Stenia pallida with some care, and am quite certain the plant is mounted upside down.
- 4) I am attempting to get some information from Dr. H.P.S. Gillette as to whether Indian Walk might be a Tobago locality as well as a T'dad locality. The latter it certainly is. If Gillette can give me any information, I'll append it to this letter.

Haven't had a chance to go over the key in much detail as yet. One item has immediately attracted my attention. You key out Wulfschlaegelia to a character of 'plant leafless'... My plant #28, of which photographs, sketches and plant material has been sent you, was identified by you as Wulfschlaegelia calcarata. Yet this plant certainly has leaves, an photo and sketch show. Furthermore, in Ames and Correll, 'Orchids of Guatemala' page 73, the characterization is 'terrestrial, leafless herbs'. The specimens we have were collected from trees at St. Patrick's Estate, Arima Valley, T'dad. Will you please check material, and see whether there has been a mixup somewhere? I am saving a few more flowers of our species #28, which happens to be blooming at this time.

Sincerely yours

Wilbur G. Downs

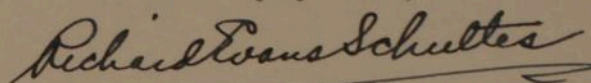
ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

May 7, 1956.

Dear Dr. Downs:

I am sending you herewith a copy of a few miscellaneous notes which I expect to publish in our Harvard Bot. Mus. Leaflets shortly. I send it to you in case there are any suggestions you'd like to make. You will note that I mention only a few of your own collections, as I prefer to leave this for your own papers. The notes in this present paper are things which I want to get out before the monograph. To-morrow, I shall send you a copy of my generic key. Do not return this mss.

Sincerely yours,



Richard Evans Schultes

ORCHIDACEAE NEOTROPICALES I

De orchidaceis indigenis insularum Trinidad et Tobago notulae

Richard Evans Schultes

The following miscellaneous notes have accumulated during the preparation of a monograph on the orchids of Trinidad and Tobago.

Trinidad's place in orchid horticulture has been very important. This was especially so during the first half of the 19th Century. Some of the species mentioned below have been collectors' prizes. Others represent curious or little known "botanicals" of great interest to the taxonomist and phytogeographer.

There have been two comprehensive taxonomic treatments covering the orchids of Trinidad and Tobago. The earlier one is A. H. R. Grisebach's "Flora of the British West Indies"; it was published in 1864 and enumerated 97 species of orchids. In 1910, A. Cogniaux published a treatise on the orchids of the West Indies in volume six of Urban's "Symbolae Antillanae"; he recognized 148 species and a few varieties.

Since 1910, the number of orchids known from Trinidad and Tobago has grown appreciably as a result of careful and persistent collecting. This is due in great part to the remarkable field work of the late Mr. Walter E. Broadway (Orch. Rev. 43 (1935) 354). In the 1920's, Broadway published in

the Orchid Review a series of papers on his discoveries. Many of the rare species found on the islands for the first time or recollected after a lapse of many years were briefly discussed and valuable ecological and cultural notes were included for some of the species. It is unfortunate that Broadway never cited herbarium specimens to authenticate his discoveries. The Orchid Herbarium of Oakes Ames, where most of Broadway's later collections were determined, counts itself fortunate in having a rather complete set of Broadway's material. A number of the Broadway collections which established new records in plant distribution but which were not cited in Broadway's papers are here enumerated for the first time.

Recently, Dr. Wilbur J. Downs and Dr. T. H. G. Aitken of the Trinidad Regional Virus Laboratory in Port-of-Spain have made extensive and discerning collections of native orchids. They have brought these collections into cultivation and have prepared a series of outstandingly excellent photographs of the living plants. Many represent species not hitherto illustrated. A complete set of these photographs is deposited in the Orchid Herbarium of Oakes Ames, where the corresponding specimens have been identified and are preserved.

For the purpose of easy reference by collector and orchid-lovers who may not be familiar with any phylogenetic system of generic classification, the genera, and under them the species, are here arranged alphabetically. Specimens for this study

have been available from the Trinidad Herbarium at the Imperial College of Tropical Agriculture, from the Orchid Herbarium of Oakes Ames of the Botanical Museum of Harvard University and from the Gray Herbarium of Harvard University. Full synonymy is given for each species. ~~One new species is herein described,~~ Several new combinations are ^{herein} made and several names are reduced to synonymy.

CATASETUM L. C. Richard

Catasetum barbatum (Lindl.) Lindley in Bot. Reg. 30 (1844) Misc. 38.

Myanthus barbatus Lindley in Bot. Reg. 31 (1835) t. 1778.

Catasetum proboscideum Lindley in Bot. Reg. 35 (1839) 86.

Catasetum spinosum Lindley in Bot. Reg. 26 (1840) Misc. 65.

Myanthus spinosus (Lindl.) Hooker in Bot. Mag. (1841) t. 3802.

Catasetum barbatum (Lindl.) Lindley var. proboscideum (Lindl.) Lindley in Bot. Reg. 27 (1841) t. 5, fig. 3.

Catasetum cristatum Lindley var. spinigerum Hooker Cent. Orch. (1846) 46, t. 54.

Catasetum garnettianum Rolfe in Gard. Chron., ser. 3, 4 (1888) 692.

Catasetum macrocarpum Stein Orchideenb. (1892) f. 36, non L. C. Richard.

Catasetum brachybulbon Schlechter in Beih. Bot. Centralbl. 42, Abt. 2 (1925) 116.

Catasetum polydactylon Schlechter loc. cit. 42, Abt. 2 (1925) 122.

Catasetum barbatum (Lindl.) Lindley var. barbatum Mansfield in Fedde Repert. Sp. Nov. 31 (1932) 116.

TRINIDAD: September (no year given), Broadway s.n. (Herb Trin. 8750); Royal Botanic Gardens, September 1891, Alexander s.n. (Herb. Trin. 5431); September 19, 1914, Nurse s.n. (Herb. Trin. 8751); Siparia, April 14, 1916, Broadway (?) s.n. (Herb. Trin. s.n.); North Trace via Princes Town, August 19, 1918, Broadway s.n. (Herb. Trin. 8836, 8837); June 1925, Homersley s.n. (Herb. Trin. 11486).

Known previously from the northern half of South America, Catasetum barbatum is now recorded from Trinidad on the basis of the collections cited above.

Catasetum cernuum (Lindl.) Reichenbach fil. in Walper Ann. Bot. 6 (1863) 570.

This species has been cited from Trinidad by Cogniaux (loc. cit 583), but as Mansfeld has pointed out (Fedde Repert. 31 (1932) 109), this Brazilian species does not occur naturally in Trinidad. The specimens in the Trinidad Herbarium (Nos. 8836, 8837) which have been identified as Catasetum cernuum are small forms of C. barbatum.

CATTLEYA Lindley

Cattleya Deckeri Klotzsch Allgem. Gartenz. 23 (1855) 81.

Cattleya Skinneri Bateman var. parviflora Hooker in Bot. Mag. (1856) t. 4916.

Cattleya guatemalensis Moore Fl. Mag. 1 (1861) t. 61.

TRINIDAD: Gasparillo Road, Santa Cruz Valley, February 1, 1926, Freeman s.n. (Herb. Trin. 11506); Santa Cruz, January 22, 1927, Williams s.n. (Herb. Trin. 11718; Herb. Ames 68193).

This species was cited from Trinidad by Cogniaux through a Bradford and a Crueger collection. We now have available several additional collections. The species is widespread from Mexico throughout Middle America and the West Indies and possibly in northern South America.

CORYANTHES Hooker

Coryanthes macrantha Hooker in Bot. Mag. (1831) t. 3102.

Gongora macrantha Hooker Bot. Misc. 2 (1831) 151.

Panstrepis paradoxa Rafinesque Fl. Tellur. 4 (1836) 41.

TRINIDAD: Botanic Gardens (Herb. Trin. 4585); June 1896. (Herb. Trin. s.n.); St. Clair Experimental Station, April 12, 1907, Broadway s.n. (Herb. Ames 10220); St. Clair Experimental Station, April 23, 1908, Broadway s.n. (Herb. Ames 10714); St. Clair Experimental Station, May 18, 1908, Broadway s.n. (Herb. Ames 10652); July 7, 1908, Broadway s.n. (Herb. Ames 11676); St. Mary's College, 1927, Graff s.n. (Herb. Trin. s.n.).

This species, called "monkey orchid" in Trinidad, was cited for Trinidad by Cogniaux through a cultivated specimen. Although we now have a number of additional collections from Trinidad, all are from gardens, and we are still not certain as to whether this orchid, known from Venezuela and British Guiana, may be an indigenous species on the island of Trinidad.

CYRTOPODIUM R. Brown

Cyrtopodium Andersonii (Lamb. ex Andrews) R. Brown in Aiton Hort. Kew, ed. 2, 5 (1818) 216.

TRINIDAD: Hart s.n. (Herb. Trin. 1817); Lockhart s.n. (Cited by Cogniaux).

Cyrtopodium Andersonii may not occur naturally in Trinidad. Both Hart and Lockhart were wont to gather material from cultivated sources, and it is very possible that the two collections cited above are from cultivation.

When Broadway (Orch. Rev. 34 (1926) 133) reported Cyrtopodium Andersonii from the Bocas Islands, he was referring to C. punctatum. He stated that he was giving the "specific name with some hesitation". All of the Trinidad collections of Cyrtopodium punctatum are from Chacachacare, one of the Bocas Islands (vide sub C. punctato).

Cyrtopodium Broadwayi Ames Orchid. 7 (1922) 51, t. 112.

TRINIDAD: Aripo Savannah (Herb. Trin. s.n.); Piarco Savannah, Lunt s.n. (Herb. Trin. 6021); Aripo Savannah, Hart s.n. (Herb. Trin. 5326); Caroni Savannah, 1888, Hart s.n. (Herb. Trin. 3499); Botanic Gardens, February 27, 1893, Hart s.n. (Herb. Trin. 5261); Aripo Savannah, March 26, 1893, Broadway s.n. (Herb. Trin. 5326); April, 1896, Alexander (?) s.n. (Herb. Trin. s.n.); Aripo Savannah, April 16, 1908, Broadway 2343 (TYPE, Herb. Ames 11713), Aripo Savannah, August 19, 1908, Broadway 2343a (Herb. Trin. s.n.); July 28, 1909, Broadway 2343b (Herb. Ames 11712); Aripo Savannah, February 13, 1915, Freeman s.n. (Herb. Trin. 8044; Herb. Ames 66997); Aripo Savannah, March 5, 1920, Britton, Broadway et Hazen 313 (Herb. Trin. 10526); February-March 1921, Bailey et Bailey T40 (Herb. Ames 20553); Aripo Savannah, January 31, 1922, Broadway s.n. (Herb. Trin. 10498); Near Mount Tamana, Mount Harris, February 2, 1922, Nowell s.n., (Herb. Trin. 10502); Aripo Savannah, April 2, 1953, Baker et Simmonds s.n. (Herb. Trin. 14921).

Broadway (loc. cit. 133) reported Cyrtopodium Broadwayi as "fairly plentiful". The wealth of material cited above indeed stresses the abundance of the species at Aripo Savannah. This species is apparently endemic to Trinidad. It has been confused with Cyrtopodium cristatum Lindl. of northern South America.

Cyrtopodium punctatum (L.) Lindley Gen. and Sp. Orch. (1833) 188.

TRINIDAD: Chacachacare, April 18, 1865 (Herb. Trin. 1972); May 23, 1908, Evans s.n. (Herb. Ames 10683, 10684, 10685); Chacachacare, May 18, 1916, Doyle s.n. (Herb. Trin. 8121); Chacachacare, May 1925, Williams s.n. (Herb. Trin. 11059).

Cyrtopodium punctatum in Trinidad has been confused with C. Andersonii (q. vide). Cogniaux reported it from Trinidad on the basis of one collection: Othmer 121. It appears to be relatively common at Chacachacare, as shown by the material cited above.

DIACRIUM Bentham

Diacrium indivisum (Bradf.) Broadway in Bull. Misc. Inform.
Trinid. 2 (1895) 79.

Epidendrum indivisum Bradford in Grisebach Fl. Br.
W. Ind. (1864) 614.

Diacrium bicornutum (Hook.) Bentham var. indivisum (Bradf.)
Cogniaux in Martius Fl. Bras. 3, pt. 5
(1898) 188.

TRINIDAD: "Inland Districts" (Herb. Trin. 5512); "Inland woods" (Herb. Trin. 5983); "Savanna near Government House", June 3, 1907, Broadway s.n. (Herb. Ames 10736); "Savanna ... near Government House grounds", June 22, 1907, Broadway s.n. (Herb. Ames 10727); Erin, March 27, 1908, Broadway s.n. (Herb. Ames 10640); River Estate, February 18, 1926 (Herb. Trin. 11518); St. Augustine, April 25, 1949, Simmonds 351 (Herb. Trin. 14338; Herb. Ames 66931).

There has been some difference of opinion as to whether this concept should be treated as a variety of Diacrium bicornutum or as a distinct species. There seems to be sufficient morphological difference to maintain it as a distinct species, and the extreme differences in choice of habitats of Diacrium bicornutum and D. indivisum would seem to support such a disposition. After studying living material with perfect flowers, Rolfe (Orch. Rev. 11 (1903) 187) presented the evidence for maintaining the two concepts as distinct species. Cogniaux (loc. cit. 539) nevertheless, preferred the varietal treatment.

Cogniaux (loc. cit. 539) cited one collection - the type - from Trinidad. Apparently an endemic of Trinidad, Diacrium indivisum is now known from a number of localities on the island.

It will be of interest here to quote the field notes of

the experienced orchid-collector, Mr. Broadway (Broadway in Orch. Rev. 34 (1926) 131), concerning the habitats of these two orchids: "Diacrium bicornutum. Along wind-swept sea-coast districts is the real home of D. bicornutum Benth., the 'Virgin Orchid'. It grows upon rocks, as on some of the Bocas islands, and certain of the coastal parts of the colony, or established in the higher boughs of tall trees, as long the southern coast of Ananzanilla. It is never, to my knowledge, found inland. Frequently, the older plants grow into large clumps, and, seated upon either rock or tree, are observed to be in the full blast of sea spray, and high, strong winds, which oftentimes become gales of violence. The pseudobulbs are long and bulging, being hollow inside and forming the abode of ants, usually.

"Diacrium bicornutum var. indivisum. Contrary to the habits of the preceding plant, there is another which likes the inland districts of the colony, and presumably it is never found close to the sea ... It is of smaller proportions altogether, but the most unobservant would recognise the similarity to its relative... The whole plant only assumes small clump proportions at its maximum development."

DICHAEA Lindley

Dichaea graminoides (Sw.) Lindley Gen. and Sp. Orch. Pl. (1833) 209.

I have seen no material from Trinidad or Tobago which can be referred with certainty to Dichaea graminoides. It is clear from an examination of several collections at Kew, which Cogniaux cited from Trinidad as Dichaea graminoides and which repre-

sent D. picta, that there was some confusion in his treatment of D. graminoides. I have not seen Broadway 3119 from Tobago, which Cogniaux ascribed to D. graminoides.

Dichaea hystericina Reichenbach fil. Flora 48 (1865) 279.

TRINIDAD: Oropouche, April 1896, Alexander s.n. (Herb. Trin. 6095).

Known from Cuba, Guadeloupe, Dominica, Grenada and Middle America, Dichaea hystericina has not hitherto been reported from Trinidad with the citation of authenticating material.

Dichaea muricata (Sw.) Lindley Gen. and Sp. Orch. Pl. (1833) 209.

TRINIDAD: Heights of Aripo, January 10-26, 1922, Broadway s.n. (Herb. Trin. 9887).

Dichaea picta Reichenbach fil. in Sanders Ref. Bot. 2 (1869) t. 84.

Epithecia picta (Rchb. f.) Schlechter in Orchis 8 (1914) 101.

Dichaea trinitensis Gleason in Bull. Torr. Bot. Club 54 (1927) 605.

TRINIDAD: (Herb. Trin. 405); Crueger s.n. (Herb. Kew); February 1846, Bradford s.n. (Herb. Kew); November 7, 1881, Fendler 782; Maraval, February 4, 1911, Broadway 4131 (Herb. Kew); Aripo Savannah, February 13, 1915, Freeman s.n. (Herb. Trin. 8048); September 3, 1919, Broadway s.n. (Herb. N.Y. Bot. Gard.); El Tucuche, January 17, 1924, Hill, Williams et al s.n. (Herb. Trin. 10705); Maraval, January 14, 1926, Broadway 6270 (Herb. Kew); Maraval, March 1926, Broadway s.n. (Herb. Kew); Caroni, April 30, 1925, Freeman, Williams et al s.n. (Herb. Trin. 11021); Saut d'Eau, north coast, December 14, 1930, Broadway 7438 (Herb. Ames 37199).

Dichaea picta was not cited by Cogniaux from Trinidad and Tobago.

Dichaea Rendlei Gleason in Bull. Torr. Bot Club 54 (1927) 604.

TRINIDAD: Aripo, April 16, 1908, Broadway 2330 (Herb. Ames 10668); Mora Forest, September 3, 1925, Williams s.n. (Herb. Trin. 11347; Herb. Ames 66928).

Dichaea Rendlei is known from British Guiana, Guadeloupe and Trinidad. The two Trinidad collections differ from the type in having a rounded, instead of a subacute, anchoraeform lip, but, in other characters, they can easily be accommodated within the concept.

Inasmuch as Cogniaux cited but one species of Dichaea from Trinidad, it may be helpful to have the following key to distinguish the concepts now recognized from the Colony.

1. Leaves not articulate, persistent
 2. Leaves large, distant (0.8-1 cm. or more apart), glabrous, margins entire. Dichaea muricata
 - 2A. Leaves very small, close (less than 4 mm. apart), echinulate on both surfaces; margins denticulate-ciliate. Dichaea hystericina
- 1A. Leaves articulate at base, dropping.
 3. Leaves very narrowly linear. Petals lanceolate. Lip conspicuously keeled. Dichaea graminoides
 - 3A. Leaves oblong-ligulate. Petals ovate or oblong. Lip without keel.
 4. Leaves apiculate. Lateral sepals ovate, 5-5.5 mm. long. Petals 4 mm. long. Lip anchor-shaped, lateral lobes linear. Dichaea Rendlei
 - 4A. Leaves not apiculate. Lateral sepals broadly lanceolate, 7-8 mm. long. Petals 7-8 mm. long. Lip triangular-sagittate; lateral lobes triangular-falcate. Dichaea picta

EPIDENDRUM Linnaeus

Epidendrum anceps Jacquin Sel. Stirp. Amer. (1763) 224, t. 138.

TRINIDAD: Heights of Aripo, January 10-26, 1922, Broadway s.n. (Herb. Trin. 9902); Saut d'Eau, March 8, 1931, Broadway 7501 (Herb. Ames 37540).

Collections of this common and wide-ranging orchid have apparently not hitherto been cited from Trinidad and Tobago.

Epidendrum Bradfordii Grisebach Fl. Br. W. Ind. (1864) 613

TRINIDAD: Aripo, April 16, 1908, Broadway 2334 (Herb. Ames 10662).

The collection cited above represents an individual probably of this species with peloric flowers. Epidendrum Bradfordii, known hitherto only from the type collected by Bradford at Arima, is apparently a rare endemic.

Epidendrum cristatum Ruiz et Pavon Syst. Veg. (1798) 243.

Epidendrum raniferum Lindley Gen. and Sp. Orch. Pl. (1831) 109.

Epidendrum raniferum Lindley var. luteum Lindley Fol. Orch. Epid. (1853) 53.

TRINIDAD: July 29, 1865 (Herb. Trin. 1975); Botanic Gardens, 1888, Broadway s.n. (Herb. Trin. 3669); Cedros, December 1889, Alexander s.n. (Herb. Trin. 4992); Maraval, 1894, Baptiste s.n. (Herb. Trin. 5490); March 5, 1921, Broadway s.n. (Herb. Trin. 10500); Botanic Gardens, February 15, 1933, Bruins-Lich s.n. (Herb. Trin. 12752); Hart 3669 (Cited by Cogniaux in Urban Symb. Antill. 6 (1910) 513).

Epidendrum cristatum (E. raniferum) has apparently not hitherto been cited from Trinidad, except for the collection Hart 3669 which was reported as E. raniferum var. luteum.

It would seem that the characters upon which Lindley based his varietal concept luteum, cited above, are neither fundamental nor stable. The lip (in Epidendrum cristatum) and the colouration of the flower are very variable, and the

variety was based on colour and lip characters. Consequently, I am reducing the variety to synonymy under Epidendrum cristatum.

