



Hunt Institute for Botanical Documentation
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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.

Program Planning Division

January 28, 1936

Mr. Thos. T. McCabe,
Dept. Vert. Zoology,
U.C., Berkeley, Calif.

Dear Mr. McCabe:

Your letter of January 9 came duly to hand. It was very good of you to give me the additional information regarding location of places from which the 1935 collections came.

It is probable that I may wish to ask more questions about other localities later. While getting started in my new work I have been so busy that I have been able to do little more than keep up with determinations of material sent to me. That condition will not be permanent, I believe.

Recently I received from O.J. Murie, the representative of the Bu. of Biological Survey at Jackson, Wyoming, some willows collected on June 21 at Chezacut Lake, B.C. I have not checked with your list to see if he was with you. His species are the ones you have found. He is the specialist on browse for moose and elk.

Lack of time for study has prevented further conclusions regarding the make-up of the willow flora from the interior of British Columbia. Some species, like *S. lasiandra*, *S. exigua*, indicate an extension of the Upper Sonoran influences. *S. discolor* is a direct extension of the eastern flora of the Great Lakes and Lower Canada. I wish I could help you more in this line.

With best wishes for the New Year,

Cordially Yours,

Carleton R. Ball
Exec. Secy., Coordinating Committee,
U.S.D.A., T.V.A., and Land Grant Colleges.

See also letter to Mr. E. J. Kane, Berkeley, Calif.
P.S. I am finding my work of promoting cooperation between some 60 Federal institutions, and about 20 regular units in each State, a very interesting program. Lots of human nature and much satisfaction in seeing things develop and bear fruit.

L.T.W. Ball
John C. Ball
from Ball

✓ the North Thompson River within 80
miles north of Kamloops, all that
is, of the last set or your list
✓ (nos. 2300-2575) which were found within
twenty miles or so of Kamloops & the
hills to the northwest.

If you need help locating
the stations for previous lots write
me rather than wasting your own time.
I can easily give you coordinates for
any list of localities you care to send
me. Any ideas on the significance
of the distribution which you say
ultimately develops will be of the
keenest interest to me.

I stand very late on the B.C.
coast this winter, waiting for winter
wildfowl etc., - hence my delay
in writing you. I hope your new
position may prove interesting and
inspiring, - yet not keep you too much

2593 h.S.B.

University
Berkeley, California
Jan 8, 1935

Dear Mr. Bull,

I am much more
appreciative than ~~of~~ my slow reply
would indicate of your letter of
Oct. 9 and the accompanying list of
my spring (1935) collection of
willows.

I fear you won't find it easy
to locate the stations, though easier
for this than for previous lots,
since almost all were taken along

(See over)

Extension Service, U.S.D.A.

June 24, 1938

Mr. Thomas T. McCabe,
Department of Zoology,
University of California,
Berkeley, California.

Dear Mr. McCabe:

I have just received, through the Dept. of Botany of the University, the willows you collected in British Columbia and Alberta in 1937. These were sent for identification, and I am returning them to the University.

I greatly appreciate your full notes on habitat, relative abundance, and ecologic relationships. They are very helpful to me in understanding the appearance of some of the specimens. For example, you noted that some of the specimens of *S. brachycarpa* Nutt. were shaded by larger willows (See 5049, 5146). These have much narrower and also smaller leaves than normal plants bear. These are the known effects of shade but some other plants show similar reactions, as 5314 which apparently grew under some other unfavorable conditions.

I am especially interested in No. 4464, which I have determined as "near *S. mackenziana* var. *macrocarpa* Ball. Your specimen has strongly pruinose branchlets. I have one other specimen which has a faint bluish bloom, especially on the bud scales. Your specimen also has the leaves green beneath, whereas in the species and variety they normally are glaucous beneath. Artificial drying (by electricity) often destroys the glaucous but your other specimens show no such change and I infer that you dried in ordinary presses. The leaves of your specimen also are somewhat more acuminate than usual.

One note which seems almost unbelievable is that accompanying No. 5253, *S. "glaucops"* And., where you say: "Tree rarely over 30 ft. high". It would seem to me that 10 feet would be the maximum height attained by this and related species, and that only at lower elevations. However, we have to readjust our statements on the height of many species through the years and maybe this one must be readjusted also.

Should you come this way at any time I trust that you will not fail to look me up. When Dr. Rudolph M. Anderson of the National Museum of Canada was here a few weeks ago I spoke of you to him and he was much interested in your work.

With best wishes, I am
Cordially Yours,

Copy of the list of determinations is inclosed.

Carleton R. Ball
Executive Secretary

Address:

Extension Service, U.S.D.A.

August 27, 1938

Dr. Arthur C. McFarlan,
Dept. of Geology, University
of Kentucky, Lexington, Ky.

Dear Dr. McFarlan:

Your plaint on editorial license in a recent issue of Science (88:146) awakens a very sympathetic chord in me. I have been a writer (some 130 papers) and also an editor (Jour. Amer. Soc. Agroh.; Plant Phys.; Biological Abstracts), during most of my scientific career. I think, therefore, that I can see both sides. I agree wholly with you.

Your experience, I take it, is with a privately published journal. I have just had one with the University Press of one of our largest Universities (State).

I submitted a manuscript for a two-volume work on Administrative Relationships in Agriculture, covering the development and status of cooperative activities at all levels of government, Federal, State, District, County, and City. As I left the University at that time, it was agreed that editing should be confined to correction of apparent errors and deletion of any superfluous words, in the interest of brevity. For example, if I had written "Those who were charged with . . .", it was permissible to shorten the phrase to read, "Those charged with . . .".

