

AUGUST JULIUS BREITUNG, 1913-1987, NOTED SASKATCHEWAN AMATEUR BOTANIST

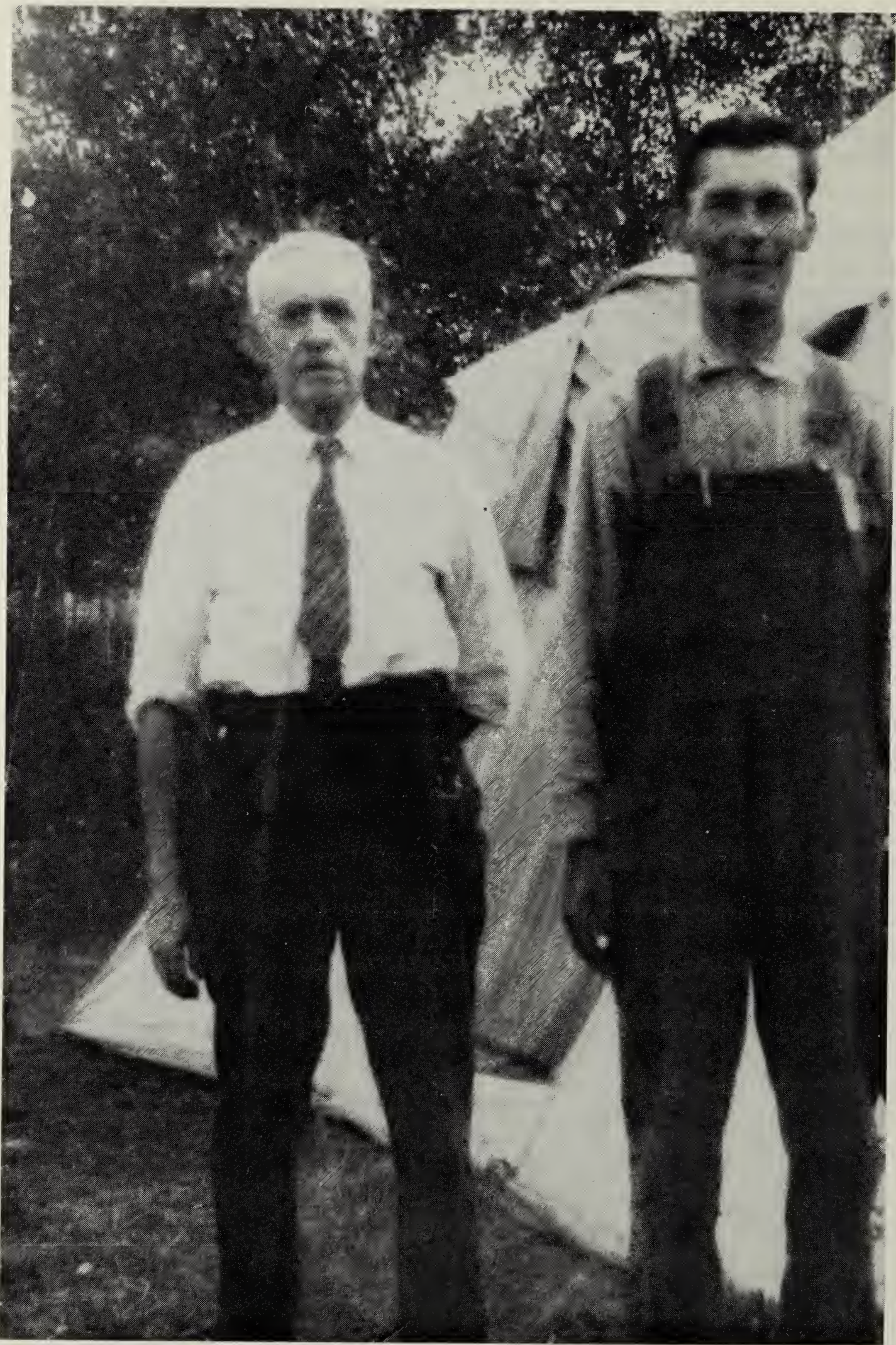
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August Julius Breitung is probably best known for his contributions to Saskatchewan and Alberta floristics, although he lived the last half of his adult life in balmy California. Probably his most notable botanical legacy was the "Annotated Catalogue of the Vascular Flora of Saskatchewan," a remarkably complete and detailed list of the provincial flora which even yet has not been superseded. Equally thorough were his annotated catalogues of the plants of central-eastern Saskatchewan, of the Cypress Hills, and of Waterton Lakes National Park. In addition, he wrote 22 shorter articles on various plant groups including the native roses of Canada, the willows of Saskatchewan, the buttercups of Saskatchewan, the genus *Rubus* in the Ottawa Valley, the native and cultivated Agaves of southwestern United States, and more recently *Aster conspicuus* in Western North America. He collected numerous plant specimens, most of these from Saskatchewan, totaling nearly 20,000 numbers, and over 50,000 duplicates, which have been widely distributed to North American herbaria.