A complete synonymy of Epidendrum cristatum is given in Ames, Hubbard and Schweinfurth "The genus Epidendrum in the United States and Middle America" (1936) 166 and in Schweinfurth in Bot. Mus. Leaflet. Harvard Univ. 11 (1944) 222.

Epidendrum Hartii Rolfe in Kew Bull. (1894) 157.

TRINIDAD: Heights of Maraval, Broadway s.n. (Herb. Ames 16555); February 25, 1889, Broadway s.n. (Herb. Trin. 3552); April 22, 1890, Broadway s.n. (Herb. Trin. 4023); Maraval, April 1894, Alexander s.n. (Herb. Trin. 5460; Herb. Ames 66940); Government House Grounds, February 25, 1907, Broadway s.n. (Herb. Ames 10067, 10068, 10069); St. Clair Experiment Station, January 6, 1908, Broadway s.n. (Herb. Ames 10717, 10718, 10719); March 22, 1920, Broadway s.n. (Herb. Ames 22019); Maracas Falls, March 27, 1924, Homersley s.n. (Herb. Trin. 11202); Arena Forest Reserve, 1948, Ayliffe s.n. (Herb. Trin. 14261); Mt. Tucuche, alt. 1500 ft., February 28, 1954, Baker s.n. (Herb. Trin. 15112, Herb. Ames 66943).

Cogniaux enumerated five collections of this beautiful Epidendrum from Trinidad and Tobago. He reported it as frequent in Trinidad. The truth of this statement is shown by the large number of collections (in addition to those cited by Cogniaux) from the island.

Epidendrum Hartii, once thought to be endemic to Trinidad and Tobago, has recently been found in Venezuela in the Estado de Anzoátegui: between Río León of Quebrada Danta and Río Zumbador, northeast of Bergantín, 500-600 m., February 24, 1945, Steyermark 61125 (Herb. Ames 64919).

Epidendrum imatophyllum Lindley Gen. and Sp. Orch. Pl.
(1831) 106.

Epidendrum flexuosum G. F. W. Meyer Prim. Fl. Esseq.
(1818) 260.

Epidendrum lorifolium Schlechter in Fedde Repert.
Sp. Nov. Beih. 17 (1922) 35.

TRINIDAD: Conupia, March 23, 1892, Alexander s.n. (Herb. Ames 7451); St. Anne's (Cascade), March 6, 1894, Hart s.n. (Herb. Trin. 5481); St. Clair Experiment Station, April 16, 1907, Broadway s.n. (Herb. Ames 10205, 10206, 10207).

This widely ranging species seems not to have been reported from Trinidad.

Epidendrum laxum Poeppig et Endlicher Nov. Gen. ac Sp.
2 (1838) 2.

Epidendrum yatapuense Barbosa-Rodríguez in Vellozia 1,
ed. 2 (1891) 123.

Epidendrum macrothyrsis Lehmann et Kränzlin in Engler
Bot. Jahrb. 26 (1899) 472.

TRINIDAD: November 1, 1865, Prestoe s.n. (Herb. Trin. s.n.);
Maraval, November 17, 1934, Sylvester s.n. (Herb. Trin. 13073).

An examination of the type of Epidendrum laxum, which is preserved in the Vienna herbarium, shows that it represents the same concept which has been called E. yatapuense and E. macrothyrsis. There is rather appreciable variability in the size and luxuriance of the plants. The type is a large plant with a long inflorescence, whereas the Trinidad material represents small individuals. In critical characters, however, there is little variation in the material gathered over the range of the species: Trinidad, Peru, Ecuador, Amazonian Brazil and British Guiana.

The reduction of Epidendrum yatapuense to synonymy under E. laxum is based on a study of 1) the original de-

scription of this concept and Cogniaux' amplified description in Martius' Flora Brasiliensis and 2) the original Barbosa-Rodrigues drawing of E. yatapuense, preserved in the library of the Orchid Herbarium of Oakes Ames and the drawing, based on the original, in Flora Brasiliensis. There is no doubt that Epidendrum yatapuense is referable to E. laxum.

Epidendrum moyobambae Kränzlin in Fedde Repert. Sp. Nov. 1 (1905) 185.

Epidendrum subpatens Schlechter in Fedde Repert Sp. Nov. Beih. 17 (1922) 40.

Epidendrum benignum Ames in Sched. Orch. 2 (1923) 26.

Epidendrum amazonicum Schlechter in Beih. Bot. Centralbl. 42, Abt. 2 (1925) 78.

TRINIDAD: (Herb. Trin. 888); (Herb. Trin. 5581); Botanic Gardens, April 1887, Hart s.n. (Herb. Trin. 3680); St. Clair Experiment Station, April 12, 1908, Broadway s.n. (Herb. Ames 10710); Caparó, April 27, 1908, Broadway s.n. (Herb. Ames 11711); Cedros, May 10, 1918, Sankerali s.n. (Herb. Trin. 8747); Hindustani Road, via Prince's Town, August 20, 1918, Broadway s.n. (Herb. Trin. 8820); base of Mount Tamana, April 18, 1920, Britton, Britton et Hazen 1961 (Herb. Ames 20367); Moruga Road, Rock Forests, May 17, 1922, Webbe s.n. (Herb. Trin. 10137); Tamana, April 15, 1925, Freeman s.n. (Herb. Trin. 11199); April 17, 1929, Murray s.n. (Herb. Trin. 12128); St. Anne's, April 22, 1934, Broadway s.n. (Herb. Ames 40388); Coura Valley, May 7, 1949, Wilson s.n. (Herb. Trin. 14318; Herb. Ames 66933); Mount Tamana, alt. 1000 ft., June 1954, Piening s.n. (Herb. Trin. 15269; Herb. Ames 66927).

The Trinidad material which I have studied (and which has always gone under the name Epidendrum patens) cannot be distinguished from the Kränzlin concept E. moyobambae. Some of the Trinidad specimens are somewhat larger than material from South America.

Cogniaux (loc. cit. 515) cited a Purdie collection from Trinidad as Epidendrum patens, but I have not been able to examine it. In view of the homogeneity of the specimens cited above, it is probable that the Purdie collection is likewise referable to Epidendrum moyobambae. The two concepts may prove to be the same, but Epidendrum patens was described as having a paniculate inflorescence, whereas E. moyobambae, with its unbranched raceme, agrees with the Trinidad material.

The common name of Epidendrum moyobambae in Trinidad is reported to be "lamb's tail".

Epidendrum nocturnum Jacquin var. minus Cogniaux in Bull. Soc. Roy. Bot. Belg. 43 (1906) 323.

TRINIDAD: Aripo Savannah, February 13, 1915, Freeman s.n. (Herb. Trin. 8042); Aripo District, March 21, 1922, Broadway s.n. (Herb. Trin. 10562).

This variety, hitherto known from northern South America, is now reported from Trinidad on the basis of the two collections cited above.

Epidendrum oncioides Lindley var. gravidum (Lindl.) Ames, Hubbard et Schweinfurth in Bot. Mus. Leafl. Harvard Univ. 3 (1935) 104.

TRINIDAD: Botanic Garden, 1891, Hart s.n. (Herb. Trin. 5810); Botanic Garden, 1894, Hart s.n. (Herb. Trin. 5472); February 22, 1927, Freeman s.n. (Herb. Trin. 11719); February 2, 1931, Broadway s.n. (Herb. Ames 66922); Melojo Reserve, January 4, 1949, Ayliffe s.n. (Herb. Trin. 14411).

This concept has apparently not been previously cited as occurring in Trinidad. Its known range now includes Mexico, Middle America and Trinidad. A complete synonymy is presented by Ames, Hubbard and Schweinfurth (loc. cit.).

Epidendrum vincentinum Lindley in Hooker Journ. Bot. 3
(1841) 88.

TRINIDAD: Heights of Aripo, January 10-26, 1922, Broadway
s.n. (Herb. Trin. 9905).

Known previously from Costa Rica, Colombia and Peru
and many of the West Indian islands, Epidendrum vincentinum
seems not to have been reported from Trinidad with the
citation of botanical material.

ERYTHRODES Blume

Erythroides hirtella (Sw.) Fawcett et Rendle Fl. Jam. 1 (1910)
29, t. 3, figs. 16-19.

Satyrium hirtellum Swartz Prodr. (1788) 118.

Orchis hirtella (Sw.) Swartz Fl. 3 (1806) 1394.

Habenaria hirtella (Sw.) Sprengel Syst. Veg. 3 (1826) 690.

Physurus hirtellus (Sw.) Lindley Gen. and Sp. Orch. Pl.
(1840) 501.

TRINIDAD: St. Anne's, April 30, 1848 (Herb. Trin. 409);
December 23, 1892, Alexander s.n. (Herb. Trin.
5075); Tucuche, February 27, 1893, Broadway s.n.
(Herb. Trin. 5248).

This species seems not to have been reported from Trini-
dad or Tobago by Cogniaux.

Erythroides trinitatis Ames Orch. 7 (1922) 76.

TRINIDAD: St. Anne's, 1888, Broadway s.n. (Herb. Ames 68183:
drawings of TYPE).

Erythroides trinitatus has apparently been collected but
once.

HABENARIA Willdenow

Habenaria alata Hooker Exot. Fl. 3 (1827) t. 169.

TOBAGO: Montpelier, near Scarborough, October 3, 1909, Broadway 3051 (Herb. Ames 11726, 11727, 26456; Herb. Gray 88); November 1914, Sworder s.n. (Herb. Trin. s.n.); near Mason Hall, Courland River Valley, October 19, 1937, Sandwith 1858 (Herb. Ames 64123).

Habenaria alata was not cited from the Colony by Cogniaux
I have seen no specimens from the island of Trinidad.

Habenaria Leprieurii Reichenbach fil. var. heptadactyla (Rehb.f.)
R. E. Schultes comb. nov.

Habenaria heptadactyla Reichenbach fil. in Schomburgk
Fauna & Fl. Guian. (1848) 1123,
nomen; in Linnaea 22 (1849) 812.

Habenaria viridi-aurea Lindley ex Kränzlin in Engler Bot.
Jahrb. 16 (1893) 102, in synonym.

TRINIDAD: Aripo, July 7-8, 1848 (Herb. Trin. 884); Aripo
Savannah, April 16, 1908, Broadway 2337 (Herb. Ames
10679); Aripo Savannah, February 13, 1915, Freeman
s.n. (Herb. Trin. 8775); Aripo Savannah, August 16,
1922, Broadway s.n. (Herb. Trin. 10181); Aripo
Savannah, August 7, 1925, Williams et Freeman s.n.
(Herb. Trin. 11320; Herb. Gray 7745); Aripo Savan-
nah, August 1934, Wright s.m. (Herb. Trin. s.n.);
Aripo Savannah, July 27, 1943, Beard 142 (Herb.
Ames 62755); Broadway 2903 (Herb. Ames 14579).

This concept, occurring in Panama, Colombia, Venezuela,
British Guiana, Amazonian Brazil and Trinidad, has hitherto
been known as Habenaria heptadactyla.

Habenaria monorrhiza (Sw.) Reichenbach fil. in Ber. Deut.
Bot. Ges. 3 (1885) 274.

Habenaria speciosa Poeppig et Endlicher Nov. Gen. ac Sp.
1 (1835) 44, t. 76.

Orchis setacea Jacquin Enum. Pl. Ins. Carib. (1760) 29,
non Lindley.

Orchis monorrhiza Swartz Nov. Gen. et Sp. Prodr. (1788) 118.

Habenaria brachyceras Sprengel in Syst. Veg. 3 (1826) 692.

Habenaria maculosa Lindley Gen. and Sp. Orch. Pl. (1835)
309.

TOBAGO: Concordia, December 23, 1908, Broadway 2426 (Herb. Ames 11732, 11733); Indian Walk, January 5, 1910, Broadway s.n. (Herb. Ames 26464; Herb. Gray 100); Concordia, January 24, 1910, Broadway s.n. (Herb. Ames 16548); Adelphi, January 24, 1913, Broadway s.n. (Herb. Gray 99).

TRINIDAD: (Herb. Trin. 1965); June 8, 1865 (Herb. Trin. 1966); Oropouche, 1888, Murray s.n. (Herb. Trin. 3551); Santa Cruz, January 1890, Broadway s.n. (Herb. Trin. s.n.; Herb. Ames 68175); Belmont, St. Francis Valley Road, December 22, 1906, Broadway s.n. (Herb. Ames 10097, 10098, 10099, 62717); Chancellor Road, December 24, 1924, Freeman s.n. (Herb. Trin. s.n.); North Coast Road to Maracas Bay, January 27, 1952, Baker s.n. (Herb. Trin. 14725).

One of the most common species of Habenaria in the West Indies, Middle America and northern South America, H. monorrhiza was not cited from Trinidad and Tobago by Cogniaux.

Habenaria pauciflora (Lindl.) Reichenbach fil. in Bonplandia 2 (1854) 10.

Bonatea pauciflora Lindley Gen. and Sp. Orch. Pl. (1835) 329.

Habenaria setifera Lindley in Ann. Nat. Hist. 4 (1840) 381.

Habenaria spathacea Richard et Galeotti in Ann. Sci. Nat. 3, ser 3 (1845) 29.

TRINIDAD: St. Joseph Savannah, August 31, 1925, Withycombe s.n. (Herb. Trin. 11336).

Habenaria pauciflora, a widespread species through tropical America, has apparently been collected not once on the island of Trinidad.

Habenaria repens Nuttall Gen. N. Am. Pl. 2 (1818) 190.

Orchis repens (Nutt.) Rafinesque in Neogenyton. 4 (1825)
sub Mesicera, nomen.

Platanthera foliosa Brogniart in Duperr Bot. Voy.
Coquille, Phan. 195 (1829) t. 38b.

Habenaria maxillaris Lindley in Hooker Journ. Bot. 1
(1834) 5.

Habenaria tricuspis A. Richard ex Sagra Fl. Cub. 2
(1850) 249.

Habinaria maxillaris Reichenbach fil. in Beitr. Orch.
Centr.-Am. (1866) 61, non Lindley.

Habenaria radicans Grisebach in Cat. Pl. Cub. (1866) 271.

Habenaria Nuttallii Small Fl. Southeast. U.S. (1903) 315.

Habenaria polyrhiza Schlechter in An. Mem. Inst. Bot.
Bot. 1, fasc. 4 (1922) 14, t. 1,
fig. 3.

Habenaria polygonoides Schlechter in Fedde Repert. Sp.
Nov. 16 (1919) 252.

Habenaria pseudorepens Schlechter loc. cit. 20 (1913) 481.

TRINIDAD: Los Bajos, June 6, 1925, Williams s.n. (Herb. Trin.
11180; Herb. Ames 67786); Cedros, Broadway s.n.
(Herb. Trin. 9770).

An unusually widespread species in tropical and subtropical America, Habenaria repens, which usually grows in shallow water, was not cited from Trinidad by Cogniaux. Known from Trinidad by but two collections, it would appear not to be common on the island.

IONOPSIS Humboldt, Bonpland et Kunth

Ionopsis pygmaea Cogniaux in Urban Symb. Antill. 6 (1910) 624.

Trizeuxis pygmaea (Cogn.) Schlechter in Urban Symb.
Antill. 7 (1913) 498.

TRINIDAD: Caparo, March 17, 1908, Broadway 2251 (Herb. Ames
10644).

This extraordinary little species of Ionopsis, known but from the type collection and apparently endemic to Trinidad, has never been figured. It has seemed advisable to publish the accompanying drawing made from the duplicate type in the Orchid Herbarium of Oakes Ames.

Ionopsis utricularioides (Sw.) Lindley Coll. Bot. (1825)
t. 39a.

Epidendrum utricularioides Swartz Prodr. (1788) 122.

Dendrobium utricularioides Swartz in Nov. Act. Upsal.
6 (1799) 83.

Iantha pallidiflora Hooker Exot. Fl. 2 (1825) t. 113.

Cybelion pallidiflorum (Hook.) Sprengel Syst. Veg. 3
(1826) 721.

Cybelion Utriculariae Sprengel loc. cit. 721.

Ionopsis tenera Lindley in Bot. Reg. 32 (1836) t. 1904.

Ionopsis pallidiflora (Hook.) Lindley loc. cit. sub.
t. 1904.

Ionopsis paniculata Lindley loc. cit. sub. t. 1904.

Cybelion tenerum (Lindl.) Steudel Nomencl. 2, ed. 1
(1840) 458.

Ionopsis zonalis Lindley et Paxton in Paxton Flow.
Gard. 2 (1851) 13, in textu.

Ionopsis Gardneri Lindley in Ann. and Mag. Nat. Hist.
ser. 3, 1 (1858) 332.

Epidendrum calcaratum Sesse et Mocino Fl. Mex., ed. 2
(1894) 201.

Cogniaux has maintained Ionopsis pallidiflora as a distinct species, principally on the basis of its bilobed gibbosity at the connate base of the lateral sepals, sepa-

rating it from I. utricularioides in which the gibbosity is usually simple. All other characters are so similar that it does not seem that the structure of the gibbosity (which, in the somewhat variable Ionopsis utricularioides, is not constantly simple) alone suffices for the maintaining of I. pallidiflora as distinct. It is, consequently, here reduced to synonymy.

KEGELIELLA Mansfeld

Kegeliella Houtteana (Rehb. fil.) L. O. Williams in Ann. Mo. Bot. Gard. 29 (1942) 347.

TRINIDAD: Heights of Guanafo, August 24, 1930, Skinner et Robinson s.n. (Herb. Ames 36524); Morne Bleu, January 10, 1931, Williams s.n. (Herb. Trin. 12455).

A rather rare species, Kegeliella Houtteana occurs in Panama, Dutch Guiana, Jamaica and Trinidad. Both collections from Trinidad are recent, and, consequently, the genus was not reported from the Colony by Cogniaux.

MACRADENIA R. Brown

Macradenia lutescens R. Brown in Bot. Reg. (1822) t. 612.

TRINIDAD: February 7, 1931, Broadway s.n. (Herb. Ames 67862).

A specimen was cited as from Trinidad in the original description of Macradenia lutescens, but it was from cultivated material. There was, therefore, some doubt that this species, known from Florida, Cuba and Colombia, represented a native element of the Trinidad flora. Broadway's collection, reported as growing in "forests", albeit with no definite locality, establishes the fact that Macradenia lutescens is native on the island.

MAXILLARIA Ruíz et Pavón

Maxillaria albiflora Ames et Schweinfurth Sched. Orch. 8
(1925) 56.

TRINIDAD: Mount Tucuche, alt. 1500 ft., February 28, 1954,
Baker s.n. (Herb. Trin. 15113).

This represents the second and a topotypical collection of Maxillaria albiflora. The leaves and flowers are slightly smaller than in the material of the type (Freeman et Williams s.n.), but all the essential characters show no deviation.

Maxillaria Broadwayi (Cogn.) R. E. Schultes comb. nov.

Ornithidium Broadwayi Cogniaux in Urban Symb. Antill.
6 (1910) 612.

TOBAGO: Between Adelphi and Belmont, Broadway 2474 (Cited by Cogniaux).

Material of this endemic of Tobago has not been available to me for study, but Cogniaux's very ample description of it enumerates so many differentiating characters that there can be no doubt as to its validity as a species. It seems that the transfer from Ornithidium to Maxillaria has not hitherto been done for this specific concept.

Maxillaria trinitatis Ames Sched. Orch. 2 (1923) 34.

Maxillaria trinitensis Broadway in Orch. Rev. 34 (1926)
202, sphalm.

TRINIDAD: Las Cuevas Heights, January 4, 1861 (Herb. Trin. 1832); Heights of Aripo, January 10-26, 1922, Broadway s.n. (TYPE - Herb. Ames 22672, 67049; Herb. Trin. 9890); Tucuche, January 10, 1922, Freeman et Williams s.n. (Herb. Trin. 10085); Trail to El Tucuche, January 2, 1948, Simmonds 240 (Herb. Trin. 14070).

Hitherto known only from the type collection, Maxillaria trinitatis is now recorded from several additional localities in Trinidad.

The type collection was cited by Ames as Broadway 9890. This is the number of the specimen, a duplicate type, in the Trinidad Herbarium. Inasmuch as the type is deposited in the Ames Herbarium, some confusion might result from the transfer of this number to the collector. Mr. Broadway seldom used collection numbers; the numbers which have been used as though they were Broadway's invariably refer to the accession number of the specimen in the Trinidad Herbarium.

Maxillaria variabilis Bateman ex Lindley Bot. Reg. 23 (1837)
sub t. 1986.

