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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.

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

May 31, 1921.

ECONOMIC AND SYSTEMATIC BOTANY

Dr. Erik L. Ekman,  
Central San Ramón,  
Mariel, Cuba.

Dear Mr. Ekman:

I have just read your discussion of *Conyza* *arborescens* L. It is another good example of the "Linnaean concept." Since Linnaeus takes the name from Plumier and evidently described the plate I should think the Plumier species was the one he had chiefly in mind. We have usually given most weight to the specimen Linnaeus had in hand if he had one but it would seem in this case as if he described the plate but added a bit to fit a plant in hand. The case seems to me much like that of *Digitaria* which we reject. It was first used by Heister and based on *Paspalum* *distichum* L. Then Adanson applied it to *Tripsacum* (as shown by his citing *Tripsacum* Linnaeus) though he gives "Heist." as author. Then Heller, who seems to have had crabgrass in hand, fixed up a description to go with that but described "excavations" in the rachis in order to fit the others. He credits the genus to Heister. Then Scopoli whose *Digitaria*

2--Mr. Erik L. Ekman.

is used today, credits the genus to Heister, Adans. Haller", and adds [Cynodon] dactylon to the mixture. Since all credit the name to Heister and intend to use it in the same sense I think Digitaria of Adanson, Haller, and Scopoli goes back to Paspalum distichum. I can't see that their referring other things to it and redescribing it, always mixing Heister's with it, changes its proper original application.

In your letter you say that every word of the description could also be applied to the Martinique plant. I think your discussion fails to make that plain, for you say "If the name *C. arborescens* goes with the description, it must be the Jamaica plant which should be named *V. arborescens* (L.) Sw." But you say before that you think the Plumier figure connected with the specimen in the Surian Herbarium should be taken as type of *C. arborescens* rather than the plant in Linnaeus's herbarium "as this only partly corresponds with his description." I should think that that fact would decide the case, but your subsequent statement quoted above unfortunately weakens it.

I think you were perfectly right in "telling the world about it." You doubtless have found, as I often have in trying to analyze complicated cases, that botanists have often been lawyers rather than scientists. They have "made out a case." It is sometimes difficult to hold oneself wholly free as <sup>we</sup> must if we do the best work. I <sup>(and hoped)</sup> expected to find *Penicum glaucum* could reasonably be applied to the yellow foxtail, for example. I had used *Pennisetum spicatum* in the *Pennisetum*

We reason as you do about giving author of a combination, even when he misunderstood the species he was transferring. It seems to me it is the only way one can do and keep things straight.



3--Mr. Erik L. Ekman.

paper for pearl millet. But I couldn't do it and consider and publish all the facts-- Schinz and Thellung and Stapf had not given all the facts.

The Wright collections were made up into sets at Gray Herbarium. With some of the specimens there are preserved little scraps of paper with localities. These were all copied for Cuba grasses. In the Grisebach herbarium at Göttingen localities are often given on the labels. In Cuba Grasses the localities <sup>there obtained</sup> are credited to Grisebach herbarium. In the herbarium of Estacion Central Agronómica de Cuba is a set of Wright grasses. These were borrowed while C. F. Baker was there and returned. Many of the sheets as I recall them had large envelopes pasted on them stamped "Etiquetas originales." We copied these also. So far as we know Wright seems to have been a careless collector. I am writing to Dr. Robinson of Gray Herbarium to ask if <sup>Wright</sup> ~~he~~ preserved field books and if they are at Gray. They are always very kind at Gray about looking things up and I think would have labels copied if you write Dr. B. L. Robinson, Gray Herbarium, Cambridge, Massachusetts.

About two weeks ago we received a package of your Haiti grasses through Dr. Urban, for identification. He asked to have a list sent to Dr. Lindman also. I had a third copy made for you. Many of them are new for us from Haiti and

4--Mr. Erik L. Ekman.

some new for West Indies. Mr. Emery Leonard of the National Museum here was in Haiti last year and also collected a fine lot of grasses, many new for the island and West Indies. He did not get your 449 which is either new or shows that *Paspalum breve* has as wide a range of variation as some bigger *Paspalums*. He collected a *Calamagrostis* that appears to be a new species. It looks like a 1-flowered *Trisetum*. He also got a new *Leptochloa*.

In a recent paper by Mez Bot. Jahrb. Engler 56: Beiblatt 125: 1921 (p. 6) he renames *Triscenia ovina* Griseb. "*Panicum nudiculme* Mez." (There is a *P. ovinum*). I think it is in *Panicum* but hardly in *Panicum* itself.

If you can not come here I shall be glad to look up bibliographical references for you. I suppose the library at Habana is not very rich in botanical books. I hope you will find it possible to come here to work up your new species, however. I think there ought to be a fund for work of this kind.

I shall make a list of species of which we should be very glad to have sets if you find them abundant enough to get without taking much time. It is most kind of you to offer to get them.

I hope you will find another rich harvest at Santa Clara, and I hope we shall eventually have a set of all your grasses.

Very truly yours,

*Agnes Chase*

Acting Systematic Agrostologist.

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

June 13, 1921.

Dr. Erik L. Ekman,  
Central San Ramón,  
Mariel, Cuba.

Dear Sir:

Your letter of June 6 has been received. Mr. Leonard gave me a list of the localities he visited in Haiti. He accompanied G. W. Abbott, the ornithologist and the places visited were for the sake of birds but I think he collected a fine lot of grasses. In answer to my inquiry he says he did not see many Vernonnias. He made a general botanical collection. He is very eager to go again and has some faint hope of going next winter. If he does I shall let you know. I had already indicated his grasses in the copy of West Indian Grasses sent you.

