

ADDITIONAL RECORDS FOR SOME RARE OR UNCOMMON NATIVE ORCHIDS IN SASKATCHEWAN

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During the last several years, field work, especially in northern Saskatchewan, by the author, associates and students has resulted in additional locality records and a better distributional knowledge of various rare native orchid species in the province. Other earlier collections have often been filed in herbaria but not reported in the literature. The intent of this article is to share the present distributional information regarding these orchids with other botanists and naturalists who have an interest in the Saskatchewan flora. Included for each species are previous locality reports in the literature, recent records, and all additional herbarium specimens seen by the author (SASK = Fraser Herbarium, University of Saskatchewan; USAS = Herbarium, University of Regina, and the Saskatchewan Natural History Museum). The known distributions of these orchids in Saskatchewan are then mapped to better portray their ranges in the province.

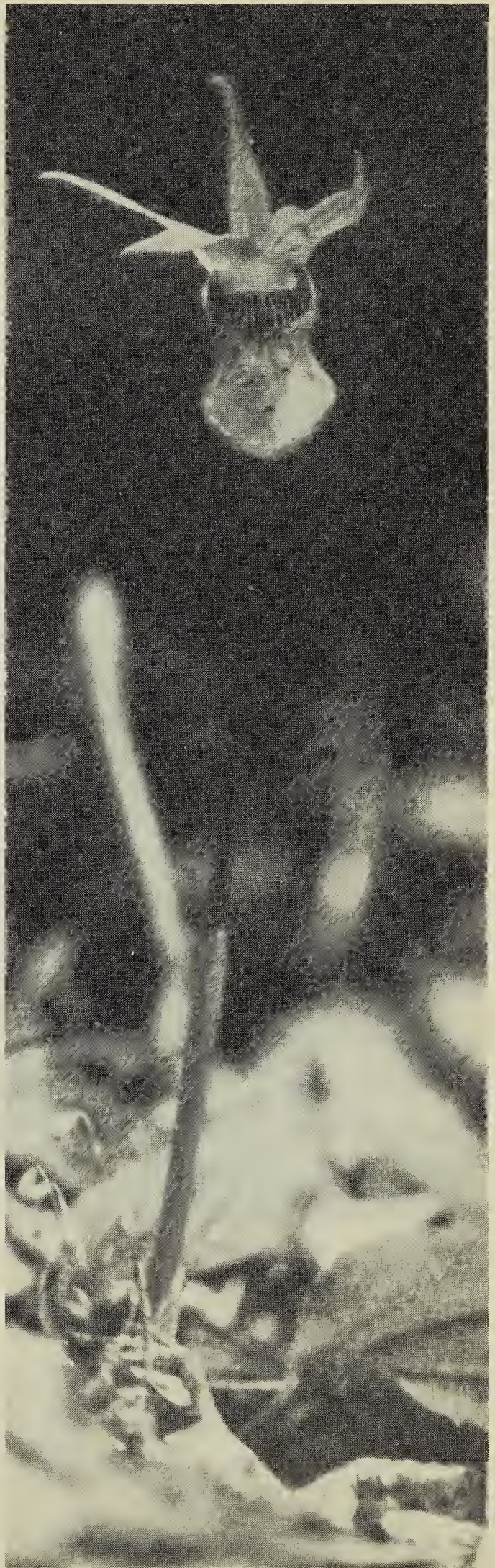
The STRIPED CORAL-ROOT, *Corallorhiza striata* Lindl., was previously reported in Saskatchewan by Breitung from Wallwort, Moose Mountain, Kelliher, Langbank and the Cypress Hills.² In addition, herbarium specimens have been seen from Theodore, 26 miles NW of Yorkton (George Brown, SASK) and from Boomerang Lake, 3 miles NE of Runnymede, 3-4 miles S of Duck Mountain Prov. Park (T 29 N, R 30 W 1st M), (G. F. Ledingham and E.B. Peterson 4748, USAS). Newly reported locality records for this rare orchid

species include the following: about 10 miles SW of Dundurn Military Camp (Sec. 32, T 32 N, R 5 W 3rd M), aspen grove ravine in dune sand area, June 1971, B. Felski & B. Pegg (SASK); Pika Lake, 18 miles S-SW of Saskatoon (T 55 N, R 6 W 3rd M), near nature trail S of lake in moist rich woodland, June 1975, K. Meeres (SASK); 16 miles N-NW of St. Walburg near Highway 26 (SE 1/4 Sec. 25, T 55 N, R 22 W 3rd M), moist semi-open aspen woods, May 21, 1975, J. Haraldson (SASK). The present records extend the known Saskatchewan range of this species northward to the Saskatoon area and to the southern boreal forest fringe at St. Walburg (see map 1). The plants, which are characteristic of rich aspen woodlands, are reportedly very rare at each known site in the province.