TRINIDAD: January 9, 1864 (Herb. Trin. 1821); Cedros, July 4, 1866. Ristoe s.n. (Herb. Trin. 2895).

Common throughout Middle America and known also from Panama and British Guiana, Maxillaria variabilis has apparently never been reported for the flora of Trinidad, notwithstanding the fact that only the two collections of it which we have from the island were collected almost a century ago.

NOTYLIA Lindley

The first dichotomy in Cogniaux's key to the six species of Notylia which he recognised for Trinidad and Tobago is based on the presence and absence of a callus at the base of the lip. He separated Notylia punctata from the other five species because it alone had a callus. An examination of all material available from Trinidad indicates that a callus is present in all of the concepts. According to Mr. Charles Schweinfurth, this character is very misleading and does not

hold. Another character which Cogniaux has employed is the condition of the tips of the sepals: whether straight or revolute. This character is highly trustworthy, for both straight and revolute sepal tips can be found on flowers taken from a single inflorescence. Likewise, length of inflorescence and degree of union of the sepals seem to be extremely variable and unreliable characters. The same variability has been found in the muticous and apiculate condition of the sepals.

The present treatment is proposed, inasmuch as Notylia angustifolia and N. nana do not appear to present any really stable and fundamental differences which could be considered as specific; and since the concepts described by Cogniaux as N. apiculata and N. Broadwayi differ so slightly from N. punctata that one would hardly be justified in calling them varieties. Notylia incurva remains somewhat of a mystery. There is in the Trinidad Herbarium (2092) an inflorescence, the flowers of which differ from those of all other local material, which I am tentatively calling Notylia incurva. Lindley's description of this concept is so vague that it would be difficult to assign this name with certainty to any specimen. The specimen 2092 was determined, presumably at Kew by Rolfe, as representing this concept, and all of the characters of the flower would seem to agree with those specified by Lindley for Notylia incurva. Even though the name Notylia incurva is apparently rather ambiguous, I believe that the best course at present is to refer our specimen to it.

The only certainty is that this specimen differs markedly especially in shape of the lip, from all other Trinidad material. The lip is very broadly hastate ~~and~~ instead of being very narrowly trulliform.

It would seem, then, that there are three species of Notylia known from Trinidad and Tobago. These can be distinguished according to the following key.

1. Leaves narrowly linear. N. angustifolia
- 1A. Leaves broadly oblong or elliptic.
 2. Lip narrowly trulliform, apically acute or subobtuse. N. punctata
 - 2A. Lip broadly hastate, subtrilobulate, apically basally rounded. N. incurva

A summary of specimens referred to these concepts and a synonymy are herewith given.

Notylia angustifolia Cogniaux in Urban Symb. Ant. 6 (1910) 618.

Notylia nana Cogniaux loc. cit. 619.

TRINIDAD: Caparo, March 27, 1908, Broadway 2348 (Herb. Ames 10655a, 11684); Oropouche via Valencia, March 5, 1931, Broadway 7454 (Herb. Ames 10655); Broadway 2431 (Cited by Cogniaux: TYPE of Notylia nana); Hart s.n. (Cited by Cogniaux: TYPE of Notylia angustifolia).

Notylia incurva Lindley in Bot. Reg. 24 (1838) Misc. No. 167.

TRINIDAD: Botanic Gardens, Hart s.n. (Herb. Trin. 2092); Hort. Loddiges (Cited by Cogniaux).

Notylia punctata (Ker) Lindley in Bot. Reg. 11 (1825) sub. t. 930.

Pleurothallis punctata Ker in Bot. Reg. 9 (1823) t. 759.

Gomezia tenuiflora Loddiges Bot. Cab. 9 (1824) t. 806.

Notylia apiculata Cogniaux in Urban Symb. Antil. 6
(1910) 617.

Notylia Broadwayi Cogniaux loc. cit: 618.

TRINIDAD: Botanic Gardens, Hart s.n. (Herb. Trin. 5665);
Agua Santa, near Arima, 1908, Broadway s.n. (Herb.
Ames 11692); Agua Santa, Arima, July 26, 1908,
Broadway s.n. (Herb. Ames 10671, 10672); North
Trace via Prince's Town, August 19, 1918, Broadway
s.n. (Herb. Trin. 8835); Siparia, April 4, 1918,
Rogers s.n. (Herb. Trin. 8768); Quare River, July
12, 1925, Williams et Freeman s.n. (Herb. Trin.
11264); Jackson Trace via Cap de Ville, April 1,
1931, Broadway 7503 (Herb. Ames 37541); Tamana,
May 17, 1934, Bruins-Lich s.n. (Herb. Trin. 13020);
Woodford ex Loddiges (Cited by Cogniaux); Broadway
A, B, C, D (Cited by Cogniaux).

OCTOMERIA R. Brown

Octomeria grandiflora Lindley in Bot. Reg. 28 (1842) Misc. 64.

TRINIDAD: January 6, 1927, Broadway 6515 (Herb. Ames 66920).

Cogniaux did not report this species from Trinidad. It is known from Brazil and Bolivia. The Broadway specimens are smaller in all parts than typical Octomeria grandiflora, but they are morphologically indistinguishable from this variable concept.

PERISTERIA Hooker

Peristeria cerina Lindley in Bot. Reg. 23 (1837) t. 1953.

TRINIDAD: Siparia, April 11, 1930, Broadway 7429 (Herb. Ames 36523).

Cogniaux did not report this rare orchid from Trinidad. It was apparently first collected in 1930 by Broadway who reported it the following year (Orch. Rev. 39 (1931) 35), stating that "this Peristeria seems to be only known from the Siparia districts of the Colony, where it has been met attached to trees but is a scarce Trinidad plant."

Peristeria pendula Hooker in Bot. Mag. 63 (1836) t. 3479.

TRINIDAD: Siparia, April 14, 1916, Broadway s.n. (Herb. Trin. 7656).

This species appears hitherto not to have been reported from Trinidad with specimen citation.

PLEUROTHALLIS R. Brown

Pleurothallis acutissima Lindley Fol. Orch. (1859) Pleuroth. No. 277, 43.

Humboldtia acutissima (Lindl.) O. Kuntze Rev. Gen. Pl. (1891) 667.

Pleurothallis sertularioides (Sw.) Sprengel var. trinitensis Grisebach Fl. Brit. W. Ind. (1864) 609.

TRINIDAD: Aripo, April 16, 1908, Broadway 2333 (Herb. Ames 10663); Aripo Savannah, February 13, 1915, Freeman s.n. (Herb. Trin. 8025; Herb. Ames 67922); Matura, September 1, 1925, Williams, Freeman et Cheesman s.n. (Herb. N.Y. Bot. Gard.; Herb. Trin. 11326).

Pleurothallis archidiaconi Ames Sched. Orch. 9 (1925) 29.

TRINIDAD: Cumaca, December 1954 (flowering February 6, 1955), Downs 11 (Herb. Ames 67846).

The Downs material represents the second collection of this Trinidad endemic.

Pleurothallis ciliata Knowles et Westcott Flor. Cab. 1 (1837) 39, t. 19.

Humboldtia ciliata (Knowl. et Westc.) O. Kuntze Rev. Gen. Pl. (1891) 677.

TRINIDAD: Agua Santa, Arima, April 16, 1908, Broadway 2341 (Herb. Ames 10643); Caparo, January 1, 1915, Broadway s.n. (Herb. Trin. 7840); Cedros, April 5, 1918, Sankeralli s.n. (Herb. Trin. 8791); Quare River, January 25, 1930, Broadway 7449 (Herb. Ames 37545, 66919).

Cogniaux did not cite this species as native to Trinidad. It is known from Colombia, Peru, British Guiana and Trinidad.

Pleurothallis diffusa Poeppig et Endlicher Nov. Gen. ac. Sp. 1 (1835) 49, t. 86.

Pleurothallis semipellucida Reichenbach fil. in Linnaea 22 (1849) 823.

Humboldtia semipellucida (Rchb. f.) O. Kuntze Rev. Gen. Pl. 2 (1891) 668.

Pleurothallis complicata Rolfe in Mem. Torr. Bot. Club 6 (1896) 121.

TRINIDAD: (Herb. Trin. 6432); Aripo, November 11, 1863 (Herb. Trin. 1818); Heights of Aripo, April 11, 1922, Broadway s.n. (Herb. Trin. 10567).

Known in the Andean regions from Bolivia and Peru north to Colombia, Pleurothallis diffusa is not enumerated in Cogniaux's orchid list of Trinidad.

Pleurothallis ovalifolia (Focke) Reichenbach fil. in Walper Ann. 6 (1861) 188.

Stelis ovalifolia Focke in Tijdschr. Natuur. Wetensch. 2 (1849) 202.

Pleurothallis rhomboglossa Reichenbach fil. in Flora (1865) 276.

Pleurothallis vaginulata Grisebach Cat. (1866) 259.

TOBAGO: Great Dog River Valley, October 12, 1937, Sandwith 1750 (Herb. Ames 64122).

TRINIDAD: January 13, 1946 (Herb. Trin. 412); Valencia, April 16, 1920, Britton s.n. (Herb. Trin. 9245); base of Mount Tamana, April 18, 1920, Britton, Britton et Hazen 1969 (Herb. Ames 20356); Matche-poorie, March 11, 1921, Britton et Britton 2221 (Herb. Ames 21172); Arena Forests, near Cumuto, December 3, 1926, Broadway 6433 (Herb. Ames 38347); Cumuto-Tumpuno Road, October 1, 1953, Ayliffe 145 (Herb. Ames 67011).

This concept has been reported from Trinidad by Cogniaux and by Broadway as Pleurothallis rhomboglossa. Mr. Leslie A. Garay, Mr. Charles Schweinfurth and I are in agreement that Pleurothallis rhomboglossa should be treated as a synonym of P. ovalifolia.

Pleurothallis velaticaulis Reichenbach fil. in *Linnaea* 22 (1849) 824.

TRINIDAD: August 28, 1892, Hart s.n. (Herb. Trin. 4782; Herb. Ames 67818); Morne Bleu, February 7, 1922, Freeman s.n. (Herb. Trin. 10688); between El Tucuche and Naranjo, January 2, 1948, Simmonds 235 (Herb. Trin. 14072; Herb. Ames 14072).

Pleurothallis velaticaulis, known from Cuba, Venezuela and Middle America, has apparently hitherto not been cited from Trinidad.

PSILOCHILUS Barbosa-Rodríguez

Psilochilus macrophyllus (Lindl.) Ames *Orch.* 7 (1922) 45.

Pogonia macrophylla Lindley in *Ann. and Mag. Nat. Hist.*, ser. 3, 1 (1858) 335.

Pogonia physurifolia Reichenbach fil. in *Nederl. Kruidk. Orch.* 4 (1859) 324.

Psilochilus macrophyllus was cited from Trinidad by Cogniaux as Pogonia macrophyllus. Known from Guatemala, northern South America and several of the islands in the West Indies, it is obviously a rather rare species in Trinidad. It is known from Trinidad only through one collection: Sieber 381.

SCAPHYLOTTIS Poeppig et Endlicher

Scaphyglottis fusiformis (Griseb.) R. E. Schultes comb. nov.

Hexadesmia fusiformis Grisebach *Fl. Br. W. Ind.* (1864) 623, non Lindley.

TRINIDAD: (Herb. Trin. 890); Maracas, March 26, 1861 (Herb. Trin. 1838); Oropouche, April 1896, Alexander s.n. (Herb. Trin. 6076; Herb. Ames 66993A); Botanic Garden, April 1890, Broadway s.n. (Herb. Trin. 4031; Herb. Ames 66993); Agua Santa Estate, Arima, April 14, 1908, Broadway s.n. (Herb. Ames 10708); Caparo, April 28, 1908, Broadway 2317 (Herb. Ames 10677, 10678).

Scaphyglottis fusiformis is apparently endemic to the island of Trinidad, where it is not an uncommon element of the flora.

Scaphyglottis modestus (Rehb. fil.) Schlechter in Fedde Repert. 23 (1926) 46.

TRINIDAD: Botanic Gardens, March 5, 1918, Broadway s.n. (Herb. Trin. 8774); May 26, 1925, Homersley s.n. (Herb. Trin. s.n.); January 11, 1926, Williams s.n. (Herb. Trin. 11498); Cumaca Road, third mile, December 27, 1948, Simmonds 318 (Herb. Trin. 14240).

Scaphyglottis modestus is known from the West Indies and the northern half of South America. It was not included by Cogniaux in his enumeration of Trinidad species.

SPIRANTHES L. C. Richard

Spiranthes costaricensis Reichenbach fil. in Bonplandia 3 (1855) 214.

Gyrostachys costaricensis (Rehb. f.) O. Kuntze Rev. Gen. Pl. 2 (1891) 664.

?Spiranthes elata (Sw.) L. C. Richard var. minutiflora
Cogniaux in Martius Fl. Bras. 3, pt. 4 (1895) 192.

Beloglottis costaricensis (Rehb. f.) Schlechter in Beih. Bot. Centralbl. 37, Abt. 2 (1920) 365.

Spiranthes bicaudata Ames Orch. 7 (1922) 126.

Spiranthes subpandurata Ames et Schweinfurth Sched. Orch. 8 (1925) 4, fig. 1.

TRINIDAD: February 16, 1849 (Herb. Trin. 1513); Tucuche, January 10, 1922, Freeman et Williams s.n. (Herb. Trin. 10084); Aripo Flats, March 25, 1934, Bruins-Lich s.n. (Herb. Trin. 12990); Tucuche, January 25, 1953, Baker s.n. (Herb. Trin. 14814); between Brasso Seco and Mandamus, January 9, 1955, Herklots s.n. (Herb. Trin. 15357; Herb. Ames 67051).

Spiranthes costaricensis has apparently never been reported from Trinidad. It is probably that it has been confused with Spiranthes elata. Vegetatively, these two species are similar, even though Spiranthes costaricensis usually is somewhat smaller than S. elata. The differences in flower, however, are such that it should be possible to distinguish the two easily. The apical part of the lip is transverse and broader than long in Spiranthes elata, whereas it is oblong-ovate to suborbicular in S. costaricensis. I have seen no Trinidad material which could be referred to Spiranthes elata, but Cogniaux cites a Purdie and a Crueger collection as representing this species.

Spiranthes guayanensis (Lindl.) Cogniaux in Martius Fl. Bras. 3, pt. 4 (1895) 209, t. 47, fig. 2 (as guayanensis).

Goodyera guayanensis Lindley Gen. and Sp. Orch. Pl. (1840) 494.

Spiranthes Hostmanni Reichenbach fil. ex Grisebach Fl. Brit. W. Ind. (1864) 640.

Gyrostachys Hostmanni (Rchb. f. ex Griseb.) O. Kuntze Rev. Gen. Pl. (1891) 664.

Brachystele guyanensis (Lindl.) Schlechter in Beih. Bot. Centralbl. 37, Abt. 2 (1920) 373.

Brachystele aguacatensis (Rchb. f.) Schlechter loc. cit. 37, Abt. 2 (1920) 371.

Spiranthes aguacatensis Reichenbach fil. in Bonplandia 3 (1855) 214.

Gyrostachys aguacatensis (Rehb. f.) O. Kuntze Rev. Gen. Pl. 2 (1891) 664.

TRINIDAD: Queen's Park, June 2, 1850 (Herb. Trin. 870); Queen's Park, May 1889, Broadway s.n. (Herb. Trin. 3792); Botanic Gardens, June 5, 1889, Broadway s.n. (Herb. Trin. 3806); Government House Grounds, June 4, 1907, Broadway s.n. (Herb. Ames 10171, 10172, 10173, 10174); St. Anne's, June 13, 1922, Broadway s.n. (Herb. Ames 39727); Broadway s.n. (Herb. Trin. 3913).

The spelling of the specific epithet of this concept should be guayanensis, in conformity with the original orthography followed by Lindley. The change (probably in error) instituted by Schlechter has become the most widely used and generally *accepted* form.

STELIS Swartz

Stelis trinitatis Ames Sched. Orch. 2 (1923) 15.

Stelis trinitensis Ames apud Broadway in Orch. Rev. 34 (1926) 134.

TRINIDAD: Mount Aripo, December 24, 1947, Simmonds 230 (Herb. Trin. 14023); Mount Aripo, October 22, 1949, Simmonds 410 (Herb. Trin. 14444; Herb. Ames 67804); Aripo, March 20, 1955, Downs 34 (Herb. Ames 67843).

Stelis trinitatis appears to be a very strict endemic at Aripo. The type was collected at the "Heights of Aripo" by Broadway. Simmonds 230 was found at an altitude of 2000 feet, "by the Caves Trail" and Simmonds 410 grew at 1200 feet. The Downs collection was made in the "Cave Region".

The only other species of Stelis known from Trinidad and Tobago is the widespread S. ophioglossoides (Jacq.) Sw.

STENIA Lindley

Stenia pallida Lindley in Bot. Reg. 23 (1837) sub. t. 1997;
24 (1838) t. 20.

TRINIDAD: Botanic Gardens, 1894, Hart s.n. (Herb. Trin. 5591);
Heights of Aripo, January 10-26, 1922, Broadway s.n.
(Herb. Trin 9898); El Tucuche, alt. about 2000 feet,
March 20, 1955 (flowered May 19, 1955), Downs 38
(Herb. Ames 67844, 67863); Bradford s.n. (cited by
Cogniaux).

Stenia pallida is known from Venezuela, British Guiana
and Trinidad. The accompanying plate, drawn from the herbarium
specimens and alcohol material sent ⁱⁿ by Dr. Downs and from his
^
excellent photographs of the living plant, is published par-
ticularly to point out a character which has not hitherto
been described or figured: the lip is inverted and uppermost.

TRIPHORA NUTTALL

Triphora surinamensis (Lindl.) Britton in Britton et Wilson
Sci. Surv. Porto-Rico and Virgin
Islands 5 (1924) 184.

Pogonia surinamensis Lindley in Hooker London Journ.
Bot. 2 (1843) 674.

TRINIDAD: Maraval, July 4, 1847, Crueger s.n. (Herb. Trin.
414); O'Mara Savannah, July 7, 1848, Purdie (?)
s.n. (Herb. Trin.) 1625); Mora Forest, June 26,
1925, Broadway s.n. (Herb. Ames 30415); Bamboo
Plantation, St. Joseph, October 1949, Baker s.n.
(Herb. Trin. 14437; Herb. Ames 67927).

This species was reported from Trinidad as Pogonia
surinamensis. The several recently-made collections indi-
cate that this rather widely distributed species is not
uncommon in Trinidad.

VANILLA Swartz

Vanilla Hartii Rolfe in Kew Bull. 1899 (1899) 133.

TOBAGO: Widow woods, March 6, 1911, Broadway s.n.
(Herb. Gray 1419).

TRINIDAD: Cabasterre, Arima, April 1898, Hart 6355 (Herb.
Trin. s.n.; Herb. Ames 67784); Agua Santa, Arima,
May 4, 1915, Broadway s.n. (Herb. Trin. 8762);
Mora Forest, east of Sangre Grande, April 10,
1921, Britton 2841 (Herb. Gray 1420); Cunupia,
Hart s.n. (Herb. Trin. 6356); Herb. Trin. s.n.).

Cogniaux listed Vanilla Hartii, citing the type (Hart
6355) but indicating that he had not seen it. The numerous
collections made since 1898 show that Vanilla Hartii is a
very distinct species. It is endemic to Trinidad and Tobago.

Vanilla Wrightii Reichenbach fil. in Flora 48 (1865) 273.

Vanilla claviculata Lindley in Ann. and Mag. Nat.
Hist., ser. 3, 1 (1858) 334, non
Swartz.

Vanilla palmarum Grisebach Cat. (1866) 267, non Lindley.

Vanilla lutea C. Wright ex Grisebach loc. cit. 267.

Vanilla gratiose Grisebach loc., cit. 267.

?Vanilla palmarum Grisebach var. grandifolia Cogniaux
in Martius Fl. Bras. 3, pt. 4 (1893) 154.

TRINIDAD: Malajo Forest, May 1955, Downs 56 (Herb. Ames
67793); Fendler 1007 (Cited by Cogniaux).

Vanilla Wrightii must be rather rare in Trinidad. It
is known only from these two collections.

WARZEWICZELLA Reichenbach fil.

Warzewiczella flabelliformis (Sw.) Cogniaux in Urban Symb.
Antill. 4 (1903) 182.

Epidendrum flabelliforme Swartz Prodr. (1788) 123.

Cymbidium flabelliforme Swartz in Nov. Act. Ups. 6
(1799) 73.