When I received galley proof of the two volumes (all at once), I was horrified to find that there had been wholesale reproofing and change. A careful and exceedingly tedious proof reading disclosed the following:

1. Author and typist errors in spelling and grammar generally had not been corrected. I had not seen part of manuscript after final typing.
2. The editor had introduced a larger number of such errors than had remained in the manuscript as submitted.
3. The editor had violent phobias against certain words and deleted them regularly. But the word consistently deleted in an early chapter oftentimes was approved as consistently in a later chapter.
4. One of the phobias, for example, was against the terms "issued" and "published", used to denote presentation of papers in print. He preferred a series of phrased, all based on the verb "put". There were some dozen phrases in this series, including "put out", "put through", "put into print", etc. These were used some hundreds of times.
5. The larger part of the changes made resulted in elongating rather than shortening the text, although the latter was given as the reason for making changes.

6. Wholesale rewriting took place at irregularly spaced intervals, and involved from one to three or four pages at a time. This rewriting introduced many errors of grammar, numerous errors of fact, and endless ambiguities of rhetoric. I surmise, though I do not know, that each morning he started in to write everything in his own style and language. As the day progressed he became tired, or indifferent, or possibly somewhat alarmed at the extent of his changes, and gradually desisted.

I could go on for pages detailing the varied forms of atrocity perpetrated. However, I think you can guess the extent of the disaster.

After reading the first chapter, I protested vigorously to the editor-in-chief. He admitted much but attempted to justify part of the changes. He agreed, however, to make it all to my liking in the page proof. It took me three months of the hardest grind to get the job finished. It cost the University Press between \$1000 and \$2000 to make the corrections, as near as I can estimate. The text still is not as good as the original because I tried to make my changes correspond in length to what I had to delete, and thus avoid resetting of entire paragraphs.

When I protested the employment of an obviously untrained editor, I was told that he was unknown to the Press, but highly recommended. Later, the Manager of the Press assured me that he was highly trained, and had a Ph. D. in English. (italics mine).

The whole problem seems to resolve itself into a matter of personnel and personalities rather than one of rights or principles. And the author, of course, always will remain the innocent victim of these personalities.

This letter is not for publication ("putting into print"), or for any public use, but just the wail of one harassed author to another.

Cordially Yours,

Carleton R. Ball
Executive Secretary

P.S. Dean Thos. P. Cooper of the College of Agriculture is the Chairman of the Coordinating Committee I serve.

UNIVERSITY



OF KENTUCKY

COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF BOTANY

LEXINGTON

May 1, 1941

Dr. Carlton R. Ball
Washington, D.C.

Dear Dr. Ball:

I wish you would send me your reprint on the willows of the Southern States. Dr. McFarland did not give me one of those you sent him.

I am sorry to have missed seeing you when you were in our town a few days and I was especially sorry after Mr. Shacklette told me of how much he enjoyed being with you. You were an inspiration to him. Any time you are in our town we want to see you.

Thanking you in advance for the separate, I am,

yours truly
B. B. McInteer

Stuart A. Mace
1206 Broad St.
Grinnell, Iowa
May 19, 1940

Dr. Carlton R. Ball
Extension Service
U.S. Dept. of Agri.
Washington D.C.

Dear Sir:

It has come to my attention in the Supplement to the Taxonomic Index that you are eager to obtain all of the high-country *Salix* of Mexico. I am going as climbing companion on the Melzer Climbing Expedition to Mexico. Our purpose being to climb the seven great peaks of Mexico.

I am a botany major here at Grinnell under Dr. H.S. Conard. My summer work has been mountain climbing. I plan to collect plants for several of the large herbaria this summer so that I may have sufficient funds to complete my senior year in college here next year.

I have had no special study on willows, but feel that with just a little study on the subject, coupled with the practical field work I have had, that I could pick up for you all the available material from eastern to western Mexico, for we plan to climb as far east as Orizaba, and as far west as Colima. Our other climbs will be Malinche, Perote "Ixti", "Popo", and Toluca.

I don't know whether you care to pay for specimens. However, I would have to get something for the plants, not because I believe in commercialism, but because I am faced with the problem of finishing school. If you are interested, please write me soon, giving as much information as will be necessary to intelligent gathering of the material you want.

Very sincerely yours,

Stuart Mace

Stuart A. Mace

*S. paradoxa, S. Pringlei, S.
S. mexicana & S. lasiophylla*

Look up.

*S. singularis
S. nivalis, S. retic, S. sarimont, S. petrophila
S. glaucops, S. pseudolappaceum, S. wolfii
S. taxifolia
S. Gooddingii, jaliscana laevigata*

Mexico

May 22, 1940

Mr. Stuart A. Mace,
1206 Broad Street,
Grinnell, Iowa.

Dear Mr. Mace:

Your letter of May 19 is here and I thank you for writing me. I am delighted to know that you are to be on a mountain climbing expedition in Mexico this summer.

I will be glad indeed to pay for willow specimens collected. I assume that you will have a definite charge per specimen for general collections and I would expect to pay more for a special collection.

It is a little difficult to know just what to tell you with reference to material but it seems that looking up the same or related species in the Grinnell College Herbarium would be a good start. If my memory serves me, I named the willows in that Herbarium some years ago for Dr. Conard. As I was not familiar with the critical Mexican material at that time, I may not have named it but can give you reference to the names under which it was distributed. As you may find opportunity to collect some lowland species, I am giving some notes on them also. We do not know to what elevations these lowland species extend and you may find some of them several thousand feet up in the mountains.

The mountain species in which I am especially interested are *S. paradoxa*, *S. Pringlei*, *S. Rowleyi*, and *S. cana*. The material in American herbariums is variable and probably represents different varieties and perhaps some other species. If you do not find material under any or all of these names in the Grinnell Herbarium, take a good look at our native *S. discolor* and *S. humilis*. These will give you a general idea of what those Mexican mountain forms look like.

↑ some of

mace May 22 1940

- 2 -

Other species which may run pretty well into the mountains are *S. lasiolepis* and *S. Mexicana*. There probably is material of *S. lasiolepis* in your Herbarium and *S. Mexicana* differs chiefly in sharply serrate leaf margins. If you do not find Herbarium material of either, they have oblong, oblanceolate leaves.

