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About the Institute

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

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

Virginia Polytechnic Institute
Department of Biology

Blacksburg, Virginia
September 27, 1938

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

Dear Dr. Ball:

For several years we have had a committee on Virginia flora attempting to get together all the data we can as to plant-life in the State and to build up an herbarium. I am chairman of this committee and am working toward the establishment of the herbarium here at Blacksburg. As yet we have little in the way of species of the genus *Salix*. I will get in touch with other members of the committee to determine what they have on hand and will be more attentive to the collecting of species in my travels. I have collected comparatively few as I have not found them in fruit or flower. However, if you feel they can be satisfactorily identified by vegetative factors, I will attempt to give more attention to the collecting of them and sending material to you. I am interested in notes which you mention in Virginia species and would suggest that you write a short paper, possibly two pages or a little more, as to the genus *Salix* in Virginia for publication in our journal *Claytonia*, a copy of which I am enclosing. I believe a paper on the subject will call attention to the genus and may help you secure more material from the State. I shall be very glad indeed to correspond with you from time to time in regard to matters pertaining to our State flora.

Very truly yours,

A. B. Massey
A. B. Massey

abm:fe
enclosure

(over)

(See c

Address:

Extension Service, U. S. Dept. Agric.

September 28, 1938

Professor A. B. Massey,
Department of Botany,
Va. Polytechnic Institute, Blacksburg.

Dear Professor Massey:

Your letter of yesterday arrives just as I am leaving for a southern trip. I am delighted to know of your interest in the Virginia flora, and will be glad to help in any way possible.

✓ Under separate cover I am sending six copies of my recent paper on southern willows, for yourself and the members of your committee. The only one in Virginia to whom it has been sent previously is Professor Lena B. Henderson, at Woman's College, Lynchburg. She is sending her material for determination.

I will be glad to receive the herbarium material of *Salix* from any member of your committee, at any convenient time. I seldom am gone longer than 3 weeks at a time, so can return it rather promptly.

When I get back, I will be glad to send you a set of all southern species I have available, and will be glad to receive duplicates of any you may collect.

Will be glad to send a brief article to *Claytonia* later. When I have studied the material received for identification in answer to the letters just sent out, I can give a better approximation of the distribution of species than I can just now.

Appreciating your help in this work, I am

Cordially Yours,

Carleton R. Ball
Executive Secretary

See your letter July 14, 1939
to A.B. Masson

Lake
Masson 2384
CRB

Recd 7/31/44

This specimen from

Montgomery Co. Va. on pasture of
Floyd Plank south of Luster's Dale.

7/26/44 - A.B. Masson '4658

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

November 5, 1943

Dr. C. R. Ball
USDA Extension Service
Washington, D. C.

Dear Dr. Ball:

The specimens of Salix which you sent me recently have arrived safely. Your generosity in sending these to me is greatly appreciated. They make a welcomed addition to our willow collection. You have seen all of my willows as well as those which I secured from other collections in the State. I am sorry I do not have more material to send you. I have not collected willows for the last two years. In fact, I have not done much collecting - of course, on account of the condition of tires and gas. I hope that when we get back into the field again I can do more willow collecting. I am attempting to work up a great deal of my material this winter and I may write to you later in regard to the Virginia willows. If there is anything I can do for you in any way in connection with your work, I shall be pleased for you to call on me.

I am still in hopes of accomplishing something worthwhile with the Virginia flora. Our recent publications dealing with the plant life have not been sent to you, as I thought most likely you would not be particularly interested in them; however, if you care for copies of our bulletins on weeds, medicinal plants and poisonous plants, drop me a card and I will be more than glad to send them to you.

With regards and best wishes and thanking you for your generosity and support, I am

Sincerely yours,

A. B. Massey
A. B. Massey

ABM:lks

November 9, 1943

Professor A. B. Massey,
Dept. of Biology,
Va. Polytechnic Institute,
Blacksburg, Virginia.

Dear Professor Massey:

Your letter of Nov. 5 is here and I thank you for refreshing my memory as to having seen your willows, as well as those from other herbariums in the State. My letter file would have shown that but was not before as I wrote.

I am glad you are working away on the State flora. Sometimes such compulsory haltings of field work prove to be a real advantage in permitting arrangement of material and notes and completing plans for future operations.

I am spot-mapping by counties all willow specimens from the South and hope to be able to publish helpful distribution maps by species and varieties presently.

I will be glad to help you in any way that I can with Virginia willows, at any time, and will gladly put all distribution records at your disposal.

I will be glad to have copies of your publications on the weeds, medicinal plants, and poisonous plants in the State flora. I have worked with weeds and poisonous plants somewhat, still have a large library covering them, and was responsible for the estimate that they would cause us an annual loss of some \$3,000,000 annually. This estimate was prepared for the Chamber of Commerce of the U.S., and they planned to use it in getting a congressional appropriation for adequate work on weed control. A jealous and unprincipled official in the Dept. here balked up the whole plan by butting in and little ever came of it, as I went to the Univ. of California soon after.

I am preparing a third Univ. Calif. volume covering all governmental relations (Federal, State, and Local) in natural-resource activities. Medicinal plants, of course, are natural resources. Whether I shall cover weeds and poisonous plants is now being decided. Some plants fall into both categories. For example, the wild cherries furnish wildlife food, and some lumber but wilted cherry leaves are a rank poison to livestock.

If any of your work in these fields involved official cooperation at any level, it will get honorable mention in my volume.

With good wishes and personal regards, I am

Cordially yours,

Carleton R. Ball
Collaborator

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

November 11, 1943

Anne P. Longspee for Lamin

Dr. Carleton R. Ball, Collaborator
USDA Extension Service
Washington, D. C.

Dear Dr. Ball:

Under separate cover I am glad to send you a copy of each of several of our bulletins. I would appreciate a frank, straight-from-the-shoulder statement of your criticism of the bulletin on poisonous plants, if you would be so kind as to do it. Do not be afraid of expressing yourself freely regardless of what you think might be my feelings in the matter. I realize this is asking rather much of you since you are not intimately acquainted with me. This bulletin has been drawn up in a manner unusual for state publications on poisonous plants, hence, I am anxious to know the reaction of others in regard to it. I feel that you are in a position to give the criticism consideration.

I do not envy you in your job of spot mapping the county records of the willows over several states. The results will certainly be very interesting to follow out and should be very worth while and show the trend of the distribution of the species. At present I am involved in recording the data on the ferns of Virginia. Not so much because I want to work up a paper on the ferns, but because they are an important group of plants in our state flora. I have other groups partially worked up; for instance, the legumes, and have gone into the ferns somewhat with the idea of following through, although I will not actually follow through in the usual botanical order. Detailed recording as I am working up would be rather long for printing, so I am inclined, for the present at least, to putting it in mimeograph form for a limited distribution and when it comes time for shaping it up for publication, the distribution by counties can be given with no data in regard to stations, etc. I feel that it is rather essential to get this detailed summary together as a preliminary to publication which might develop in the future. In planning a development of this type, I have been thinking of asking others to contribute to it. You have been on my mind as a very desirable one to prepare something of the kind on the Salicaceae, or at least the genus Salix. I have the majority, if not all, of the literature on the Salicaceae recorded in my files. This part of my file could be sent to you, or a duplicate prepared. How such a manuscript would be handled for distribution, I cannot say at present other than mimeographing. In the near future, I will have part of the fern work in shape so that I can send you the work of one species as an example of what I have in mind; that is, if you think you could spare the time to work up the family or genus of the state. Possibly I am not making myself quite clear.

*the ferns
which?*

Dr. Carleton R. Ball

- 2 -

November 11, 1943

My main object in mentioning it at this time is to feel you out as to the possibilities of your preparing a manuscript of the kind. If you think you are in a position to give it serious thought, I will then write to you in more detail as to how I wish to handle it. All the groups we work up should be worked under one definite system or form so the whole will be more unified.

Your statement to the effect that you are preparing a third University California volume covering all governmental relations (Federal, State, and Local) in natural resources sounds like a whale of a job to me and rather intricate. It will certainly be valuable information after you have gotten it all together and I wish you success in it.

Thanking you for your letter and interest, I am

Sincerely yours,

A. B. Massey
A. B. Massey

ABM:lks

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2 vols on Apr = 1139/20

November 15, 1945

Professor A. B. Massey,
Dept. Botany, V.P.I.,
Blacksburg, Virginia.

Dear Professor Massey:

Your letter of Nov. 11 is before me, together with the three publications. I am greatly indebted to you for these. I note from the indicated cooperation of one Federal and two State agencies that I will have to include this project in my third volume on relations in natural resource activities. Of this more later, when I get to work on that chapter. (Plant Resources). It is a whale of a job. The other two volumes contained 1139 pages.

I have noted carefully your request for an appraisal of the bulletin on poisonous plants. I am doing it at once for if I lay it away I will never get back to it. I doubt if the volume of our acquaintance is important, for I am looking at the matter presented and not at the author.

Two methods commonly are employed in non-taxonomic discussions of useful or harmful plants, especially where numerous species are involved.

One method is to treat each species separately or completely, with occasional cross references from one to another. The arrangement of the species differs from author to author, sometimes alphabetically by common names or scientific names, sometimes in order of abundance, sometimes in order of importance, etc. This method is of most value for those who already know the plants and will use the publication chiefly as a work of reference.

Another method is to arrange the species in groups by some character common to all the members of each group, as annual or perennial, herbaceous or woody, preferred habitat, method of distribution, principal uses, etc.

Both methods are factual but the second has the added value of teaching the association of ideas. This is informative and educational in the sense of teaching the reader to do some thinking as well as mere remembering. To a beginner or to one not specializing in the particular field (the layman), this second method is of much greater value. Your publication follows this method and therefore should be much more useful to your general constituency.

There are obvious ways in which it could have been bettered (that is true of my papers also). Some trace back to the author, as the third paragraph on p. 14, which would have been better at the end of the discussion of winter poisoning or at the beginning of spring poisoning, when the species mentioned were in mind. Some minor matters may have been caused either by author or printer. One very bad example is due to the make-up man and printed. I refer to the vertical column heading on pp. 47-49 (which pages are not numbered). One fixed rule of English is that we read from the top downward. These headings read up and are bottom-up as the page is held. This is the Japanese method. Printers have established the habit. Some one must break them of it.

Cordially yours,

Will write about Salix later.

Carleton R. Ball, Collaborator.

Professor A. B. Massey,
Dept. Botany, Va. Polytechnic
Institute, Blacksburg, Va.

November 16, 1943

Dear Professor Massey:

I have read again that portion of your letter relating to a manuscript on the willows of Virginia. I always am interested in different (and perhaps better ways of presenting material. I will be glad to undertake the job if and when you send me a sample of the treatment you have in mind. At the same time, please give me a good idea of when you want the finished product. I am writing on many things and usually can meet a required date if told in advance.

