

PLANT FINDS FROM SASKATCHEWAN IN 1978 and 1979 — MOSTLY FROM THE SOUTHWEST

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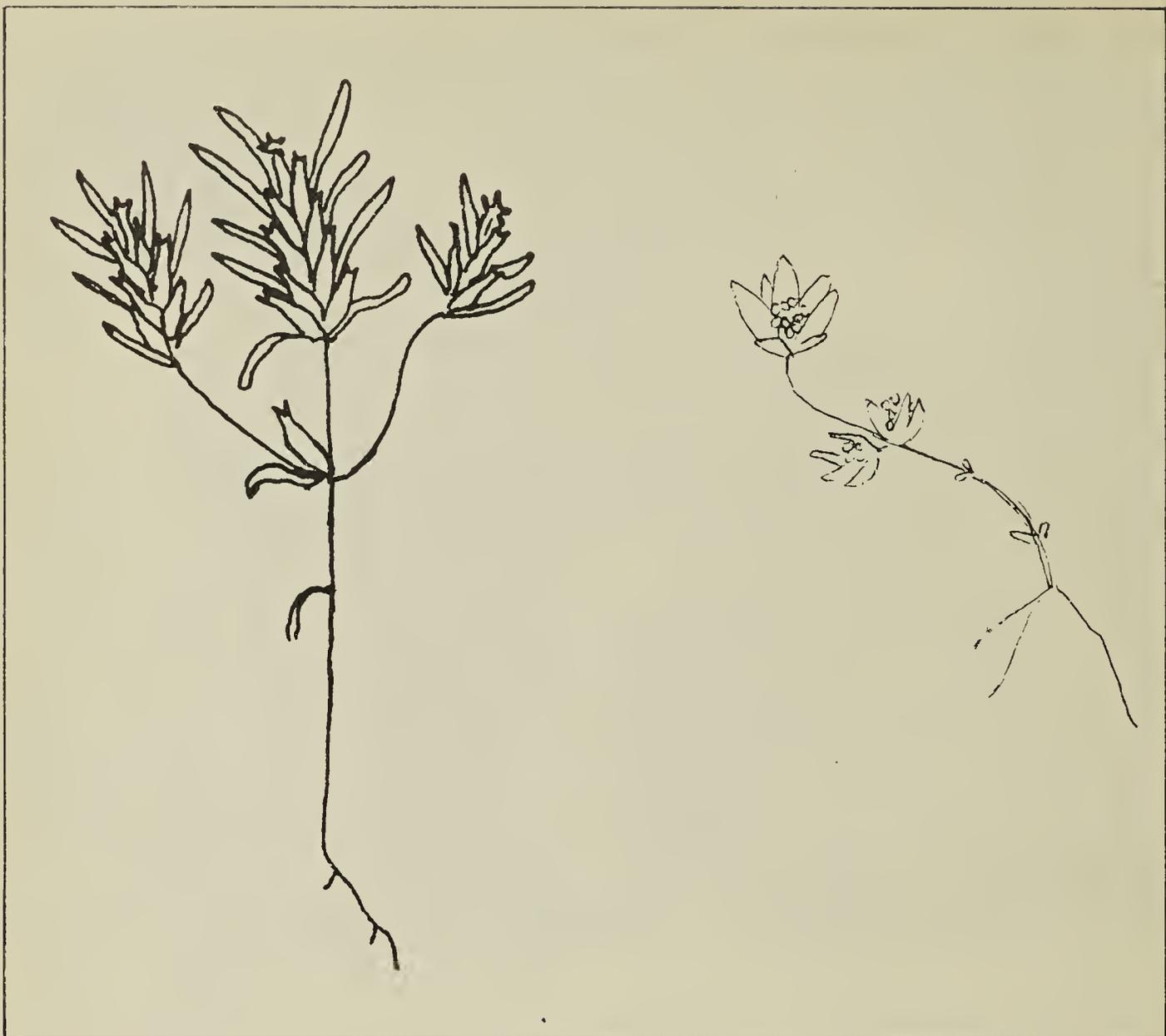
The year 1978 provided me a fine yield of botanical novelties. 1979 was not nearly as good for general collecting because of widespread dry weather but I did get a few specimens of interest. Here from the harvest of the two summers will be reported two plants not before reported from Saskatchewan, three species which have not been collected since early times and twelve other rarities. Duplicates have been or will be sent to the following herbaria: SASK, DAO, REG.

