



Hunt Institute for Botanical Documentation
5th Floor, Hunt Library
Carnegie Mellon University
4909 Frew Street
Pittsburgh, PA 15213-3890
Telephone: 412-268-2434
Email: huntinst@andrew.cmu.edu
Web site: www.huntbotanical.org

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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.

Extra

July 26 1942

MEMORANDUM FOR DR. W. A. ARCHER
Division of Plant Exploration & Introduction
Bureau of Plant Industry

Dear Dr. Archer:

In accordance with our conversation, I am enclosing for consideration by yourself and others one copy of my write-up of the Nevada willows.

I will now construct the keys for separating the species and varieties. This probably will take some little time, especially as I am out of the city presently. For this reason there is no rush about the manuscript.

I have made the manuscript rather full and comprehensive for several reasons. First, relatively little collecting had been done in Nevada until recently, with the exception of Washoe County. Its *Salix* flora, therefore, has been but little known. In the second place, the arrangement of the willows is credited to me by Tidestrom in his *Flora of Utah and Nevada* when, as a matter of fact, I had nothing to do with it.

In the third place, I have written this draft primarily for myself, making the descriptions rather full. I also have cited all specimens seen and have made these citations relatively full. This gives me full knowledge of what material represents the various species and varieties and where that material is located.

In view of these facts I will be quite willing to condense the descriptions and to condense or omit the citations of specimens for all except the rarer or poorly understood species and varieties. I will be glad to have the manuscript reviewed thoroughly from these points of view.

I made record of the suggestions submitted some time ago by Dr. Mueller regarding the key to *Populus* and will change the manuscript accordingly when I have the key typed.

Cordially yours,

Carleton R. Ball,
Executive Secretary

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH ADMINISTRATION

BUREAU OF PLANT INDUSTRY, SOILS, AND

AGRICULTURAL ENGINEERING

WASHINGTON

Herbarium
U. S. NATIONAL ARBORETUM
Plant Industry Station
Beltsville, Maryland

June 9, 1953

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

Dear Dr. Ball:

You will be interested to know that it has been decided to complete the "Contributions Toward a Flora of Nevada". Your manuscript on the Salicaceae of Nevada, which has been held all these years, could be released at once. However, you might first want to see the manuscript to make additions or corrections.

I can be reached at the Plant Industry Station. Telephone Tower 9-6400 ext. 324.

Sincerely,

W. Andrew Archer
W. Andrew Archer
Curator

WAA:cfs

26 sheets returned 2 June 20 194
50 sheets 11 11 11 195

14 + Nevada
19. Ariz.
33 still being

Dr. W. A. Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Maryland.

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

26 June, 1953.

Dear Dr. Archer:

I thank you for the prompt sending of the packet containing 40 Nevada willows for record of distribution, and more recently the carton containing all specimens of *Salix herbacea*, *S. reticulata* and vars., and *S. uva-ursi*, together with unmounted specimens collected by C.O. Erlanson in Greenland, in 1928. I am quite sure that I never had seen this Greenland collection before.

Mounted Arctic ~~material~~ material is arriving so copiously now, I am making every endeavor to clear it up as fast as possible. Accordingly I have made record of all the ~~material~~ collections and repacked them in the carton. Likewise I have made record of most of the Nevada collections, and packed them in the carton also. It has been wrapped and addressed and will be mailed at the Dept. on Monday.

I still have a few of the Nevada collections which need critical study for final determination. I did not count them, now at the Dept., nor did I count the larger number of Nevada sheets which I am returning. The unmounted Greenland specimens by Erlanson also need critical study, and these plus the few remaining Nevada sheets will be returned next week.

I was rather surprised at the determinations on the Erlanson specimens. The printed labels say "Collected and determined by Erlanson", but I suspect that he sent the willows to Floderus in Sweden, or had them determined by the Dr. Forsild who is at Disko, Greenland, and a former student of Floderus'. Nearly all of them are determined as hybrids of *S. glauca* and *S. chlorocladus*. *S. glauca* does not occur in Greenland and *S. chlorocladus* is a synonym. Dr. Floderus has the obsession that practically all willows are hybrids and both Forsilds followed his teaching. I suspect that most of the material is *S. cordifolia* and its varieties.

Appreciating your cordial assistance, I am

Sincerely yours,

Carleton R. Ball

P.S. How do you prefer to have the name of the Arboretum Herb. abbreviated for citation of specimens? N.Arb. or N.A.H. or otherwise?

all plants rec'd as 2 July 8/53

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Maryland.

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

3 July, 1953.

Dear Dr. Archer:

In spite of the heat (or because of it), I have finished the determinations of the Erlanson Greenland willows, and the remaining sheets of the Nevada collections.

copy
All of the Greenland specimens, except the three sheets of *S. herbaceal*, had to be renamed and I have inserted the annotation labels. I don't know how or why they got the names on the labels. *S. anglicum* and *S. cordifolia* are the two most common species in Greenland. Hybrids occur there occasionally, as in other areas, but of these only one, No. 2979, shows any evidence of it.

The species, *S. cordifolia* Ph., does not occur north of the St. Lawrence-Newfoundland area, but these two of its varieties and still others range far north.

There was one mixture, No. 2996, and I have designated the species as a and b, respectively. One will have no label.

I was very glad to note *S. brachycarpa* Nutt., var. *Sansonii* Ball (No. 2435) in this Greenland collection. It apparently is rare there and also in Iceland.

I wish that you would consider the accuracy of the collection date (June 18) for Nos. 2996 and 3011. For all of the others, the numbers are in chronological order. As the preceding number was coll. on June 25, and the succeeding on June 30, I feel quite certain that these two June 18s are errors for June 28. You may be able to take this up with Erlanson.

I now have completed the study of the 14 sheets of mounted willows from the Natl. Arboretum Herb., have made the Nevada distribution records, and will pack them with the Greenland willows and leave them at the Dept. Post Office on Monday next, for return to you. I greatly appreciate your courtesy in making this material available so readily to me.

M
I am puzzled about one matter in regard to the collections of Bassett Maguire and A.H. Holmgren (jointly) in 1943. The determinations seem to be mine but I can find no correspondence about them with either Maguire or Holmgren, nor is there a list of them filed under Nevada.

I have one problem yet to settle. In the Nevada mss. I note ~~several~~ specimens of several species cited as "(BPL)". This obviously is "Bureau of Plant Industry" but some represent collections that I have not received from you in this recent shipment. Presently I will check thro the whole mss. and see just what collections are so cited, and which ones I have not received lately.

Cordially yours,

Carleton R. Ball
Carleton R. Ball

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Maryland:

3814 Jocelyn St., NW,
Washington 15, D.C.

29 July, 1954.

Dear Dr. Archer:

In bringing up to date the original manuscript on the Willows of Nevada, several questions arise. If they can be settled while I am locating and listing the Nevada collections received since 1941, the final draft can be written properly. My treatment in the original was not uniform, especially in the first few species.

The additional specimens will be so numerous that it will be necessary to rewrite most of the pages containing distributions. This gives opportunity for doing it properly without extra work. The questions are:

1. Arrangement of Counties. Specimens cited are listed by counties, and I have arranged the counties alphabetically. Is this to be continued, or is there a desirable geographic order? If the latter, please give me a list so arranged.

2. Citation of specimens. In general, I have given label data rather fully. Here are the data which may be gleaned, wholly or in part, from the labels:

(a). Locality: Place; distance from known place; stream; mountain; etc.

Should all such data be cited?

(b). Habitat: Stream bank, meadow, dry slope, rocky hill, canyon, sandbar, etc.

(c). Elevation. Should "Elev.", el., or alt. be omitted and the feet or meters cited, followed by ft. or m.?

(d). Collector. Should full name be given when one collector, and only last names when two or more collectors?

(e). Collection Number. I have placed this number after coll. name, without comma.

(f). Year of Collection. Should full date be given, or merely the year?

(g). Habit of plant. Should such data as "clumpy shrub, tall shrub, small tree, large tree" be given when on label? also height?

Then there is the question of the order in which such data should be placed. I have used the order given above, except for habit. What might follow "Locality".

3. Abbreviations for Herbariums: I find that I have a pencilled list (which you may have helped me make), as follows:

BPI	for Bu. Pl. Ind.	(note says this should all be USNA (for Natl. Arb.))
CAS	" Calif. Acad. Sci.	
CRB	" Carleton R. Ball.	
FM	" Field Mus. Nat. Hist.	(This now is Chicago Mus. of Nat. Hist.)
FWS	" U.S. Fish and Wildlife Service	
FS	" Forest Service, US Dept. Agr.	
NES	" Nevada Agric. Experiment Station.	
NU	" Nevada University	(Should it be UN for Univ. of Nevada?)
PC	" Pomona College.	
St.U	" Stanford University.	Should this be SH, or StU ?)
UAC	" Utah Agric. College.	
UC	" Univ. of California.	
USNA	" U.S. Natl. Arboretum.	(I have indicated some as N Arb.)
USNH	" U.S. Natl. Herbarium	

Many thanks for your corrections and suggestions on copy returned to me recently. Will check on them all. Cordially yours,

Do you have another copy?

Carleton R. Ball

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Maryland.

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

30 July, 1954.

Dear Dr. Archer:

Since writing you recently about some questions regarding the revision of my mss. on Willows of Nevada, I have been checking steadily on recent collections to be included. I also have been thinking further about some of the problems.

1. Data to be Included in the Revised List of Collections.

There are so many additions that practically all of the pages bearing lists of collections showing distribution will have to be retyped. This gives opportunity to have them just as you think best after your long experience.

Personally, I always have inclined to rather full data in citing specimens, because they are informative, and also encourage other collectors to record fuller data when collecting, as several have written me.

But fuller data take more pages, and your funds must carry the expense. So I will gladly abide by your decisions as to what to include, and how, about locality, habitat, habit, collection year, and collector's names. Possibly, fuller data might be given for rare species and vars., sparsely represented, and limited data for species of common occurrence. (specimens of)

2. Year of Collection.

Perhaps there was some understanding that the year of collection was not to be given in citing specimens. I note that I usually included it in all of the earlier pages, and again under *S. lutea* Watsoni (p. 28). In the rest of the mss. it is mostly omitted except where there was no collection number. I gave the year also for old collections, as Sereno Watson, even where he used a collection number. I would still favor including the year when there is no collection number and for very old collections.

3. Arrangement of Cited Specimens showing Distribution.

Will it be desirable to arrange these in alphabetical order of surnames of collectors. Where specimens per county are few, it will make little difference. Where they are many, it might make it easier to locate any given collection in the list.