By the way, you probably have seen the series of papers on native tannin plants published by Dr. Alfred Russell, of the Dept. Chemistry, Univ. No. Car., in cooperation with the Leather Chemists Assn. He finds that *S. longipes* (presumably from Florida) has a much higher tannin content than *S. nigra*. The var. *Wardii* (Bebb) Schm. with type locality at Great Falls of the Potomac, occurs sparingly on the coastal dunes and more commonly in rocky valleys upstate.

Cordially yours,

Carleton R. Ball
Collaborator

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

November 22, 1943

Dr. Carleton R. Ball,
Extension Service,
United States Department of Agriculture
Washington, D. C.

Dear Dr. Ball:

Your much appreciated letter of the 15th, has been read with much interest. I think it would be better for me to withdraw my suggestion as to your working up the Virginia willows. You have enough on hand now without worrying with these.

Your criticism of our bulletin has been read with interest. However, I cannot quite say that I care for the heading of the table lined up from above, rather than from below. If you have to turn the page in order to see the table, I would rather have the vertical headings arranged in what you call the Japanese style, not that I admire the Japanese in any sense whatsoever. I notice that in the year book of the Department of Agriculture, that all tables have their headings run in this "Japanese" fashion. In fact, I think one very rarely sees a table with verticle headings arranged otherwise. I expect it depends largely whether a person is righthanded or lefthanded, and whether they prefer to twist their necks in trying to read a verticle heading. I am grateful to you however, for your remarks.

The day or two before receiving your letter, I received one from you directed to a Mr. Thompson in California. I opened it, since it was directed to me, and was puzzled for a while as to what the contents were referring to and why the \$3.00 check. Finally looking at the heading of the letter, I discovered I had received another man's letter. I put it in another envelope and addressed it accorging to the name and address in the letter.

● Thank you for your interest and cooperation, I am

Sincerely yours,

A. B. Massey

November 26, 1943

Professor A. B. Massey:
Dept. Botany, V.P.I.,
Blacksburg, Virginia.

Dear Professor Massey:

Your letter of Nov. 22 is here. Don't worry about my doing the Virginia willows. It will be a pleasure, especially in view of all your many courtesies to me. Virginia is included in the range of Britton and Brown, so that all the species will be written up anyway, for that week, including their corrected ranges.

Just send me a sample treatment of a species, preferably of a tree or shrub, as you are preparing your material, and tell me when you need the manuscript.

I note your comments on up-reading headings in vertical table boxes. There is more to it than left- or right-handedness because, in either case, the headings read up and the columns down, which is feckish. I know that this Dept. does it. The printing rule is responsible, and printers never read what they print, so all readers suffer for the feckish rule.

Cordially yours,

Carleton R. Ball
Collaborator

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DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

February 21, 1944

Dr. Carleton R. Ball
USDA Extension Service
Washington, D. C.

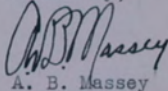
Dear Dr. Ball:

Your letter of the 17th came to hand this morning. I am delighted to know that you are going to have time to work on the willows of Virginia. In our wildlife organization here, I am the botanist of the Wildlife Unit--Mr. Handley is the leader, the data being sent to you by him is a matter of form. He is an ornithologist and indirectly interested in plant life. If you wish to fix up your manuscript and send it to me to be typed, it will be perfectly agreeable. I have in mind of the manuscript being prepared by Ball and Massey.

As to the introduced species, may be you would think well of treating them only in the key and giving them only a slight description; however, if their descriptions are not too time-consuming, it would be nice to have them. If you had ~~them~~ in the key with little or no description in the text, collectors will be able to determine what they have.

Thanking you for your interest and cooperation, I am

Sincerely,


A. B. Massey

AHM:lks

Dr. A. B. Massey,
Dept. Botany, Va. Polytechnic Inst.,
Blacksburg, Virginia.

March 6, 1944

Dear Dr. Massey:

Replying to yours of Feb. 21, I can say that I am well along on the write-up of the Va. willows. I have prepared keys based on floral characters and separate keys based on vegetative characters. The vegetative characters are apparent during most of the year.

Descriptions need not be long, and especially those of the introduced species.

When I saw the record of *S. candida* Fl. from Smyth Co., on a dry mountainside, I was suspicious that it really was *S. tristis* or *S. humilis* so wrote to Dr. Gleason and he sent me the sheet. It proves to be *S. humilis* and thus definitely removes *S. candida* from the record. Why a big botanical institution would publish such a suspicious record beats me. Glacial bog willows don't grow on dry mountain sides and they had plenty of true *S. candida* in their herbarium. I had never happened to see that record before and am glad to have it cleared up.

Cordially yours,

Carleton R. Ball

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

March 10, 1944

Dr. Carleton R. Ball
USDA Extension Service
Washington, D. C.

Dear Dr. Ball:

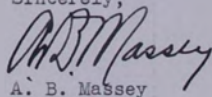
It is a pleasure to learn from your letter of the sixth that the manuscript on Virginia willows is progressing so nicely.

Recently I have been looking over the data I sent you. I was disappointed in noting that I had organized it rather irregularly. I have been working rather intensely on a manuscript of the ferns of the State. In assembling this data, I find that I have finally gotten shaken down into a rather definite system of listing my entries. Consequently, in looking over the carbon copy of the material I sent you, I notice a good deal of lack of uniformity. I trust that may be I will have a chance to straighten this out in the preliminary manuscript. I was rather suspicious of the S. candida from Smyth County. I am glad to know that you have had an opportunity to straighten it out.

I will be looking forward with much interest to receiving your material and getting it put into the final typing, of course, with a copy for you before it is submitted anywhere for publication. I believe that the inclusion of a few of the cultivated forms will add considerable interest. I agree with you that these latter need not be treated in detail.

With regards and best wishes, I am

Sincerely,


A. B. Massey

ABM:1ks

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

May 25, 1944

Dr. C. R. Ball
Agricultural Extension Service
Washington, D. C.

Dear Dr. Ball:

This is neither a request nor an attempt to rush you in the least. At this time of the year, the last month of our fiscal period, there is sometimes some residue of budget available. This gives me an idea that it may be possible for me to interest our director of publications in publishing a college bulletin on the willows. I have been wondering if your work on the willow manuscript is far enough along for you to be able to conveniently send it to me in the near future. If you can do this, I can take the matter up with our director of publications and see what he can do with it. However, do not take this as any assurance from me that it would be published at this time. I cannot mention the matter to our director unless I have the actual manuscript in hand; consequently I do not know anything of the possibilities of his accepting it.

Right now I have a bulletin on Virginia Ferns and Fern Allies which has been placed in the hands of the printer. Whether he will be able in a push to accept a second manuscript at this time, I am uncertain. Hence, my opening statement, this is expressing an idea and possibility to you and not attempting to urge you on.

Sincerely yours,

A. B. Massey

A. B. Massey

ABM:lks

Dictated, but not signed
by Professor Massey. s/

May 31, 1944

Professor A. B. Massey,
Dept. Botany, V.P. I.,
Blacksburg, Virginia.

Dear Professor Massey:

Your letter of May 25 came promptly. If there is even a chance of expediting the publication of the Va. willows, I am willing to tie a rush slip on the job and see what can be done.

Some time ago, I think I asked you for a sample page of the proposed treatment of a species, preferably a shrubby or arboreal one. I do not find any such sample in the Va. envelope.

I will have to provide three parts for such a manuscript: namely, 1, the descriptions of species, with habitat and distribution; 2, the keys; and 3, the list of known specimens by counties, so far as you do not have them.

Since your letter came, I have typed description of the native and introduced species. I inclose the set, except *S. Harbisonii*, which I must consider farther. These descriptions are full, being based on mine in "Willows of the District-Flora Area", but with needed emendations and additions. Some are not quite complete.

Let me know whether you want these reduced, in general, to two-thirds, one-half, or one-third, of their present length. I can do it by cutting out the less essential details. The key characters are most important, but I believe that they should be repeated in the description, as otherwise the reader either gets an imperfect picture or has to run back thro the keys for the most important characters.

The keys are well along, and I will finish them just as soon as I decide on the species which must be included. They are natural keys and somewhat fuller than the artificial ones, but much more informative. The idea is that the user gradually learns the species by using the keys and becomes less and less dependent on the keys as the years pass.

You sent me a county record of the specimens you had or had seen. I have drawn off a list of all the Va. specimens in my herbarium and the U.S. Natl. Herbarium. These now are in longhand. Such of them as you have not listed I will add to your lists.

With my retired status, and the shortage of government help, I must do all my own typing, which slows down the work somewhat. Will hope to finish the keys and distribution this week.

You will be wholly responsible for the form in which the material is assembled. Also how much of the data with the cited specimens you wish to include. I will give it all.

I meant to say that if you will return the set of descriptions I inclose, I will strike out the unneeded parts. You suggested that perhaps desc. would not be needed for introduced species. I think brief ones are desirable. I have not numbered the species, as I may add *S. Harbisonii*. Will number in

and return. Hastily. Cephalon B. Ball

Professor A. B. Massey,
Dept. of Botany,
Virginia Polytechnic Institute,
Blacksburg, Virginia.

June 2, 1944

Dear Professor Massey:

I am inclosing:

A 1-page introduction, to which you will wish to add;
Keys, based on floral and vegetative characters, respectively;
The descriptions of *S. petiolaris* (omitted before), and *S. Herbisonii*.

There remain to be assembled the records of distribution, by counties, of the specimens in my herbarium and the U.S. Natl. Herb., additional to such as you already have cited. These I will send promptly.

While I send you the description of *S. Herbisonii* (my translation of Schneider's Latin), I now am convinced that it is not a species. He grouped every abnormal specimen under it, after which he guessed that it might be :

1, a new species (and so described it);
2, a hybrid between *S. longipes* and *S. nigra* (and some doubtless were);
3, var. *venulosa* of *S. longipes* (it certainly is not what Fernald is calling var. *venulosa*, and I now doubt if there is such a variety). I have not included *S. Herbisonii* in the keys and do not wish to include it in the described species.

S. discolor has never been found in Virginia but might be expected where *S. lucida* and *S. cordata* occur. I have included it in the vegetative keys but not in the floral keys. Doubtless it should not be in either.

With full keys, based on both floral and vegetative characters, long descriptions will not be needed. On the other hand, the willows would not be considered so difficult if full descriptions were published commonly. So we always are torn between the two desires:- to economize and to describe and key fully. I will follow your wishes in all these things.

I hope that this material will let you make preliminary discussions with your printer, so that if there is any chance at all of getting money ear-marked the chance may not be lost.

Whatever material you return to me for action, I will give immediate attention.

