



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

The Hunt Institute is committed to making its collections accessible for research. We are pleased to offer this digitized item.

Usage guidelines

We have provided this low-resolution, digitized version for research purposes. To inquire about publishing any images from this item, please contact the Institute.

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.

The committee on a "Flora of Ohio" wishes to thank you for the information you have given about your herbarium, and for your willingness to help with the project. At the Miami University meeting of the Academy, and through the pages of the Ohio Journal of Science, we have outlined the project in mind. We are now ready to enlist your help with the first stage in the assembling of data. This is the preparation of "herbarium slips." A sample, with data inserted, is enclosed. A supply, sufficient to let you get started on the work, is being sent to you from Columbus.

Please fill out a slip for each Ohio specimen in your herbarium, and return these slips to the undersigned.

Because of the tremendous size of the project before us, we shall start the work by selecting certain units of the flora, completing these in turn, and finally assembling the whole. Work on the project as a whole is not to be discontinued because of concentration on separate units.

The first unit will be "Trees and Shrubs of Ohio"---to include all the native and naturalized woody plants of Ohio (approximately 300 species). If the preparation of "herbarium slips" will be a slow job for you, I would appreciate your preparing, first, the slips for the woody plants and sending these to me as soon as possible. (For your convenience, a list of the genera is enclosed; if you know of other genera which should be included, please add them.) When these slips are assembled, we will know how much material is available, how complete our county records are.

In general, species which are common and widely distributed in Ohio are poorly represented in herbaria. Yet we need specimens of such species to authenticate the records of occurrence. Please try to get a good representation of such species for your local herbarium.

The margin of range of a considerable number of tree (and shrub) species crosses Ohio (see maps, pp. 768-798, in "Trees," the Yearbook of Agriculture for 1949). If you are working near the margin of range of any tree species, try to plot its distribution in the county or counties you work in.

Because of difficulties of determination, or confusion in delimitation of species in certain genera, many specimens should be consulted in such genera. Abundant material is needed of Tilia, Carya (with nuts), Quercus (with acorns), Salix, Crataegus. Your efforts to get material in these genera will be appreciated.

Let us all work together toward the ultimate preparation of a "Flora of Ohio."

Sincerely yours,

59-56 Salem Pike, Mt. Washington,
R.R. 13, Box 41-G
Cincinnati 30, Ohio

E. Lucy Braun, Chairman,
Committee on a "Flora of Ohio"

The Ohio Academy of Science

(Affiliated with A.A.A.S.)

OHIO FLORA COMMITTEE

Cincinnati, Ohio
February 23, 1953

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

Dear Dr. Ball:

A committee of the Ohio Academy of Science has started work on a Flora of Ohio, in which, in addition to keys and diagnostic characters for the identification of species, we plan to have maps showing the distribution, by counties, of each native species.

Digitized by The Ohio Academy of Science
The first unit of this work will be the "Woody Plants of Ohio." I am undertaking this section, and am enlisting the aid of specialists in several of the most difficult genera. Would you be willing to identify Ohio specimens of Salix?

In order that we may get as complete a picture of distribution of all Ohio plants as possible, we are seeking the cooperation of all Ohio herbaria. The response so far has been gratifying; we have been able to locate a large number of specimens. The enclosed mimeographed page, sent out over a year ago, will give you an idea of our procedure. We now know something about the number and location of a large part of the Ohio specimens of the genera of woody plants.

If you can undertake to identify ^{if} Salix for us, and I sincerely hope that you can, please let me know when we can start sending specimens to you.

Sincerely yours,

E. Lucy Braun
E. Lucy Braun

5956 Salem Road
Cincinnati 30, Ohio

(over)

Professor E. Lucy Braun,
5956 Salem Road,
Cincinnati 30, Ohio.

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

26 February, 1953.

Dear Professor Braun:

I have just received your interesting letter of 23 February, and congratulate you and your associates on this splendid undertaking. State and local floras are of the greatest help to local botanists and nature lovers, they are indispensable to workers in the national field, and are extremely helpful to specialists.

For all these reasons I will be delighted to be of any possible assistance to you in the *Salix* section of the project (this does not include *Populus*). I not only learn a lot when making such studies, but I feel that I may make the finished work more useful to me in my own work. Besides, I like to help others.

I am especially pleased that you are making a survey of all herbariums in Ohio and are urging the collection of specimens of unrepresented species and of critical gemmes. This should make the results of high accuracy and completeness.

As to sending the material, you can send it as fast as you please. I feel that it may be worth while to send the material of even the common species from the local herbariums, if they care to do so. There are two reasons for doing this. Juvenile specimens are more like to be incorrectly identified, as two species quite distinct in mature characters may look much alike in the juvenile stages. Some species have varieties which have not been generally recognized and might be overlooked in the local herbariums.

As the species are not numerous, and as I am quite familiar with that flora in the field and have abundant material in my own herbarium, much larger than that of the U.S. National Herbarium, I feel that will be able to handle even juvenile material quite promptly.

Cordially yours,

Carleton R. Ball

P.S. I assume that most of the material sent will be mounted and is to be returned to sender. I am just as glad to identify material when all is to be returned as when some or all of it is duplicates to be kept by me, for I always learn a lot in the process, and I keep records of the specimens sent (I probably will not do that in the present case because publication of distribution by counties is planned.).

I will be glad, however, if each letter of transmittal states whether any unmounted specimens are to be returned to sender or kept by me. I mention this because I always return them if it is not stated, and not infrequently I get a letter saying that they are sorry but they intended me to keep the unmounted material. Then they repack it and send it back to me, which causes extra labor and expense. CRB.

The Ohio Academy of Science

(Affiliated with A.A.A.S.)

OHIO FLORA COMMITTEE

March 9, 1953

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

Dear Dr. Ball:

Thank you for your willingness to identify Ohio Salix specimens for us. A letter will be sent out to cooperating botanists very soon asking them to send their specimens to you. I believe in all cases they will want the specimens returned; however, I am asking them to let you know.

I am mailing a package containing 32 mounted specimens of Salix from my own herbarium. I have placed my initials, ELB, in the lower left-hand corner of each sheet, which in addition to the herbarium label bearing my name, will enable you to tell easily to whom they should be returned.

As I will need to assemble all the data on county distribution, it will be best if the specimens from the various herbaria around Ohio are returned to me -- except those from Ohio State University, Columbus, and the University of Cincinnati, which I can readily see after their return to those herbaria.

over We are building up a permanent card index of all Ohio specimens -- the index to be housed in the State Herbarium at Ohio State University. The data are entered on the form ("herbarium slip") enclosed. At present, I have all that have been sent in for the woody plants and can make any necessary corrections on the slips for Salix specimens returned to me, before they are finally filed in Columbus. That will be after identification of specimens in all genera of woody plants has been checked. Much of it I shall have to do,

Assuring you that we appreciate your help,

Sincerely yours,

E. Lucy Braun
E. Lucy Braun

5956 Salem Road
Cincinnati 30, Ohio

The Ohio Academy of Science

(Affiliated with A.A.A.S.)

January 6, 1955

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

Dear Dr. Ball:

I have nine specimens of Salix collected in 1954 which I would like to send for determination, if convenient for you now. No specimens of S. caroliniana have turned up, although I have been on the lookout for it. I believe I would recognize it -- saw it growing in Gatlinburg, Tenn.

Will you prepare a key for Ohio species of Salix, or key and text for inclusion in "Woody Plants of Ohio"? Or, when you have seen about as much Ohio material as will likely be sent to you, would you prefer to prepare a paper for early publication in the Ohio Journal of Science? In the latter case, we could include your key and perhaps a condensed or modified text in the "Woody Plants of Ohio," when that is finally completed (it is a slow job--over 400 spp.) I believe early publication would be preferable. If any additional species should turn up before completion of the larger work, they could be inserted; new county records of species already included could easily be added. Ultimately, we will have a map for each species showing county distribution. Such maps will be a part of "Woody Plants of Ohio," as well as of all other parts of the proposed "Flora of Ohio." Any preliminary publication should list all counties, as such lists will be necessary for making maps.

We appreciate the help you are giving us.

Sincerely yours,

E. Lucy Braun
E. Lucy Braun

5956 Salem Road
Cincinnati 30, Ohio

The Ohio Academy of Science
(Address with A.A.S.)

3814 Jocelyn St., N.W.,

Professor E. Lucy Braun,

Washington 15, D.C.

5956 Salem Road, Cincinnati 30, Ohio.

13 April, 1955.

Dear Professor Braun:

In sorting out accumulated papers, I found your letter of January 6, apparent-
accidentally misplaced and unanswered. I owe you 1,004 apologies which I inclose
herewith. I have no excuse for such error and neglect. The reason was a heavy
deluge of willows, largely from the Arctic, for determination. I am now emerging,
so send on the nine specimens, and any others, and they will be promptly determined.

As to the write-up of the willows for the Woody Plants of Ohio., I would be
delighted to do it, and think that now I can promise to do so, if still wanted.

Do you want something on the order of my treatment in Den's Shrubs of Indiana?