Original

4. Copies of ~~Manuscript~~ Manuscript.

Five copies were made. Four are here now, including Copy 3, which you returned to me recently with suggestions. I do not now know whether you have copy two, or wheter it is at the Univ. of Nevada. You certainly should have one there, for safety in case of fire. If you do not have, I will retur Copy 3 to you.

After I check some specimens at the U.S. Natl. Herbarium on Aug. 2, I will ready to start the retyping, while continuing the checking of herbarium specimens.

Cordially yours,

Carleton B. Ball
Carleton B. Ball

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF PLANT INDUSTRY, SOILS, AND
AGRICULTURAL ENGINEERING
WASHINGTON

U. S. NATIONAL ARBORETUM
Herbarium
Plant Industry Station
Beltsville, Maryland

August 3, 1954

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

Dear Dr. Ball:

In reference to your letter of July 29, I will attempt to answer the various points.

1. Arrangement by counties

All previous Contributions have listed the counties alphabetically and I think that is sufficient.

2. Citation of specimens

In view of the fact that you are the author, the subject *Salix* and the State of Nevada I should think rather full data should be given.

- (a) Full locality should be given.
- (b) Habitat and habit might be combined.
- (c) al. 9000 ft. is preferable (but please do not take up your time in making your citations uniform, we can do it here).
- (d) Full name Ball, C. R. when one collector; Ball, C. R. & W. A. Archer when two names; Ball, C. R. et al when more than two names.
- (e) Collection No. after collectors name, as indicated in your letter.
- (f) Full date is preferable but is given only when there is no collection number.
- (g) Already discussed under (b).

Aug 3, 1954

2 Aug 3

3. Abbreviations for herbaria

A recent list of accepted symbols for herbaria of the world has been published in Holland. The Institutions listed by you are as follows:

- ✓ BPI = Division Mycology and Disease Survey, Plant Industry Station.
- ✓ CAS = California Academy of Sciences.
- ✓ CRB = C. R. Ball (not in the International list but please use it.)
- ✓ F = Chicago Natural History Museum.
- ✓ FWS = U. S. Fish & Wildlife (not in International list but use it.)
- ✓ USFS = Forest Service, U. S. Dept. Agr.
- ✓ RENO = University of Nevada.
- ✓ NES = Nevada Experiment Station (not in International list but use it.)
- ✓ POM = Pomona College
- ✓ DS = Dudley Herbarium, Stanford University.
- ✓ CI = Carnegie Institution of Washington, Stanford University.
- ✓ UTC = Intermountain Herbarium, Utah State Agricultural College, Logan.
- ✓ US = U. S. National Museum, Smithsonian Institution.
- ✓ NA = U. S. National Arboretum.

Here again I would ask that you not take up your time making changes in your manuscript to agree with the above. We can do it here. Anyhow we will add a footnote to your paper, explaining the symbols.

In your handwritten footnote you ask if I have another copy. I presume you mean "another copy" of your *Salix* manuscript. No! the only copy in our possession was sent to you. However if you like we can send you a copy of the first typed draft and later we could send back your original manuscript if you like.

By now you will have seen Contribution 34, "*Cuscuta* of Nevada".

All copied on list

3

Aug 3/1954

We have decided for the next Contribution (probably your Salix) to use a multilith process which turns out a much better looking production.

If we can be of any assistance please ask.

Sincerely,

W. Andrew Archer

W. Andrew Archer
Curator

recd 10/5 August

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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF PLANT INDUSTRY, SOILS, AND
AGRICULTURAL ENGINEERING
WASHINGTON

U. S. NATIONAL ARBORETUM
Herbarium
Plant Industry Station
Beltsville, Maryland

August 3, 1954

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

Dear Dr. Ball:

My answer to your letter of July 29 had already been written before the receipt of your second letter of July 30. Rather than rewrite my first letter I shall merely refer to it as needed.

1. Data to be included in the Revised List of Collections.

First I shall repeat, that since you are the author the subject *Salix*, and the State Nevada that the citing of specimens should be as full as you think necessary. No doubt most of the specimens cited by you will exist in duplicate in various institutions and thus readers will have some clue as to your conception of taxonomic entities. After all, your treatment is to appear first as a processed Contribution and accordingly should encompass full data. The pruning and reducing can be done later, when the time comes to consider combining all the Contributions into book form.

2. Year of Collection.

As you mention in your July 30 letter, the usual method has been to include the year of collection only when there is no collection number. However, I agree that it would be good to give both the collection number and the year for old or critical specimens.

3. Arrangement of Cited Specimens showing Distribution.

Your suggestion is quite good. Where there are numerous collectors for one county, the surnames should appear alphabetically.

4. Copies of Original Manuscript.

Your second letter makes clear the footnote in your first letter. So far as I know we never had but one copy of your manuscript and that was returned to you last year. I agree that at least one copy of your original should be here.

I have no idea as to what sort of typing assistance you may have in revising your manuscript, but let me say that we can help out if you wish. You could cut and paste inserts for your original, or you could send even handwritten notes clipped to the pages with notations as to where the insertions were to be made. I offer to help because I know you must have a tremendous lot of other work to do. So let me know if we can be useful.

Sincerely,

W. Andrew Archer

W. Andrew Archer
Curator of the Herbarium

File

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

5 August, 1954.

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Maryland.

Dear Dr. Archer:

I was glad to be informed that you have no other copy of my original manuscript on the Willows of Nevada, which was returned to me with your letter of June 12, 1953 (which happened to be my 80th birthday anniversary).

I have just returned that copy 3 of the manuscript to you but forgot to inclose this letter before sealing the packet. I trust that it arrives safely, and I shall feel much more secure to know that one copy is out there.

Many thanks for your two good letters of August 3, which give me much needed information. I will reply to them today, with one or two more questions which have arisen.

Cordially yours,

Carleton R. Ball
Carleton R. Ball
Collaborator.

Digitized by Hunt Institute for Botanical Documentation

RECEIVED SEP 10 1954
BIOGRAPHICAL AND HISTORICAL RESEARCH
UNITED STATES DEPARTMENT OF AGRICULTURE

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Maryland.

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

5 August, 1954.

Dear Dr. Archer:

Many thanks for your two very informative letters of August 3. A few additional questions or clarifications will be needed, and I will deal with the groups separately. This letter will be concerned with *

CITATIONS OF HERBARIA for Nevada Willows.

I have made copies of the list you approved, in your first letter, so as to have one before me wherever I am working.

BPI "Div. of Mycology and Disease Survey, Plant Industry Station".

I feel quite sur thatmost and probably all of the Nevada willows I have listed as "BPI" are in the herbarium of the Division of Plant Exploration and Introduction, where Dr. Blake is in charge of Plant Identification. I do not have a recent Organization List here at home. Is that Herbarium now a part of the National Arboretum, or is it still in BPI? If in the latter, how should it be cited?

CU, University of California.

This was included in the list I sent you, but was not in the official International list you gave me. What is its official abbreviation?

I think that I have one or two Nevada specimens from the herbarium of the College of Agriculture of UC, at Davis. How should they be cited?

University of Wyoming, Laramie. Rocky Mountain Herbarium.

I feel sure that I have Nevada specimens from the Rocky Mountain Herbarium also. I would like to have its official abbreviation.

Citing names under which collections originally were distributed.

All species and varieties are placed, of course, under their present accepted names. But many of them were distributed under different names, either synonyms or wrong identifications. Those which I have seen and cite here in the Nevada mss. I correctly name, if it had not been done before. For the benefit of those who may wish to consult a given specimen in other herbaria, I have cited the name under which distributed by inserting it after the herbarium abbreviations, and within the same parenthesis. See last line on p. 21, listing a collection of *S. exigua* "(CRB, BPI, as *S. Hindsiana*)"? Is this practice approved?

Thanks for your offers of clerical help, and suggestions that I so not spend too much time in getting it correct. If I retype any or all of the distribution lists, I will wish to have them accurate. In any case I will have to type the lists of additions, because they are on many different sheets now, as I get them at different herbariums.

Cordially yours,

Carleton R. Ball

Dr. W. Andrew Archer, Natl. Arboretum Herb.,
Plant Industry Station, Beltsville, Maryland

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

9 August, 1954.

Dear Dr Archer:

Citation of Salix Specimens from Nevada.

Here is my understanding and discussion of citations of Nevada specimens, based on your two letter of Aug. 3, and what I find in the original manuscript.

1. Citations shall be by counties, arranged alphabetically.
2. Under counties, citations shall be in alphabetical order of ~~collector's~~ collector's surnames (first collector when more than one).
3. Localities are to be given in full.
4. Habitat to be given. On labels, habitat sometimes precedes locality, as "Sandy shores of Lake Tahoe?" sometimes follows locality, as "Mt. Rose, in rocky soil", and occasionally parts may appear both before and after locality. Should I cite it as it appear on label, or try to arrange it to follow locality?
5. Habit of Plant. Rarely given and relatively unimportant, but where it seems desirable to include it, I will place it after habitat.
6. Elevation. Given mostly in feet, sometimes in meters. You suggest "el. 9000 ft" as preferable form. In the original mss., the "el." was omitted, probably by understanding at that time. I now will include it in lists I type.
7. Arrangement of collector's names. When one collector, surname first, followed by his initials. When two collectors, the name of first is written as above but name of second has initials first and surname last. ~~When three or more collectors,~~ When three or more collectors, name of first is written as when only one, followed by "et al". Some discussion is given below, under No. 8. Collection Number.

What should be done when a collector does not have, or does not use, a middle initial? Should the first name be given in full, or merely its initial?

You also may wish to consider whether "Ball, Archer, & Train" would be preferable to "Ball, C.R., et al". By the way, should we use the symbol "&" instead of "and"?

8. Collection number follows collector's name. When there is but one collector, the number would follow his initials ~~initials~~ instead of his surname, according to the usage given in No. 7 above, as "Archer, W.A., 1066". Incidentally, I use a comma both before and after the initials.

When there are two collectors, the number would follow the surname of the second, in the usual manner.

When there are three or more collectors, the number would follow the words "et al" in your proposed procedure but would follow the final surname if all surnames were used.

9. Date of Collection. In your first letter of Aug. 3, you state: "Full date is preferable but is given only where there is no collection number". As "full date" means day, month, and year, this possibly suggests that the year should be given even where there is a collection number. Part of the original manuscript is written that way and part without the year. Which plan shall I follow?

2 Archer, Aug. 9. -54

In your second letter, you write: "I agree that it could be good to give both the collection number and the year for old or critical specimens". This I generally have done in the original manuscript, and will continue.

