#### BOTANY

#### AN INDIAN LEGEND?

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By Mrs. T.E. Mudiman, Swift Current.

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I am seeking an Indian Legend about the wild flower called the Tiger Lily (Western Red Lily).

Annora Brown, well known Alberta artist, has under preparation a book on the prairie wild flowers and would like to **in**clude a painting of this flower, as it is so colorful. She has tried, without success, to "run down" such a legend among the Blackfeet.

When she heard I was moving to Saskatchewan she asked me to try to find if there were such a legend among other tribes of the Plains Indians. It is such a showy blocm that one would think it should have a story.

Any information you are able to pass along, in this regard, would be most welcome.

(Perhaps some of our readers have heard of some story or legend about our provincial floral emblem. If so, will you please let us have it, as well as sending the information to Mrs. Mudiman, at 375 Sydney St., E., Swift Current.)

Mrs. Bilsbury reports that the Lilies around Grenfell met with a sad fate due to the hail storm. However she saw a goodly number along roads and in a clear space on a neighbor's field. One lovely clear yellow specimen was discovered by Louis Hood. He neglected to mark the plant, but is quite sure that he can find the location again next summer.

## · GERMANDER AND SNEEZEWEED By Elizabeth Cruickshank

Flowers add interest and delight to one's rambles. Crossing a high ridge in an unfrequented part of the valley, we saw in the marshy-land below, flowers that reminded us of the blue vervain of New Brunswick. As we climbed down the steep bank with difficulty we thought we were to meet old friends, with their long spikes of purple flowers in symmetrical order, branched like candelabra. Our assumption was wrong.

There were the square stems, but the violet flowers had not the tubular corolla with five lobes spread out salver shape but an irregular corolla -- two lipped. Here was the Hairy Germander, a flower new to us, enjoying life in company with the white-blossomed Water Hemlock and tall, stout cat-tails. A plant society we decided to study.

Flourishing in the damp soil near the dam was the Sneezeweed. With its striking large warm yellow flowers, it looked too gay to be the bane of hay fever sufferers. We learned that it derives its common name from the fact that in days gone by, snuff was made from the dried powdered leaves.

The leaves are interesting for another reason. They are stalkless and decurrent, making the stem winged. The adaptation is one to guid unwanted crawling insects away from the flower -- out on a limb!

After a day flower hunting or bird watching, seeing nature's handwork and beauty everywhere, leaves me always with Carman's thought:

> "At last with evening as I turned Homeward, and tho't what I had learned And all that there was still to probe -I caught the glory of his robe Where the last fires of sunset burned."

BOTANY

THE NATIVE LEGUMES OF SASKATCHEWN

By Arch. C. Budd

In response to several requests an article or articles on the identification of the Leguminosae or Pea family of Saskatchewan is presented. This is a large and important group of plants, well represented in our Province and has alternate, compound leaves, generally with stipules. The flowers are perfect and irregular, with a "standard" or upper petal, two "wings" or side petals and two lower petals generally united to form the "keel". The fruit is generally a legume or a one to two-celled pod, or a loment which is a pod constricted between each seed. The following key will aid in distinguishing the various genera of this large group.

<i>.</i>	1.	Stamens or male organs separate from each other. Stamens joined by their stalks into 1 or 2 bundles.	THERMOPSIS	2.
,	2.	Leaves even-pinnate, the terminal leaflet replaced by a tendril. Leaves with no tendrils.		3. 4.
*	3.	Style or female organ slender with a tuft of hairs at Style flat with hairs down inner side.	end. VICIA LATHYRU	S
4	4.	Leaves glandular-dotted. Leaves not glandular-dotted.		5. 7.
•	5.	Leaves palmately divided. Leaves pinnately divided.	PSORALEA	6, )
•	6.	Stems mostly basal; flowers small and in dense cylindr spikes; fruit small and not covered with prickles. Stems much branched; flowers large and in a raceme; fr large and covered with hooked prickles.	PETALOSTEMON	
	7.	Leaves palmately divided into 5 or more leaflets. Leaves pinnate or with only three leaflets.	IUPINUS ~	8.
	8.	Leaves with only 3 leaflets. Leaves with more than 3 leaflets.	ASTRAGALUS .	9.
a.	9.	Fruit constricted between each seed (a loment). Fruit not constricted between each seed.	HEDYSARUM	10.
, j	LO.	Keel of corolla prolonged into a point.	OXYTROPIS	

Keel of corolla not prolonged into a point. ASTRAGALUS

The various genera will be treated in alphabetical order commencing with the large genus of Astragalus or Milk-vetches.