There are some low, shrubby willows of high elevations in our southern Rocky Mountains which may be discovered in Mexico but have not yet been reported. If you will look in the Grinnell Herbarium at *S. glaucops* and *S. pseudolapponum* with hairy capsules, and *S. Wolfii* and *S. pseudomyrsinites* (*S. pseudocordata*) with glabrous capsules, you will get an idea of some of these mountain forms. You might look at *S. brachycarpa* and *S. planifolia* and varieties also. Remember that none of these ever has been reported from Mexico but that does not prove that they are not there. There are some prostrate, creeping species in our high western mountains which also may be discovered under similar conditions in Mexico. Look in the Herbarium for *S. nivilis*, *S. reticulata*, *S. saximontana*, and *S. petrophila*. These will be found among low growing grasses and sedges in rocky places near small streams at very high elevations, if at all.

Other lowland species which you may find are *S. Gooddingii* (similar to our *S. nigra*), *S. jaliscana*, and *S. laevigata* (related to our *S. amygdaloides* but with longer, slenderer and thicker leaves) and *S. taxifolia*, a sandbar willow related to our *S. interior* but with much smaller leaves. You may find most of these in the Grinnell Herbarium.

Many of the species may be past flowering and even past fruiting when you get them. Oftentimes old catkins can be picked up among the leaves under these shrubs or occasionally found caught in the crotches of branches or in cobwebs. Such material helps greatly although all species can be determined without flowers or fruit.

If in doubt whether a vegetative specimen is a willow, examination of the bud scales may help. The willows have a single scale inclosing each bud. Most other trees and shrubs have several imbricated or overlapping scales.

I trust that these notes may be of some interest and service to you and will be glad to hear from you again if there is other information that I can give.

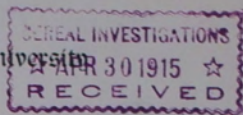
Cordially yours,

Carleton R. Ball,
Executive Secretary

Gray Herbarium



Harvard University



B. L. ROBINSON, Curator

CAMBRIDGE, MASSACHUSETTS, U. S. A.

Dr. C. R. Ball,
Washington, D.C.
Dear Sir,

April 29, 1915.

At Prof. Fernald's request I am sending you
the material you ask for in your letter of the 23rd
inst.

After a careful search we have concluded
that we do not ~~have~~ have the Currier specimen
from western Oregon. You will note among the
specimens one by E. Hall.

Very sincerely yours,

Francis Macbride

THE NEW YORK BOTANICAL GARDEN

BRONX PARK (FORDHAM BRANCH P. O.)

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TREASURER
ARTHUR M. ANDERSON

DIRECTOR
WILLIAM J. ROBBINS

December 7, 1943.

Dear Dr. Ball

Thanks so much for your
generous sendings of interesting
reprints. It is good of you to
keep me in mind.

I hope that all of your
work is progressing as you
want it to.

Sincerely yours,

Barrett Mahan

Platt, R. + A. J. Boucot Can. East + Gre.

Dr. Bassett Maguire,
Curator of the Herbarium,
N. Y. Botanical Garden, Bronx Park,
New York 58, N.Y.

3814 Jocelyn St., N.W.,
Washington 15, D.C.

12 August, 1950.

Dear DR. Maguire:

On 13 July, I reported to you the determinations of the six Platt-Boucot willows, 3 from Labrador and 3 from Greenland. Here is an appendix (which ought to be removed).

Yesterday, I was studying Fernald's treatment of the Section Phyllicifoliae, in which he has created *S. paraleuca*, *S. pedunculata*, *S. stenocarpa*, and others. The only one of these I have recognized is *S. pedunculata*, in which the aments are quite distinctly bracted-peduncled. I checked back on the No. 19 in the Platt list, which I had determined as *S. planifolia*, the basic member of the Section.

No. 19 is extremely juvenile, the leaves just coming out of bud and the aments not yet in flower. In spite of their youth, however, the peduncles are 7-8 mm. long already and undoubtedly would have elongated farther as development of the ament progressed. I therefore conclude that it really represents *S. pedunculata* Fernald. Whether that is a good species or only a pedunculate-amented variety, I shall not try to determine now.

out
In laying out the 5 specimens, which you so kindly told me I could keep, for mounting, I discovered that the two small specimens in 313 were not alike. Why I did not discover that when I made the original determination, I do not know now. One has larger leaves glabrous or glabrate (and which should become completely glabrous in maturity, and the young twigs pruinose. It was this I named *S. anglorum* Cnam.

The other (and smaller) specimen has the leaves less veiny, quite pubescent, especially above, and decidedly smaller. This is *S. cordifolia* Pursh, var. *Macounii* (Rydb.) Schn. same as No. 37) or possibly a hybrid with *S. anglorum*. The aments on both these portions, which I have designated as 313 A and 313 B, are very depauperate and it may be that both are hybrids. We know that only those hybrids are fertile which are closest to one of the parents.

If you do not have specimens of both these in your material of 313, you will wish the missing one, and perhaps both, returned to the Graden Herbarium, and I will be glad to send them. I inclose one typical leaf of each which will let you determine what you have there, I think, but if not I'll return it all.

Sorry to make you so much botheration.

Cordially yours,

Inclosure

Carleton R. Ball

Ministerialdirigent Maier-Bode

im ~~XXX~~ Ministerium

für

Ernährung, Landwirtschaft u. Forsten

des Landes Nordrhein-Westfalen

(22a) Düsseldorf, den 4. August
Ross-Strasse 135

194 9

Maier-Bode, F.W.

Herrn

Dr. Charleton R. Ball
3814 Gocelyn Street, N.W.
Washington, D.C.
=====

Sehr geehrter Herr Dr. Ball !

Herr Dr. Hetzer hat mir freundlicherweise geschrieben, dass in der Zeitschrift "Scientific Monthly" ein Artikel mit der Überschrift "The Willows : Helpers of Man" von Ihnen erschienen ist. Sie haben sich liebenswürdigerweise bereit erklärt, mir von diesem Artikel, der mich ausserordentlich interessiert, ein Exemplar zu übersenden. Ich wäre Ihnen sehr zu Dank verbunden, wenn Sie die Absicht wahr machen könnten.