I thoroughly believe in citing by counties in State floras, as I now am doing in
the willows of Nevada.

Cordially yours,

Carleton R. Ball

The Ohio Academy of Science

(Affiliated with A.A.A.S.)

OHIO FLORA COMMITTEE

April 15, 1955

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

Dear Dr. Ball:

I was glad to get your letter of April 13; it is so easy to have letters snowed under in a mass of material -- it has happened to me, so I understand. The delay has caused no inconvenience.

My 1954 willow collections are being sent to you. I believe none is of particular interest but perhaps a county record or two may be added. As these specimens were not collected in duplicate, I would appreciate their return.

Indeed a "write-up" of the willows of Ohio is still wanted. Our committee feels that the treatment of genera being worked up for us -- as you are doing for Salix -- should be published in the Ohio Journal of Science in advance of the publication of the Woody Plants of Ohio. Therefore, any sort of treatment you wish would be satisfactory. The two principal desiderata are (1) full keys, which contain as many characters as possible, and (2) inclusion of all county records. We would like notes on habit of growth, habitat, and distribution, and characters in addition to those in keys, if desired. When the Woody Plants is ready for publication, maps will be made for all species, and keys reprinted. We feel that it is best not to use maps in any preliminary papers (just lists of counties); in this way any additional records that turn up can be added and mapped, and execution of maps will be uniform throughout. I believe it is desirable to include in the keys species which have been reported as occurring, even though we now know they do not occur, or that the names refer to something else. No descriptions or notes about such species need be included, but perhaps a statement as to why excluded.

By now, you probably have seen specimens of all species of Salix which occur in Ohio, so that a paper prepared as soon as convenient to you would doubtless be as complete as it would a year or two hence -- except perhaps for a few county records. E. J. Palmer is now writing up Crataegus of Ohio, which will be sent to the Ohio Journal of Science as soon as completed, as will your paper on Salix of Ohio. Such papers, if sent to the editor of the Journal by our committee, will not be circulated through the usual group of editorial critics, but accepted as passed by our committee members.

Dr. E. Lucy Braun,
5956 Salem Road,
Cincinnati 30, Ohio.

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

22 April, 1955.

Dear Dr. Braun:

Your letter of April 15, and the packet of willows, arrived promptly and I have given the willows early attention, at least as early as dark cloudy weather would permit.

I inclose the list of determinations. I am very sorry that one collection could not be determined with any certainty, but it does not seem to be important from the standpoint of the State flora.

The willows have been repacked and will be returned by franked mail today or tomorrow.

I am putting your letter into a special jacket on Willows of Ohio Flora and will hope to get at that job presently. Just now I am buried in shipment sent for identification from all over the U.S., Alaska, and Canada. Over 100 sheets are from Idaho alone.

Cordially yours,

Carleton R. Ball

P.S. I have not checked my files to see if I have mentioned it before, but I feel that it is very desirable to give a serial number to each collection made. Without such number, it is very difficult to refer to a given collection in any special discussion, especially if two specimens of the same species were collected at the same place at the same times.

C. R. Ball,

-2-

Apr. 15, 1955

Your letter came at an opportune time. It will now be possible for us to include, in our annual committee report to Council and to Academy members (at meeting next week) a statement of progress with Salix.

We thank you for your help.

Sincerely yours,

E. Lucy Braun

E. Lucy Braun

5956 Salem Road
Cincinnati 30, Ohio

Dr. E. Lucy Braun; Prof. J. Arthur Horrick,
Officers, Ohio Flora Committee.

3614 Jevelyn St., N.W.,
Washington 15, D.C.

24 April, 1935.

Dear Fellow Workers:

I note from Dr. Braun's letter of April 15 that contributions to the Woody Plants of Ohio are desired for preliminary publication in the Ohio Journal of Science. As I plan to begin writing the *Salix* of Ohio soon, a few questions occur to me, and are presented below for your consideration:

TITLE: The Willows of Ohio, The Salices of Ohio, the Genus *Salix* in Ohio, or some other term?

KEYS: I prefer two sets of keys for *Salix*. One is based on vegetal characters (twigs, buds, stipules, leaves, etc.), but includes floral characters if needed here and there. The other is based on floral characters (aments, peduncles, scales, capsules and their pedicels, styles, and ~~anthers~~ stigma, and filaments and anthers, with inclusion of such vegetal characters as complete separation. Is the double-key system satisfactory to you? Most botanists feel that *Salix* is a difficult genus.

DESCRIPTIONS: I prefer them to be rather full, as it helps students. This would include descriptions of all organs, including color, venation, hairiness, etc.

I would include differences between seasonal, 1-year, and 2-year twigs where necessary, for example, and comments on the changes taking place between juvenile state and maturity, where it helps identification.

All of the characters included in the keys would be included in the text also, so that the textual descriptions will be complete in themselves. Several recent authors omit the key characters from the texts, which does not seem fair to users.

DISTRIBUTION: I would give the total geographic distribution for each, and then its range and abundance in Ohio.

I note that maps will not be included in the preliminary publications, but I assume that the Counties of occurrence are to be listed there. If so, are they to be in alphabetical order? Yes

I may not have record of all the counties in which each species and variety have been found. Shall I insert what I have and then send a copy of the rough draft to one of you to fill in any omissions?

Or, when I have finished the rough draft, will you send me a list of counties for each species and variety, for inclusion in the final draft?

HYBRIDS. I do not believe in applying specific names to hybrids. The progeny of any fertile crossing might represent several different "species" in the diversity of characters which they present. I could record, under each species, the names of other species supposed to be the other parent in hybrids which I have seen.

Fernald, in Gray, Manual, lists the other species (by their serial numbers only), with which he believes that a given species produces hybrids. Would you prefer this method?

HERBARIUMS: Do you have any desire to include lists of the Ohio herbariums in which each species is represented? Or any mention of such herbariums in the preface to the paper?

TYPE SPECIMENS: If any species or varieties are based on type specimens from Ohio, I will plan to mention the fact in giving the range in Ohio. Okay?

Cordially yours,

P.S. No rush about this.

Charles R. Ball

Dr. E. Lucy Braun & Prof. J. Arthur Harrieh,
Officers of the Ohio Flora Committee,

3314 J. calyn st., N.W.,

Washington 15, D.C.

25 April, 1955.

Dear Fellow Workers:

I have just discovered that when I wrote you yesterday ^{about} the make-up of the paper on Ohio Willows I omitted one very important item. (Maybe I'll find more omissions later).

SYNCHRONISM: Many species and varieties in *Salix* have each been published both as species and varieties, and some have been published also as form or subspecies. Some have been published in at least three categories.

Some recognized species have had two, or three, or more specific names applied to them, as you well know.

Do you wish to have full synonymy given in this preliminary publication, and in the final volume as well? Personally, I feel that it helps students by clearing up some of the confusion, or by making the extent of the confusion more clear.

But I will abide by your decision in the matter.

Where a name already in use was discovered to be invalid, I would indicate the fact by the necessary addition, as, for example: (*S. serotina* Michx., not Michx.)

Cordially yours,

Carlton R. Ball

The Ohio Academy of Science

(Affiliated with A.A.A.S.)

June 10, 1955

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

Dear Dr. Ball:

Dr. Herrick sent me a copy of your letter of May 20 inquiring about specimens in other herbaria, specifically, the U. S. National Herbarium.

I know that we should try to find out what Ohio material is in the larger herbaria, but to date we have not done so. E. J. Palmer has borrowed Ohio material of *Crataegus* from the Arnold Arboretum, and perhaps from other places. I have felt very doubtful about the possibility of getting information from herbaria, for in most places there would be no one who could find time to go through specimens for us. I do intend to try to borrow specimens of species reported (by Fernald or by Gleason) as being in Ohio, if we have no specimens in Ohio herbaria.

The Carnegie Museum, University of Pittsburgh, probably has many eastern Ohio specimens. If Salix is poorly represented from eastern Ohio counties, perhaps you could borrow from the University of Pittsburgh by writing to O. E. Jennings. The distribution maps in his flora of western Pennsylvania have dots for several species (not of Salix) in counties we do not have them for.

You will have no difficulty in seeing material of Salix at the U.S. National Herbarium, and perhaps your conversation with Dr. Swallen will pave the way for later questions about specimens in other genera.

Sincerely yours,

E. Lucy Braun
E. Lucy Braun

5956 Salem Road
Cincinnati 30, Ohio

The Ohio Academy of Science

(Affiliated with A.A.A.S.)

June 25, 1955

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

Dear Dr. Ball:

Dr. Herrick has asked me to reply to your letter of June 10. This I shall try to do paragraph by paragraph.

There is no need to cite the manual in which names you list as synonyms are used.

Yes, I would cite all synonyms for Salix carolinianum, as this name is unfamiliar to all except those using the most recent manuals.

Dr. Herrick has written to you concerning Schaffner's catalogue.

Distribution of species and varieties: list counties alphabetically. No other data; i.e., do not include name of collector, number of specimen, locality, year, etc. Do not name herbaria.