Cordially yours,

Carleton R. Ball
Collaborator

Professor A.B. Massey,
Dept. Botany, V.P.I.
Blacksburg, Virginia.
Dear Professor Massey:

June 3, 1944

I am returning herewith the sheets you sent me, covering the distribution records for Virginia willow species. In general, I have done three things.

On some, I have indicated that the species of variety does not occur in the State.

On some, I have added such distribution records as I had and you had not cited on the sheets.

On several, I have clipped a new sheet or sheets, giving the distribution records from your sheet and from my data in one combined list.

For one, *S. nigra*, I have typed my records which are additional to yours and clipped this additional sheet to your sheet. You will need to use both.

I do not expect, of course, that you will wish to publish these distribution lists in this form. I purposely have given rather full data, including habitat, exact locality, initials of collector, full date, etc. This is for my permanent record. Except for critical species, it is hardly desirable to give data so fully.

For such species as *S. lucida*, *S. interior*, *S. cordata*, and *S. petiolaris*, the fullest possible data are desirable, as they are relatively rare and reach their far southern extension in Virginia.

S. longipes var. *Wardii* is critical also because of its occurrence on coastal sand and on inland rocky streams, mostly in mountains, and because there is question concerning the species and two varieties, and also *S. Harbisonii*.

I hope that this third shipment will enable you to take up with your printing division the question of speedy publication. I will handle promptly any thing you send back to me.

Cordially yours,

Carleton R. Ball

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

June 5, 1944

Dr. C. R. Ball
USDA
Agricultural Extension Service
Washington, D. C.

Dear Dr. Ball:

I have received your three sections of a preliminary to a manuscript on "The Willows of Virginia". Looks to me like this will shape up very nicely into a paper of much interest. It will make a valuable contribution to our study of Virginia flora.

The data you have sent me and what I have on hand is sufficient to be arranged into a preliminary manuscript. In the near future I will take this to our Director of Publications and see if he can accept our manuscript, developed from this preliminary form. I am in hopes we can get it accepted, however, I shall not make any promises until I have learned his reactions. The question with him is a matter of finance, otherwise, I find him very cooperative and interested. At present, he has my manuscript on "The Ferns of the State". This is in the hands of the printer and should be out sometime the latter part of June. In this manuscript I have included the distribution notes in considerable detail. I think such is desirable if one can get authorization of such detail from the Director of Publications. A journal could not allow space for it unless extra pagination ~~was~~^{is} paid for by the authors.

At present, I am involved in more academic teaching than normally since under the war conditions our staff has been reduced to such an extent that I am the only one handling our classes in the field of botany with the exception of one graduate student who is conducting two of the laboratory periods. Also, this fern bulletin is calling for my attention from time to time and I am trying to round up data preliminary to a manuscript on "The Lespedeza of Virginia" and another on "The Shrubs of Virginia". I will take up the willow manuscript as early as feasible, this, however, will be governed largely according to the reaction of our Director of Publications in accepting it. If he wishes it right away, other matters will be held up as far as feasible and the willows will receive my attention. I am usually slow in my manuscript development, but somehow I manage to get there so you will most likely hear from me in the near future and I hope to be able to give you the verdict.

Thanking you for your prompt attention to this matter and for the work you have done on it, I remain,

Sincerely yours,

A. B. Massey
A. B. Massey

ABM:m

June 12, 1944

Professor A. B. Massey,
Dept. Botany, V.P.I.,
Blacksburg, Virginia.

Dear Professor Massey:

Your letters of June 5 and 6 awaited me as I returned to the office this morning. I am delighted to know that you have been able to arrange for the early publication of the material on willows. I am interested to know that you also have the Ferns in press, and manuscripts on Lespedezas and the Shrubs of Virginia in the offing. The one on Shrubs naturally will include most of the willows also.

1. I would suggest that the authorship be Massey and Ball. This is a State publication, one of a series under your name. It is primarily a publication in a series on wildlife research rather than taxonomy, and you represent the former aspect. The material which I have contributed was prepared primarily for use in other connections (except for the two keys) and must be much modified for use in your projected publication. I use my full first name in publication and would prefer it in this one.

2. Of the three parts I contributed, the keys are done, if you approve the sample form I have used. The distribution is for you to arrange as you see fit, as to form and detail of included data. Whatever you decide suits me.

3. The descriptions, as I explained when sending them, were prepared for other purposes, and presumably too long for your purpose. I suggested that you estimate the percentage reduction (one third, one half, two thirds) and I then would omit sufficient of the less important matter to bring them down to that percentage. The cutting would not necessarily be the same percentage in each case but the average reduction would be that you suggest.

4. I will make those reductions whenever you can give me the estimated percentage of desired reduction. It will be better to make those reductions before you run your first draft, as it will save paper, time, and typing. Perhaps you can let me know soon after June 20.

5. I still must arrive at some conclusion regarding *Salix Harbisonii* and the varieties of *S. longipes*. Will try to give this attention soon. Just now am on a rush job in assembling some data needed by the military authorities.

Be assured that I will do everything possible to assure early publication of this manuscript. It does not need approval by any agency here. The work I do for Federal and State agencies in this country and Canada is recognized as official business by this Dept., but they assume no responsibility for manuscripts.

Cordially yours,

Carleton R. Ball
Collaborator

from A.B. Massey

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

June 6, 1944

Dear Doctor Ball:

The Director of Publications has agreed to print our bulletin on the willows. I have just had a conference with him. I agreed to limit our manuscript to forty pages of typed material. This means about twenty-five pages in print. We may not need this much space. It is my policy in such matters to ask for as much space as possible. I had rather the manuscript have less than the number of pages requested than to have to ask for additional space.

I promised it to him in early August as I did not want to have to work it up just now if it could be avoided. I am winding up the spring quarter of classes which ends in a spell of examinations. I did not care to "dig in" on the willows during the period. I will plan to get seriously on to the willows about the twentieth of June, hoping to have a completely typed preliminary manuscript in your hands at the earliest possible date. With the data you have sent me recently I can organize this preliminary manuscript and then submit it to you for criticism. I judge that you will have to have the manuscript approved by certain personnel in the Department of Agriculture before you can share authorship, hence, it will be my endeavor to get the manuscript to you in time for it to run the gauntlet.

In the meantime can we settle on the authorship? I have no desire to make any request but express my reasons for the two possible arrangements.

First, C. R. Ball, Executive Secretary, Coordinating Committee of the U.S.D.A., Tennessee Valley Authority and Valley States Agricultural Colleges.
and

A. B. Massey, Botanist, Virginia Cooperative Wildlife Research Unit, Department of Biology, Virginia Polytechnic Institute.

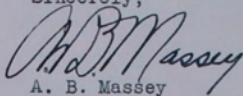
To justify this arrangement is the fact that you are the recognized authority on the genus Salix and have done the larger portion of the technical work on the manuscript. Without your help it would have been a much more tedious job for me to have developed an acceptable manuscript.

Second, the reverse arrangement - Massey and Ball, is justified only on the basis of the fact that it is a Virginia project being printed by this institution and that it is an attempt to encourage support from my superiors for my

efforts in developing the work on the flora of Virginia. The latter can also be said of the first arrangement, the second arrangement will simply give more emphasis.

I have no desire to hold for one arrangement against the other. I leave it with you entirely and will act in accordance to your wishes. In either case be certain that you give me the proper alignment as to your official capacity.

Sincerely,



A. B. Massey

s/

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

July 22, 1944

Dear Doctor Ball-

No doubt you have been wondering what has become of me and the willows. I have not quite hung myself on the weeping willow tree; however, I have not made anything near the progress I thought I would have. The publications office set ~~the~~ August 1st as the time for it. I have been very unwell though kept going. Classes which I am not suppose to teach developed and they had to be planned for and since there were not laboratory directions for them I have had to dig in on them. I had a major operation last summer and I am not normal yet. It worries me a great deal to get behind in this way.

Under Mr. Handley's franking privilege for the business of the Unit the sheets you sent me are returned for your final approval. I hope they are ready for me to have them typed in final form. You will note some changes, annotation etc. I do not think that there is any need of reducing the amount of description etc which you give. The red pencil markings are for guidance of the typist in getting the counties in order. In some instances you will find a red X or ? for your attention to some point which may not be clear or correct. I have shortened the references by an initial or number in (). The key to these will be listed at the end of the bulletin. One of the keys I have transformed into an indented key. I send it to you for your criticisms. A key of this type is much quicker for one who is not very familiar with keying; however, it is not easy to follow relationships etc. I am not asking that you agree to the form but would like to know your reaction to it. In the descriptions, would it be feasible for you to underline the characteristics which are typical of the species? This system is used in Gray's Manual and I find it to be of much help. I hope to send the rest of the mss to you in a very few days.

Sincerely,

A.B. Massey
A.B. Massey

*Give me your final
on S. Harbinsonii.*

*Have you published the N. Amer. Willows you
refer to in several places? If not I'll have to list it
as in manuscript.*

file
Extra copies for Dr. Willows inc. for

Dr. A. B. Massey,
Dept. of Botany,
Va. Polytechnic Inst., Blacksburg.

August 2, 1944

Dear Dr. Massey:

Your letter of July 22 and the shipments of manuscript were promptly received. I am very sorry to know of all the extra load you have had to carry and the holdover from your operation. My two majors are 16 months behind and do not bother me.

I am sorry that I was not able to give immediate full-time attention to the mss. but have finished about half of it and am inclosing it herewith. The remainder will be done very soon. I make the following notes.

1. The 1-page Introduction I sent to you was not returned with the manuscript. As I wrote you earlier, you may use it, change it, or discard it, as you wish.

2. Keys. I note your suggested form of key, which you speak of as an "indented" key. Both your form and mine are indented. Mine always must be, but your form could be written without indentation. The real difference, as I see it, is that your form is an artificial key while mine is a natural key.

In the artificial key, the characters of the later species are presented first, that is, in the first line of each pair. This is artificial and unnatural. The user gets confused by having to read both sets of characters at each step in the process of keying. In the natural key he proceeds gradually and naturally from one group to another and has only one set of characters before him at a time. This is the natural way.

Experience with groups of amateur botanists shows that they quickly learn the species through the use of natural keys, and thus depend less and less on the key as they progress, whereas with the artificial key they never learn to get along without the keys because they never learn to know the species.

3. I am glad to underscore the chief characters for each species. This probably increases the cost of type-setting but that is your problem.

4. I have inserted the missing data in the descriptions at the points indicated by the "x", and also have added data at some other points. The sheet for *S. lucida* has been rewritten because of several minor additions and changes.