Mit freundlichen Grüßen und bestem Dank bin ich

Ihr ergebener

Maier-Bode

*2 copies sent
8 Sept 1949*

F. W. MAIER - BODE

Ministerialdirigent im Ministerium für
Ernährung und Landwirtschaft, Düsseldorf

⊗ DÜSSELDORF, den

7. Oktober 1949

~~XXXXXXXXXX~~

Ross-Str. 135

(Privat: ⊗ Leverkusen-Schleibach, Saarstraße 4a, Telefon Leverkusen 1436)

Herrn

Carleton R. Ball
3814 Jocelyn St. N.W.
Washington 15, D.C.
=====

- U.S.A. -

Sehr geehrter Herr Ball !

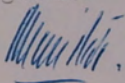
Digitized by Hunt Institute for Botanical Documentation

Ich danke Ihnen bestens für die freundliche
Übersendung der Sonderdrucke über den Weidenanbau.
Die Unterlagen interessieren uns sehr, da auch bei
uns der Anbau eine erhebliche Rolle spielt.

Sollten Sie irgendwelche Wünsche über Litera-
tur aus Deutschland haben, so will ich gerne ver-
suchen, diesen nachzukommen.

Mit freundlichen Grüßen bin ich

Ihr ergebener



BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Oxford Street
Cambridge 38, Massachusetts
August 23, 1949

Dr. Carleton R. Ball
3814 Jocelyn St., N. W.
Washington 15, D. C.

Dear Dr. Ball:

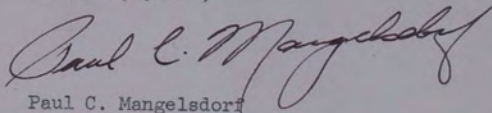
Thank you very much indeed for your letter of August 3 and for the generous comments and critical suggestions included in it.

I realize that I am prone to make somewhat dogmatic statements in connection with my conclusions and you are not the first who has criticized me for this. On the other hand, I have, also, been criticized for surrounding my conclusions with too many qualifying statements in areas where a high degree of uncertainty still exists.

Although we would like to believe that science deals exclusively with facts rather than with opinions, there is no doubt that many aspects of the problem of the origin of maize involve matters of judgment and opinion rather than of clearly established fact. For example, after working with teosinte and teosinte hybrids for more than twenty years, I am convinced that the earliest Bat Cave maize is not a teosinte derivative. This conviction is admittedly a matter of personal judgment and opinion and could be completely wrong. I feel, however, that the reader is entitled to have my opinion on this point even though it means "sticking my neck out" and possibly being compelled to make modifications or retractions later. It is only, I think, by a free exchange of facts and opinions that we can make advances in the solution of problems of this kind.

I shall look forward to receiving the copy of your paper on "Willows Helpers of Man". This should be a useful addition to the literature used in connection with my course in "Plants and Human Affairs".

Sincerely yours,



Paul C. Mangelsdorf

(See over)

3914 Jocelyn St., N.W., Washington 15, D.C.

Dear Dr. Hengelsdorf:

13 Sept., 1949

In regard to your letter of August 25, I am likely to be too critical in what I write, altho I did not so intend. What I had in mind was that if teosinte had intruded into those Zen strains at an period, it might easily have done so at still earlier periods, not yet discovered. And, if so, evidence of the actual origin of maize, by hybridity or by evolution, may yet come to light.

Your copy of reprints was sent to Dr. E.D. Merrill, with others for distribution. He wrote me that all would be distributed, so suppose you got them finally.

Cordially yours,

Carlson R. Ball

Digitized by Hunt Institute for Botanical Documentation

January 9, 1955.

Dr. Carleton R. Ball,
3814 Jocelyn St., N.W.
Washington 15, D.C.

Dear Dr. Ball:

Down thru the years I have been getting together a set of Oregon Tree Photographs towards a little book on the Trees of Oregon.

Said book being primarily intended for the 'Man in the Street' as well as for the small boy.

How to handle the Willows posed quite some problem. (Nobody knows anything about the Willows anyway. But the interesting thing is we find them scattered all over Oregon)

So I finally decided why not a Willow photograph taken at sea level. This I have. Then one from as near the geographical center of the state as possible. This I should be able to get without too much trouble, myself. Then last a photograph of a little Dwarf Willow away up above, or near timberline: to show that we find the Willows growing under all kinds of conditions.

I was wondering if you yourself might have, or if you might know of someone who might have, or if you might know of some one might be able to get for me a cute photograph of one of the little Dwarf Willows growing there at, or above, timberline?

(I probably will have to eventually get my own photograph) I thought maybe as an recognized authority on the Willows you might be able to help me out.

Dr. Morton E. Peck, 1552 Court Street, Salem, Oregon, gave me your address. He is a close neighbor of mine, living just about two blocks due north of me. You might say that the Matthews family and the Peck family have been acquainted since along about 1908 or 1909.

Thanking for whatever information you might have to offer, I am

Yours truly,

Oliver V. Matthews

Dr. Peck is feeling much better. He has a bad case of arthritis. But lately, his wife informs me, he has been taking a certain medicine which has helped out wonderfully.

About March 12th 1956, he should celebrate his 85th birthday.

Also in years past I had the good fortune to met and get acquainted with the late Contant Havens Robinson, 36 Eucalyptus Road, Berkely, California. I certainly was sorry to learn of his passing. We all miss him very much.

Mr. Oliver V. Matthews,
220 South 15th. St., Salem, Oregon.

3814 Jocelyn St., N.W.
Washington 15, D.C.

Dear Mr. Matthews:

2 November, 1956.

I owe you 1,000 apologies. I have just discovered your interesting letter of Jan. 9, 1955, attached to another letter in the files, and certainly unanswered. Such carelessness and neglect seem almost impossible but it certainly has occurred.