You refer to having sent me the publication on Nevada Cuscuta. I recall receiving it and supposed that I put it with Nevada mss. But now I cannot find it anywhere. Please send me another copy, or a copy of a larger recent one which will show most fully the present accepted practice in writing and citing specimens. I will return it when I have finished, as I do not keep non-willow papers.

There is a duplication of page numbers in the original manuscript, caused by writing different parts at different times.

The introduction, containing the description of the Family Salicaceae, the keys separating Salix and Populus, and the description of genus Salix, covers pages 1-2.

The keys to species and varieties, written much later, covers pages 1-9, with both vegetal and floral keys.

The text, with descriptions and synonymy of species and varieties, and citation of Nevada collections, covers pages 6-64. It was written first and I left only 5 pages for introduction and keys.

These facts make it necessary to renumber all pages, except the introduction (pp. 1-2). The insertion of the enlarged lists of specimens cited will increase the necessity of renumbering the pages.

Please let me know if the treatment of genus and species of Populus precedes Salix in the manuscript, or will follow my portion on Salix. If Populus precedes Salix, the first page of the Populus portion will be page 2 of the manuscript, following my treatment of the Family Salicaceae on page 1. In that case, I will need to know the ~~the~~ correct page number for the last page of the Populus treatment, so that my present page 2, discussing genus Salix, may have the page number following Populus. If Populus follows the Salix text, this problem does not arise.

I have completed the search for recent Nevada collection in my herbarium and that of the U.S. Forest Service. In both cases, a few points remain to be checked in the mss. or lists of additions. I plan to do that checking tomorrow.

My search in the U.S. Natl. Herbarium already has covered the first four Sections (Pentandrae, Bomplandianae, Triandrae, and Nigrae). After tomorrow, I will continue the search there.

But the beginning made will permit me to start writing the new addition lists just as soon as the points raised in my last two letters (this one and that of herbarium abbreviations) are settled.

Again I thank you for your kind offer of clerical help. Just as soon as I get to writing these lists of recent additions, I will know what and how much rewriting of the manuscript will be necessary, and what help I will ask of you.

I want what I write, whether rough-draft or final, to be as nearly correct in form as possible. That will be no harder for me, and it will reduce the later burden on you.

Cordially yours,

Carleton R. Ball
Carleton R. Ball

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF PLANT INDUSTRY, SOILS, AND
AGRICULTURAL ENGINEERING
WASHINGTON

U. S. NATIONAL ARBORETUM
Herbarium
Plant Industry Station
Beltsville, Maryland

August 10, 1954

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

Dear Dr. Ball:

In answer to your letter of August 5, I will make the following replies:

B.P.I. = This symbol has been adopted for the mycological collections at the Plant Industry Station. All herbarium material of the old Division of Plant Exploration and Introduction has been transferred to the jurisdiction of the U. S. National ~~Herbarium~~ *Arboretum* and all specimens bear the stamp of the latter institution. The symbol for these collections is N.A. *let Aug 18*

✓ U C. (not C.U.) stands for University of California, Berkeley, Calif.

✓ JEPS. stands for the Jepson Herbarium, also at University of Calif.

UC Ag
I find no symbol for collections at Davis, Calif., College of Agr. Presumably any collections there would be considered as U.C.

✓ RM = Rocky Mountain Herbarium, University of Wyoming, Laramie.

Your method of citing wrongly determined specimens after the herbarium abbreviation seems adequate to me.

Copy 3 of your Salix manuscript has been received.

Sincerely,

W. Andrew Archer
W. Andrew Archer
Curator

Dr. W. Andrew Archer,
Herbarium, National Arboretum,
Plant Industry Station,
Beltsville, Maryland.

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

12 August, 1954.

Dear Dr. Archer:

Your letter of 10 August is just here, and I have added the Herbarium abbreviations, given therein, to my list for use in the manuscript.

I do not know whether all ~~Salix~~ Nevada collections of Salix at the Univ. of California are in the UC Herbarium, or whether some are in the Jepson Herbarium. It seems necessary, therefore, to leave them all under UC. Any one there would find them, if interested.

For clarity, it would seem best to cite the one specimen at the Calif. College of Agriculture at Davis as "CUAG". Will you approve? The footnote on abbreviations would make the meaning clear.

You state that the former BPI (Div. Plant Exper. & Introd.) herbarium at Beltsville is now under the National Herbarium of the U.S. National Museum, Smithsonian Institution, but is to be cited as NA, which is the National Arboretum. I had carried in mind the the Arboretum was under the Dept. of Agriculture, like the Forest Service, but evidently I was wrong.

There was one specimen of *S. cresteria* from Nevada in the 1200 sheets of Salix I recently determined for the Academy of Natural Sciences of Philadelphia. I need the official abbreviation for that Herbarium.

I assume that the Latin names of species and varieties should be underscored for italics when they are mentioned in the text of the manuscript.

Should & be used in place of and where it occurs in citations of specimens?

These last two questions probably will be answered when I receive a copy of a recent issue on the Nevada flora.

Thanking you for your continued help, I am

Cordially yours,

Carlton R. Ball

Carlton R. Ball

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF PLANT INDUSTRY, SOILS, AND
AGRICULTURAL ENGINEERING
WASHINGTON

U. S. NATIONAL ARBORETUM
Herbarium
Plant Industry Station
Beltsville, Maryland

August 12, 1954

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

Dear Dr. Ball:

The various points indicated in your letter of August 9,
will be discussed only where you have asked for clarification.

7. Arrangement of collector's names

The symbol "&" can be used in place of "and".

Ball, C. R. et al, 1052 versus Ball, C. R., W. A. Archer
& P. Train, 7 Aug. 1940. I consider "et al" to be sufficient when
there is ^a collection number.

When there is no middle initial it is still agreeable to
abbreviate as in P. Train. However, in the case of two different
collectors with the same surname and initial it would be best to
use full name-i.e., Percy Train, Philip Train.

9. Date of collection.

I see no reason for citing the date when a collection number
exists, (see under 7). The only exception would be for early or
historical specimens.

The Cuscuta contribution would be of no value in the present
considerations because Yuncker did not cite collectors. Consequently
I am sending a copy of McVaugh - Rosaceae. You will note that
McVaugh was not consistent in citations. The counties are not
alphabetical; sometimes he cites collectors' surnames and initials,
again he cites surname only. But our plan is much better and there
is no reason to be influenced by McVaugh.

Aug 12 1954

The treatment of *Populus* for Nevada was never completed, so we can delete "Populus by C. H. Muller" from the manuscript. In fact we will use for your paper the title:

"Salicaceae of Nevada.
The Genus *Salix*."

In that way you will not need to consider *Populus* in your key unless you choose. Should you prefer to treat both genera it would be best to reverse the order in "Key to Genera" and put *Populus* first, thus following the treatment in recent manuals.

Sincerely,

W. Andrew Archer
W. Andrew Archer
Curator

Digitized by Hunt Institute for Botanical Documentation

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Maryland.

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

16 August, 1954.

Dear Dr. Archer:

① Your letter of August 12 is here and noted. I am sorry that *Populus* treatment has not been prepared. Even so, I think that it will be helpful to retain the discussion and keys for both genera. Specimens of the narrow-leaved western cottonwood come to me as *Salix* from time to time.

② It is quite satisfactory to reverse ~~the~~ the order, by placing *Salix* after *Populus* in the keys, and I will make the change on the ribbon copy.

③ Under this plan, pages 1 and 2 will retain their numbers. The keys, pages 1-9, will become pages 3-11. The discussion of species, now pages 6-54, will start with page 12 and the pages following will be renumbered as the expansion caused by citing more specimens proceeds.

al

④ I have completed the search for additional specimens in the first four Sections, Pentandrae, Bomplandianae, Triandrae, and Nigrae, containing the first 5 species and their varieties.

⑤ As a starter on the revision, I have listed all additions to *S. lasiandra* (old p. 6, new page 12), which appeared on old p. 7, new p. 13, have rewritten this as new p. 13, and inclose a copy for your study.

⑥ The first problem is in arranging collectors alphabetically. When 3 or 4 men had collected at the same locality and labels were alike, I previously had entered that locality but once, with all its collectors on order thereunder. See Reno, under Washoe Co., where I still have three collectors. But see Truckee River with Brown, and, lower down, Truckee River again, with Kennedy. Should I keep them absolutely alphabetically, or bunch those who collect at one locality?

⑦ Where collectors have no middle initial, or where two have the same surname, it seems desirable to give the first name in full the first time that collector is cited in each species. This I have done for Ivar Tidestrom, and for Patrick B. Kennedy, there being a Phil Kennedy in the Forest Service. Do you think that this is desirable?

⑧ Initials of collectors were not inserted in the original manuscript. I have listed surnames in the first few pages and have about 80. For most of them I can supply initials from personal knowledge, correspondence, or specimens here in CRB, US, and USFS herbariums. A few whose specimens are in Nevada or in the Natl. Arboretum (NA), I do not have initials, but have left spaces for them on sheet inclosed. In Washoe Co., see Brown, Canby, and Hudson. Can you supply?

⑨ In all one-person collections, the collection number comes after initials instead of after the surname. This is confusing to write and seems confusing to read. W.A. Archer 6047 (line 2) seems much easier to grasp than Archer, W.A.; 6047. I wish that you would consider this carefully and see what you think. Where there are two collectors, of course, the number follows a surname but there are many more one-person than two-person collectors.

16 Aug 1954

10 My suggestion for three collectors was surnames only. Ball, Archer, & Train 1054 compares well with Ball, C. R., et al, 1054, there being 26 and 24 spaces, respectively. And the searcher knows what to look for.

11 When I asked for the Cuscuta paper, or a larger one, I had in mind very recent issues, so that I could check up on present usage. For instance are compass points, N. S. NE? SW, etc. written in caps without periods after, as I have them in inclosed sheet?

12 Do you use, or omit, periods after such abbreviations as ft., cm., mm., m., in., etc., etc.

13 Do you abbreviate River to R., and Creek to Cr. in locality designations?

14 I shall proceed with the listing of additions for the species and varieties just as soon as the last questions are settled.

15 I do not know the multilith process. If you wish to have some one work on this manuscript at intervals when other work is not pressing, I will check the keys, which need one addition, and get the first 20 or 25 pages to you quite s soon.

Cordially yours,

Carleton R. Ball

Carleton R. Ball

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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF PLANT INDUSTRY, SOILS, AND
AGRICULTURAL ENGINEERING
WASHINGTON

U. S. NATIONAL ARBORETUM
Herbarium
Plant Industry Station
Beltsville, Maryland

August 18, 1954

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

Dear Dr. Ball:

*noted on
previous
letters*
First I wish to apologize for an error in my letter of
Aug. 10. Under P.B.I., 5th line, please read "Arboretum"
instead of "Herbarium". No wonder your letter of Aug. 12,
sounded puzzled.

