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

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

THE STATE COLLEGE OF WASHINGTON
PULLMAN, WASHINGTON

COLLEGE OF SCIENCES AND ARTS

IN REPLYING TO THIS LETTER
PLEASE ADDRESS
THE DEPARTMENT OF BOTANY
STATE COLLEGE OF WASHINGTON
PULLMAN, WASHINGTON

April 27, 1925.

Dr. Carleton R. Ball,
Bureau of Plant Industry,
Dept. of Agriculture,
Washington,
D.C.



Dear Sir,

Let me thank you for your courtesy in sending the notes about the willows near Priest Lake. With my student F.A. Warren, I am planning a Preliminary list of the Plants of the Kanihshen Natl. Forest which includes Priest Lake. For the benefit of the Blitzen River Survey, we will write it in mimeographed temporary form before this summer. Your willow records will help me to make it more complete.

I shall pass on the instructions about the willows to the men who will be there in the field.

I was very glad indeed to get the bunch of reparates, and appreciate your sending them. I have shipped you a bundle of my reparates. Only a few of them touch the willows, however. In my Gulf of St. Lawrence memoirs you will see that I give a different interpretation of Salix adnematophylla Hook.

(See over)

restricting it to the rare Labrador plants, known
only by the Morrison and the Townsend specimens, I
do not consider it the same as *S. rigida* Fernald.

Simiash.

Harold S. Joh.

Assoc. Prof. Botany.

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ROYAL BOTANIC GARDENS,
KEW,
RICHMOND,
SURREY.

All communications should be addressed to
THE DIRECTOR,
quoting the following number :—

D3192/H897/56

27th June, 1956.

Dear Sir,

I would like to thank you most sincerely
for the valuable contribution of 74 specimens sent in
exchange and referred to in your letter of April 26th, Ref.
WAA:pjd. The African material collected by J.T. Baldwin will
be of the greatest importance for the revised edition of the
Flora of West Tropical Africa, the work on which is still
being carried out.

Yours faithfully,

J. E. Salisbury
(Sir Edward Salisbury, Director)

The Curator,
Herbarium, U.S. National Arboretum,
Plant Industry Station,
Beltsville, Maryland,
U.S.A.



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State Museum
Dursey, Colo.

Sept 4, 1924

Dr Carlton A. Ball
Washington, D. C.

My dear Dr Ball:

Your very kind letter
containing the determina-
tions of willow reached
me while out of town.

Tonight I am leaving
again for southwestern
Colorado where I shall
look for more specimens
of *Salix pseudomonticola* v.
Ball.

Thank you for determining
these specimens so promptly
also for the reprints.

Very sincerely yours
Hazel M. Small
Director of Bot. Gch.

Harvard Botanical Museum,
Cambridge, Massachusetts.
March the 12th, 1938.

Dr. Carelton R. Ball,
U. S. Department of Agriculture,
Washington, D.C.

Dear Dr. Ball:

I should appreciate very much receiving a reprint
of your recent paper on "The willows of the southern states"
which appeared in Cactanea, volume 3, number 1, January, 1938.

Thanking you very much in advance, I remain

Very truly yours,

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Richard Evans Schultes
Richard Evans Schultes.

Sent 3/22/38

Write Fern

(See over)

Extension Service, U. S. Dept. Agric., Washington, D.C.
January 8, 1939

Dear Mr. Schultes:

Yesterday I discovered, in a pile of reprints of mine, and envelope addressed to you and containing a copy of my paper on Southern Willows.

On looking up correspondence, I found your letter of March 12, annotated to show that the paper was sent to you on March 22. Evidently it did not get mailed.

Separately, I am sending the paper and regret the delay. If you are interested in other than southern species, I will send other recent publications.

Cordially yours,

Carleton R. Ball

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BOTANICAL MUSEUM OF HARVARD UNIVERSITY

Oxford Street
Cambridge, Massachusetts

January 10, 1939.

Dr. Carleton R. Ball,
U. S. Department of Agriculture,
Washington, DC.

Dear Dr. Ball:

Your card concerning your unavoidable delay in sending me your willow paper arrived today, and I thank you for sending me a copy.

I would appreciate receiving as complete a set of reprints of your articles as possible for my separate library for use in teaching. I should be glad to reciprocate with my publications. I am at present working on Oaxacan plants which I collected last summer.

Sincerely yours,

Richard W. Schultze.

(See over)

Address:

Extension Service, U.S. Dept. Agric.

January 21, 1939

Mr. Richard Evans Schultes,
Botanical Museum of Harvard Univ.,
Oxford St., Cambridge, Mass.