Zygopetalum cochleare Lindley in Bot. Reg. 22 (1836) 1857.

Warzewiczella cochlearis (Lindl.) Reichenbach fil. in
Bot. Zeit. 10 (1852) 714.

Zygopetalum flabelliforme (Sw.) Reichenbach fil. in
Walper Ann. Bot. 6 (1863) 652.

TRINIDAD: March 1890, Broadway s.n. (Herb. Ames 7598);
Tabaquite, November 25, 1924, Farfan s.n. (Herb.
Trin. 11198), August 26, 1927 (Herb. Trin. 11778);
Morne Bleu, March 23, 1928, Homersley, Freeman et
Williams s.n. (Herb. Trin. 11959).

Cogniaux cited for Trinidad only a Bradford collection
for Warzewiczella flabelliformis. The recent collections
indicate that it is a rather widely occurring orchid on the
island.

P.O.Box 164
Port of Spain, Trin
May 18, 1954

Dr. R.E.Schultes
Botanical Museum of Harvard University
Oxford Street
Cambridge 38, Mass.

Dear Dr. Schultes:

Enclosed is a plant of Aitken-Downs Species #94, quite the smallest orchid located thus far by us. Mr. Hubert E. Wood collected this plant from a cocoa tree in Diego Martin in May 1956, at which time the plant was in seed as seen in this specimen. It is presumably a *Pleurothallus*, and we shall be interested in hearing if you can diagnose the species from this specimen. I have taken photographs which will come along in due course.

Sincerely yours

Wilbur G. Downs

P.S. One or two additional notes regarding your m.s. are appended.

Page 8, line 7: "as along the southern coast of Manzanilla."

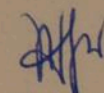
Apropos of the distribution of the two species of *Diacrium*, it should be noted that most of the indivisum localities are Port-of-Spain, which is on the coast (of the Gulf of Paria). Also we have taken bicornutum at least two miles inland from the sea on the east coast.

Page 16, last line: Shouldn't *Orchis monorrhiza* Swartz precede *Habenaria speciosa* Poeppig in the synonymy list as the type species?

Shouldn't the spelling of the first genus in your generic key be Selenepedium?

With regard to Downs letter of 12 May with its m.s. corrections (page 2), change name precedence of our collection numbers to Downs and Aitken.

Sincerely yours,



Thomas H.G. Aitken

THGA:eat

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

May 8, 1956.

Dear Dr. Downes:

Here is the long-promised key I have made to the genera of orchids known to be native to the Colony. I tried hard to keep away from anthers + pollinia, but there are arms in the key where it is not at all possible to do so. Any criticisms will be appreciated.

I might say that my goal in the final monograph will be to illustrate most, if not all, of the genera. This will be a help with the key.

Sincerely yours,
Richard Evans Schultes

P.O.Box 164
Port of Spain, Trin.
April 30, 1956

Dr. R.E.Schultes
Botanical Museum of Harvard University
Oxford Street
Cambridge 38, Mass.

Dear Dr. Schultes:

I have been following the history of Stenia pallida with interest. The flower is indeed resupinate in all of the specimens I have seen flowering. There exists the possibility that the plants have been mounted upside down, because there is little to help one in deciding which is top and which bottom of the plant. However, if the plants were mounted upside down, would one not expect the blossom to correct for this by turning a bit on its petiole?

The key to Maxillarias is most interesting. We are surprised to find that there are three species, liparophylla, concinna and alba which we have not yet encountered. Aitken has encountered an apparent discrepancy in the key:

1a. Plants caulescent (leafy stem)

.....

9a. Stems not leafy etc.. And the M. variabilis which we have would appear to have a leafy stem.

Was collecting on the Aripo Savannah today, and got a plant of what is apparently Otostylus brachystalix, which has now been sketched, photographed and flowers preserved. Also got several plants of what may be a Cleistis (past flowering) and possibly even a second species of same. In one species the leaves are quite coriaceous, and equal in length $1\frac{1}{2}$ to 2 nodes of stem, whereas in the other plant the leaves are darker green, not so stiff, and barely equal one node. Also got some Cyrtopodium Broadwayi, not in flower.

Sent up to New York last week a number of blossoms in alcohol and hope they have arrived safely in your hands. Enclosed is a list, and following are some comments:

1. Species 13, a very common plant, probably a Pleurothallus (?) has not as yet been identified for us. Several blossoms are in this shipment.
2. Aitken sends species A and B of Dichaea, believing same to be different.
3. Flowering stems of 2 Epidendrum hartii are enclosed. One, photographed last year with short floral bracts (photos sent you) has come forth this year with leaflike floral bracts, 4-5 cm long. The other hartii stem is from a different plant, with short floral bracts. Will appreciate it if you can give us an opinion on these two plants.

Most of the other material in the shipment is self-explanatory. We shall, of course, welcome identifications on the several species not as yet identified by you.

Sincerely yours

Wilbur G. Downs

Orchid Specimens sent to R.E.Schultes, April 1956
by W.G.Downs and T.H.G.Aitken

- Jar #1
1. Sp. 44 Scaphyglottis modesta, El Tucuche, Trin. flowering Dec. 30, 1955.
 2. Sp. 38 Stenia pallida, Spring Hill Estate, Arima Valley, Trinidad.
 3. Sp. 74 Epidendrum sp., Aripo Savannah, flowering Dec. 1955, coll. H.E.Wood.
 4. Sp. 6 Catasetum macrocarpum, female flowers. Lagon Bouffe, Guayaguayare, flowering Dec. 4, 1955.
 5. Sp. 37 Epidendrum ciliare, flowering Dec. 4, 1955
 6. Sp. 68 Oncidium lanzeanum, flowering Nov. 26, 1955. ex coll. Mrs. A.F.A.Lamb.
 7. Sp. 79 Plant #269. Toco Road, 4 mile mark, 27 Nov. 1955 flowering Dec. 20, 1955
 8. Polystachya sp. Tractor Trace, Melajo Forest, Dec. 20, 1955.
 9. Epidendrum strobiliferum, Spring Hill Estate, Arima Valley, Dec. 18, 1955.
 10. Habenaria monorrhiza, Maracas By Road, 2 $\frac{1}{4}$ mile post. Jan. 14, 1956. Terrestrial.
 11. Gongora maculata, Tabaquite, Trin. Dec. 15, 1955. Plant pressed.
 12. Sp. 83 Plant 285. Spring Hill Estate, Arima Valley. Flowering Jan. 19, 1956
 13. Sp 85, Melajo Forest, Trin. Flowering Jan. 15, 1956.
- Jar #2
1. Sp. 80, Tabaquite, Trin. Dec. 3, 1955 (flowering Dec. 30, 1955) coll. H.E.Wood.
 2. San Rafael (?) April 1956 (flowering April 7, 1956) coll. H.E.Wood
 3. Species 78 Oncidium ampliatum (?), flowering Dec. 17, 1955. coll. Mrs. E. Knowles.
 4. Species 81 Tamana (?), Trinidad (?) flowering Dec. 30, 1955 coll. H.E.Wood
 5. Sp 13B, Spring Hill Estate, Arima Valley, Trin. Dec. 18, 1955
 6. Sp ~~13A~~ 37 Epidendrum ciliare, Spring Hill Estate, Arima Valley Dec. 18, 1955.
 7. Sp 13A, Plant 198, Spring Hill Estate, Arima Valley, Trin. flowering Jan. 1, 1956
 8. Sp. 76 Plant 266, flowering Dec. 13, 1955.
 9. Sp 54 Plant 192 Epidendrum pygmaeum, Morne Poui, flowering Dec. 19, 1955.
 10. Sp. 77 Plant 202, Spring Hill Estate, Arima Valley, flowering Dec. 17, 1955.
 11. Epidendrum nocturnum var ? Cumasa, Trin. March 7, 1955, flowering Jan. 15, 1956
 12. Pleurothallus orbicularis, Tractor Trace, Melajo Forest. Dec. 20, 1955.
- Jar #3
1. Gongora atropurpurea Sp 24
 2. Sp 67 Oncidium sprucei (or cebolletum) Port of Spain, Trin., flowering Dec. 5, 1955 (coll. Mr. Critchlow)
 3. Sp 73 Maracas Falls parking area. Flowering Dec. 4, 1955
 4. Sp 38 Plant 119 Stenia pallida, flowering July 29, 1956
 5. Sp 20 Spring Hill Estate, flowering Nov. 16, 1955.
 6. Sp 50 Plant 106 Heights of Aripo, flowering Dec. 4, 1955.
 7. Sp 35 Oncidium citrinum St. Patrick Estate, Arima Valley, flowering March 7, 1956. coll. R. Martines.
 8. Sp 40 Oncidium luridum flowering March 7, 1956

continuation (sheet 2) Orchid Specs sent to RESchultes, April 1956

- Jar 4 Diacrium bicornutum, from a Port of Spain plant collected years ago on Chacachacare Island, by Capt. A. Mendes. Flowering Jan. 20, 1956
- 2 Dichaea species A, Melajo Forest, July 27, 1955.
 - 3 Dichaea species B, Biche November 23, 1955.
 - 4 Sp 86 Quare Dam, Valencia Jan 29, 1956
 5. Sp 87 Valencia, flowering March 27, 1956 (coll H.E.Wood)
 - 6 Epidendrum hartii St. Patrick Estate, Arima Valley. March 8, 1955, flowering April 1956. Long leaflike floral bracts.
 - 7 Epidendrum hartii, Aripo Valley, flowering April 1956 (short bracts)
 - 8 Sp. 82 El Tucuche (alt 600'). Collected flowering Jan. 16, 1956
 9. ex collection Thora Hughes, flowering Feb. 24, 1956. Is this a Trinidad endemic species?
 10. Sp 88 (same as item #2 of jar #2) Quare Dam, Valencia, flowering April 14, 1956.
 - 11 Sp 39 Maxillaria albiflora Trinidad. Flowering Feb. 26, 1956.
- Jar #5 Sp. 90 Gasparee Island, terrestrial. Flowering March-April 1956. coll H.E.Wood
- Jar #6 Plant #53, Catasetum macrocarpum
- Jar #7 Sp 72 Coryanthes macrantha, flowering Dec. 4 1956; in Dudley coll'n presumably native
- Jar #8 Diacrium bicornutum Rio Grande Forest Tree Station, March 7, 1956
- Jar #9 Sp. 69, Stanhopea grandiflora; Brickfield, in south central T'dad. flowering Nov. 26, 1955. Coll. Mrs. A.F.A.Lamb.
- Jar #10 Vanilla sp. Mature (9 mile post) July 29, 1955.

P.O. Box 164
Port of Spain, Trin.
April 30, 1956

Dr. R.E. Schultes
Botanical Museum of Harvard University
Oxford Street
Cambridge 38, Mass.

Dear Dr. Schultes:

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Wilbur C. Downs

Orchid Specimens sent to R.E.Schultes, April 1956
by W.G.Downs and T.H.G.Aitken

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continuation (sheet 2) Orchid Specs sent to RESchultes, April 1956

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- Jar #10 Vanilla sp. Mature (9 mile post) July 29, 1955.

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Oxford Street
Cambridge 38, Massachusetts

April 3, 1956.

Dear Dr. Downs:

I have just about decided that your Trichocentrum represents a new species. This is the only new species which I have found in my whole work on the Trinidad orchids. I propose to name it Trichocentrum Downsi, unless you request me not to do so. I think it quite appropriate that it should bear your name, because your studies and photographs have so materially advanced my understanding of so many orchids of the Colony.

We are having our staff artist, Mr. Elmer W. Smith, make a line drawing of it, and several of your excellent photographs will be published with the description.

Our material is still very sparse, but I feel that we have enough knowledge of the essential parts of the plant to do a good description of it. Nevertheless, any additional material which you can spare will be a

very real help.

My best regards to Dr. Aitken.

Sincerely yours,

Richard Evans Schultze

Old Hall
Cambridge 38, Massachusetts

April 3, 1952

[Faint, mirrored bleed-through text from the reverse side of the page, including phrases like "I am just about certain that your...", "I am sure that...", "I am sure that...", "I am sure that..."]

C
P
Y

ORCHID HERBARIUM OF OAKES AMES

Botanical Museum, Harvard University

Oxford Street, Cambridge 38, Massachusetts

April 17, 1956.

Dear Dr. Aitken:

You asked me, in your letter of March 30, 1956, what the principal characters separating M. rufescens from M. trinitatis are. I think it might be well to send you my Key to Trinidad and Tobago Maxillarias.

1. Plants caespitose (growing in clump, short stems) or without elongate stem
2. Leaves distinctly long-petiolate ----- M. albiflora
- 2a. Leaves not distinctly long-petiolate; at most long-conduplicate (folded together along mid rib) at base _____
3. Pseudobulbs 1 - foliate. Lip distinctly 3 - lobed _____
4. Scape short, up to 7 c.m. long. _____
5. Pseudobulbs 1 - 2 c.m. long. Mid-lobe of lip acute, thickened canaliculate (grooved) at apex _____ M. liparophylla
- 5a. Pseudobulbs 3 - 6 c.m. long. Mid-lobe of lip truncate, emarginate _____ M. rufescens
- 4a. Scape long, 13 - 19 c.m. long _____ M. trinitatis
- 3a. Pseudobulbs 2 - foliate. Lip obscurely 3 - lobed _____ M. Broadwayi
- 1a. Plants caulescent (leafy stem) _____
6. Pseudobulbs, usually 2 - 3 - foliate _____ M. Camaridii
- 6a. Pseudobulbs, 1 - foliate _____
7. Peduncles very short, 2 - 4 m.m. long _____ M. conferta
- 7a. Peduncles long, 20 - 60 m.m. long _____
8. Lip clawed _____ M. concinea
- 8a. Lip not clawed _____
9. Stems leafy. Lip usually conspicuously 3 - lobed M. alba
- 9a. Stems not leafy. Lip usually undivided, at most very obscurely 3 - lobed _____ M. variabilis

Of course you have a definite colour difference as well between M. trinitatis and M. rufescens.

Sincerely,

Sgd. Richard Evans Schultes

By Air Mail

Mr.
Wilbur Downs, M.D.

P. O. Box 164

Port of Spain

Trinidad

LÜBECK, den 18.4.1956
KUNIGSTRASSE 70-72 · RUF 22930

Mo/Ga

Dear Sir,

receiving your letter I am sorry I have to inform you that I have not been able to obtain any further offers. The book mentioned by Mr. Hiels Dungal

Schlechter, Die Orchideen,

edited by Paul Parey in 1915 at Berlin is out of print.

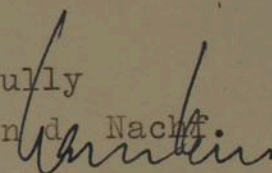
Up to-day without any success I have been trying hard to get you a second-hand copy. However I shall have to make other inquiries and to write for more advertisements.

I hope it won't be too long until I shall be able to make you an offer for the book you need.

Referring to your question about the conversion of DM to USA-~~¢~~, I can answer you that - as for the moment - the rate of exchange is DM 4.20 to 1 US-Dollar.

Yours faithfully

Gustav Weiland Nachf.



ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

March 26, 1956.

Dr. Wilbur Downs,
Port-of-Spain,
Trinidad, B. W. I.

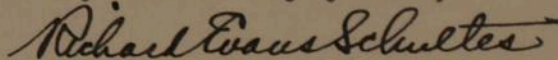
Dear Dr. Downs:

I have a few more of your photographs tentatively determined and will report these so that you may have the names to use. Please do not use them in publication yet.

4. Hexisea reflexa Rchb. f.
15. Diacrium indivisum (Bradf.) Broadw.
55. Epidendrum rigidum Jacq.
56. Vanilla Wrightii Rchb. f.
57. Pleurothallis pruinosa Lindl.
64. Maxillaria albiflora Ames & Schweinf.
67. Oncidium cebolleta (Jacq.) Sw.
68. Oncidium lanceanum Lindl.
69. Stanhopea grandiflora (Lodd.) Lindl.
70. Polystachya foliosa (Hook.) Rchb. f.
71. Epidendrum schlechterianum Ames
72. Coryanthes macrantha Hook.
75. Polystachya luteola (Sw.) Hook.
77. Epidendrum ramosum Jacq.

I am at present making the generic key for the Trinidad Orchids. Then, when the whole manuscript is typed, I shall send you a copy. There are still two or three difficult spots in Epidendrum and Pleurothallis which I should solve by consulting material at Kew (material which is not loaned), but I guess that I shall have to do the best I can without it.

Very sincerely yours,



Richard Evans Schultes PhD
Curator

Arbitrary Numbering of Orchid Species
in Collection of W.G. Downs
Part of Spain, Trinidad, BHI

(with data on material sent to Dr. R.E. Schultes)

Species	Tentative identific'n	Sketch	Photo	Flowers in alcohol	Pressed plant	Confirmed Ident.
78	<i>Oncidium ampliatum</i>	yes	yes			
(79)	<i>Scaphyglottis cuneata</i> (earlier listed as species #17)	yes				
80		yes	yes			
81		yes	yes			
82		yes	yes			
83		yes	yes			
84	<i>Habenaria monorhiza</i>	yes	yes			
85		yes	yes			
86		yes	yes			

ORCHID HERBARIUM OF OAKES AMES
 BOTANICAL MUSEUM, HARVARD UNIVERSITY
 OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

April 4, 1956.

Dear Dr. Aitken:

It was good to get your letter of March 30, 1956 with the news of the flower-show and of your collecting. By now, you will have the good news I sent to Dr. Downs about the new species of Trichocentrum.

Cyrtopodium punctatum is represented in my monograph of Trinidad orchids by 3 collections, all from Chacachacare. Neither of the other 2 spp. on the island is reported from this locality, so I think you are safe in a tentative identification until flowering occurs.

Here is my key to the 3 spp. known from Tr. & Tob.

- 1. Inflorescence usually variously branched, 60-160 cm. long
- 2. Bracts not undulate. Lip \pm sessile, basally subtruncate
 - A. C. Andersonii
- 2a Bracts undulate. Lip long and narrowly clawed, basally cordate
 - B. C. punctatum
- 1a. Inflorescence usually simple, 30-45 cm. long
 - C. C. Broadwayi

A is known from 2 specimens from Trinidad with no definite locality
 B. " " " Araya Savannah, Pico S, Caroni S, Mount Harrie.
 C. " " " only from Chacachacare

Hastely,

La Marguerite Valley Road
 just before 3/4 mile mark.

Richard Evans Schultes

I would long since have sent you + Dr. Downs a carbon copy of my monograph, but I am still waiting for 5 or 6 pieces of information from New before I can finish several places to my satisfaction.

R.E.S.

{ A. S. Fenwick 1936
 Potos Id., coll. ~~1935~~
 flowering April 18/56

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

March 27, 1956.

Dear Dr. Downs:

I am still not satisfied that I can safely put your orchid #38 into any described species. The one flower and three good photos which I have would seem to indicate that we have an undescribed species. I need more material. I need to have pressed or preserved vegetative material if we are going to describe it. I trust that you can get me some additional flowers. I note that it was collected exactly a year ago to-day and was probably in flower, so I have high hopes of getting more flowers now. Please airmail me any material, as I want to terminate this Trinidad flora shortly.

Very sincerely,

Richard Evans Schultes

~~Richard Evans Schultes~~
Curator

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

Dear Dr. Downe -

March 27, 1956.

After sending you the letter this morning asking for more material of the Trichocentrum #38, which seems to be new, I found that you had sent me leaves and a dried flower of this plant. This will enable me to study it better, but we still could use more flowers if + when you have them.

Sincerely,
P. S. Schultes

RIELS DUNGAL
PROFESSOR
REYKJAVIK

Reykjavik, January 11. 1956.

Dr. Wilbur G. Downs
P.O. Box 164
Port of Spain
Trinidad.

Dear Doctor Downs:

Your letter from Gustav Weiland dated November 18, did not reach me until yesterday. On the list enclosed is not the work which I recommended you to buy, namely Schlechtens main work, "Die Orchidéen" which is the title of the work as I have it here.

I am writing a note to Weiland's library, of which I enclose a copy, telling him which work you want. Of the other works mentioned in the list I am sure that all the works on "Die Orchidéenflora der südamerikanischen Kordillierenstaaten" are very helpful, particularly the one on Colombia, which I happen to have.

I brought a great number of plants with me from South America, and am particularly happy to have been able to collect over a 100 plants of *Odontoglossum crispum* in Moscopan in Colombia, also a number of *C. Trianae* and one *C. Dowiana aurea*.

I was very surprised and sorry to hear of Newcombe's death on my return here. I just wonder if Ása will stay on there or return to Iceland, where she is perhaps more of a stranger than in England.