I am much interested in the publication you were preparing, with pictures of Oregon plants. I trust that you have gone ahead with it and finished the job in the nearly two years since you asked my help.

I have no pictures (photos) of the Oregon willows of high elevations. Here are some of the men who may have such pictures, or know other who have, in case you still are in need of them.

Dr. Wm. H. Baker, Dept. Botany, Univ. of Idaho, Moscow. Has collected in Oregon.

Dr. Lincoln Constance, Dept. of Botany, Univ. of California, Berkeley 4. He collected in Oregon some years ago, while stationed in Washn.

Dr. Ray J. Davis, Dept. Botany, Idaho State College, Pocatello, Idaho. He is author of the recent Flora of Idaho, for which I did the willows, and may have pictures taken in Idaho.

Dr. Albert N. Steward, Oregon State College, Corvallis, who has collected widely in Oregon. He may know students who have pictures.

The Dept. of Botany at the University of Oregon, Eugene, may have such pictures, or know of some student who has them. I have determined no willows for for any one there in recent years, and do not know who heads the Dept. of Botany there now.

I have named willows collected in Oregon in past years by several other botanists from various States, but they have passed on since, so I do not give their names.

Again regretting that I did not give you prompt help when you made your request, I am, Cordially yours,

Carleton R. Ball

P.S. Many thanks for the information regarding Dr. Morton Peck. Please give him my best wishes. He was about 1/2 two years ahead of me.

Dr. Peck is feeling much better. He has a bad case of arthritis. But lately, his wife informs me, he has been taking a certain medicine which has helped him considerably.

About March 1956, he should celebrate his 83rd birthday.

Also in years past I had the good fortune to meet and get acquainted with the late Constant Mervin Robinson, 26 Rockledge Road, Berkeley, California. I certainly was sorry to learn of his passing. He left me very much.

Oliver V. Matthews
220 ~~15~~ STREET, SE.
SALEM, OREGON
September 1, 1959.

Dr. Carleton R. Ball,
3814 Jocelyn Street, N.W.
Washington 15, DC.

Dear Dr. Ball:

This is in reply to your "1,004 apologies" letter of November 2, 1956, (Some few years ago) Which in turn was in-reply to my letter of January 9, 1955 (Almost some 22 months previous) Asking about where one might get a "photograph of a little dwarf willow away up above, or near timberline:"

I wish to say at this very late date that your humble servant has at last thru his own photography, - and the transportation (and kick in the pants) furnished by a very good friend, obtained a fair photo. Which for the time being will have to do. Namely, a clump of ---- WILLOW taken near timberline, on the south slope of Mt. Hood, below the 7000 elevation, to the east of the upper Ski Lift, etc.

"Digging out" the identification myself, then getting Prof. Peck to verify same..I figure my willow to be:-

Salix commutata Bebb.

My reason for wrting is this:

In the naming of this willow away back in 1888 just what did Bebb mean by "commutata?" (That is what did he have in mind?)

Peck calls it "variable Willow" (See page 228 of his manual) *use it*

Jepson I understand calls it "Mountain Willow"

Kirkwood calls it "Greenbacked Willow" (Page 75 N.R.M. Trees & Shrubs)

But Abrams doesn't give it any common name.

Your good friend Prof. Peck is still holding on. He was to get the "go signal" on his Revision Aug. First. But when I las saw him not too long ago, no word from the printers as yet. Mrs. Peck is as good hearted as ever.

Your humble servant is plugging away still at his "Oregon Woods" Here for some weeks I felt terribly depressed over the passing of some near friends, but I finally came out of it, ETC.

Hoping that this still finds you able to sit up and take nourishment, I am

Yours truly,

Oliver V. Matthews

In other words:-

What would be a good common name for this willow?

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

ADDRESS REPLY TO
THE FORESTER
AND REFER TO



WASHINGTON

PC
Forestry Extension
Tree Guide-Minnesota

July 18, 1930.

Dr. C. R. Ball,
3814 Jocelyn Street, N.W.,
Washington, D. C.

Dear Doctor Ball:

Enclosed is a draft of a description of the willows of Minnesota as prepared for use in a popular forest tree guide. I wish to express my appreciation of your helpfulness in the preparation of these notes, and shall welcome any comment and suggestions that you may have to offer.

Very sincerely yours,

W. R. Mattoon

Enclôsure.

W. R. Mattoon,
Extension Forester.

(See over)

3314 Jocelyn St. N.W.
Washington D.C.

July 19, 1930.

Mr. W.R. Mattoon,
Extension Forester,
U.S. Forest Service, City.

Dear Mr. Mattoon:

I am returning herein the descriptive notes on the tree willows of Minnesota, received with yours of the 18th. I have made several annotations which you may use or reject as preferred.

My notes regarding relative time of flowering and leaving apply to Minnesota willows as a whole. these four tree species all fall into the second class: flowers appearing with the leaves,

Very sincerely,

Carleton R. Ball.



FOREST SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

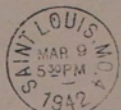


BUY
DEFENSE SAVINGS
BONDS AND STAMPS



U.S.D.A.
THIS SIDE OF CARD IS FOR ADDRESS

Dr. C. R. Ball
Extension Service
U.S.D.A.
Washington, D.C.



BUY
DEFENSE SAVINGS
BONDS AND STAMPS



THIS SIDE OF CARD IS FOR ADDRESS

Dr. C. R. Ball
Extension Service
U.S.D.A.
Washington, D.C.

St. Louis, Mo.
March 5, 1942

Dear Dr. Ball:

You wondered if I had any information concerning the extent of *Salix arctica* on the Olympic Peninsula of Washington. My no. 1580 from Lake Constance was a particularly large plant. I should say it had a diameter or spread of 5 ft. and a main stem 2" in diameter. At the time I remember that I was quite excited over its large proportions. Sincerely, J. G. Meyer. Mo. Bot. Gard.