Dear Mr. Schultes:

I have your recent letter and am sending separately a few papers still available for distribution. Sorry that most of them are out of stock. Am not sure that these will be of use in teaching.

You may find my treatment of Pacific Coast species in Abrams' illus. Flora, of Rocky Mtn. species in Coulter and Nelson, and Indiana species in Dam's Trees of Indiana and Shrubs of Indiana to be of some use to you. The latter is illustrated by good photographs.

Cordially Yours,

Carleton R. Bell
Executive Secretary

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

Prof. H. J. Scoggan,
Herbarium, Dept. Botany,
Nat'l. Museum of Canada,
Ottawa, Canada.

July 21, 1947

Dear Professor Scoggan:

When your letter of June 27 arrived I was checking the distribution of various eastern species and varieties of *Salix*. I am not yet finished but I can give you some additional data. As you speak of going to Gray Herbarium later, I send what I now have ready. More may come later.

1. Additions to the Species and Varieties you Listed

I have records of the following from Gaspé Peninsula (Rimouski Co. eastward.)

- S. glaucophylloides* Fern., var. *albovestita* (Ball) Fern.
S. myrtillifolia Anders., var. *brachypoda* Fernald.
S. pellita Andersson, forma *psila* Schneider.
S. rigida Muhl. (*S. cordata* Muhl., not Michx.)
S. rigida Muhl., var. *angustata* (Anders.) Fern.

2. Species and Varieties Which May Occur in the Gaspé Pen.

The following occur not far from the Gaspé Peninsula but I have no records there.

- | | |
|---|---|
| <i>S. caetilis</i> Fernald. | <i>S. petiolaris</i> Smith. |
| <i>S. cryptodonta</i> Fernald. (not very near) | <i>S. planifolia</i> var. <i>Nelsoni</i> Ball |
| <i>S. nigra</i> Marshall, | <i>S. sericea</i> Marshall |
| (<i>S. pedunculata</i> Fernald | <i>S. subsericea</i> (Andersson) Schn. |
| (S. <i>purpurea</i> L. (introduced basket willow) | |

3. Species You List of Which I have no Gaspé Record yet.

- | | |
|--|-------------------------------|
| <i>S. interior</i> Rowlee | <i>S. pedicellaris</i> Pursh. |
| (var. <i>hypoglaucous</i> , too rapidly off hotly dried, loses glaucousness) | |

4. Species in Your List Needing Deletion.

- S. lebecarpa* Fern. Not a species (See *S. Dieckiana* Saksdorf), scarcely a variety.
S. paraluca Fernald. Hybrid of *S. humilis* and (probably) *S. planifolia*.
S. laurentiana Fern. Hybrid of *S. glaucophylloides* and (probably) *S. planifolia*
(Most of the material distributed by Fernald was pure *S. glaucophylloides*
var. *albovestita*, even to glabrous capsules)
S. obtusata Fernald is doubtful. Have not finished study but some of the material is
S. myrtillifolia and poorly dried (deglaucous) var. *brachypoda*.

5. Observations on vars. and forms based on degrees of Hairiness

No species of *Salix* exists which does not exhibit some hairiness, at some stage. the degree and permanence are physiological functions, as in humans. For the first 15 or 20 years of his life, Dr. Fernald had no long hairs on the lower half of his head. Now he does. Is he a new var. *villosa*? During most of his life, he had abundant hair on the top of his head. Now he does not. Is he now var. *abraga*? All of these *abragas*, *denudatas*, *albovestitas*, *mollises*, *pubescences*, *psilas*, *psilophyllas*, etc., and so forth must be considered carefully in relation to the development of the various organs thro the entire year, as well as the age of the perennial organs.

The same species, in full sun and in full shade 10 ft. away, will have different hairiness. Plants growing in hot sand and in cool and grassy alluvium will have different hairiness. Species normally glabrate or glabrate, if defoliated in summer by insects will produce a new growth with leaves densely villous. A twig densely hairy in summer may be completely glabrous by next spring. A twig densely hairy in its first year, often is glabrate in int 2nd year, and glabrous in its third yr. And there you are. It all is relative, not absolute, and must be studied as such (and collected for herbariums).

Cordially yours

OVER

Why did he use *Sarctica* as including *S. anglicum*
does *S. calceola* really occur in *Sarpe*?

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from A.D. Selby
6-7-99

The Ohio Agricultural Experiment Station.

AUGUSTINE D. SELBY, B. SC.,
BOTANIST AND CHEMIST
LLOYD M. BLOOMFIELD, B. AG.,
ASSISTANT CHEMIST.

Wooster, Wayne Co., O., June 5, 1899

My dear Mr Ball:

I am much pleased to hear from you and to learn that you are afield. But this weather in Ohio is just now a slice off the hottest we get. Hope 'tis not hotter there! Fortunately showers are plenty.