Please convey my compliments to Mrs. Downs,
sincerely yours

Niels Dungal

*List enclosed.
Please turn!*

*In the States they have been known as *Amantia* \$100 per Anis
work of Schlechtens!*

It was a great pleasure to have a lunch
at your delightful house. Now that I am
back in cold and darkness here I wish that
I could stay in a place like yours
A.D.

1875
1875
1875

Handwritten notes and markings on the right margin, including a vertical list of names or terms.

Please convey my compliments to Mrs. Jones.
Sincerely yours,
[Signature]

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

April 17, 1956.

Dr. Wilbur G. Downs,
Trinidad Regional Virus Laboratory,
Port-of-Spain, Trinidad, B.W.I.

Dear Dr. Downs:

Thank you for calling my attention to the apparent discrepancy in my determination of two species of *Maxillaria* in your letter of March 29, 1956. There was an error, due probably to a lapse of memory, for the two plants which are called *M. albiflora* are, of course, most distinct.

Here is the correction: No. 39 is *M. trinitatis* Ames. No. 64 is *M. albiflora* Ames & Schweinfurth. Both, incidentally, are excellent finds.

Your No. 47 is *Octomeria graminifolia* (L.) R. Br., not *O. grandiflora* as reported in my initial and provisional list of identifications. We have a number of collections of *O. graminifolia* from Trinidad and Tobago, but of *O. grandiflora* we have only one fragmentary specimen in our herbarium which was collected by Broadway in 1927 in "forests of Trinidad, on trees". The plant is much smaller than typical. Nevertheless, you should not be fooled by the misleading name "grandiflora" if you do find the species. We may possibly be wrong in our determination of this Broadway thing as *O. grandiflora*, but both Mr. Schweinfurth and I agree on it. The species is known from Bolivia and Brazil. Thanks for your query on this determination. It would have come out anyway when I check the flower against the photograph, which I am doing gradually at present.

My secretary is typing up the rough draught of the finished flora and I shall send you a copy of it. I will appreciate as many corrections and suggestions as you and Dr. Aitken feel free to make.

Very sincerely yours,

Richard Evans Schultes
Richard Evans Schultes
Curator

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

March 16, 1956.

Dear Dr. Downs:

I must hang my head in shame, because the "new species of *Trichocentrum*" which I was going to name *T. Downsi* turns out to be not a *Trichocentrum* at all, but *Stenia pallida* Lindley. It is a rare species. The photographs you sent us show the flower resupinate (i. e. "Upside-down"). Is this commonly so in your material? If so, it will be a new note to publish which has not hitherto been known. We have made a line drawing of the plant to publish along with your photographs.

I am sorry that this turned out not to be a new species which I could dedicate to you for all of the help you have afforded us. This means that I have not found a new species in the whole Trinidad orchid flora!

Sincerely yours,

Richard Evans Schultes

~~Richard Evans Schultes~~

EW

P.O.Box 164
Port of Spain, Trinidad
March 23, 1956

Dr. R.E.Schultes
Botanical Museum of Harvard University
Oxford Street
Cambridge 38
Massachusetts

Dear Dr. Schultes:

Am enclosing a bunch of photographs and sketches of orchid species through #86, plus additional photographs of:

sp. 8 *Ornithocephalus gladiatus*

sp. 16 *Maxillaria trinitatis*

There is on hand alcoholic material on almost all of these species above, plus some others, but we have not had the luck in getting a traveller to carry them north. We may have to crate the bottles and ship them up to you.

Had meant to answer your letter of Feb. 16 earlier, to indicate that of course it would be alright to use any photographs for the Grenada work. Dr. Aitken and I have been hoping to write up the Trinidad story for you, but haven't yet made the grade.

There are various identifications still pending in material sent to you. In some instances you doubtless do not have enough evidence to venture a diagnosis, but if there should be any of the following you can supply, we shall be most grateful.

sp. 4 this is a common plant, in hanging grassy bunches, often on cocoa and citrus trees.

sp. 13 this is one of the commonest *Pleurothallus* on the island, in the hilly wet areas

sp. 38 the ? *Trichocentrum* species

sp. 51

sp. 53 this species maintains in my shed, but is cleistogamous, and I haven't yet been able to get a good flower. I have seen it in flower on Morne Poui and Aitken has seen it in flower in the Aripo Valley (near Morne Poui, but we haven't been able to get blossoms yet.

sp. 56 *Vanilla*

sp. 57 a common species

sp. 59 we have this species in the shed, but so far no flowers

sp. 64 a very interesting species

sp. 65 (is same as #53, I believe)

sp. 70 is there a small *Polystachya*, smaller than *luteola* ?

sp. 72 what is the *Coryanthes* species?

sp. 74 *Epidendrum*

sp. 76

sp. 77 this species has been seen since with sepals and petals open, and makes and interesting spray with very narrow, green sepals and petals.

and the species 80, 81, 82, 83, 85 and 86 herewith enclosed.

We haven't found any *Diacrium* to conform with your inland species, thus far.

Sincerely yours

Wilbur G. Downs

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

WGD	WGD
THGA	THGA
WGD	WGD

February 16, 1956.

Dr. Wilbur G. Downs,
Trinidad Regional Virus Laboratory,
Port-of-Spain, Trinidad, B. W. I.

Dear Dr. Downs:

Your recent shipment of additional photographs and notes on Trinidad orchids has come and is another valuable adjunct to the flora. Thank you very much.

I believe that I have a few determinations not yet communicated to you: No. 17: Scaphyglottis cuneata Schlechter; 11: Pleurothallis archidiaconi Ames (endemic to Trinidad); 43: Epidendrum difforme Jacq.; 46: Epidendrum Rousseauiae Schlechter; 66: Epidendrum stenopetalum Hook.

The flora is now finished, except, of course, for seeing the material at Kew and the British Museum. I think that I shall have to publish the flora on the basis of what we have, as I do not see the possibility of going to England in the near future and these collections will not be sent out on loan. I am at present preparing a generic key. When our typist is available, I shall have the whole thing copied off for you.

I have prepared a list (no keys nor descriptions) of the orchids of Grenada in conjunction with the Trinidad work. This will be published in the Am. Orch. Soc. Bull. I should like to ask your permission to publish in this list several photographs of your plants. This will help us to get plates of the species made and the plates can later be used again in the Trinidad flora.

Very sincerely yours,

Richard Evans Schultes
Richard Evans Schultes
Director

P.O.Box 164
Port of Spain, Trinidad
Jan. 23, 1956

Dr. R.E. Schultes
Botanical Museum of Harvard University
Oxford Street
Cambridge 38, Mass.

Dear Dr. Schultes:

Am enclosing a bunch of photographs and sketches, through species #77. (Actual # of species represented is actually about 70, due to some species being enclosed twice inadvertently). Am hoping to get alcoholic material on most of the species up to you in mid-February.

Concerning species #75, it is presumably Polystachya luteola. However, it was growing on the Aripo savannah. No differences could be observed in the blossom but the plant is symmetrically oriented, with leaves arising opposite. In the arboreal plants, although they also are symmetrically oriented, there is a twist to the leaves so that the upper aspect of both right and left leaves face the observer.

I have been making some observations on plant species #13 (which you have not as yet identified). Comparing 13a and 13b, sketches of both of which are enclosed, the following differences were noted:

1. Flower of 13a is about 1/3 larger.
2. Leaf shape differs slightly but probably not significantly.
3. Upper sepal is much more rounded in 13b than in 13a.
4. Lower sepal is much rounder in 13b than in 13a.
5. Petal is ligulate in 13a and more acuminate in 13b.
6. Lip is oblong in 13a and almost triangular in 13b.
7. Lip is prominently purple dotted in 13a. No dots seen even under high magnification in 13b.
8. Under high magnification, edge of lip of 13a is coarsely nodular, whereas that of 13b is more finely fimbriate or mammillate.
9. Slight difference in shape of column, including more angular appearance from in front than in 13b.
10. Outer aspects of sepals and of petiole in 13b have much more prominent, although small, purple dots than same aspects of 13a.

Both 13a and 13b are being shipped to you as alcoholic specimens. I have a feeling that the differences are minor.

Another half dozen species are now being worked on and should be sent to you in a very few weeks.

Wishing you a good New Year, I remain

Sincerely yours

Arbitrary numbering of orchid species in collection of W.G. Downs

Species #	Tentative identification	Sketch	Photo	Flowers alcohol	Confirmed identification
1	Epidendrum patens			yes	Epidendrum mogobambae
2	Epidendrum sp.	yes	yes		Epidendrum nocturnum
3	Campylocentrum pachyrrhizum	yes	yes		Campylocentrum pachyrrhizum
4	?	yes	yes		
5	Rodriguezia secunda	yes	yes	yes	Rodriguezia secunda
6	Catasetum macrocarpum	yes	yes		Catasetum macrocarpum
7	Epidendrum strobiliferum	yes	yes		Epidendrum strobiliferum
8	?	yes	yes		Ornithocephalus gladiatus
9	?	yes	yes		Ornithocephalus Cruegeri
10	Pleurothallus	yes	yes	yes	Stelis ophioglossoides
11	Pleurothallus	yes	yes		Pleurothallus archidiaconi
12	Lockhartia	yes	yes		Lockhartia elegans
13	Pleurothallus	yes	yes	yes	
14	Gongora maculata	yes	yes	yes	Gongora maculata
15	Diacrium bicornutum	yes	yes		Diacrium bicornutum
16	?	yes	yes		Maxillaria trinitatis
17	?	yes	yes		Scaphyglottis cuneata
18	Maxillaria	yes	yes	yes	Maxillaria rufescens
19	Epidendrum fragrans	yes	yes	yes	Epidendrum fragrans
20	Maxillaria	yes	yes		Maxillaria conferta
21	Maxillaria	yes	yes	yes	Maxillaria rufescens
22	Dichaea	yes	yes		Dichaea muricata
23	?	yes	yes	yes	Trizeuxis fulcata
24	Gongora atropurpurea	yes	yes		Gongora atropurpurea
25	Lockhartia	yes			Lockhartia acuta

Note: entries on these sheets are made only when materials are actually despatched to Schultes.

Arbitrary numbering of Trinidad orchid species in collection W.G. Downs (sheet 2)

Species #	Tentative identification	Sketch	Photo	Flowers in alcohol	Confirmed identification
26	<i>Bulbophyllum pachyrrachis</i>		yes	yes	<i>Bulbophyllum pachyrrachis</i>
27	?	yes	yes	yes	<i>Cryptarrhena lunata</i>
28	<i>Ionopsis</i>	yes	yes	yes	<i>Wulfschlaegelia calcarata</i>
29	<i>I. utricularioides</i>	yes	yes	yes	<i>Ionopsis utricularioides</i>
30	<i>Epidendrum hartii</i>	yes	yes	yes	<i>Epidendrum Hartii</i>
31	<i>Scaphyglottis</i>	yes	yes	yes	<i>Scaphyglottis fusiformis</i>
32	<i>Pleurothallus ruscifolia</i>	yes	yes	yes	<i>Pleurothallus</i>
33	<i>Pleurothallus</i>	yes	yes	yes	<i>Pleurothallus diffusa</i>
34	<i>Pleurothallus</i>	yes	yes	yes	<i>Stelis trinitatis</i>
35	<i>Oncidium citrinum</i>				
36	<i>Maxillaria camaridii</i>		yes		<i>Maxillaria camaridii</i>
37	<i>Epidendrum ciliare</i>	yes	yes		<i>Epidendrum ciliare</i>
38	<i>Trichocentrum</i>	yes	yes	yes	
39	<i>Maxillaria</i>	yes	yes	yes	<i>Maxillaria albiflora</i>
40	<i>Oncidium</i>			yes	<i>Oncidium luridum</i>
41	<i>Oncidium</i>			yes	
42	?	yes	yes	yes	<i>Epidendrum nocturnum</i> var. <i>minnes</i>
43	?	yes	yes		<i>Epidendrum difforme</i>
44	?	yes	yes		<i>Scaphyglottis modesta</i>
45	<i>Jacquinella</i>	yes	yes	yes	<i>Jacquinella globosa</i>
46	?	yes	yes	yes	<i>Epidendrum Rousseauae</i>
47	?	yes	yes	yes	<i>Octomeria grandiflora</i>
48	?	yes	yes	yes	<i>Epidendrum Rousseauae</i>
49	<i>Epidendrum nocturnum</i>	yes	yes		<i>Epidendrum nocturnum</i>

THE ROCKEFELLER FOUNDATION
 DIVISION OF BOTANICAL GARDENS
 ARBITRARY NUMBERING OF ORCHID SPECIES
 IN COLLECTION OF W.G. DOWNS,
 PORT-OF-SPAIN, TRINIDAD,
 B.W.I.

(with data on material sent to Dr. R.A. Schultes)

Species	Tentative Identification	Sketch	Photo	Flowers in Alcohol	Confirmed Identification
50	Maxillaria (?)	Yes	Yes	Yes	<i>Maxillaria variabilis</i>
51	Epidendrum	Yes	Yes	Yes	
52	Oncidium pupilio		Yes		<i>Oncidium pupilio</i>
53		Yes	Yes		
54	<i>Epidendrum pygmaeum</i>	Yes	Yes	Yes	
55	EPIDENDRUM RIGIDUM	Yes	Yes	Yes	
56	Vanilla sp.	Yes	Yes	Yes	
57	Pleurothallus	Yes	Yes	Yes	
58	Vanilla sp.	Yes	Yes	Yes	<i>Vanilla phaeantha</i>
59		yes	Yes		

WGD:kdh
 18/7/55

THE ROCKEFELLER FOUNDATION
 DIVISION OF MEDICINE AND PUBLIC HEALTH

ANDREW J. WARREN, M.D., DIRECTOR
 NEW YORK

CABLE ADDRESS: ROCKFOUND, PORT OF SPAIN

WILBUR G. DOWNS, M.D.
 REPRESENTATIVE IN TRINIDAD
 TRINIDAD REGIONAL VIRUS LABORATORY
 P. O. Box 164
 PORT OF SPAIN, TRINIDAD

Species	Tentative Identification	Sketch	Photo	Flowers in Alcohol	Leafy Branches
20	Vanillaria (?)	Yes	Yes	Yes	Yes
21	Epiphyllum	Yes	Yes	Yes	Yes
22	Conoclinium	Yes	Yes	Yes	Yes
23		Yes	Yes	Yes	Yes
24	Epiphyllum	Yes	Yes	Yes	Yes
25	Epiphyllum	Yes	Yes	Yes	Yes
26	Vanilla sp.	Yes	Yes	Yes	Yes
27	Passiflora	Yes	Yes	Yes	Yes
28	Vanilla sp.	Yes	Yes	Yes	Yes
29		Yes	Yes	Yes	Yes

ARBITRARY NUMBERING OF ORCHID SPECIES
 IN COLLECTION OF W.G. DOWNS,
 PORT-OF-SPAIN, TRINIDAD,
 B.W.I.

(with data on material sent to Dr. R.A. Schultes)

Species	Tentative Identification	Sketch	Photo	Flowers in Alcohol	Confirmed Identification
60		Yes	Yes	Yes	<i>Aspasia variegata</i>
61		Yes	Yes	Yes	<i>Polystachya luteola</i>
62		Yes	Yes	Yes	<i>Campylocentrum micranthum</i>
63		Yes	Yes	Yes	<i>Pleurothallus orbicularis</i>
64		Yes	Yes	Yes	
65				Yes (Seeds)	
66		Yes	Yes	Yes	<i>Epideudrum stenopetalum</i>

WGD:kdh
 27/10/55.

ARBITRARY NUMBERING OF ORCHID SPECIES
 IN COLLECTION OF W.G.DOWNS,
 PORT OF SPAIN, TRINIDAD,
 B.W.I.

(with data on material sent to Dr. R.E.Schultes)

Species	Tentative identification	Sketch	Photo	Flowers in alcohol	Pressed Plant	Confirmed Identification
67	<i>Oncidium cebolleta</i>	yes	yes	yes		
68	<i>Oncidium lanceanum</i>	yes	yes	yes		
69	<i>Stanhopea grandiflora</i>	yes	yes	yes		
70	<i>Polystachya</i>	yes	yes	yes		
71	<i>Epidendrum discolor</i>	yes	yes	yes		
72	<i>Coryanthes</i>	yes	yes	yes		
73	(synonym of #57)					
74	<i>Epidendrum</i> (? <i>radicans</i>)	yes	yes	yes		
75	(syn. <i>Polystachya</i> <i>luteola</i> —sp.61)	yes	yes	no		
76		yes	yes	yes		
77		yes	yes	yes		

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

January 2, 1956.

Dear Dr. Downs:

Your no. 46, which is definitely Epid.
Rousseauae Schlechter is annotated as
coming from Morne Bleu on April 9, 1955.

I would like to know whether or not this
is the date of collection in sterile form
or whether it was flowering then. My need
is to fix the month of flowering in Trini-
dad for the description.

I think I told you that this is a fantastic
find, the species having been known previ-
ously only from several collections from
Panama, nowhere else. The Trinidad material
is a fine match for the Panamanian material.

Best New Years wishes,

Hastily,

P. S. Schlechter

Letter answered Jan 8, 1956

Additional materials sent to R.E.Schultes accompanying letter of
January 23, 1956:

Sketches of: 13a; 13b; 44 (Scaphyglottis modesta); Epidendrum pygmaeum #54;
57; 67 (Oncidium cebolletum); 68 (Oncidium lanceanum); 69 (Stanhopea grandiflora);
70 (Polystachya sp); 71 (Epidendrum discolor); 72 (Coryanthes sp.); 74
(Epidendrum radicans); 75 (Polystachya luteola); 76 and 77.

Photographs of: 6 (Catasetum macrocarpum); 17; 44 (Scaphyglottis modesta);
37 (Epidendrum ciliare); 52 (Oncidium papilio); 54 (Epidendrum pygmaeum);
55 (Epidendrum rigidum); 56 (Vanilla sp); 57; 63 (Pleurothallus orbicularis)
64; 66 Epidendrum stenopetalum; 67 (Oncidium cebolleta); 68 (Oncidium lanceanum);
69 (Stanhopea grandiflora); 70; 71 (Epidendrum discolor); 72 (Coryanthes sp)
74 (Epidendrum); 75 (Polystachya luteola); 76; 77.

P.O.Box 164
Port of Spain, Trinidad
Jan. 5, 1956

Dr. R.E. Schultes
Botanical Museum of Harvard University
Oxford Street
Cambridge 38, Massachusetts

Dear Dr. Schultes:

The photostats of Broadway's articles have arrived and are very much appreciated. Dr. Aitken and I have been studying them over assiduously, and picking up a lot of interesting information and hints from them.

I am readying a whole bunch more of sketches and photographs of local species. Within a week or two, these should be on the way to you. And a visitor who departs for the U.S. in early February will, I hope, take back to you a lot of pickled material, if she can be persuaded to leave a couple of bottles of rum behind in favor of the non-imbibable alcoholic materials. We also have quite a few pressed specimens drying, and these can be mailed to you.

Have not as yet made a start on writing up the informal notes on orchids. Am awaiting the arrival of the journals, from which I hope to get some information on style. And also am snowed under with reports and a series of official visitors who are going to have me tied hand and foot until mid-February.

Have made several collections of *Diacrium* from localities a mile to two miles inland. The plants resemble Broadway's description of the inland plant, and one plant is sending out a flower stalk, so in a month or two, I may have some blossoms.

With all best regards for the New Year,

Sincerely

Wilbur G. Downs

AMERICAN ORCHID SOCIETY, INC.

Botanical Museum of Harvard University
Cambridge 38, Massachusetts

GEORGE W. BUTTERWORTH, SR.
PRESIDENT

LINNAEUS T. SAVAGE
TREASURER

O. WESLEY DAVIDSON
SECRETARY

FROM THE OFFICE OF
GORDON W. DILLON
EXECUTIVE SECRETARY

December 12, 1955

Dr. Wilbur G. Downs
Trinidad Regional Virus Laboratory
Port of Spain, Trinidad, B.W.I.

Dear Dr. Downs:

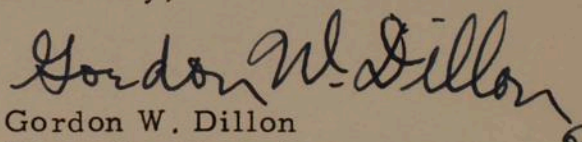
It gives me great pleasure to inform you that your application for membership in the American Orchid Society, Inc., has been approved. Your membership card for the current year is enclosed.