Probably Dr. Urban sent us specimens of your Haiti grasses when there was enough to divide, or when he needed the identification. I wish we could get the missing numbers.

You will see in Dr. Hitchcock's revision of *Echinochloa* that on reconsideration he reverts Wright's 3879 in part to *E. walteri*. This is the only specimen from the West Indies we had here until your Haiti specimens came. From your letter I infer that you have not received the revision of *Echinochloa*, *Chaetochloa*, etc. I am sending you this and also *Pennisetum*. We did not send these because your card



2--Dr. Elman.

is marked to show your name is on the National Herbarium mailing list. I suggest that you write to Mr. W. R. Maxon, National Herbarium, because you are probably missing other botanical papers you would like to have.

Have you a set of your Haiti grasses with you? If so I wish you would compare your Haitian Paspalum "breve" with the Cuba plants and tell me what you think. *I hope you can go again to Haiti and that we shall share in the harvest.*  
Very truly yours,

*Agnes Chase*

Acting Systematic Agrostologist.

*I had Leonard's list typed so that you want to paste it into W. I grasses you can do so*



UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

October 10, 1924.

ECONOMIC AND SYSTEMATIC BOTANY

Dr. E. L. Ekman,  
American Consulate (Consulat des  
Etats Unis),  
Port au Prince, Haiti

Dear Dr. Ekman:

I was glad to receive your letter of September 22 and to learn that your luck still holds. Among some grasses recently handed us to identify, collected by Dr. Abbot in the Dominican Republic, was a *Uniola* allied to *U. virgata*, but with larger spikelets and much less dense panicle. It is probably your new Haiti species. It will not be named here in a hurry of course--there are so many undescribed grasses from the West Indies now. I am glad you have found *Calamagrostis Leonardii*.

We untied the bundles of your Cuba grasses (We had to in order to get them into cases) and arranged all systematically in old genus covers. They are all stored in an upper tier of cases. Of each species, not each number, I took out a specimen to mount so that we can refer to them. The sheets are not stamped and they are kept apart so if we have to hand them back to you we can do so. They are marked with your name and number only, except in the very few cases where locality was given. They are a wonderful lot of grasses and make us wish more than ever that you could come here to work up your new species. If I can get time in the next week I shall list the species in which we do not agree. A week from tomorrow I sail for Brazil, which I have so long ached to visit. About three months ago we decided that if I really was going to Brazil I had better go this year, even though it leaves *Paspalum* uncompleted. Since then I have been studying Portuguese and listing grasses known from Brazil, reading Martius' travels and such in all my spare time. I expect to stay about six months or until the end of good collecting in the eastern uplands. Brazil being so enormous I can not hope to cover much of it and I think I shall accomplish more by confining myself to a relatively small area. I have chosen the eastern uplands, Pernambuco to the Serra do Mar and west to the valley Rio São Francisco, and getting into Goyaz at least as far as the railway goes. The early collections from this region all went to Europe. The more recent collections from the southern states, Lindman's, yours and others are fairly represented in this country. In six months I can not hope to make

2--Dr. E. L. Ekman

any great additions to the known flora--as you said of these short trips they only scratch the surface. But the object of such trips is not only to collect as many species as possible but to give us a field knowledge of old species. Who, from herbarium specimens and Grisebach's Flora, could get any idea of the climbing bamboos of the West Indies, for example, or of *Olyra latifolia*? I do hope to find some rarities, *Azmodochloa marantoides*, for one. I am going at my own expense, except for steamer fare. I shall confine myself to grasses except for one set of Composite for Missouri Botanical Garden.

I am using all the money I have saved since my European trip for this Brazilian one and the Grass Herbarium has at last secured a very promising youth for assistant. Therefore the herbarium and I are both without money for the wonderfully fine sets you would be able to get. If you will let us have a set of your grasses we shall be most glad to have them and if the Grass Herbarium has no money I shall raise enough to purchase them. I hope you will find time to send the localities of your numbers. I should mention that in taking out specimens to mount in no case did I take a full sheet unless there were more than three sheets.

Mr. Maxon was glad to hear that you are getting plants for him.

With best wishes for botanical luck and for your health,

Sincerely yours,

*Agnes Chase*

Agnes Chase, Assistant Agrostologist,  
Bureau of Plant Industry.

Brazilian address: Care American Consul, No.  
109 Av. Rio Branco, Rio de Janeiro,  
Brazil.

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

January 2, 1926.

Dr. Erik L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince, Haiti.

Dear Dr. Ekman:

Your letter of December 15 with \$4 inclosed came two days before Christmas. The mails are so congested at Christmas that I mailed the maps two days after. I owe you 4 cents, but since U. S. stamps would be useless to you I shall let it stand for the present. I was very glad to do this to help you.