Listed
PH is symbol used for Academy of Natural Sciences of
Philadelphia.

OK
To my notion it is permissible to use "&" instead of
"and" in citing specimens or authorities.

Sincerely,

W. Andrew Archer
W. Andrew Archer
Curator

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PLANT INDUSTRY
WASHINGTON

THE NATIONAL ARBORETUM

Herbarium
Plant Industry Station
Beltsville, Maryland

August 24, 1954

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

Dear Dr. Ball:

This will serve to answer some of the questions in your letter of Aug. 16.

Paragraph 6. Listing collectors alphabetically. To my mind it is best to make a straight alphabetical list of the collectors under the county names, regardless of whether some collected in the same locality, i. e. Truckee River as you have cited. This will entail repeating some locality names but that sort of repetition will have to be accepted for the sake of uniformity in citing collectors.

Paragraph 7. Giving full first name when two collectors have same surname. Agreed as you have indicated.

Paragraph 8. Initials to be given when known or available, as will be possible in most cases. I can supply initials for two of the three collectors: Margaret Canby; C. L. Brown. Hudson I do not know but perhaps Dr. Lehenbauer will remember. I shall ask him.

Paragraph 9. Perhaps it might be best to adopt W. A. Archer 6047 instead of Archer, W. A. 6047. It does not matter really. You will note in McVaugh's Rosaceae (which I sent you recently) that he sometimes gave the full name with the initials first as E. O. Wootton 702. Other times he used merely the surname as True & Klugh 342. Sometimes he used S. Watson, sometimes merely Watson and so on.

If you have already written your manuscript, partly with initials last and partly with initials first, please do not retype to make all conform. We can do it here.

In Martin's Papaveraceae (copy enclosed) only the surnames were used.

The most recent contribution (Yuncker - Cuscuta) did not cite collectors. This last (copy enclosed) is the first contribution since

2 Aug 24, 1954

1941.

Most of the contributions did not cite collectors, and those that did were not consistent. As mentioned previously, I consider your paper on *Salix* to be important and should therefore, be as complete as possible.

Paragraph 10. I agree with your suggestion. *Ball, Archer & Yam*

Paragraph 11. (See last remark under Paragraph 9.) It is agreeable to capitalize compass points without period. NW, SW, etc.

Paragraph 12. Personally I always use a period after such abbreviations as ft., m., in., etc. but some German papers, I notice, do not use periods. If you consider it best or easier to omit the periods, please do so. Your manuscript will be reviewed before publication anyhow, and if some of the "sticklers" object we can always add the commas and periods as desired.

Paragraph 13. Yes, River can be abbreviated as R.; Creek as Cr., Mountain as Mt.

Your sample page 13 is being returned herewith.

Paragraph 15. Yes we would like to have the "Key" portion of your paper if you can spare it.

Sincerely,

W. Andrew Archer

W. Andrew Archer
Curator

Dr. W. Andrew Archer,
Herbarium, National Arboretum,
Plant Industry Station, Beltsville, Md.

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

14 September, 1954.

Dear Dr. Archer:

Many thanks for your letter of Aug. 24, not previously acknowledged, and for the many others in which you have considered the problems of the Nevada *Salix* manuscripts.

I probably have bothered you a lot. But that was not the intent. I do want to present the matter in the form which will be simplest and most helpful to its readers. I realize that there has been the greatest possible diversity of usage in the various papers so far published.

I have summarized, in order, the practices required, or permitted, in the citation of specimens. A copy is inclosed and if it is contrary to your understanding at any point, I will be glad to hear from you.

I have been working on the manuscript but it has not gone as fast as I had hoped. Have finished *Pentandrae* to *Nigrae*, *S. lasiantha* to *S. Gooddingii*. This has required the recognition of some additional varieties, and a full discussion of the taxonomic problems presented by such entities as Schneider's form *pilosiuscula* under *S. amygdaloides*.

I hope that it will go faster from here on, but I see some problems ahead. There will be a lot of hard work on the *Glaucæ*, and there is a possible new species sticking its head up elsewhere, but I hope to batter it down.

Thanks for the names or initials for Margaret Canby and C.L. Brown. If you hear from Lehenbauer about initials for Hudson, I'll be glad to know. It is probable that others will pop up as I proceed.

In the original manuscript, under *S. amygdaloides*, I cited C.R. Ball 1727 and 1728, from Churchill Co., as being in the U.S. Nat. Herb. But they are not there now and I am wondering if I made an error, and that it should have been BPI (now NA)? If you can look them up there and report, I'll be very appreciative.

In your letter of Aug. 24, you refer to my paragraph 15 and say that you would like to have the key portion of the mss. if I can spare it. Does this mean that your copy does not contain the keys? They were included in all the 5 copies originally written.

I said in that paragraph 15 that the keys needed 1 addition, but it is fairly likely that others will be needed later and I doubt if the keys can be prepared for lithographing until the text is completed and we know all the changes that must be made. But if you do not have the keys at all, I'll send one copy.

Cordially yours,

Carleton R. Ball
Carleton R. Ball

PROPER LISTING OF NEVADA SALIX SPECIMENS.

14-R-54
to Archer from
Ball

1. Counties will be arranged in alphabetical order.
2. Citation of Collections, in each Co., will be in alphabetical order of collectors' surnames. Where more than one collector, the surname of the first will govern.
- 2a. Where county is not known, or when no locality is given, specimens may be entered at end of list, under "County Unknown", or "No Locality".
3. Localities should be given in full.
4. Habitat and Habit will be given as recorded on labels.
5. Date of Collection will not be given, except when no collection number appears on the label, or the specimen is old and of historic interest.
6. Names of Collectors:
 - a. When only one collector, the initials will be given, followed by surname.
 - b. When two collectors, the initials and surname of second follow those of first, preceded by "and" (or "&").
 - c. When three collectors, or more, only their surnames will be given.
 - d. When a collector has (or uses) no middle initial, either the full first name, or its initial, may be used, as Percy Train or P. Train.
 - e. When two or more collectors, cited under a given species or variety, have the same surname, it may be desirable to use the full first name of each collector, especially if the initials are at all similar: as Patrick B. Kennedy and Phil Kennedy.
7. Collection Number, if any, should be placed, without punctuation, immediately after the surname of collector, or last-named collector.
 - a. When no collection number exists, see 5 above.
8. Herbarium citations, ^{in capitals, are} placed in parentheses, following the collection number.
 - a. The official, or agreed-upon, abbreviations are placed in alphabetic order.
 - b. If desired, these abbreviations may be followed by the species or varietal name under which the collection was distributed, or previously identified, if different from that under which it is listed in this manuscript.
9. Type Specimens. After any herbarium abbreviation, it may be indicated that the cited specimen therein is a holotype (type), isotype, paratype, syntype, tepotype, etc.
10. Abbreviations of various kinds.
 - a. Herbarium abbreviations are in capitals, and not followed by a period.
 - b. Compass-point abbreviations, as S, SW, N, NE, are written in capitals and are not followed by periods.
 - c. Geographic abbreviations, such as R. for River, Cr. for Creek, Mt. for Mount, and Mts. for Mountains, are permissible and are written with capital-letter initials, and followed by periods. Also & for and.
 - e. Measurement abbreviations, such as cm., el., ft., in., m., mi., mm., etc., are written with lower-case initials and followed by periods.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PLANT INDUSTRY
WASHINGTON

THE NATIONAL ARBORETUM

Herbarium

Plant Industry Station
Beltsville, Maryland

September 21, 1954

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

Dear Dr. Ball:

Please do not feel that I have been "bothered" with your various questions regarding the *Salix* manuscript. I am more than glad to be of assistance.

Your summary of practices in the citation of specimens is adequate and I am in entire agreement with it.

The Hudson you ask about is E. W. Hudson. We have a specimen of *S. laevigata* collected by him in 1909 at Wadsworth.

Unfortunately the two collections of *Salix amygdaloides*, your numbers 1727 and 1728, are not filed here. Perhaps they have been misfiled at the Smithsonian.

Yes, copy No. 3 of your manuscript does contain the keys. At the time of writing I had an idea of initiating the typing of a final draft by beginning with the keys. However, as you have indicated, it will be best to wait until you have completed the manuscript.

Sincerely,

W. Andrew Archer
W. Andrew Archer
Curator

WAA:hea

Dr. W. Andrew Archer,
National Arberetum ^{Herbarium},
Plant Industry Station,
Beltsville, Maryland.

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

28 September, 1954.

Dear Dr. Archer:

Now for the problem of rewriting the Nevada *Salix* manuscript. I assume that you will have to rewrite it completely. If mimeographed, stencils are out. If multilithed, I do not know the process. But, as my typewriter is old (like myself), and the type is badly worn, as there will be deletions, corrections, and additions on many pages, there probably will be a complete rewriting before it is ready for publication. This requires a competent typist.

In the original manuscript, of which you have a copy, the first 11 pages are preliminary to the text on species. Pages 1-2 cover Salicaceae and the two genera. Pages 3-11 contain the two sets of keys, Floral and Vegetative. As there will be slight additions to the keys, because of more varieties included, they cannot be permanently rewritten now. But if you can estimate how many pages to leave for Introduction and Keys, the final typing can begin now, with *S. lasiandra* (p.12) and continue steadily.

Any additions to the keys probably will not increase their present length by more than 6 lines, and certainly by no more than 10 lines. I can make no estimates because I do not know what is to be double-spaced, and what single-spaced, in the final writing.

Copy for the five Sections completed can be sent to you now. I believe that the remainder will come along rapidly. Most of the species and varieties have but a few specimens cited, and only about four have as much as one page, double spaced. Additions probably will be proportional.

Any additions to the keys will be finished before I get to the end of the species, so that they also could be rewritten before the last of the text.

As noted in the PS. to my earlier letter today, I have your letter of 21 September. Thanks for the Hudson initials. Thanks also for the information that *S. amygdaloides* C.R. Ball 1727 and 1728 are not in Na. I doubt if they are in US. There was a long period when US definitely desired not to enlarge their collections, especially of common or widely distributed species and I suspect that mine fell into that category and were exchanged abroad or elsewhere.

Cordially yours,

Carleton R. Ball.

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Maryland.