5. I have omitted *S. Harbisonii* entirely, following a review of the material in my herbarium and the U.S. Natl. Herb. I believe that much of it is referable to *S. longipes* and some to *S. nigra*. Scheider's own uncertainty regarding its validity was great, and quite comparable to his uncertainty regarding his *S. anamesa*. In that case, he questioned practically every specimen he referred to his supposed species and it has been generally repudiated by willow students.

6. You ask if I have published the "North American Willows" to which I refer in several places. I have published many papers on willows but none with exactly that title. I was not aware that I had referred to such a paper in this discussion of Virginia willows. In correspondence, I may have referred to my monograph which is in preparation but not yet in manuscript.

P.S. I have just discovered that you referred to my notes on herbarium specimens. The "No. Am. Willows" were a set of specimens I distributed under labels headed "North Amer. Willows, distributed by Carleton R. Ball". Some were collected by me and some by others for distribution in that set. You can cite these as you please, but there should be no reference in () to a publication.

Cordially yours,

Carleton R. Ball, Collaborator

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

August 3, 1944

Dr. Carleton R. Ball
Agricultural Extension Service
United States Department of Agriculture
Washington, D. C.

Dear Dr. Ball:

Under separate cover I am sending you the first part of the manuscript on the Virginia willows. The last part dealing with the species was sent to you some while ago. I trust it reached you promptly.

Just as soon as you can get to it, I trust you will be able to go over the entire manuscript and let me have it back at your earliest convenience. Since I have delayed so long, I can not say much if you are delayed also. Our publications office is ready for it just as soon as we get it to them. The director of publications seems to desire to issue it as early as ~~preferable~~ possible.

Also I sent you recently a twig from a willow collected near Blacksburg. I take this to be Salix cordata, however, the leaves seem to be unusually large and the leaves and stems unusually pubescent for late-July growth.

Trusting that these two portions of the manuscript will not arrive while you are absent at some distant point and that I may have them soon for final typing, I am

Sincerely yours,

A. B. Massey
A. B. Massey

ABM:m

Dr. A. B. Massey,
Dept. of Botany, V.P.I.,
Blacksburg, Virginia.

August 4, 1944

Dear Dr. Massey:

In continuation of my letter of August 2, I am inclosing the remainder of the willow manuscript.

In my former letter I neglected to say that I had found some additional records of *Va.* collections and was inserting them. Some are from a bunch of specimens which had been segregated in the U.S. Natl. Herb. as material for the DC.-Area flora. I did not know it had been separated. Others were collections made by Fogg and others for the Univ. of Penn. and determined by me when they began assembling data for a State Flora. These I have indicated by (UP).

These additions in the manuscript sent previously were mostly under *S. longipes* var. *Wardii* and *S. nigra*. A few may have been under *S. fragilis* and *S. alba*.

In the present part of the mss., I have made numerous additional entries. Under *S. cordata*, Giles Co. is added but will take the number assigned to Fauquier Co., which was deleted.

Under *S. sericea*, some new data are added for Giles and Norfolk Cos. and 2 new Counties, Henrico and Roanoke, are added.

Under *S. humilis* data are added to Henrico, Montgomery, & Norfolk Cos.

Under *S. humilis* var. *rigidiuscula* I have added Giles Co. and also have written a description and discussion of this variety.

Under *S. tristis*, I have added Giles and Northampton Counties.

I am glad that you called me on my occasional annotations that there was no record of my having determined a given specimen. When I make a list of specimens determined, and file it by State of species, I usually can verify the record. If no list is made it is difficult to verify. In one case I carelessly wrote the list on both sides of a sheet and looked on only one side while making up these records. I have found most of the records for this mss.

Under *S. cordata* I have deleted my statement for Carroll's Rockbridge Co. spec. Under *S. nigra*, I have done the same for Carroll's specimen from Cypress Fall, Fairfield, in 1935.

Under *S. humilis*, deleted from McCall & McLean Rockbridge Co. in 1931, and from Bath Co. specimen from top of Warm Springs Mtn. in 1934.

I still do not find any record of having determined a specimen for *S. cordata* from Tazewell Co., and must accidentally have omitted it from a list of determinations.

On the sheet for *S. purpurea* I have entered one escaped plant from the U.S. Nat. Herb. and the Carroll Wood, Jr., specimen from Roanoke Co. and credited it to the Univ. Penn., where he said it was deposited.

Will probably write you tomorrow about various minor matter. Hope this is in time to permit action this fall.

Cordially yours,

Carleton R. Ball
Collaborator

August 5, 1944

Dr. A. B. Massey, Dept. Botany,
Va. Polytechnic Inst., Blacksburg, Va.

Dear Dr. Massey:

In sediting to you, yesterday, the remainder of the willow manuscript, I said that I would write you today regarding several minor matters.

1. A few days ago I received from you a specimen of *S. cordata*, No. 4658, collected by you in the pasture of Floyd Plank, south of Luster's Gate, Montgomery Co., on July 26, 1944. Therein you referred to my letter of July 14, 1939, wherein I voiced my feeling that your previous Montgomery Co specimen, No. 2384, and Miss Fauntleroy's 663 from Roanoke Co. might be *S. glaucophylla* var. *albvestita* Ball.

I have reexamined all three specimens, and compared them with the other Va. specimens of *S. cordata*. There is no doubt that the new shoots of *S. cordata* in Va. are more densely white-hairy than those from farther north, and that this hairiness extends to the petioles and to the midribs of young leaves. The three specimens from Montgomery and Roanoke Cos. are exaggerated expressions in which the hairiness extends to the whole under surface of the leaves. I feel now that these must remain in *S. cordata*.

We greatly need flowering and fruiting specimens of *S. cordata* from Va. All my collections and all others I have seen have been vegetative only. If you can possibly collect earlier next year from these 2 plants in Montgomery Co., I hope that you will do so. It may be that Miss Fauntleroy can relocate her plant.

2. I regret that I did not keep as full data on the specimens determined for the Univ. of Penn. as I have ~~far~~ drawn off for the specimens in my herbarium and the U.S. Natl. Herb. I did not record initials of the collectors (which you know, however) nor the month and day of collection. These citations, therefore, will not be uniform with the others.

3. I note from reading our correspondence over the past few months that I was to settle the questions of *S. Harbisonii* and of vars. of *S. longipes*. I omitted *S. Harbisonii* and gave my conclusions at the bottom of the sheet, for use under "Rejected species", as you wish.

S. longipes var. *Wardii* is included. I doubt if var. *venulosa* has any standing, altho I believe that Fernald has distributed specimens so named from Tidewater Va. Neither he nor I can know what this var. really is, as the type was destroyed and the plant has not been found in the type area. However, I have seen material from the near Southwest and from the Gulf Coast of Alabama and Fla. and can find nothing that warrants separation as such a variety. As a matter of fact, the only character Schneider could find to maintain var. *Wardii* was the acute stipules, in contrast to obtuse stipules in the species. That is a pretty small difference, and as more than half the collections do not have any stipules, it makes determinations a matter of geography rather than botany.

I certainly hope that you can get this manuscript through on the funds allotted from last fiscal year.

Cordially yours,

P.S. Was I to keep, or return, your recent cordata specimen, No. 6658? Either suits me.

Carleton R. Ball
Collaborator

Dr. A. B. Massey,
Dept. of Botany, Va. Polytechnic
Institute, Blacksburg, Virginia.

August 6, 1944

Dear Dr. Massey:

My epistle of today is in the nature of an apology. On Feby. 2, 1943, just before I went into hospital for a two-month stay and 2 major operations, Carroll E. Wood, then at Univ. of Penn., sent me a list of the willows he had collected in Roanoke Co.

Apparently I never answered this letter after my recovery, and therefore did not have the list in my Va. file when I came to work on our manuscript. I had had previous correspondence with him because Dr. Fogg suggested that he write and have the determination of his specimen of *S. lucida* from Roanoke Co. verified.

I am sorry that the matter of this list was not followed up, as I would have asked to see his two specimens of *S. cordata* and also his *S. humilis* to determine if part of them were var. *rigidiuscula*. I am still more sorry because it resulted in my not having included these collections in the manuscript. Of course, the *S. lucida* and *S. purpurea* specimens are included, but no others so far as I know. I think the two Wherry-Adams specimens of *S. humilis* are in.

I inclose a copy of the list. I have seen only the specimens of *lucida* and *purpurea*, as noted above. I think it will be safe to include the others if you care to do so.

I am writing to Dr. Fogg today, sending him a copy of the list and asking him to send me ~~xxxxxx~~ the specimens of *S. cordata* and *S. humilis*, so far as they are there. I am asking him also to fill in the dates of collection and send the list back to me. If I get the dates, I will send them on to you for use if desired. If I get the specimens I will report promptly.

I have received the 7 introductory pages and will go over them carefully and return them with suggestion tomorrow.

Cordially yours,

Carleton R. Ball
Collaborator

Dr. A. B. Massey,
Dept. Botany, Va. Polytechnic
Inst., Blacksburg, Va.

August 9, 1944

Dear Dr. Massey:

The introductory section of willow MSS. came last Saturday and your letter of August 3 arrived somewhat later.

I had not known previously that you proposed to deal so fully with the characteristics, habits, and uses of the willows. When I received this portion, I got out my enormous file of material on uses, feeling that I could add a bit to what you had.

I have rewritten the manuscript, partly to insert new and extended uses and partly to rearrange the material somewhat. The chief rearrangements are: (1) placing the uses in what seems a more logical order, first the whole living plant, then extracts and portions; (2), putting your discussion of culture of willows at the end of the "uses" (it was scattered through it); (3), putting your statement of inclusion of the introduced species over in the taxonomic portion. There seemed good reasons for these shifts. I felt especially that would be more likely to consider culture and use of willows after they had read of the numerous uses around the world and down the centuries.

You will note that I have inserted two main center heads in the introductory portion, on pages 1 and 3, respectively. I think this will help the reader, who likes guides when trying to find some portion he wants to consult.

For the same reason, I have inserted paragraph headings for each of the main groups of ~~many~~ uses. These should be set in prominent type and they will help the reader to find any part which he wants to consult. They can be set as center heads just as well, if put in smaller type than the main headings, but will take more room. The fact that there may be several paragraphs under one paragraph heading does not make them non-useful.

At one point you mentioned the reported occurrence of *S. discolor* in No. Car. It does not seem wise to spread rumors. If it is a case like *S. candida*, the less said the better. If you know where there is a reported specimen let me have all the facts and I will try to settle the matter. In herbariums, there are many specimens from southern States, distributed as *S. discolor*.

On page 5 of the new draft, you will find the plurals of several animals (caribous, bison, deers, elks, etc.), and on page 6 the plural larvae. English is a horribly complicated language because of its polyglot origins. Educators estimate that two school years extra are required because of the weird spellings, pronunciations, irregular verbs. I think that educators should get busy simplifying our language and removing that tax on students. These plurals are a contribution. I hope you will let them pass. Ditto for seeds, at various places.

