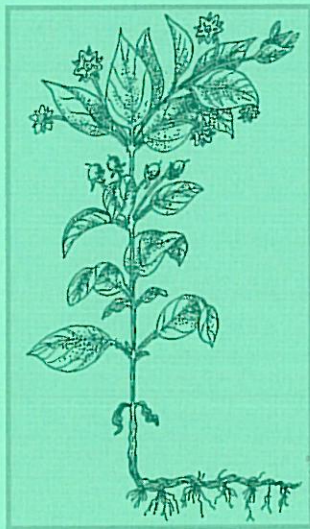


COMMON SASKATCHEWAN RIVER VALLEY PLANTS



JOE MEEHAN

Common Saskatchewan River Valley Plants

A comprehensive catalogue of the flora of Finlayson Island
in the North Saskatchewan River Valley North Battleford,
Saskatchewan.

by joe meehan.



PRODUCED AND PUBLISHED BY:

- Joe Meehan
 - Battlefords' Wildlife Federation
 - City of North Battleford
- North Battleford, Saskatchewan



**North
Battleford**

ARTWORK BY:

Julian Sadlowski

© 1995 by Joe Meehan

Permission to reprint material from this publication is hereby granted.
A credit would be appreciated.

ISBN 0-9699848-0-4

*Happy hunting; let your senses drink in the
wonders of creation.*

Table of Content

Acknowledgements	iv
Introduction	viii
Glossary Diagrams	xi
Bibliography	69
Numerical Index of Flowers (<i>Grouped by color</i>)	v
<i>(Drawings & descriptions listed numerically as follows)</i>	
- WHITE OR CREAM COLORED	1
- YELLOW	23
- PINK, ORANGE, RED, BLUE, OR PURPLE	41
- GREEN OR INCONSPICUOUS	55
Index	70

Acknowledgements

The author acknowledges with profound gratitude the following for assistance provided. While such a work may have been carried on by the author, the assistance, material and services rendered in its preparation has made it the work of a community of persons interested in identifying some of the flowers of the "northern Great Plains". It is my pleasure to acknowledge this assistance as follows:

The magnificent art work of local artist Julian Sadlowski.

The assistance of Dr. R.G. Holmberg, Ph.D. of Athabasca University, and of Dr. J. Thorpe of the Saskatchewan Research Council for their assistance in identification of the plant material.

Keith Anderson, horticulturalist, City of North Battleford.

Stephen Beardsworth, who provided tremendous assistance in the collection and identification of the material for this project.

Louis Andreas, OMI and Marian Press Ltd., Battleford, SK for generous assistance in preparation for printing, to the City of North Battleford and the Battlefords Wildlife Federation for their financial support.

Ted Laidlaw who taught me to always seek and to Rena for her constant encouragement.

A special acknowledgement is made to the *Canada Department of Agriculture* which gave permission to reprint the A.C. Budd drawings of plant parts from *Wild Flowers of the Canadian Prairies* (pages xi, xii, xiii, xiv and xv).

Thanks also to the publishers of *Common Coulee - Plants of Southern Alberta* for permission to copy drawings (pages 32 and 34).

Numerical Index

(Note: * indicates flower found in more than one color)

I. Species with WHITE or CREAM-COLORED flowers

1. Star-Flowered Solomons Seal (*Smilacina stellata*)
- *2. Camas (*Zygadenus elegans*)
3. Wild Lily-of-the Valley (*Maianthemum canadense*)
4. Pale Comandra (*Comandra pallida*)
5. Bastard Toadflax (*C. umbellata* var. *pallida*)
6. Sandwort (*Aranaria congesta*)
7. Canada Anemone (*Anemone canadensis*)
8. Long-Fruited Anemone (*A. cylindrica*)
- *9. Cut-Leaved Anemone (*A. multifida*)
10. Small Wood Anemone (*A. quinquefolia*)
11. Meadow-rue (*Thalictrum venulosum*)
12. Tower Mustard (*Arabis glabra*)
13. Small Flowered Rocket (*Erysimum inconspicuum*)
14. Shepherds Purse (*Capsella bursa pastoris*)
15. Stinkweed (*Thlaspi arvense*)
16. Gooseberry (*Ribes setosum*)
17. Saskatoon (*Amelanchier alnifolia*)
18. Strawberry (*Frageria virginiana*)
19. Choke Cherry (*Prunus virginiana*)
20. Wild Red Raspberry (*Rubus strigosus*)
21. Indian Milk-Vetch (*Astragalus aboriginum*)
22. Loose-Flowered Milk-Vetch (*A. tenellus*)
23. Field Crown Vetch (*Coronilla varia*)
24. Wild Licorice (*Glycyrrhiza lepidota*)
25. White Sweet-Clover (*Melilotus alba*)
- *26. Seneca Snakeroot (*Polygala senega*)
27. Water Hemlock (*Cicuta maculata*)
- *28. Snake Root (*Sanicula marilandica*)
29. Red-Osier Dogwood (*Cornus stolonifera*)
- *30. Bearberry (*Arctostaphylos uva-ursi*)
31. Dwarf Milkweed (*Asclepias ovalifolia*)
32. Northern Bedstraw (*Galium boreal*)
- *33. Tartarian Honeysuckle (*Lonicera tartarica*)
- *34. Buckbrush (*Symphoricarpos occidentalis*)
35. High-Bush Cranberry (*Viburnum trilobum*)
36. Common Yarrow (*Achillea millefolium*)
37. Yarrow (*A. sibirica*)
38. Pussy Toes (*Antennaria aprica*)
39. Tufted Fleabane (*Erigeron caespitosus*)

- 40. Canada Fleabane (*E. canadensis*)
- 41. Wild Daisy (*E. hyssoifolius*)
- 42. Fleabane Daisy (*E. strigosus*)

II. Species with BRIGHT YELLOW flowers

- 43. Lady's Slipper (*Cypripedium calceolus*)
- 44. Bristly Buttercup (*Ranunculus pensylvanicus*)
- 45. Seaside Buttercup (*R. cymbalaria*)
- 46. Tansy Mustard (*Descurainia pinnata*)
- 47. Flixweed (*D. sophia*)
- 48. Silverweed (*Potentilla anserina*)
- 49. Rough Cinquefoil (*P. norvegica*)
- 50. Brook Cinquefoil (*P. rivalis*)
- 51. Yellow Sweet-Clover (*Melilotus alba*)
- 52. Early Yellow Loco-Weed (*Oxytropus sericea*)
- 53. Golden Bean (*Thermopsis rhombifolia*)
- 54. Yellow Clover (*Trifolium aureum*)
- 55. Leafy Spurge (*Euphorbia esula*)
- 56. Wolf Willow (*Elaeagnus commutata*)
- 57. Yellow Evening-Primrose (*Oenothera biennis*)
- 58. Large Sundrops (*O. fruitcosa*)
- 59. Fringed Loosestrife (*Lysimachia ciliata*)
- *60. Twining Honeysuckle (*Lonicera dioica* var. *glaucesens*)
- 61. Hairy Golden-Aster (*Chrysopsis villosa*)
- 62. Narrow-Leaved Hawks-Beard (*Crepis tectorum*)
- 63. Gaillardia (*Gaillardia aristata*)
- 64. Tuberos Rooted Sunflower (*Helianthus nuttallii*)
- 65. Coneflower (*Ratibida columifera*)
- 66. Black-Eyed Susan (*Rudbeckia serotina*)
- 67. Marsh Ragwort (*Senecio congestus*)
- 68. Balsam Groundsel (*S. pauperculus*)
- 69. Goldenrod (*Solidago canadensis*)
- 70. Low Goldenrod (*S. missouriensis*)
- 71. Sow Thistle (*Sonchus arvensis*)
- 72. Tansey (*Tanacetum vulgare*)
- 73. Red-Seeded Dandelion (*Taraxacum laevigatum*)
- 74. Common Dandelion (*T. officinale*)

III. Species with PINK, ORANGE, RED, BLUE, or PURPLE flowers.

- 75. Wood (Prairie) Lily (*Lilium philadelphicum*)
- 76. Blue-Eyed Grass (*Sisyrinchium montanum*)
- 77. Three-Flowered Avens (*Geum triflorum*)
- 78. Wild Rose (*Rosa woodsii*)
- 79. Two-Grooved Milk-Vetch (*Astragalus bisulcatus*)
- 80. Ascending Purple Milk-Vetch (*A. striatus*)

81. Alfalfa (*Medicago sativa*)
82. American Vetch (*Vicia americana*)
83. Wild Flax (*Linum lewisii*)
84. Early Blue Violet (*Viola adunca*)
85. Oblong-Leaved Gentian (*Gentiana affinis*)
86. Bluebur (*Lappula echinata*)
87. Field Mint (*Mentha arvensis*)
88. Wild Bergamot (*Monarda fistulosa*)
89. False Dragonhead (*Physostegia virginiana*)
90. Marsh Skullcap (*Scutellaria galericulata*)
91. Marsh Hedge-Nettle (*Stachys palustris*)
92. Hairbell (*Campanula rotundifolia*)
93. Smooth Aster (*Aster laevis*)
94. Canada Thistle (*Cirsium arvense*)
95. Floodmans Thistle (*C. floodmanii*)
96. Smooth Fleabane (*Erigeron glabellus*)
97. Philadelphia Fleabane (*E. philadelphicus*)
98. Blue Lettuce (*Lactuca pulcherra*)
99. Blazing Star (*Liatris ligulistylis*)
100. Pink Wintergreen (*Pyrola asarifolia*)

IV. Species with GREEN or INCONSPICUOUS flowers or lacking flowers altogether

101. Common Horsetail (*Equisetum arvense*)
102. Scouring Rush (*E. hymale*)
103. Smooth Scouring Rush (*E. laevigatum*)
104. Dwarf Scouring Rush (*E. scirpoides*)
105. Variegated Horsetail (*E. variegatum*)
106. White Spruce (*Picea glauca*)
107. Low Juniper (*Juniperus communis*)
108. Creeping Juniper (*J. horizontalis*)
109. Asparagus (*Asparagus officinalis*)
110. Balsam Poplar (*Populus balsamifera*)
111. Cottonwood (*P. deltoides*)
112. Pussy Willow (*Salix bebbiana*)
113. Diamond Willow (*S. discolor*)
114. Sandbar Willow (*S. interior*)
115. Alder (*Alnus incana*)
116. Black Birch (*Betula occidentalis*)
117. Paper (White) Birch (*B. papyrifera*)
118. Nettle (*Urtica dioica*)
119. Western Dock (*Rumex occidentalis*)
120. Manitoba Maple (*Acer negundo*)
121. Buffalo Berry (*Sheperdia argentea*)
122. Wild Sarsaparilla (*Aralia nudicaulis*)
123. Common Plantain (*Plantago major*)
124. Prairie Sage (*Artemisia ludoviciana*)

Introduction

This book deals with the plant community relationships on Finlayson Island in the North Saskatchewan River at the Battlefords Saskatchewan (52 53' North latitude, 108 9' West longitude). Since vegetation distribution is the result of the total environment it is necessary to understand the environmental limitations which delineate the various plant communities. One is then able to look at a plant community and based upon the species diversity, composition and strata one is able to make some estimations regarding such things as moisture availability, soil type, etc. This can be done because vegetation species and plant communities are closely related to the physical environment, particularly to moisture, temperature and sunlight conditions, and as such, serve as useful indicators of soil conditions and animal communities.

The Saskatchewan River valley passes through an open aspen vegetation zone, where native prairie still exists in the upland areas. Flanking the river valley is a Fescue Prairie (rough fescue), and mixed prairie (spear grass, wheat grass) grassland intermixed with scattered aspen groves. The river banks are a diverse mixture of plant communities due to varied topography, sediments and microclimates and the aspects of the slopes. The drier sites on upper slopes are occupied by blue grama and wheat grass. Areas of shrubs such as snowberry, rose, chokecherry, silverberry, and saskatoon are extensive. The gullies and moist zones are dominated by aspen and balsam poplar. On very dry sites on the north side of the valley some sagebrush can be found.

Finlayson Island lies in the North Saskatchewan River amid braided channels that shift about in alluvial sediments which form terraces and mid channel islands. On such sites the vegetation consists of riparian shrub-forest association. Sandbar willows dominate on exposed bars and low islands. The higher terraces have a tree cover of balsam poplar, cottonwood, and Manitoba maple over dense stands of shrubs including red-osier dogwood, willows, alder, river birch and high bush cranberry.