St. Louis, Mo.
March 9, 1942

Dear Dr. Ball:

I'm glad you wrote, as the information that you need is important. The *S. arctica* was growing in sandy soil on rocks and as far as I remember they were entirely prostrate, merely resting & sprawling on the ground. Of course, this information is only from recollections, and some time again when I am in the Olympic Mts. I will take accurate data for you. Sincerely, J. G. Meyer

Program Planning Division

January 18, 1936

Mrs. Vanez Mexia,
C/ Consul Americana,
Santiago, Chile.

My dear Mrs. Mexia:

It was very nice of you to remember me with a Christmas card, and especially with one carrying the photograph of a willow. So far as I can judge by the picture it represents some variety of *S. Humboldtiana*.

I hope that you are having an enjoyable and successful journey and with the usual number of interesting and thrilling episodes and adventures. Beside that you have the pleasure and satisfactions of finding things wanted and thereby proving yourself a very useful person. What more can life give?

I see many Californians here, including some from Berkeley, but not many in botanical lines. Dr. Satchell stopped here on his way back from the Botanical Congress and other wanderings in Europe, but, as luck would have it, I was in the South at the time and missed him entirely. I felt greatly disappointed, as I had been looking forward to a good visit with him.

Have had very little time for willows since my return. Have been able to keep up with the determinations of material received, but not very much more. However, I took advantage of the fact that the Department was ordering a lot of standard steel herbarium cases and ordered four for myself in the same shipment. My herbarium therefore is much better housed than before and it is a joy to have it so, as insects are much more troublesome here than in California. I have it in my office now, which is very handy also.

When you come back I suppose you will drift into Washington sooner or later and Mrs. Balla and I will be delighted to see you. We are back in our own house and enjoying it very much.

You may have heard that Dr. Hitchcock, who was Mrs. Chase's superior in the grass herbarium, died on the ship in returning from Europe after the botanical meetings. I don't know much of botanists but suppose you get that through Mrs. Bracelin and others.

With many happy memories of past associations, and best wishes for your pleasant journeyings and safe return, I am

Most cordially (Q. b. s. m.)

Carlson R. Ball
Exec. Secy., Coordinating Committee
U.S.D.A., T.V.A., and Land-Grant Colleges.

Field Columbian Museum
Chicago

DEPARTMENT OF BOTANY
CHAS. F. MILLSPAUGH, CURATOR

from C. F. Millspaugh
RECEIVED
★ APR 25 1905 ★
Office of the Agrostologist
ANSWERED
★ MAY 1 1905 ★
Office of the Agrostologist

Apr. 21. 1905

My dear Mr. Ball:-

I have at last had the opportunity to go over Britton's Salix monticola sheets. I find that he had a number of sheets of S. Barclayi including a bit of the type and a tracing of the whole type sheet. All his sheets are Alaskan, no Rocky Mountain representatives of the species. I have no specimen of Rydberg's S. pauciphylla.

Britton's S. monticola sheets agree fully with the thimbleberries, and are all fruiting specimens, none sterile, they are as follows:

- (1) Colorado. Patterson 1885 Mountainsides near Georgetown.
- (2) Macoun #40 & 41 4/7/1891 Carr Avenue, Banff R.M.
- (3) Hall and Harbour Rocky Mts. #4. 1862
- (4) Danson Old Mans River R.M. Aug 4. 1863

(5) Rose. N.W. Wyoming #357 at Camp 18
Hodge Pole Creek 9/2/1893

(6) Porter, Denver, Colo. Tex. July 13-15. 1892

Should it be within my power to
throw further light upon the matter
please command me

Very truly yours

C. H. Muhlbaum.

The American Midland Naturalist

FOUNDED BY J. A. NIEUWLAND, C.S.C.

University of Notre Dame
Notre Dame, Indiana

JOHN D. MIZELLE, EDITOR

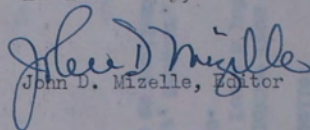
February 21, 1951

Dr. Carleton R. Ball
3814 Jocelyn St., N.W.
Washington 15, D. C.

Dear Dr. Ball:

Many thanks for your recent letter and the points concerned with Dr. Davis' Flora of Idaho. I am indeed sorry that he is having difficulty finding a publisher, but I am happy that your paper is protected by prior publication.

Most cordially,


John D. Mizelle, Editor

JDM:rh

(See over)

3314 Jocelyn St., N.Y.

Washington 15, D. C.

Dear Dr. Misselle:

22 March. 1951.

A recent letter from Prof. Davis in Idaho tells me that he has found a publisher, he (Davis) to pay initial expenses.

Obviously, however, the volume will not be out for some months at earliest.

Cordially yours

Carleton R. Ball

February 18, 1921

Dr. A. J. Mix,
The University of Kansas,
Department of Botany,
Lawrence, Kansas.

Dear Dr. Mix:

Your letter of February 4 is received and I have given your questions very careful consideration. It is rather difficult to answer them specifically or satisfactorily. I am, however, greatly interested in your problem as for several years I have been advocating a closer relation between the state and endowed universities and our distinctly agricultural institutions, especially the United States Department of Agriculture.

In the first place, it seems desirable to consider the different phases of botanical science in which students may be expected to major in undergraduate and postgraduate studies and determine what relation each phase may bear to the different activities of this and other Bureaus of the Federal Department of Agriculture. In common practice, botany is held to comprise the following phases: 1, Taxonomy, or systematic botany, or plant relationships; 2, Morphology, or plant structure, with its subdivisions, Histology, Cytology, etc.; 3, Physiology, or plant function and reaction, of which Ecology, or plant association and interaction, is an enlargement; and 4, Pathology, or plant diseases. This, of course, is more nearly an economic than a truly scientific classification of the subdivisions of botany because pathology, for instance, has its own problems of taxonomy (mycology), physiology, etc.