There is plenty in Brazil for you yet--there would be plenty of new territory for dozens of plant collectors. I am aching to go again. I am nearing the end of identifying my grasses. Four institutions contributed to the cost of the trip, so I collected five sets, besides numerous extras for the Jardim Botânico of Rio de Janeiro, and for Vienna (for which I have a very warm feeling). I collected 2 sets of Compositae, one each for Gray and Missouri Botanical Garden. For the National Herbarium I collected Polygalae, Eriocaulaceae (for no reason but that I like them) and ferns from out of the way places, and occasional things I couldn't resist. I sent out all but the grasses some months ago. The grasses I kept to name and waited until our set was mounted to do the naming. . . The most interesting new thing is a *Lithachne* strikingly different from either of the known species. There is a little tuft of erect very slender culms with cuneate blades about 2-3 cm. long and 10-15 mm. wide. Most of these culms are sterile, but one or two with a few flowered staminate panicle. From these tufts are one or two slender creeping culms, some 1 meter long, with solitary spikelets at two or three of the nodes, the fruit pubescent. I had hoped for a new genus, *Olyrae* for choice, but this beautiful *Lithachne* is the nearest I came to it. Of groups, like *Paspalum*, *Panicum*, *Axonopus*, which we had pretty well worked up I know some of the nameless species are new. I am only naming to send out the grasses at present. I am going to finish North American *Paspalum* before I describe the Brazilian species.

It isn't so much new species that delight me as getting complete specimens and field knowledge of old ones. *Paspalum phyllorhachis* Hack., described



2--Dr. E. L. Ekman.

as "perenne (?) and 2 feet tall, is a great cane-like thing clambering several meters after the fashion of *Lasiacis*. The type collection consisted of the ends of branches and never a word on Glaziou's label about habit, habitat or locality, other than Minas. I found it only in the mountains near Bello Horizonte. That is very likely where Glaziou got it. A clambering *Panicum*, with culms several meters long, forming great tangled masses puzzled me. I found it so often I was sure it must be known but could not guess it. It is *P. penicillatum* Nees; Trin. (*P. discolor* Trin.), but herbarium specimens had given me no idea of the plant. But you know the sort of material all the old collectors got, and how much complete specimens are needed.

My collections have straightened out the Cordovense group of *Panicum*. Like our U. S. subgen. *Dichanthelium* all the species have two very unlike phases, the early with large panicles, the late with little cleistogamous ones. To add to the confusion the early spikelets are glabrous, the cleistogamous pubescent. (Occasional specimens have mixed panicles.) Of the entire group, *P. pantrichum* Hack., *missionum* Ekman, *cordovense* Fourn., *dusenii* Hack., *ovuliferum* Trin., *rhizogonum* Hack., I collected all but the last in both phases with intermediates showing both forms. *P. chiriquiense* Hitchc. & Chase and *protractum* Mez = *pantrichum*; *gracilipes* Hack. and *unilineatum* Mez = *missionum*; *dusenii* is distinct from *cordovense*. I have a form I am calling "affine *ovuliferum*" for the present, coarsely hispid like that but with smaller spikelets.

The very richest spot I struck was Serra de Cipó (of which Itambé is the highest peak-- I did not go there because it would have cost too much to hire horses and guide.) I found the charming silvery *Panicum arnatices* Trin., apparently very rare, plenty of *Axonopus erythrochaetus* (Mez) and many more *Axonopus* (one very distinct new one), *Paspalums*, *Panicums* (a new(?) one of *cyaneus* group). But I am not answering your questions. The climate was no where oppressively hot (but I am almost heat-proof-- I enjoy Washington summers.) In the sertão at Bello Jardim, Pernambuco, and again in the desert at Paulo Afonso Falls, I surmise (had no thermometer) it may have been about 100 F. Nowhere else was it anything like so hot. In reading Humboldt's Travels, in Wallace, Bates, and Spruce in Brazil, I was struck with their complaints of cold. I certainly suffered more from the cold than the heat. On Itatiaia, in January (midsummer), at only about 2000 meters, milk froze during the night. I collected your *Briza itatiaiae* at Alta de Itatiaia, but <sup>found</sup> very little of it. In Serra de Caparaó it was less scarce, though not plentiful.



Insects are numerous and bloodthirsty. I did not strike worse mosquitoes than I have encountered in the United States, but in Serra do Curral (near Bello Horizonte) and other places where the collecting was especially good there is a maddening little midge, in countless millions, that stings like fiery needles. There is a "chigger" or seed tick, that is far worse than our United States one, which is terrible enough. The Brazilian one raises blisters. The blisters burst and stick to the clothing, offering numerous holes in the skin for infection. The worst "pest" (and I think the only danger in Brazil) is the want of sanitation and consequent ever-present sources of infection. I had been told by Americans how bad was the food in the interior. I had no complaint on that score--rice and beans will sustain life--but the unspeakably unsanitary conditions were appalling. \*

My collections did not suffer in the least, though at times drying was difficult and tedious. But I shipped my collections (sewed in muslin bags) through U. S. consuls, until I went into Minas. Twice missionaries going to Rio carried down a duffle-sack full of packages for shipment. For two months, then, I had to keep the plants. I sewed them up, with plenty of naphthaline flakes, in their muslin sacks. Occasionally when I had a chance I sunned the packages. Things that were slow in drying I kept with the latest collections. A beautiful bromeliad and *Echinochloa polystachya* were changed every day for weeks.