The LARGE ROUND-LEAVED BOYD ORCHID, *Habenaria orbiculata* (Pursh) Torr., was previously reported in Saskatchewan from Torch River (N. Nipawin) and Amisk Lake by Breitung and from Weber Bay of Lac la Plouffe by Harms and Hudson.^{2, 3} Herbarium specimens have also been seen from Ronge (J. S. Maini & M. Swan 6748, SASK), Big Sandy Lake on the Hansky Lake Road (G. W. Argus 4237, SASK), the Candle Lake area (J. M. A. Swan 230, H. G. Anderson 1256, SASK; R. Russell 15-9-1959, USAS) and Pink Lake, 35 miles NE of Candle Lake (J. M. A. Swan 64-45, SASK). Newly reported locality records for this species in the province are the following: McLennan Lake, Mile 83 of Highway 102, NE of Ronge (55° 55' N, 104° 18' W), moist

bracteata (Muhl.) Gray, was reported by Breitung to be "common in meadows and borders of sandy woods".² However, in our experience the species appears quite sporadic in occurrence, and is certainly uncommon, if not actually rare, in Saskatchewan. In the Fraser Herbarium, there are older specimens from the Cypress Hills, Prince Albert, MacDowall, McKague, Candle Lake, Strawberry Lakes S of Indian Head, Willow Bunch and Warmley. Additional new records include the following: Greenwater Lake (T 41 N, R 11 W 2nd M), aspen woods, June 19, 1973, V. L. Harms 19709 (SASK); Shell Lake, Valley of Shell Brook (NE ¼ Sec. 27, T 50 N, R 8 W 3rd M), aspen woods, May 30, 1976, J. H. Hudson 3122 (SASK); Meadow Lake Prov. Park, between Lac des Isles and Mistohay Lake (Sec. 13, T 63 N, R 22 W 3rd M), aspen forest, July 1, 1976, V. L. Harms 23461 (SASK); Dundurn area (T 33 N, R 4 W 3rd M), sandy shady poplar — willow grove July 27, 1972, E. W. Sullivan 422 (USAS). The plants appear to be locally rare at most, if not all, of the above listed sites where it is known in the province (see map 3).

The VENUS'-SLIPPER ORCHID, *Calypso bulbosa* (L.) Oakes, was previously reported in Saskatchewan by Raup from Lake Athabasca, by Breitung from Bjorkdale, Torch River (N of Nipawin) and the Cypress Hills, and by Jeglum from Candle Lake.^{5 2 4} Additional Saskatchewan records for this species are the following: N of Christopher Lake (53° 38' N, 105° 50' W), white spruce — jack pine forest, May 22, 1972, T. F. Cameron 301 (SASK); Mile 4 of Highway 102, N of La Ronge (55° 10' N, 105° 20' W), mixedwood forest, May 30, 1961, J. S. Maini 403 (SASK) June 4, 1972, J. Ternier & S. Lamont 40 (SASK); Mile 8 of Highway 102, N of La Ronge (55° 12' N, 105° 17' W), jack pine forest, June 14, 1960, J. S. Maini 19 (SASK); E shore of Pita Lake on Churchill River (55° 34'



Venus'-slipper orchid

Bob Godwin



Striped coral-root

Gary W. Se

aspen — white birch — black spruce mixedwood forest, July 26, 1972, *J. Ternier & S. Lamont 1077* (SASK); Prince Albert Natl. Park, at Kingsmere River, NW of Waskesiu Lake ($54^{\circ} 02' N$, $106^{\circ} 25' W$), tall mixedwood forest, June 10, 1971, *T. F. Cameron 312* (SASK). The present records better fill in the species range in the southern boreal

forest region of Saskatchewan. Although this sporadically occurring orchid appears not to be as rare in the province as once thought, it is hard to find, and reportedly is locally rare at most known sites (see map 2).

The LONG-BRACTED BOG ORCHID, *Habenaria viridis* (L.) R. Br. var.