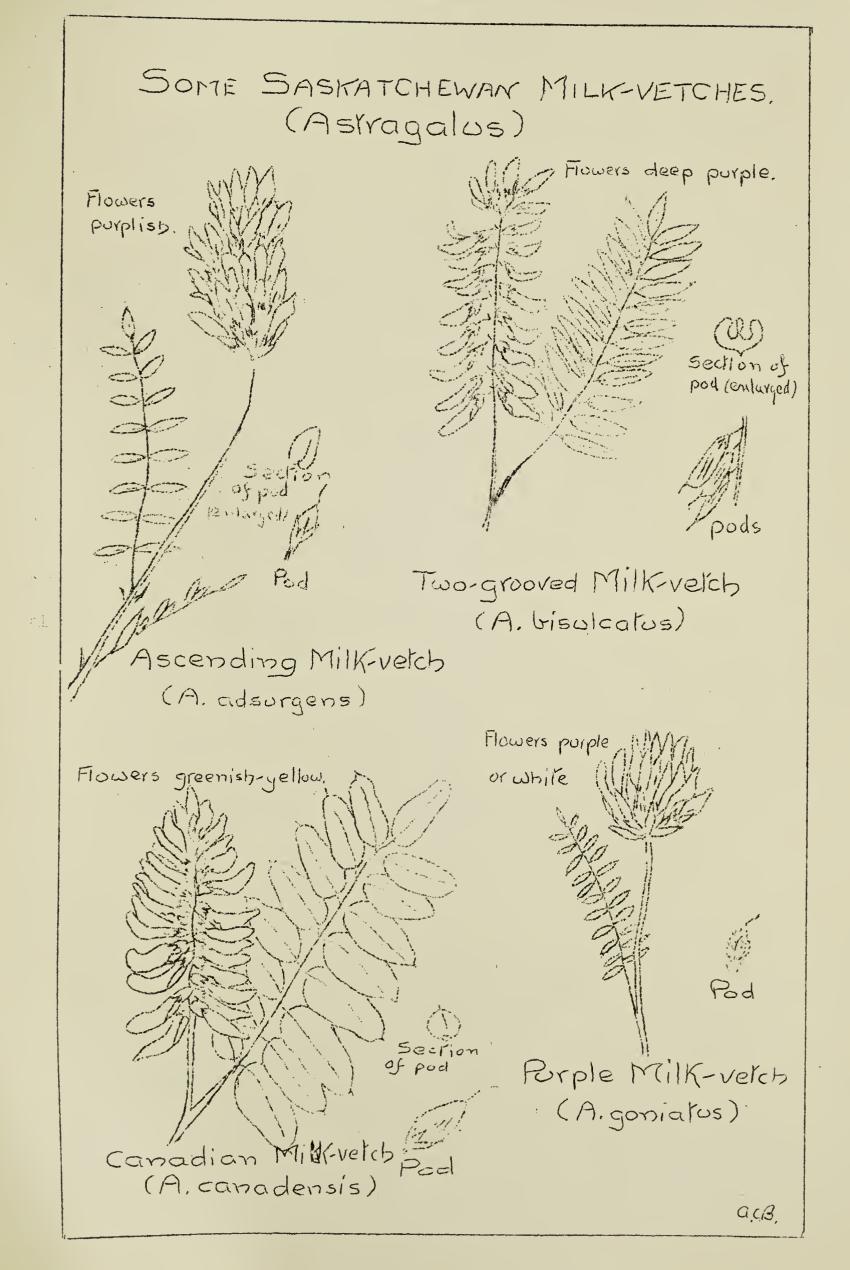
#### ASTRAGALUS genus. (Milk-vetches)

This is a large genus of which eighteen species are known to occur in Saskatchewan, and in many cases positive identification is impossible without the mature fruit. Some species absorb selenium from soils where this element is present and are then poisonous to cattle and sheep. The following key will help in separating the various species.