New to Saskatchewan is *Oenothera andina* Nutt., collected as #3560 on 2 July 1978 at top of bank of grassy arroyo, S.W. ¼ 25-3-XXX W.3rd, near Altawan. I have tried to draw a specimen; it consists mainly of seed pods and subtending bracts. When one adds that the plant is 5-10 cm high and has bright yellow flowers a glorious 2 mm across, one sees that this is another hands-and-knees record, as a friend expressed it to me. Breitung excluded this from the Saskatchewan list because although John Macoun had collected it at Medicine Hat and Pend d'Oreille, Assiniboia Territory, these places ended up in Alberta in 1905.²

The other novelty is *Psilocarphus elatior* Nutt., Woolly-heads, collected as #3770 on 17 June 1979 and as #3812 on 21 July 1979, both on a dried-up slough bottom amid till hills, L.S.D. 11 in 22-3-XXIX W.3rd, some 5 miles south of Merryflat. This little

wooly composite looks something like *Gnaphalium palustre*, Western Marsh Cudweed, except for having the florets surrounded by foliage leaves instead of scarious bracts, and by having the stem-leaves opposite. In the drawing the stem-leaves have fallen off because of drouth. This southwestern part of the province was dry by mid-June, and #3770 was wretched stunted stuff. I came back in July hoping rain had fallen in the meantime. It hadn't — a local rancher told me then that there had been no rain since May — and #3812 was just as dried up and stunted as #3770. I saw plants 5 mm high with heads 2 mm across. The species has been found at Redcliff, Alberta, according to Moss.¹³

Of the retakes of old records, the prettiest plant was *Downingia laeta* Greene, collected as #3819 on 22 July 1979 on L.S.D. 13 in 10-21-XXVI W.3rd (on Highway 21 just south of the turnoff to Mendham), an almost pure stand on the clayey mud of a cultivated slough bottom in a grain-field. This small annual has a pale blue-violet corolla which is un-symmetrically 5-parted with 2 lobes above and 3 below, like those of its relatives in *Lobelia*. A field mark is that these flowers seem to be on stalks 1-2 cm long; however these "stalks" are really ovaries that plump up with time to become seed pods, so that the flowers are in fact sessile. The slough was so densely packed with



Oenotheria andina (left) and *Psilocarphus elatoir* (right), both natural size.

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Downingia that the mass of flowers looked like water tinged blue from the sky.

The earlier Saskatchewan collections of *Downingia* were, as Porsild transcribes the labels, at "Crane Lake, Skull Creek; in brackish marshes, July 3, 1894; same place, in a bog. John Macoun #7532 and #7533 (CAN.)"¹⁴ Now Skull Creek does not flow into Crane Lake, though it passes within 3 miles thereof on its way to empty into the alkali lakes north of Sidewood. Fairly plainly the collections were made in groundwater bogs on or near Skull Creek, and the words "Crane Lake" mean only the general locality. A station of Crane Lake on

the C.P.R. is indicated in less modern maps. I have collected *Downingia* some 12 miles up-river at Skull Creek P.O. while visiting the Steve Manns there in 1958. And one last item to relate is that Wayne Harris of Prince Albert collected it from this same Highway 21 location two days later. Even the circumstances were the same; we both drove by, then the realization seeped through to the conscious mind in both cases that there was something not quite usual to the slough, and we came back to check. *Downingia* was seen also in two more sloughs 1½ to 2 miles northward toward Leader by both observers.

Another retake of an early

collection was *Alopecurus carolinianus* Walt., collected as #3771 on a dried-up slough bottom in till prairie on L.S.D. 11 in 22-5-XXIX W.3, 17 June 1979. This is the same land number as for the *Psilocarphus* collection, for the two sloughs were 50 yards or so apart. This little grass looks much like the common *Alopecurus aequalis* Sobol, Short-awned Water Foxtail, other than being 5-10 cm high, annual in habit, and with awns projecting 1-2 mm from the spike. The earlier Saskatchewan collection is given as at "Wood Mountain Trail" in Scoggan.¹⁵ One would guess that this is a Macoun collection from his journey of 1895.