Venus'-slipper orchid

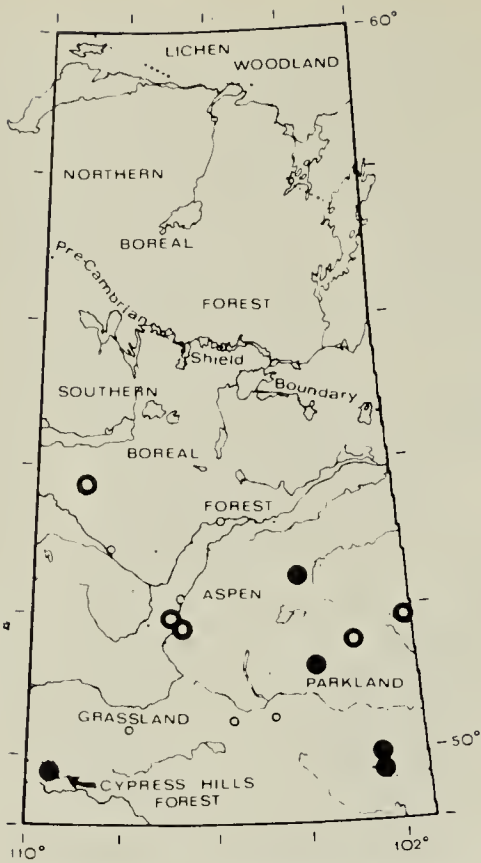
Wayne Lynch

N, 102° 43' W), moist mixed forest, July 10, 1974, J. & J. Heilman 2157 (SASK); NE side of Cluff Lake (58° 21½' N, 109° 32' W), fresh aspen forest, July 13, 1977, V. L. Harms, N. A. Skoglund & R. Wright 24125 (SASK). These newly reported records amplify considerably the species' known distribution in Saskatchewan showing it to be relatively widespread in the province. However, the species' occurrence appears quite sporadic and the plants are reportedly rare at most if not all known sites (see map 4).

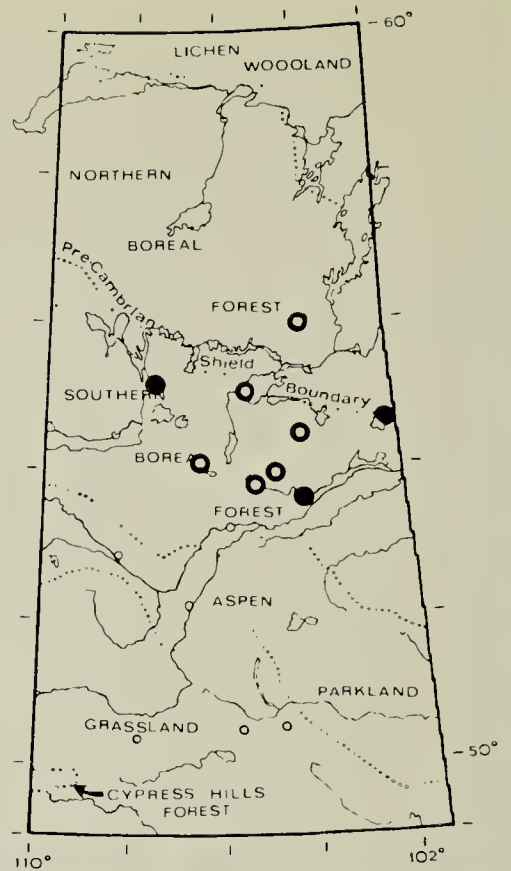
The HEART-LEAVED TWAY-BLADE, *Listera cordata* (L.), R. Br., was reported by Breitung from the Cypress Hills, McKague and Crooked River.² Specimens are also present in the Fraser Herbarium (SASK) from near Meadow Lake and Duck Mountain, and in the University of Regina Herbarium (USAS) from Amisk Lake. New

locality records are the following: Reindeer River, between Steephill Lake and The Two Rivers (55° 55½' N, 103° W), black spruce bogs, June 16, 1974, J. & J. Heilman 1538 (SASK); Cluff Lake area, 1½ miles NW of Island Lake (58° 23½' N, 109° 42' W), black spruce — tamarack treed bog, June 16, 1977, V. L. Harms 23988 (SASK). This characteristic orchid of treed bogs is apparently quite rare at each of the known sites in the province. Although, on the basis of its reported occurrence in Keewatin and Mackenzie Districts (Boivin) this species should be expected throughout boreal Saskatchewan,¹ the above records appear to be the first from the northern half of the province (see map 5).