Area vertebrates are restricted to those species which cohabit with humans such as: white-tailed deer, Richardson ground squirrel, red squirrel, beaver, muskrat, coyote, fox, garter snakes and frogs.

The soil of the island consists primarily of sand silt which varies in elevation 3 to 4 meters above water level across the island with the

highest elevation being near the down stream end. Land elevations vary across the island between ridges which contain some aeolian sand deposits to old abandoned channels which remain wet much of the year. From old maps it is clear that the island existed before the 1885 Rebellion. The oldest tree sampled on the island was a balsam poplar having 90 annual rings at stump level.

The island was surveyed on foot each week from March 30 to August 31, 1991 to collect vascular plant species in bloom. Ecological data on each species collected was recorded in detail. This guide is a comprehensive listing of the dicot and monocot flora with the exception of grasses, sedges and rushes. The study yielded 124 species in 88 genera and 39 families.

The environmental factors which affect the vegetation of the island can be separated into climatic, physiographic and biotic factors. The regional climate determines the dominant plant species in an area. However, within a small area, transitional variations in species are related to microclimate. Although precipitation may be uniform over a given area, topography controls runoff and therefore moisture penetration at a given location. Subtle temperature differences related to changes in elevation and flow of air may cause further changes in species distribution. However, in most instances species distribution is more strongly influenced by moisture and associated features such as shading and atmospheric humidity, than by temperature alone.

Solar radiation does not reach each plant with equal intensity because taller plants shade the lower ones. Aspect or the direction of the slope increases or decreases solar intensity depending upon direction. Radiation also affects evaporation and relative humidity. Consequently there is a variation in species distributions in response to solar radiation.

Plants compete with each other for sunlight, water and nutrients. This results in a natural succession of plants within a community. The climax community is the one that is capable of perpetuation under the prevailing climatic and physiographic conditions. Every plant species has an optimum habitat but may be out-competed in the optimal habitat by other plant species but is never-the-less an indicator of those habitat conditions.

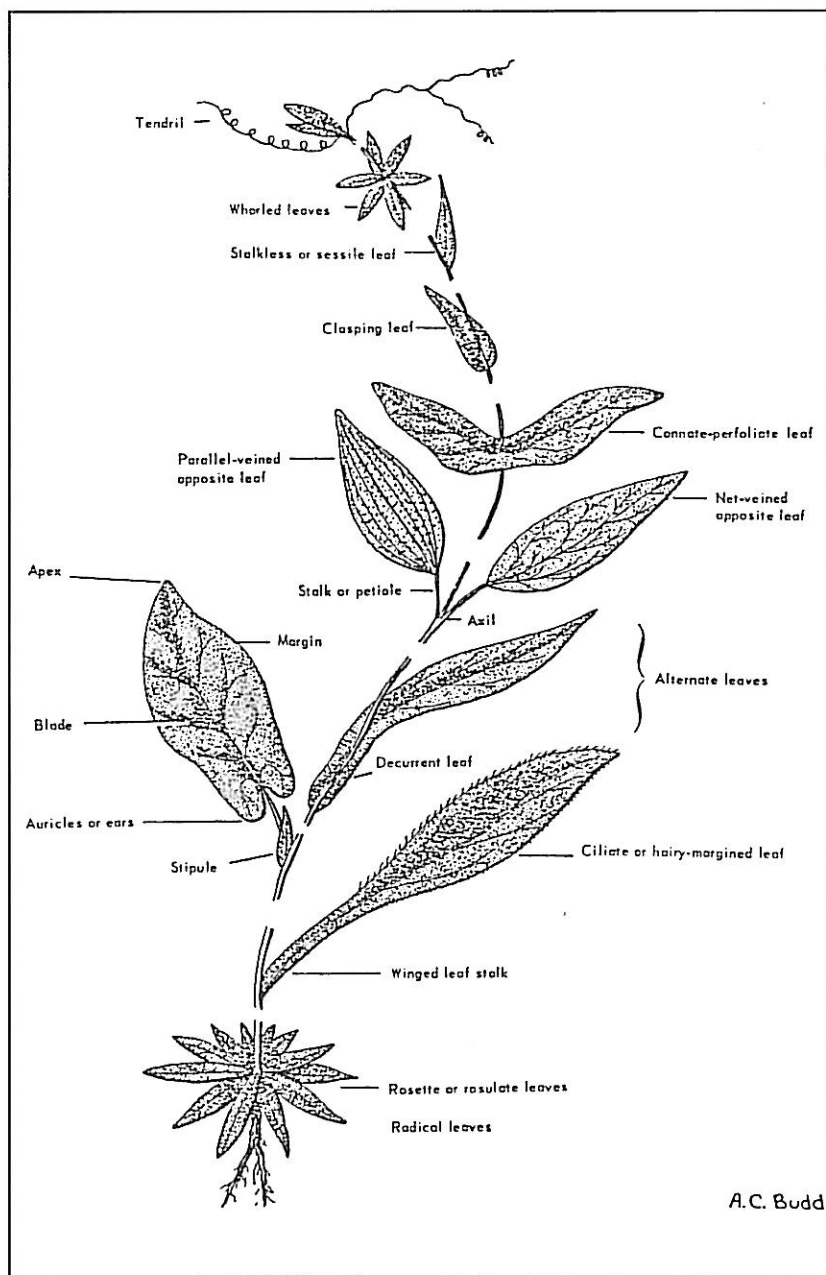
The climate of the area can be generally described as a continental climate with extreme variations in temperature and a low water vapor content in the air. Winter is a much longer season than the other three seasons with five months having temperatures below 0 degrees Celsius. With less than 380 mm. precipitation per year, the Battlefords can be considered part of the semi-arid region.

Vegetation zones have been broken down as follows: Xeric, Dry

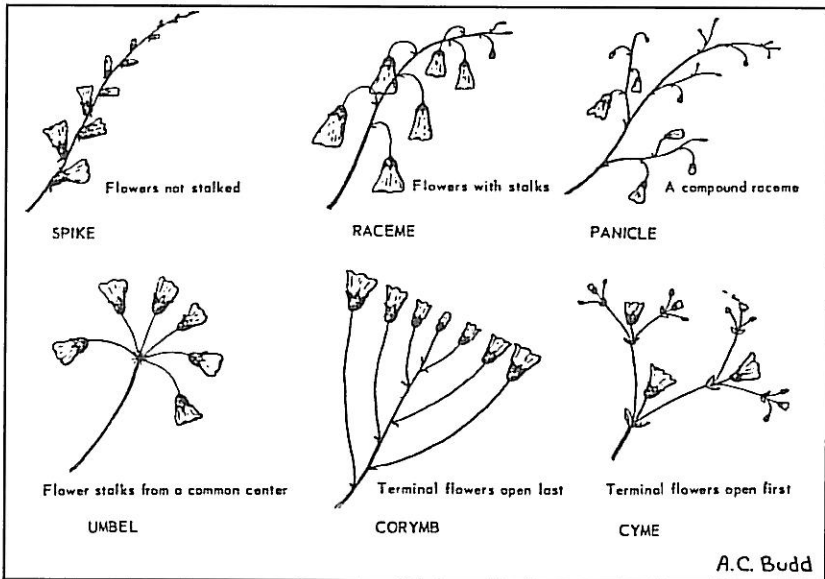
mesic, Mesic, Moist mesic, Hygric. Plants found in the xeric zone have special adaptations which allow them to conserve water. Some of these adaptations are a thick cuticle on the stem and leaves, few stomata which are recessed and covered with hairs to reduce the effect of wind in evaporation. The dry-mesic zone is a transition zone between the xeric and mesic zones. In the mesic zone plants thrive on a moderate supply of water and are known as mesophytes. They possess well developed leaf and root systems and are generally large, thrifty and fast growing compared with xerophytes and hydrophytes. Their leaf area is extensive with a thin epidermis and the stomata is not highly protected. The moist-mesic zone is a transition zone between mesic and hygric. Plants in the hygric zone tend to be hydrophytes which are characterized by the following traits: reduced root systems, finely cut leaves which are very thin, stomata are often absent, plants tend to have soft tissue and some have air passages in the plant tissue.

My hope is that this book will help you become an avid eco-tourist.

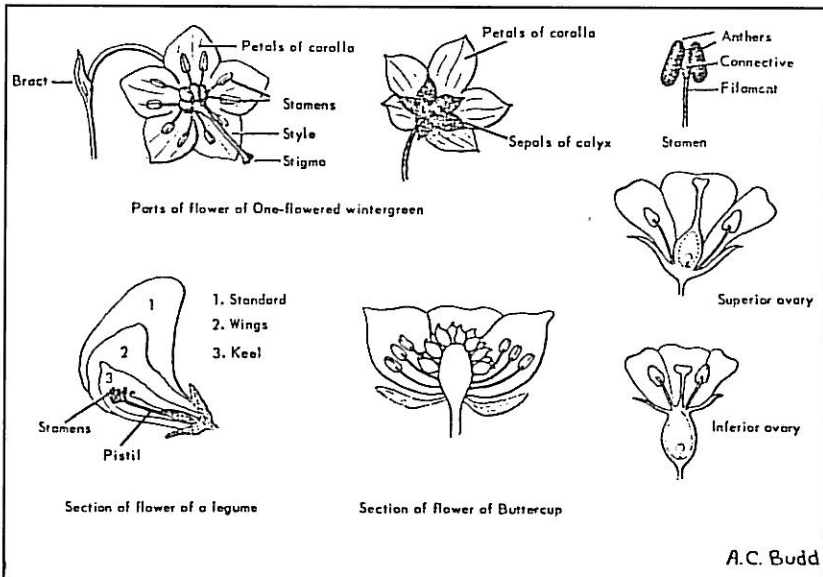
LEAF VARIATIONS



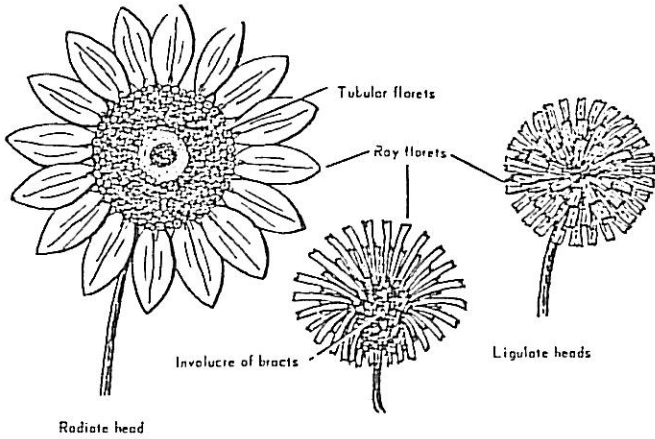
TYPES OF INFLORESCENCE



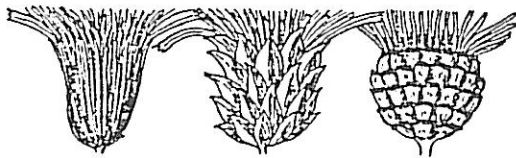
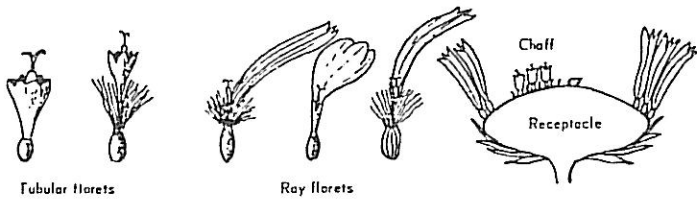
FLOWER PARTS



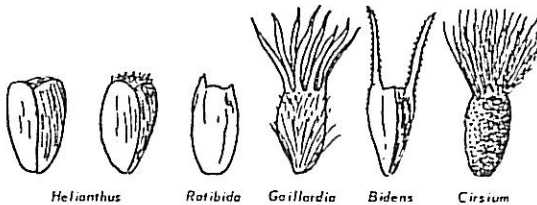
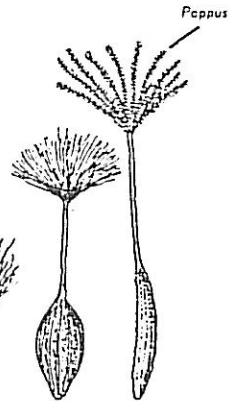
CHARACTERISTICS OF COMPOSITE FLOWERS AND FRUITS



Radiate head



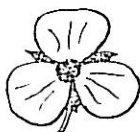
TYPES OF INVOLUCRE



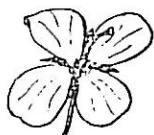
TYPES OF FRUIT

A.C. Budd

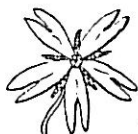
TYPES OF FLOWERS



THREE-PETALED
(Arrowhead)



