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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.

October 3, 1941

Professor William A. Weber,
Department of Botany,
College of Sciences and Arts,
State College of Washington,
Pullman, Washington.

Dear Professor Weber:

Your letter of September 26 and accompanying package of willows arrived safely and I have given them immediate attention. A list of the determinations is enclosed.

I wish to congratulate you and your associates on a thoroughly fine job of collecting. There are several outstanding specimens in this small lot. I have not had time to check up on distributions in one or two cases.

No. 2249 is the finest specimen of *S. Bartlayi* variety *rotundifolia* which I have seen south of Alaska where it occurs commonly around Kodiak Island.

No. 2309, *S. petrophila*, represents a rather rare occurrence of this species in the northern Cascades, while 2310, *S. cascadiensis*, is the finest specimen of this species I have seen in captivity. Collectors usually break off fragments and this entire plant is an extremely valuable addition to my herbarium.

Your own collections in Alberta and British Columbia indicate a rather keen discrimination because of the number of species and forms collected in the small number of individual collections. Some of these probably represent interesting distribution records. This probably will be true of 2364, *S. Farrae*, and 2454, *S. nivalis*, and perhaps for 2413, *S. arctica subcordata* also.

What I have called the "glaucops" complex is a mess. It has received about 10 specific names, of which *S. desertorum* Richardson is the oldest. The type of this was quite immature. When I can determine just what it represents we can clear up the rest of the complex.

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No. 2319 is most peculiar. It seems to be a hybrid because of the peculiar combination of characters and the completely sterile fruits. Undoubtedly *S. lasiandra* is the basis of it and the dark colored persistent flower scales seem to indicate that the other parent was a member of the Section *Gordatae*. The only member of that Section collected was *S. Farrae* and as it came from the same place it may have been the other parent.

Your No. 2487, *S. brachycarpa* var. *glabellcarpa*, is a splendid specimen. The type is from Jasper Park and the variety seems to be restricted to that general district.

I greatly appreciate your permission to keep this material. The comments I have made will serve to indicate how valuable it will be in my collection, especially as it will be the basis for a monograph of American willows on which I will start immediately after retirement from government service in a year or two.

Cordially yours,

Carleton H. Ball,
Executive Secretary

UNIVERSITY OF COLORADO

BOULDER, COLORADO

from W. A. Weber

DEPARTMENT OF THE MUSEUM

October 4, 1949

Dr. Carlton R. Ball
U.S. Dept of Agriculture
Washington, D.C.

Dear Dr. Ball:

I have been interested in reading your short article on the distribution of the two species of Salix. You may be interested to know that I have been studying distribution patterns of the plants of Colorado for several years and I find that your distribution of Salix petiolaris parallels that of a very significant number of species in the Colorado flora. A great deal has been said about the presence in Colorado of many alpine-arctic relict species such as are found particularly in the Pikes Peak and Grays Peak areas. Notable among these are such plants as Armeria maritima and Saussurea alpina which have been turned up in recent years. On the other hand it has not been generally recognized that the post-Pleistocene relict flora is much more extensive in our area, elements of it being present in practically every life zone which may be examined. For instance, in the subalpine zone we find Petasites and Menyanthes in a few scattered localities in the Colorado Front Range. In the foothills we have at least one relict colony of Artemisia plants here along with the Artemisia of the Boreal forest. In the mesas adjoining the plains there are a number of relict species whose affinities are with the flora of the tall grass prairie of central North America, these colonies now being isolated by some 500 miles of short grass plains. An interesting feature of these distribution patterns, which appear to represent fragments of a flora that has generally moved northward out of the area, is the fact that most of the plants penetrate Colorado only east of the continental divide along the Colorado Front Range, and that almost invariably the same species are found in the Black Hills and in eastern and northeastern North America. I had an interesting experience last year which illustrates this point.

For some time the fern Athyrium angustum has been known to occur in a small area southwest of Sedalia. Since we did not have specimens in our Herbarium I visited the locality in the hopes of finding material for exchange and while I was looking for Athyrium I accidentally discovered a patch of Onoclea sensibilis. It surprised me at the time that there were also breeding pairs of Ovenbirds in the same locality. In checking on distributions I found that the two species of ferns are also present in the Black Hills and also that the western breeding range of Ovenbirds is in the Black Hills and a

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

Dr. William A. Weber,
Department of the Museum,
University of Colorado,
Boulder, Colorado.

6 March, 1950.

Dear Dr. Weber:

I am completely discomfited (California for ashamed) to discover your very interesting letter of 4 October, 1949, mixed with some non-letter papers and evidently unanswered. I remember reading it with pleasure when it arrived and I greatly regret that I carelessly mislaid it.