I do not of course wish to burden your kindness. But will mail you a package of willows to St Louis - Bot. Gar. - to reach there a short time previous to your expected visit; then if you have time to glance through them I shall be pleased to hear of your preliminary estimates on our Salix: - If not, pass them + I have arrived at doubtful judgments on a good many of them, which perhaps, I may as well state on the temporary labels.

We have willows enough in this region to delight a true salsicologist but of that you can better judge by the material. Possibly I showed you a peculiar speci-

The Ohio Agricultural Experiment Station.

AUGUSTINE D. SELBY, B. SC.,
BOTANIST AND CHEMIST.

LLOYD M. BLOOMFIELD, B. AGR.,
ASSISTANT CHEMIST.

2

Wooster, Wayne Co., O., _____, 189

men of *Lactuca* last winter - One I gathered
on a waste spot by Dayton. He had concluded it
would match well with *L. saligna* L., of Europe
in which inference we are supported by Fer-
nald of Gray Herbarium. It has come to join
its congeners - *L. Scariola*!

My work is extremely varied, though I have
managed to do some collecting. I have been
chasing some microbes and fungi in the
Bot. Laboratory. A heavy undertaking on soil
analysis is perplexing us on the Chemical
side - A new assistant there also does not
make it easier, although he be just the man.

I wish you great success in the collecting
venture - Mrs. Selby is well and joins me
in thanks for kind remembrance.

Very Truly Yours,
A. D. Selby.

Ohio Agricultural Experiment Station.

Department of
Botany and Chemistry.

CHAS. E. THORNE, Director.

J. W. AMES,
Assistant Chemist.
J. F. HICKS,
Assistant Botanist.A. D. SELBY,
Botanist and Chemist.

Wooster, Ohio, 23 December 1904.

My Dear Ball:-

Your two notes and the enclosed labels as well as the package of plants remain without acknowledgment. I am pleased to have them all.

You are too generous however as you had fully met by your earlier sending any plants I had been able to supply you. Nevertheless I greatly appreciate the willows as I shall any I may be able to secure in future.

I am in the midst of bulletin preparation so you may be able to excuse my tardy response.

I had a finer time in Washington and feel like I shall get there often hereafter.

The meetings at Chicago offer a most interesting program for next week and I have some faint hopes I may be able to go.

With the hope you may have a merry, merry Christmas and many Happy New Years I am,
Respectfully,
A. D. Selby,
Prof. C. R. Ball,
Washington D. C.

D. B. 59.

Hochgeehrter Herr!

Ihre gütige Zuschrift vom 6. April, wegen der *Salix sachalinensis* beantworte ich, besten Dankes, sehr gerne.

Dass diese von Drummmond und Willd., von bei Ford Franklin am Mackenzie River gesammelte Weide neuer zum *S. acutifolia* Willd. (= *Willdenowius Herbar. N. 1827*), noch zum *S. acutifolia* Hooker = *S. Mackenziana* Barrat (= *N. J. Anderson Monographia Salicium I, P. 167*) gestellt werden können, darüber haben Sie, wie ich sehe, mit mir die gleiche Ansicht. Auch dürfte mir ich mit Ihnen und Mr. Bock überein, dass ich in meiner *q. Publikation* sage, die Weide scheint der *S. arbuscula* L. nahe zu stehen. Da die *S. arbuscula* L. in der *Nortamerikanischen Flora* durch die *S. arbusculoides* Nutt. (= *N. J. Anderson Monographia Salicium I, P. 174, T. III, Fig. 87*) = *S. humilis* Nutt. (= *De Canville: Bot. nov. 17, 2, P. 278, Sp. 66*) repräsentiert wird,

und, so lag es nahe, dass ich die Hooker'sche
Weite zunächst auf die Zugehörig-
keit zur Pteris-Abt. prüfte. Deren
Anderssein gegebene Diagnose giebt je-
doch, namentlich für die Form und
Form der Blätter, sowie für die Köpfchen
Merkmale an, die auf die vorliegende
Weite so wenig passen, dass ich nicht
magte, diese zur *L. arbusculoides* Abt.
= *L. humilis* Abt. zu legen. Ich glaube,
dass sie hier noch nicht mehr als eine eige-
ne, von *L. arbuscula* Abt. nahe stehende
Abt.: *L. arbusculoides*, aufstellen und
sie in dem oben-Genannten unmittelbar
den hinter *L. arbusculoides* Abt. =
L. humilis Abt. einen Platz an,
welchen zu räumen. Ihre gütigen Zeilen
haben mich nun veranlasst, die
g.g. Weite nochmals im Vergleich mit der
von Mr. Babbage angeführten an-
zusehen (Botanical Gazette, 15, p. 5455)
genauer zu prüfen; ich kann aber