FOUR-PETALED
(Mustard)



FIVE-PETALED
(Chickweed)



MANY-PETALED
(Purple cactus)



URN-SHAPED
(Bearberry)



CYLINDRICAL
(Gentian)



CAMPANULATE
(Harebell)



FUNNELFORM
(Morning-glory)



SALVER-FORM
(Collomia)



ROTATE
(Wild tomato)



(Bittersweet)



REFLEXED PETALS
(Shootingstar)



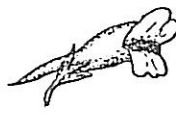
PAPILIONACEOUS
(Vetchling)



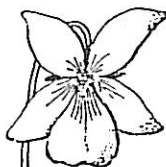
BILABIATE
(Marsh hedge-nettle)



SPURRED
(Monkeyflower)



SPURRED
(Toadflax)



(Violet)



(Low larkspur)



(Leafy spurge)

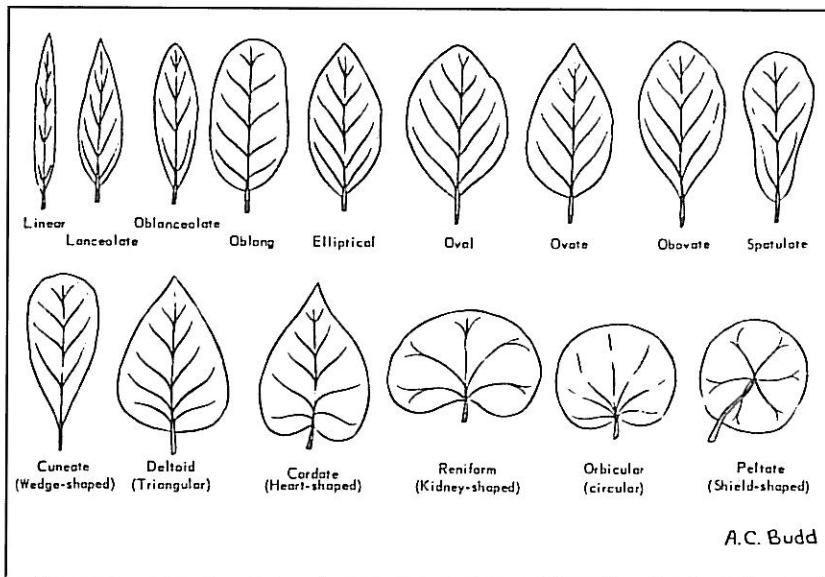


(Lady's-slipper)

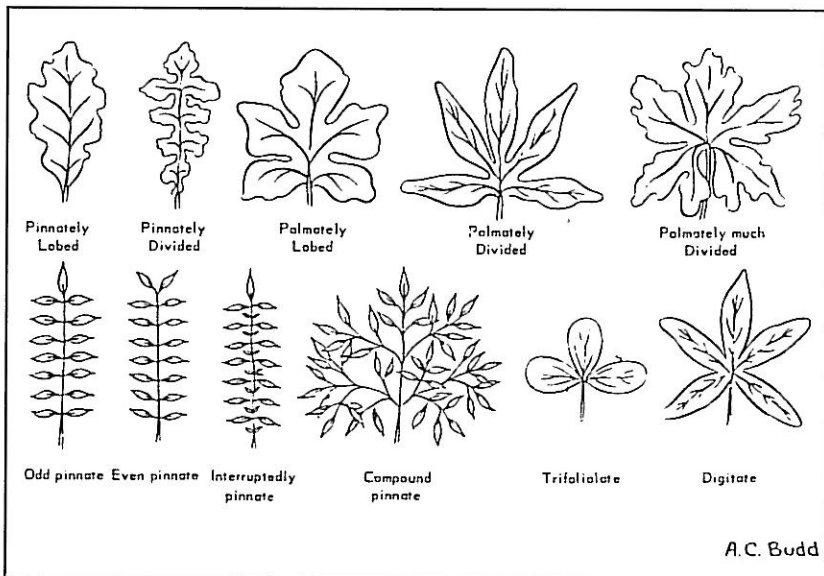
IRREGULAR

A. C. Budd

SHAPES OF SIMPLE LEAVES



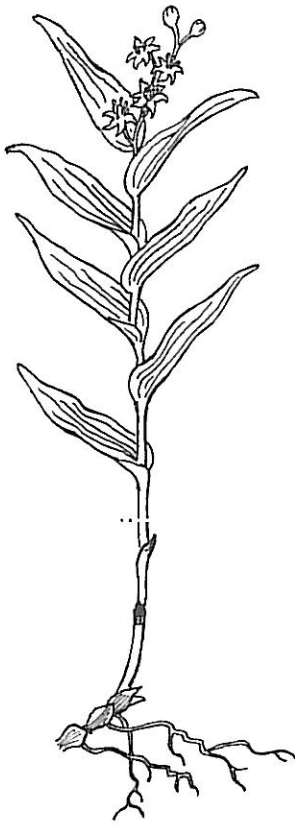
TYPES OF DIVIDED LEAVES



.....

SECTION I

*Species with
White
or
Cream-Coloured
Flowers*



1. Star-flowered Solomons Seal

(*Smilacina stellata*)

Erect, low plant, 15-45 cm. tall. Leaves opposite, folded at base. Flowers small white, in a spike-like raceme on the stem. Very common in moist soil and woods.



2. Camas

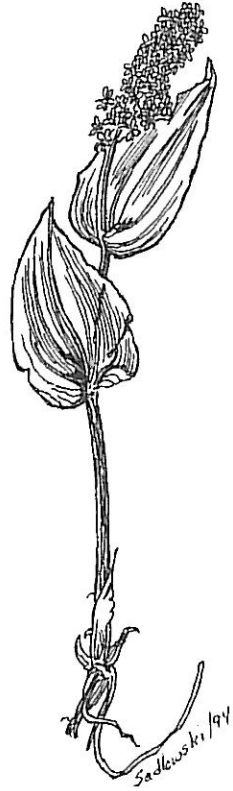
(*Zygadenus elegans*)

Onion-like plants with long, linear grass-like leaves. Flowers greenish yellow or straw colored, about 1 cm. long in racemes or panicles. Grows 30-60 cm. high. Common in moist soil and saline soils.

3. Wild lily-of-the Valley

(*Maianthemum canadense*)

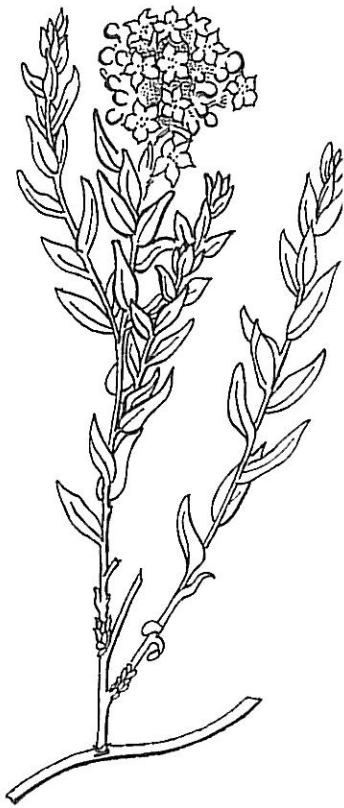
Low erect plant 5-15 cm. tall with 2-3 ovate leaves, cordate based, alternate on the stem. Small white flowers in a dense raceme. Pale red berries, speckled, about 5 mm. in diam. Common in moist, rich woods.



4. Pale Comandra

(*Comandra pallida*)

Erect plant 8-20 cm. high usually in bunches of several plants from some rootstock. Leaves linear or linear-lanceolate 1.5 to 3 cm. long, without stalks, alternately on stems. Flowers small, about 5 mm. greenish white to pinkish at summit of stems. Very common on dry sandy soil.



5. Bastard Toadflax

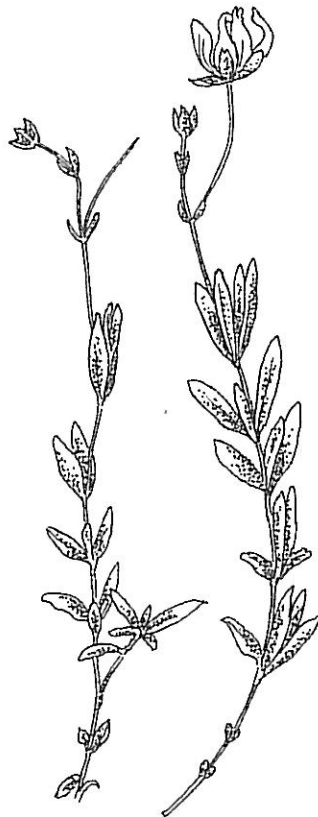
(*Comandra umbellata* var.
pallida)

Plants usually 20-40 cm. tall,
panicle branches long; panicle
more corymbiform with whitish
flowers.

6. Sandwort,

(*Arenaria congesta*)

Erect perennial, to 30 cm. high
with tufted basal leaves, few
stem leaves. Small white flowers
in open clusters at top of stems
with straw colored sepals. Found
on benchland and slopes.



7. Canada Anemone,
(Anemone canadensis)

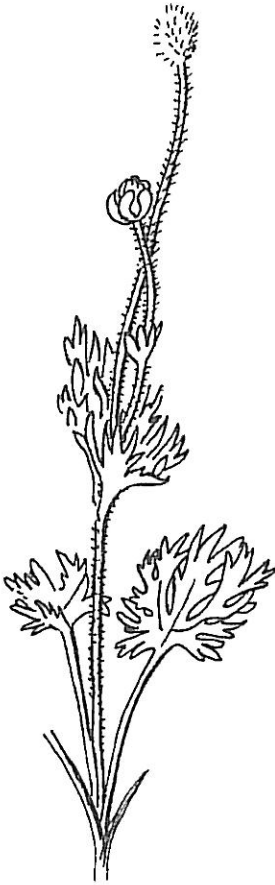
Hairy-stemmed plant to 30 cm. tall, with several 5 to 7 parted basal leaves. Flowering stems divide and fresh stems appear, each with a whorl of involucral leaves and a flower at the end. Flowers white 2-3 cm. across. Fruiting head globular. Common in low moist places & the edge of woods.



8. Long-fruited Anemone,

(Anemone cylindrica)

Long slender stem from 15-50 cm. high, branching at the involucral leaves into 2 to 6 flowering stems. Flowers bear a 5 sepaled greenish white flower about 2 cm. across. Fruiting head long & cylindrical, & woolly common on moist soil.



9. Cut-leaved Anemone,

(Anemone multifida)

Erect plants with several silky haired purplish stems 15-60 cm. tall. 1-7 flowering stalks, one usually having no involucral leaves. Leaves cleft several times into narrow lobes. Flowers vary from reddish purple to white or yellowish green. Has globular woolly fruiting heads common in moist areas.

10. Small Wood Anemone,

(Anemone quinquefolia)

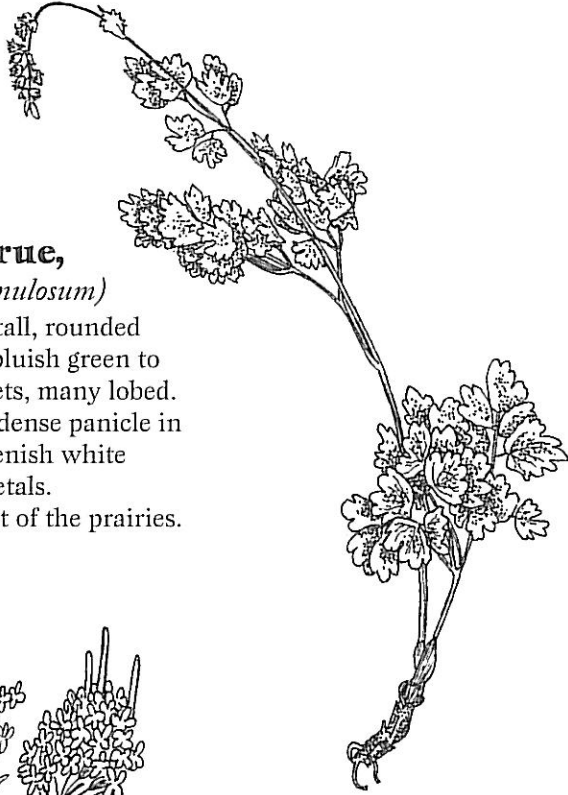
Low plant, 10-20 cm. high. Bears flowers before basal leaves appear. Involucral leaves have stalks. Flowers white, 25 mm. across. Fruiting head not woolly. Frequent in open woods.