On behalf of the American Orchid Society, I cordially welcome you to our fellowship and extend to you an invitation to make use of any services or facilities that we may offer. The pages of the Bulletin are open to you for any notes, comments, articles or photographs which you may care to submit and the Officers and Trustees of the Society will be pleased to hear from you at any time.

Future issues of the Bulletin will be mailed to you directly on their publication. Those published so far this year are being sent to you under separate cover. Since the Bulletin is classified as second-class mail and therefore not forwardable, we would appreciate your informing this office promptly of any change of address.

With all good wishes, I am

Sincerely,


Gordon W. Dillon
Executive Secretary

GWD/h

P.S. -- The 1955 Bulletins (Jan. - Nov.) were mailed on 11-29; December will follow upon publication any day now; also the January through December for 1956 will be mailed approximately the tenth of each month, upon publication. ---- G.W.D.

Dec.19, 1955

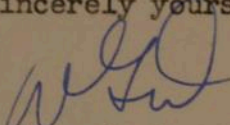
Dr. Richard Evans Schultes
Orchid Herbarium of Oakes Ames
Botanical Museum of Harvard University
Oxford Street
Cambridge 38, Mass.

Dear Dr. Schultes:

Replying to your letter of December 14, I was able to locate pressed plant and flower of the *Trichocentrum* plant, and same are included in this letter. I cannot determine whether the pollinia are still present on this flower.

On December 18, Dr. Aitken was at Spring Hill, Arima Valley, alt. 1200 feet, and picked up a couple of fine plants of this species. One flower out full has been placed in alcohol, and plants are being pressed. This material can be sent to you later. Let us know how soon you would want it. The leaves on some of Dr. Aitken's plants are twice as large as the leaves on the pressed specimen enclosed herewith.

Sincerely yours,


Wilbur G. Downs

WGD

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

December 14, 1955.

Dear Dr. Downs:

This is an SOS call! According to the photographs and the one flower of your orchid no. 38, it may be an undescribed species of *Trichocentrum*. The column has no wings, which is unusual (only a few very different spp.) in this genus. Could you spare enough of your plant to send me some vegetative parts in alcohol or pressed? I could well do with another flower, if you have one.

Since this was collected on Tocuche at 2000 ft., I presume it would be hard to see if more material might be found in the wild. It is a wonderful find, the first record of the genus from Trinidad or, for that matter, from any West Indian island.

We will deeply appreciate whatever you can do to get us more material which will permit us to describe the concept if it proves to be new.

Sincerely,

Richard Evans Schultes

Richard Evans Schultes

It would be of great help if you could supply a flower with the pollinia still present.

RS

AMERICAN ORCHID SOCIETY, INC.

Botanical Museum of Harvard University
Cambridge 38, Massachusetts

GEORGE W. BUTTERWORTH, SR.
PRESIDENT

HAROLD E. ANTHONY
TREASURER

O. WESLEY DAVIDSON
SECRETARY

December 5, 1955

FROM THE OFFICE OF
GORDON W. DILLON
EXECUTIVE SECRETARY

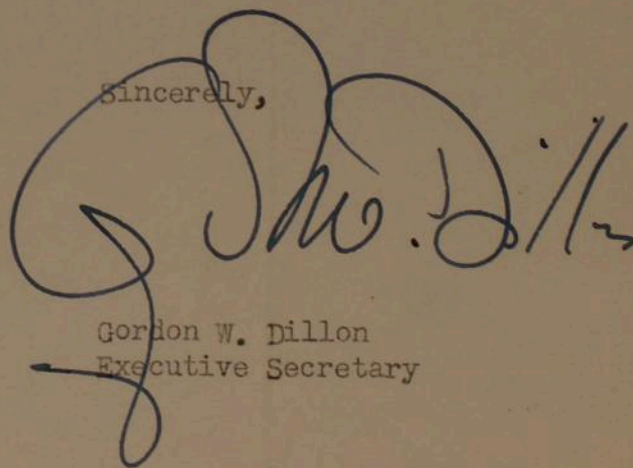
Dr. Wilbur G. Downs
Trinidad Regional Virus Laboratories
Port-of-Spain, Trinidad, B. W. I.

Dear Dr. Downs:

Several weeks ago, Dr. Richard Schultes of the Ames Orchid Herbarium brought in a group of photographs taken by you of the native orchids of Trinidad. We thought them quite good and, in our conversation, the idea arose that perhaps you might consider doing a write-up of several or more of the native orchids, to be published in the American Orchid Society Bulletin along with a photographic illustration.

Since our discussion, Dr. Schultes has written you and in your reply to him expressed yourself as favoring the suggestion. I wish to take this opportunity to express my own pleasure at your prospective contributions and to welcome you as a member of the Society. We have sent you some issues of the Bulletin so that you might study their contents and format. If there is anything that I can do to be of assistance, please let me know. Meanwhile, my grateful thanks.

Sincerely,

A large, stylized handwritten signature in blue ink, appearing to read 'G.W. Dillon', with a long, sweeping underline that loops back under the signature.

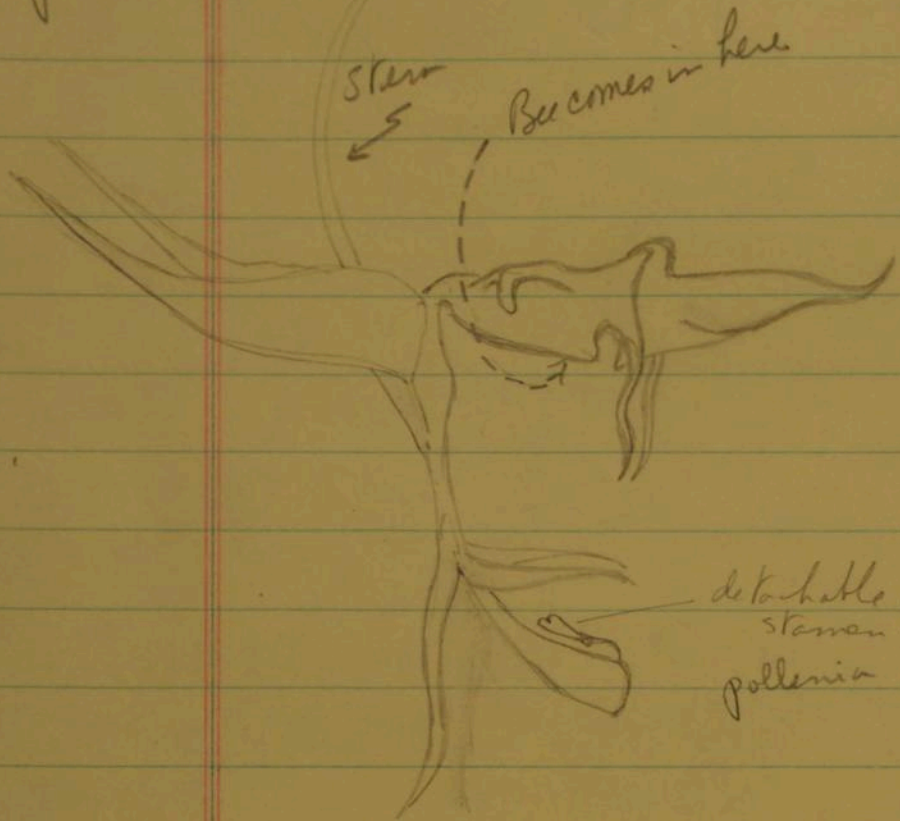
Gordon W. Dillon
Executive Secretary

specimen #14

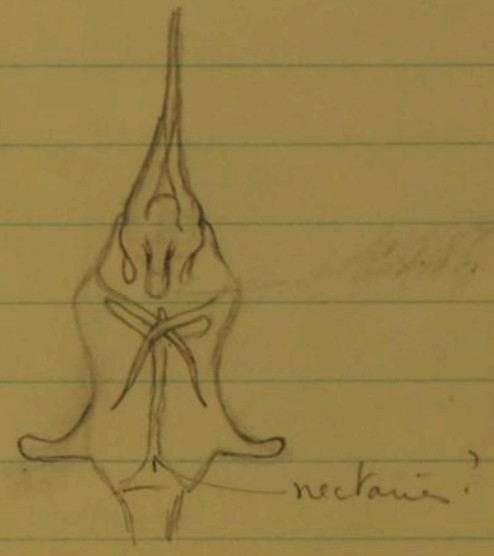
Plant + flower
pressed + one flower
preserved in alcohol

Gouania maculata

Tabaquite Dec. 15 '55



detachable
stamen
pollinia



ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

November 5, 1955.

Dear Dr. Downe -

Just a few hastily written notes as a beginning for your proposed series of papers on Trinidad to Tobago orchids. It does seem to me that you could render a fine service, especially to amateurs, by reviewing what has been done & what is now known. If you think this is a good plan, write your article in rough shape, and I will be glad to comment on it, supply you with bibliographic citations, etc. Of especially interest would be a short discussion on the topography of the island & why most of the orchids are in the northern mts. A sketch-map with some of the important orchid localities (see list) is something else which you might consider.

Hastily,

Richard Evans Schultze

RM

Notes for Dr. Wilbur G. Dowson:

JW

On Trinidad orchid flora -

The suggestion is made that a preliminary article to your series deal with what has been done + what is known of the Trinidad orchid flora; that subsequent papers deal with notes on your own collections + photographs.

1. Position + extent + topography of Trinidad; ^(+ Tobago) where orchids are concentrated; important localities for orchid collections*; possibly one or 2 photos of these localities. Emphasize that, although called a part of W. Indies, Trinidad's orchid flora is most definitely S. Am. in affinity, esp. with Br. Guiana + Venezuela.
2. A sentence or 2 on outstanding collectors of Trinidad orchids: i.e. herbarium collectors (see Dr. Simmonds for data on most of them). Bradford, Fendler, Sieber, Purdie, Freeman, Humberley, Alexander, Cheesman, Baker, Simmonds, Cruiger, Hart, Williams, Britton and most imp. of all Broadway.
3. Orchids of Trinidad + Tobago first written up by Griseb. Fl. Brit. W. Ind. in 1866. Second + only other comprehensive work covering islands is Cogniaux's in Urban Symbolae Antellanae, the orchid pt. appearing in Vol. 6, 1909-10. Cogniaux treated about 160 species for Tr. + Tob. Also helpful for work on Tr. & Tob. orchids is Fawcett & Rendle's Flora of Jamaica vol. ().

Speak of Broadway's great work of collecting and his series of articles in Orchid Review over period of yrs. Most of new species and species new to Tr. + Tob. since 1910 are due to Broadway's meticulous searching of islands for orchid.

At present R. E. Schultes is finishing the 3rd treatment

JW

of Tr. & Tob. orchids. It is being done as part of the Flora of Trin. & Tobago that
The Dup. College is sponsoring & at invitation of the late Prof. Richard E. D. Becking
that institution.
Speak then of your own collecting, photographing, etc.

Location of the most complete herbarium collections of
Tr. & Tob. orchids:

Royal Botanic Gardens, Kew, Surrey, England
British Museum (Natural History), Kensington, England
"Trinidad Herbarium" at Dup. College Trop. Agric. (See
Summons for its history — it is a fusion of 2 herbaria,
I believe)
Orchid Herbarium of Oakes Ames, Bot. Mus. Harvard Univ.
Cambridge, Mass.
and
Gray Herbarium, Harvard Univ., Cambridge, Mass.

I think you might have 1 or 2 ~~phot~~ photographs of well
known localities for orchids in this introductory article,
such as Anapo Savanah, Mt. Tranche, etc. Also, in
connection with the collectors of orchids, you might put in a photo
of some orchids named in honour of these collectors — e.g. Epi-
dentum Hartii. If you could get a photo somewhere of Mr.
Broadway, this would be a good addition. A photo of Lindley,
the orchidologist, who described by far the greater number of the
orchids occurring on the islands would be good (we could supply
you with one).

Close your article with a paragraph stating what you

hope to do in the subsequent articles.

Trinidad:

* Arapo Savannah
Arenia + Agua Santa
Maracas
Mora Forest
Santa Cruz
Tocuche
Oropouche
Morne Plein
St. Anne's
Tamara Mts.
Valencia

Conupia
Cepero
Metchepoorie
Blanchisserie
Cebros
Siparia
Sangre Grande
Juranpo
Turure River

Togo:

Between Adelphi + Belmont
Ropborough - Parlaturier Rd
Celestina
Eastfield Rd.
Cocowattie

AW

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

*Oxford Street
Cambridge 38, Massachusetts*

December 1, 1955

Dr. Wilbur G. Downs
Trinidad Virus Laboratory
Port-of-Spain
Trinidad, B. W. I.

Dear Dr. Downs:

Thank you for your additional photographs and notes, which arrived the other day and which are already mounted and included in our herbarium. They are a good help in the work of determination.

One of your sets of photographs and notes is going to be of very great help to me, as will be the flower which is preserved in alcohol. This is the plant which you have named Diacrium bicornutum. I am enclosing a copy of my write-up of Diacrium for the flora. As you will see, I have tentatively recognised two species - Diacrium bicornutum and D. indivisum, which is usually considered a variety of bicornutum. My reason for treating this as a separate specific concept is that there seem to be good morphological and size characters, as well as other definite ecological characters to separate the two. However, your specimen has floral characteristics of what I consider Diacrium indivisum, yet it approaches D. bicornutum in size characteristics. D. indivisum always grows on inland savannahs, whereas D. bicornutum always occurs along the sea coast. Your material, you say, came "from four miles from the coast". It would seem to me that this probably represents an "inland" area and I would be interested to know more about the habitat: whether or not it be a savannah area.

Chosen to 1 3/4
miles from
coast
#11

My tentative treatment is based on the dried material available. You will note that Diacrium bicornutum seems to flower in January and February, whereas D. indivisum tends towards April and June. It might be of great help if you could make a good series of herbarium specimens of (1) the seashore representative and (2) the inland savannah representative, when they come in flower. It would be helpful, too, if herbarium specimens were accompanied by at least one flower in alcohol. If you could take a specimen from 8 or 10

different clumps, in ^{each} ~~which~~ case, it would give me a better idea as to the variability in each of the two habitats, and I might be able more happily to judge whether indivisum should be considered a variety or form of bicornutum, a distinct species or only a variant of a variable species.

I shall greatly appreciate any notes which you and Dr. Aitken may give me, including your own opinions as to whether these two things seem different enough, as you meet them in the field, to warrant specific recognition. I realise that you must be very busy and that many of these localities may be quite distant from your homes, but be assured that any assistance whatsoever will be deeply appreciated.

Sincerely yours,

Richard Evans Schultes

Richard Evans Schultes
(Curator)

JH

DIACRIUM Bentham

Epiphytic or semi-epiphytic herbs with fleshy pseudo-bulbous stems. Leaves few, borne at apex of pseudobulbs, rigidly subcoriaceous. Inflorescence terminal, simple, racemose. Flowers few to numerous, showy, short-pedicellate. Sepals free, spreading, subequal. Petals rather similar to sepals. Lip spreading from base of column, 3-lobed, lateral lobes conspicuously toothlike, mid-lobe triangular or triangular-lanceolate; disk raised between lateral lobes into 2 hornlike calli excavated below. Column short, with narrow, fleshy wings; clinandrium oblique, obtuse. Anther terminal, operculate, incumbent, semiglobose, 2-celled. Pollinia 4, waxy. Capsule ellipsoid.

Diacrium: from the Latin for "two pointed", describing the two horn-like calli of the lip, principal character which separates the genus from Epidendrum

A tropical American genus of five or six species, closely related to Epidendrum

1. Lip 3-lobed. Leaves 10-30 cm. long, 2-6 cm. wide. Flowers 5.5-6 cm. wide. Growing along sea shore Diacrium bicornutum (Hook.) Benth.

1a. Lip entire or basally minutely auriculate. Leaves 7-8 cm. long, 10-12 mm. wide. Flowers 1.2 cm. wide. Growing on inland savannahs Diacrium indivisum (Bradf.) Broadway

Diacrium bicornutum (Hook.) Bentham in Journ. Linn. Soc. Bot. 18 (1881) 312.

Epidendrum bicornutum Hooker in Bot. Mag. (1834) t. 3332.

Common name: Virgin Orchid; Virgin Mary Orchid.

Pseudobulbs long-subcylindric, 10-30 cm. long, 2-6 cm. in diameter. Leaves 3-4, borne at apex of pseudobulbs, thick, fleshy-coriaceous, oblong, usually quite obtuse, 6-20 cm. long, 2-5 cm. wide. Inflorescence erect, racemose, up to 35-40 cm. long. Flowers showy, few to 20, 5.5-6 cm. wide, the pedicel and ovary 3-5 cm. long. Sepals broadly ovate-lanceolate, bluntly short-acuminate, 25-32 mm. long, 15-18 mm. wide. Petals ovate, acutish, 22-28 mm. long, 20-23 mm. wide. Lip

fleshy, as long as petals but narrower, deeply 3-lobed, basally with triangular tooth on each side, lateral lobes elliptic-ovate, rounded, mid-lobe oblong, obtuse-acuminate, calluses erect, triangular, obtuse. Column 14-15 mm. long.

Native in Trinidad and Tobago and British Guiana.

TOBAGO: Little Bacolet Bay, February 9-23, 1950, Howard 10457 (Herb. Ames 66738); Bacolet, January 20, 1910, Broadway 3411 (Herb. Ames 25657); Meyer 2 (cited by Cogniaux).

TRINIDAD: Gasparee Island, December 30, 1906, Broadway s. n. (Herb. Ames 10085-10089); Moruga sea shore, Lance Mittan. February 9, 1916, Broadway s. n. (Herb. Trin. 7595); May 26, 1918, Broadway s. n. (Herb. Ames 22062); Chacachacare, January 1, 1922, Broadway s. n. (Herb. Trin. 10563); Chacachacare, January 5, 1922, Broadway s. n. (Herb. Trin. 10566); between Balandra and Toco, February 18, 1926, Freeman s. n. (Herb. Trin. 11519); "sea shore districts", February 23, 1934, Broadway s. n. (Herb. Ames 40385); Quinam Bay, St. Patrick, January 30, 1946, Bailey 121 (Herb. Ames 62541); Bradford s. n. (cited by Cogniaux).

Diacrium indivisum (Bradf.) Broadway in Bull. Misc. Inform. Trinid. 2 (1895) 79.

Epidendrum indivisum Bradford in Grisebach Fl. Br. W. Ind. (1864) 614.

Diacrium bicornutum (Hook.) Benth var. indivisum (Bradf.) Cogniaux in Martius Fl. Bras. 3, pt. 5 (1898) 188.

Common name: Little Virgin.

Similar to Diacrium bicornutum but smaller in all parts. Plants 15-25 cm. tall. Leaves 7-8 cm. long, 10-12 mm. wide. Flowers 12 mm. wide, often cleistogamous. Lip entire or basally minutely auriculate.

Apparently endemic to Trinidad.

TRINIDAD: "Inland Districts" (Herb. Trin. 5512); "Inland Woods" (Herb. Trin. 5983); "savanna near Government House", June 3, 1907, Broadway s. n. (Herb. Ames 10736); "savanna near Government House grounds", June 22, 1907, Broadway s. n. (Herb. Ames 10727); Erin, March

27, 1908, Broadway s. n. (Herb. Ames 10640); River Estate, February 18, 1926 (Herb. Trin. 11518); St. Augustine, April 25, 1949, Simmonds 351 (Herb. Trin. 14338; Herb. Ames 66931); Bradford s. n. (cited by Cogniaux).

There has been some difference of opinion as to whether or not Diacrium indivisum should be treated as a variety of D. bicornutum. There would seem to be sufficient morphological difference to maintain the two concepts as separate species, and the extreme difference in choice of habitats, coupled with the morphological characters, would appear to support such a disposition. Rolfe (Orch. Rev. 11 (1903) 187), after a study of living material with perfect flower, presented the evidence for maintaining the two concepts as distinct species.

It is of great interest to quote here the valuable ecological field notes of Mr. Broadway (Broadway, Orch. Rev. 34 (1926) 131): "Diacrium bicornutum. Along wind-swept sea-coast districts is the real home of Diacrium bicornutum Benth., the Virgin Orchid. It grows upon rocks, as on some of the Bocas islands, and certain of the coastal parts of the colony, or established in the higher boughs of tall trees, as along the southern coast of Manzanilla. It is never to my knowledge found inland. Frequently, the older plants grow into large clumps and seated upon either rock or tree, are observed to be in the full blast of the sea spray, and high, strong winds, which often times become gales of violence. The pseudobulbs are long and bulging, being hollow inside and forming the abode of ants, usually."