"Question of who has the lists of determinations of the willows from the major herbariums in the State": If you have the list of counties for each species and variety, no other information is needed for your treatment of the Ohio willows. I am not sure from your letter whether or not you have this information, that is, whether or not you have a list of Ohio willows (based upon your determinations) and the counties in which they occur. Please let me know.

If you do not have such a list, we shall have to send out a letter to cooperating botanists asking them to send to us, at once, a list of your determinations. It is possible that you filed some of this information under the name of the person (or the institution) sending you specimens. To help check this, you might look under Weishaupt (Ohio State University), F.O. Grover (Oberlin College), M. Fulford (Univ. of Cincinnati). I know the above mentioned (and mine) have been sent to you since the Ohio Flora project was started. Others doubtless sent specimens.

Sincerely yours,

E. Lucy Braun
E. Lucy Braun
5956 Salem Road,
Cincinnati 30, Ohio

Copy to J. Arthur Herrick

Ans'd July 7
My N.C. trip was very enjoyable, indeed

Dr. E. Lucy Braun,
5956 Salem Road, Cincinnati 35, Ohio.

3214 Jocelyn St., N.W.,
Washington 15, D.C.

Dr. J. Arthur Harriek,
Dept. Botany, Kent St. Univ., Kent, Ohio.

2 July, 1955.

Dear Ohio Flora Committee:

I have finished listing all Ohio specimens in my own herbarium and that of the U.S. Forest Service. I have practically finished at the U.S. National Herbarium. Then I will check at the National Arboretum (Plant Industry) herbarium other than my own, these herbariums have very little recent material from Ohio.

In a list of Put-In-Bay specimens which I determined in 1903 or thereabouts, they are said to be in the 'Herbarium of Stone Laboratory, Ohio State University, and Earl L. Core.'

In the Stone Laboratory herbarium a part of the OSU Herbarium at Columbus, or is it located elsewhere? I have written to Dr. Core to learn if the Earl L. Core Herbarium is still at OSU, or with him at Magnawent.

The 25 collection listed were mostly by W. A. Kellerman in 1903 and 1904, and by Core with year not noted. One was by Griggs in 1903, and one by Griggs and Selwings in 1903.

I have recent letters from each of you, which will be given attention soon. Just now I wish to know the counties in which several specimens were collected.

Catawba Island. Is it a part of Erie Co.?

Johnson's Island. Is this in Erie Co.? (Hookey, S. interior, in 1898)

Licking Reservoir. Is this in Licking Co.?

Larabfield. What Co.? (Selby 54, S. tristis (as S. candida)

Mapolis. Is it in Lucas Co.? (many collections by Selby)

Parkins, Parkins Twp., and Parkins-Sentinel Twp.-line.

These are Hookey collections and probably from Erie Co.

Pineville. What Co.? Dr. H.C. Beardslee coll. S. interior var. Wheeleri there.

Shady Foot Lake. What Co.? Selby 116, S. humilis rigidiuscula, in 1899.

There is no special hurry for the county data, but I will enter the specimens in their proper counties when I know what they are.

You will hear from me shortly, in answer to your letters. My principal object is to worry the Ohio-Flora Committee, and I'm trying real hard.

Cordially yours,

Charles E.

Dr. E. May Braun,
2936 Selwyn Road,
Cincinnati 30, Ohio.

3614 J^Wcolyn St., N.W.
Washington 15, D.C.

5 July, 1955.

Dear Dr. Braun:

As stated in my letter of July 2, I may have retarded our correspondence since July, 1955, and feel that I understand your desire for:

- Full keys, containing as many characters as possible;
 - Full descriptions, as given in Gleason, *Atlas. Fl.*;
 - Habit of growth, abynance, and habitat;
 - Distribution, total and Ohio (Ohio occurrences based on specimens seen, indicated by alphabetical list of counties for each species and variety.
- Neither specimens or herbarium will be cited. No maps in the preliminary publications like mine.

Synonyms need to designate our species and varieties, in Griggs, Schaffner, Gray *et al.*, eds. 7 & 8, Britton *et al.*, D. & B. *Atlas. Fl.* and Gleason, *Atlas. Fl.* will be inserted but the various publications containing them will not be cited.

Species which may occur, but have not yet been found will be included in the keys and merely mentioned in the text under the nearest related species.

I have written today to Dr. Jennings, frankly saying that herbarium stuffs are badly smushed and stating that if they cannot get out Ohio specimens of the species and varieties listed there will be no more feelings.

I have talked with Dr. Small at the National Herbarium and he says very frankly that it would be quite impossible for them to get out all Ohio specimens. If the specialists who are working up the difficult families feel a special need to see U.S.A.H. material in their group, and cannot come to Washington, they may make request for the material and each request will be considered separately, no guarantee being given now that any such requests can be filled.

Now as to *S. caroliniana* in Ohio. I named 4 juvenile specimens for you in March, 1955 (from Hamilton Co.) and Prof. Kenneth Hunt of Antioch College has one juvenile specimen just like yours. I kept no further record of these specimens because you were going to publish on the Ohio flora. Now, because I am doing the *Atlas*, I need full data.

But much more important is the need to revisit the spot and get mature foliage, so that the doubtful determination may be made certain. I certainly hope that you can do this during this summer and fall.

Tearall's No. 2783, Green Clinton Co., proves on fuller study to be *S. alba*. But the fragment from Clyde H. Jones, Tar Hollow, Ross Co., on July 1, 1943, which was distributed as *S. nigra*, and determined by me as probably *S. nigra* X *S. amygdaloides*, I have reconsidered carefully and believe that it really is *S. caroliniana*. If any one can secure Tar Hollow again it will be very desirable.

Copy to Dr. "Arick.

Cordially yours,

Charlton R. Ball

Dr. E. Lucy Brown,
5353 Selma Road,
Cincinnati

30, Ohio.

3614 Jocelyn St., N.W.,
Washington 18, D.C.

6 July, 1955.

Dear Dr. Brown:

In my letter of yesterday, I made a foolishly confusing statement about one problem concerning I planned to write you fully today.

In my paragraph on *Salix caroliniana*, I referred to your four juvenile specimens from Hamilton Co. and another juvenile by Prof. Kenneth Hunt, and stated that, because I had kept no list of these identifications because you were to publish a Flora of Ohio, I now would need full data on them.

Here is my problem. My memory is growing worse as I get older but I seem to recall that I determined a lot of specimens of *Salix* from Ohio herbariums at about that time (1933). Apparently I wrote no lists of determinations because the specimens were being returned and the Flora Committee was planning to publish the data later.

Now I cannot find my correspondence with you and Dr. Erick before 1935. It is not in my files and, if I later placed it in a single receptacle to be used with my studies of the Ohio willows, I cannot locate that receptacle.

If you can give me the list of any herbariums you asked to send me their Ohio willow specimens, I would like to have it, with the names of senders.

If you have lists of the species and varieties determined by me in Ohio herbarium prior to 1935, with numbers for each, that is what I need for inclusion in my paper.

If I have not had the *Salix* collections from important Ohio herbariums, will you ask them to send them to me, or give me names and I will ask them.

Some 50 years ago I wanted a lot of Ohio willows for the collectors, (Griggs, Ruess, Selby, and Selby et al.). These must be in the herbariums at OSU, Ohio Experiment Station, Wooster, or both. If I can get the material from these two herbariums I could tell them what not to send. Or perhaps it would be better to check on results of 50 years ago.

Any data you can give me, or any suggestions that you may make, will be greatly appreciated.

Cordially yours,

Coriolen R. Hall

P.S. 1. There are very few Ohio *Salix* collections in the U.S. natl. Herbarium.

P.S. 2. Have just received a letter from Dr. Carr, recovering from an appendectomy. He says the rest of his Ohio collections are filed at the Institute of Hydrobiology at Put-In-Bay, and refers me to Dr. Jacob Verduin there.

Copy sent Dr. Herrick

Dr. E. Lucy Brown,
1976 Galien Road,
Cincinnati 20, Ohio.

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

7 July, 1955.

Dear Dr. Brown:

At last, I think I have found out where I have been at, and therefore where I am at now. Hence, I should be able to stop bothering you and Dr. Herrick, and get to work on the Ohio Willow manuscript.

When I reviewed our recent correspondence and wrote you about my problems, your letter of June 25 was not with the other letters, and I had forgotten about it. Now I have found it and it tells me that I did receive and determine the Ohio willows from the following herbaria:

E. Lucy Brown Herbarium;
University of Cincinnati, (H. Bulford);
Georlin College (Dr. Frederick S. Grover);
Ohio State University (Dr. Glenn Weishaup).

I must have received some from Prof. Kenneth Hunt of Antioch College, because I made note of his juvenile specimen which I determined as probably *S. carolinianum*, just as I noted that you sent a similar specimen.

Undoubtedly, I received the material from Kent State University through Dr. Herrick. I do not know what others I received, if any.

I am sure that I did not make lists of the determinations in any case. The specimens were all returned to senders so no lists were necessary for them. It was my understanding that either you, or the GVI herbarium, was to compile the lists of counties for each species and variety I determined.