11. Meadow-rue,

(*Thalictrum venulosum*)

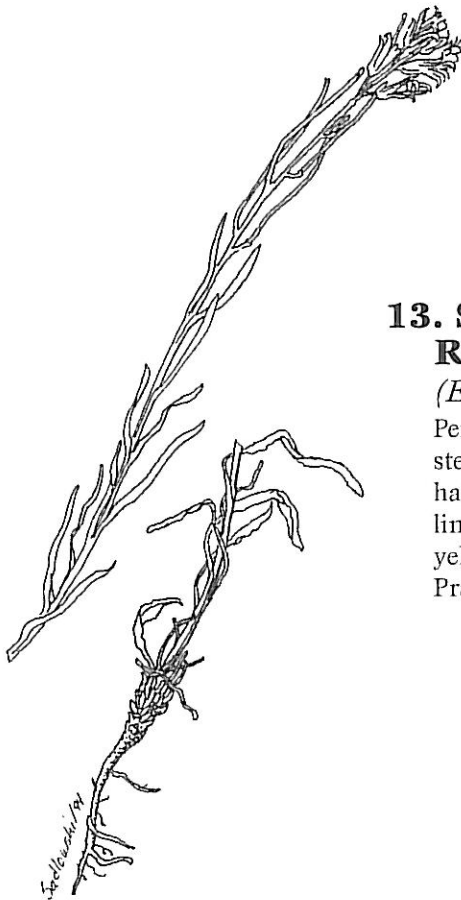
Erect 15-20 cm. tall, rounded strongly veined bluish green to pale yellow leaflets, many lobed. Flowers narrow dense panicle in early spring; greenish white sepals with no petals. Throughout most of the prairies.



12. Tower Mustard,

(*Arabis glabra*)

Tall biennial with erect stems 30-90 cm. tall. Stem smooth above but slightly hairy near base. Basal leaves on short stalks & are 5-10 cm. long and slightly hairy. Stem leaves stalkless with arrow shaped base. Flowers greenish-white or yellowish white and small found in waste places, not plentiful.



13. Small Flowered Rocket,

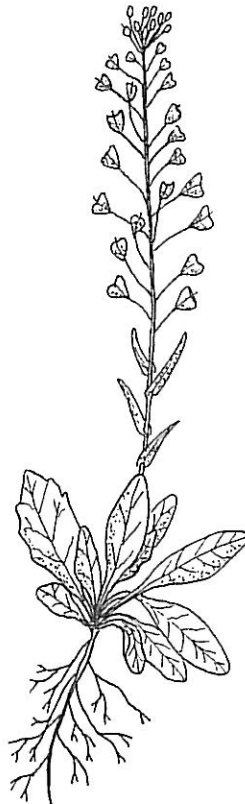
(Erysium inconspicuum)

Perennial, 30-60 cm. tall, stiff stem, simply branched, gray hairy leaves oblanceolate to linear with hairy surface. Pale yellow / cream colored flower. Prairie grassland flower.

14. Shepherds Purse,

(Capsella bursa-pastoris)

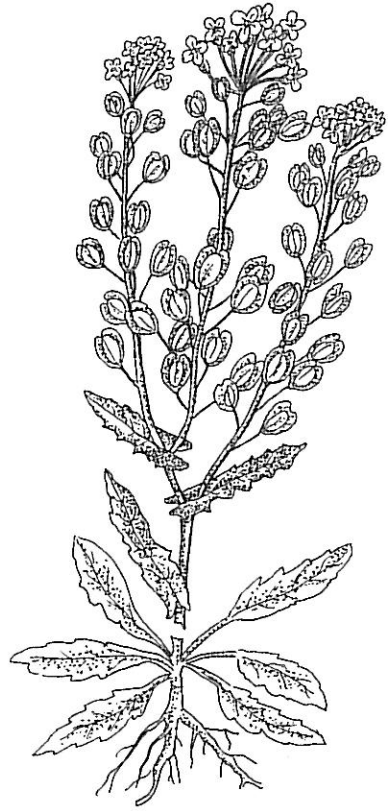
Introduced annual, branched stems 15-50 cm. tall. Basal leaves in a rosette, often deeply cut and lobed. Stem leaves clasping with ears at the base. Flowers in terminal racemes small and white. Seed pods resemble small triangles. Young plants used in salads.



15. Stinkweed,

(*Thlospi arvensis*)

Introduced winter annual, 3-45 cm. tall with hairless stems & smooth leaves. Basal leaves stalked and oblanceolate soon withering and falling off. Stem leaves oblong to lanceolate, eared at base and clasping stem. Flowers small & white in a cluster at the top of the stem. A common weed with an unpleasant odor which if eaten by milk cows taints the milk with a foul taste.



16. Gooseberry,

(*Ribes setosum*)

Low bush, 30-90 cm. high with bristly leaves and lobed leaves up to 4 cm. wide. Flowers white petals with tube of calyx longer than lobes. Berries 10-15 mm. in diameter. Common in low places or moist spots.

17. Saskatoon,

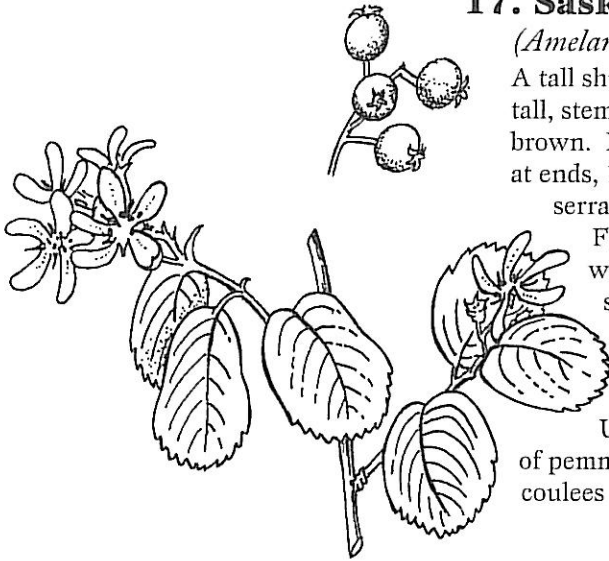
(*Amelanchier alnifolia*)

A tall shrub or small tree 1-4 M tall, stems smooth & chocolate brown. Leaves simple, rounded at ends, 1-5 cm. long with a few serrate teeth at apex.

Flowers white, 10-15 mm. wide in racemes early in spring. Fruit purple, globular 5-10 mm.

across, sweet, used for pies and preserves.

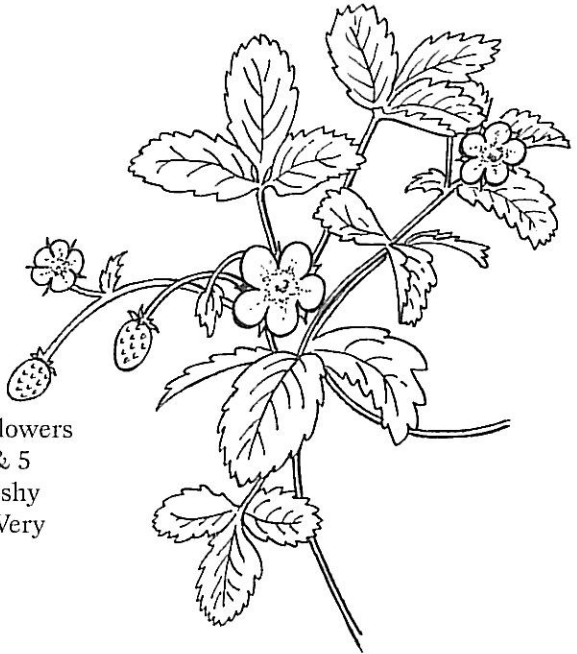
Used by Indians as part of pemmican. Common in coulees & woodlands.



18. Strawberry,

(*Fragaria virginiana*)

Low growing, perennial herb with three-foliolate leaves and running stems which root at tips to produce new plants. Flowers white, 5 petals, 5 sepals, & 5 bracts. Fruit enlarged, fleshy receptacle of the flower. Very juicy and sweet.



19. Choke Cherry

(*Prunus virginiana*)

Shrub 0.5-3 M high, grayish stems, & thin ovate leaves 5-10 cm. long. Flowers white, 5 petals about 15 mm. across in loose racemes. Fruit a red very tart cherry about 1 cm. wide. Common on river banks. Leaves are poisonous.



20. Wild Red Raspberry,

(*Rubus strigosus*)

Large bush tall with brownish bristly stems 1-2 M pinnate leaves with 5 leaflets (Floral branches have 3 leaflets). Leaflets ovate, terminal one 3-lobed, 5-10 cm. long, dark green above & white woolly beneath. Flowers white, 5 petals 10-15 mm. across. Fruit round, light red, about 1 cm. wide, very tasty to eat. Common in shady wooded places.



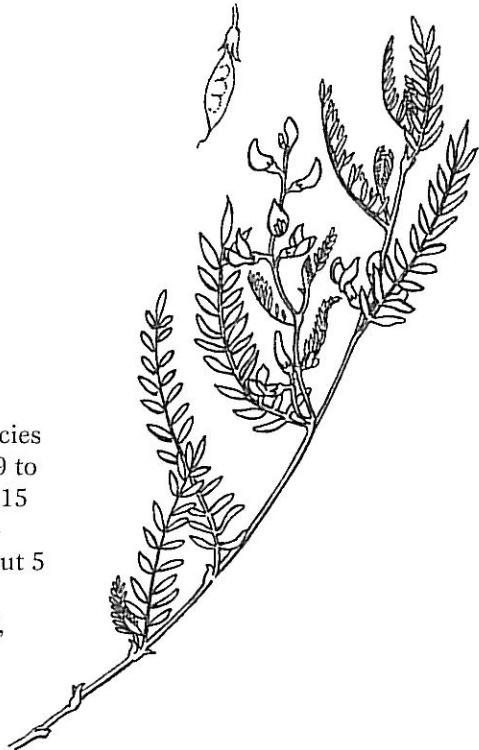
21. Indian Milk-Vetch,
(*Astragalus aboriginum*)

Erect, somewhat branched plant 15-30 cm. tall with fine hairs and 7-13 linear or oblong leaflets 5-10 mm. long. White flowers tinged with violet 10-15 mm. long in a loose raceme on a stem slightly longer than the leaves. Pods not hairy. Not a common plant.

22. Loose-Flowered Milk-Vetch,

(*Astragalus tenellus*)

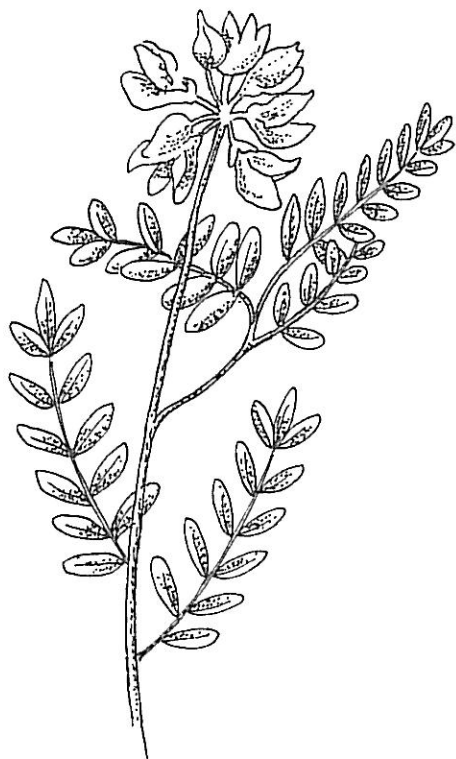
Erect, spreading, slender stemmed much-branched species 25-45 cm. tall with leaves of 9 to 23 linear or oblong leaflets 5-15 mm. long. Flowers yellowish-white or greenish-white. About 5 mm. long in loose spike like racemes. Pods papery, oblong, about 10 mm. long. Fairly common on prairie.



23. Field Crown Vetch,

(*Coronilla varia*)

Perennial plants with stems 20-100 cm. tall. Leaves with 6 to 10 pairs of oblong or elliptic leaflets 5-20 mm. Flowers long white to purplish. An introduced species.