bei' jedoch, so hoch ich auch die Autorität
des ausgezeichneten Naturforschers Mr.
Babbage schätze, zu keiner anderen Ansicht
kommen, als zu der in meiner Publication
(Engl. bot. Jahrbücher XXI, 3, 1895) ange-
sprochenen. Wollte Mr. Babbage auch die
Hooker'sche Weite, trotz ihrer vielfach abwei-
chenden Merkmale zur *L. arbusculoides* Abt. =
L. humilis Abt. legen, so müsste
notwendiger Weise auch die Diagnose für
diese Abt. in der entsprechenden, corres-
pondierenden Form umgeändert werden.
Da dies nicht gescheh, so erscheint es
auch nicht richtig, dass das andere in-
folgte. Ich glaube hierüber den allgemei-
nen Gedanken hervorheben zu dürfen,
dass es für die Bestimmung der Pflanzen
sehr bedenklich sein dürfte, wenn still-
schweigend eine Abt. erweitert wird, ohne
dass die betreffende Diagnose eine
entsprechende Herabsetzung erfährt.

aus

Aus diesem Grunde sehe ich mich
mit besonderer Freude der Veröffentlichung
Abhandlung des Herrn Mr. Balbo's hienüber
lassenen Manuskripts über die eine
islandischen Salices entgegen.

Mit der vorzüglichsten Hoch-
achtung
Ihre ergebene

Abt. von C. J. J. J. J. J.

Amst 5-7-06.

Seemen

KÖNIGL. BOTANISCHES MUSEUM.

Schöneberg-Berlin W.
Grünwaldstr. 6-7.

J. C. C.
1906.

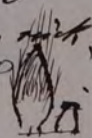
~~Alle Antworten und Sendungen sind
an die „Direktion des Königl.
botan. Gartens und Museums zu
Schöneberg-Berlin“ zu adressieren.~~

Sehr verehrter Herr!

Für die gütigste Bedenkennehmung
des Besonderen danke ich, *Nerleson*
North American Willows; auch
ich verbinde ich, darf ich die
Möglichkeit für die Abbildungen auf
etwas aufmerksam machen?
Sie geben die Zeichnung der Blüthen
nicht so, dass die Deckschuppen noch
deutlich von seitwärts gesehen zu
scheinen;  Hierbei bleibt die
Form sowohl der Deckschuppen als
der Drüsen nicht genügend erkennbar.
Würde es sich nicht empfehlen, diese

beizugeben

beiden Seiten Seite auch nach
vorwärts beziehungsweise nach rück-
wärts gesehen dargestellt.



Wie es scheint, beabsichtigen
Sie noch mehrere Publikationen
folgen zu lassen. Es würde mich
sehr freuen, wenn Sie die Briefe
hätten, mit auch diese ganz
schicken. Campione zu senden,
wäre mir allerdings sehr lieber,
und würde ich in Berlin. Falls
auch gerne bereit sein, mit Ihnen
in einem Auszuge zu treten.

Mit der allerhöchsten Hochachtung

Ihre
Eingeborene
O. von Seemen.

For the friendly sending of your
separate on "Notes on N. G. Willows,
I thank you — May I remark
somewhat upon the illustrations?
You give the drawings of the flowers
so that the scales and glands ap-
pear only as seen from the side.
In this way the form of the scales
as also the gland is not clearly
discernable. Does it not commu-
and itself, to present these 2 floral
organs also from front view (and) from
rear view respectively? It appears
that you contemplate issuing other
publications. It would greatly
please me if you would be
good enough to send me them also.
To receive specimens is always
more desirable to me. ^{and} I would
in this case also gladly be ready
to enter into an exchange with you.
With the highest respect,
Your
O. von Seemen

I see that you agree with me that the *Salix* collected by D. R. at Ft. Franklin etc. can be classed neither with *S. acutifolia* Willd. nor with *S. acutifolia* Hooker etc. I also agree with you & Mr. Bebb that this *salix* seems to be allied to (or resembles) *S. arbuscula*. Since *S. arb.* is represented by *S. arbusculoides* etc. in the flora of N. Am. I examined Hooker's willow to determine whether it belonged to this variety. Anderson's description of the size and form of the leaves and of the catkins is applicable to this willow.

to such a small extent that
I did not dare to classify it with
S. arbusc — and — *S. humillimum*
and, I rather considered it
a distinct species (art) not very
distant from *S. arbuscula* *S.*
thought myself compelled to treat
it as a distinct sp., not very distant
from *S. arbuscula*, and to place it
immediately after *S. arbusculoides*
under the name of *S. saskatch*