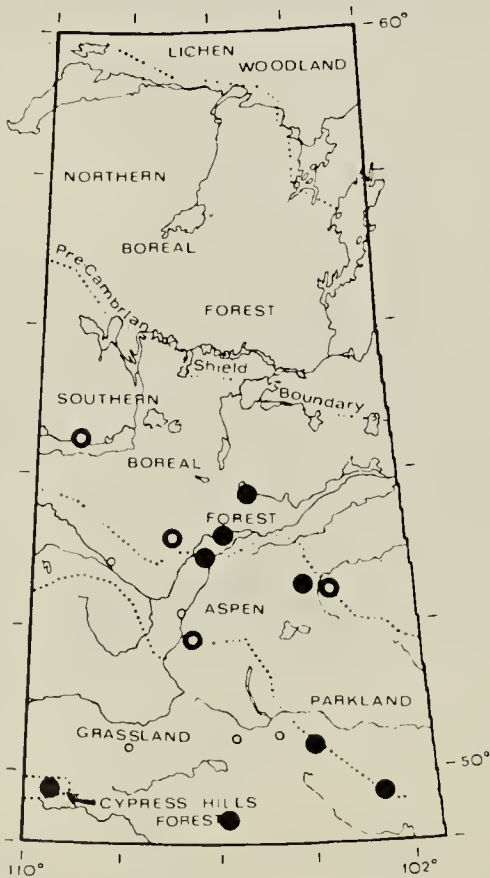
The NORTHERN TWAY-BLADE, *Listera borealis* Morong, was reported in Saskatchewan by Breitung from the



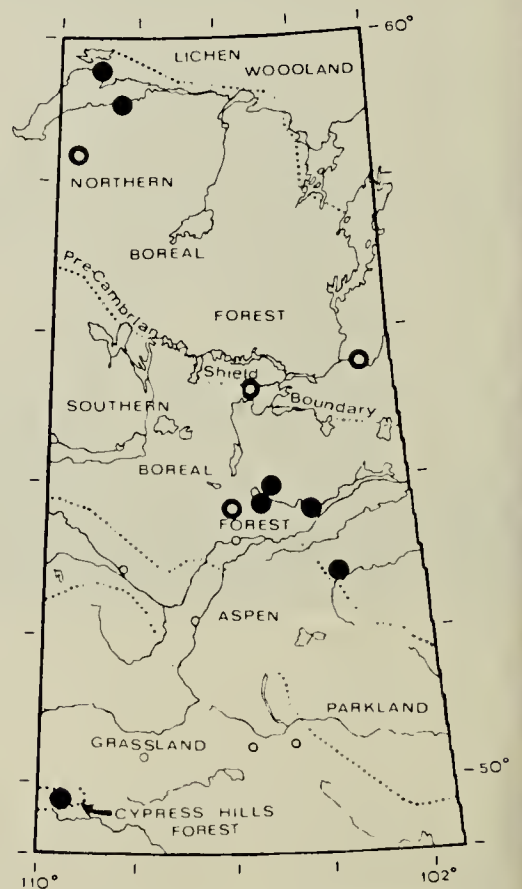
1. STRIPED CORAL-ROOT
(CORALLORHIZA STRIATA)