For this reason, I will have to obtain from Ohio sources the lists of counties for each species and variety. If you have them, I hope that you can give me the data. If GVI has the records for all the herbaria participating, will ask them to send me a copy of the county lists for each species and variety? *you*

I will have the records from all Ohio collections in the four herbaria here

Yesterday, I checked my letter files for correspondence with Bulford, Grover, Hunt, and Weishaup. I found only that with Grover. I determined all the Willows (American and foreign) in the Georlin College herbarium in 1940. When this Ohio project developed he sent me all more recent Ohio collections and I determined them in 1954. I have written to him, asking for a county list, but have not written to any others, except to you and Dr. Herrick.

As I cannot find correspondence with you and Dr. Herrick earlier than 1955, and find not with Bulford, Hunt, and Weishaup, I assume that when I agreed to write the papers on Ohio willows, I placed all this correspondence (except Grover) in one packet for convenient use, and have mislaid the packet. I am searching for it.

If you will ask for the county records from those named above, it will solve the problem. You might even add your plea to Dr. Grover, if you think it wise.

Are there any fairly large herbaria in the colleges of Ohio that should be asked to send either material, if they have not already done so? If not has collected the county data, it should know which have supplied it.

The Ohio Academy of Science

(Affiliated with A.A.A.S.)

OHIO FLORA COMMITTEE

July 15, 1955

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

Dear Dr. Ball:

I shall endeavor to answer your several July letters.

Letter of July 2: Dr. Herrick replied to this in part, giving you the locations of places asked about -- except Marshfield and Pineville. Both are unknown to me.

The Stone Laboratory at Put-in-Bay, now called the F. T. Stone Institute of Hydrobiology, is connected with Ohio State University, but its herbarium is separate. Dr. Jacob Verduin is the Director.

Letter of July 5: Content of paper on Salix as you state in your letter.

in his letter of 22 Aug
I will go to my four juvenile specimens of Salix caroliniana and copy all data. Getting mature material is another matter; places where these were collected many years ago are gone. Tar Hollow, where a specimen was collected by C.H. Jones, is 120 miles away.

Letter of July 6: Concerning Ohio herbaria for which Salix specimens have been determined:-

You have had (1953, 1954) all specimens of Salix from Ohio State University; these were sent by Dr. Clara Weishaupt. Included here, is the bulk of all Ohio material -- many times that in all other herbaria combined, except Oberlin. Dr. Weishaupt is in Europe now; I have received complete records from her.

There may be an herbarium at the Ohio Agricultural Experiment Station at Wooster, but thus far we have heard nothing from them in connection with the flora project. Many of Grover's specimens appear to have come from there.

I have data from Grover for specimens you determined for him in 1940.

I have data for the University of Cincinnati specimens.

(In my letter of June 25, I mentioned those few people and herbaria just as a suggestion of where you might look in your letter file; no need to write to them.)

*wrote
no re*

Digitized by *King Institute for Botanical Documentation*

C. R. Ball (2)

July 15, 1955

I also have data (1953 determinations) from Defiance College (Howe), Antioch College, Stone Lab. (date of determinations not given), and herbarium of John Guccion.

The counties can be added after everything else is done; do not bother yourself further about this now.

It will take some time to make a list of the willows you have determined, together with county occurrence, because I have never sorted the herbarium slips of willows. If there are some who have not sent me revised determinations, these cannot be gotten until fall. Summer school in most colleges is over next week; letters sent in summer would be lost or misplaced.

Early in the fall, we can send out a mimeographed letter, asking if willows have been sent to you, and if so, to please send revised herbarium slips to me at once, if this has not already been done. I can then add any additional counties to the list I will make up from data which is available to me now.

Please do not hesitate to ask, if there are further questions.

Digitized by Hunt Institute for Botanical Documentation

Sincerely yours,

E. Lucy Braun

E. Lucy Braun

5956 Salem Road
Cincinnati 30, Ohio

Copy to J. Arthur Herrick

The Ohio Academy of Science

(Affiliated with A.A.A.S.)

August 22, 1955

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

Dear Dr. Ball:

At last I have completed the list of Salix determined by you. These are from the following herbaria:

Ohio State University
Oberlin College -- F. O. Grover
Defiance College -- Thomas D. Howe
F. T. Stone Institute of Hydrobiology -- Jacob Verduin
(date when determined not given)
Antioch College -- herb. of G.H. Shull
University of Cincinnati -- M. Fulford
John Guccion (Aug., 1953)
E. Lucy Braun

Herbarium slips received from Dr. Grover bear the note "Det. Carleton R. Ball. March, 1940". Some of his specimens came from the Ohio Agricultural Experiment Station, and have the Exp. Sta. number and names of collectors. However, they are now Oberlin specimens.

I have not listed specimens from the above herbaria separately; all county records (regardless of herbarium) are listed together. However, if there is no specimen at Ohio State Univ., I have so noted by giving location of specimen. You probably will not want that information unless it was necessary to recheck a determination. Of course there are many instances where species are in the Ohio State herbarium and some other herbarium as well. These are not noted. If you want such information, let me know.

filed in (
ms.) You asked for data concerning my specimens of Salix caroliniana. This is given on a separate sheet.

A few questions arise:
Salix petiolaris J.E.Smith -- I suppose this, in Fernald, is S. gracilis Anders. var. textoris Fern. It apparently is quite northern in distribution, and the Scioto County record looks strange -- we never find northern species there. I am enclosing map to show this range.

Salix glaucophylloides Fern. -- One specimen presumably from Licking County bears date May 17, 1895. Your note says "Leaves too old for collection on May 17." As this part of the data is

Aug 22, 1955

incorrect, perhaps locality is also. Would it not be best to omit the Licking Co. record? No other herbarium has a Licking Co. specimen.

If there are any questions, please let me know.

Your letter of July 26 to Dr. Herrick doubtless did not reach him before he left Kent. In that letter, you ask about county of several localities (in northern Ohio). He will know better than I do, so I am not trying to reply.

Sincerely yours

E. Lucy Braun
E. Lucy Braun

5956 Salem Road
Cincinnati 30, Ohio

Dr. E. Lucy Braun,
5956 Salem Road, Cincinnati 30, Ohio.

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

Dear Ohio Flora Committee:

26 September, 1955.

We are ending 3 months of sizzling heat and drought; hurricanes, torrential rains and floods; the worst crab-grass season in 50 years, and recent dark gloomy weather with drizzles. I also had an internal ailment that did not help things any. But now I am jumping into *Salix* at high speed.

I think I have two letter from you still unanswered. I especially thank you for the list of Ohio willows, with counties for each. This helps me to picture distribution and probable abundance more accurately.

I am ashamed that I did not send you a sample page long ago, so that some certain questions could have been and considered and decided before I was ready to write. Here is a sample page for *S. lucida* and varieties. And here are the questions.

1. Should each species, and its common name, form a center heading, as on sample inclosed? Or should these start the first line of text?

2. Where should the synonyms cited be placed? (*S. lucida* has none).

If the species and common name form a center heading, should the synonyms form a small paragraph immediately below this heading?

If the species name and common name are at the beginning of the first line of text, should any synonym be inserted, in parentheses, immediately after the common name?

Or should synonyms be placed at the end of the description?

3. I assume that in citing synonyms under a species, no reference would be made to the work in which it appeared, but that a list of the works from which synonyms were taken would appear in a footnote, earlier in the ms. or at bottom of this sample text page.

4. I have forewarned the student of major varietal variations, in this sample page, by inserting "(see var.)" at two or three points in the description. I have never seen this done before, but it seems helpful. What do you think?

5. In giving geographical distribution, I assume that I should use the accepted abbreviations for States and Provinces.

6. For Gleason's *Illus. Flora*, I was asked to use single-letter abbreviations, in lower case, for directions, as n. for north and northern, ec. for east-central, etc. In this sample page, I have written these out. Which do you prefer?

6. For describing Ohio distribution, I have divided the State into thirds, running east and west, as southern third, central third, and northern third. Only the "central third" could be confusing, and I have inserted (east-west) after it. Perhaps a footnote would be better.

In listing varieties as 1a, 1b, etc., is it better to write it like that or as 1,a., 1,b., etc?

While awaiting replies, I will continue identifications, and work up the Ohio distribution from my lists and the county lists you sent me.

Space is left on sample page for inserting counties, when the full record is in.

The Ohio Academy of Science

(Affiliated with A.A.A.S.)
OHIO FLORA COMMITTEE

October 8, 1955

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

Dear Dr. Ball:

I well realize the past summer has not been favorable for scientific work. I accomplished less than I had hoped to, and did almost no field work.

As you no doubt have a copy of your letter of Sept. 26, I will answer points by number.

1. The scientific and common name as on sample.

2. Synonyms. I am putting each on a separate line, under the scientific name.

3. No reference need be made to the work in which the synonym appears. As a rule, the only ones that need to be cited are those in Gray's Manual, ed.7 and ed.8; earlier editions of B.&B., and Schaffner's catalog.