Your letter has induced me
to again compare this willow
very carefully with Mr. Bebb's
description in ^{the} Bot. Mag. etc.
still, although I fully recognize
Mr. Bebb as an authority on this
subject, I can come to no other
conclusions than those published

in Engler's bot. Jahrbücher ^{from G. von Seemen}

If Mr. Bebb desired to class
Hooker's willow, ^{with *S. arbusculoides*} in spite of its
different characters it would also
have been necessary ^{in order} to change
the description (diagnosis) to
cover the case but since this
was not done it does not seem
that H's willow was to be classed
with *S. arbusculoides*.

I believe that I may state as
is generally accepted that ^{species} ~~by~~ en-
larging a genus (art) without
making the description cover the
ground is very detrimental to
the classification of plants. For
this reason I am awaiting with in-
terest the publication of the ms. left
by Mr Bebb at the Am. Pacific.

6-4-00

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UNITED STATES OF AMERICA.

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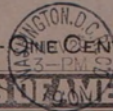
Prof. C. R. Ball,
Div. Agronomy,
U.S. Department Agric.,
Washington D.C.

11-30-07.

POSTAL CARD - ONE CENT.

UNITED STATES OF AMERICA.

THIS SIDE IS FOR THE ADDRESS ONLY.



Prof. C. R. Ball,
Office Agronomist,
U.S. Dept Agriculture,
Washington D.C.

Ohio Agricultural Experiment Station.

CHAS. E. THORNE, Director.

Wooster, Ohio, May 18, 1900.

My Dear Ball:-

If any of the *salix* specimens of last year in the *alba-fragilis* group should need exemplifying by additional materials please let me hear the number and I will look after it. These are now blooming here.

Cordially A. D. Selby

My Dear Ball: Wooster O. 11-28-1901

Thank you for the willows. I estimate them very highly. They arrived in fine condition.

I wish you be joined of Thanksgiving in all that pertains.

Cordially A. D. Selby

Dr. Harold A. Senn,
Division of Botany, Cent. Expt. Farm,
Ottawa, Ontario, Canada.

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

20 May, 1949

Dear Dr. Senn:

Your letter of May 10, in continuation of correspondence with Miss Martin, and the packet of cultivated willows arrived safely. I have finished the determinations (or guesses) and now will list them for inclosure herewith. I say "guesses" advisedly because this was the darnedest mess of hybrids I ever saw in one package. It is even harder to identify hybrids than species from herbarium fragments.

Please don't think I am blaming you or any one else for this condition. Botanists never were taught of the variation on a single plant, such as I have illustrated in recent papers. To really know a plant, we need flowers, and fruits, young leafy mature leaves from fruiting twigs, and mature leaves from summer shoots and autumn sprouts. After we once know the range of variation, we can name plants from these fragments quite accurately. But one never knows hybrid plants because no two ever are alike.

On a field trip, one has to take what is present at the time but, by looking around, several different stages of development usually can be found. But in a nearby arboretum, collections can be made from the same plant, at intervals, if any one is interested. In this collection, there were aments with practically all specimens but almost no fruits. Worse still, most of the aments were not yet fully open and in flower, which made identification more difficult. Why they were collected so early I do not know, but would suggest that it greatly decreases their value to students. If more collections are made, get staminate aments, if possible, in full flower and pistillate aments in early fruit, if only one collection can be made. All of the specimens have leaves and in most cases these were in the best stage of development if but one collection was to be made. A few had only leaves from vigorous shoots or sprouts.

In general, these plants represent the original European craze over hybrids, now prevalent in America. To understand the situation, we need to remember two basic facts (and maybe a few others also).

1. No two hybrid plants, resulting from the crossing of the same two parent species, will be exactly alike in all characters. The more closely related the two parents are, and therefore the fewer the differing characters, the more likelihood that their progeny will resemble each other. The more distantly related the two (or more) parents are, and therefore the greater the number of differing characters, the more certain that no two of the resulting progeny will look alike. Then, too, the fact that crossing permits some recessive (hidden) characters to become dominant (visible) results in characters not present in either parent (transgressive segregation).

2. After European botanists had worked on their native floras for 100 years or so, they ran out of new species and varieties to name. Then they began describing and naming hybrids as new species and varieties, at first not even with an X. Considering the causes of diversity suggested above, it is easy to see what happened. Then nurserymen began to propagate hybrids for sale, under Latin names, with a few adjectives of their own added (elegantissima, superba, gigantea, etc.). Linton (Mon. Brit Willows) recognized 14 species but listed 168 ~~specific~~ names (some doubtless representing hybrids), and included 170 names of designated hybrids besides. He states (p. 400) that about 100 supposed species have been founded on the variations and hybrids of *S. nigricans* alone.