1. The opportunities for workers in systematic botany are not numerous in this Department. Considerable work is being done in a systematic study of the grasses by Dr. Hitchcock and his associates, but the appropriation and the demand for workers is very limited. Some systematic study on numerous plants introduced is made by the Office of Foreign Seed and Plant Introduction and the Economic Herbarium in the Office of the Botanist, but here again the number of workers is exceedingly limited. A considerable range of systematic studies is being made on crop plants in which a high degree of botanic ability is required. These studies, however, are made from the horticultural rather than the botanical standpoint, inasmuch as they deal with the numerous forms of cultivated plants and must be interpreted accordingly.

Such studies are in progress in this Office on wheat and oats

especially. A classification of about 200 commercial varieties of American wheats is in manuscript. Considerable systematic work on grasses and the legumes of forage value has been done by Prof. C. V. Piper and his associates in the Office of Forage Crop Investigations and on various vegetables and fruits by the Office of Horticultural and Pomological Investigations. These studies, however, are conducted by the agronomists, agrostologists, horticulturists and pomologists who have been trained to handle these crops from the economic standpoint of culture and improvement. The value of your students in these lines of work would depend considerably on their practical experience with crop plants on the farm and elsewhere. In the forest service, taxonomic studies are under way in the Office of the Dendrologist, who is classifying and describing timber trees, and in the Office of Forest Grazing where systematic studies are in progress on all plants on which cattle, sheep and goats graze and browse.

2. Comparatively little work is done in the Department on comparative morphology of plants apart from what is necessary to adequate description of varieties. In the Forest Products Laboratory of the Forest Service, wood structure is studied rather carefully, I believe. It is quite probable that as our research on crop improvement becomes more and more refined, ~~that~~ histological studies will increase in volume. These probably will be necessary in connection with research on disease resistance, because it is necessary to find out whether such resistance is afforded by chemical, physiological, or structural differences. I believe that this field will enlarge considerably in the future, but at the present it offers comparatively few opportunities except as an adjunct to pathological studies.

3. Physiology including Ecology, or, perhaps, ~~Ecology~~ including Physiology. Here too, the field is future rather than immediately present. The physiological staff of the Department is comparatively small. There is, however, an increasing recognition of the necessity for a better knowledge of physiological ^{aspects} ~~principles~~ of our plants both in health and in disease, especially affected by the various factors in their environments, both above and below the soil surface. In general, the physiology of our crop plants is little known in comparison with the physiology of many wild plants, in spite of the tremendous importance of such crop plants as the cereals, forages, fibers, fruits, and vegetables to the welfare of the human race. This is an extensive and comparatively unworked field in which I believe the next quarter of a century will see remarkable progress made. So far as possible, I would urge that students in the various non-agricultural institutions should use crop plants for their research wherever such plants will supply the material desirable for the purpose in hand. Under present conditions the complete unfamiliarity of the average student, of the non-agricultural institutions, with the

Botany of crop plants makes him less valuable for the Federal service than the student from the Agricultural College with more knowledge of plants, though perhaps less training in the other phases of Botany.

4. It is unnecessary to point out the opportunities for plant pathologists in the present or in the immediate future. The large number of thoroughly trained men engaged and the increasing volume of publications containing the results of their research speak for themselves. Great progress has been made in the study and control of many plant diseases, and so far the work has served equally well to emphasize a greater progress that may be expected to result from still larger appropriations for this line of work. Here, again, I would emphasize the importance of a knowledge of the crop plants for students of plant pathology. However interesting and valuable the study of diseases of wild plants may be, the pathologist will find his most abundant opportunities in working with the diseases of crop plants.

At present the work in plant pathology in this Department is separated along crop-group lines, as cereals, truck crops, forage crops, fruit crops, forest crops, etc.; in addition to which are bacteriological investigations and pathological collections.

I am enclosing an announcement of the examinations for scientific assistants as scheduled by the Civil Service Commission for next April. This will give you an idea of the type of entrance examination for comparatively recent college graduates. Most of the new scientific employees are added from the registers from examinations of this type. When need arises for workers of more training and experience, special examinations are offered. I do not know just what to say in reference to your inquiry about actual opportunities. In years when the departmental appropriations are increased many new employees are added, in years when appropriations are stationary, only enough are added to fill vacancies. For the current fiscal year many of the research offices are on an appropriation reduced from that of last year. For the fiscal year beginning July 1, 1921, our appropriation bill has not yet passed, but it is certain that there will be comparatively few increases in the appropriation. What the immediate future will bring forth is uncertain, but I feel very confident that within a few years there will be considerable increases in appropriations for botanic research in various lines.

I realize that this discussion does not answer your questions adequately, but it may serve as a basis for further and more helpful discussion. I will be glad to know what are the probabilities and prospects that students of botany at non-agricultural institutions will

AJM 4. 2-16-1921

be afforded opportunities to become more familiar with crop plants in their courses, and will be encouraged to use them in their postgraduate research. I shall be glad to do anything I can to assist in helping you to solve the problem you have presented.

Very sincerely yours,

GRB:MMK
Encl.

Cerealist in Charge.

UNIVERSITY OF ARKANSAS
COLLEGE OF ARTS AND SCIENCES
FAYETTEVILLE

DEPARTMENT OF BOTANY

March 25, 1938

Dr. Carleton R. Ball,
3814 Jocelyn Street, N. W.,
Washington, D. C.

Dear Dr. Ball:

From Dr. Lewis M. Turner, now with the Southern Forest Experiment Station in New Orleans, I have received a communication telling of your interest in the ligneous flora of Arkansas. He has sent me a copy of some notations and identifications of willow collections made by Delzie Demaree in 1934 and 1936 in various parts of Arkansas. I am preparing a booklet in which I shall attempt to include all the ligneous plants found in this state out of cultivation. Since Dr. Turner expressed the opinion that you might be quite willing to offer help or suggestions in such matters I am taking the liberty of writing to inquire if you would be willing to check my list of species and varieties before it goes into the final form. I am going to ask Mr. E. J. Palmer of the Arnold Arboretum to look over the material also.

