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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.

THE ARNOLD ARBORETUM
HARVARD UNIVERSITY

JAMAICA PLAIN 30, MASS., U.S.A.

February 21, 1949

Mr. Paul H. Allen
Esquinas Experimental Station
Cia. Bananera de Costa Rica
Golfito, Costa Rica

Dear Allen:

I have finally had to admit that if I am going to do any final work with Cordia, Ehretia, Bourreria, and Tournefortia, I have got to assemble some reliable facts regarding the structure of their fruits. Generally speaking, they have drupes, mainly. Unhappily, there is little information available regarding the fresh ripe fruit, even of the common species. The Flora writers have made only casual references to the ripe fruit. Most collectors give only occasional notes concerning it, and these usually concern only the color. I am in particular need of field observations on several species which must grow in your area. I am hoping that you may be able to help me.

Most of all I need some observations on the dead-ripe fruit of Cordia bicolor. What I am anxious to obtain is a good description covering the size, configuration, and color of the mature drupe; also the color, thickness, and texture of the flesh and the shape of its stone. The fruit is easily recognized, since it is the only one of the Central American Cordias that has a strigose surface; all others are glabrous. If you could pickle a dozen or so of the fully sized-up fresh ripe fruits, along with some in various stages of maturity, I could do some anatomical study and get all the data I need. I could also use a half-dozen stones of fruits that had fallen from the tree and been cleaned of pulp by ants. I am convinced that the stones of these Cordia drupes differ from species to species and may be useful in classification.

Some observations on the fresh, fully mature fruit of C. panamensis would also be welcomed. It must be common in the area and probably matures its fruit in April or May or even later (C. bicolor probably has fruits at the present time and will carry them on into March). As regards C. panamensis I am especially interested in data on size, shape, and color of the fresh drupe and above all in the texture of the flesh (is it mucilaginous?). The stone, unlike that of bicolor, is lacunose and strongly asymmetric. I would like to know if the fresh drupe is symmetrical or not.. The stone seems to be obliquely ascending; perhaps the fresh drupe may also be similarly oriented.

Then there are also the shrubby Cordias of the section Varronia, generally called C. ferruginea, C. curassavica, C. corimbosa, and C. globosa. I am sending a paper just published that gives the correct classification of this group. They have small red fruits with a very thin flesh that soon dries and seems to vanish. I would like to get pickled material of the fresh drupe, and flowers, if possible, of as many different kinds as possible. The morphology of the fruits in Varronia is practically unworked subject. Notes as to the size and shape of the drupe of the various Varronia species, and especially information as to the thickness and kind of flesh of their drupes would be, oh, so welcome!

THE ARNOLD ARBORETUM
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JAMAICA PLAIN 30, MASS., U.S.A.

I would also welcome pickled material of ripe fruits, partially developed fruit, and flowers of any Tournefortia or Bourreria, even the commonest species, particularly so if you would send notes on the color along with them.

Pickled material, if left in alcohol for a time, can be drained, and a wad of alcohol-soaked cotton added before shipping. I would be very happy to send you bottles if you can use them.

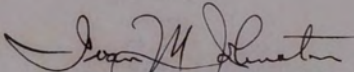
Since the preparation of specimens such as I am begging you to make for me can be charged to my laboratory account, there is no reason why any cost for material, packing, mailing, etc., should not be paid by the University.

Under separate cover I am sending two papers which cover most of the Central American Cordias. You may find them useful, and I hope interesting.

The San Jose Island report is now printed and the final word is that it will be out about a month from now.

Schweinfurth has been my chief source of information concerning your doings. I do hope that everything has been going well and that you have had some opportunity to do all that exploration in southwestern Costa Rica that you planned. Do let me hear from you. If there is anything I can do to help you in the good work, you know I will be only too glad to do so.

Yours sincerely



Ivan M. Johnston, Associate Director
Supervisor of the Herbarium
and Library

ESQUINAS EXPERIMENT STATION
C.A. BANANERA de COSTA RICA
PALMAR SUR, COSTA RICA

March 21, 1949

Dr. I. M. Johnston, Associate Director
The Arnold Arboretum
Harvard University
Jamaica Plain 30, Mass.

Dear Dr. Johnston:

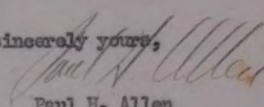
Your request for alcoholic material of Cordia etc. has been with me for some time, and while I may eventually be able to supply some things like Tournefortia, the general prospects for Buraginaceae are not particularly good.

You may be as surprised as I was to learn that our area here is one of the few freakish parts of the Pacific lowlands having an extremely high rainfall, with 247 inches registered at Esquinas last year. My beaten path to & from Palmar and Esquinas runs first for miles through unbroken bananas and then plunges into a vast climax rain forest of the general type of that on Barro Colorado Island. In all of my previous experience, most Cordias favor a little drier terrain, and at least I can honestly say that many a Cordia have I seen since my arrival here. Our common forest trees are Anacardium excelsum, Carapa nicaraguensis, Ceiba pentandra, Peltorvne purpurea, Pterocarpus officinalis, Schislobium parahybnum, Crias Fendleri etc., together with palms such as Welfia Georgii, Cryosophila albidia, Astrocarpum Standleyanum, Astrocarpum alatum and Helleconia such as Helleconia intricata, H. Bihai and H. velerisera, all of which combine to give a distinctly Atlantic slope aspect to the vegetation.

After a fairly hectic time at Esquinas, complicated by a complete lack of transportation and just about everything else, we moved here, and only within the last sixty days or so have we had our books and furniture uncrated. I hope now that things are approaching a somewhat more normal state to get some collecting done. You may be sure your requests will take high priority on my list.