24. Wild Licorice,

(*Glycyrrhiza lepidota*)

Course erect plant, branching, 30-90 cm. tall with thick sweet-tasting roots with mild licorice flavor. Leaves of 11 to 19 lanceolate or oblong leaflets, pale green, and glandular dotted, 2-4 cm. long, pointed at both ends. Flowers yellowish white, about 15 mm. long in dense racemes 25-50 mm. long, from the leaf axils. Pods reddish-brown and covered with long hooked prickles. Found in low spots on the prairie, river margins etc.



25. White Sweet-Clover,

(*Melilotus alba*)

Erect plant 5-2 M tall, with palmately or pinnately trifoliate leaves, leaflets 7-25 mm. long toothed almost to base. Flowers white, 5 mm. long in long narrow spike-like raceme. Introduced from Europe and Asia as forage.

26. Seneca Snakeroot,

(*Polygala senega*)

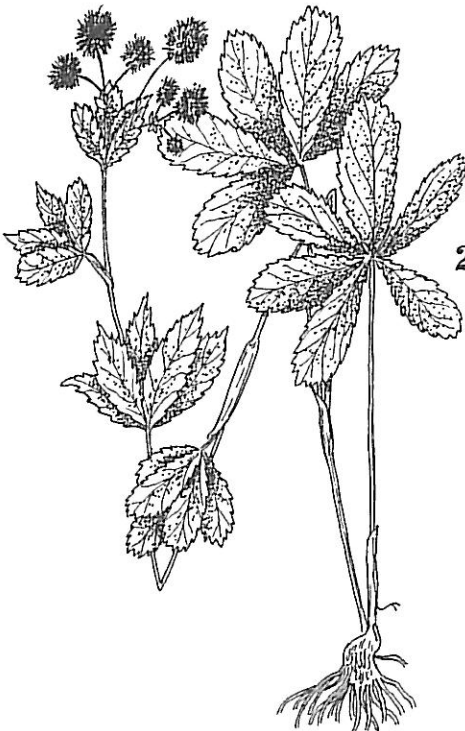
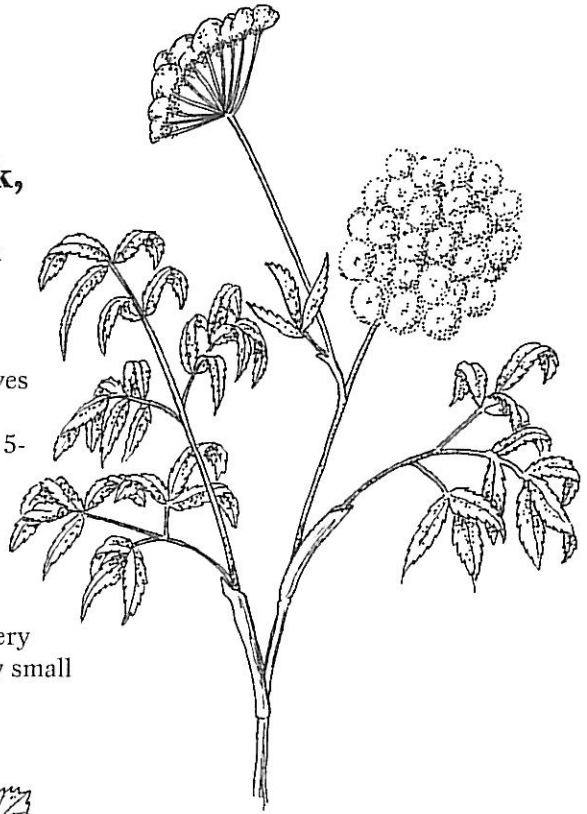
Erect plant, multi stem, 10-50 cm. high. Numerous leaves on stems, lanceolate, 2-5 cm. long. Flowers greenish white, in terminal spike-like racemes, 2-6 cm. long. Common around edges of bluffs. Indians used roots for medical purposes.



27. Water Hemlock,

(*Cicuta maculata*)

Stout stemmed plant from bulbous root which is divided horizontally into chambers, 30 cm.-2 M tall, much branched. Leaves 2-3 times pinnate with narrow lanceolate leaflets 5-20 cm. long and sharply toothed. Flowers small, white, in compound umbels 2.5-10 cm. across. Common in marshes, swamps and wet areas. Very POISONOUS even in very small doses.



28. Snake Root,

(*Sanicula marilandica*)

Erect plant, 30 cm.-1 M tall, long stalked basal flower, stalkless upper leaves. Leaves of 5 or 7 palmately arranged leaflets, oblanceolate, sharply toothed 4-13 cm. long. Flowers greenish white in compound umbels of several globular umbellets each 5-15 mm. in diameter common in rich, moist woods.



29. Red-Osier Dogwood,

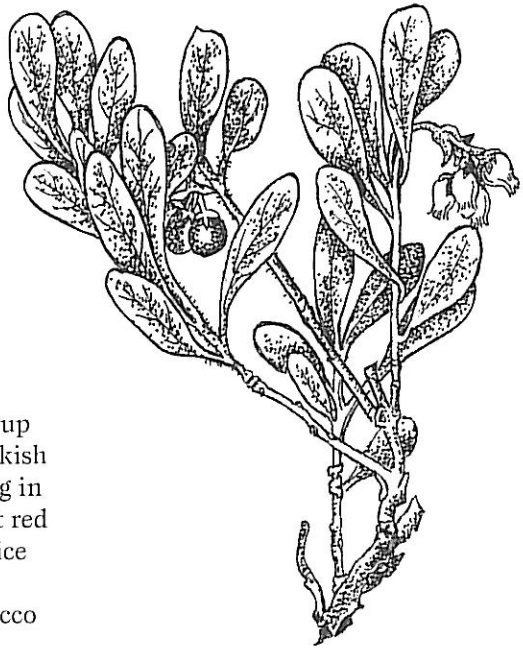
(*Cornus stolonifera*)

Shrub, reddish twigs, leaves opposite ovate, rounded base and pointed apex, 2-8 cm. long, Paler beneath with few short hairs. Small white flowers in flat topped clusters 2-5 cm. across. Plants flower in early June & produce white globular fruit about 5 mm. in diameter. Common in Woodlands and coulees. Very conspicuous in winter.

30. Bearberry,

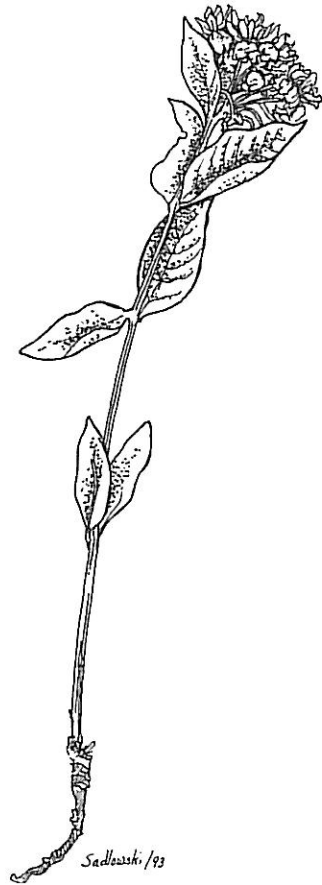
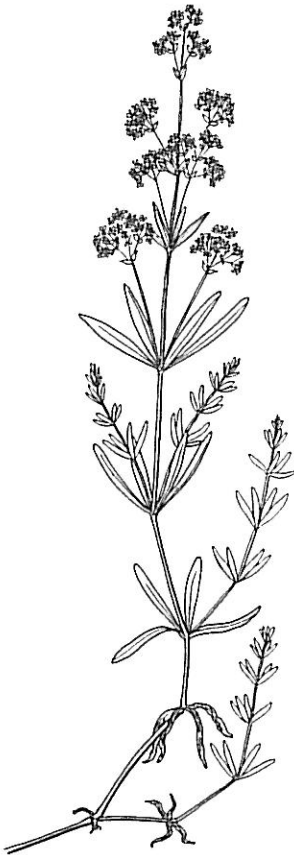
(*Arctostaphylos uva-ursi*)

A prostrate trailing shrub forming large mats on the ground. Leaves spatulate, evergreen, shiny dark green, up to 25 mm. long. Flowers pinkish white, urn shaped 5 mm. long in short racemes. Fruit a bright red berry. Berry is a food of choice for bears. The leaves called knik-a-nik were used as tobacco by the Indians.



31. Dwarf Milkweed,
(*Asclepias ovalifolia*)

Short species 30-60 cm. tall with ovate to lanceolate leaves tapering to the base, 5-8 cm. long. Flowers greenish-white on long stalks in umbels. Found occasionally on moist prairie.



32. Northern Bedstraw,
(*Galium boreale*)

Erect perennial, 2-5 cm. tall. Has thin brown rootstock and a square stems. Leaves in whorls of 4, linear to lanceolate, 3 ribbed, 2-6 cm. long. Flowers in a terminal leafy panicle, fairly dense, white, about 3 mm. wide, with 4 corolla lobes & fairly fragrant. Common in woodland clearings, and moist places on prairies.



33. Tartarian Honeysuckle,

(*Lonicera tartarica*)

1-3 M tall shrub with thin ovate, somewhat cordate-based leaves, 2-8 cm. long. Pink or white flowers, about 15 mm. long in pairs, numerous. Fruit an orange or yellow berry. An introduced species which has become established in the wild.

34. Buckbrush,

(*Symphoricarpos occidentalis*)

Also called snowberry. A shrub 50-100 cm. tall from creeping roots. Leaves oval, ovate, almost round, slightly hairy beneath, 2-6 cm. long. Flowers pink and white, in dense terminal and axillary spikes. Fruits snow white waxy berries often in large numbers. One of the most common shrubs on prairies.



35. High-Bush Cranberry,

(*Viburnum trilobum*)

Shrub 1-4 M tall, with smooth branches. Broad, palmately veined, 3-lobed leaves 5-10 cm. across. Outer flowers in clusters 10-15 mm. across, with 5 large petals, inner flowers smaller, creamy white and perfect. Fruit a red berry about 1 cm. wide, very acid. Common in woodlands.



36. Common Yarrow, (*Achillea millefolium*)

Aromatic herb, with horizontal rootstocks; stems 30-70 cm. tall, sparsely to densely woolly-villose; leaves alternate on the stem, also in basal tufts; 2 or 3 times pinnately dissected into very narrow segments, pointed. Numerous densely clustered rounded or flattish-topped flower heads, white, 2-3 mm. long, disk-flowers 10-30. Native of Eurasia.



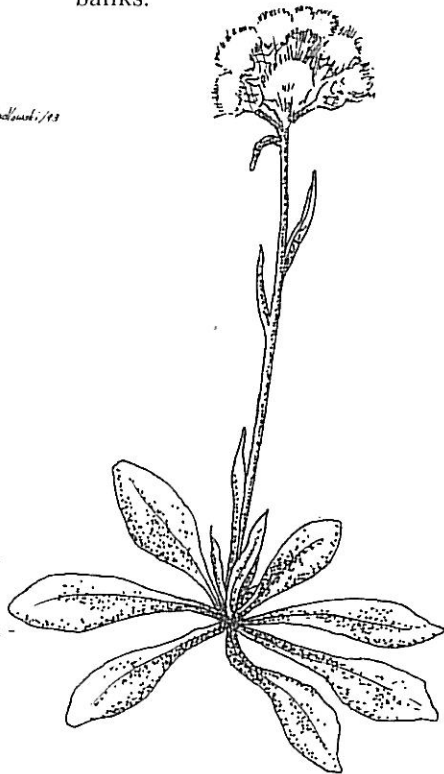
37. Yarrow,
(*Achillea sibirica*)

Stem 50-80 cm. tall from slender rootstock, sparsely villose to glabrate. Leaves sessile or nearly so, linear or linear-lanceolate, 5-10 cm. long, acuminate, pectinately pinnatifid or incised, the divisions sharply toothed, villose or glabrate; heads several or many in a crowded cluster 4-7 mm. wide, flowers white, disc flowers 25-30. In moist woods and stream banks.