4. Inserting (see Var.) in description of the species should not be done. According to nomenclatorial rules established by the Stockholm Congress, the species is inclusive, and its description must cover all varieties. Using *Salix lucida* as an example, we would need to state: twigs and bud-scales chestnut-brown, shining, glabrous or pubescent when young; . . . ; leaves 5 to 15 cm. long, narrowly lanceolate or lanceolate to ovate-lanceolate; . . . , glabrous or more or less hairy beneath when young. etc.

I would follow the species description with a statement that three varieties are recognized, and (rather than text), a brief key to these:

Twigs and bud scales glabrous; leaves glabrous.

Leaves lanceolate to ovate-lanceolate . . . var. *lucida*

Leaves narrowly lanceolate, shorter; not known

in Ohio . . . var. *angustifolia* And

Young twigs and bud-scales, and lower leaf-surfaces more

or less hairy; in Ohio, known only from

Catawba Id., Ottawa Co. . . . var. *intensa* Fern.

[Botanists have been slow to accept the comprehensive concept of the species; I am certainly glad that at last we can do this. I feel that distinguishing vars. by a key (as Fernald has done in many instances) is a great help to the student. You may not want to do it this way.]

Oct. 8, 1955

5. Abbreviations for States and Provinces.

6. I like directions written out, but this is an editorial problem. I see no reason to mention outlying stations, if not in Ohio.

7. For describing Ohio distribution: I do not approve of an arbitrary division of a state into thirds; I consulted with one other of our committee, Dr. Wolfe, and he strongly disapproved of such a method. Such a division of Ohio cuts across natural boundaries which in many cases are controlling factors in distribution, perhaps less so in willows than in other plants. I have mapped the distribution of Salix lucida var. lucida var. lucida as indicated by the county records that I have (the ones I sent to you). I would say that it is rather widely distributed in the northern half of Ohio [we do not have information as to whether it is common or not], more frequent in the Lake area. [Of course you may have a few records I do not have.] The list of counties takes care of distribution, and only a very general statement, if any, need be made.

I have mapped a few species, to see what the patterns of distribution look like (maps enclosed). Of these, five (amygdaloides, bebbiana, candida, lucida, pedicellaris) appear to be absent from the unglaciated area, or perhaps I should say, appear to be confined to the glaciated area; and S. bebbiana is almost confined to the necessary; county names suffice. S. humilis appears to be more frequent in the Allegheny Plateau area than elsewhere, but perhaps more records would make a different picture. We have no objection to referring to northern part (or third, or half) or to southern part, but please do not try to split up the state into fractions to use in commenting on distribution. In many cases, little comment is necessary; for instance, S. rigida or S. discolor. Why not just: widely distributed: [and then list of counties].

A map showing some of the more important natural boundaries in Ohio is enclosed; this is not accurate, but suffices in most cases. It may be helpful to you if you care to make general statements about distribution.

Some of the questions you ask are editorial matters, for example, 1, 2, 5, and 6. If names are typed as I suggest, it would be a simple matter to run these into a paragraph, if saving of space demanded this. If directions (6) are written out, it would be a simple matter to abbreviate, if necessary. We should avoid irrelevant material, such as the outlying stations you mention for S. lucida. That information belongs in more comprehensive works. We must conserve space, as funds of the Ohio Journal of Science are limited.

Oct 9, 1955

There are two matters to which I wish to call your attention:

First: The Flora Committee, and the Editor of the Ohio Journal of Science, will necessarily function in an editorial capacity with all sections of, or contributions to, the contemplated Ohio Flora.

Second: I notice a great deal of similarity between your typed text and that in Gleason's Illustrated Flora. Some statements are identical. This is only natural, as you prepared both. But, do you have written permission from the New York Botanical Garden to reuse parts of your text? We cannot disregard their Copyright.

I hope this will answer your questions. Do not hesitate to ask again if anything is not clear.

Sincerely yours,

E. Lucy Braun

E. Lucy Braun

Digitized by Hunt Institute for Botanical Documentation

5956 Salem Road
Cincinnati 30, Ohio

(Copy to Dr. Herrick)

P.S. I will have 8-10 more willow specimens to send to you a little later - after there is no further possibility of collecting.

Oct 8 1955

Braun

Description of Species (typical variety) must include all varieties (forms, subsp.)

Influences for:

1. The species concept must come first, as compared with other species. that of
2. Not all published varieties are recognized by all botanists
3. The student may know the species as a whole, but not yet have learned the varieties.

Influences against:

1. If the student is trying to separate the different divisions (typical, subsp. vars. forms, etc., he has no description of forma typica.
2. If some or none of the published subdivisions occur in his area, or the area covered by the manual he is using, he has no way of telling whether he has forma typica.

Digitized by The Institute for Botanical Documentation

The Typical Variety.

varietal

1. Must it have a published Latin name, or just the accepted specific name?
2. If it must have varietal name, should it be var. typica in all cases?
3. Or should the typical variety have a varietal name duplicating the specific name?
(as *Salix lucida* Muhl. var. *lucida* ?)
4. If the varietal name is to be the same as the specific name, what authors are to be given: *S. lucida*, var. *lucida* Braun? or var. *lucida* (Muhl.) Braun.
5. In either case (2, 3), are these new varietal names to be inserted after the specific names in this mss.? And have any such combinations been published already in *Salix*?
6. Suppose a species (Variety *typica*) has published subspecies. If the typical species is really a variety, can it have a subspecies of a variety.

Dr. E. Lucy Braun,
5956 Salem Road Cincinnati 30, Ohio.

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

Dera Dr. Braun:

I have been running over some of our more recent correspondence to see what I may have failed to note, or record for future use.

From your letter of July 15 I have recorded, on a separate sheet, the list of Ohio herbariums from which you have received records showing that I received and determined their *Salix* specimens, with year of determination when given. From there, I am going forward to get certain others, as Ohio Agric. Expt. station, and later material from Stone Laboratory.

I have noted that you approved my outline of manuscript treatment as given in my letter of July 5.

I thank you heartily for your full data on your four juvenile specimens of *Salix caroliniana*, in letter of Aug. 22, and have filed your data with the manuscript for further reference.

I do not need to know in what herbarium the Ohio specimens are located, unless some question as to the identity of a certain specimen arises.

I thank you most heartily for the 3-page list of counties in which the various species and varieties have been found. That took a lot of hard work and will be very useful to me in making the general statement of Ohio distribution.

Next I shall write you fully regarding questions raised by your letter of Oct. 8, and send you several pages of the manuscript.

Things still are going much slower than I wish, but at least they are moving forward.

Cordially yours,

Carleton R. Ball

Copy to Dr. J. Arthur Herrick.

The Ohio Academy of Science

(Affiliated with A.A.A.S.)

January 31, 1956

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

Dear Dr. Ball:

This is more or less a report of progress on work on "Woody Plants of Ohio." During the past year, I have been able to devote a great deal of time to work on the woody plants of Ohio, and I now have the first draft of the text nearly completed, and preliminary distribution maps made for everything as far as I have written. This brings up the matter of Salix. You have mentioned more than once that large packages of specimens of Salix are being sent you frequently from all over the continent. Of course you want to identify these and return them to the owners as soon as possible. I am wondering if you really want to prepare the whole text for Salix of Ohio, or if you would rather just prepare full keys, and give me a list of all records that you have gathered together.

As the interval lessens between when your text on Salix could be ready, and when the whole text for the woody plants will be completed, separate preliminary publication of Salix becomes less desirable.

I know you are having difficulty making statements about ranges of species in Ohio, for of course you are not familiar with Ohio's natural features. I could do this more easily and quickly than you, if I have all records of occurrence. When incorporated in "Woody Plants of Ohio." distribution maps will be made, and in many cases nothing need be said about the range in Ohio.

In our text of woody plants, keys are very full, and there is little said about each species. I should have no trouble in preparing text of this sort for the willows, if you write full keys. Of course, if it is done this way, I would submit what I write to you for approval, and credit you with keys, identifications, and anything else.

Let me know what you want to do.

Sincerely yours,

E. Lucy Braun

E. Lucy Braun

5956 Salem Road
Cincinnati 30, Ohio

September 27, 1956

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

Dear Dr. Ball:

This is in reference to your letter of July 8, 1956, and my reply of July 28, in which I asked for two things:

(1) A list of all Ohio species and varieties of willows, together with a list of the counties in which each was found. You have records (from U.S. National Herbarium and elsewhere) which we do not have. I will need all the records to make maps.

(2) A key or keys to the species and varieties.

I have engaged an artist to make illustrations for "Woody Plants of Ohio," and in-so-far as possible, hope to progress in systematic order. Willows come close to the beginning. As only some of the species will be illustrated (particularly those fairly widely distributed in Ohio) and as key characters will be illustrated when possible, I do need the two things mentioned above just as soon as possible.

These two things are the only things we will need from you. We will not publish on willows as a separate paper. This genus will be included in my book "Woody Plants of Ohio" and consequently I must write the text to make it accord with the rest of the book.