I am glad to know that you have been working actively on these problems of ecology and distribution for several years and have amassed a quantity of material illustrating the subject. I was especially interested in your account of finding Athyrium angustum and Ooclea sensibilis near Sedalia, accompanied by oven-birds. I was raised on a cattle ranch out in the Big Sioux Valley between Iowa and So. Dak., and became quite a student of birds. In fact, when I entered Iowa State College in 1893, I expected to become an ornithologist. Because of the depression I had to work my way through, but could not find much work in the Zoology Dept. and did find it in the Botany Dept. so graduated in botany instead, altho I have spent my life in agronomy (field crops) and in Public administration.

In looking up any previous correspondence we might have had, I find your letter of 26 Sept., 1941, sending a packet of willows for determination. They were from the Canadian Rockies of Alta. and B.C., as well as some from Mont. and Washn. and were a critical collection, as I wrote you on 5 Oct., 1941.

I find no file card in your name, so apparently have not sent you any reprints. If you wish a set of such as are available, either for yourself or for the Museum library, I will be glad to send them. One recent one covers the uses of willows by man and animals around the world. (a summary). Economic Botany has asked me for a write-up to make 60 printed pages, especially covering their uses by humans.

I think I will call attention to your findings, in the notes given at the March meeting of the Botanical Society of Washington, tomorrow night. (See

Oct. 4, 1949

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few localities in the Colorado Front Range. I now have a list of approximately 100 species of plants which behave in this manner, some of them are extremely rare, while others are a conspicuous part of the Front Range flora. I reported on this problem earlier in the year and an abstract will shortly be published which I shall be glad to send to you if you are interested.

Sincerely yours,

WMA. Weber

William A. Weber
Curator of the Herbarium

WAW/gg

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P.S. I neglected to state that I will be glad to have the abstract of your report on the problem discussed, if still available. In general, I do not wish reprints that do not deal with willows, or regional ecology.

Dr. William A. Weber,
Dept. of Botany,
University of Colorado,
Boulder, Colorado.

3614 Jocelyn St., N.W.,
Dr. Washington 15, D.C.

15 October, 1952.

Dear Dr. Weber:

It was very kind of you to send me reprints of your two recent papers: *Phippsia alga* in the United States, and *The Genus Helianthella* (Composite). In general, any papers not concerned with *Salix* are wasted on me but in this case I shall be glad to keep the *Phippsia* paper to compare with the collection sites of some rare alpine willow forms. I started life as a grass botanist, but never got to hunting for *Phippsia*.

The *Helianthella* paper I will be glad to send to any one you may designate or to return it to you, as you prefer.

I wish to commend and congratulate you on your planning and persistence in the search for *Phippsia*, and on the successful outcome. We need more like that.

I have not taken the time to look up Hitchcock's citation, but am wondering if the additional hand-written data was on the label of the specimen he studied. I have found a dismaying lack of uniformity in the labelling of certain rare collections of *Salix*.

With all good wishes for your work, I am

Cordially yours,

Carlsten R. Bell

Enclose my other letters & see if Keys to prostrate willows
ever were sent

UNIVERSITY OF COLORADO

BOULDER, COLORADO

February 3, 1958

DEPARTMENT OF BIOLOGY

Dear Dr. Ball:

Thank you for your letter, and for your remembering about the keys to the prostrate willows. There is no hurry about them, so don't put yourself out on my account. I appreciate how busy you must be.

As you may know, I have been interested in natural hybrids in the Compositae, particularly Balsamorhiza, for some time now. And at long last, I am going to be able to do a proper job on ~~ack~~ them. The University has given me a special leave-of-absence from February through June to study the populations all over the western States, and the Amer. Phil. Soc. is helping out on the field expenses. It will be wonderful to have all this time to concentrate on the problem.

Please keep the willows I sent you. I have ample duplicates for our own collections. I will make it a point to get more mature foliage of the Douglas County monticola and S. fragilis from ~~B~~oulder Co.

Sincerely yours,

W. M. G. Weber

(See over)

3914 Jecelyn St., N.W., Washington 15, D.C.

Dear Professor Weber:

7 February, 1953.

Your letter received. Congratulations on the months of
prowling the Great West for Balsamorhiza which lie ahead.
You will have loads of work, lots of fun, and I trust that you
may have complete success.

I have put the matter of keys to your prostrate willows
in my "special" work file, where it will not get lost and will
finally get done.

The additional specimens of the Boulder willows will be
helpful but you can forget them for now, and all will be well.

Cordially yours, Carleton R. Ball