Other

Another complicating feature in the present treatment of hybrids in herbarium ~~in~~^{*} herbarium arises from the almost universal practice ~~of~~ of placing the names of the two parents in alphabetical order, instead of in the order of their visible contribution to the progeny. This results in at least half of the specimens being filed under the species to which they are least related in visible characters.

To make matters worse, some European botanists (Floderus) claim that they can detect the presence of three, four, and even five species in the parentage of the poor herbarium fragments, and name them accordingly. Everyone who has made hybrids in genetic research knows that this is absolutely impossible, but that does not discourage taxonomists. Nothing ever does. You may have seen the willows in the Natl. Herb. of Canada after they came back from Floderus, all named as hybrids.

Please don't get the notion, from all of this palaver, that I regret having had these to name. Far from it. I learned something in the process, as well as getting a good laugh at the fantasies of man. Besides, I have the material to add to my herbarium, for which I am most happy, and thank you accordingly. After I have written the list of determinations with notes, I may add a few postscripts.

Cordially yours,

Carleton R. Ball

P.S. Some names were misspelled on the labels. Some that I recall were "amygladina" (amygdalina); "myricoides" (myricoides); "nigracens" (nigricans), etc.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PLANT INDUSTRY
WASHINGTON

DIVISION OF
FRUIT AND VEGETABLE CROPS AND DISEASES

Box 1066
Riverside, Calif.
Oct 1, 1942.

Dear Dr. Ball,

Have you a copy of your recent
paper "Far western novelties in *Salix*"? If so I would
appreciate your sending me one as I am interested
in western willows and one which I brought to
Riverside from Xochimilco, Mexico., *Salix chilensis* MOL.

Very truly yours,

A. H. Shamel

~~Look up this~~

To Mr.
 Messrs W W
 Salm So Amy
 For West Ind

UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF PLANT INDUSTRY

WASHINGTON

Digitized by Hunt Institute for Botanical Documentation

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890 Lawrence St
Nov. 5, 1931

Dear Dr. Ball.

I was indeed delighted to receive from you some of your willow papers. The extract from Abrams will be particularly useful in our collecting endeavours.

I consider myself as fortunate in having made your acquaintance in the glorious Sierra and ^{by you} having my enthusiasm fired for Willows.

Sincerely

Carl Sharnik

T. H. MACBRIDE
B. SHIMEK
C. W. IRISH, NEVADA
HATTIE J. STIMMEL, -ARTIST
LUCY M. CAVANAGH
ELINOR DUBAL

STATE UNIVERSITY OF IOWA
BOTANY

12-16-98

2-2-99

IOWA CITY, IOWA, Dec. 15 1898.

My Dear Mr. Ball:

At last I sent you a package of Willows. I have been away a part of the Fall term, and have fallen behind with my work. In addition to that difficulty the herbarium side of our building was cold because of the partial failure of our steam plant. All this made it impossible to overhaul an unsorted lot of material which we have here, and in which there are, no doubt, many down willows. It was in the hope of finally getting them out for you that I delayed the package. I sent it at last without some of this unsorted material, - but really I did the very best I could under the circumstances.

Sincerely, B. Shimek

from F. Shreve

CARNEGIE INSTITUTION OF WASHINGTON
DIVISION OF PLANT BIOLOGY
DESERT LABORATORY

BOX 1837, TUCSON, ARIZONA

May 31, 1929.

Mr. S. F. Blake,
Bureau of Plant Industry,
Washington, D. C.

My dear Mr. Blake:

I received your letter of March 29th several weeks ago and the accompanying manuscript on the cactus family for Mr. Tidestrom's prospective Flora of Arizona. I have gone over this with a great deal of interest and am returning it herewith with a number of small additions and changes of wording.

The most important matters in connection with this are the generic divisions and the whole matter of the nomenclature to be used. I am not prepared to argue that all of the new generic subdivisions made by Britton and Rose are good and likely to stand in the literature, neither do I feel that we should go clear back to the nomenclature of Engelmann. I would certainly disapprove of placing all of the segregates of *Cereus* back in that genus and I believe that the division of *Mammillaria* into *Eumammillaria* and *Coryphantha* is helpful. I am not so certain about the desirability of the subdivisions in the genus *Chinocactus*. I feel on the whole, however, that the work of Dr. Rose represents many years of careful study and the latest word that we have had on this family and I feel that his decisions should not be discarded without further careful study and ample justification.