I am delighted to hear of the treasures you are finding in Haiti. I wonder if you have met Mr. Leonard, of the National Herbarium, who is now in Haiti. When he was there before he collected a *Calamagrostis* and a *Leptochloa* approaching *Gouinia*, which may possibly be the unknown *Festuca Thouinii* Steud. from Santo Domingo. Have you found anything to fit that? The *Calamagrostis* is, I believe, new. I wish, so does Professor Hitchcock, that you could tear yourself away from field work for a few months, to come here and write up your new grasses. The arrangement of the herbarium geographically, the types, the indexes and agrostological literature at hand would enable you to work without loss of time. (With all that you may wonder why I don't get along faster--we have the routine work of endless identifying grass seeds, hosts of rusts, of range investigation work, etc., etc.; the yearly average is 8000 to 10000 identifications.) Professor Urban is so old that I suppose he may be pardoned for being a little impatient, but I do not see why he should be worried because your grasses are here. He might well worry if they were in Cuba or Haiti. If you can make arrangements to come here to work up your new species, we shall do every thing we can to further your work. Venezuela is most inviting but it would be a pity to go there before giving to the world the agrostological results of your West Indian explorations.

\* I forgot the bicho do pe that lays eggs in one's feet in spite of thick shoes. I only had two and removed both nests without any evil consequences. There is also the berne, (*Dermatophobia*)

hominis) the human bot fly. I had 3  
of them. One I pulled out by the tail when  
it was about half grown. Another I  
must have killed trying to remove, there  
is a small painless hard spot on  
my leg to mark its grave. The third,  
on my cheek bone, died and caused  
an obstinate sore which lasted about  
4 weeks. I came home with the scar  
but it is about gone now.

4--Dr. E. L. Ekman.

*New York, N.Y.*  
Britton's Flora of Porto Rico is published by the New York Academy of Sciences. The botany is published in Vol. 5, part 1-4; Vol. 6, of the Scientific survey of Porto Rico & the Virgin Islands. Each part sells for \$2.00.

I hope the Hydrographic maps will help you. The geography of Brazil is little known and one gets far more misinformation than information. There are few maps and those inaccurate. The geographical nomenclature is more badly mixed up than that of its flora. After much pains I have located nearly all Martius & Spix localities. Travel is so slow, railroads in the interior so few, and with trains only twice a week, that I did not cover nearly as much territory as I expected to. In Minas I did not get north of Lagoa Santa and Serra do Cipó, while I had planned to go to Diamantina and then over to Pirapora on Rio São Francisco. I must go again.

Very best wishes for the new year. Professor Hitchcock is at the American Association for the Advancement of Science meeting in Kansas City or he would add his.

Sincerely yours,

*Agnes Chase*

Agnes Chase, Assistant Agrostologist.

Office address: Smithsonian Institution.



UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

June 24, 1925.

Dr. Erik L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince, Haiti.

Dear Dr. Ekman:

We had a card from Dr. Urban May 9 saying he was going to send us the Gramineae collected by you in Haiti in 1924-25, and asking us to determine them. He writes "You may retain for your herbarium one specimen, if there are two or more specimens; the unicas must be returned for Stockholm."

The packages came about two weeks ago, and I have just finished them. I am sending you a carbon copy of the list.

We have *Andropogon* pretty well checked up and your No. 2329 does not fit descriptions of any of those we do not have--and it is nothing we have. It is  $\frac{1}{2}$  *Schizachyrium*, nearer *A. cubensis* than anything else, but the racemes are far more silky and the blades are terete as in *A. urbanianus*, a species of *Andropogon* proper.

Your H. 4156 does not fit anything. It is not the little *P. sauguetii* as you suggest. In general it is nearer to *P. glabrum* than anything else, but it is more slender, blades narrower and shorter and with a long tuft of hairs in the throat. There are more species now in that group than can be clearly separated.

When you sent the Cuban grasses for storage here you said you would send data for them. We have never received the list. As I wrote you before I left for Brazil one of each species (not each number) had been mounted and set aside unstamped. I have been hoping for list of localities. But I intend to name the collection now for Dr. Urban. I shall send you a copy of the list and it will then be easy for you to copy the data from your field books for each number and send it to us.

I wish some arrangement could be made to publish the new genera and species. If the descriptions are full and accurate and we have part of the type I don't care whose name goes after the species. I wish you could come here and work up the collection yourself, but since you cannot,



2—E. L. Ekman.

suppose I write out descriptions of all I believe to be new species and send the manuscript to you. You can put the descriptions into Latin and publish them in Urban's Symbolae. Could you not take time to do that? I am assuming that you have not a set of your collections with you.

Your *Paspalum amphibium* has a wonderful character, unlike any other *Paspalum*--or anything in Paniceae except *Amphicarpum*. It has inflorescences of 1 or 2 spikelets on slender little branches from the base among the roots. The spikelets are twice as large as the aerial ones. They are scarce. When I discovered them I went over the package; about a third of the specimens have them. *Paspalum amphicarpum* would be a better name, other species are amphibious.

I hope you will come to some decision about publishing your new species and I hope you will send us data for them.

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agrostologist

Office address: Smithsonian Institution.

I am working on your Cuba grass - wonderful lot. *Aristida palustris*, new for N. I. accounts for your *A. rhizomata* n. sp. but there are several that seem to be new. I have not yet tried South American species. *Muhlenbergia cubensis* is new, related to *M. schreberii*.

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

June 30, 1926.

Dr. Erik L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince, Haiti,  
West Indies.

Dear Dr. Ekman:

I am sending you my determinations of your Cuba grasses. Dr. Hitchcock is in the Rocky Mountains, so the list has not the benefit of his judgment. The numbers listed represent all the species in your collection stored here, but not all the numbers, unica, as I wrote before, not being mounted for this herbarium.