If you feel this might involve too much time, or effort, don't hesitate to say so, as I shall thank you cordially just the same. Thanking you in advance for any help you may offer, I am,

Very truly yours,

Dwight M. Moore
Dwight M. Moore,
Professor of Botany.

DM:DC

(over)

April 5, 1938.

Professor Dwight M. Moore,
Department of Botany,
University of Arkansas,
Fayetteville, Arkansas.

Dear Professor Moore:

Your letter of March 25 was received in my absence from Washington.

I will be very glad to look over what you may write on the willows and will give my best suggestions concerning it.

Under separate cover I am sending my recent paper on the willows of the Southern States. I will be interested to know your reaction to the keys based on vegetative characters, especially if you have opportunity to use it in the field. I want to make usable to the fullest possible extent, and only the suggestions of those who actually use can help me to reach that goal.

Cordially Yours,

Carleton R. Ball
Executive Secretary

Digitized by Hunt Institute for Botanical Documentation



PLANTAGO ARISTEA
MORRIS

MUSEUM OF THE BROOKLYN INSTITUTE OF ARTS AND SCIENCES
EASTERN PARKWAY, BROOKLYN, NEW YORK

Jan. 15, 1909.

Dear Bell:-

Can you tell
from the inclosed card
what the Idaho willow is? I
do not find the name in any
of the lists. When did Bebb
publish the species? Is the
species good?

Fragments inclosed.

Yours truly

E. L. Morris.

E. L. MORRIS
428 EAST 12TH STREET, FLATBUSH
BROOKLYN, NEW YORK

nom. nud. in A. Nels. Publ. Rept on Fl. Wyo.
Wyo Ex St Publ. 28: 179. 1896.
= *S. Geyeriana* And.

(See over)

Jan. 10, 1900

Dear Sir,

I have just

received from the University of California

the following list of plants

which are now in the

herbarium of the University of California

at Berkeley, California

B.
Fr. 46 } Robinson
Cuc 148 }

Digitized by Hunt Institute for Botanical Documentation

H. J. ROBINSON
120 WEST 11TH STREET
NEW YORK

Norman Medium

3814 Jocelyn St., N.W.
Washington 15, D.C.

Dr. Edwin L. Moseley,
Curator of University Herbarium,
Bowling Green, Ohio.

June 29, 1946

Dear Dr. Moseley:

I have just returned from a field trip to find my letter to Science in print, and a considerable fan mail accumulated, including your letter of June 17. I am pleased that so many have written in approval. Usually one gets the opposition first, and most vigorously. But few taxonomists read Science.

Sent
11/13
You may be interested in two other papers, in press. One, entitled "More plant study: Fewer plant names", will appear in the Merrill Memorial volume from Harvard in October. It discusses the various types of normal variation in plants (willows) and gives an illustration of why they should not be names as novelties. The other, entitled "Studying Willows or making new Sections in Salix", will appear in Rhodora next winter. It discusses Dr. Fernald's two new Sections in Salix and shows why, if the related species had been studied, no new sections would have been needed. I expect to have reprints of these papers.

I recall with much pleasure our correspondence regarding willows some years ago.

With all good wishes, I am

Cordially yours,

Carleton R. Ball

November 15, 1933.

Mr. O. J. Murie,
U.S. Bureau of Biological Survey,
Jackson, Wyoming.

Dear Mr. Murie:

As I noted by card recently, The willows came OK. and are a very interesting lot. Some of the material puzzles me a lot, partly because it was different and partly, of course, because it was foliage only or flowers only. But that is part of the fun of the job.

Salix tweedyi (Bebb) Ball is supposed to have the leaves always green beneath. Your nos. 44 and 52 have leaves glaucous beneath but otherwise agree with *tweedyi*, and not with *brachylepis* or *pseudo-monticola*. No. 50 may be the same thing, although it seems to belong rather to *pseudo-monticola*. When I have time I will study all the material carefully. The flowers of *tweedyi* are quite different from those of the other two, the aments being stout and sessile on old wood, and the styles 2 to 3 mm. long.

Without fruit I am puzzled to draw the line between *S. monochroma* Ball and *S. pseudo-cordata* (And.) Rydberg. The extremes are far apart but some expressions of the leaves are very puzzling. The accumulating material will help in the final study.

The whole section *Reticulatae*, to which *S. nivalis* belongs, is quite variable in leaf shape. There seems to be only an arbitrary line between *S. nivalis* and the later *S. saximontana* of Rydberg and Schneider reduces the latter to varietal rank. Your No. 46 varies in the direction of *S. saximontana*, with its larger leaves and catkins.

I am especially grateful for the notes on browsing by elk and moose. Have placed those data on the labels.

Can you give me an approximate elevation for the different localities where these were collected? It will help me a lot in getting the ecology of some of them in mind.

I am dropping a note to Mr. Redington, expressing my appreciation of your helpfulness. Too bad that the official uncertainties interfered with field work, but it might have been worse. We were badly slashed here, and I got two cuts.

Dr. Nelson asked me to revise the Rocky Mtn. willows for his new Manual of that flora. Your collections are helping a lot and any that you may make next year will be in time.

Most cordially yours,

Callerton R. Ball
Research Associate in Government Relations

Moose, Wyo.
Feb. 10, '54

Dear Dr. Ball,

I am ~~not~~ sending a box of willows
to you for identification. The specimens
are all numbered ~~so you see~~ and I have
kept duplicate specimens, so you need
not return any of them. I have sent
a great many duplicates, for which I am
sorry, because of the additional time it
will consume to identify the material.
Should any of the specimens be too
poor or inadequate for quick determination,
please do not spend too much time
on them, for my needs are not that exact.
And there is no hurry about identification.
I do feel guilty sending you so many
specimens, so please do only what you have
time for. I hope there will be something
of interest in the material for you, but I know
you have already seen willows from this locality.

Hurriedly - I am rushed to take some
skiers to town.

Sincerely yours,
Adolph Murrie