In his botanical career, August Breitung was responsible for formally publishing one new taxonomic variety, 10 new forms and 27 new name combinations. At least the following two new species were named in his honour: *Antennaria breitungii* A.E. Porsild and *Thalictrum breitungii* B. Boivin, as was also the genus *Breitungia* Love & Love, for a recent segregant of the Stonecrop genus, *Sedum*.

Lacking a formal university education or even a completed high school diploma, August Breitung exemplifies the "self-taught taxonomic botanist." He was also the consummate "amateur botanist," since his botanical efforts and floristic contributions were mostly unremunerated, and he never was offered truly professional-level employment as a taxonomic botanist. His comprehensive knowledge of native plants and the significance of his taxonomic contributions belie the distinctions too often made between "amateur" and "professional" botanists. Throughout his lifetime, August was undoubtedly often frustrated as a taxonomic botanist by the denial to him of permanent professional employment because of his lack of formal botanical training.

August J. Breitung was born in Muenster, Saskatchewan, on 9 May 1913, the son of Heronimus and Veronica (Fuller) Breitung, recent immigrants from Germany. In 1924 when August was 11 the Breitung family, including his two brothers and one sister, moved to a farm near Wallwort P.O., in the McKague area, about 20 miles south of Tisdale, Saskatchewan. August's early and consuming interest in nature was apparently much influenced by a Wallwort-area neighbor and local naturalist, John (Jack) D. Ritchie. His early fascination with plants is illustrated by an anecdote from his boyhood, recounting that once, when August was sent to bring home the cows, he returned with a handful of "posies" but no cows!



August J. Breitung (age 24, on right) with W.P. Fraser (on left) at campgrounds in Tisdale, Saskatchewan 21 July 1937

G.F. Ledingham

The Breitung family had to work hard to scratch a living from the stony bushland upon which they had settled. To attend high school at Tisdale for three years, August had to work as a farm laborer for his board and room.

During these years he collected flowers and leaves to press and wrote to W.P. Fraser, a botanist at the University of Saskatchewan in Saskatoon, for help in identifying them. From the latter he received instructions for collecting and pressing plant specimens, help with plant determinations, an introduction to the available flora manuals, and apparently much encouragement and inspiration, for August later credited Fraser with largely influencing his "destiny in botany."

For the next decade or so after leaving high school (i.e. 1931- 1943), August continued to work, mostly on the family farm, but his most consuming interest was botany, which he pursued with the greatest enthusiasm. Not only was he a "voracious plant collector" (his own terminology), but he painstakingly identified and studied all the plants that he encountered, never fearing to tackle even the taxonomically more difficult groups. He sent numerous specimens to Fraser for verification and subsequently, probably at Fraser's suggestion, to other botanists. Thus he began a correspondence with various Saskatchewan, Canadian and American botanists, requesting and exchanging information. By the 1940s August had enlarged his botanical pen circle to include many of the more eminent plant systematists of the day. Aided by suggestions and information from his many correspondents, plus his own reading and persistent efforts, he trained himself to become a knowledgeable and capable taxonomic botanist.

Most of Breitung's numerous earlier Saskatchewan plant collections were from the Wallwort-McKague-Dalton area, although many were also from elsewhere

in the central-eastern Saskatchewan region, including Bjorkdale, Nipawin, Runciman, Tisdale, and eastward along the C.N.R. tracks to Hudson Bay Junction. He apparently used a bicycle for even his major botanical collecting forays, difficult though it would seem for him to have carried the necessary plant presses and other collecting paraphernalia. On his longer trips August would collect plants at one location, dry them there, and then send them home by post or express, before moving on to the next location. During this decade of his life, he made about 10,000 plant collections from east-central Saskatchewan, with duplicates perhaps totalling over 35,000 herbarium specimens.

In the late 1930s Breitung offered to exchange sets of his central-eastern Saskatchewan collections with Harold Senn, Curator of the Canada Department of Agriculture Herbarium (DAO), Dr. A. Erling Porsild, Curator of Botany at the National Museum of Canada (CAN), and various other large herbaria in Canada and the United States, as well as with Dr. Eric Hult n in Stockholm, Sweden.