The third retake of a plant long uncollected is two collections of *Cryptantha kelseyana* Greene; #3554, 25 June 1978, Prairie Wildlife Interpretive Centre, Webb, L.S.D. 7 in 32-14-XVI W.3, on gopher hole on dry prairie, fine sandy loam soil; #3556, 2 July 1978, at Altawan on L.S.D. 15 in 24-3-XXX W.3rd, on burnout flat in valley bottom among *Poa secunda/Bouteloua* grassland. This is a small borage differing to the eye from the commoner *Cryptantha fendleri* in being branched from the base rather than only in the inflorescence, and in growing on disturbed dry prairie rather than loose sand. The decisive difference is in the nutlets and needs magnification: *C. kelseyana* has three smaller warty nutlets and one larger smooth one, *C. fendleri* has four like smooth nutlets. The Fraser Herbarium has an undated specimen collected by T. N. Willing at Maple Creek, presumably sometime in or near the decade 1900-1910. The report in Fraser and Russell of *C. crassisepala* (T. & G.) Greene was based on this specimen.⁴ Maher, Argus, et al. record *C. kelseyana* also from Fort Walsh.¹²

The rarities which are not novelties

may be run through more shortly.

Antennaria dimorpha (Nutt.) T. & G.) #3492, 14 May 1978, Altawan, near centre 25-3-XXX W.3rd, vernal moist clayey bottom of draw. Reported earlier by Hudson from Climax and Divide.⁸ Reported from Val Marie by Maher, Argus, et al.¹²

Atriplex truncata (Torr.) Gray, #3656, 13 August 1978, Webb, west edge L.S.D. 12 in 33-14-XVI W.3rd, saline cutbank of alkali slough. This is another small *Atriplex* like the common *A. argentea* and that *A. powellii* written about by Hudson but differing from both these in the fruiting bracts some 2 mm long, 3-toothed at tip but without other marginal teeth or dorsal tubercles.¹¹ Maher, Argus, et al. give Maple Creek and Piapot as other localities.¹²

Crepis occidentalis Nutt. #3540, 17 June 1978, Lemsford ferry, L.S.D. 15 in 9-24-XXIII W.3rd, well vegetated although gravelly and eroded S.W. facing slope near head of ravine. What caught my eye was the combination of a yellow-flowered Lettuce subfamily composite with runcinate-pinnatifid leaves, yet the plant was clearly villous-pubescent all over. Maher, Argus, et al. give as other localities Cypress Hills, Lancer ferry, and Matador.¹²

Eleocharis parvula (R. & S.) Link var. *anachaeta* (Torr.) Svenson. #3658, 13 August 1978, Webb, L.S.D. 11 in 28-14-XVI W.3rd, sandy and gravelly shores of Goose Lake. The typical variety was wrongly reported by Harms and Hudson from the Goose Lake which is near Tessier.⁵ Dr. B. Boivin examined both the Webb and Tessier material and found them both to be var. *anachaeta*, without perianth bristles on the achenes. Var. *parvula* should have bristles on the achenes. I had mistakenly taken the withered remains of stamens in the Tessier material to be perianth-

bristles.

Festuca octoflora Walt. Six Weeks' Fescue. #3555, 2 July 1978, Altawan, L.S.D. 15 in 24-3-XXX W.3rd, very dry prairie on flat by arroyo. A small annual grass, about 10 cm high, with the panicle reduced virtually to a raceme of spikelets which have notably many (about 10-14) florets. Breitung reports this in Saskatchewan only from Piapot.² A weedy grass widely distributed in more temperate parts of North America.

Helianthus tuberosus L. Jerusalem Artichoke. #3762, 8 October 1978, Goodwater, SW $\frac{1}{4}$ 17-5-XII W.2nd, wooded banks of Souris R. A big perennial sunflower with cordate-based ovate leaves and cigar-shaped tubers. Reported by Hudson from Northgate, and by Maher, Argus, et al. from Gainsborough.^{7, 12}

Mimulus glabratus H.B.K. var. *fremontii* (Benth.) Grant. Small Yellow Monkey-flower. #3632, 29 July 1978, Welby, N.W. corner L.S.D. 1 in 3-18-XXX W.1st, cold flowing brook. This plant and its earlier Saskatchewan stations at Round L. and Whitewood have been fully described by De Vries.³

Polygala verticillata L. #3623, 27 July 1978, Yarbo, L.S.D. 2 in 30-19-XXXII W.1st, prairie remnant on calcareous slope of knoll. Reported earlier by Hudson from Estevan.¹⁰