They are a wonderful lot of grasses. The number new for the West Indies as well as the number new for science is remarkable. I am sending notes on the list of determinations and, besides, a list of numbers of those I feel confident are new, and a second list of those still to be searched for in South American literature. With the greatest care we all "commit" a few synonyms (as witness *Panicum inaptum* Hitchc. & Chase). Anything short of that would result in a deluge of them.

I wish that you could work up your grasses for publication yourself. As you will see our specific concepts do not always agree. If you could come here where there is such abundant material, not only from the West Indies but from all tropical America, I think you would be likely to draw larger circles around your species. I know myself how clearly differences stand out in the field. In Brazil I had several "distinct" species of *Trachypogon* when I first met them. Repeated collections in different localities began to blur the distinctness, and when I worked them up in the herbarium I was disappointed to find I had but seven in all. The same was true of *Aristida*, *Ichmanthus*, *Panicum*, *Paspalum*, *Andropogon*. If species were confined to small areas the work of the systematic botanist would be far easier. But when in each case we take into consideration all available material we must expand the Formenkreis or the unruly plants will not stay within it. But even if you did work up your grasses here we probably would not agree in all cases, that is why I wish you would work them up yourself. If you cannot come here and have not a set of your grasses with you I will, if you wish, draw up descriptions of the new genera and species and send the manuscript to you. You can

2--Dr. B. L. Ekman.

put the descriptions into Latin and publish them yourself in Urban's Symbolae with your own discussions of them. I do not want to be joint author. I offer to do it because such a valuable addition to knowledge of grasses should not be withheld indefinitely and you can not be in two places at once. Dr. Urban is getting old and I quite sympathize with his desire to have these grasses added to his Symbolae. If I write out the descriptions for you, of course the nomenclature will be as you want it. I shall not be the responsible author.

If you agree to this I will finish the search for the species of Andropogon and others, to be as sure as humanly possible that they are new before describing them.

In the list of Haiti grasses dated June 21 please correct 3626 *Aristida scabra* to *A. tenuipes* Cav., the earlier name. After studying your Cuba grasses critically I re-examined your H 2444, a single plant, over mature. I called it *Chloris leptantha*, but it is the same form as your *C. salina* 12937.

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

December 3, 1926.

Dr. Erik L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince, Haiti.

Dear Dr. Ekman:

A few days ago the package of maps sent to you about a year ago ~~was~~ returned to me. I inclose the address. Why they were not delivered to you I cannot guess. I am inclosing four ~~dollars~~ (\$4.00) the amount you sent for them.

Dr. Urban has promised to send us data for your collections. We shall rejoice when we receive them.

Thank you very much for your interesting article Botanizing in Haiti. I had seen a reference to it and had sent for the Naval Medical Bulletin containing it. It is altogether delightful.

Professor Hitchcock is making a short trip to Cuba, partly to cooperate with the Tropical Plant Research Foundation, but, of course, he will collect grasses. He will be back before Christmas.

With best wishes for your health and pleasant holidays,

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.



UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

February 3, 1927.

Dr. E. L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince,  
Haiti, West Indies.

Dear Dr. Ekman:

I am sending the maps to you once more care Pharmacie W. Buch by registered mail. I hope they will reach you this time.

I rejoice to learn that you found *Arthrostylidium haitiense* in flower. Dr. Samuelsson recently sent us two large packages of your early Cuba collections, with numbers only. We named and returned them a short time ago, keeping a specimen where it could be spared, for this herbarium. Among them were two collections of *Arthrostylidium capillifolium*, one of which was only about 1 meter tall and in bloom! I could make nothing else out of it. I shall be interested to see your data on this. Dr. Urban asked Dr. Samuelsson to send us labels for your Cuba grasses.

Professor Hitchcock wrote you a few days ago about his trip to Cuba. He was there only a short time, going down at the request of ~~the~~ the Tropical Plant Research Foundation, who are concerned about mosaic disease of sugarcane, other grasses carrying the organism as well.

Professor Hitchcock's grasses have only come from the mounter. The American Association for the Advancement of Science meetings in Philadelphia and other things have interfered with putting the Cuba collections in order. He wrote to you a few days ago.

Mr. Leonard prepared his new Haiti species for publication and asked us to include the long unnamed *Calamagrostis* and *Leptochloa* - *Gouinia* plant from Pic de Brouet. We finally decided it was a

2--Dr. E. L. Egan.

Leptochloa. It comes out in a few days in the Journal of the Washington Academy of Sciences, of which I am chief editor just now. Your collection was at the mounter's and not available for citation, and manuscript being short for the Journal I needed the article to fill up. I was sorry not to be able to cite your collection also. I called it *Leptochloa monticola*. I shall mail you a copy when the reprints are received.

I think the Scientific Monthly edited by J. McKeen Cattell, Garrison, N. Y. would be the best place for your paper on La Hotta. Professor Hitchcock's papers on his trips to Mexico, Hawaiian Islands, China, and South America were published in the Scientific Monthly. I sent a paper on my Brazilian trip to Dr. Cattell, however, and he returned it for "lack of space." I hope he will find yours more interesting. That would be much the best place, I think for your paper. Professor Hitchcock suggests The Botanical Gazette. Letters in regard to manuscript should be sent to Editor of Botanical Gazette, University of Chicago, Chicago, Illinois. That periodical is about a year behind, so that papers now do not appear for a year after they are submitted. Torrey, George T. Hastings, 2587 Sedgwick Ave, New York City, has a less wide circulation than the Scientific Monthly but would be a good place. With the multitude of periodicals in the United States there is almost nowhere for scientific papers unless they are almost unreadably technical, like the Journal of the Washington Academy I am editing just now. I would like to have the paper for that -- if it is sufficiently heavy I was going to say. But the one non-ponderous article that has been published during my term has received favorable comment. If you care to send the paper to me I shall be glad to "communicate" it for you, or send it to Dr. Cattell or to Torrey for you. I dislike the ponderousness of the usual article in the Journal of the Washington Academy of Sciences and surmise that in the depth of their hearts many members of the Washington Academy of Sciences do also.