Porsild hired Breitung as an assistant to accompany him and Dr. Austin L. Rand, an ornithologist, on a Canol Road collecting expedition in the Yukon Territory during the summer of 1944, and engaged him again as his assistant on botanical surveys in Banff and Jasper National Parks in the summers of 1945 and 1946. These botanical expeditions with the National Museum of Canada represented high-points of August's life to that time, and reportedly he was a most enthusiastic and prolific collector who quite impressed Porsild. Dr. Bernard Boivin, who accompanied them on the expedition to Banff in 1946 related that in the evenings while Porsild was organizing his notes and pressing specimens, August would often disappear and presently return to camp with great armloads of additional specimens. Boivin, over 30 years later in conversation with this biographer, paid August a high com-

pliment with the simple statement, "Breitung knew his plants."

In November 1946 August Breitung was hired as an assistant technician at the Herbarium of the Division of Botany and Plant Pathology, Canada Department of Agriculture in Ottawa. He finally had a salaried job in the field of his greatest interest, taxonomic botany, with a large herbarium and a taxonomic library available for use and he began his new job with much ambition and a flourish of activity. Within weeks of beginning his new job, he was offering to determine sets of specimens for various collectors over the country, checking herbarium specimen series for others, working up his own collections, requesting loans of specimens from other institutions for his own study, studying and annotating herbarium specimens of various plant groups and researching his own revisionary efforts. Because Breitung had been hired as only an assistant technician, and not as a taxonomic research botanist, most of the foregoing "professional" activities had to be carried on by him in addition to the regular, more routine duties of his actual job, such as specimen processing, sorting and filing.

Breitung had his personal herbarium from McKague transferred to the Herbarium of the Canada Department of Agriculture in Ottawa, so the latter institution now houses the only full set of his early Saskatchewan collections and many duplicates of these, as well as his Ottawa-period collections.

Breitung spent most of the 1947 summer in the Cypress Hills area where he amassed about 1500 collection numbers plus duplicates, and made a quite thorough inventory of the Cypress Hills flora, forming the basis for his eventual publication, "A Botanical Survey of the Cypress Hills." Apparently his productive summer's work was not looked on with complete favour by his Ottawa supervisors who had expected him to be work-

ing instead under the supervision of range ecologists at the Swift Current Canada Agriculture Station in pasture surveys. A fire at the end of summer that destroyed his tent and equipment hardly placated the misunderstanding!

During his years in Ottawa Breitung discovered that the Ottawa River valley contained a wealth of plants new to him, and he proceeded to collect enthusiastically. In Ottawa he met, and on 4 May 1949 married, Mathilde Presch. She encouraged him to take some night classes at Carleton University to improve his writing skills, and to write papers on his botanical research for publication. August remained with the Canada Department of Agriculture in Ottawa from 1946 to late 1952.

After his Ottawa job ended the Breitung family moved to Glendale, California in the Los Angeles area where Mathilde's family lived. August devoted the following summer (1953) to his botanical pursuits, without any financial support, collecting plants from southern California northward through Nevada, Utah, Idaho, and Montana, to the Canadian Rockies. During July and August of that year he undertook a comprehensive survey of Waterton Lakes National Park, securing over 2000 collection numbers plus duplicates, which formed the basis for his 1957 publication "Plants of Waterton Lakes National Park, Alberta." Breitung may be credited for first making known the great botanical wealth of Waterton Lakes.

During his early years in California, August compiled the information and wrote the text for the "Annotated Catalogue of the Vascular Flora of Saskatchewan," which was published in 1957, probably his most important contribution to Saskatchewan floristics. Indicative of its significance is the fact that H.J. Scoggan, in his 4-volume *The Flora of Canada* (National Museums of Canada, 1978-1979), cited Breitung's 1957 catalogue of

Saskatchewan plants nearly 500 times with regard to plant distributions in this province. By the later 1940s or early 1950s August Breitung was probably the most knowledgeable authority on the native flora of Saskatchewan.

In California, after taking a technical course, Breitung worked as an engineering draftsman in the aerospace industry for about 25 years. His spare-time botanical activities were not abandoned, but turned to plants closer at hand. His interest in the Agaves of the southwestern United States led to the publication of a monograph on the group in the 1968 *Yearbook of the Cactus and Succulent Journal*. He also took up wood-working and turned out hundreds of beautiful, high quality wood pieces on his lathe. His printing of the scientific name of the wood species on the bottom of most items was a unique feature.