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

24 September, 1954.

Dear Dr. Archer:

I have just finished *Longifoliae* (sandbar willows) for the Nevada Mss. They were a mess because of the very large number of specimens under *S. exigua* and its varieties, and the difficulty of separating specimens of juvenile stages.

You have kindly offered, in several letters, to help with the writing. There were $1\frac{1}{2}$ pages of cited specimens of *S. exigua* in the original mss. I have more than a page of additions. Integrating the two lists will be some job, and I will be delighted if you can have it done, while I go ahead on the manuscript.

The principal changes to be made in combining and rewriting are:

- 1, Rearrangement of collectors in alphabetic order, in each county.
- 2, Adding initials (or names) of collectors, from list ~~attached~~ inclosed.
- 3, Changing "BPI" to NA, "USN" to US, etc., etc.
- 4, adding "el" before the figures for elevation.

A few citations have been deleted from the original lists. In some cases the identification had been changed. In others, additions have been made and the corrected citation is written in the list of additions.

To simplify the labor of adding the initials (or first name) before the collectors' surnames, I have typed an alphabetical list of all collectors named in Sections *Centandrae* to *Longifoliae* (*S. lasiantha* to *S. exigua*), in both the original mss. and in the additions. A copy is inclosed for your use.

Six of these collectors still lack initials. I have listed them on a separate sheet, with citations of the collections made by each, as listed so far. You will note that two of them (Headley and Hudson) are represented by specimens in the National Arboretum. One (Evans) is in US but no initials on label, and I don't know what Evans was loose in 1887. The other three (Cowgill, Heiser, and Wyckoff) are represented by specimens at Nevada Expt. Station and Nevada Univ. Will you write to Prof. Lehenbauer about them, or shall I?

Now we come to the question of the writing of the final draft of the revised manuscript. This I will discuss in another letter (and inclose with this if I get it done before mailing time).

Cordially yours,

Carleton R. Ball
Carleton R. Ball

P.S. Your letter of 21 Sept. is just here.

I note that Hudson is E. W. and have added his initials in list and deleted him from missing-initial list. Have just discovered the one label of Mrs. E.V.A. Murphey has no "Mrs." on it. May be more. I wonder if there was a "Mr." also?

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF PLANT INDUSTRY, SOILS, AND
AGRICULTURAL ENGINEERING
WASHINGTON

U.S. NATIONAL ARBORETUM
Herbarium
Plant Industry Station
Beltsville, Maryland

September 29, 1954

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

Dear Dr. Ball:

This is in answer to your letters of September 22, and 24.

Your suggestion to begin now the final typing of the first five Sections is good and we can start whenever you are ready to send the draft.

The pages for this can be numbered temporarily in pencil, to await the final draft of the keys.

As to the missing initials of collectors, I have located the following.

Cowgill, T. W.
Headley, F. B.
Heiser, O. F.

Wyckoff and Evans perhaps will turn up yet.

I note you have written, Canby, Margaret S. So far as I know the name is Canby, Margaret. You ask about Murphey, E.V.A. There is only one collector by that name. It is Mrs. but perhaps you can omit it and cite merely Murphey, E.V.A. Anyhow I am compiling a list of collectors in Nevada and perhaps will issue it tentatively with the request for additions and corrections. In any event the list will appear eventually in the final book on the Flora of Nevada.

The portion of your manuscript dealing with citations for S. exigua was received. Just as soon as retyping has been done to combine the additions, a copy will be sent to you.

Sept. 29, 1954

It is good to hear that you are approaching the end of the manuscript. This will be an excellent contribution and I hope it will stimulate some of the other botanists who are working on other families for the Flora.

Sincerely,

W. Andrew Archer
W. Andrew Archer
Curator

WAA:hea

Dr. W. Andrew Archer,
Herbarijm, National Arberetum,
Plant Industry Station, Beltsville, Md.

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

3 October, 1954.

Dear Dr. Archer:

I am glad to have your letter of Sept. 29, and the initials for three more collectors. I am delighted to know that final typing of the manuscript can be started now, even if pages must be temporarily numbered in pencil before the introduction and keys cannot be typed now.

In anticipation of starting the typing, I had been trying to complete the list of collectors, and discover any more lacking initials. Also I was trying to discover ways of determining correct initials to apply when there are two collectors with the same surname.

The fact that initials were omitted in part of the original manuscript makes these matters more important. I inclose two copies of a list I have just finished. I have checked all collectors to end of *S. lutea* and varieties. While this is around half of the manuscript, it probably contains three fourths of the total citations. Therefore, I do not expect to find many more additional collectors.

The list contains several new collectors to be inserted in former list:
Alexander, Annie M. (and Louise Kellogg)

Ashbaugh, (lacks initials)

Hall, Desma

Kellogg, Louise (with Alexander, Annie M.)

Rose, Lewis S.

Tucker, J. M.

~~WHERE~~ Where two collectors of same surname, I have listed their collection so far as checked, so that we can see the areas in which collections were made, the numbers used (if any), dates where no numbers, etc. I think that the data given for the two Allens, the two Kennedys, and the two Maseons will make it possible for the typist to know which initials to insert, in each case.

Berell should have the initials ~~XXXX~~ A. E., instead of A.N.

I inclose two copies of this list, so that a carbon may be filed with this letter and the ribbon copy serve the typist. I am sorry that the carbon is not very clear.

I will now check the ribbon copy of the manuscript, so far as completed, to see if all additions or changes on my working copy have been included. Then I will send you the portion from *S. lasiantha* to *S. exigua* var. *nevadensis*, inclusive.

Cordially yours,

Carleton R. Ball

Dr. W. A. Archer,
Herbarium, National Arboretum,
Plant Industry Station, Beltsville, Md. 6 October, 1954.

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

Dear Dr. Archer:

I am inclosing the first section of the text of Nevada Willows, for final typing. It covers pp. 12-38, inclusive, and contains Sections Pentandra to longifoliae, inclusive (Pp. 1-11 comprise Introduction and keys).

The keys cannot be written yet, and if Dr. Little does Populus it should precede Salix in keys and text.

It is for you to decide if any part is to be ^{singlr-}~~double~~-spaced. I would not object to single-spacing the individual literature entries under species and varieties, or the citations of specimens. ^{verat}

In the citations of specimens, some other questions arise. The county names should stand out plainly, especially in the long lists. I have underscored them, as if for italics. Bold-face type probably would be better.

If the citations of specimens are single-spaced, it might be desirable to give each county a separate paragraph. If that is not done, it might be well to break each full page into 3 or 4 paragraphs, for greater aid in locating counties.

I see that in some cases where there is no collection number, I have put three hyphens, ---, after the collector's name. This seems hardly desirable. Where no collection number, the full date of collection has been entered, if I had it. If not, just the year is inserted, preceded by "in", (in 1935), so that it will never be mistaken for a collection number.

I forget to say that pp. 32-35 are not sent herewith. They are represented by the $\frac{1}{2}$ pp. of original, and $\frac{1}{2}$ pp. of additional citations of *S. exigua*, which you already have for combining into a single series.

There is one more citation to be inserted in *S. exigua*, namely: Elko Co. Clever Creek at Ruby Substation, el. 6000 ft., Jes. H. Robertson 349 (CRB, USFS) It was erroneously placed in *S. exigua* var. *stenophylla* but is now deleted there.

You can decide how many copies of final draft to make. I shall need one.

I am well along on another group of Sections of *Salix* and will have another let ready for you soon.

Appreciating your splendid cooperation, I am

Sincerely yours,

Carleton R. Ball

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UNITED STATES DEPARTMENT OF AGRICULTURE

added

Dr. W. Andrew Archer,
Herbarium, National Arboretum,
Plant Industry Station,
Beltsville, Maryland.

3814 J. celyn St., N.W.,
Washington 15, D.C.

15 October, 1954.

Dear Dr. Archer:

Here is one small addition to the citations of specimens of *S. melanopsis*.

On p. 28⁵ of the mss. sent you, the Washee Co. citation of Tidestrom 10661,
10715 reads "US, as". After the "as" please add: "*S. exigua* var. *virens* Rowlee";

These notes should help readers in other States to find the specimen cited.

Cordially yours,

Carleton R. Ball
Carleton R. Ball

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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF PLANT INDUSTRY, SOILS, AND
AGRICULTURAL ENGINEERING
WASHINGTON

U. S. NATIONAL ARBORETUM
Herbarium
Plant Industry Station
Beltsville, Maryland

October 18, 1954

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

Dear Dr. Ball:

Your letters of Oct. 3 and 6 with enclosures have been received.

The retyping of the pages for citations for Salix exigua has been completed. The ribbon copy is with the first section of your present draft, the first carbon is enclosed together with your originals.

The missing initial for Wyckoff, is C. We still lack those for Evans and for Asbaugh. Since Evans is cited with S. M. Tracy perhaps his initial is not important. Asbaugh most likely was a student at the University of Nevada and probably the specimen at Reno is a unicate.

Somehow, about 20 Nevada specimens, including Salix, have gotten into herbaria under the name of C. S. Mason, but the correct name is Silas C. Mason. You cite a specimen under S. lasiandra var. lancifolia (mss p. no. 15) and under S. laevigata and S. laevigata var. araguipa (p. 20). In your list of collectors (Oct 1, 1954) you also give the locality data which proves that it was Silas C.

I might say that I have started a card file for collectors and now have about 250 entries. This file may be of help in checking some of the citations in your manuscript.

We are just about ready to start typing a draft of the first section of your pages 12-38. A copy will be sent to you.

Oct 18, 1954

We may run off a trial of the first few pages in order to decide on the final format. If we do I shall send a copy for your inspection.

The various items mentioned in your two letters have been noted.

Sincerely,

W. Andrew Archer

W. Andrew Archer
Curator

WAA/hea

Enclosures

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

Dr. W. A. Archer,
Herbarium, National Arboretum,
Plant Industry Station,
Beltsville, Maryland.

27 October, 1954.

Dear Dr. Archer:

Many thanks for recent letter and the typing service rendered. I have nearly finished the revision of the second third of my original Nevada manuscript. Was glad to hear that the typing of the first installment will begin soon.

Just now I have a new problem. *Salix Barclayi* Andersson was not included in the original mss., but I mentioned giving the range and saying that it might yet be found.

Just today, I came upon my note saying that an Elko Co. specimen, Nelson & Macbride 2065, from Burnt Timber Mts., is *S. Barclayi*, and that it is in the National Arb. herbarium.

If you can find it, please send it to me as soon as convenient. If I am to include this species, I wish to examine the single collection critically, lest I mislead by wrong identification.

Some of their collections are in US, but I feel sure that this one is not because I have just gone thro all their collections in this group.