The new draft of the introductory matter is longer by three pages (10 instead of 7) because of the added discussion under uses. You are the judge of what goes in and if you want to keep it down to fewer pages, cut out what you think least valuable. The same goes for other revisions.

I inclose two copies of the new draft, and the material you sent me. I did not rewrite more than the beginning of your first page of the taxonomic portion. Merely enough to insert the discussion of introduced species.

Hope it is in time and in not too bad shape.

Cordially Yours,

Carleton R. Ball
Collaborator

August 15, 1944

Dr/ A. B. Massey, VPI, Blacksburg
Dr. E. A. Walker, U.S. Natl. Herb.

Gentlemen:

Your respective card of 8/7 and letter of 8/10 are before me. I recall that some of the labels on specimens from Mill Creek Marsh said "Head of Chesapeake Bay". It did not register then that this area would be in Maryland, far removed from Virginia.

I believe that the matter is relatively unimportant because the species are those expected in the Bay area. If they were critical species, it would pay to go to great lengths to locate this specific marsh, but, under these circumstances, it seems not to be. Botanists who provide labels like that ought to be shot and not cited, anyway. "All writing is for the reader", goes for plant labels.

If this does not lay the ghost, go as far as you please (using wading boots).

Cordially yours,

Carlton R. Ball
Collaborator

from A.B. Massey

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

August 18, 1944

Dr. Carleton R. Ball
United States Department of Agriculture
Agricultural Extension Service
Washington, D. C.

Dear Dr. Ball:

The willow manuscript has been turned in to our office of publications. The director was away at the time so I can say nothing as to his reactions to it. I judge, however, that the manuscript will go through without a hitch and I hope it will be out sometime in September.

In the final roundup the whole amounted to 45 typewritten pages, including the title page as page 1. A few of the pages are only partially filled, consequently, if the manuscript stands as is, I expect a bulletin of around 30 pages.

I greatly appreciate what you have done to make this manuscript possible. Your treatment of the sections on "uses", etc. will add considerable interest to the bulletin. I am sorry you had to spend so much time on that portion of it as you had already done so much with the species. There is one consolation in the whole layout. The botanists know you and will recognize the contribution you have made to the bulletin.

Under separate cover I am sending you a carbon of the entire manuscript with the exception of the first ten pages. I did not want to hold up the manuscript long enough to get those pages typed, consequently, one of the copies which you sent me has been included in the manuscript, with the exception of a couple of pages which, after the editing by you and me, needed retyping to prevent confusing the printer. If you have any criticism to make there is still a chance of corrections or very small additions. I will get the galley and possibly the page proof before the bulletin is actually published. Do you wish to see the galley? I believe I can send it to you without causing much delay in the printing of the bulletin.

The copy I am sending you has not been edited quite as closely as the original; however, I believe that there is very little difference between the two. You might give your attention chiefly to the last two pages on the rejected species. The literature citations are not strictly in the best of form. In the first place, the authors are not alphabetically arranged and your two citations are not together. The citations to the

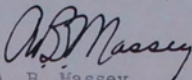
2 - Dr. Carleton R. Ball - August 18, 1944

North American willows was added late. To place it in numerical position with your paper in Castanea would have meant going through the record of each species to change other reference numbers. Since the list was rather short I did not think this irregular arrangement would be ~~very~~ serious; however, if you wish to stick strictly to custom, the shift can yet be made.

I have more to write to you about, however, I will close at the present and write to you later. The specimen of S. cordata I sent you should be retained by you or discarded. I have duplicates here.

With regards and best wishes, I am

Sincerely yours,


A. B. Massey

ABM:m

August 21, 1944

Dr. A. B. Massey,
Dept. Botany, Va. Polytechnic Inst.,
Blacksburg, Virginia.

Dear Dr. Massey:

Your letter of August 18 is here and noted. In accord with your suggestion, I have read the 2 pages on excluded species carefully, and make the following suggestions:

OK On p. 43, under *S. humilis*, and on p. 44, under *S. Harbisonii*, you refer to "Coker and Totten", but on page 45 you list "Coker and Totten".

OK On page 43, under *S. discolor*, it reads: "- - - and quote Ashe as occurring". This probably was a slip and would better read: "- - - and quote Ashe as saying it occurs - - -".

OK In a series of words denoting objects, areas, or other entities, I prefer a comma before the word "And" which introduces the final member. In the last paragraph on page 44, I would say: Norfolk, Mansemaon, and Greenville Counties. Some times we wish to couple two member together, as "cats, dogs, rats and mice, moles, and rabbits". If we don't use the comma normally, we have hard work to couple those where we don't want the comma.

Don't feel any concern as to my contribution to this enterprise, except as to its quality. I would gladly have put much more thought into the section on uses, had I realized that you were planning to treat it extensively on a general basis. I have many hundreds of cards and much material copies from botanical, medical, and ecological works, records of expeditions, and anthropological investigations. When I received your manuscript, there was not time to consult all this, so I just hit the highlights, trying to add a few things that would round out the story. If it helped, I'm glad.

Then let us remember that you have given me a prompt avenue of publication regarding the willows of one Southern State. This will awaken further interest in other Southern States and probably will help me get more distribution records before I publish my spot maps.

The fact that authors are not entered alphabetically in the "Literature Cited" is of little importance where citation is by number and the entries are few, as here. In an extensive bibliography, alphabetical arrangement is desirable, not because number citation will not enable prompt cross reference, but because many readers will use the list apart from the text to find a certain author.

I doubt if it will be necessary to send me a galley proof. Certainly not unless they will furnish two copies and one can be sent to me while you read the other.

I will read over the remainder of the mss. at once but will mail this on the excluded species immediately.

Cordially yours

P.S. Small's Manual cites N.C. for *S. discolor*, Caperton R. Ball probably on the basis of Ashe and Coker-Totten. Collaborator

Dr. A. B. Massey,
V.P.I., Blacksburg, Va.

August 21, 1944

Dear Dr. Massey:

All my willow papers are at home so I cannot check, but I think I told you I had written to both Dr. Fogg and Mr. C.E. Wood about collections by the latter which I had never seen, especially *S. humilis* which is not always identified correctly.

Fogg wrote me that Wood was in the army but that he (Fogg) would look them up and send and that seemed desirable, and also would give me the dates of collection which Wood did not give in his recent paper.

At the office this morning I found a packet from Fogg but no letter. As I did not have my V. lists here, I have just listed all he sent and inclose copy for your use. The only really important thing probably is Fernald's collection from Norfolk Co., distributed as *S. humilis* but which really is *S. tristis*. It probably is in the manuscript under *S. humilis*.

Sorry that I cannot do this checking here but it seemed better to get it in the mail to you rather than to wait until I get home tonight.

Cordially yours,

P.S. I meant to say that I think that practically all of these are in themats. but the changed determination

Collaborator
Carleton R. Ball

Dr. A.E. Massey, Dept. Biology,
Va. Polytechnic Institute,
Blacksburg, Virginia.

August 21, 1944

Dear Dr. Massey:

I have written you twice already today, so will stop with this one. After writing about the suggestion on exclude species, etc., I began reading the mss., beginning with the descriptions on p. 21.

When I got to p. 22, I found that commas had been inserted after the names of organs, in a majority of cases, thus: "flower scales, oblong", "capsules, lanceolate", "styles, very short.", etc., etc. It seems to go on throughout the remainder of the descriptions, in some degree. I don't know how this happened but it certainly should be corrected.

I am writing about it at once because you may wish to put some on your copy of the mss. making these changes (deleting these commas) while I read it through and find any other things needing attention. After you have the commas located and I send back my copy with other corrections (if any) needed, it will be an easy job for some one to go to the printer's and make the changes in the ribbon copy.

I will try to finish my copy tomorrow (it is now 9 pm.), and send it in.

Cordially yours,

Carleton R. Ball,
Collaborator

August 22, 1944

Dr/ A. B. Massey, Dept. Biology,
Va. Polytechnic Institute,
Blacksburg, Virginia.

Dear Dr. Massey:

As promised last night, I am returning herewith pp. 21 to 45 of the willow manuscript, for attention to two kinds of changes.

In the descriptions, I have deleted the inserted commas, after the names of organs, by means of a heavy vertical pencil line through the comma (). These can be seen easily by scanning the pages and I have not indicated their location by any mark on the page margins. There are 77 of them. There are 16 species described, and an average of 12 organs per species, or 192 in all, so that the 77 commas represent less than half of the places where they might have been inserted.

The other desirable changes are marked by an x in the left margin, and the desired action is indicated in the typed line after the x. About half of these 27 changes are made necessary by errors or omissions in my manuscript and the remainder result from the later retyping. I'm sorry to have had so many. Most of these will be clear without comment by me.

For example, there are three on p. 21. The first calls for a hyphen (-), omitted from semi-lunate. The second unites the description of aments into one sentence with that of vegetal organs, as you had done throughout my descriptions. The third changes leaves to leaf, where apparently I had written the two words, "leaves" and "blades" and intended to ask you which you preferred. Both got left in my description. On p. 22, the scoring should be removed from "4-5.5" and placed under "glabrous". On p. 23, the words "flower scales greenish-yellow, deciduous;" should be underscored, and -.04 changed to -.04, etc. I have glanced at all of the others and think you will see easily what is needed. In the first one on p. 45, there seems to be an error in the pages cited.

I have not checked the citations of specimens which follow the descriptions.

At various points you have referred to Gray's or Small's Manuals, or to Br. & Br.'s Flora, and have spelled the words with lower-case initials, thus: manual and flora. It seems to me that these should have capital initials. A "flora" is the total assemblage of plants in any area but a Flora by some one is a book.

I note also that where two or more herbariums are cited, each is placed in separate parentheses. It is cheaper, and usual, to put them all in one set of (), and separate them by ~~with~~ semicolons (;). It is unimportant, however.

I now will study the keys with care, and may write you again, if I find any items needing attention.

I would think that all of the suggested can be made readily on the ribbon copy at the printer's, without holding up the procedures in any way.

I suppose that much of this is the regard for doing things in a hurry, and I regret the troubles I have caused.

Cordially Yours,

Carleton R. Ball
Collaborator

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

August 24, 1944

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

Dear Dr. Ball:

Not since my courtship days some thirty odd years ago have I had so many letters from one individual in the period of twenty-four hours or in one mail.

I am the one that should be "Balled" out relative to the commas. ~~For~~ I can't explain how I got started putting them in. I was looking at the name of the plant organs at the beginning of each clause as the thing being described and setting off the adjectives by a comma. I don't ^{know} why I got the idea of putting the comma after the name of the organ. I have looked through my other bulletins and manuscripts and can not find a case where I have done such a thing previously.