If you arrange with Professor Hitchcock for the publication of your Cuba additions I should like to make drawings of the two new genera at least. I am very glad that at last we have the prospect of receiving labels for your collections.

If you send the article on La Hotta I suggest, unless your prints are very good, that you send the negatives to have prints made here for publication.

3--Dr. E. L. Ekman.

I am planning to go to Europe in late March--combined agrostological work and vacation. The Decandolle Herbarium was not accessible when I was in Geneva in 1922. It is now, and I hope some of the missing Paspalums will be found there. We (my life long best friend and I) go to Wien first for music, reaching there in time for Parsifal Easter Eve. I shall not go to Berlin this time. If you decide to send your paper on *La Hotte* it will have to be here about the first of March. I shall have to have all the biological papers to be published in my absence ready for the printer before I leave, when the mathematical editor takes charge.

If your paper is published in the Journal of the Washington Academy I shall have reprints made for you.

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

March 23, 1927.

Dr. Erik L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince,  
Haiti, West Indies.

Dear Dr. Ekman:

Dr. Samuelsson sent us labels for your Cuban grasses up to no. 11044. Some time later he wrote (letter dated March 5) asking us to copy and return the labels, but we had already pasted on all that we had specimens (mounted) for. Dr. Samuelsson writes, "As to the other labels sent by me it was my opinion that they should go back to us together with the large grass collection from Cuba sent directly to you by Dr. Ekman and also belonging to us. I think you will soon be able to send also this collection."

Of course, we could not send them without your order. We stored them for you. But we do not want Dr. Samuelsson to think we are holding them unjustly. Will you please write to Dr. Samuelsson.

I hope you received the Haiti Hydrological maps this time. They were registered again.

I am leaving in two days for a short visit to Europe, mostly to work at the DeCandolle Herbarium which is now accessible at the Delessert Herbarium. It was boxed when I was there in 1922.

With best wishes,

Sincerely yours,

*Agnes Chase*  
Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.



UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

BOTANY

October 14, 1927.

Dr. Erik L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince, Haiti.

Dear Dr. Ekman:

I am inclosing carbon copies of the descriptions of your two new species of *Paspalum*. I have made illustrations of both, showing inflorescence and enlargements of spikelets and fruit. In the Contributions from the U. S. National Herbarium in which the revision of *Paspalum* will be published (when I get it finished) no Latin descriptions are given. If you would like to publish these in Latin, I can put them in the Journal of the Washington Academy of Sciences of which I am biological editor just now.

I have found that *Paspalum reptatum* Hitchc. & Chase, like your *P. amphibium* has cleistogamous spikelets at the base of the culms, but in *P. reptatum* they are like those of the racemes in size and shape (except for a little distortion due to pressure) and are borne (solitary) in minute sheaths at the primary base (only in the single collection from Jamaica are they found at the rooting branching nodes). I went over the set of 30 sheets you sent us and find 17 with these cleistogenes, some with 2 plants having them. Most of the 30's you sent were accompanied by a label, but *P. reptatum* was marked with the name and date 1. 12. 1923, only. Among the grasses stored here for you is *P. reptatum* no. 18249. Are these the same collection? Will you please send me data for both? The labels kindly sent us by Dr. Samuelsson do not go beyond the 11000's.

Data wanted

12220.	<i>Paspalum</i>	<i>insulare</i> Ekman
12838.	"	<i>bakeri</i> Hack.
16690.	"	<i>serratum</i> Hitchc. & Chase
17565.	"	<i>amphibium</i> Ekman

Sincerely yours,

*Agnes Chase*  
Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

April 6, 1928.

Dr. E. L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince, Haiti.

Dear Dr. Ekman:

I inclose carbon of the description of your no. H 6248, which is a very distinct species of the decumbens-pilosum group of Paspalum. Will you please tell me if I have guessed the habit correctly? It looks as if it were erect to ascending but such very slender culms may lean over on the ground as *P. rupestre* does.

Your label reads "R. D. Cord-Central, Prov. Monte-Cristi, Restauración, in a pine hill north of town 700 M. H. 6248. 4.6.26." Is Restauración the name of the town? Can you give me anything more definite as to habitat or soil?

The grasses of your recent shipment are now being mounted. I know we shall find them of great interest.

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.

UNITED STATES DEPARTMENT OF AGRICULTURE  
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WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

May 10, 1928.

Dr. E. L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince, Haiti

Dear Dr. Ekman:

Your letter of April 22 received. In *Paspalum* (as in all  
Paniceae) we always keep the structure of the spikelet in mind.  
In most of the descriptions of *Paspalum* there is no mention of  
first glume (the introduction and generic description stating  
that the first glume is usually wanting), only glume and sterile  
lemma. In paragraph at the beginning of *Decumbentes* it is stated  
that first glume is commonly developed in one or both of the pairs  
of spikelets. The first glume is small on one spikelet of the pair  
and large on the other as in most of this group (*Dimorphostachys* Pourn.)  
—in *P. decumbens* they are alike on all spikelets. It is very  
distinct from any other species. I fear I shall be accused of  
lumping, rather than splitting when the revision appears. Thank  
you for the correction in date—I should have known this.