2. LARGE ROUND-LEAVED
BOG ORCHID
(HABENARIA ORBICULATA)

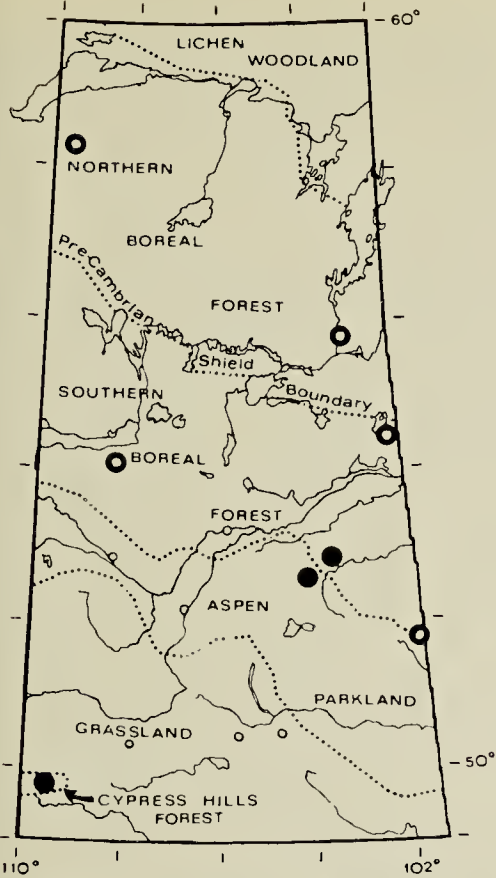


3. LONG-BRACTED BOG ORCHID
(HABENARIA VIRIDIS
var. BRACTEATA)



4. VENUS'-SLIPPER
(CALYPSO BULBOSA)

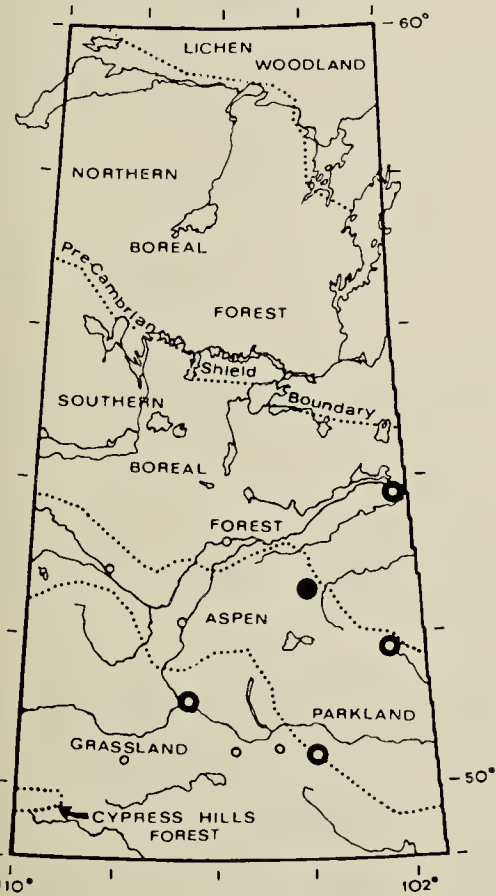
Maps 1-4: The known Saskatchewan distribution of some rare or uncommon orchid species (closed dots represent previous locality reports in the literature; open circles represent either new or previously unreported herbarium records).



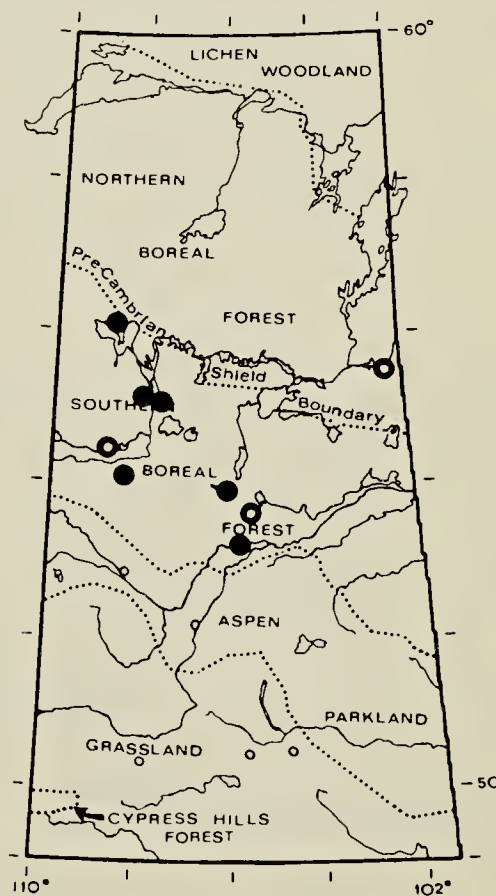
5. HEART-LEAVED TWAYBLADE
(*LISTERA CORDATA*)



6. NORTHERN TWAYBLADE
(*LISTERA BOREALIS*)



7. BOG TWAYBLADE
(*LIPARIS LOESELII*)



8. SLENDER LADIES'-TRESSES
(*SPIRANTHES GRACILIS*)

Maps 5-8: The known Saskatchewan distribution of some rare or uncommon orchid species (closed dots represent previous locality reports in the literature; open circles represent either new or previously unreported herbarium records).