Your contribution of the two things mentioned above will be much appreciated.

Sincerely yours,

E. Lucy Braun
E. Lucy Braun

5956 Salem Road
Cincinnati 30, Ohio

December 27, 1956

Dr. Carleton R. Ball

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

Dear Dr. Ball:

All fall I have been thinking that you must be ill, as I had no reply to my letters of July 28 and September 27, so your card was welcome.

My progress on "Woody Plants of Ohio" has been much more rapid than I had anticipated. The manuscript, except Salix, is written and now in process of final revision. Much checking of herbarium specimens has been done, as I have a grant which takes care of expenses.

I am very anxious to get the necessary material on Salix. As I wrote before, there are only two things I need:

(1) A list of all Ohio species and varieties of willows, together with a list of the counties in which each was found. You have records (from U.S. National Herbarium and elsewhere) which we do not have. I will need all the records to make maps.

(2) A key or keys to the species and varieties.

I would be glad to pay someone to copy data from your Ohio file, if I can thus get the list of species and varieties, together with their known occurrence in Ohio.

The keys (item 2) will be very welcome. As to text -- I must prepare this myself as it must accord in style with the rest of the book. The earlier plan, to have a preliminary publication on Salix, cannot be carried out at this late date. Work on the whole text for "Woody Plants" is so far along that we can look forward to its publication.

Your contribution of items (1) and (2) will be much appreciated and duly acknowledged.

Sincerely yours,

E. Lucy Braun
E. Lucy Braun

Dr. E. Lucy BRAUN, Braun,
5956 Salem Road,
Cincinnati 30, Ohio.

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

25 September, 1957.

Dear Dr. Braun:

I feel that I owe you more than 1,000 apologies, and I tender them herewith. But I know that apologies have no value in producing a manuscript. Many circumstances: my age (84 past), my increasing forgetfulness (bigger than my memory), a vicious and protracted case of virus flu, long illness and death in my brother's family, a perfect deluge of willows for determination, the necessity of completing some earlier commitments in willow manuscripts, are some of the reasons for my having neglected your needs for the Weedy Plants of Ohio, but are not truly excuses.

Please tell me frankly the present status of the willows of Ohio. You wanted county records for all Ohio species and varieties, and keys to the species. I am starting now on the job, hoping that it is not too late. Descriptions and keys should be practically complete in my chapter on Salix in Gleason's edition of the Illustrated Flora.

County records will take some time because I will have to go through my two Salix Herbariums, at my home and at the U.S. Dept. of Agric., as well as the National Herbarium and the U.S. Forest Service herbariums. Not all of the specimens in my herbarium are recorded on my Ohio lists.

Are you including the introduced species? Or only such of them as have been collected from plants escaped? Or none at all. I keep introduced species, whether from cultivated or escaped plants, in a separate case, so would not need to go through the other cases a second time if they are wanted.

I think that most of these data can be gathered in the next ten days, and I truly hope that it is not too late to serve you in this matter.

Sincerely Yours,

Carleton R. Ball

Dr. E. Lucy Braun,
5956 Salem Road, Cincinnati 30, Ohio.

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

Dear Dr. Braun:

26 September, 1957.

Since writing you two days ago, I have gone through my home herbarium and made record of all Ohio *Salix* specimens, by counties. Here they are.

- Salix lucida* Muhl. Auglaize Co. 1899.
S. serissima (Bailey) Fernald None
S. caroliniana Michx. Coshocton Co. 1942; Ross Co. 1943.
S. amygdaloides Andersson. Auglaize Co. 1900.
S. nigra Marshall, Defiance Co. 1953; Vinton Co. 1956.
S. rigida Muhl. Fulton Co. (2). 1955. 1953.
var. *angustata* Anders. Clinton Co. 1955.
S. pyrifolia Anders. None. in any herb.
X *S. glaucephylloides* Fernald. Geauga Co. 1962.
S. cordata Michx., not Muhl. None
S. pedicellaris Ph., var. *hypoglauca* Fern. None.
S. candida Fluegge. None
S. petiolaris J.E. Smith. None
S. subsericea (Anders.) Schneider. None
S. sericea Marshall. Vinton Co., 1956.
S. discolor Muhl. Clinton Co. 1955; Fulton Co. (2) 1953; Highland Co. 1944.
var. *latifolia* Anders. Defiance Co. (3). 1953. Holmes Co. 1942.
S. humilis Marshall. None.
S. tristis Aiton None.

I see that I have not listed, above, the varieties of these species of which no Ohio specimens were found in my home herbarium.

I will try to make the checks in the other herbariums next week.

Cordially Yours

Carleton R. Ball

X These have been added to the new typed additions
to Dr. Braun's list of Ohio Cus. for Willows
So this sheet may be filed with my letters to her
other CRB & D.C.

5956 Salem Road
Cincinnati 30, Ohio

Sept. 29, 1957

Dr. Carleton R. Ball
3814 Joyce;yn St. N.W.
Washington 15, D.C.

Dear Dr. Ball:

Your air-mail letter of Sept. 25 received on Sept. 27,
and letter of Sept. 26, on the 28th.

I was very glad to get this letter -- I knew you must
be ill. I hope you are again able to enjoy your work with Salix.

The systematic section of "Woody Plants of Ohio" is well
along toward completion. I have worked on Salix, but not yet
completed it.

Of course you are not able to do everything you want to,
or even everything you undertake. I feel that the most important
thing you can do is to identify specimens that are sent to you.
This is something no one else can do as well. And it is something
you can turn to when you want to, while work on a manuscript
requires concentration and consecutive time.

Please let me prepare the manuscript -- descriptions and
keys. I am not including complete descriptions of species, and
do not want them for willows. I fear that if you prepared a text,
it would have to be greatly modified to make it accord with the
rest of the book. As to keys -- there are 40 species in Gleason,
25 in Ohio (also some hybrids and some species with two or more
varieties). I believe I can pick out characters from your key in
Gleason, and make a key to our species.

May I submit both keys and text to you so as to eliminate
errors?

As to county records: With my letter of August 22, 1955,
I sent you the list of species and varieties which I made up from
specimens identified by you for a number of herbaria. There may
be some additions since 1955 which I have not yet checked. You
have just sent me records from your home herbarium. If you can
add records from the U.S. Dept. of Agr., and from the National
Herbarium and U.S. Forest Service herbarium, I would greatly
appreciate it. I would like to make our distribution maps as
complete as possible.

Introduced species (if escapes) are being included, in
keys and text, but without maps and without list of counties.

(over)

5555 5555 5555
5555 5555 5555

Later this fall, may I send you a few additional willow specimens for identification? I have been collecting specimens and putting tags on tree or shrub in the field so that I can go back in the winter and collect winter twigs for illustrations. All of my leaf illustrations have been made from specimens identified by you. I would like to have the twig illustrations made from twigs of plants from which I have specimens identified by you.

Sincerely yours,

E. Lucy Braun

E. Lucy Braun

Digitized by Hunt Institute for Botanical Documentation

Dr. E. Lucy Braun,
5956 Salem Road, Cincinnati 30, Ohio.

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

Dear Dr. Braun:

30 Sept., 1957.

Since writing you recently regarding the manuscript on The Willows of Ohio, I have scraped my badly failing memory, and my manuscript files, and discovered some interesting and valuable facts.

1. I had already gone through my two herbariums and those of the Forest Service and the Smithsonian ~~INSTITUTION~~ Institution (U.S. National Herbarium) and recorded all Ohio collections in Salix. The time I spent recently running through my own home herbarium was not wasted, however, because I was making records for two other States.

2. You had sent me a list, arranged alphabetically, of the willow species and varieties (and hybrids), within the Ohio counties from which you had records of collections. I am now about half through checking your county list against the records that I have made, and listing all the additional county records.

3. I found the typed manuscript (3 copies) covering the first 9 species (native and introduced). These are *S. lucida* Muhl.; *S. swissiana* (Bailey) Fernald, *S. pentandra* L.; 4 *S. fragilis* L.; 5, *S. alba* L.; 6, *S. babylonica* L.; 7, *S. carolina* Michaux; 8, *S. amygdaloides* Andersson; and 9, *S. nigra* Marshall, and their varieties and hybrids.

This gives us a good start. I have typed my county additions for these first 9 species and their varieties and hybrids and am inclosing a copy, together with the ribbon copy of the manuscript of the manuscript so far as written.

I trust that you will be able to examine this part of the manuscript and let me know if it is satisfactory to you. I will be very glad to receive any suggestions, especially regarding my descriptions of habitats and distribution. The latter may be changed somewhat by these added counties, but I have not stopped to check on that just now.

I will finish the list of additional counties for the remaining species and varieties today. Then I will get busy on the remaining manuscripts. There are about 16 more species, I believe.

The notes on the additional counties, inclosed, will raise a few questions, but they probably can be readily resolved.

I received and identified ^{some} several specimens collected by one ~~KIRKMAN~~, but with no record of the county. The one listed under *S. nigra* was put down as Pickaway Co. but none of the other have more than a question mark. There may be only 2 or 3 of them, and I hope that you can locate the county.