Your Haiti grasses have filled me with joy. Mr. Leonard, who has  
charge of such things, was kind enough to take out the grasses, so that we  
could have them mounted without delay. They are now being stamped  
and recorded so we shall have them in a day or two.

I apologize for failing to thank you for your letter of October  
29 last giving me the data asked for for several of your collections  
of *Paspalum*. These data were pasted to the herbarium sheets but I  
see I failed to write you. Now I am sending a list of numbers of all  
the rest of your Cuba *Paspalums*. I need the localities for citation  
of specimens. I shall be most grateful. These numbers are not among  
the labels kindly sent us by Dr. Samuelson. In citing specimens only  
those in the U. S. National Herbarium are cited except for additions of  
range when Kew, Berlin or the herbarium in which the specimen is  
found is mentioned. That is the only way in which one can be responsible  
for every specimen cited. The only specimen we have of *Leptochloa monticola*  
from you is H7777, March 4, 1927. Among grasses sent for naming by Dr.  
Urban were your 1352, 1576, and 3075 which I reported as "*P. Leonard 4751*"

2--Dr. E. L. Ekman

which at that time I was trying to fit to *Festuca Thouini* Steud. (never yet located!) Dr. Urban said we might keep duplicates, but there were no duplicates of these. We might have taken a raceme from each and I wished later I had. But I had nothing of yours when I published *L. monticola*.

Of your Cuba grasses stored here, I took, as I wrote you, one of each species, not of each number. Later when you said to select a set for Dr. Urban I took a few more for this herbarium where the material was abundant. (The numbers for which I am asking data now are among these). This set was mounted but was kept apart, not stamped awaiting labels. Dr. Samuelson finally sent us labels for those up to the 11000's, except a few. Besides the list inclosed there are specimens in other genera for which we have no data. If you can take the time to write out data for us I shall send you the entire list in numerical order leaving space for writing data.

I am delighted that you have found *Pennisetum domingense*. Indeed we would like a set of it, but we are too hopelessly in debt to you for sets to give you any hint of our desire.

I am sorry I failed to answer your query as to locality for Hispaniola grasses. St. Dominique or Hispaniola is all that Poiret or any of the other authors ever gave for locality.

I hope you do find *Paspalum dispar* again and *Reima rochloa brasiliensis*.

With best wishes,

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agronomist.

Office address: Smithsonian Institution.



UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

May 12, 1928.

Dr. E. L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince,  
Haiti.

Dear Dr. Ekman:

The Haiti grasses, your Pl. Hispaniola Exp. III Regnellianae have just been transmitted to us. Mr. Leonard informs me that of the 4466 specimens sent by you he was instructed to take out 2500, which was all the National Herbarium had funds to purchase. He took the first 2500 as they came and says there must be many grasses in the remaining 1966 which are stored untouched. I am exceedingly anxious to have all specimens of Paspalum without delay, because the Government Printing Office strongly objects to additions being made in proof sheets. Will you give me permission to go over the 1966 plants as yet not purchased and take out Paspalum. I can pay you for them at once if you wish or they can be paid for with the rest from the funds of the next fiscal year. There are 21 specimens of Paspalum in the lot just transmitted.

Please tell me how you think this set should be cited? It is a different series from your Cuban numbers. I suppose Ekman H2274, for example, is sufficient without Exp. III Regnell. It is necessary to condense citation of specimens as much as possible.

That "Jamaica form" of Paspalum secans, like your H6452, turns out to be the mysterious P. arundinaceum Poir., (P. elatum Rich.) described from French Guiana. The type of arundinaceum is exceptional in having the first glume developed in a few spikelets. In the type of P. elatum, also from French Guiana, the first glume is more frequent. Of West Indian specimens I have found but 2 (Jamaica) with first glume developed on any spikelets. In most of the specimens from the Guianas an occasional spikelet shows a developed glume 1.

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

June 7, 1926.

Dr. E. L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince,  
Haiti, West Indies.

Dear Dr. Ekman:

Thank you very much for the data I asked for.  
I shall send soon a list of all the other numbers  
for which we need data since you kindly offer to  
supply them.

Thank you also for your permission to take out the  
grasses from the unpurchased shipment of your plants.  
I shall keep count of them. I have no doubt the whole will  
be purchased but if anything unforeseen should prevent  
I shall pay for the grasses myself.

You must have misunderstood Professor Hitchcock's  
letter. He never takes any botanical disagreement for  
"impertinence." Aristida was sadly confused, <sup>and</sup> worked  
up for Grasses of West Indies as well as possible without  
monographing the genus. When I named your Cuban grasses,  
after you sent them here for safe-keeping, several years ago,  
I used Grasses of the West Indies mostly, though your collec-  
tions added a number of species for the West Indies. In his  
revision of Aristida Professor Hitchcock reworked the whole  
material reversing some of his own previous identifications  
as well as plenty of mine. If one never published anything  
but complete revisions it would prevent errors, no doubt,  
but the agrostological study as a whole would go slowly. Papers  
like Mexican Grasses, Grasses of the West Indies, and Grasses  
of Ecuador, Peru, and Bolivia, are a preliminary survey--what  
the old authors called a prodromus--and, though necessarily  
not conclusive, afford a working basis. I explain all this so  
that you may see that your botanical comments or disagreements  
are never taken as impertinence. Professor Hitchcock is wholly  
impersonal in his attitude toward botany and I think I am--

2—Dr. E. L. Ekman.

though I do rejoice when a Mez species falls! I was going to make the "large *P. secans*" a subspecies but later identified it with the mysterious *P. arundinaceum* based on a specimen in which a few glumes I were developed.