Cypress Hills, McKague, Prince Albert and Waskesiu Lake.² Additional locality records include the following: Lynx Lake, Mile 30 of Highway 102, N of La Ronge (55° 27' N, 105° 00' W), willow marsh June 21, 1972, *J. Ternier & S. Lamont 409* (SASK); Shell Lake, valley of Shell Brook (NE ¼ Sec. 27, T 50 N, R 8 W 3rd M) white spruce woods, May 30, 1976, *J. H. Hudson 3120* (SASK); MacDowall area (NW ¼ Sec. 21, T 45 N, R 1 W 3rd M), semi-boggy spruce woods, July 8, 1973, *J. H. Hudson 2862* (SASK). These records help to fill in and also extend the known Saskatchewan range of this rare orchid species about 100 miles northward to Lynx Lake. In Saskatchewan, it seemingly represents a species which is characteristic of moist spruce woods and treed bogs in the southern boreal forest region and fringes, and also in the Cypress Hills (see map 6).

The BOG TWAY-BLADE, *Liparis loeselii* (L.) Richard, was reported in Saskatchewan by Breitung only from the Dahilton-McKague area.² Additional records include the following: Cumberland House vicinity, Egg Lake, S of Saskatchewan River (53° 53' N, 102° 20' W), floating marsh Island, June 17, 1967, *G. W. Argus 3995* (SASK); Dry Lake, Strawberry Lakes area, 12 miles S of Indian Head (T 16 N, R 13 W 2nd M), wet open seepage shores and lake bed, June 21, 1966, *G. L. Jones 556*, July 27, 1966, *G. F. Ledingham 4765* (SASK, USAS); Tadmore (SW ¼ Sec. 23, T 33 N, R 4 W 2nd M), wet open marl-bog, July 11, 1974, *J. H. Hudson 2968* (SASK); Elbow area, Douglas Prov. Park (T 24 N, R 4 W 3rd M), wet boggy area, June, 1977, *S. M. Lamont* (to be deposited in USAS).

The SLENDER LADIES'-TRESSES ORCHID, *Spiranthes gracilis* (Bigel) Beck, has been reported previously in Saskatchewan by Breitung from Prince Albert, Waskesiu Lake and Meadow Lake, and by Harms and Hudson from the Beauval-Lac la Plonge area, Little

Amyot Lake and Taylor Lake N of Buffalo Narrows.^{2 3} Newly reported locality records in the province include the following: S end of Sokatisewin Lake on the Churchill River (55° 28' N, 102° 25' W), rock outcrops in jack pine forest, June 20, 1974, *J. & J. Heilman 1812B* (SASK); 1 mile NW of Paddockwood, SW of Candle Lake (Sec. 20, T 54 N, R 24 W 2nd M), open young aspen forest, August 19, 1971, *H. G. Anderson 142* (SASK); Meadow Lake Prov. Park, side of First Mustus lake (54° 25' N, 108° 50' W), (Sec. 4, T 63 N, R 19 W 3rd M), open cleared moist depression, July 24, 1974, *V. L. Harms 20675* (SASK). This eastern North American species has been considered a rare species in Saskatchewan, at the western limit of its range here. Surprisingly, the present Sokatisewin Lake record is the first from eastern Saskatchewan or from the Pre-Cambrian Shield in the province. The plants appear to be locally rare at all known sites in the province except in the upper Churchill River area (Beauval to Buffalo Narrows) (see map 8).

¹BOIVIN, B. 1967. Enumeration des Plantules du Canada, V-Monopsides (I ère partie) Naturaliste Canadien 94: 131-157.

²BREITUNG, A. J. 1957. Annotated catalogue of the vascular flora of Saskatchewan. The American Midland Naturalist 58: 1-72.

³HARMS, V. L. and J. H. HUDSON. 1971. Some new and noteworthy vascular records from northwestern Saskatchewan. Rhodora 76: 39-44.

⁴JEGLUM, J. K. 1972. Boreal forest wetland near Candle Lake, Central Saskatchewan. I. Vegetation. The Musk-Ox, N 11: 41-58.

⁵RAUP, H. M. 1936. Phytogeographic studies in the Athabasca-Great Slave Lake region. I. Catalogue of the vascular plants. Journ. Arnold Arboretum 17: 183-315.