"Diacrium bicornutum var. indivisum. Contrary to the habits of the preceding plant, there is another which likes the inland districts of the colony, and presumably it is never found close to the sea It is of smaller proportions altogether, but the most unobservant would recognise the similarity to its relative The whole plant only assumes small clump proportions at its maximum development."

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Oxford Street
Cambridge 38, Massachusetts

December 9, 1955.

Dr. Wilbur G. Downs,
Trinidad Regional Virus Laboratory,
Port-of-Spain,
Trinidad, British West Indies.

Dear Dr. Downs:

The work on my manuscript for the Trinidad orchids is going along. I have four or five genera more to finish, and I am hoping that my schedule of finishing it by the year's end will not be broken. Then I shall have the entire thing typed to send down to you folks for use.

I am writing to send you a few more tentative identifications of your photographs. They are as follows: 8) *Ornithocephalus gladiatus* Hook.; 16) *Maxillaria trinitatis* Ames^{*}; 20) *Maxillaria conferta* (Griseb.) C. Schweinf.; 50) *Maxillaria variabilis* Batem. ex Lindl.; 58) *Vanilla phaeantha* Rchb. f.; 59) *Brassia* sp. (only pseudobulbs to go on); 60) *Aspasia variegata* Lindl.; 61) *Polystachya luteola* (Sw.) Hook.; 62) *Campylocentrum micranthum* (Lindl.) Rolfe; 63) *Pleurothallis orbicularis* (Lindl.) Lindl.

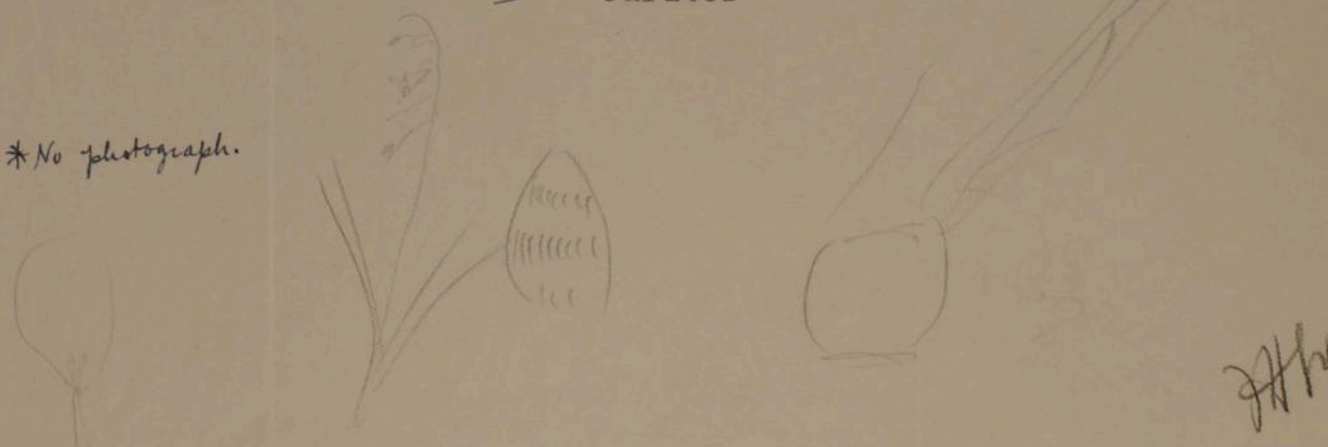
You will be interested to know that your *Aspasia variegata* is the second collection (so far as I am aware) from Trinidad, the other having been collected from Siparia. The *Maxillaria variabilis* is likewise a remarkable find, the third time it has turned up in Trinidad.

Sincerely yours,

Richard Evans Schultes

Richard Evans Schultes
Curator

*No photograph.



RS

JH

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

*Oxford Street
Cambridge 38, Massachusetts*

November 28, 1955

Dr. Wilbur G. Downs
Trinidad Regional Virus Laboratory
Post Office Box 164
Port of Spain, Trinidad, B.W.I.

Dear Dr. Downs:

This will acknowledge your interesting letter dated November 20, 1955.

When I wrote to "collect everything in sight" for the orchid study, I meant, of course, fertile material, insofar as the making of herbarium specimens is concerned. For a sterile orchid almost never can be determined. What I really meant to convey to you was the need for more herbarium material of even the commonest and most abundant things. You will see what I mean, when you receive a copy of my manuscript citing the available herbarium material. One example is Selenipedium palmifolium, probably America's tallest (2 m.) terrestrial orchid. This usually occurs in weed-like profusion, according to herbarium data from other areas; but there are only 2 collections from Trinidad that I know of: one from "Valencia" (collected in 1862) and one from "between Tamana Road and next mile-post" (collected in 1924). It flowers in October and November. Certainly (unless the areas are completely destroyed), it ought to be possible to get more material of such an interesting and conspicuous orchid. It may be so common that no one bothered with it. I note that even Broadway, who collected almost all known Trinidad orchids at one time or other, did not pick this up.

Shortly, a copy of my preliminary and still incomplete manuscript will go forward to you. Please regard it as embryonic and for your use only. The slightest comment or criticism which you can make will be gratefully received.

I could not restrain myself from showing your photographs to Mr. Dillon, and I know that he is much interested in a series of illustrated articles for his Orchid Society Bulletin. I will get together for you an accumulation of notes on distribution, history, nomenclature, etc. etc., of the orchids you have sent me, and you may well be able to add very valuable notes on the native habitat and cultural requirements of the same plants. It

seems to me that you would be making a truly important contribution. I understand that Dillon has already written to you.

I am sending your letter to Mr. Dillon and am sure that he will take care of your subscription.

We shall have photostats of Broadway's articles made. There will be no charge for this, as we may consider it a partial exchange for your very fine photographs.

The orchid volume of the Flora of Jamaica is next to impossible to find in this country, but I suggest you write to my friend, Dr. A. H. G. Alston, British Museum (Natural History), Kensington, London, England. Dr. Alston, an outstanding botanist, is a bibliophile who seems to know the whereabouts in London's second-hand bookshops of the rarest and most obscure things. If anyone can help you, it is Alston, and he will enjoy doing it for you.

It might be worth while also to pick up, if you can, volume 6 of Urban's "Symbolae Antillanae", part of a great flora of the West Indies. Volume 6 has the orchids, as of 1909-10. It is written entirely in Latin, but I doubt that you will find that an obstacle. The orchids were written up by Cogniaux, whose work we here at the Ames Herbarium respect highly. You will find some nomenclatural shifts since that date, but the 45 years since its publication seem to have turned up only a few additional orchids in Trinidad.

I have had a letter from Angus Simmonds, who, although tied down very much with his work at the college, is helping me considerably with the orchid work. He says that he has long intended meeting you, but that now he will make every effort to do so.

With every good wish and best regards to you and Dr. Aitken, I am

Very sincerely yours,

Richard Evans Schultes

Richard Evans Schultes
(Curator)

W G D	✓	<i>WGD</i>
C R A		
T H G A		<i>THGA</i>

Nov. 20, 1955

Dr. Richard Evans Schultes
 Botanical Museum, Harvard University
 Oxford Street
 Cambridge 38, Massachusetts

Dear Dr. Schultes:

I am very sorry to hear of your mother's death, and extend my sympathy. Dr. Aitken had earlier told me that she was very ill when he was in Boston.

Your letters of November 8, 11 and 12 have been read with much interest. We shall indeed try to get in touch with Dr. Simmonds, who has been away from the colony a great deal the past year or two. Dr. Aitken and I are not clear just what you mean when you say to collect and press everything in sight. We presume you mean plants in flower, or are you interested also in plants without flowers. The former are much harder to come by of course. I am systematically starting to press flowering plants of the various plants I have in the growing sheds.

If you can spare us a copy of your manuscript we can certainly test the document in the field, and from the amateur's point of view.

The list of identifications you sent with the letter of Nov. 11, ~~is~~^{is} most interesting. I have been checking the various genera new to me in Ames and Correll's 'Orchids of Guatemala'. Enclosed with this letter are the sheets for species # 3, 6, 14, 15, 19, 22, 24, 26, 29 (*Ionopsis utricularioides*) and 30. I have no sheets as yet for #1, 36, 37 and 59. These will be supplied when (and if) these plants flower. Also enclosed are photos for species #42, 46, 60, 61 and 62.

Now getting to your letter of Nov. 12, I have talked ^{over} this matter of a series of short papers with Dr. Aitken. Such a matter had not entered our minds, but if you say that that is the way to do it, and to thus get you your copper plates, we are willing to go along, counting of course on your help with identifications and technical details. I suggest you approach Mr. Dillon about the matter and inform me how he feels. Would you at the same time, make application for me for membership in the American Orchid Society, and have their secretary bill me for the journal for last year, and begin a year subscription from this date also. Then I'd like to have the last year's issues sent down, so that we can study style etc. of this journal. Also would it be possible for you to arrange for photostats of the series of notes of Broadway's in *Orch. Rev.* (I do not even have the references) and bill me for same.

Sincerely yours

Wilbur G. Downs

Oxford Street
Cambridge 38, Massachusetts

Dear Dr. Downes:

Nov. 12, 1955.

It has come to my mind that you ought to publish a series of short papers in Bull. Am. Orchid Soc., which is edited here at the Bot. Museum. You are undoubtedly aware of the series of notes on Trinidad orchids published in the 1920's by the orchid collector Broadway in Orch. Rev.* With the magnificent collection of photos, you ought to be able to publish pictures of several species in each article. The body of the article could be field notes, culture notes or just colour descriptions, etc. etc., and it might be of great interest and value because of the present-day interest in "botanicals". I know that the editor of the Bull., Mr. Gordon Dillion, is on the look-out for fine photos. He has not seen yours yet. I had not wanted to suggest this series of articles to him, before discussing it with you. Two things will be accomplished, if you should agree to do this and he to publish: attention would once more be focused on Trinidad's interesting orchid flora and, if a number of your best photos were published, the copper plates would be available without further cost for the final flora. This seems to be a selfish rea-

* no photos

son, and in one way, it is. But I know that Mr. Dillon is avidly looking for fine illustrative materials.

I should be glad to keep you in any way possible and to send you notes on distribution of spp. from our herbarium plus, of course, identifications. But since the Bull. is primarily for the amateurs orchidophiles, I think that you might (or perhaps you & Dr. Aitken jointly) to show off the fine work amateurs can do in your photos.

Please let me hear your opinion on this and, if you wish, I shall approach Mr. Dillon on it.

Sincerely yours,
Richard Evans Schultze

I suspect that one of
your photos or specimens
may be even a genus
new to Trinidad & Tobago!



November 11, 1955.

Dr. Wilbur G. Downs,
Trinidad Regional Virus Laboratory,
Wrightson Road,
Port-of-Spain,
Trinidad, B. W. I.

Dear Dr. Downs:

I have been through all of the photographs, now mounted on herbarium sheets, and have put names on perhaps $\frac{3}{4}$ of them. I have not yet looked at the specimens in alcohol, because I wanted to run through the photographs completely and then check my determinations with the specimens. Most of the pictures are so very excellent that it is perfectly obvious at once what they represent, but we must check, nonetheless, with the preserved material. For this reason, I point out that the following list is to be considered provisional. I am sending it before completing the entire photograph collection and before checking against the flowers simply because I realise how much you and Dr. Aitken want the information. I expect to send you the rest of the determinations shortly.

For the following photographs, we have no data-sheet. Since your information on the data sheets has been of so much help and will be a value in the herbarium with the pictures, I am asking, if you have time, to send us whenever possible, such data-sheets. The photographs lacking sheets are: 1, 3, 6, 14, 15, 19, 22, 24, 26, 30, 36, 37, 59 and a sine num. (Ionopsis utricularioides) 29

*

We have affixed the following label to each herbarium sheet of your photographs. The alcohol specimens will be inserted in our collection of preserved (alcohol) flowers which we keep in the herbarium.

The determinations are on an attached sheet.

Very sincerely yours,

Richard Evans Schultes
Richard Evans Schultes PhD
Curator



ORCHIDS OF TRINIDAD

Presented to the Orchid Herbarium of Oakes Ames
by Dr. Wilbur G. Downs, Trinidad Regional Virus Laboratory.

Partial and provisional list of determinations of Trinidad orchids sent by Dr. W. G. Downs:

November 11, 1955.

Det. by. R. E. Schultes, Orchid Herbarium of Oakes Ames.

- sine num. *Ionopsis utricularioides* (Sw.) Lindl.
1. *Epidendrum moyobambae* Kränzl.
2. *Epidendrum nocturnum* Jacq.
3. *Campylocentrum pachyrrhizum* (Rehb. f.) Rolfe
5. *Rodriguezia secunda* HBK. (both varieties same)
6. *Catasetum macrocarpum* L. C. Rich.
7. *Epidendrum strobiliferum* Rehb. f.
9. *Ornithocephalus Cruegeri* Rehb. f.
10. *Stelis ophioglossoides* (Jacq.) Sw.
12. *Lockhartia elegans* Hook.
14. *Gongora maculata* Lindl.
18. *Maxillaria rufescens* Lindl.
19. *Epidendrum fragrans* Sw.
21. *Maxillaria rufescens* Lindl.
22. *Dichaea muricata* (Sw.) Lindl.
23. *Trizeuxis falcata* Lindl.
24. *Gongora atropurpurea* Hook.
25. *Lockhartia acuta* (Lindl.) Rehb. f.
26. *Bulbophyllum pachyrrhachis* (A. Rich.) Griseb.
27. *Cryptarrhena lunata* R. Br.
28. *Wulfschlaegelia calcarata* Benth.
30. *Epidendrum Hartii* Rolfe
31. *Scaphyglottis fusiformis* (Griseb.) R.E.Schult.
32. *Pleurothallis ruscifolia* (Jacq.) R.Br.
33. *Pleurothallis diffusa* Poepp. & Endl.
34. *Stelis trinitatis* Ames (excellent find: from type locality; endemic to Trinidad.)

36. *Maxillaria Camaridii* Rehb. f.
37. *Epidendrum ciliare* L. *endemic to Trinidad*
39. *Maxillaria albiflora* Ames & Schweinf. (excellent;) [^]
42. *Epidendrum nocturnum* Jacq. var. *minus* Cogn.
44. *Scaphyglottis modesta* (Rehb. f.) Schlecht.
45. *Jaquiniella globosa* (Jacq.) Schlecht.
47. *Octomeria grandiflora* Lindl.
49. *Epidendrum nocturnum* Jacq.



November 8, 1955

WGD	✓	<i>WGD</i>
CRA		
THGA		

Dr. Wilbur G. Downs,
Trinidad Regional Virus Laboratory,
P. O. Box 164,
Port-of-Spain, Trinidad, B.W.I.

Dear Dr. Downs:

Thank you for your letter of October 26, 1955 and the additional sketches of Trinidad orchids that accompanied it.

I am looking forward to meeting and talking with Dr. Aitken when he comes to Boston.

I am sorry that a handwritten letter I wrote to you from Cuba apparently did not arrive. The wonderful set of photographs and your alcohol flower specimens came just a few days before I left for Cuba, in June, where I taught Harvard's advanced tropical botany course. I acknowledged the receipt from Cuba.

As yet, I have not begun to work with either your photographs or specimens. Indeed, I have only recently resumed work on the Trinidad orchids since I have been so occupied with my mother's health. I am nearly through studying the herbarium material of the Trinidad (Imperial College) Herbarium and our own. There are several very knotty problems that cannot be resolved apparently without consulting specimens deposited in the historic Lindley Herbarium at Kew, but I am hoping that some of your material may help in this respect. Nevertheless, some of the problems arise through uncertainties in interpreting original descriptions, so eventually I shall have to consult original specimens. Kew does not loan out material from the Lindley Herbarium. What I have decided to do is "finish" the monograph as best I can on material at hand and keep it unpublished pending a possible trip to London. In the meantime, you and others interested in the orchids in the field can be of great help by using, testing and criticising the manuscript.

I do not know how much free time you have to get out in the country. Probably very little. It would be my suggestion, as I have suggested to Dr. Simmonds of the College, that we collected every orchid in sight, even the commonest, and prepare herbarium material of them. The Orchids of Trinidad and Tobago will be based on much less and poorer material comparatively than most other orchid floras. We can do with much more material to give us an idea of variability within species. I suggest that you become acquainted with Dr. Simmonds, if you do not already know him. Perhaps together you two might give several holidays for

WGD

a frontal attack on the orchids. The Heights of Aripo seem to be a locality with many orchids, a number of which are poorly represented. Another is Mount Tocuche.

I hope that soon you yourself may visit us and see our Herbarium, which, in addition to our nearly 70,000 sheets of orchids, has some 4500 "pickled" specimens from wild material. You will be interested to know that, at the moment, your photos and diagnostic sketches are being mounted on herbarium sheets and will, after study, be incorporated in the West Indian folders in the herbarium itself.

Very sincerely yours,

Richard Evans Schultes

Richard E. Schultes
Curator

RES:1

P.S.

This letter was given handwritten to my secretary on Oct 31st. On November 1, in the afternoon, I drove in to Cambridge to see Dr. Aitken, but I am afraid that I must have been a very poor host, as I was not feeling too happy. My mother passed away that same evening. Dr. Aitken will tell you of some of the things I suggested. By the end of the year, I expect to be able to send you determinations of all your photos.

*Very sincerely,
RES.*

for T H G A

26th October, 1955.

Dr. Richard E. Schultes,
Curator: Ames Orchid Herbarium,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Massachusetts.

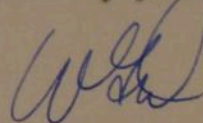
Dear Dr. Schultes:

I have not as yet heard from you as to whether you have received the orchid specimens and photographs brought north in July (ref. my letter of July 18 and accompanying lists).

Dr. Thomas H.G. Aitken, working on the program here, and very interested also in local orchids, is going to the American Society of Tropical Medicine and Hygiene Meetings in Boston in early November. Aitken is carrying up some specimens with him, and hopes to have the opportunity of meeting you when he is in Boston, on October 31 or November 1. If not convenient, drop a note to him c/o A.G. Gale, Depot Road, Boxford, Mass. He will be at Hotel Somerset 3 and 4 November. I have a number of photographs of these specimens which will be sent to you soon.

Any identifications you may be able to supply on material already sent you would be much appreciated.

Sincerely yours,



Wilbur G. Downs, M.D.

WGD/kdh

encl. Continuation of numbering of species in WG Downs collection. Listing of third shipment of Orchid Flowers to R.E.S.
Sketches of orchid species, 60,61,62,63,64,66.

ARBITRARY NUMBERING OF ORCHID SPECIES
IN COLLECTION OF W.G. DOWNS,
PORT-OF-SPAIN, TRINIDAD,
B.W.I.

(with data on material sent to Dr. R.A. Schultes)

Species	Tentative Identification	Sketch	Photo	Flowers in Alcohol	Confirmed Identification
60		Yes		Yes	
61		Yes		Yes	
62		Yes		Yes	
63		Yes		Yes	
64		Yes		Yes	
65				Yes (Seeds)	
66		Yes		Yes	

WGD:kdh
27/10/55.

Third Shipment of Orchid Flowers to
Dr. R. E. Schultes

Botanical Museum of Harvard University,
Oxford Street,
Cambridge 38
Massachusetts.

- | | | |
|---|------------------------|--|
| 1. Species #6 | <u>Catasetum</u> | Caratal, Trinidad.
W.G. Downs (2 tubes) |
| 2. Species #12 | Macrococcus | Siparia, Trinidad.
W.G. Downs |
| 3. Species #46
Plant #163 | | Cumaca, Trinidad.
W.G. Downs |
| 4. Species #53
Plant #190 | | Morne Poui, Trinidad.
W.G. Downs |
| 5. Species #60
Plant #136 | | Charuma Forest, Trinidad.
T.H.G. Aitken |
| 6. Species #61
Plants #165, 211, 218 | | Melajo Forest, Trinidad.
W.G. Downs (3 tubes) |
| 7. Species #62
Plant #75 | | Caratal, Trinidad.
W.G. Downs |
| 8. Species #63
Plant #59 | | Matura, Trinidad.
W.G. Downs |
| 9. Species #64 | | Locality unknown, Trinidad, B.W.I.
W.G. Downs |
| 10. Species #65 | | Morne Poui, Trinidad, B.W.I.
W.G. Downs |
| 11. Species #66
Plant #213 | | * Cumaca, Trinidad.
W.G. Downs |

WGD:kdh
27/10/55

26th October, 1955.

Dr. Richard E. Schultes,
Curator: Ames Orchid Herbarium,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Massachusetts.

