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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.

YALE UNIVERSITY
SCHOOL OF FORESTRY
NEW HAVEN 11, CONNECTICUT

March 7, 1951

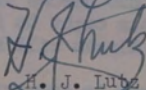
Dr. Carleton R. Ball
3814 Jocelyn Street, N. W.
Washington 15, D. C.

Dear Dr. Ball:

I am today sending you, under separate cover, a specimen of "diamond" willow with my best compliments. This was collected from the same locality where specimen No. 747 was obtained. After working it down I rubbed it lightly with linseed oil; no other treatment has been given the specimen. I had planned to send you a rough specimen but decided that would be hardly fair, so I have sent the first and so far only piece that I worked down. With more patience one could doubtless produce a better finish.

With my best regards, I am

Most sincerely yours,



H. J. Lutz
Professor of Silviculture

HJL:jsc

Dr. H. J. Lutz,
School of Forestry, Yale University,
New Haven 11, Connecticut.

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

24 March, 1951.

Dear Dr. Lutz:

Your letter of January 24, correcting the dates for your Alaska willows, Nos. 897 and 898, was promptly received. I am having my list corrected and will notify Miss Hayes of the Forest Service herbarium. Thank you.

I have also yours of 12 Feb. and note the further discussion of "diamond" willows. I will look up Satchell's specimens of *S. alaxensis* from the Gulkana area and see if he tied them in any way to the diamond-marked wood specimens.

Satchell was there in 1931-32, and in a former letter you spoke of seeing such wood specimens in 1925 or 1926 at Valdez. This is 5 or 6 years before he saw them at Gulkana.

I certainly will take up this matter with various Alaskan workers, including the ladies of the Juneau Botanical Club. They were up that way a year ago. As you know, *S. alaxensis* belongs to a Section (*Chrysanthae*) rather closely related to the *Cordatae* (*S. lutea*, *S. Mackenziana*) which produce diamond willows. But *S. bebbiana* (Section *Rostratae*) is about as distantly related as a willow could be.

Your letter of March 7 came promptly, and the piece of "diamond" willow wood a bit later. As I mentioned previously, when you first offered it, I have a guilty feeling in accepting it but I do greatly appreciate it and give you my most hearty thanks for your generosity.

The Washington Bot. Society meets in the Bot. Dept. of American George Washington University on April 3, and I plan to take your piece and my three canes down to the meeting, at which students as well as members probably will be present.

By the way, why would not pieces like yours be a boon to the baseball industry? Those big depressions ought to improve batting averages and cut down the number of fouls. Maybe Alaska will become wealthy from that.

Sorry for the long delays in answering these letters. Work, weather, flu, and dental work are the excuses. Flu is nearly gone now.

Cordially yours,

Carleton R. Ball

(over)

YALE UNIVERSITY
SCHOOL OF FORESTRY
NEW HAVEN 11, CONNECTICUT

October 11, 1951

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

Dear Dr. Ball:

I was delighted to hear from you and to learn of your new information on the so-called diamond willow in Alberta. It is good to know that you have independent evidence that *Salix Bebbiana* Sarg. is one of the species involved.

I spent the summer in the field in Alaska again and have quite a few willows that I hope to transmit to you through Dr. Dayton as soon as they can be assembled for shipment. I gave some attention to the matter of diamond willow in Alaska and have been toying with the idea of a little paper on the subject later on. Perhaps we should join forces on it.

I am more than ever convinced that the "Diamond willow" of "commerce" in Alaska is *Salix Bebbiana* Sarg. or one of its varieties. But I am equally convinced that there are two or three other willows in Alaska that also develop "diamonds." I have stem material and botanical material to back up this statement. Although willows other than *S. Bebbiana* Sarg. have diamond-shaped markings these willows are seldom, if ever, used in "commerce" (for canes, lamp bases, mantle pieces, etc.) because of the sparse occurrence of the "diamonds" and because the heart-wood does not have the rich brown color seen in *S. Bebbiana*. The above statements are made only with reference to conditions in Alaska.

I am also strongly of the opinion that the "diamonds" are caused by a slowly acting fungus disease, which, seemingly, produces some antibiotic principle that inhibits or prevents development of the cambium.