The final five years of Breitung's life, during his retirement, showed a strong resurgence of his earlier interest in the flora of Canada and especially of his native Saskatchewan. He again established an extensive correspondence with various Saskatchewan botanists and naturalists and numerous North American systematic botanists. Since 1982, this biographer personally received a steady stream of interesting and informative letters from August, filled with taxonomic comments, tentative treatments, questions and requests for information, often concerning his own earlier collections. With a surge of ambition, he attempted to catch up on, personally evaluate and discuss with his respondents, the plant taxonomic changes published since the mid-1950s.

The death of his wife Mathilde on 20 February 1984 left August a lonely man but his keen interest in the flora of Saskatchewan and Western Canada continued until the day he died. Increasingly he tend-

ed to pose plant taxonomic or distributional questions that he hoped others, rather than himself, would be able to research. Although a retiree of hardly more than modest means, August also began giving a series of small donations to the University of Saskatchewan, designated to aid field studies and collecting for taxonomic research on the Saskatchewan native flora.

On 9 April 1987 August suffered a serious heart attack and his recovery was interrupted by several subsequent relapses, and associated health problems. His final attack occurred on 27 September 1987 during midmorning of a busy day for him of a sale at his home featuring his many beautiful woodworking articles.

With the passing of August Breitung we lost an enthusiastic naturalist and amateur botanist, who during his lifetime contributed significantly to Saskatchewan and Canadian floristics. But August Breitung's contributions to Saskatchewan and western Canadian taxonomic botany will continue beyond his death because he willed the proceeds of his estate to the W.P. Fraser Herbarium of the University of Saskatchewan, to be set up as the August J. Breitung and Mathilde K. Breitung Memorial Trust Fund, to be used for the support of taxonomic research on the native flora of Saskatchewan.

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August J. Breitung (age 73) in Lakewood, California, photo-portrait 23 November 1986.

Publications of August J. Breitung

1947. Catalogue of the vascular plants of central- eastern Saskatchewan. *The Can. Field-Nat.* 61(3):71-100.
- 1951a. The passing of the buffalo. *The Blue Jay* 9(2):16.
- 1951b. Carnivorous plants. *The Blue Jay* 9(3):20.
- 1951c. The Alaska Birch. *The Blue Jay* 9(3):20.
- 1951d. Willows of Saskatchewan. *The Blue Jay* 9(4):24.
- 1952a. Additions to the plants of Saskatchewan. *The Blue Jay* 10(1):20.
- 1952b. Poplars of Canada. *The Blue Jay* 10(2):20-23.
- 1952c. Violets of Saskatchewan. *The Blue Jay* 10(3):16.
- 1952d. An additional Saskatchewan violet. *The Blue Jay* 10(4):23.
- 1952e. Pine Mistletoe. *The Blue Jay* 10(4):25.
- 1952f. Common Reed-grass. *The Blue Jay* 10(4):25.
- 1952g. Key to the genus *Rubus* in the Ottawa valley. *Can. Field Nat.* 66:108-110.
- 1952h. How plants are named. *Le Naturaliste Canadien* 79(1):5-10.
- 1952i. Native roses of Canada. *Le Naturaliste Canadien* 79(5):184-188.
- 1953a. Buttercups of Saskatchewan. *The Blue Jay* 11(1):20-22.
- 1953b. The vegetation of Saskatchewan. *The Blue Jay* 11(2):22-23.
- 1953c. A letter: botanizing in California. *The Blue Jay* 11(4):18.
- 1954a. A botanical survey of the Cypress Hills. *Can. Field-Nat.* 68:55-92.
- 1954b. Canadian floral emblems. *Can. Nature* 16(2):42-47.
- 1957a. Annotated catalogue of the vascular flora of Saskatchewan. *The Am. Midland Nat.* 58(1):1-72.
- 1957b. Plants of Waterton Lakes National Park, Alberta. *Can. Field-Nat.* 71:39-71.
- 1957c. Vascular flora on the sand dunes at Constance Bay, Ontario. *Le Naturalist Can.* 80(3-4):79-87.
1959. Supplement to "Flora of Saskatchewan." *The Am. Midland Nat.* 61(2):510-512.
1964. Cultivated and native Agaves of the southwestern United States. *Cactus and Succulent J.* 31:40 and 36:139.
1968. The Agaves. *Cactus and Succulent J.* 1968 Yearbook.
1983. A letter: botanizing from afar. *The Blue Jay* 41(1):63.
1988. Distribution of the Showy Aster, *Aster conspicuus*. *The Can. Field-Nat.* (in press).