Appreciating your assistance, I am

Cordially yours,

Carleton R. Ball

NA

cat. no.

227773

Loaned

10/29/54

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Maryland.

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

3 November, 1954.

Dear Dr. Archer:

I suggest that we change an entry in Lincoln Co., under *S. laevigata*, page 20 of the mss. you have for retyping.

Goodding 636 and 647 are cited from "Kernan's (or Kiernan)". I wrote to Dr. Lehenbauer last August for information as to the correct spelling. I have just heard from Robert H. Miller, Curator of the Herbarium, to whom the letter was recently referred, that no trace of such names can be found. He suggests that it probably was a Sou. Pac. RR. section house, or something similar. He says that the Meadow Valley Wash is between Carp and Rox. These towns do not appear on the map in my atlas, but are in the full list of localities in the U.S. and would be very near the town of Caliente, one being east and one west of it.

My suggestion is to delete "Kernan's (or Kiernan)" and then, after "Meadow Valley Wash," insert "between Carp and Rox (near Caliente)". This will tell where the collection was made.

I studied the specimen of *S. Barclayi* very carefully (Elke Co. Nelson and Macbride 2065) and decided that it is an immature *S. pseudocordata*. With that clue I searched again in the US Herbarium and found it under *S. pseudocordata*, where I had so annotated it in 1941. Then I looked under *S. pseudocordata* in the manuscript and found it entered there as (US), to which I now have added NA. The specimen is repacked and will be mailed at the Dept. tomorrow or Friday. Many thanks for sending it so promptly.

Will have the second third of the mss. ready for you very soon.

Cordially yours,

Carleton R. Ball
Carleton R. Ball,

3 Nov 1954

S. lutea Nutt., var *famelica* Ball.

Key it with *S. lutea*, under "pedicels 1-2 mm. long."

S. pseudocordata

Insert paragraph discussing uncertainty as to correct name.
Change bibliography??

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X { *S. Barclayi* Andersson.

/ Write description and cite NA and USFS ? specimens. Also keys.

The NA specimen (Nelson & Macbride 2065) turned out to be *S. pseudocordata*,
and a USN specimen was already so entered in MSS.

The USFS specimen, originally *S. bella*, was from Idaho, not Utah.

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
HORTICULTURAL CROPS RESEARCH BRANCH
BELTSVILLE, MARYLAND

Herbarium
U. S. National Arboretum
Plant Industry Station
Beltsville, Md.

Jan. 24, 1955

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

Dear Dr. Ball:

Just recently, typed copies of the first section of your *Salix* manuscript have been completed. The second carbon is enclosed so that you may have it for reference.

A number of other manuscripts are on hand at present but we could manage to type further sections of your manuscript whenever they are ready.

Best wishes.

Sincerely

W. Andrew Archer

W. Andrew Archer
Curator

Enclosure

3814 Jocelyn St., N.W.

Dr. W. A. Archer,
National Arboretum,
Plant Industry Station,
Beltsville, Maryland.

Washington 15, D.C.

22 March, 1955.

Dear Dr. Archer:

I am only two months late in answering your kind letter of 24 January, with which you sent the retyped draft of the first section of the manuscript on the Willows of Nevada. I am sorry for the neglect.

A virus/ attach, plus a deluge of willows for determination, has kept me fully occupied. Now I am going back to the mss. full time and try to complete it as rapidly as possible..

Many thanks for your help, and with best wishes, Cordially yours,

Carleton R. Ball
Carleton R. Ball

Digitized by Hunt Institute for Botanical Documentation

WAR FOOD ADMINISTRATION
COMMODITY CREDIT CORPORATION
WASHINGTON 25, D. C.



20 May, 1955.

Dr. W. Andrew Archer,
Herbarium, National Arboretum,
Plant Industry Station,
Beltsville, Maryland.

Dear Dr. Archer:

Many thanks for your letter of April 28 14. I finally have cleaned up the mountain of specimens received for determination during the winter, and now am ready to get back to writing on full time. The willows of Nevada are my first job and I wish to finish them up as fast as possible.

My room in the attic of South Building has not been disturbed. New filing units steadily pour into the space up there but there has been no suggestion that my space would be taken. Some people, laborers and others, eat their lunch there because I have a desk and chairs, and some of them take naps there but do no damage.

In your letter of Feb. 15, 1954 (apparently unanswered), you state the citation for specimens in the National Arboretum should be NA, and this I have been following. It is my understanding that the National Arboretum Herbarium is the whole big herbarium there where you and Dr. Blake work, and that the Mycological Herbarium is merely the collection of diseased specimens. Is this correct?

I have quite an extensive willow herbarium at my house address, partly because the cases are overflowing at the Dept. and partly because it enables me to complete practically all determinations at home, which saves time. I keep accessions mounted promptly and the mounted plants are all in labelled covers, although not all are in cases, as I do not have enough to hold them.

I think that I discussed with you some time ago my intention to give my Salix Herbarium to the National Arboretum Herbarium after my death. I am now 82 (on June 12 next), and there probably will not be many more years, altho the ages of 12 generations of Ball ancestors have 85 to 93 with the exception of my father, left for dead in the Civil War, but later patched up and lived to be 76 years old.

Will you please consider the matter of transfer of ownership of the Salix Herbarium to the Arboretum, and either draw up, or tell me how to draw up, the necessary papers transferring it immediately after my death?

I was glad to note that the Arboretum is to get an increase in funds. It surely is about time it had more money. I have noted some recent protests of what is happening at Arnold Arboretum.

P.S. I should have noted that my gift of the Salix Herbarium is in grateful recognition of the assistance and facilities furnished me by the U.S. Dept. of Agriculture (from which NA developed), three more than 50 years.

Cordially yours,

Carleton R. Ball
Carleton R. Ball
Collaborator

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
HORTICULTURAL CROPS RESEARCH BRANCH
BELTSVILLE, MARYLAND

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

June 13, 1955

Dr. Carlton R. Ball
3814 Jocelyn Street, N. W.
Washington 15, D. C.

Dear Dr. Ball:

A reply to your letter of May 20 has been held until a definite answer could be sent. Doubtless you are familiar with government procedures and the consequent delays.

Your proposal to give your Salix herbarium to the National Arboretum has been discussed with various officials. The opinion is that you need merely to make a legal statement to the effect: -

"I hereby give and bequeath to the Herbarium of the United States National Arboretum in Washington, D. C. the following:
My entire herbarium of Salix specimens now housed partly in _____ cases in the attic of the South Building, U. S. D. A. and partly in my home at _____. The herbarium consists of approximately _____ specimens."

The above phraseology presumably could be a codicil to your will. I do believe the wording should be rather specific as to approximate number of specimens, and as to disposition of related herbarium cases, manuscripts, notes, books, and the like.

Your offer is deeply appreciated by the various men with whom I have talked. It is most generous of you. We propose to have a bronze plaque made to hang in the future quarters of the Herbarium at the Arboretum to commemorate the event. Furthermore, I shall see that a special label or marker be made for affixing to each sheet to the effect: "Original herbarium of C. R. Ball, bequeathed to the Herbarium of the U. S. National Arboretum, date _____."

With kindest regards, I am

Sincerely,

W. Andrew Archer
W. Andrew Archer
Curator

UNITED STATES DEPARTMENT OF AGRICULTURE
EXTENSION SERVICE
WASHINGTON 25, D. C.

8 July, 1956.

Dr. W. Andrew Archer, Curator,
Herbarium, National Arberetum,
Plant Industry Station, Beltsville, Md.

Dear Dr. Archer:

At last I am back on the wilow job and expect to complete the manuscript of the nevada Willes very rapidly.

I am inclosing manuscript of the second portien, Sections Cerdatae to Commutata inclusive. It covers pages 41 to 63, inclusive, as written. Your final typing of part 1 (Sections Pentandrae to Longifoliae, inclusive) ended on (temperary) page 40, so this retyping should begin at page 41.

I note your suggestion that the citation of publication of *S. Eastwoodiae* Ceckerell (p. 62) be changed from "in Heller" to "ex Heller". Would this require similar chnage in any of the following citations?

- S. ligulifolia* (Ball) Ball in E.C Smith (p. 46);
- S. ligulifolia* Ball., in litt. in Schneider (p. 46);
- S. Nevae-angliae* var. *pseudocerdata* Anderssen, in D.C. Proderms
(synonym under *S. pseudocprdata*, p. 52

Some of this mass. has been rewritten with additions, and is rough draft. If you cannot handle it in this form, I will rewrite portiens you may require.

If you have received and more Nevada specimens, which I have not seen, I will be glad to give them immediate attention.

I have records of some additions specimens to be inserted in Part 1. and there probably will be some to insert in Part 2 before all is over.

I am starting work on the final portien immediately.

Cordially yours,

Carleton R. Ball
Carleton R. Ball

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
HORTICULTURAL CROPS RESEARCH BRANCH
BELTSVILLE, MARYLAND

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

July 12, 1956

Dr. Carleton R. Ball
U. S. Department of Agriculture
Extension Service
Washington 25, D. C.

Dear Dr. Ball:

It is good to hear from you again and to have another section of the *Salix* for Nevada.

Only one specimen has turned up and I am sending that to you.

Please do not worry about the "ex" or the "in" for citations. We can attend to that here.

Also, do not spend your time in retyping for that we can do also.

As you probably know, Mr. Little has completed the *Populus* which will form part of the treatment of the Salicaceae of Nevada.

Best wishes,

W. Andrew Archer
W. Andrew Archer
Curator

Two Nevada Willow specimens, received from Dr. Archer, July 20, 1956.

Entered on p 39

Salix exigua Nuttall, var. *nevadensis* (Watson) Schneider
Fallen, Churchill Co., E. W. Curtis, May 14, 1914. (Herb. Univ. Nev., 17554).

unfolding leaf; pist fls. & yng fruit)

Entered on p 30

Salix melanops Nuttall, var. *Belanderiana* (Reebee) (as *S. argyrophylla* Nutt.)
Pyramid, Lake, Washoe Co. F. B. Headley, July 18, 1911
(Univ. Nev. 17502).

Dr. W. Andrew Archer,
National Arberetum Herbarium,
Plant Industry Station,
Beltsville, Maryland.

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

23 July, 1956.

Dear Dr. Archer:

I have picked up at the Extension Service and identified the two additional Nevada willows, and am returning them to you.