Sincerely Yours,

Carleton R. Ball

ADDITIONS TO COUNTY RECORDS FOR OHIO WILLOWS AS FURNISHED BY DR. E. LUCY BRAUN.

- Salix lucida* Muhl., var. *intensa* Fernald
Ottawa Co. Catawba Id., Selby 48 in 1899 (CRB, Dept).
- S. pentandra* L.
Athens Co., OSU campus, Gambill in 1955.
Greene Co. Denaree 11506 in 1955, (CRB h-c)
Lake Co. Sites No. 1, in 1939, Soil Conserv. Serv., (CRB h-c).
- S. fragilis* L.
Montgomery Co. Cult. at Dayton by Soil Conserv. Service (CRB h-c)
- S. fragilis* L. X (probably) *S. alba* L.
Lorain Co. Plumb (sic) Creek, Oberlin. A.A. Wright, Apr. 25, 1899 (Oberlin Coll.)
Wayne Co. Wooster, A.D. Selby and J.W.T. Duvel, Apr. 28, June 15, 1899.
Both these species were widely hybridized in Europe before being introduced into America, and hybridization has continued since. Most of the series collected by Selby & Duvel were hybrids but very difficult of accurate determination.
- S. alba* L. Clinton Co. Terrell 2723 in 1953, (as *S. caroliniana*), (CRB h-c).
Highland Co., Demaree 11209, 11236 in 1935. (CRB h-c).
Wayne Co. Duvel 35, Selby & D. 52 in 1894. (CRB h-c).
- S. alba* L. var. *vitellina* (L.) Koch.
Erie Co. Moseley in 1896 (as *S. amygdaloides*). (USN) check
- S. Babylonica* L. h-c
Coshocton Co. Moldenke 12029 in 1942 (CRB Dept)
Erie Co. Pammel & McAvoy 11 in 1912. " "
Highland Co. Demaree 11188 in 1935. " "
- S. caroliniana* Michaux.
Clinton Co., in Braun's list, is really *S. alba* L. if based on Terrell 2723 and should be transferred to *S. alba*, which is not represented in Clinton Co.
Coshocton Co. Moldenke 12438 in 1942 (orig. det. as *S. nigra*) Carn. Mus; CRB)
Ross Co. Jones in 1943 (orig. det. by CRB as *S. nigra* X ?) (CRB h-c)
- S. amygdaloides* Andersson.
Cuyahoga Co. Ricksetter in 1894 (as *S. lucida*). (CRB Dept; USN)
- S. amygdaloides* X *S. nigra*
I seem to have no records of this hybrid; perhaps I forgot to make them.
- S. nigra* Marshall.
Pickaway Co. ? Pontius 1311 in 1933 (mixed with *S. interior*) (USN)
Muskingum Co. White Cottage, Griggs 55 in 1899 (CRB Dept.)
- S. nigra* Marsh., var. *falcata* (Pursh) Torrey
Not recognized as a variety because falcate leaves occur on most plants.
- S. nigra* X *S. amygdaloides*
Erie Co. Cedar Point, Griggs No. 1, in 1899.
(possibly this is one of the specimens you have listed as *S. amygdaloides* X *S. nigra*).

Dr. E. Lucy Braun,
5956 Salom Road,
Cincinnati 30, Ohio.

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

2 October, 1957.

Dear Dr. Braun:

Your kind letter of Sept. 29 (actually date "July" 29) has just arrived, and I thank you most heartily for the information given.

It was written, of course, before you received my letter of Sept. 30, announcing that I had located the county data from all D. C. Herbariums and 3 copies each of the manuscript of the first 9 species of the Ohio Willows. With that letter I sent you the ribbon copy of that manuscript and also the additional county data for those 9 species.

Now I have finished typing the additional county data for all the remaining species and inclose herewith the ribbon copies of the 3 pages. Before I received your letter, I was planning to send the county data today, before I wrote more manuscript, so that you would have the data in the event my house burned or I had an attack of "flea-bitis", or something else.

The knowledge that you have been working on the manuscript makes me feel very much ashamed of my neglect. If you will tell me which species (and their varieties) you already have written up, I will immediately write up all the others. While waiting to hear from you I will prepare the keys, as I take it that you have not yet done that.

You state that you are "not including complete descriptions of species". The ones I sent were very full and complete, and I seem to recall that was asked for. I will look up the correspondence giving me data on the method of preparing the manuscript, but will not stop to do it before mailing this letter.

Whatever you have already written, I will be very glad to have you submit to me not only for review, but also because it will tell me just what you want for all species not yet described by you.

I will be glad to receive your specimens for identification at any time they are ready for sending. You probably know that Dr. Earl L. Core of West Virginia University is about to publish a volume on plants of the Northeastern States in winter condition. Whether it is confined to woody plants I do not know. I wrote the willow section for it, as best I could, but found it difficult to describe the species from so few characters (twigs and buds, and bark wherever I had data) and still harder to key them successfully.

Again expressing my regret for having laid so much extra burden on you,

I am, Most Sincerely Yours

Carleton R. Ball.

P.S. please neglect the sheets of county data sent you with my letter of Sept 26. The sheet of additions for the first 9 species, sent on Sept. 30, and the 3 sheets inclosed herewith, include records for all counties not listed by you.

P.S. 2. You will note that there is some mixup about specimens of *S. pedicularis* and its var. *hypoglauca* Fern. Many specimens were named as the species before Fernald showed that the species was green-leaved, not glaucous.

Oct 13, 1957

student, knowing what species are to be expected, can refer to fuller texts, especially to your treatment in Gleason.

I will continue to write the text for willows. The necessary information is included in your treatment of Salix in Gleason. In fact, the several typed pages you sent to me are almost exactly the same as the text in Gleason. We cannot include any such detail in our book.

There are three more things you can help us with: (1) a few more determinations of specimens; (2) any additional county records you may have; and (3) full keys if you can take time to prepare them. If you prefer, I can prepare the keys by cutting down from your key in Gleason.

Please be assured we appreciate all you have done for us, and please feel that you can turn to the many other requests that come to you.

Sincerely yours,

E. Lucy Braun

E. Lucy Braun

Digitized by Hunt Institute for Botanical Documentation

5956 Salem Road
Cincinnati 30, Ohio

October 27, 1957

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

Dear Dr. Ball:

Since writing to you on October 13, I have again looked through the several pages of manuscript sent with your letter of September 30. As these are almost exactly like the text in Gleason, I can extract any needed facts from Gleason. Hence, I am returning these pages to you, for you may be able to use them in connection with some of the other floras you are working on; this might save you some typing.

Later this fall, I will list all the Ohio species of Salix together with the counties for which specimens are recorded (in our records, and from those you have recently sent). When this is completed, I will send you a copy for checking.

As soon as I can sort over this year's collections, I will send you a few willows for identification. There will be a few additional county records among them, as I have collected in Pike Co., where we had no records.

Sincerely yours,

E. Lucy Braun
E. Lucy Braun



THIS SIDE OF CARD IS FOR ADDRESS

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

Oct. 4 1957

Will reply to your letter of October 2
as soon as possible. Just now I am
swamped with work that cannot be set aside.
Please do no work on text. Will explain.

C. L. Braun

5956 Salem Road
Cincinnati 30, Ohio

October 13, 1957

Dr. Carleton R. Ball
3814 Jocelyn Street, N.W.
Washington 16, D.C.

Dear Dr. Ball:

I am sorry to have delayed replying to your letters of September 25, 26, and Oct. 2 in more detail -- I could not take the time from necessary fall collecting. Following is a historical review of essential points in our correspondence.

In my letter of Jan. 6, 1955, I asked "Will you prepare a key for Ohio species of Salix, or key and text for inclusion in "Woody Plants of Ohio"? "Or, when you have seen about as much Ohio material as will likely be sent to you, would you prefer to prepare a paper for early publication in the Ohio Journal of Science?"

On April 13, 1955, you replied that you would be glad to write up the willows of Ohio.

On April 15, 1955, I replied, stating that "our committee feels that the treatment of genera being worked up for us . . . should be published in the Ohio Journal of Science in advance of the publication of the Woody Plants of Ohio. Therefore, any sort of treatment you wish would be satisfactory. The two principal desiderata are (1) full keys, which contain as many characters as possible, and (2) inclusion of all county records."

Your letters of April 24 and 25, 1955, asked for more information about procedure -- what was to be included, etc. These questions were referred to our committee, and replied to by Dr. Herrick (June 2, 1955) who quoted from my report to the committee. This reply was based upon the idea of early publication in the Ohio Journal -- well in advance of completion of the book on woody plants, -- and in general repeated the conditions of letter of April 15 quoted above.

You had not kept a list of specimens which you had identified for us between February 1953 and January 1955 (when we asked you to write up the Ohio willows). You asked for this list in letter of July 6, 1955. It was sent to you with my letter of August 22, 1955.