Yesterday morning I went to the printery to insert the data you had given me relative to *S. tristis* in Norfolk County. I found that our manuscript had passed through the hands of the Director of Publications and that a good portion of it had been set up in type, consequently, it seems that I will have the proof in a short time. I am now inclined to expect the bulletin to be off the press probably by the middle of September.

Our fern bulletin is coming off the press now. I expect to have it by sometime next week. This is a 110-page bulletin very well illustrated.

The commas mentioned will be taken care ~~of~~ in the galley and other irregularities can be cared for at the same time. I hope, however, that the two pages on rejected species will not have to be changed too much. The printing department is very satisfactory to deal with. The personnel is interested in putting out a good job and they are very cooperative, consequently, I always try to avoid changes in the galley unless they are definitely important.

Kindly let me know as to how many copies of the bulletin you would like to have. I do not know as yet how many I could send you, however, I trust that the edition will be large enough to enable me to supply you with your needs. I do not know just the best way for us to send these out so as to avoid duplication. I hate to ask for a mailing list from you, and at present we are so ~~much~~ short of typists in our office; consequently, I had rather not promise a copy of those to whom I plan to mail it. If you can send it out under your frank, possibly a good plan would be for you to have the envelopes addressed and send these to me to be stuffed.

Well, at your convenience let me know what you wish.

Sincerely yours,

B. Massey
B. Massey

The mas. you returned has just come in.
ARM:m

Our girl seems off today or did!
Wm. Lingo
(See 0

Dr. A. B. Massey,
Dept. Biology, Va. Polytechnic Institute,
Blacksburg, Virginia.
Dear Dr. Massey:

August 28, 1944

I am inclosing pages 15-20 of the manuscript, covering the keys. Other pressures delayed my study of them, for which I am abjectly apologetic, in view of one error I made.

I failed to remember that *S. fragilis* and *S. alba* often have 2 stamens in some flowers and that *S. babylonica* normally has only 2 stamens.

I have been compelled to make some changes on the bottom of page 15 and on the top of page 16. I have kept these to the minimum and hope that the cost will not be too great. I am quite willing to pay these costs myself.

On the remaining $4\frac{1}{2}$ pages there are only two minor changes.

I have just received and read your letter of August 24 and note that the manuscript was already partly in type when you visited the printer. That is just too bad in view of all the changes.

I will check through my mailing lists and write you soon regarding the distribution of this paper.

Cordially yours,

Carleton R. Ball
Collaborator

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

September 1, 1944

Dear Doctor Ball-

Our editor of publications has asked for a print or cut to be used on the cover of our bulletin. Do you know of an appropriate one which can be used as a picture in the center of the cover or a bleed-out on the cover of the nature of the cover to my bulletin on poisonous plants and medicinals both of which I believe you have copies of. It could be a suitable drawing or a photograph. Native species should be indicated. A cut of S. humilis in a cluster or of S. tristis would be nice. Possibly a picture of willows on a stream or pond bank. I would rather have something more definite than the latter.

I have the galley now so we do not have a great deal of time to get something original. I may have a chance to run out here somewhere and photograph a humilis clump; however, there is nothing to it now other than foliage.

Sincerely,

A. B. Massey
A. B. Massey

Digitized by Hunt Institute for Botanical Documentation

My fern bulletin has just come from the U.P. Press. A copy will be mailed to you if it has not already gone. One of my photos appears on the cover in a bleed-out.

A. B. M.

Dr. A. B. Massey, Dept. Biology,
V.P.I.? Blacksburg, Virginia.

September 4, 1944

Dear Dr. Massey:

Yours of Sept. 1 here. I'm sorry that I have no photographs of living plants from the eastern U. S. I realize that I should have.

Hope that you can get something there. If not, why not photograph a good herbarium sheet. A good fruiting spray of *S. nigra*, or many-twigged specimen of *S. tristis*, or the silvery foliage of *S. sericea*, would look well. Take a look at some of the willow photos in Dean's shrubs of Indiana.

Forest Service has good material from the west but little from East. Picture of a pasture tree, as *S. fragilis* or *S. alba*, or a coppice of *S. sericea* in rocky brook would be fine.

Cordially yours,

Carleton R. Ball
Collaborator

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA September 9, 1944

Dear Doctor Ball-

A nice cool Fall morning, some claim they saw frost. I did not think to look for it when I got up; however, the air feels frosty. This is an early date for us to have frost. We have been generally predicting that we are to have an early winter and probably a cold one. This is based mostly upon the fact that we have had a series of mild winters.

The galley of the willow bulletin has been corrected and the printer ran off a second galley since I had to make so many changes. This second one has been reviewed and all is set for the printing. I suppose it will come off within ten days or two weeks. I offered to pay for our errors as per the enclosed carbon copy of my note sent with the first galley. Our offer was appreciated but they said that they would not ask it of us.

This bulletin will be in the series of College bulletins in which the fern bulletin was issued. The Publications Department has a mailing rate based on so many bulletins a year. They will soon be calling on me for my mailing list. If you wish the bulletins mailed out from here let me have your mailing list as soon as feasible. If you can send them under your franking privilege I suggest you have the envelopes addressed and sent to me to be mailed from here. I send copies of my bulletins, after the first mailing by the Publications Dept., under the frank of our Wildlife Unit (see foot note on title page of fern bull.). I do not want to give the Publications Dept. my list before knowing where you wish to send it as there is a good chance of duplication. In addition to those we may send out for you we will of course send some copies to you.

Should you prefer mailing copies out from Washington I can send copies of the bulletin and my mailing list. The Publications Dept. mailing list consists mostly of schools, libraries and such, in addition to individuals in Virginia. I do not think they will duplicate either of our lists.

Sincerely,

A. B. Massey

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

September 14, 1944

Dear McNeil:

Since I have not been successful in securing a suitable willow cut for the cover for the willow bulletin, a photograph has been made from some of the herbarium material on file. For a bleed-out cut the engraver can enlarge the figure if essential, although I believe the print is large enough. This should work nicely if printed in green ink as was done with the fern bulletin.

Below is a suggested description of the cover illustration to go on the inside of the first cover, also as was done in the fern bulletin.

Yours,

Murray

The dwarf upland willow, Salix tristis, is illustrated on the front cover. This is an attractive native shrub useful in the shrubby border. The flowers appear in early spring, before the leaves, forming small "pussies" or aments. The left-hand twig is from a pistillate plant. The right-hand twig shows the staminate aments from a different plant. The leaves are small, gray on the lower surface and green above.

The cut sent to the publications office was a shade darker than the one enclosed.

ABM

Dr. A. B. Massey,
Dept. Biology, Va. Polytechnic Inst.,
Blacksburg, Virginia.

September 18, 1944

Dear Dr. Massey:

Your letter of Sept. 14 is here and I hasten to reply. The cut of *S. tristis* should be excellent for the willow bulletin if the print is made dark enough. You say that the copy sent to the Publications Office was a "shade darker". Probably it should be several shades darker, as there is a loss of 20% to 25% in engraving.

The description is good. Of the leaves I would say "gray-woolly on the lower surface and greenish above" or "greenish and somewhat woolly above".

Will try to get at the mailing list problem at once.

Cordially yours,

Carleton R. Ball
Collaborator

Dr. A. B. Massey,
Dept. Biology, Va. Polytechnic Inst.,
Blacksburg, Virginia.

September 21, 1944

Dear Dr. Massey:

I am sorry that your letter of Sept. 9, regarding the mailing lists for the willow bulletin, should have remained so long unanswered. I am working under so much pressure that I cannot keep up. Here are points as I see them.

1. By Departmental agreement, my correspondence regarding determinations, distribution, and uses of willows has been sent under frank for the beginning, as a proper service to botany. I have had no publication thro Federal sources and have sent all reprints under postage. While this is a State bulletin, I would feel it best to follow the same practice in mailing.

two copies of
2. I inclose a 2-page list, in 3 sections: A. All my Southern States mailing list except Virginia, which you will cover anyway; B. the principal Dept. of Botany men in the northern and western States, and C. Herbarium Libraries.

3. You may wish to send the bulletin to most of the southern institutions named, and to part of the northern institutions, because of the prestige to your Department. On the other hand, I will be quite happy to send them all. That is wholly for you to decide.

4. If you will check on one copy of the list, the institutions you wish to supply and return that copy to me I will address envelopes for the remainder.

5. In addition, I have about 75 other names, representing less important members of Depts. of Botany and local collectors. I will send to these as far as you can furnish me with copies, selecting them accordingly.

6. I am glad to know that no charge was made for the extra galley proof, but I would have been willing to pay for my part of it, if charged.

7. I should have said earlier that the names at the bottom of page 1 of the list, representing personnel in this Dept, the Natl. Herbarium, etc., I supply without postage costs.

8. In a recent letter from Carroll Wood, he gives some further information about the Roanoke Co. occurrence of *S. lucida* and other. I inclose a copy for your use.

Cordially yours,

Carleton R. Ball
Collaborator

↑ 2 copies

A. B. Moseley
21-IX-44

MAILING LIST OF CARLETON R. BALL FOR WILLOW PAPERS

AA. SOUTHERN STATES:

1. Cain, Stanley A., Dept. Botany, Univ. of Tennessee, Knoxville, Tennessee
2. Core, Dr. Earl L., Dept. Botany, Univ. of West Virginia, Morgantown, W.Va.
3. Cory, Mr. Victor L., Range Botanist, Texas Substation No. 14, Sonora, Texas.
4. Demaree, Prof. Delzie, Dept. Botany, District Agric. College, Monticello, Ark.
5. Duncan, Prof. Wilbur H., Dept. Botany, Univ. of Georgia, Athens, Ga.
6. Eyles, Mr. Don E., Route 2, Hickman, Kentucky (U.S. Public Health Service).
7. Featherly, Prof. H. I., Dept. Botany, Okla. A. & M. College, Stillwater, Okla.
8. Griggs, Dr. Robert F., Dept. Botany, George Washington Univ., Washington, D.C.
9. Harper, Dr. Roland M., University, Alabama.
10. McFarland, Dr. Frank T., Dept. Botany, Univ. of Kentucky, Lexington, Ky,
11. Meyer, Fred G., Mo. Botanical Garden, St. Louis, Missouri
12. Moore, Dr. Dwight M., Dept. Botany, Univ. of Arkansas, Fayetteville, Ark.
13. Murrill, Dr. Wm. A., Dept. Botany, Expt. Station, Univ. of Fla, Gainesville, Fla.,
14. E.E. O'Neill, Dr. Hugh T., Dept. Botany, Catholic Univ. of America, Washington, D.C.
15. Oosting, Dr. Henry J., Dept. Botany, Duke University, Durham, No. Car.
16. Shirley, Prof. J. Clifford, Bot. Dept., Phillips Univ., Univ. Station, Enid, Okla.
17. Stemon, Prof. Thomas R., Central High School, Oklahoma City, Okla.
18. Stratton, Prof. Robert, Dept. Botany, Okla. A. & M. College, Stillwater, Okla.
19. Tharp, Prof. Benjamin C., Dept. Botany, Univ. of Texas, Austin, Texas.