I have entered them on my copy of the finally-retyped copy of the manuscript as follows:

Salix melanopsis/ Nuttall, var. Belanderiana (Rowlee) Schneider (p. 30)
~~Stunckskitt-Sapod-Rittery~~ argyre-
Washee Co. Pyramid Lake, F. B. Headley, July 18, 1911. (RENO, as S. argyre-
phylla Nutt.; Univ. Nev. 17502);

Salix exigua Nuttall, var. nevadensis (Watson) Schneider (p. 39)

Churchill Co. Fallen, E. W. Curtis, May 14, 1914. (RENO; Univ. Nev. 17554);

I have entered the Univ. Nev. accession number because there are collection numbers on these specimens. You may wish to drop out the "Univ. Nev. ", because that is what Rene stands for in the Nevada citations.

I have spent a lot of time clearing up the mess Rydberg and Schneider made of the relations between S. petrephila Rydberg and S. anglerum var. antiplasta Schneider. We have the facts, but we never will know the reasons for the statements made.

Appreciating your courtesies, I am

Cordially yours,

Carlsten R. Ball
Carlsten R. Ball

Collaborator.

UNITED STATES DEPARTMENT OF AGRICULTURE

EXTENSION SERVICE

WASHINGTON 25, D. C.

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station, Beltsville, Md.

2 August, 1956.

Dear Dr. Archer:

I have just noted that Schneider (Journ. Arn. Arb. 1:163. 1920) noted that in the original publication of *Salix Eastwoodiae* Cockerell an error was made. *Eastwoodiae* was printed with a capital F instead of a capital E.

To show his readers what error had been made, and where it was later corrected, Schneider ^{added} this phrase to the citation of *S. Eastwoodiae*:

(sphalmate *Fastwoodiae*, corrected in *Torreya* 11:264. 1911).

The wording is Schneider's but the parentheses are mine. It may be well worth while to add this clause to the citation of *S. Eastwoodiae* on p. 62 of the section section of the manuscript sent you recently for final typing.

I am making good progress on the final section.

Cordially yours,

Carleton R. Ball
Carleton R. Ball
Collaborator.

UNITED STATES DEPARTMENT OF AGRICULTURE

EXTENSION SERVICE

WASHINGTON 25, D. C.

Dr. W. Andrew Archer,
National Arboretum Herbarium,
Plant Industry Station,
Beltsville, Md.

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

5 September, 1956.

Dear Dr. Archer:

When I mailed you the copy for the second section of the Willows of Nevada, I supposed that it was completed. Since then, after long and arduous study, I have been forced to the conclusion that Schneider's Salix orestera, which I believed to belong in Section Glaucae, really belongs in Section Commutatae where he placed it. Worse than that, I have concluded that it is not a distinct species but is synonymous with S. Eastwoodiae, to which he believed it to be closely related.

Hence, I have rewritten page 62-63 as sent you, expanding them to cover pp. 62-66, and inclosing the new manuscript herewith. Because of the existing uncertainty and confusion, I have written a very full description and added a full discussion. If you feel that the discussion takes too much space, I will be glad to consider abbreviating it, before you retype that portion.

I will now get back to work on the third portion of the recision and will hope to finish it soon.

Cordially yours,

Carleton R. Ball
Carleton R. Ball
Collaborator

Dr. W. Andrew Archer, Curator,
Herbarium, National Arboretum,
Plant Industry Station, Beltsville, Md.

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

28 February, 1957.

Dear Dr. Archer:

Part

While working on ~~Section~~ 3 of my manuscript on the Willows of Nevada, I had need to refer to the manuscript of ~~Section~~ 2 ~~(Cordatae to Commutatae)~~ but cannot find the finally-retyped copy. Part

I mailed the revised copy of the mss. to you on 8 July, 1956. You acknowledge its receipt on July 12. ~~XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~ On 2 August, I made a suggestion regarding an addition to the citation of *S. Eastwoodiae* on p. 62 thereof.

On Sept. 5, 1956, I wrote you that a complete revision of *Salix Eastwoodiae* had been made necessary by my conclusion that it really included *S. orestera* Sdm., which I supposed belonged to Sect. *Glaucæ*, in Part 3. of the mss. I rewrote p. 62 and 63 and expanded them to cover pp. 62-66, thro fuller discussion and citation.

I am unable to find any reply to that letter of Sept. 5, or to locate a copy of the retyped mss. of Part 2. Have I misplaced both your reply and the retyped copy of Part 2, or is it possible that it has not yet been retyped?

The completion of Part 3 is my job now and gets first place.

Appreciating your generous help, I am, Most Cordially Yours,

Carleton R. Ball
Carleton R. Ball

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
HORTICULTURAL CROPS RESEARCH BRANCH
BELTSVILLE, MARYLAND

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

March 8, 1957

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

Dear Dr. Ball:

Upon looking into the files after receipt of your letter of February 28, I was convinced of my negligence. At least I could have answered your letter.

There has been a shortage of typing assistance and so the second part of the *Salix* manuscript did not get retyped. However, I promise faithfully that you shall have a copy early next week. Very possibly it will be finished on Monday. At the same time your revision of S. Bastwoodiae will be incorporated.

It is good news to know that you are at work on part three. Perhaps the *Salicaceae* can be issued early this year.

Most sincerely,

W. Andrew Archer
W. Andrew Archer
Curator

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
HORTICULTURAL CROPS RESEARCH BRANCH
BELTSVILLE, MARYLAND

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

March 12, 1957

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

Dear Dr. Ball:

A carbon of the second part of your *Salix* manuscript is enclosed. I am not satisfied with the copy but I do hope you can read it.

The following items should be checked:

page	paragraph	line	
45	4	5	" (U C Ag) what herb? <i>USC</i>
45	4	7	(F W S) what herb. ? <i>US</i>
46	1	3	(F) what " ? <i>Fish & Wildlife Serv, D.I. in</i>
50	3	2	(F B b) " " ? <i>Bell Herb. Field Mus.</i>
53	3	7	Linsdale (Mrs) = Jean M. Linsdale <i>listed</i>
56	1	19	--- McDermott = Miss. L. McDermott <i>listed</i>
60	3	1	14 not 14 a <i>del 13 also, OK</i>
61	6	1	15 not 14. <i>OK</i>
65	1		Should the last sentence "Tree-shrub --" go before the sentence which precedes it? <i>Yes, also delete the preceding sentence</i>

Sincerely,

W. Andrew Archer
W. Andrew Archer
Curator

Lemmon's or L.
watsoni or L.

(over)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
HORTICULTURAL CROPS RESEARCH BRANCH
BELTSVILLE, MARYLAND

Dr. W. Andrew Archer, Curator,
Herbarium, U. S. National Arboretum,
Plant Industry Station, Beltsville, Md.

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

22 March, 1957.

Dear Dr. Archer:

Your letters of March 8 and March 12, and the retyped mss. of Section 2 with the willows of Nevada, were promptly received. I greatly appreciate your prompt courtesy. You have no reason to apologize for the delay in that retyping. It is I who owe 1,006 apologies for this long delay in completing the manuscript.

The flood of willows for determination increases annually and keeps me busy for months.

Personal matters have taken unexpected amounts of time, including very desirable ~~visitors~~ visitors.

Recently, I have collected, sorted, arranged chronologically for each, and packed 400 lbs. of magazines for reading by patients in St. Elizabeths Hospital, and 500 580 lbs. for shipment to Universities and colleges in the other four continents of the world. This "Magazines for Friendship" program has resulted from requests for such magazines to help their students to learn to read English and to come to know more about America. It was started some two years ago by Occidental College, Los Angeles, and expenses are borne by the State Dept. and the Library of Congress, in the case of persons here who wish to ship in quantity.

I am working on ~~the~~ Section 3 of Willows of Nevada and hope to finish it soon. Then comes a revision of the Willows of Texas, the writing of the Willows of Ohio, and probably those of Michigan also. All such studies provide up-to-date material for the final monograph.

P.S. I note the suggestion regarding certain cited items in Section two, and will give them careful attention.

Cordially Yours,

Carleton R. Ball
Collaborator.

(over)

nevada file

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

March 12, 1957

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

Dear Dr. Ball:

A carbon of the second part of your *Salix* manuscript is enclosed. I am not satisfied with the copy but I do hope you can read it.

The following items should be checked:

<u>page</u>	<u>paragraph</u>	<u>line</u>	
45	4	5	(U C Ag) what herb?
45	4	7	(F W S) what herb.?
46	1	3	(F) what " ?
50	3	2	(F B b) " " ?
53	3	7	Linsdale * Mrs. Jean M. Linsdale
56	1	19	--- McDermott = Miss. L. McDermott
60	3	1	14 not 14 a
61	6	1	15 not 14.
65	1		Should the last sentence "Tree-shrub --" go before the sentence which precedes it?

Sincerely,

W. Andrew Archer
Curator

UNITED STATES DEPARTMENT OF AGRICULTURE
FEDERAL EXTENSION SERVICE
WASHINGTON 25, D. C.

Dr. W. Andrew Archer, Curator,
Herbarium, U. S. National Arboretum,
Plant Industry Station, Beltsville, Md.

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

22 March, 1957.

Dear Dr. Archer:

Your letters of March 8 and March 12, and the retyped ms. of Section 2 ~~next~~ of the willows of Nevada, were promptly received. I greatly appreciate your prompt courtesy. You have no reason to apologize for the delay in that retyping. It is I who owe 1,006 apologies for this long delay in completing the manuscript.

The flood of willows for determination increases annually and keeps me busy for months.

Personal matters have taken unexpected amounts of time, including very desirable ~~visitors~~ visitors.

Recently, I have collected, sorted, arranged chronologically for each, and packed 400 lbs. of magazines for reading by patients in St. Elizabeths Hospital, and ~~500~~ 580 lbs. for shipment to Universities and colleges in the other four continents of the world. This "Magazines for Friendship" program has resulted from requests for such magazines to help their students to learn to read English and to come to know more about America. It was started some two years ago by Occidental College, Los Angeles, and expenses are borne by the State Dept. and the Library of Congress, in the case of persons here who wish to ship in quantity.

I am working on ~~THE~~ Section 3 of Willows of Nevada and hope to finish it soon. Then comes a revision of the Willows of Texas, the writing of the Willows of Ohio, and probably these of Michigan also. All such studies provide up-to-date material for the final monograph.

P.S. I note the suggestion regarding certain cited items in Section two, and will give them careful attention.

Cordially Yours,

Carleton R. Ball
Carleton R. Ball
Collaborator.

added ✓

UNITED STATES DEPARTMENT OF AGRICULTURE
FEDERAL EXTENSION SERVICE
WASHINGTON 25, D. C.

Dr. W. Andrew Archer, Curator,
U.S. National Arboretum Herbarium,
Plant Industry Station, Beltsville, Md.