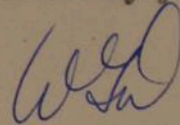
Dear Dr. Schultes:

I have not as yet heard from you as to whether you have received the orchid specimens and photographs brought north in July (ref. my letter of July 18 and accompanying lists).

Dr. Thomas H.G. Aitken, working on the program here, and very interested also in local orchids, is going to the American Society of Tropical Medicine and Hygiene Meetings in Boston in early November. Aitken is carrying up some specimens with him, and hopes to have the opportunity of meeting you when he is in Boston, on October 31 or November 1. If not convenient, drop a note to him c/o A.G. Gale, Depot Road, Boxford, Mass. He will be at Hotel Somerset 3 and 4 November. I have a number of photographs of these specimens which will be sent to you soon.

Any identifications you may be able to supply on material already sent you would be much appreciated.

Sincerely yours,



Wilbur G. Downs, M.D.

WGE/kdh

encl. Continuation of numbering of species in WG Downs collection. Listing of third shipment of Orchid Flowers to R.E.S.

Sketches of orchid species, 60, 61, 62, 63, 64, 66.

Third Shipment of Orchid Flowers to
Dr. R. E. Schultes

Botanical Museum of Harvard University,
Oxford Street,
Cambridge 38
Massachusetts.

- | | | |
|---|--------------------|--|
| 1. Species #6 | <u>Catasetum</u> | Caratal, Trinidad.
W.G. Downs (2 tubes) |
| 2. Species #12 | <u>Macrocaryum</u> | Siparia, Trinidad.
W.G. Downs |
| 3. Species #46
Plant #163 | | Cumaca, Trinidad.
W.G. Downs |
| 4. Species #53
Plant #190 | | Morne Poui, Trinidad.
W.G. Downs |
| 5. Species #60
Plant #136 | | Charuma Forest, Trinidad.
T.H.G. Aitken |
| 6. Species #61
Plants #165, 211, 218 | | Melajo Forest, Trinidad.
W.G. Downs (3 tubes) |
| 7. Species #62
Plant #75 | | Caratal, Trinidad.
W.G. Downs |
| 8. Species #63
Plant #59 | | Matura, Trinidad.
W.G. Downs |
| 9. Species #64 | | Locality unknown, Trinidad, B.W.I.
W.G. Downs |
| 10. Species #65 | | Morne Poui, Trinidad, B.W.I.
W.G. Downs |
| 11. Species #66
Plant #213 | | Cumaca, Trinidad.
W.G. Downs |

WGD:kdh
27/10/55

Second Shipment of Orchid Flowers to
Dr. R. E. Schultes

Botanical Museum of Harvard University,
Oxford Street,
Cambridge 38
Massachusetts.

1. Species #6 Catasetum sp. Spring Hill, Arima Valley, Trinidad.
T.H.G. Aitken Coll.
2. Species #12 Siparia, Trinidad.
November 1954 - W.G. Downs.
3. Species #13 Morne Poui, Trinidad.
June 4, 1955 - W.G. Downs.
4. Species #40 Oncidium Charuma Forest, Trinidad.
T.H.G. Aitken Coll.
5. Species #50 Charuma Forest, Trinidad.
T.H.G. Aitken & W.G. Downs.
6. Species #51 ex coll. W.G. Downs
collection data not known.
7. Species #55 Cumuto, Trinidad.
November 1954 - W.G. Downs Coll.
8. Species #56 Vanilla sp. Melajo Forest, Sangre Grande, Trinidad.
May 1955 - W.G. Downs.
9. Species #57 Cumaca, Trinidad.
November 1954 - Flowering June 1955
W.G. Downs.
10. Species #58 Vanilla sp. Charuma Forest, Trinidad.
VI/22/55 - T.H.G. Aitken Coll.
2 vials.
11. Vanilla sp. Melajo Forest, Sangre Grande, Trinidad.
6/VI/55 - T.H.G. Aitken.
Buds and Flower.

WGD:kdh
12/7/55.

746A - *WGD*

THE WILBUR G. DOWNS FOUNDATION
DIVISION OF MEDICINE AND PUBLIC HEALTH
NEW YORK

Placentera to WGD's file.

July 18, 1955.

Dr. Richard E. Schultes,
Curator: Ames Orchid Herbarium,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Massachusetts,
U.S.A.

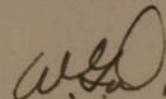
Dear Dr. Schultes:

On my way north, I am bringing up a further bunch of preserved flowers of Trinidad orchids. A list accompanies this letter.

Also am continuing the list of species, with a supplementary list for species 50-59 inc., and am sending sketches of several of these. Also enclosed are 21 photographs of various orchids. You of course are quite welcome to use these photographs in any way you wish.

Hope you have a pleasant time in Cuba.

Sincerely yours,



Wilbur G. Downs, M.D.

WGD:kdh
encl.

THE ROCKEFELLER FOUNDATION
DIVISION OF MEDICINE AND PUBLIC HEALTH

ANDREW J. WARREN, M.D., DIRECTOR
NEW YORK

WILBUR G. DOWNS, M.D.
REPRESENTATIVE IN TRINIDAD
TRINIDAD REGIONAL VIRUS LABORATORY
P. O. Box 164
PORT OF SPAIN, TRINIDAD

CABLE ADDRESS: ROCKFOUND, PORT OF SPAIN

Dr. Richard E. Smith
Director, Case Clinic Laboratory
Harvard Medical School
Boston, Massachusetts
U.S.A.

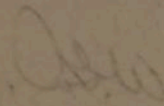
Dear Dr. Smith:

On my way north, I am bringing you a further amount
of preserved tissue of Trinidad orchids. A list accompanies this
letter.

Also an containing the list of species, with a
specimens that for species 50-52, but as nothing skeletons
of several of these. Also enclosed are 21 photographs of various
orchids. You of course are quite welcome to use these photographs
in any way you wish.

Hope you have a pleasant trip to Cuba.

Sincerely yours,



Wilbur G. Downs, M.D.

WGD:lpb
enc.

Second Shipment of Orchid Flowers to
Dr. R. E. Schultes

Botanical Museum of Harvard University,
Oxford Street,
Cambridge 38
Massachusetts.

1. Species #6 Catasetum sp. Spring Hill, Arima Valley, Trinidad.
T.H.G. Aitken Coll.
2. Species #12 Siparia, Trinidad.
November 1954 - W.G. Downs.
3. Species #13 Morne Poui, Trinidad.
June 4, 1955 - W.G. Downs.
4. Species #40 Oncidium Charuma Forest, Trinidad.
T.H.G. Aitken Coll.
5. Species #50 Charuma Forest, Trinidad.
T.H.G. Aitken & W.G. Downs.
6. Species #51 ex coll. W.G. Downs
collection data not known.
7. Species #55 Cumuto, Trinidad.
November 1954 - W.G. Downs Coll.
8. Species #56 Vanilla sp. Melajo Forest, Sangre Grande, Trinidad.
May 1955 - W.G. Downs.
9. Species #57 Cumaca, Trinidad.
November 1954 - Flowering June 1955
W.G. Downs.
10. Species #58 Vanilla sp. Charuma Forest, Trinidad.
VI/22/55 - T.H.G. Aitken Coll.
2 vials.
11. Vanilla sp. Melajo Forest, Sangre Grande, Trinidad.
6/VI/55 - T.H.G. Aitken.
Buds and Flower.

WGD:kdh
12/7/55.

THE ROCKEFELLER FOUNDATION
DIVISION OF MEDICINE AND PUBLIC HEALTH

ANDREW J. WARREN, M.D., DIRECTOR
NEW YORK

CABLE ADDRESS: ROCKFOUND, PORT OF SPAIN

WILBUR G. DOWNS, M.D.
REPRESENTATIVE IN TRINIDAD
TRINIDAD REGIONAL VIRUS LABORATORY
P. O. Box 164
PORT OF SPAIN, TRINIDAD

TRINIDAD REGIONAL VIRUS LAB.
P. O. Box 164
PORT OF SPAIN, TRINIDAD

1. Specimen 56
2. Specimen 57
3. Specimen 58
4. Specimen 59
5. Specimen 60
6. Specimen 61
7. Specimen 62
8. Specimen 63
9. Specimen 64
10. Specimen 65
11. Specimen 66



June 9, 1955

Dr. Wilbur G. Downs, Director
Trinidad Regional Virus Laboratory
P.O. Box 164
Port of Spain, Trinidad

Dear Dr. Downs:

The photographs, sketches and notes about your Trinidad orchids arrived yesterday. With my last-minute preparations for the Cuban course in Tropical Botany, I have given them only a preliminary examination, but I want to tell you that this is indeed a very material contribution to the study which I am making of the orchids of Trinidad and Tobago. When I resume my work in the fall, it will certainly be a helpful guide. I am especially pleased with the photographs and I hope that whenever I publish the Flora it will be possible to utilize many of them.

We use the ordinary-sized herbarium sheet, the same size as those in the herbarium at the Imperial College.

I wish it were possible for me to run over to Trinidad after my Cuban course, but that will not be possible and perhaps we may meet when you come up here on your trip. Thanking you, I remain

Very sincerely yours,

Richard Evans Schultes

Richard Evans Schultes

BOTANICAL MUSEUM OF HARVARD UNIVERSITY

*Oxford Street
Cambridge 38, Massachusetts*

June 6, 1955

Dr. Wilbur G. Downs, M.D., Director
Trinidad Regional Virus Laboratory
P.O. Box 164
Port of Spain, Trinidad

Dear Dr. Downs:

Thank you for your letter of May 19, 1955.

The tubes of Trinidad orchid materials have arrived, but, as I leave in a few days for Cuba to teach the Harvard graduate course in Tropical Botany, I shall not be able to attend to them until the autumn. We are very happy to have them, nevertheless, and I am sure that they will be a valuable addition to the material on Trinidad orchids which is really rather limited.

If you come to the United States in August, perhaps I may be able to see you in September. You will be welcome at the Orchid Herbarium.

Very sincerely yours,

Richard Evans Schultes

Richard Evans Schultes
Curator, Orchid Herbarium

1st June 1955.

Dr. Richard E. Schultes,
Curator: Ames Orchid Herbarium,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Mass.
U.S.A.

Dear Dr. Schultes:

Enclosed with this letter are 122 photographs of
Trinidad orchids, plus sketches of a number of them. Also am enclosing
a list with my own arbitrary numbering order of species, and appropriate
checking to indicate whether

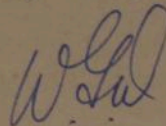
- (a) sketches
- (b) photos
- (c) flowers in alcohol

have been sent to you.

As further flowers appear, I shall attempt to follow
your instructions and make up pressed specimens. What size herbarium sheet
do you favor?

In many instances the photographs are not very good, and
I am attempting to get retakes of some of the inadequate ones as blossoms
appear.

Very truly yours,



Wilbur G. Downs, M.D.
Director

WGD:kdh
encl.

19th May, 1955.

Dr. Richard E. Schultes,
Curator: Ames Orchid Herbarium,
Botanical Museum,
Harvard University,
Oxford Street,
Cambridge 38, Mass.,
U.S.A.

Dear Dr. Schultes:

Thank you for your letter of April 11, 1955. I am readying a series of photographs and accompanying sketches and data, to be sent to you. Also have a number of flowers in alcohol. I am taking advantage of a visitor now returning to the U.S. to carry up these specimens to be forwarded to you. The list is herewith enclosed.

I shall also attempt to press whole plants, as you recommend, to make dried herbarium specimens, but it will be some time before this project can be carried to any length. I return to the U.S. in August of this year on leave and won't be back in Trinidad until October. Meantime, you may be able to get something out of the preserved flowers and photographs.

Very truly yours,

Wilbur G. Downs, M.D.
Director

WGD:kdh
encl.

ORCHID HERBARIUM OF OAKES AMES
BOTANICAL MUSEUM, HARVARD UNIVERSITY
OXFORD STREET, CAMBRIDGE 38, MASSACHUSETTS

April 11, 1955.

Wilbur G. Downs, M.D.,
Trinidad Regional Virus Laboratory,
P.O.Box 164,
Port-of-Spain, Trinidad.

Dear Dr. Downs:

Dr. Clarence Kobuski, curator of the Gray Herbarium, has communicated your letter to him of April 5, 1955 to me.

At the present time, I am engaged in writing the Orchid Flora of Trinidad and Tobago. Any pictorial help which you might be able to give me when I am ready to publish will be appreciated and will certainly make a better work for people like you who are interested in using it in the field. This is, of course, going under the assumption that the Imperial College, in publishing the work, will agree to the publication of plates. In return, I should be happy indeed to try to identify your photographs for you, but it would really help immeasurably if you could prepare a dried herbarium specimen of the exact plant photographed. This would not only make the identification easier, but your specimen would be filed away in an herbarium and it would help increase our coverage of the Colony. There are only about 160 species known from Trinidad and Tobago, but I feel that there must be more and that we lack material. So you could assist very materially. The men at the College, especially Dr. Wilson, would be willing to show you the really simple fundamentals of collecting and drying specimens.

The Ames Orchid Herbarium is not a part of the Gray Herbarium. It forms a part of the Botanical Museum, a distinct botanical entity here at Harvard. We naturally work together as though we were one unit, but I point this out to you so that you may understand why Dr. Kobuski turned your letter over to me for attention.

Please be assured of our interest in being of help to you in your interesting photographic work.

Very truly yours,

Richard Evans Schultes

Richard Evans Schultes ~~PhD~~
Curator: Ames Orchid Herbarium

WGS

LIST OF ORCHID FLOWERS PRESERVED IN SPIRITS
SHIPPED TO DR. R.E. SCHULTES
 BOTANICAL MUSEUM
 HARVARD UNIVERSITY
 OXFORD STREET
 CAMBRIDGE 38, MASS.
ON MAY 20, 1955

<u>Species #</u> (in W.G.Downs List)	<u>Identification</u>	<u>Locality</u>	<u>Collector</u>
1	<u>Epidendrum patens</u>	Matelot, Trin.	WGDowns
5	<u>Rodriguezia secunda</u> Plant #76	Cumato, Trin. Mar. 9/55	WGD
5	<u>Rodriguezia secunda</u> Plant #63	Tamana, Trin. Mar. 9/55	WGD
5	<u>Rodriguezia secunda</u> Plant #50	Biche, Trin. Mar. 3/55	WGD
10	?	Cumaca, Trin. Mar. 7/55	WGD
13	<u>Pleurothallus</u> sp.	Aripo Cave, Trin. Mar. 20/55	WGD
14	<u>Gongora maculata</u>	Platanal, Cumaca, Trin. Nov. 30/54	THGAitken
18	<u>Maxillaria</u> sp.	Melajo Forest, Trin. Mar. 27/55	ex Coll. THGA
19	<u>Epidendrum fragrans</u>	Cumaca, Trin. Dec. 1954	WGD
21	?	Aripo Heights, Trin. Mar. 20/55	WGD
23	? Plant #47	Biche, Trin. Mar. 3/55	WGD
23	?	Sangre Grande, Trin. Mar. 5/55	WGD
26	?	Biche, Trin. Mar. 5/55	WGD
27	?	Cumaca, Trin. Mar. 5/55	THGA & WGD
28	? Plant #77	St. Patrick's Estate Arima, Trin. Mar. 8/55	THGA & WGD

Continuation of:Dated:List of Orchid Flowers Preserved
In Spirits and shipped to Dr. R.
E. Schultes, Cambridge 38, Mass.

May 20, 1955

<u>Species #</u> (in W.G. Downs List)	<u>Identification</u>	<u>Locality</u>	<u>Collector</u>
28	?	Cunaripo, Trin. Mar. 31/55	WGD
29	<u>Ionopsis utricularioides</u> Plant #74	Caratal, Trin. Mar. 5/55	WGD
30	<u>Epidendrum hartii</u> Plant #38	St. Patrick's Estate Arima, Trin. Mar. 8/55	THGA & WGD
31	<u>Scaphyglottis</u> sp. Plant #81	Cumaca, Trin. Mar. 18/55	THGA
32	<u>Pleurothallus ruscifolia</u>	Aripo, Cave, Trin. Mar. 20/55	WGD
33	<u>Pleurothallus</u> sp.	Aripo Cave Region, Trin. Mar. 20/55	WGD
34	<u>Pleurothallus</u> sp.	El Tucuche, Trin. Mar. 27/55	WGD
38	<u>Trichocentrum</u> sp.	El Tucuche, Trin. alt. circa 2,000' Mar. 27/55	WGD
39	?	El Tucuche, Trin. alt. circa 2,500' Mar. 27/55	THGA
41	? <u>Oncidium</u> sp.	Spring Hill, Arima Valley, Trin. Mar. 27/55	H.N. Wright
42	?		WGD
45	<u>Jacquinella</u> sp. Plant #139	Cumaca, Trin. Nov. 1954	WGD
46	?	Morne Bleu, Trin. April 9, 1955	WGD
47	<u>Pleurothallus</u> sp.	Morne Bleu, Trin. April 9, 1955	WGD
48	<u>Epidendrum</u> sp. Plant #163	Cumaca, Trin. May 1, 1955	WGD

LIST OF ORCHID FLOWERS PRESERVED IN SPIRITS
SHIPPED TO DR. R.E. SCHULTES
BOTANICAL MUSEUM
HARVARD UNIVERSITY
OXFORD STREET
CAMBRIDGE 38, MASS.
ON MAY 20, 1955

Species # (in W.G. Downs List)	Identification	Locality	Collector
1	<u>Epidendrum patens</u>	Matelot, Trin.	WGDowns
5	<u>Rodriguezia secunda</u> Plant #76	Cumato, Trin. Mar. 9/55	WGD
5	<u>Rodriguezia secunda</u> Plant #63	Tamana, Trin. Mar. 9/55	WGD
5	<u>Rodriguezia secunda</u> Plant #50	Biche, Trin. Mar. 3/55	WGD
10	?	Cumaca, Trin. Mar. 7/55	WGD
13	<u>Pleurothallus</u> sp.	Aripo Cave, Trin. Mar. 20/55	WGD
14	<u>Gongora maculata</u>	Platanal, Cumaca, Trin. Nov. 30/54	THGAitken
18	<u>Maxillaria</u> sp.	Melajo Forest, Trin. Mar. 27/55	ex Coll. THGA
19	<u>Epidendrum fragrans</u>	Cumaca, Trin. Dec. 1954	WGD
21	?	Aripo Heights, Trin. Mar. 20/55	WGD
23	? Plant #47	Biche, Trin. Mar. 3/55	WGD
23	?	Sangre Grande, Trin. Mar. 5/55	WGD
26	?	Biche, Trin. Mar. 5/55	WGD
27	?	Cumaca, Trin. Mar. 5/55	THGA & WGD
28	? Plant #77	St. Patrick's Estate Arima, Trin. Mar. 8/55	THGA & WGD

Continuation of:List of Orchid Flowers Preserved
In Spirits and shipped to Dr. R.
E. Schultes, Cambridge 38, Mass.Dated:

May 20, 1955

<u>Species #</u> <u>(in W.G. Downs List)</u>	<u>Identification</u>	<u>Locality</u>	<u>Collector</u>
28	?	Cunaripo, Trin. Mar. 31/55	WGD
29	<u>Ionopsis utricularioides</u> Plant #74	Caratal, Trin. Mar. 5/55	WGD
30	<u>Epidendrum hartii</u> Plant #38	St. Patrick's Estate Arima, Trin. Mar. 8/55	THGA & WGD
31	<u>Scaphyglottis</u> sp. Plant #81	Cumaca, Trin. Mar. 18/55	THCA
32	<u>Pleurothallus ruscifolia</u>	Aripo, Cave, Trin. Mar. 20/55	WGD
33	<u>Pleurothallus</u> sp.	Aripo Cave Region, Trin. Mar. 20/55	WGD
34	<u>Pleurothallus</u> sp.	El Tucuche, Trin. Mar. 27/55	WGD
38	<u>Trichocentrum</u> sp.	El Tucuche, Trin. alt.circa 2,000' Mar. 27/55	WGD
39	?	El Tucuche, Trin. alt.circa 2,500' Mar. 27/55	THGA
41	<u>Oncidium</u> sp.	Spring Hill, Arima Valley, Trin. Mar. 27/55	H.N.Wright
42	?		WGD
45	<u>Jacquinella</u> sp. Plant #139	Cumaca, Trin. Nov. 1954	WGD
46	?	Morne Bleu, Trin. April 9, 1955	WGD
47	<u>Pleurothallus</u> sp.	Morne Bleu, Trin. April 9, 1955	WGD
48	<u>Epidendrum</u> sp. Plant #163	Cumaca, Trin. May 1, 1955	WGD