Sachau, 1911

38. Pussy Toes,
(*Antenaria aprica*)

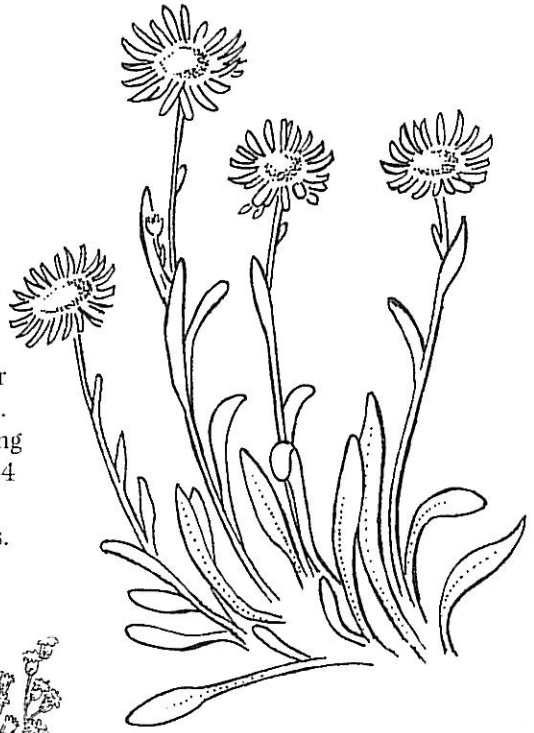
A low mat-forming perennial usually less than 15 cm. tall. Spatulate or wedge-shaped rosette leaves 1-2 cm. long, densely whitish woolly on both sides, 5-7 linear stem leaves about 1 cm. long. White flower heads occasionally with a faint pinkish tinge, in compact, short-stalked clusters on a stem 5-15 cm. tall. Common on dry prairies.



39. Tufted Fleabane,

(*Erigeron caespitosus*)

A deep rooted tufted perennial 10-20 cm. tall. Leaves finely hairy, with lower ones spatulate, stalked, 2-8 cm. long, upper ones smaller, oblong and stalkless. Flower heads 1-4 on a stem, 2-3 cm. across with many narrow white ray florets. Common on dry prairie.



40. Canada Fleabane,

(*Erigeron canadensis*)

A slender bristly hairy-stemmed annual 10-100 cm. high, usually with many branches near the top. All leaves hairy, lower ones spatulate, short stalked, 2-10 cm. long and slightly toothed, upper ones linear, entire, stalkless and smaller. Flower heads numerous in large open panicle, small not over 5 mm. across; florets numerous and white, hidden in the pappus. Common native weed on dry soils.



41. Wild Daisy,

(*Erigeron hyssopifolius*)

A perennial with extensive fibrous roots, stems 15-35 cm. tall. Leaves thin, lax; lower leaves linear, reduced, scale-like, higher leaves 3 cm. long, often with axillary leafy shoots. Heads solitary on long stems, ligules 4-8 mm. long, white to rose purple. Rare in parklands in open woods.

42. Fleabane Daisy,

(*Erigeron strigosus*)

Annual or rarely biennial, stems 30-70 cm. tall covered with fine hairs. Few leaves; basal leaves mostly oblanceolate to elliptic, tapering to the petioles, entire or toothed; cauline leaves few, linear to lanceolate. Flower heads several in an open rather flat-topped cluster, rays 6 mm. long, white or sometimes pink or blue. A roadside weed.



SECTION II

Species with Bright Yellow Flowers

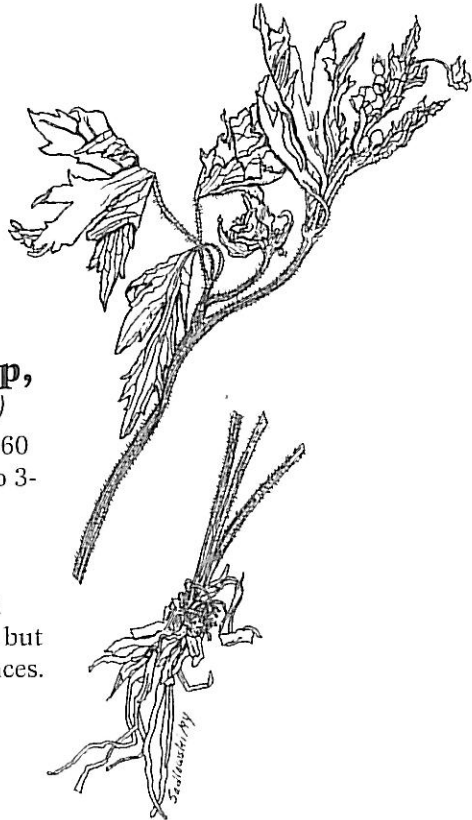


43. Lady's Slipper

(Cypripedium calceolus)

A member of the orchid family. A handsome plant 20-45 cm. tall having yellow flowers with purple spots and streaks. About 4 cm. long. Found in moist locations. Has become a very rare plant.

(DO NOT PICK)



44. Bristly Buttercup,

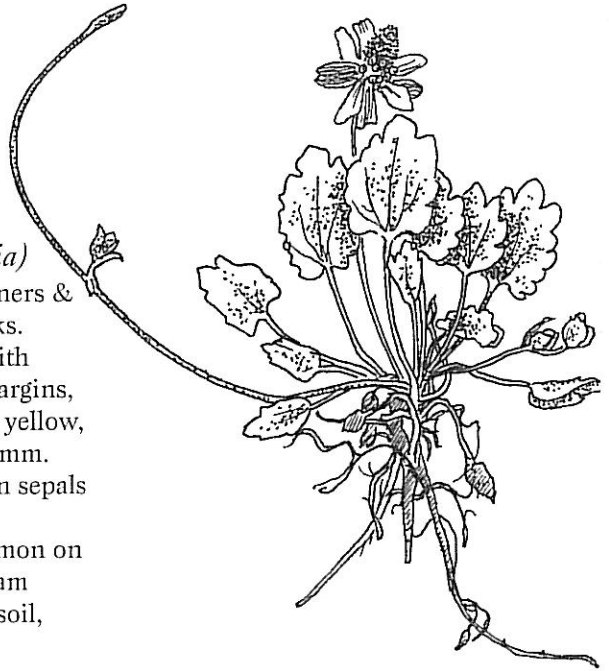
(Ranunculus pensylvanicus)

Erect, annual, very hairy, 30-60 cm. high. Leaves divided into 3-stalked segments which are again divided into 3 lobes. Yellow flowers 10-15 mm. across. Petals not longer than reflexed sepals. Not common but found occasionally in wet places.

**45. Sea Side
Buttercup,**

(Ranunculus cymbalaria)

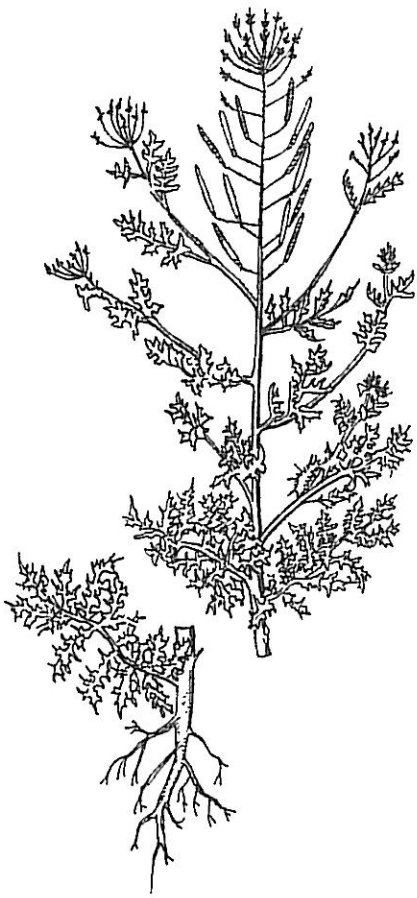
Low perennial with runners & basal leaves on thin stalks. Small leaves, rounded with cordate bases & wavy margins, 5-15 mm. long. Flowers yellow, small conical center 5-8 mm. wide. Petals shorter than sepals achenes numerous with longitudinal grooves common on slough margins and stream banks. Tolerates saline soil, common on prairies.



46. Tansy Mustard,

(Descuriana pinnata)

Annual, erect plant 10-60 cm. tall. Stems hairy and glandular. Leaves dark green, upper ones pinnate, lower ones often divides 2 or 3 times and glandular. Flowers yellow.



47. Flixweed,

(Descuriana sophia)

Annual or biennial, branched, with all leaves 2 or 3 times divided, having some star-like hairs. Flowers yellow. An introduced weed.

48. Silverweed,

(Potentilla anserina)

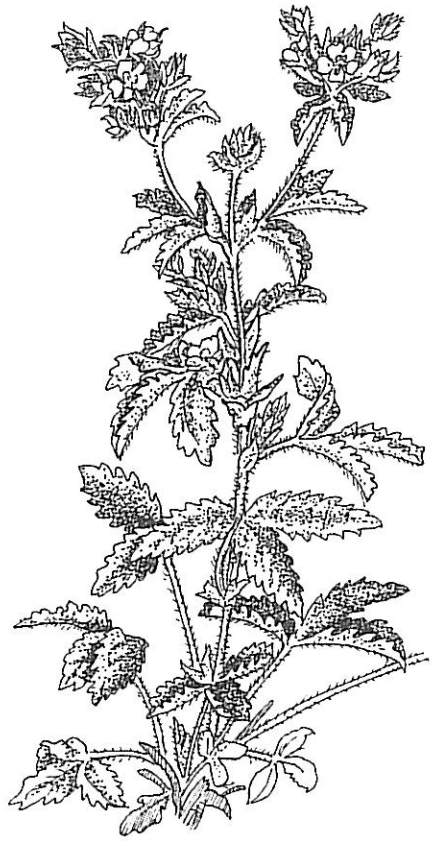
Low tufted perennial, spread by runners. Leaves pinnate, 8-45 cm. long with 7-5 leaflets often with smaller interspersed leaflets, green above & silky white woolly beneath. Flowers bright yellow, 5 petals, 2-3 cm. wide borne singly on a long stalk, blooming from spring to fall. Very common in low, wet places.



49. Rough Cinquefoil,

(*Potentilla norvegica*)

Very coarse, hairy annual or biannual. Branched stems, 15-60 cm. high. Leaves in 3 sections with leaflets 2-10 cm. long obovate or elliptic and much toothed. Flowers many, 5 petals, yellow, in dense cyme, 5-15 mm. across, sepals slightly longer than the petals. A very common plant in moist meadows and a bad weed in gardens.



50. Brook Cinquefoil,

(*Potentilla rivalis*)

Erect annual or biannual, branching above with finely haired, sometimes sticky stems 10-45 cm. high. Lower leaves have 5, obovate, coarsely toothed leaflets 2-5 cm. long. Upper stems have 3 leaflets. Flowers yellow, 5 petals, less than 5 mm. across petals, shorter than sepals. Found occasionally in river valleys.



51. Yellow Sweet-Clover,

(*Melilotus officinalis*)

Similar to White Sweet-Clover leaflets narrower and flowers yellow. Introduced as forage crop

51. see #25 for discription of Yellow Sweet Clover (similar, introduced as forage crop)

52. Early Yellow Loocweed,

(*Oxytropus sericea*)

Low growing with leaves of 7-21 oval leaflets 5-15 mm. long.

Flowers yellow, 15-20 mm. long.

Pods oblong, 20 mm. long and short-hairy usually with some black hairs among the white.

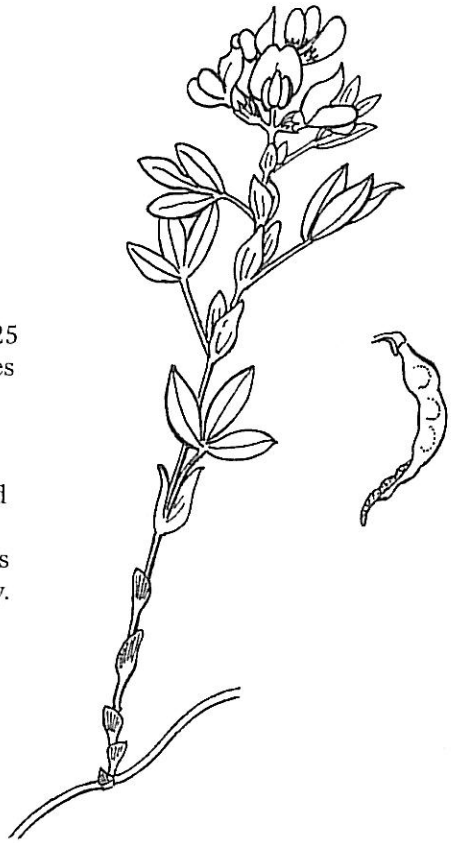
Blooms in May, common in dry areas. Very dangerous to livestock.



53. Golden Bean,

(*Thermopsis rhombifolia*)

Erect, branched perennial, 15-25 cm. tall. Usually in large patches from rootstalks. Leaves of 3 obovate leaflets 2-3 cm. long with flat silky grey hairs. Stipules at junction of stem and leaf stalk. Flowers yellow 1-2 cm. long in dense racemes. Pods 4-6 cm. long, curved, grey-hairy. Early blooming, and very beautiful. Common in sandy areas and prairies. Seeds may cause severe sickness in children.