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

27 Marvh, 1957.

Dear Dr. Archer::

In farther reply to your letter of Mar. 12, I have given the retyped copy of part 2 of the Willows of Nevada a most careful study. The following items contain (1), corrections of errors in the mss. I sent you, (2), corrections of a few errors or omissions in the typing of the new copy, and (3) Discussion of and/or answer to the points you raised in your letter. The numerals preceding each item are the page, paragraph, and line of the retyped copy. I have not included the errors in retyping which you had detected and corrected in pencil.

- 41- 2- 8. Change "x 2.5" to x 2-5.
- 41- 2- 17. Changes "style" to styles.
- 43- 1- 3. Delete comma after "peduncles".
- 43- 3- 7. Remove one of 2 parentheses after "1869".
- 45- 4- 4. The "UCAG" of your letter almost certainly is an early and overlooked symbol for Utah Agric. Coll. and should be (UTC).
- 45- 4- 7. The "FWS" of your letter is Fish and Wildlife Service, U.S. Dept. Int. according to the approved list of abbreviations given me in your letters of Aug. 3 and 10, 1954.
- 45- 4- 11. Delete period after 11 and add ml.
- 46- 1- 3. F (of your letter) is the Chicago Natural History Museum, formerly Field Museum of Natural History, according to your list, noted above.
- 46- 1- 9. Kennedy 1774 or 1744?
- 46- 3- 1. "Ball in litt." is the way Schneider published it. In quoting, should we not follow Schneider, even if "lit. is correct abbreviation for "letters"?
- 47- 4- 2. (S. ligulifolia) should be underscored.
- 47- 6- 2. Is "Flr." a proper abbreviation for Flora?
- 48- 2- 1. "Fl." is used for Flowering (not Flora), but, 3 lines above, Flowering is written out in full. What is accepted abbreviation?
- 48- 4- 1. Insert comma (,) after "leng".
- 50- 2- 3. Underscore -folia.
- 50- 3- 2. (FBb) (your letter) refers to the Bebb (Salix) Herbarium in the former Field Museum (see 46-1-3 above. Is it approved?
- 50- 4- 6. "Ball in lit." See 46-3-1, above.
- 50- 4- 7. I note your pencilled abbreviation "AAH" for Arn. Arb. H. It is not in the list sent me (see 45-4-7 above. I assume it is approved.
- 50- 4- 9. You followed my copy in putting (US, as S. cordata mackenziana) in parentheses. In that case, I think US should be outside the ().
- 50- 5- 1. Change page numbers "431-443" to 431-435. My error.
- 51- 3- 14. Add an s to pedicel and style.
- 51- 4- 2. Change semicolon (;) after "mere", to a comma (,).
- 51- 4- 3. Underscore S. (last letter in line).
- 53- 2- 2. Insert comma (,) after "elevations". (3 successive clause there).
- 53- 3- 6. Change Na to N.

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- 54- 1- 6. Underscore White Pine Co.
54- 3- 9. Insert comma (,) after "obtuse, as now after "acute".
55- 1- 2. Delete semicolon (;) after "long" and insert comma (,).
55- 2- 1. At end of line insert ~~XXXXXX~~ Upper.
55- 3-15. Write Rene in capitals; add an s to Jene; delete "in".
- 56-1 - 1. Insert "in part" after (US, ; insert "Carson City" before Steinmetz.
56- 1- 4. Add y to "bush".
56- 1-11. Insert 1679 after 1678,
- 57- 2- 5. Insert a hyphen (-) between white and tomentose.
57- 3- 2. Insert a comma (,) after Washington.
59- 4- 7. Delete s from elevators.
- 60- 3- 1. Using the number without an a for a variety when the species does not occur. This occurs with both No. 13 and No. 14. This may be OK, but if the species were found there it would change the numbers.
- 61- 3- 6. Insert comma (,) after Idaho.
61- 6- 1. No. 15, instead of 14, is OK.
- 62- 2- 1. Change reprinted to preprinted.
62- 5- 4. Add another s to les.
- 64- 1-9, 10. Helmgren 1736A follows his 1738.
- 65- 1-7, 8. Delete the sentence beginning: "All of the Washee Co." and insert the "Tree-shrub" sentence in the Washee Co. series by changing preceding period to semicolon and reducing the capital T in Tree to lower case letter.
- 66- 2- 2. Insert comma (,) after denticulation, because there are three successive clauses.

I am sorry that I have put in quotation marks some of the words you have to locate in making these changes, while others are not in quotes. Just forget the marks entirely.

I will need to do some checking on the Kennedy numbers (46-1-9), and the Helmgren numbers (64-1-9,10), so will mail this letter now and write later about these two items.

Appreciating your helpfulness, am

Cordially yours,

Carleton R. Ball
Carleton R. Ball
Collaborator.

correction
added

UNITED STATES DEPARTMENT OF AGRICULTURE
FEDERAL EXTENSION SERVICE
WASHINGTON 25, D. C.

Dr. W. Andrew Archer, Curator,
U.S. National Herbarium, ~~Archeretum~~
Plant Industry Station, Beltsville, Md.

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

3 April, 1957.

Dear Dr. Archer:

In continuation of my letter of 27 March, listing additions and/or corrections for the retyped copy of Part 2 of Nevada Willows (*Cordatae* to *Committatae*), I now have looked up the Kennedy and Helmgren collection numbers and can report the following corrections needed:

- 46-1-9. In *S. lutea* var. *watsoni*, Washoe Co., Kennedy 1774 should be 1744, in (CRB, NA).
64-1-9, 10. in *S. eastwoodiae*, Elko Co., Helmgren 1736A should be 1738A.

A few questions as to the rules ^{for} preparing manuscript need clarifying to me. Here they are:

Are all specific and varietal names, based on names of persons, to be written with lower-case initials? (as *S. lutea* var. *watsoni*; *S. eastwoodiae*, etc.)

When do such names end with one i, and when with two i's (ii)?

Is it proper for me to use the word twigs, instead of branchlets. I had the impression that the use of branchlets was required, but have noted that my use of twigs in *S. ligulifolia* (p. 48) was followed in the retyping, and that Dr. Little used the word twigs in his contributions in 1956.

I am working steadily on part three.

Cordially yours,

Carleton R. Ball
Carleton R. Ball,
Collaborator.

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
HORTICULTURAL CROPS RESEARCH BRANCH
BELTSVILLE, MARYLAND

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

April 24, 1957

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

Dear Dr. Ball:

For the past three weeks I have been serving on jury duty so that my usual affairs have been neglected.

Your letter of April 3 is noted.

In the matter of proper names used in specific and varietal names, the custom in the U. S. Department of Agriculture has been to use lower case initials. The Smithsonian conforms to this also.

As to words ending in consonants followed by "i" or double "ii", the International Rules prefer the "ii" even though the original author used only one "i". However Dr. Blake agrees with me that the original spelling with one "i" should be followed.

Certainly "twigs" may be used instead of "branchlets" if you like.

I look forward with interest to see your completed manuscript on the willows of Nevada.

Sincerely,

W. Andrew Archer
W. Andrew Archer,
Curator

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
HORTICULTURAL CROPS RESEARCH BRANCH
BELTSVILLE, MARYLAND

Herbarium
U. S. National Arboretum
Plant Industry Station
Beltsville, Md.

Nov. 29, 1957

Dr. C. R. Ball
3814 Jocelyn St., n.w.
Washington 15, D. C.

Dear Dr. Ball:

Herewith are being returned the various lists you gave me the other day.
I have copies of the lists of collectors.

The Evans who appears on label with S. M. Tracy for S. melanopsis, collected in 1887, could well be Alexander William Evans. Both were mycologists in Colorado. I will ask Blake if he knows for certain.

A search in the herbarium yielded none of the Tennessee or Nevada specimens in the two lists.

Mr. Stevenson says he will pay you a visit sometime soon to discuss the matter of Salix hosts in the mycological collections.

I do hope the pleasant weather of the past days has helped you back to full recovery of health.

Please remember that we stand ready to help out in any typing you may have.

Most sincerely

W. Andrew Archer
W. Andrew Archer
Curator

UNITED STATES DEPARTMENT OF AGRICULTURE

FEDERAL EXTENSION SERVICE

WASHINGTON 25, D. C.

Dr. W. Andrew Archer, Curator National Arboretum,
Plant Industry Station, Beltsville, Md.

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

Dear Dr. Archer:

5 December, 1957.

I have received your letter, and also the brief note, of 29 November, returning the list of possible addition Nevada species and varieties, the list of species and varieties possibly occurring in Tennessee, and the list of Nevada collectors.

I was happy to note that no additional Nevada specimens were found, and no Tennessee specimens. I am very glad to have the official international designations of herbariums in North America.

My illness continues, varying in intensity and in location, and there is no certainty for the future yet apparent.

Because of these facts, I have set my self a daily work schedule on Salix. As a result, I already have finished part 3 of the Nevada mss., Reticulatae to Rostratae. The ribbon copy is inclosed herewith, as I wish it to be promptly and safely in your hands. It covers pp. 68 to 92.

I have rewritten very little of this old ms., so you will find that many of the county records of distribution are not yet in alphabetic order of the names of the collectors. In many cases I have placed pencilled numbers in the left margin, the proper numerical order, county by county. This should help some.

The next critical problem is to review and correct and complete the keys to all 3 parts of the mss. This I will begin at once.

The final major task is to make sure that all recent collections in the area herbariums be checked to insure that they are entered in the mss.

With many, many thanks for all that you so kindly offer to do for me, and with especial appreciation of the International List of Herbarium Abbreviations, which will enable me to find what I can no longer remember, I am

Most Sincerely Yours,

Carleton R. Ball
Carleton R. Ball,
Collaborator

Office

Herbarium
National Arboretum
Plant Industry Station
Beltsville, Md.

Dec. 8, 1957
Phone We 5-4620
Ext. 324

Dear Dr. Ball:

The third section of *Salix* has been received and added to the other sections of your manuscript.

I have made an index and am enclosing a copy for you. Additions and corrections can be made when you have finished your revision of the keys.

Dr. Little has completed the portion dealing with *Populus* but he still has the manuscript. I shall let him know that your portion is about ready.

We should be able to turn out this treatment early next year. To my mind it will be one of the best contributions we have had.

Do you think we should have some illustrations? Line drawings would be best I presume but, off hand, I do not know of any we could borrow.

I do hope your illness improves soon, certainly the weather of the past few days should be conducive.

With best personal regards and greetings of the Season, I remain

Sincerely

W. Andrew Archer

W. Andrew Archer

4317 Rowall Drive
College Park