Dorothy joins me in our best wishes to yourself and our other good friends at the Arboretum.

Most sincerely yours,


Paul H. Allen

ESQUINAS EXPERIMENT STATION
CIA. BANANERA de COSTA RICA
PALMAR SUR, COSTA RICA

April 2, 1949

Dr. I. M. Johnston
Associate Director
The Arnold Arboretum of Harvard University
Jamaica Plain 30, Mass.

Dear Dr. Johnston:

By todays mail I am sending you dried and liquid material
of a Tournefortia, which I hope may be of some use. The collecting data is
as follows:

Trail from Palmar Norte to Cañablancal. 100-300 ft. 3/31/49

5221 - Stout vine or scandent shrub. Flowers white. Fruits
translucent white. Very common along the Rio Terraba
above Palmar. (5)

It would be appreciated if the duplicates could be distributed
as a gift from the United Fruit Company to:

Escuela Agricola Panamericana, El Zanonano, Honduras

Missouri Botanical Garden, St. Louis

U.S. National Herbarium, Washington

Dorothy joins me in our warmest personal regards.

Sincerely yours,

Paul H. Allen

cc - Dr. V. C. Dunlap

P.S. What other families can you take care of there besides Boraginaceae
and Lauraceae?

ESQUINAS EXPERIMENT STATION
CIA. BANANERA de COSTA RICA
PALMAR SUR, COSTA RICA

June 27, 1949

Dr. I. M. Johnston
Arnold Arboretum of Harvard University
Jamaica Plain, Mass.

Dear Dr. Johnston:

I am exceedingly grateful to you for the copy of your "Botany of San Jose Island" recently received. It is an excellent piece of work, and one of which you may be justly proud. We have a young chap here in charge of our commissary who was on the island during the war, and who knew you, and he has greatly enjoyed seeing the results of your efforts in print.

Dr. J. J. Oehse has recently visited us here, and he has prevailed on me to again revive my once cherished project of a "Climate and Vegetation in Panama" which is well begun, but still far from complete. I personally know very little about the Perlas group, having spent exactly one day each on Trapiche, Pedro Gonzales and Saboga, so you can see what a windfall your careful segregation of local plant populations will be to me. Many, many thanks and regards,

As ever,

Paul H. Allen

ESQUINAS EXPERIMENT STATION
CIA. BANANERA de COSTA RICA
GOLFITO DIVISION

Palmar
December 17, 1952

Dr. I. M. Johnston
Arnold Arboretum of Harvard University
Jamaica Plain, Mass.

Dear Dr. Johnston:

I have been intending to write to you for some time in regard to two completely unrelated subjects. During the course of collections here we have found quite a few fallen fruits which exactly match that shown on plate XII, No. 4, of your excellent treatment of the Flora of San Jose Island. To my complete astonishment they have been found to be from Grias Fendleri, though it would be difficult to conceive of a less Lecythidaceous fruit. We found that squirrels like the fleshy outer covering, and often gnaw this off, leaving the bare seeds attached to the branches, so that there seems little probability of error.

The second and more difficult question involves the identity of a frequent local tree, which has been tentatively identified by Dr. Standley as Casearia banquitana var. laevis. Since this was described by you, I am hoping that you may have the type at hand to compare with the enclosed photograph. They are slender, unbranched trees, which average about 75 ft. in height, with perfectly straight trunks of uniform diameter, 12-16" B.H., having a very curious short, flat-topped crown. The wood is white, or pale yellow, fine grained, splits easily, and resembles that of the so-called Venezuelan boxwoods (Casearia praecox). If you could find time to compare the enclosed with authentic material it would be very greatly appreciated.

Sincerely yours,

THE ARNOLD ARBORETUM
HARVARD UNIVERSITY
JAMAICA PLAIN 30, MASS., U.S.A.

February 4, 1953

Dr. Paul H. Allen
Esquinas Experimental Station
Cia. Bananera de Costa Rica
Golfito Division, Costa Rica

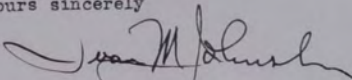
Dear Allen:

Your letter of December 17 and its problems concerning Casearia came just in the latter period of my spell of teaching, and since it involved a trip to the Gray Herbarium has not been attended to until the present time. This morning I finally had a chance to take your letter and the photograph of your Casearia to the Gray Herbarium for study and comparison. As far as I can see, you are correct in identifying the plant as C. banquitana var. laevis. That plant seems to be the one in the photograph, and certainly is the one which should be expected in western Central America, where you apparently obtained it. It certainly isn't C. praecox. You realize, of course, that a photograph of a fresh plant does not provide the best subject for comparison with a long-dried plant in the herbarium. Nevertheless I am inclined to think that my identification is to be accepted. If you want any further verification, I suggest that you send me a specimen.

Your remarks concerning the seeds of Grias Fendleri are indeed astonishing. Guppy reported the seeds of Grias from the beach drift about Guayaquil. Frankly, I don't remember having seen either a seed of this genus or a picture of it. Certainly the mysterious plant which I illustrated has enough distinctive traits so that your statement that you have a plant matching it can readily be believed. I am hoping that you are spending some of your time in Costa Rica picking up beans and seeds along the seacoast. The little work I did on the drift fruits in Panama has a lot of interesting implications. We are not in a position to draw any real conclusions until we have some precise data concerning the composition of the drift along the Pacific coast of Costa Rica and also points farther north.

Hoping all goes well with you, I am, with best regards,

Yours sincerely



Ivan M. Johnston, Associate Director
Supervisor of the Herbarium
and Library

IMJ:U