54. Yellow Clover,

(*Trifolium aureum*)

Biennial or annual plants, erect, branched stems 15-30 cm. tall. Leaflets to 15 mm. long, oblong-lanceolate. Flowers yellow, 5 mm. long. Introduced for cultivation.



55. Leafy Spurge,

(*Euphorbia esula*)

Erect, bluish-green perennial, 15-60 cm. tall. Few linear or oblong stem leaves. Below the flowers is a whorl of narrow leaves. Inflorescence umbel-like, flowers in pairs on leaf-like bracts. Capsules burst and expel seeds considerable distances. A very bad weed, difficult to eradicate. Introduced from Europe and Asia.

56. Wolf Willow,

(*Elaeagnus commutata*)

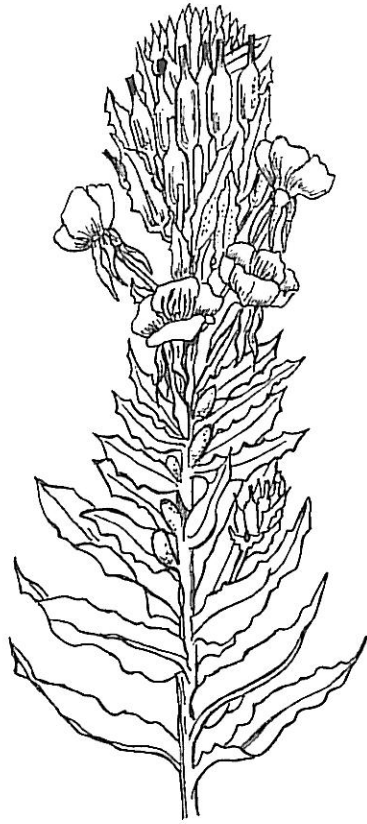
Shrub, 4-5 M high. Twigs are brown and scruffy. Leaves alternate and silvery, scruffy on both sides, oblong to elliptic 2-10 cm. long. Flowers, yellowish fragrant in clusters of 2 or 3 in axils of leaves. Fruit silver oval drupe with a large stone seed. Very common on sandy soil in high moisture areas.



57. Yellow Evening-Primrose

(*Oenothera biennis*)

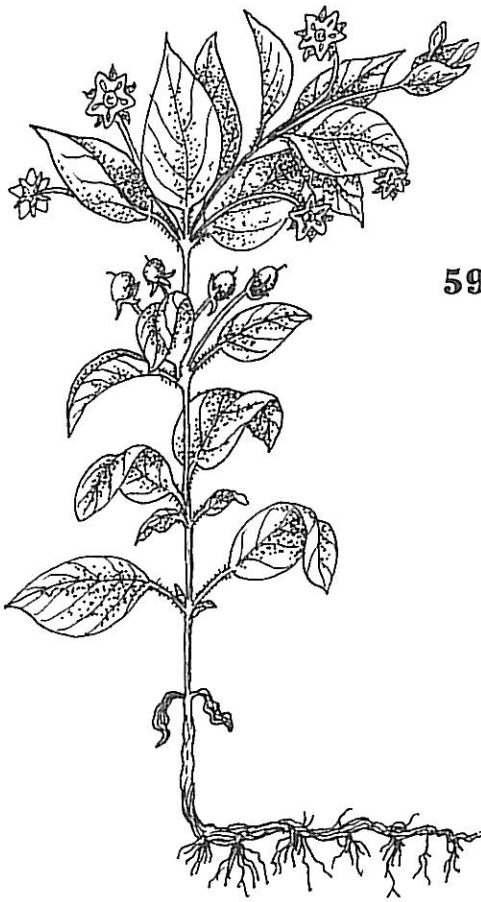
Erect biennial from a taproot, 30 cm.-2 M tall. Leaves lanceolate or ovate - lanceolate, 2.5-15 cm. long. Lower leaves on short stalks, upper leaves stalkless. Yellow flowers 2-5 cm. wide opening in evening in a leafy terminal spike. An introduced weed.



58. Large Sundrops,

(*Oenothera fruticosa*)

Stems spreading or erect, pubescent 30-60 cm. tall. Stem leaves to 7 cm. long, linear to lanceolate. Flowers 2-5 cm. long. Rare, Introduced from the east.



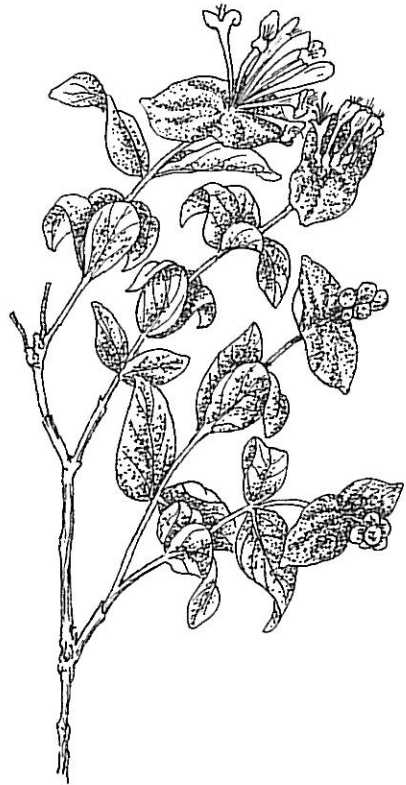
**59. Fringed
Loosestrife,**
(Lysimachia ciliata)

Erect plant 30 cm.-1 M tall.
Leaves opposite, 5-15 cm. long,
pale green, round at base,
pointed at apex on short stalks
with a row of hairs on one side
of stalk. Flowers 2-3 cm. wide.
Yellow, 5 petals in 2's or 3's in
upper leaf axils. Common in
woodlands.

**60. Twining
Honeysuckle,**

(Lonicera dioica var. glaucescens)

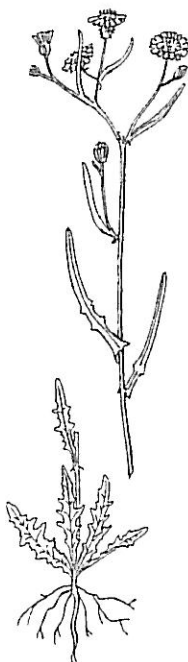
A more or less twining shrub with
light colored shredded bark. Leaves
obovate or oval, all opposite, often
joined at the base and perfoliate
especially the upper ones, 5-8 cm.
long, pale often hairy below,
particularly on the veins. Flowers
yellow, in a terminal cluster, later
turning reddish, 20-25 mm. long.
Fruits in clusters of red berries.
Common in woodlands.



61. Hairy Golden-Aster,

(*Chrysopsis villosa*)

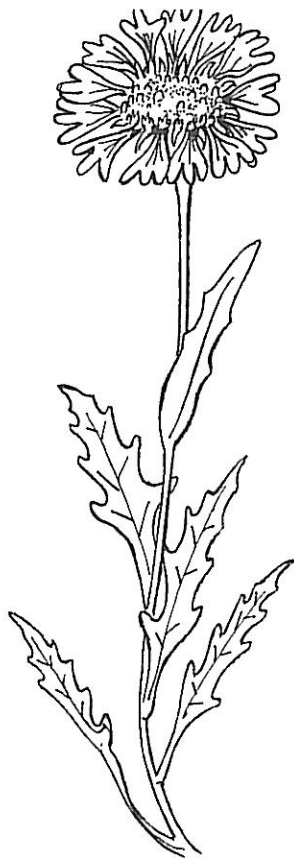
A much-branched species 15-60 cm. tall, from a woody, branching taproot. Stems covered with coarse stiff hairs. Many gray-green oblong or oblanceolate, alternate, 2-5 cm. long, covered with short stiff flattened hairs; lower leaves occasionally with a short stalk; the upper ones usually stalkless. Few flower heads, radiate, with bright yellow ray florets, 25 mm. or more wide. Common on dry sandy prairies.



62. Narrow-leaved Hawks-beard,

(*Crepis tectorum*)

An introduced annual with a slender, branched leafy stem 10-50 cm. tall. Stem leaves linear and stalkless; basal leaves 10-15 cm. long, usually with backward pointed teeth. Many small yellow flowers 10-15 mm. across. A plentiful weed on light soils.



63. Gaillardia,

(*Gaillardia aristata*)

An erect perennial 20-60 cm. tall, with a somewhat hairy stem. Lower leaves oblong to spatulate, sometimes lobed or pinnatifid, grayish hairy, 5-12 cm. long, tapering to a stalk; upper leaves stalkless, smaller and usually entire or slightly lobed. Flower heads terminal, 3-7 cm. wide, radiate with a rounded purple disk, Ray florets 10-18, wedge shaped, with 3 short triangular lobes at apex, yellow but often with purplish tinge at the base, Common on dry prairie.

64. Tuberos Rooted Sunflower,

(*Helianthus nuttallii*)

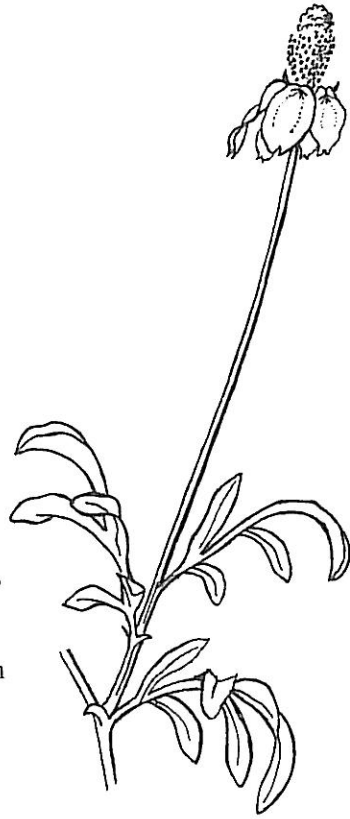
A perennial with creeping rootstock, 1-3 M tall. Leaves lanceolate, stalkless or very short-stalked, 5-15 cm. long, narrow and very rough on both sides. Flower heads on long stalks 35-65 mm. wide with a yellowish disk. Common in moist soils.



65. Coneflower,

(*Ratibida columifera*)

A perennial from a taproot, 30-70 cm. tall, usually branched near the base. Stems stiff and hairy with longitudinal grooves and angles. Leaves 5-10 cm. long, very deeply pinnately divided into narrow segments. Flower receptacle gray to purple, 6 mm. wide, 10-35 mm. high. Ray florets yellow 15-25 mm. long, usually reflexed. Common on dry prairie.



66. Black-eyed Susan,

(*Rudbeckia serotina*)

A perennial herb, 30-100 cm. tall, somewhat roughly hairy, stems simple or sparingly branched, hirsute, often purplish, lower leaves long peteole, oblanceolate to oblong-lanceolate, entire or somewhat toothed, the others mostly linear-lanceolate; Leaf surfaces hairy, the hairs with green bulbous bases. Flower heads radiate, showy, terminal, rays orange-yellow, mostly 2-4 cm. long, disc 1-2 cm. wide, generally brown or deep purple. Moist meadows.



67. Marsh Ragwort,

(*Senecio congestus*)

A coarse hollow-stemmed annual 15-60 cm. tall with fleshy stem, somewhat cobwebby when young but hairless when mature. Lower leaves lanceolate to spatulate, 5-15 cm. long with wavy margins and winged stalks; upper leaves smaller, stalkless, slightly toothed, linear-lanceolate and clasping the stem. Flower heads in a crowded terminal cluster, pale yellow, 1-2 cm. across. Common along water margins.

68. Balsam Groundsel,

(*Senecio pauperculus*)

A slender-stemmed perennial with a woolly-based stem 20-40 cm. tall. Stem leaves smaller not stalked and toothed. Leaf blades hairless and thin. Few flower heads yellow, in a loose cluster on thin stalks at the head of the stem, 10-15 mm. wide. Wet meadows.