Polygonum confertiflorum Nutt. #3558, 2 July 1978, Altawan, L.S.D. 15 in 24-3-XXX W.3rd, on burnout flat of valley bottom. #3565, 2 July 1978; Altawan, L.S.D. 3 in 25-3-XXX W.3rd, cobbly arroyo bottom. #3768, 17 June 1979, Altawan, NW $\frac{1}{4}$ 25-3-XXX W.3rd, dampish spot (dry plunge basin) in arroyo bottom. #3813, 21 July 1979, Merryflat, L.S.D. 11 in 22-5-XXIX W.3rd, dry grassy slough bottom. This small knotweed has its flowers in terminal bracted spikes, the

bracts being more or less white-margined. It was collected by John Macoun in 1895 "near Battle Creek, south of the Cypress Hills", acc. to Scoggan — a location which can be only a few miles from that of #3813 — and by myself along Davis Creek south of the East Block of Cypress Hills.^{15, 9}

Scrophularia lanceolata Pursh, Figwort. #2553, 25 June 1978, Webb, Prairie Wildlife Interpretive Centre, L.S.D. 16 in 28-14-XVI W.3rd, moist brushy north-facing slope of embankment of 1882 grade of CPR in creek valley. This was reported by Hudson from Mortlach, based on collections also from the original grade of the CPR (abandoned 1902).⁶ This plant of the American Midwest must have entered during railway building; I have not seen it elsewhere than these two stations. At P.W.I.C. a daughter colony had gotten established $\frac{1}{4}$ mile up the creek from the old railway line; this is not a rapid spread for almost 100 years. Perhaps seed production is handicapped by the lack of the proper pollinating insect. The rhizomes spread vigorously when established.

Sporobolus neglectus Nash, Small Dropseed. #3755, 7 October 1978, Brooking, SE $\frac{1}{4}$ 36-6-XIX W.2nd, on gravel of little used railroad tracks. This has been reported from Estevan by Hudson.¹⁰ Boivin had already included Saskatchewan in its range without locality.¹ W. G. Dore was so kind as to inform me in a letter that the locality in question was Halbrite and that the collection was his own on "railway tracks by station". The plant is native in the American Midwest — it must be spreading by railways.

Viburnum lentago L, Nannyberry. #3516, 6 June 1978, Pinto, L.S.D. 5 in 25-1-VI W.2nd, base of north-facing wooded slope in ravine. Shrubs 2.5 m high. The elliptic finely serrate leaves,

suggesting those of pincherry, differ from the maple leaves of the more familiar Bush Cranberry species of *Viburnum*. This shrub has several earlier known stations in our southeast corner. Maher, Argus, et al. give also Tantallon, Wapella, and St. Marthe de Rocanville, while Breitung mentions Gainsborough.^{12, 2}

¹BOIVIN, B. 1967. Énumération des Plantes du Canada. Provancheria #6, Université Laval, Quebec.

²BREITUNG, A. J. 1957. Annotated Catalogue of the Vascular Flora of Saskatchewan. Am. Midland Nat. 58 (1):1-72.

³De VRIES, B. 1971. *Mimulus Glabratus* HBK var *Fremontii* (Benth) Grant. Blue Jay 29(1):39-40.

⁴FRASER, W. P. and R. C. RUSSELL. 1944. An Annotated List of the Plants of Saskatchewan. Univ. Saskatchewan.

⁵HARMS, V. L. and J. H. HUDSON. 1978. Some Vascular Plants New to the Flora of Saskatchewan. Can. Field-Nat. 92(4):389-391.

⁶HUDSON, J. H. 1951. Flora List of the Mortlach District, Southern

Saskatchewan. Can Field-Nat. 65(6):197-210.

⁷HUDSON, J. H. 1958A. New Plant Records for Saskatchewan, 1957. Blue Jay 16(1):20-21.

⁸HUDSON, J. H. 1958B. Some New or Little Reported Saskatchewan Plants, Blue Jay 16(3):123.

⁹HUDSON, J. H. 1962. New Plant Records for Saskatchewan. Blue Jay 20(3):120.

¹⁰HUDSON, J. H. 1973. Additions to the Flora of Saskatchewan, 1972. Blue Jay 31(2):112-114.

¹¹HUDSON, J. H. 1978. *Atriplex Powellii* and Cabri Lake. Blue Jay 36(3):137-138.

¹²MAHER, R. V., G. W. ARGUS, V. L. HARMS, and J. H. HUDSON. 1979. The Rare Vascular Plants of Saskatchewan. Syllogeus #20, National Museums of Canada, Ottawa.

¹³MOSS, E. H. 1959. Flora of Alberta. Univ. Toronto Press.

¹⁴PORSILD, A. E. 1940. Miscellaneous Contributions from the National Herbarium of Canada. II. Can. Field-Nat. 54(5):68-69.

¹⁵SCOGGAN, H. J. 1978. Flora of Canada, parts 1, 2, & 3. National Museums of Canada, Ottawa.

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