I have suggested the separation of *Opuntia kunzei* from *O. stanleyi* as they have very distinct ranges and habitats as well as distinct characters. I have also suggested a separation of *Opuntia blakeana* from *O. phaeacantha* as the two are amply distinct and somewhat separated in their distributions.

As I have told Mr. Tidestrom and Mr. Joville I do not like the designation of plant distribution in terms of belts without more definite statement of their range and

31-V-29
from F. Shreve
to S. F. Blake

-2-

occurrence. There are relatively few plants which are co-extensive in distribution with any of the great belts or types of vegetation and it would be very helpful to those who are going to use this Flora to have the distribution of each plant stated as specifically as possible, with the mention of some of the localities in which it has actually been collected. I feel that this is applicable to the entire book, although I realize it would be difficult in many cases to make such statements and that they would increase the size of the volume to a slight extent.

Please call Mr. Tidestrom's attention to the fact that there is no *Artemisia* belt in Arizona and that he should not use this term except in citing plants which are at present known only in Utah or Nevada.

I am very glad to have had the opportunity to look over this manuscript and will be glad to do anything else I can to help in connection with it as far as I am able.

Sincerely yours,

Forrest Shreve

Forrest Shreve.

5
Anacostia
Skinner H.T

June 23, 1955

Dr. Carleton R. Ball
3814 Jocelyn Street, Northwest
Washington 15, D. C.

Dear Dr. Ball:

In addition to the comments and suggestions of Dr. Archer may I, on behalf of the entire staff of the National Arboretum, express our appreciation of your generous intent of willing your Salix herbarium to this institution. Such a unique collection will find an honored place in our still-young herbarium and I can assure you that it will be both well cared for and much used.

You are right in believing that Dr. Archer's entire herbarium (exclusive of the mycological collections downstairs and a few miscellaneous cases) is now a part of the National Arboretum. Even the equipment, including the collections, cases, etc., was formally transferred from the Section of Plant Introduction last year.

If our Arboretum budget continues to improve, as we currently expect that it may, there is every likelihood that the herbarium will be housed in a fine modern building on Arboretum property within a very few years.

And now may I furnish a delayed reply to your letter of April 25, addressed to Mr. Morrison with reference to a living Salix collection at the Arboretum.

Unfortunately, with his present residence so far away, I have not yet had an opportunity to discuss this matter with him to learn of his ideas or intentions concerning it. I may say, however, that in the first analysis of our present staff, the idea of a good living collection strikes a favorable response, particularly as a complement to your own herbarium collection and in view of the fact that most living collections of this country are sadly haphazard or inadequate. Unhappily, entirely suitable locations for such a collection do not abound on Arboretum property but we believe that a solution can certainly be found even if annexation of an adjacent strip of Anacostia Park may be involved.

This matter will be kept in mind in current planting studies, and will doubtless be raised with you again as soon as our current preoccupations with road and building construction have somewhat abated. In the meantime, may I thank you for the fine list of possible cooperators with the addition of such names as may occur to you in the future.

Sincerely yours,

Henry T. Skinner
Director

September 25, 1946

Mr. Stanley J. Smith,
Department of Botany,
Cornell University,
Ithaca, New York.

Dear Mr. Smith:

I inclose lists of determinations for the Chagum Co. willows and for the Iceland willows. The Iceland willows will be returned by franked mail tomorrow.

I greatly appreciate your permission to keep some of the Iceland specimens and this I have done in part of the cases. For No. 2178, *S. phylicifolia*, and 2184, *S. glauca*, there were two sheets of each but it took both to make a complete specimen, so I have returned both. This may have happened in other cases also.

Congratulations. You went "a sejerin" in Iceland and brought back a species not previously reported, so far as I knew. *S. brachycarpa* Nutt., var. *Sanseni* Ball is discussed on the determination list. It is a remarkable find, I think, especially as it is not a circum-polar species, and has not been found even in Greenland.

I have made a note about the herbacea-lanata hybrid on the determination list, also. I had received this previously from Palsson and the specimens all look alike, whereas real hybrids usually vary considerably among themselves, unless only one of the variables has been able to reproduce. I have not the time to go further into this now.

Your material of *S. glauca* raises some questions which also must wait a less crowded time. I named the broad-leaved specimen as my var. *Aliceae*, named from Alaskan material. But the plant looks as if it belonged to the *Ovalifoliae* and was related to *S. arctica* and *S. cordifolia*. The latter, in some of its varieties, occurs in Greenland, and the ~~latter is also~~ former is circumpolar. To make matters worse, I re-examined a sheet of *S. glauca* received from Palsson and find that one of the four twigs on it has aments with broad black flower scales, a sign of the *Ovalifoliae*. The scales in the *Glaucae* are yellow or yellowish.