Natl.

U.S. Dept. Agriculture, Arboretum Herbarium, Plant Industry Station, Beltsville, Md,
 Mr. C.O. Erlanson, Dr. S. F. Blake,
 Mr. Oliver M. Freeman, Dr. F. Ray Fosberg,
 Mr. Frederick J. Hermann, Mr. C. H. Muller,

U. S. Dept. Agriculture, Forest Service, South Bldg,
 Dr. Wm. A. Dayton, Div. Dendrology Investigations
 Miss Doris W. Hayes, Div. Range Investigations,

U.S. National Herbarium, U.S. National Museum, Smithsonian Bldg, Washington
 Mrs. Agnes Chase, Mr. Ellsworth P. Killip,
 Mr. C. M. Morton, Dr. Egbert H. Walker
 (For Dr. Wm. R. Maxon, see Libraries, on next page)

B. NORTHERN AND WESTERN STATES: DEPTS. OF BOTANY

Allen, Dr. Charles E. Univ. of Wisconsin, Madison, Wisc.
Bartlett, D. Harley H., Univ. of Michigan, Ann Arbor, Mich.
Benson, Prof. Lyman, Univ. of Arizona, Tucson, Ariz.
Bessey, Dr. Ernst A., Mich. State College, East Lansing, Mich.
Braun, Miss E. Lucy, 2702 May St., Cincinnati, Ohio (Univ. of Cin.)
Butters, Dr. Frederic K., Univ. of Minnesota, Minneapolis, Minn.
Conard, Dr. Henry S., Grinnell College, Grinnell, Iowa.
Cooper, Dr. Wm. S., Univ. of Minnesota, Minneapolis, Minn.
Costello, David F., Marquette Univ., Milwaukee, Wisconsin.
Davis, Prof. Ray J., So. Branch, Univ. Idaho, Pocatello, Idaho.
Doutt, Prof. Margaret T., Penn. College for Women, Pittsburgh, Penna.
Eames, Dr. Arthur J., Cornell University, Ithaca, N.Y.
Eastwood, Alice, Calif. Acad. Sciences, Golden Gate Park, San Francisco, Calif.
Ewan, Prof. Joseph, Univ. of Colorado, Boulder, Colo.
Fernald, Dr. Merrett, L., Gay Herbarium, Cambridge, Mass.
Gates, Dr. Frank C., Kansas State College, Manhattan, Kansas.
Hitchcock, Prof. C. Leo, Univ. of Washington, Seattle, Wash.
Hayden, Dr. Ada, Iowa State College, Ames, Iowa.
Henderson, Dr. L. F., Univ. of Oregon, Eugene, Oreg.
Jepson, Dr. Willis L., Univ. of California, Berkeley, Calif.
Jones, Dr. Geo. Neville, Univ. of Illinois, Urbana, Ill.
Kiener, Dr. Walter, Univ. of Nebraska, Lincoln, Nebr.
Lawrence, Prof. W. H., Oregon State College, Corvallis, Oreg.
McIntosh, Prof. Arthur C., School of Mines, Rapid City, So. Dakota.
McKinn, Prof. H. E., Mills College, Oakland, Calif.
Maguire, Bassett, N.Y. Botanical Garden, Bronx Park (Fordham Br. P.O.), New York, N.Y.
Mann, Dr. Philip A., Bailey Herbarium, Cornell Univ., Ithaca, N.Y.
~~McPhillip, Dr. Wm. C., Univ. of South Dakota, Vermillion, So. Dak.~~
Over, Prof. W. H., Univ. of South Dakota, Vermillion, So. Dak.
Peck, Prof. Morton E., Willamette Univ., Salem, Oregon.
Pennell, Dr. Francis W., Philadelphia Acad. Sciences, 19th and Parkway, Philadelphia, Pa.
Pool, Dr. Raymond J., Univ. of Nebraska, Lincoln, Nebr.
Raup, Dr. Hugh M., Arnold Arboretum, Jamaica Plain, Mass.
Rogers, Prof. H. T., Washington State College, Pullman, Wash.
Rosendahl, Univ. of Minnesota, Minneapolis, Minnesota.
Smith, Prof. Ernest C., Colorado Agric. College, Ft. Collins, Colo.
Standley, Dr. Paul C., Field Museum, Chicago, Ill.
Stevens, Prof. O. A., North Dakota Agric. College, Agricultural College, No. Dak.
Thornber, Prof. J. J., Univ. of Arizona, Tucson, Ariz.
Tiffany, Prof. L.H., Northwestern Univ., Evanston, Illinois.
Tansseau, Dr. E. N., Ohio State Univ. of Ohio, Columbus, Ohio.
Visser, Dr. Stephen S., Indiana Univ., Bloomington, Indiana

C. HERBARIUM LIBRARIES

Arnold Arboretum, Jamaica Plain, Mass.
(Biological Abstracts, Philadelphia, Penna) I will send abstract
Brooklyn Botanic Garden, (Dr. Jordan), Brooklyn, N.Y.
Dudley Herbarium (Dr. Abrams), Stanford University, California.
Field Museum Herbarium, Lake Shore and Roosevelt Road, Chicago, Illinois.
Gray Herbarium of Harvard Univ., Cambridge, Mass.
Michigan Univ. Museums Herbarium, (Dr. E.B. Mearns), Ann Arbor, Mich.
Missouri Botanical Garden Herbarium (Dr. J.M. Greenman, St. Louis, Mo.
Nebraska Univ. Herbarium, Dept. Botany, Univ. of Nebraska, Lincoln, Nebr.
New York Botanic Garden Herbarium, Bronx Park (Fordham Br. P.O.), New York, N.Y.
Rocky Mountain Herbarium, (Dr. Aven Nelson), Univ. of Wyoming, Laramie, Wyo.
U.S. Dept. Agriculture Library, Washington, D.C.
U.S. National Herbarium, (2 sets to Dr. Massey for clipping and pasting), Wash., D.C.

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

September 30, 1944

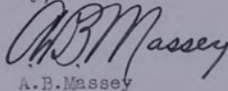
Dear Doctor Ball-

Under other cover I send a copy of the willow bulletin which I picked up in the printing shop. They seem to have done a good job with it and as far as I have examined it I am fully satisfied with it. I hope it passes ^papproval with you. The figure on the cover does not show up as strong as I would prefer. The engraver seems to have reduced it a bit; however, I have no complaint.

Envelopes have been addressed to all names on your list (85) and 121 in addition. The publications office has a mailing list of 500 or more (I believe it to be nearer 1100). These include a number of libraries etc. A group of copies will be sent to you in the near future. If you can write a commendatory note on the printing etc our printer would appreciate your reaction. As to my reaction towards you in the cooperation and assistance you have rendered I cannot find words to proper express myself. I attempted such in the opening paragraph.

With regards and best of wishes, I am,

Sincerely,



A.B. Massey

It is my plan to continue to collect willows so expect to have more material for you. Some more S. lucida should be waiting for us.

*I have just discovered that
we got too many "S" on the
Amimabim parenthesis on p. 7 &
McAtee - Fish & Wildlife Service U.S.D.I., Chicago
May call us on them.*

Dr. A. B. Massey,
Dept. of Biology, Va., Polytechnic Institute
Blacksburg, Virginia.

October 5, 1944

Dear Dr. Massey:

Thanks for prompt sending of advance copy of "The Willows of Virginia" and congratulations on its appearance. You should be proud of it.

I have read the introductory portion and the "Uses" and find it well done with few exceptions. On p. 14, at end of 2nd full paragraph, it reads: "None of the diamond willow are known". It should be "willows", of course, and as "none" is singular (no one) the verb should be "is". Have not checked the mss. to see if that was my error.

I'll write a note to Gabrielson and Bell telling them that I am responsible for the plurals of animals on page 7, and that its only a start on simplifying English so that Americans can learn a little of it.

Will read the keys and descriptions carefully as time permits and see how they stack up.

Forgot to say that the period (.) is omitted after Muhl. twice at bottom of p. 14.

Again congratulations.

Cordially yours,

Carleton R. Ball
Collaborator

October 25, 1944

Dr. A. B. Massey,
Dept. Biology, Va. Polyt. Inst.,
Blacksburg, Virginia.

Dear Dr. Massey:

When I wrote you on Oct. 5, I promised to read the keys and descriptions in the "Willows of Virginia" and tell you what I found. Today I have taken time to do this.

Separately, I am mailing a copy of the bulletin with the typographical errors entered on the margins. Some of the extra commas did not get deleted, and some commas which were taken out did not get restored. Two errors were in my needed manuscript and I have so noted on the respective pages.

All things considered, I think that the printer did a remarkably good job, especially in view of the need for haste. I would like to congratulate him and express my appreciation.

It was good of you to send copies to the entire 85 names on my list. I thank you also for the 25 copies which came to me recently. I have had requests for copies for five persons in West. Va. and am glad to send them because this is just as good for them as for Virginians.

Have not yet had time to consider sending to my special collectors outside the
(Over)

Southern States. If I find that my list needs more than you sent, will I be able to get more copies?

Am breaking my neck to get my mss. on Willows of the Alaska-Yukon area done, as it is need for early publication. There will be about 34 species and 25 varieties. Have also the mss. for illus. Flora NE States to do. Too much work!

Am writing tonight to Dr. Gabrielson of the Fish and Wildlife Service about the mss plural forms used on page 7.

Cordially yours,

Carleton R. Bull
Collaborator

VIRGINIA POLYTECHNIC INSTITUTE

DEPARTMENT OF BIOLOGY

BLACKSBURG, VIRGINIA

October 30, 1944

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

Dear Dr. Ball:

Your letter and marked bulletin came in yesterday. Thank you for both of them.

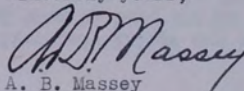
I have gotten some rather complimentary letters in regard to the willow bulletin. Fernald doesn't agree entirely that the S. humilis from near Grassfield in Norfolk County is ristis. He described it as in a wet habitat which, as far as I have seen, is not usually typical of ristis. However, Fernald does not always like for another person to change his determinations. If you care to see the different letters which I have received, I will be glad to see if I can locate them all and send them to you.

Dr. Ernest C. Smith of the Colorado State College seems to be particularly interested in the bulletin and interested in exchanges. I wrote to him that I did not have any exchanges on hand at present but would be interested in corresponding with him regarding such at some other time.