1. Low, tufted plants Plants not low and tufted. 2. 7.

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2.	Leaflets spine-tipped. Leaflets not spine-tipped.	(10)	A. Kent	trophyta	3.
3.	Flowers borne without stalks at the base leaf-stalks or at the crown of the plant. Plants with definite flower stalks.			phyllus	4.
4.	Leaves simple or with from 3 to 5 leaflets. Leaves pinnate with 7 or more leaflets.	S .	(4) A.	caespitosus	5.
5.	Flowers purple. Flowers yellow cr cream-coloured.		(12) A.	missouriensis	6.
6.	Plants densely woolly. Plants not densely woolly but silky-hairy			Purshii lotiflorus	
7.	Plants prostrate. Plants decumbent at base, or erect.				8. 10.
8.	Plants with globular or fleshy pcds. Plants with linear pods.		(15) A.	succulentus	9.
9.	Pods round in cross section. Pods flat in cross section.	•		flexuosus vexilliflexus	•
10.	Plants decumbent at base. Plants erect.			*	. 11. 13.
11.	Flowers yellow or cream-coloured. Flowers purple.		(13) A.	pectinatus	. 12.
12,	Pods with appressed hairs. Pods with spreading hairs.		(2) A. (9) A.	adsurgens goniatus	
13.	Pods with two grooves on underside; pods crowded and somewhat reflexed. Strong sm plant. Pods with one or no grooves on underside.	elli	ng	bisulcatus	14.
14.	Plant loosely long-woolly. Plant almcst or quite hairless.		(6) A.	Drummondii	15.
15.	Pods about 1 inch long, pendulous; flower white. Pods not over 3/4 inch long, not pendulou		(8) A.	frigidus	16.
16.	Flowers greenish-yellow, in a dense thick spike; the flowering stalks extending wel beyond the leaves. Inflorescence a raceme.			canadensis	17.
17.	Flowers less than 1/4 inch long, pale yel in a loose spike-like raceme. Flowers over 1/4 inch long, whitish with mauve or violet tinge, borne in somewhat	•	(16) A.	tenellus	
	elongated racemes.		(1) A.	aborignorum	



## (1) Adbragalus aborignorum Richards. (Indian Milk-vetch)

An erect, somewhat branching plant from 6 to 12 inches high, with fine apprecised hairs and 7 to 13 linear or obling leaflets from 1/2 to 7/8inch long. The flowers are white tinged with violet, from 1/3 to 1/2inch long in a rather loose raceme. The pods are slightly inflated, smooth and from 1/2 to 5/4 inch long. The long yellow roots were used by the Indians for fcod. Not common but found occasionally on hills in the southern part of the Province.

## (2) Astragalus-adsurgens Pail, (Ascending Milk-vetch)

A rather straggling stemmed, erect or decumbent plant from 4 to 18 inches high. The leaves beer from 15 to 25 oval or linear-oblong leaflets from 2/3 to 1 inch long and the purplish flowers are borne in a short, dense spike at the end of a long stem and are from 1/2 to 2/3 inch long. The pods are deeply grooved along the back. A common plant of readsides, coulee banks and prairies all across the southern part of the Province. It can be mistaken for the much lower growing Purple Milk-vetch but has appreceed hairs on the pods.

#### (3) Astragalus biculdetus (Hock.) A. Gray. (Two-grooved Milk-vetch)

A stout, many-stemmed, exect plant from 1 to 3 feet high, having a distinctive and uppleasant odour. The leaves have from 17 to 27 elliptic leaflets up to 1 anch long and the flowers are deep purple, about 1/2 inch long, borne in a dense raceme at the ends of the stems. The flowers and fruit are generally reflexed (pointing downwards). The linear pole are about 1/2 inch long and have two deep grooves along one side. This plant is very common throughout the southern portion of the Province and can cause celenium poisening in cattle or sheep on soils which are selenium bearing. It is also one of the host plants of the large blister beatle so destructive to caragana and beans in the garden.

# (4) Astragalus casepitesus A. Gray (Tufted Milk-vetch)

This is a very small plant with a comewhat tufted habit of growth, rarely more than six inclus high and bearing linear leaves and leaflets from 1/4 to 2 inches long. The purple flowers are from 1/3 to 1/2 inch long and borne in short recents on an erect stem. Locally found on dry and rocky hillsides in the south-west of the Province.

### (5) Astregalus canadensis L. (Canadian Milk-votch)

An erect, fairly tall plant from 1 to 4 feet in height. The leaves bear from 15 to 31 blunt-pointed, elliptic leaflets from 1 to 1 1/2 inches long. The flowering stems extend beyond the leaves and bear dense recenes of greenish-yellow flowers about 1/2 inch long and later dense heads of rawher woody pods from 3/8 to 5/8 inch long. This species is fairly common in moist and shady places almost all over the Province.

## (6) Astragalus Drummonaii Dougl. (Drummond's Milk-vetch)

This loosely wooly-hairy species grows in clumps from 1 to 2 feet in height and the leaves bear from 19 to 23 cblong leaflets 1/2 to 3/4 inch long, softly hairy above and elmost smooth beneath. The flowers are yellowish-white with a keel sometimes tinged with purple and are about 5/4 inch long and berne in racomes from 1 to 4 inches long. The linear pode are tembraneous and ancets, from 3/4 to 1 inch long. Occasionally found in the south-wast in hilly land.