I see that I have made an error above in listing *S. cordifolia* as belonging with *S. arctica* in the *Ovalifoliae*. It was *S. anglicum* I intended to list. It is found in the eastern Arctic of America and might be expected in Iceland. The leaves of your No. 2180, which I have named *S. glauca* var. *Aliceae*, look much like these of *S. cordifolia* var. *intensa* Fern from Labrador.

This will have to wait a bit, however, as I am committed for three State willow write-ups, and for the more difficult Alaska manuscript also. If you have to get this cleared for any special publication please let me know and I will try to get more abundant Iceland material and study it fully. Do you know where there are Iceland specimens in herbariums.

Were you in touch with William F. Palsson, whose address in 1940 was Halldorstadir, Laxardal, via Husevik, Iceland. He collected and sold Iceland specimens and I bought the willows.

Cordially yours,

P.S. Did you use an electric drier?
The leaves of the *S. glauca* specimens are
scarcely glaucous and that condition is

Carleton R. Ball
Collaborator

Mr. Ball:

year 1920

These are the willows
about which I spoke to you over
the phone. They are from the
region of Yreka, California

We shall greatly appreciate having
the names for them.

Paul Standley,
National Museum.

S. lasiolepis Bth. (2 spec)

S. hindsiana " 1

? *S. melanopsideoides* Standleyana.

THE
Academy of Natural Sciences
OF
PHILADELPHIA.
LOGAN SQUARE,

1-29-07.

Philadelphia Jan. 25. 1907

Mr Cilton R. Ball

My dear Sir:-

Some time since
we loaned ^{you} from our Botanical
Dept. some specimens of
Salix as these are now
overdue & we are calling
in our delinquent loans I
must ask that they be re-
turned or else an application
for a renewal of the loan be
forwarded, in case you are
not through with your exami-
nation Very truly yours

Whitmer Stone
Asst Curator Ac. Nat Sci
Phil^a

Stratton,
Dr. Robert Curator,
Herbarium, Research Foundation of the
Oklahoma Agric. & Mech. College,
Stillwater, Okla.

3014 Jocelyn St., N.W.,
Washington 15, D.C.

November 29, 1946

Wyo
Yellowstone
Nat. Park

Dear Dr. Stratton:

Your letter of Nov. 19 came promptly and the packet of willows came yesterday. I have given them immediate attention with the following results. The different species were all mixed in the sheets. I have sorted them out into separate sheet, thisly:

- S. brachycarpa Nuttall (several sheets but specimens varying in habit & leaf-width;
- S. "glauca" Andersson (2 sheets (leaves broader than S. brachycarpa and becoming glabrate.
- S. S. planifolia Ph., var. monica (Bebb) Schm. (2 fragments, quite different in habit and size of leaf)

In accordance with your kind permission, I have kept specimens of the first two but have returned the two fragments of No. 3.

I inclose the two labels you had placed in the package. No specimens of either S. nivalis or S. cascadiensis (S. tenera) were found in this material, so that if they were collected they must still be there in your material.

I note that the labels covered material from Electric Peak, the type locality for S. Dodgeana (which I should have listed in preceding paragraph). Whether the species found in this packet came from Electric Peak, I cannot say. Some of the specimens seemed to be alpine while others could have been from the valley floors, where they all three occur, and reach a meter or more in height.

You will note that the stems of some of the most widely-branching specimens of S. brachycarpa are broken in one to three places. The stems of heavily fruited material break easily but whether it was done in transit or previously, I do not know. The two cardboards showed evidence of having been bent so I have inserted a much stronger one for the return trip.

The packet is ready and will go by franked mail.

Regarding the material in the Oklahoma herbarium, I will be glad to do it, especially as I have just completed the manuscript of Willows of Texas, for Dr. Lundell. Just now, however, I am deluged with the 1946 collections from U.S. and Canada and it will take 6 weeks to clear the decks. Therefore, I suggest that you send them after Jan. 1, 1947.

For local floras and for my monograph, I am trying to work out the ranges quite exactly, something which rarely has been done. Therefore, in listing determined material, I record the county, which always can be found on maps, when needed thereafter. Many specimens are so labeled that it is almost impossible to determine the county, because the locality is some creek, some station or P.O. long since discontinued, or so many miles in some direction from some town, which might put it in any of two or three counties. It will be a great help to me, therefore, if you can run thro the specimens and indicate the county where there could be doubt or difficulty. A Texas example said the specimen was from "Buena Vista, west of Alpine". The only Buena Vista shown in the atlas is far from there.

Separately I send reprint of my "More Plant Study" paper from the Merrill Memorial volume.

Cordially yours,

Carleton R. Ball