I judge that you have a pretty big task in working up the Alaska-Yukon area. As I understand it, as you get up into the more northern country you really run into a willow problem of species, varieties, hybrids, etc. Your final paper on the subject should be of particular interest, especially if you can go into the economic phase of the group in that region.

When you wish more copies of the willow bulletin do not hesitate to let me know. I will send you some next week anyhow but will be glad to send you still more.

Sincerely yours,



A. B. Massey

ABM:m

(See over)

Massey,
Biology, Va. Polytechnic Inst.,
Blacksburg, Virginia.

November 10, 1944

r. Massey:

I am glad to know that some complimentary things are being said about the bulletins. But if it will be desirable to send them up here for me to read, however. I have received several special letters also. One just came in from Prof. H.A. Davis of W.Va. (Dept. Math.) and he is sending his private herbarium willows for annotation. It gives some interesting distribution records.

Many thanks for the second packet of bulletins. I send one out every few days and their supply will last me until I complete a check of my mailing list next winter. Cannot afford the time now.

Neither *S. tristis* nor *S. humilis* grow in wet habitats but *S. humilis* is more likely to be up on dry hillsides than *S. tristis*, at least in this part of Virginia. *S. tristis* seems to like the sandy areas toward the bases of hills, where sand and soil has washed down from higher up. In any case, a wet habitat should have resulted in more than average size of vegetative organs and this was very small for *S. humilis* and not specially large for *S. tristis*. There always is the possibility that the specimen in Gray Herbarium is not the same as the one you had.

Cordially yours,

Carleton R. Ball
Collaborator

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

May 31, 1947

Dr. A. D. Massey,
Dept. of Botany,
Va. Polytechnic Institute,
Blacksburg, Virginia.

Dear Professor Massey:

I find that the copies of Willows of Virginia are now reduced to one lone survivor, besides my own official copy.

If they are still available, I can use about 10 more copies as they days go by. Curiously enough, I have recived several letters in appreciation of the information given therein about the uses of willows.

As I write to a botanist, I check to see what reprints I have not yet sent him. Imagine my disgust, therefore, when I cannot find any card for you in my file. I am certain I have sent you reprints before. I am sending separately my last three in the taxonomic field. If you can tell me what is the latest one before these which you have, I'll see if there are other still available which you should have.

Have just checked Schneider's three species (new in 1918) of Canadian willows and am sure that two of them are not tenable. Have written a short discussion and will send to a Canadian journal.

Hoping that all goes well with you and yours, I am

Cordially yours,

Carleton R. Ball

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

VIRGINIA COOPERATIVE WILDLIFE RESEARCH UNIT
BLACKSBURG, VIRGINIA

COOPERATING AGENCIES
COMMISSION OF GAME AND INLAND FISHERIES
VIRGINIA POLYTECHNIC INSTITUTE
WILDLIFE MANAGEMENT INSTITUTE

June 4, 1947

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

Dear Dr. Ball:

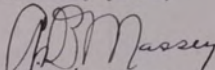
It was a pleasure to receive a letter from you. The "Willows of Virginia" is still available and we will send you a number of copies as soon as I can secure some from the publications office. The reprints which you recently sent me are much appreciated. I was much interested in your paper in RHODORA relative to Fernalds sections in the genus Salix. I get rather much provoked these days as to the tendencies in plant nomenclature. The recent separate from Wherry on lilies wherein he converts established varieties names into subspecies. It is a disappointment to see the strong tendency to the development of trinomials and quadrinomials. I am preparing an abstract of a paper on Solidago by Cronquist wherein he is developing new combinations consisting of species, subspecies and varieties and is getting to the zoological habit of repeating the word. The first thing we know we will be back to the pre-Linnaean system of naming a plant by a phrase. Another thing I do not like is the varietal, epithet, tipicum, genuinum, originale, etc. (my secretary is bucking so I had to quit!).

As to the reprints, I do not recall at present receiving any since the date of issue of our bulletin on "Virginia Willows."

Last summer one of our students was in the far north and collected some Arctic types for me. Among them there is a Salix. I am going to send it to you for checking my identification. If by chance it is of any particular interest to you in your collection, you may keep it; however, it is the only specimen he brought me and I am interested in having it as an Arctic type, or can I say an arctic tree? If you find you can clip a piece, leaving me enough to show the general size, it will be perfectly agreeable.

With regards and best wishes, I am

Sincerely yours,



A. B. Massey, Botanist, V. P. I.
Collaborator

ABM/ksp

3824 Jocelyn St., N.W.,
Washington 18, D.C.

June 15, 1947

Dr. A. B. Massey,
Va. Coop. Wildlife Research Unit,
Blacksburg, Virginia.

Dear Dr. Massey:

Many thanks for your letter of June 4 and the 20 copies of Va. Willows which came soon after. I am greatly pleased to get so many and think that they will last me out.

The three reprints I sent you on May 31 are all that have appeared since the Willows of Virginia appeared, but I am worried about what I did or didn't send you before that. I could not find any card at all for you in my mailing list.

had

You certainly should have "Salix floridana a valid species" and "Southern willows". Did you get those two?

Just now I am trying to find out just what some of the Schneider and Fernald "new species" really are. Out of three new species by Schneider, from Canada, only one is recognizable. At least three of Fernald's appear to be hybrids of *S. phylicifolia* with other species and not real species.

You will never get half as mad as I do about the habits of taxonomists. I have just noted that Fernald erected a series of varieties of *Salix rostrata*, that Schneider promptly reduced them to forms, with his name getting into the new combination. Then Fernald decided that *S. rostrata* as a name was not tenable and that the Harvard-sponsored *S. Bebbiana* (which he had refused to recognize) should be taken up instead, so he shifted all the varieties to that species. Three sets of combinations in about 15 years.

Be glad that you don't work in Germany, where their series, with latin names, includes species, subspecies, variety, subvariety, form, subform, sub-subform, and sub-sub-subform,—just eight series and you can make new combinations by moving them up or down the ladder, like a pianist's fingers on the keyboard, and about as permanent.

Have three more papers in press and more a-coming.

Cordially yours,

Carleton R. Ball



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

VIRGINIA COOPERATIVE WILDLIFE RESEARCH UNIT
BLACKSBURG, VIRGINIA

January 8, 1948

COOPERATING AGENCIES
COMMISSION OF GAME AND INLAND FISHERIES
VIRGINIA POLYTECHNIC INSTITUTE
WILDLIFE MANAGEMENT INSTITUTE

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

Dear Dr. Ball:

It was a pleasure to hear from you again and I regret to find that I have been so slow in replying. I note with interest your remarks relative to the species of Salix. I shall be very much interested in watching out for your article on "The Private Lives of the Willows". You have certainly been very productive in your work with 170 papers on the press and several in manuscript form. At that rate you will soon reach the 200 mark. If some of us younger men were as active and productive as you older ones, we could hope for some reasonable amount of accomplishments.

*not
hard* (I notice that you need some more copies of the willow bulletin, which we will send you under separate cover.

With regards and best of wishes and appreciation for your continued interest, I remain

Sincerely,

A. B. Massey, Botanist, V.P.I.
Collaborator

ABM:JP

*I have for the separate
you sent one.
ABM*

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

Dear Prof. Massey:

8 February, 1949

Your good letter of Jan. 8 was promptly received and your kind words appreciated, even if not deserved. As the darbies say: "It listens well".

I have been retired for 5 1/2 years and ought to be able to get a few papers written, but, being lazy, am not getting as much done as I should. Younger men have many more active duties, and interruptions.

The additional copies of Willows of Va. mentioned in your letter, have not come. You already have been over-generous and, altho non-shipment may have been an oversight, I would feel that a good supply should be held there for future requests locally and in the Southern States.

Cordially yours

Carlton R. Ball



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

VIRGINIA COOPERATIVE WILDLIFE RESEARCH UNIT
BLACKSBURG, VIRGINIA

February 14, 1949

COOPERATING AGENCIES
COMMISSION OF GAME AND INLAND FISHERIES
VIRGINIA POLYTECHNIC INSTITUTE
WILDLIFE MANAGEMENT INSTITUTE

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

Dear Dr. Ball:

A supply of bulletins have just come in from the supply room of the Publications Department and we are glad to send you twenty copies.

It is possible that I may get out in the field this spring and summer and may be able to give more attention to the willows. For a number of years my work has kept me indoors and hence I have had little opportunity for field work.

I am glad to see that you are still going strong. Some of you older men make us young fellows feel rather weak when you seem to accomplish so much after retiring. I have in mind particularly the activities of Liberty Hyde Bailey and all he has done and continues to do since retiring.

If there is any way I can be of assistance to you, let me know. Regards and best wishes.

Yours very truly,

A. B. Massey, Botanist, V.P.I.
Collaborator

AEM:JP

P.S. I notice you have me addressed - W. F. Massey. That was the name of my father who if living would now be 106 years old.

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A.B.M.

Prof. A. B. Massey,
Dept. Botany, Va. Polytechnic Inst.,
Blacksburg, Virginia.

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

18 February, 1949

Dear Professor Massey:

Your letter of Feb. 14 and the 20 copies of *Willows of Va.* are here and I greatly appreciate the courtesy. I surely hope you are not robbing yourself, and if you find that you need some of these, you will not hesitate to ask for them.

I am delighted to know that you may be able to get into the field more during the coming summer. Most of us need more of the outdoors than we get, even if there are scientific quests ahead. I was lucky, during my 50 years of active service in State and Federal work, to be in the field a great deal. Not only on the road but in khaki and puttees and out in the dirt, the rocks, and the timber. I didn't need vacations, and seldom took real ones, except for taking a few days when I brought my family home from theirs, if they were near enough.

As to what you might look for, in willows, it is hard to say. But people who prowl and collect are always extending ranges of species and varieties. You will recall that *S. lucida* Muhl. has been found far south in Va. mountains, or was it cordata (rigida) or both? We know have rigida (old cordata) from Ga. as well as Alab. and Ark.

Some day, some one will find some of the other Northeastern species farther south in the Alleghenies. Among these are *S. petiolaris*, *S. discolor*, *S. interior*, *S. ebiana*, and *S. humilis*. You will recall that *S. caroliniana* (*S. longipes*) has been found far north up the Ohio River in Penn., tho largely extinct there now.

Perhaps I have been lucky in not carrying a heavy teaching load, for I taught at Iowa State of 2 years, one class at Calif. Univ. for 5 years, and a little in the Graduate School and Geo. Washington Univ. here. In teaching, you put in $\frac{1}{2}$ heavily. In research you take out, which yields more publications.

That "W.F. Massey" is probably some memory of past years. Such things persist and pop up unexpectedly. I have not dug into my old correspondence but the name sounds familiar to me. If your father was in botany or agriculture, I'll look up my old files and see what I find.

Cordially yours,

Carleton R. Ball

(over)