With kindest regards to you,

Most sincerely yours,

H. A. Lutz

Professor of Silviculture

Dr. H. J. Intz,
School of Forestry, Yale University,
New Haven 11, Connecticut.

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

26 November, 1951

Dear Dr. Intz:

I was delighted to have your letter of Oct. 11, and to know that your search for diamond willows had been so successful. I will get a great kick out of determining the included species when your material comes in.

In further reference to mine of 29 Sept., replying on some findings by Dr. George H. Turner in the Edmonton area of Alberta, he has succeeded in locating diamond-bearing specimens of both *S. discolor* and *S. Bebbiana* not far from his home in Fort Saskatchewan.

Both species carry enormous diamonds on trunks 4 to 6 inches in diameter. He sent me a 5.5-ft. stem of *S. discolor*, 4 inches in diameter, with diamonds up to 6 and 8 inches long and to 1.5 inch deep. Some obviously had had more than one twig in the affected area originally.

These very large scars seem to bear out your theory of a cambium-destroying fungus. I certainly hope that you may be able to isolate and cultivate the causal agent from your material.

If you are to be down this way some day, I certainly would like to show you the material I now have. If you are coming to the AAAS meetings in Phila in Dec. maybe you will plan to run on down to Washington.

As to the possibility of a joint paper on the subject, I may say that whatever you may decide upon will be wholly satisfactory to me. In any case, you would be the senior author. ~~HE~~ I urged Dr. Turner to write up a popular account of his findings for the Canad. Field-Net. but he does not wish to do this.

Cordially yours,

Carleton R. Ball

P.S. Should it be desirable, he (Dr. Turner) could collect fresh scar material from either of both of the species, at any time in the year, not far from his home, and I am sure he would be happy to do this.

YALE UNIVERSITY
SCHOOL OF FORESTRY
NEW HAVEN · CONNECTICUT

February 12, 1955

Dear Dr. Ball:

I am now putting the finishing touches on my report on ecological effects of forest fires in the Alaska interior. It is to be published as a bulletin by the Forest Service.

Perhaps you could help me on the common name of Salix pulchra Chamisso. Do the varieties Palmeri Ball and yukonensis Schneider possess common names? I will appreciate any word you can give me.

With kindest regards,

Most sincerely,

H. J. Lutz
H. J. Lutz

(See over)

3614 Jevelyn St., N.W.,
Washington 15, D.C.
14 February, 1955.

Dear Dr. Intz

I am sorry that I cannot help much with a common name for *Salix pulchra* Chart. I have no knowledge of any common name ever having been applied to it. I have checked several Alaska publications and find none.

I will keep on looking, as new sources occur to me, and will let you know at once if anything turns up.

As to the varieties, if the common name of the species were "Blank Willow, var. Palmeri would be Palmer's Blank Willow, and var. yuconensis would be Yukon Blank Willow, I suppose, unless there actually were local common names for either, which is not likely.

Relatively few of the American willows have actual common names. The word "pulchra" should mean "beautiful", but that would scarcely be an appropriate name because it is no more beautiful than a hundred other willows.

I shall look forward with interest to your publication.

Cordially yours,

Carleton R. Ball

YALE UNIVERSITY
SCHOOL OF FORESTRY
NEW HAVEN 11, CONNECTICUT

December 17, 1957

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

Dear Dr. Ball:

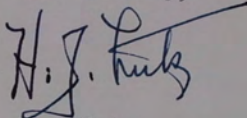
You may recall that some years ago you identified a number of Alaskan willows for me and that we had some correspondence on so-called "diamond willow". Last summer I was again back in central Alaska and acquired a little more information on the occurrence and ecology of species bearing "diamonds".

I have now decided to write up what I know about "diamond willow" and thought that before starting it would be well to check with you. Have you written anything on the subject or do you know of references to writings by others? If so, I would be grateful for any leads you can give me.

After I have prepared my note I would also be very happy to have you look the manuscript (it will not be a long one) over before I submit it for publication.

With kindest regards to you and with the Season's best greetings.

Most sincerely,



H. J. Lutz
Professor of Silviculture