In *Paspalum semipicarpum* Ekman I am spelling the name um. Does that meet your approval or do you prefer on?

Professor Hitchcock has left for the summer and our young assistant also, hence routine takes most of my time, but I shall try to make up soon the list of numbers of which we need data.

With many thanks,

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

June 18, 1928.

Dr. Erik L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince,  
Haiti.

Dear Dr. Ekman:

I am sending you blank labels for all the numbers we have of your Cuban collections without data. When the Stockholm Herbarium sent us your data they sent their labels with blank ones to copy. A small package was left over and these I have used so far as they went. The numbers have been arranged in numerical order for your convenience. We shall be exceedingly obliged to you for the data. It is a wonderfully fine lot of grasses.

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.

*I have given the names you need for your new grasses, even when we have referred them to some described species. I think we reported on all, but send your original names for your convenience. Of course many are new.*



UNITED STATES DEPARTMENT OF AGRICULTURE  
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WASHINGTON

ECONOMIC AND SYSTEMATIC BOTANY

August 7, 1928.

Dr. E. L. Ekman,  
Pharmacie W. Buch,  
Port-au-Prince, Haiti,  
West Indies.

Dear Dr. Ekman:

I have just been inserting the last of your Haiti grasses in the manuscript under cited specimens. A note on your H 2045 argues that that must be *Paspalum filiforme* Swartz because "in the part of Haiti where Swartz collected only this plant (n. 2045) occurs." But Swartz cites "Jamaica" for his *P. filiforme* and we have it (*P. leptocaulon* Nash) from 3 places in Jamaica. I have no doubt *P. lindemanianum* (to which I refer your H 2045) is in Stockholm. It is in every herbarium I visited in Europe. But I was sorely puzzled because in the Delessert Herbarium was a specimen of *P. leptocaulon* from Swartz, Jamaica, named *Paspalum filiforme* by him. Professor Hitchcock had failed to find Swartz's plant in the Stockholm plants then with Dr. Mez in Halle. I sent a specimen of *P. leptocaulon* and one of "*P. filiforme*" so called (*P. distortum* mss.) to Dr. Lindman asking him if he could find Swartz's plant (now that the Mez loan was returned) to compare with these. He wrote me (Jan. 3, 1924):

"There are in Herb. Stockh. a few sheets (not very many specimens), gathered by O. Swartz in the West Indies, and partly labeled in his own hand: "*filiforme*". These samples are no doubt all quite identical. (Only one, or two, rather small spikes differ slightly in having the glume a little blunter. Besides, the culms are not all exactly of the same size.).

"These Swartzian specimens have been sent all to Professor Mez, who labeled them "*Paspalum Swartzianum*." Why has he not accepted Swartz's name *filiforme*? They seem to me to be identical with your specimen of "*P. leptocaulon*", Hitchcock 566.

"The "*Paspalum filiforme*" you sent me, Hitchcock 9438<sup>1</sup> is another species: culms much lower; glume shorter, broader, nearly circular, and rugose.

"I send for your herbarium a specimen of Swartz's "*filiforme*", rather poor, but typical. (The label is of a very early date, but not in Swartz's own hand).-- I also enclose a spike from another sample (labeled "*filiforme*" by Swartz himself); I should be glad to have this fragment returned."

*distortum*

2--Dr. E. L. Ekman.

That fragment I returned after drawing the spikelet. The plant sent us to keep is certainly the same as the Jamaica one (*P. leptocaulon*) but is labeled "Ex Hispaniola a celeberrimo Professo. Ol. Swartz. Holm. 1815."

You say *P. leptocaulon* is only found in Sto Domingo. We have none from there (except this Swartz specimen labeled "Hispaniola"). Lasegue says Swartz went to "Saint-Domingue et dans quelques autres îles des Antilles" besides Jamaica, but he does not mention any locality in Sto. Domingo, which included Haiti in the time of Swartz.

Swartz's description does not mention the wrinkled spikelets. They are so conspicuous even to the naked eye in *P. lindenianum* and *distortum* and so unusual that I think Swartz would have mentioned them.

Sincerely yours,

*Agnes Chase*

Agnes Chase, Associate Agrostologist.

Office address: Smithsonian Institution.

Ekman

H 8515 *Panicum* "adpersum v. *erianthum* Ekman." = *P. echinulatum* Mez var. *boliviense* Henr.

Mez based *P. echinulatum* on Balansa 24 Paraguay, a plant very like *P. adpersum* except for bristly spikelets. Eggers, St. Croix 1876, consists of 2 plants, 1 good *P. adpersum* the other like Balansa. Ekman 14023 (Cuba) and H 8515 are the still more bristly v. *boliviense*. The distribution is so queer it makes one think these bristly plants are more likely forms of *P. adpersum*.

H 1696, H 5985 sterile *Chusquea*. I can not find anything else like this from continental America. *C. leptophylla* (known only from sterile plants) and *C. spencei* are the only ones at all like this, but neither has the arrangement of bristles and hairs on sheaths and foliage that these have. *C. spencei* is knotty-looking like these, but more so.