Later letters -- yours of Sept. 26 and Oct. 8, 1955 -- concerned details of a preliminary paper. All of these ~~were~~ concerned a possible preliminary paper and no longer apply. Later letters of 1955 were about determinations of specimens. The last was November 23, and you had not been able to work on a paper.

Oct 13, 1957

On January 31, 1956, I wrote to you giving a report of progress on Woody Plants of Ohio and stated "As the interval lessens between when your text on Salix could be ready, and when the whole text for the woody plants will be completed, separate preliminary publication of Salix becomes less desirable" and "In our text of woody plants, keys are very full, and there is little said about each species. I should have no trouble in preparing text of this sort for the willows, if you write full keys."

I heard nothing more from you until July 8, 1956, when you asked if we had more willows to determine.

On July 28, I wrote to you saying again that "it will not be advantageous to publish a preliminary paper on willows such a short time before" completion of the book. Also, I stated two things that were needed "in order to incorporate the willows in the manuscript which is now nearing completion." These were

(1) A list of all Ohio species and varieties of willows, together with a list of the counties in which each was found. You have records (from U.S. National Herbarium and elsewhere) which we do not have. I will heed all the records to make maps.

(2) A key or keys to the species and varieties.

In my letter of September 27, I repeated (1) and (2), and said "these two things are the only things we will need from you.. we will not publish on willows as a separate paper."

Again in letter of December 27, 1956, I repeated items (1) and (2). I also said "As to text -- I must prepare this myself as it must accord in style with the rest of the book."

Between July 8, 1956, and September 25, 1957, I had no word from you except a card at Christmas time. I thought statements in letter of December 27 (quoted just above) were final, and was much surprised when you recently sent sample text and said you were working on Ohio willows.

Do not attempt to go back over the many letters concerning Ohio willows. The excerpts I have given show the development of the project.

- - - - -

All discussion of what a preliminary paper on willows might contain must be set aside. There can not, at this late date, be a separate paper on willows.

As stated on January 31, 1956, the text for each species is very small. No doubt as a specialist in Salix, you will feel that it is very inadequate. However, the treatment of Salix must correspond with the treatment of other genera (usually only 3 or 4 lines to a species). The amateur will not use full descriptions; the

WAR FOOD ADMINISTRATION

EXTENSION SERVICE

WASHINGTON 25, D. C.



Dr. E. Lucy Braun, 5956 Salem Road,
Cincinnati 30, Ohio.

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

Dear Dr. Braun:

19 November, 1957.

I have been ill for several days (arthritic back aches and an intestinal disorder) so all correspondence has been neglected.

Today I felt well enough to give attention to your letter of Nov. 15, and the accompanying packet of willows. I congratulate you on your accuracy in naming these autumnal collections. They were correct as far as they went (except for an error of my causing), and the unnamed ones represented no other species or varieties.

The specimens are repacked and addressed and will go back to you by franked mail tomorrow or Thursday.

The error, probably mine, to which I referred is "*S. rigida* Muhl., var. *angustata* Anderson."

S. rigida Muhl., as you know, was long known as *S. cordata* Muhl. and it was to this specific name that Anderson added his var. *angustata* (Pursh)

When *S. cordata* Muhl. was found to be antedated by *S. cordata* Michaux Fernald, in 1946, transferred the varietal name to *S. rigida* Muhl. as var. *angustata* (Pursh) Fernald. That is the name we must use.

I think that I made the error of using *S. rigida* Muhl., var. *angustata* Anderson in Gleason's *Illus. Flora*, or at least in determinations. Am sorry to have misled you and others.

I think that I have seen a large envelope from you, which probably contains your manuscript on Ohio *Salix*. I will try to get it in hand very soon, and will promptly work out a key to the Ohio species from my text in the *Illus. Flora*.

Greatly regretting all these delays and asking you forgiveness, I am

Most cordially Yours,

Carleton R. Ball
Collaborator

5956 Salem Road
Cincinnati 30, Ohio

December 3, 1957

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

Dear Dr. Ball:

At last, after many interruptions (including a week in Columbus) I have completed the manuscript of Salix -- I hope.

I found that I had to construct my key to species before I could do a satisfactory job on text. Please do not feel any regrets that you did not get a key to me -- working on this has meant more study of the species, and that is a satisfaction. And, I have followed the plan I have used in all other genera, i.e., including a great many characters in the key, and sometimes inserting the same species a number of times; without this procedure, the sort of brief text we are using throughout the book would be entirely inadequate.

As a specialist in willows, I know you will feel that there should be longer descriptions. But my many years of work with beginning college students, and with amateurs convinces me that they will not wade through lengthy descriptions and compare points. This book on the "Woody Plants of Ohio" is not written for the botanist-- the botanist uses the manuals; the botanist will, however, find much new information in our state maps showing distribution.

Distribution, by counties, of all native species will be shown on maps; hence little or nothing is said in the text.

As to synonyms: we are including these when the name in Fernald, in Gray, ed.7, or in Schaffner's 1932 Catalog of Ohio Vascular Plants differs from the one here used.

I will appreciate your reading the enclosed text and key, picking out any errors you may note.

There are a few questions; these I have put on a separate sheet, so that you can write the reply below the question. I believe this will save you some effort.

With Salix done, the systematic part (the big part) of the text is completed, except for minor revisions. And a large proportion of the drawings are done.

Sincerely yours,

E. Lucy Braun
E. Lucy Braun

QUESTIONS

Dec. 3, 1957

1. Salix humilis -- All books state that this grows in dry soil, and some of my specimens came from such places; but I also found it in a swamp, and in a wet pin oak woods, and have so noted in the text. Is this O.K.?

I have specimens which you have referred to the typical variety, and others, apparently the same, which you have called either ~~xxxx~~ var. hyporhiza or var. rigidiuscula. Are these synonyms? The latter name is not in Gleason. Which should I use?

2. Salix glaucophylloides

Fernald has three varieties:
var. glaucophylloides
var. glaucophylla
var. albovestita

I cannot correlate your interpretation (as in Gleason) with these three. And, what is the name used for this species in Gray, ed.7? and in your treatment in Deam's Shrubs of Indiana?

Digitized by Hunt Institute for Botanical Documentation

Is it S. glaucophylla Bebb of Ed.7?

The figure for this species in ed.7 is what is used in Fernald (1950) for S. glaucophylloides var. glaucophylla

3. Salix petiolaris -- who is author?

In Gleason -- Sm.
in Deam's Shrubs of Indiana -- J.E. Smith
in your typed list of Oct.2, 1957 -- J.E. Smith

and, is this correct?

Salix petiolaris J.E. Smith
S. gracilis Anderss. var. textoris Fern.
(sensu Amer. auth. not Sm.)

Dec. 13, 1957

4. Salix syrticola Fern.

S. adenophylla of Amer. auth., not Hook.

This species, as I know it, is densely pubescent, but I suppose is a form within the range of variation of S. cordata Michx. as you define it. But, it is not S. cordata Michx. of Fernald, which is adenophylla Hook.

I feel that it would be best, because my book is in part designed for amateurs, to use the name S. syrticola, which then can easily be correlated with adenophylla (syrticola) as you treated it in Deam's Shrubsof Indiana, and as it is in Deam's Flora of Indiana. The fact that the extremes (one far northeast in Nfd., the other on dunes of the Great Lakes) can be connected by a cline, is no reason why they belong to the same species; this may well be a case of introgression.

Certainly, if I were identifying my specimens from the dunes of Lake Michigan, and referred to you description of S. cordata Michx. in Gleason, I would be sure I was wrong; and, it does not look anything like the figure of S. cordata in Gleason.

I hope you will be willing to let me use S. syrticola, the name in Fernald (1950).

5956 Salem Road
Cincinnati 30, Ohio

February 17, 1958

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

Dear Dr. Ball:

No doubt you have been ill, for I have had no reply to my letter of December 2. At that time, I sent you a copy of my keys and text for *Salix* (18 pages), and two pages with questions. These were sent in a manilla envelope (5 $\frac{1}{2}$ x8 $\frac{1}{2}$) and marked FIRST CLASS with a red pencil. I am mentioning this, in case the envelope was set aside as printed matter or escaped your notice later on.

Endless minor details still confront me, but my whole text, introduction, general discussion, systematic text, keys to genera, all are done (except of course for possible corrections). There are still some illustrations to be made, but the work has progressed very well.

I hope this finds you improved and enjoying work on willows again.

Sincerely yours,

E. Lucy Braun
E. Lucy Braun

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

March 3, 1958

Miss E. Lucy Braun
5956 Salem Road
Cincinnati 30, Ohio

Dear Miss Braun:

It is my duty to inform you that Dr. C. R. Ball died on February 2nd of this year.

His family has asked that I reply to his botanical letters.

I have not located the Salix text and keys mentioned in your letter of February 17, but presumably they will turn up after Dr. Ball's papers have been put in order.

Sincerely,

W. Andrew Archer

WAA:mc

Boundary of Lake Plains [Glacial LAKE MAUMEE]

Oct 3, 1955



Western edge of Allegheny Plateau

Glacial boundary

Limit of Wisconsin glaciation

area of
Illinoian glaciation