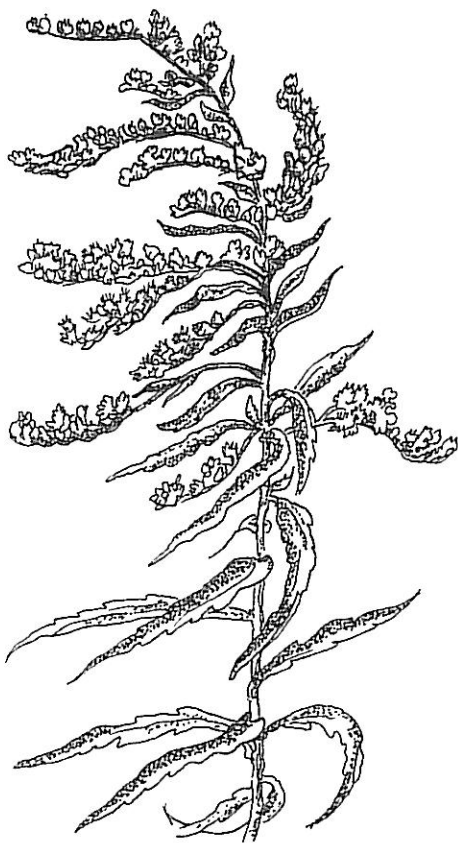
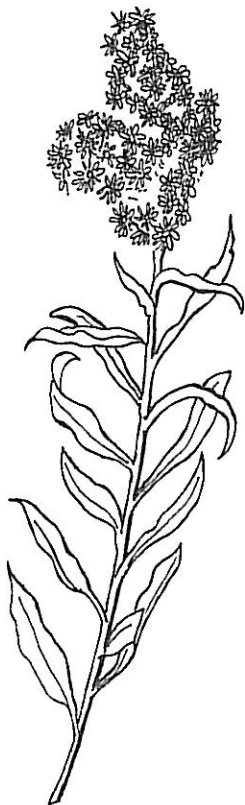


Sad. 1920/1/23

69. Goldenrod,

(*Solidago canadensis*)

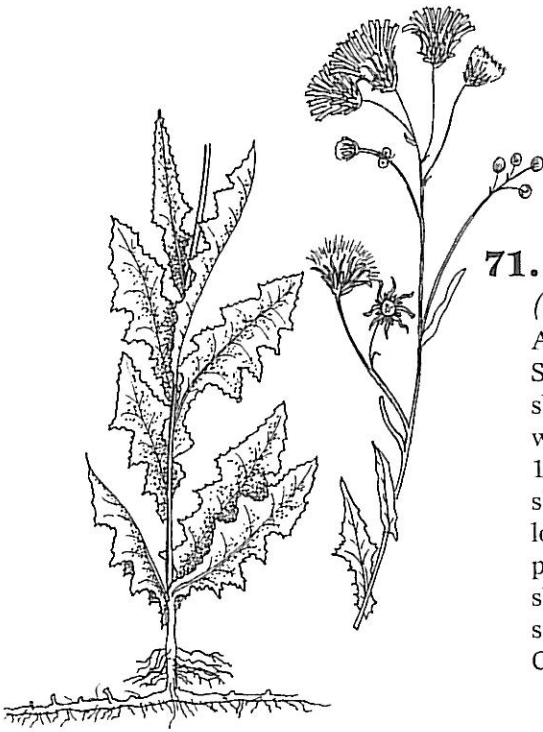
A slender stemmed leafy plant from a horizontal rootstock, 30-80 cm. tall. Leaves narrowly lanceolate, 3-veined, 5-10 cm. long, with fine teeth, slightly hairy underneath along the veins. Flowers in a broad pyramid-like panicle, small heads on one side of spreading branches. Common in moist woods.



70. Low Goldenrod,

(*Solidago missouriensis*)

A low smooth-stemmed species, 15-50 cm. tall. Stems hairless, often tufted, usually somewhat reddish. Leaves 3-ribbed, linear-lanceolate, 2-10 cm. long, often reddish and hairless except for erect branches. Common on dry prairies.



71. Sow Thistle,

(*Sonchus arvensis*)

A weedy plant 50-150 cm. tall. Stems usually hollow and slightly branched. Lower leaves with backward pointing lobes, 10-25 cm. long, narrowed to short stalk. Upper leaves less lobed, no stalk, teeth spiny-pointed. Flowers numerous, showy, bright yellow, on bristly stalks in a corymbose panicle. Common in moist places.

72. Tansey,

(*Tanacetum vulgare*)

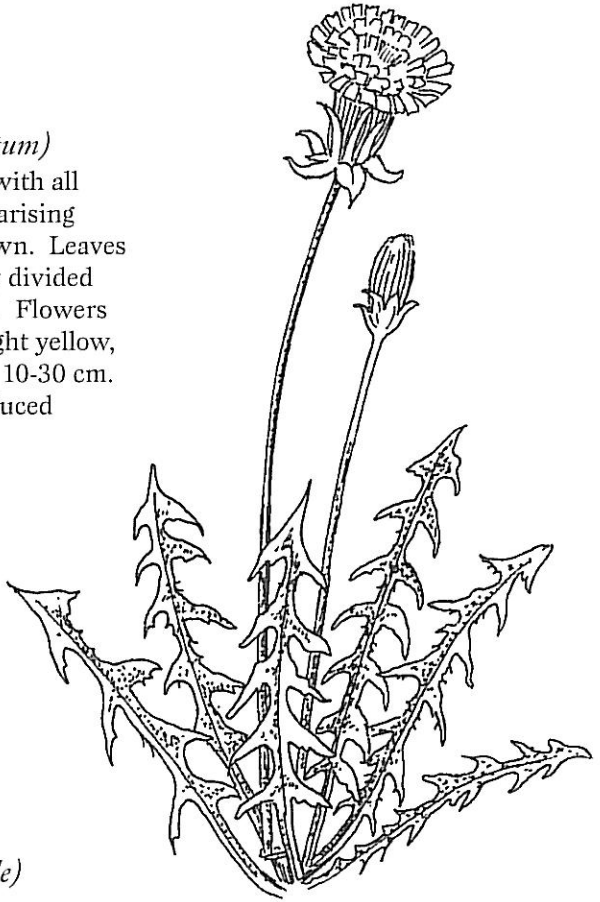
A stout erect-stemmed perennial 30-100 cm. tall. Leaves 5-25 cm. long, pinnately divided into narrow toothed segments, very aromatic when bruised. Flower heads discoid, 6-8 mm. wide in a somewhat flat-topped cluster. An introduced garden plant.



**73. Red-seeded
Dandelion,**

(Taraxacum laevigatum)

A stemless perennial with all leaf and flower stalks arising from a fleshy root crown. Leaves 10-20 cm. long, deeply divided into narrow segments. Flowers 25-35 mm. across, bright yellow, borne singly on stems 10-30 cm. high. Common introduced weed.



**74. Common
Dandelion,**

(Taraxacum officinale)

An introduced stemless perennial. Leaves coarsely incised with triangular lobes and large terminal lobe. Flower heads yellow, 35-50 cm. wide. Blooms very early in spring. Very common.

.....

SECTION III

Species with Pink, Orange, Red, Blue, or Purple Flowers



75. Wood (Prairie) Lily

(*Lilium philadelphicum*)

Very showy, erect plant 15-60 cm. high. Linear leaves in whorls. Flowers up to 10 cm. long. Red or orange with black spots. Formerly a widely distributed plant but now endangered due to habitat destruction. (DO NOT PICK)

76. Blue-eyed Grass

(*Sisyrinchium montanum*)

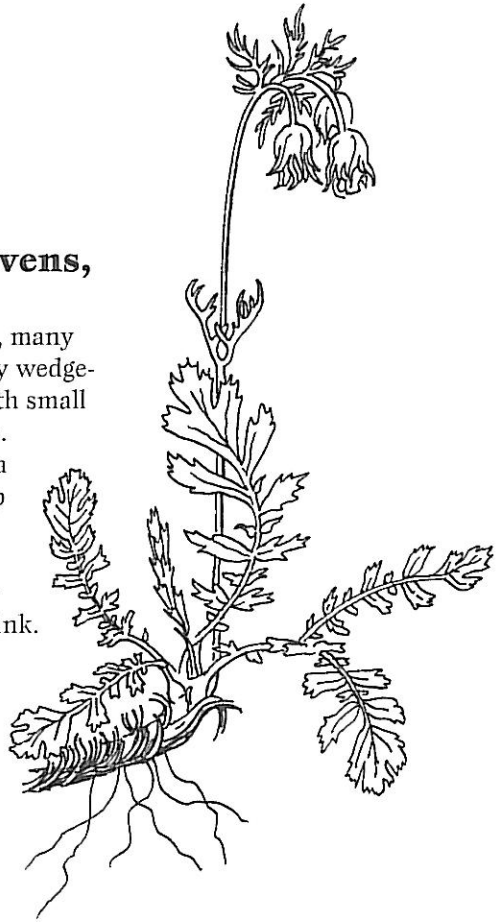
Perennial with grass-like leaves, bright blue flowers with 3 petals about 5 mm. long with sharp pointed tips. Common in meadows and moist places.



77. Three-flowered Avens,

(*Geum Triflorum*)

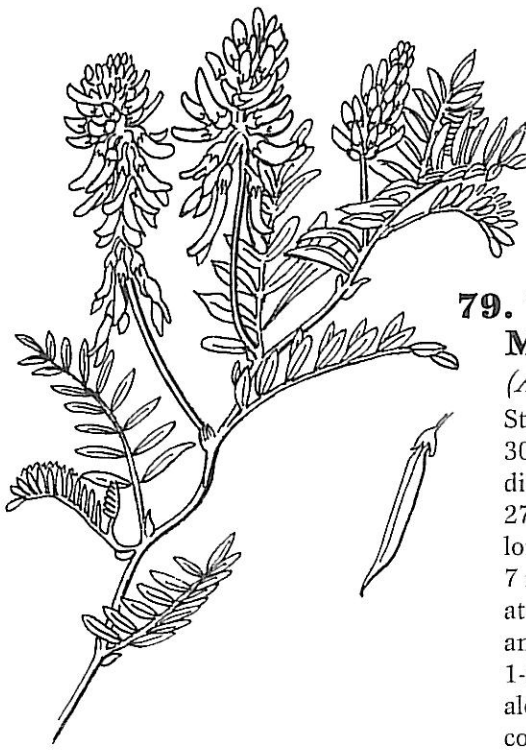
Erect perennial, 15-45 cm. tall, many pinnate basal leaves with many wedge-shaped lobed leaflets, often with small leaflets mixed with larger ones. Flowering stems usually with a tuft of small leaves half way up and some thin leafy bracts at summit. Flowers 3, 1-2 cm. wide, petals pink, yellowish or flesh colored sepals purplish pink. Fruiting head bearing long, persistent, feathery styles, 25-50 mm. long. Common, very early spring bloom.



78. Wild Rose

(*Rosa woodsii*)

Bush 30 cm.-2 M high, stems armed with prickles, often broad and flattened at the base. Leaves of 5 to 9 oval or obovate leaflets 1-2 cm. long. Flowers 3-5 cm. across, light pink to red in color. Fruit globular orange to red in color, very high in vitamin C with a taste some what like an apple. Very common in bluffs and ravines.



79. Two-Grooved Milk-Vetch,

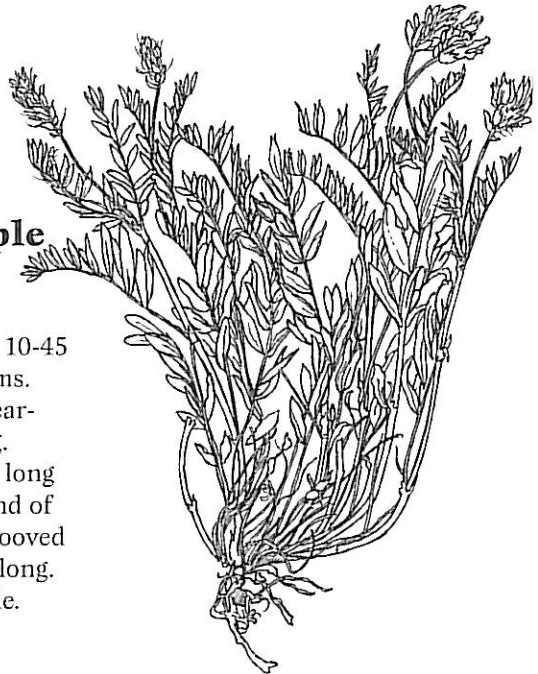
(Astragalus bisulcatus)

Stout multi-stemmed, erect plant 30 cm.-1 M tall with a strong distinct odor. Leaves have 17 to 27 elliptic leaflets 10-25 mm. long. Flowers deep purple about 7 mm. long in long dense raceme at end of long stems. Flowers and pods point downwards. Pods 1-2 cm. long with 2 deep grooves along one side very common in coulees. It is the host plant to the blister beetle.

80. Ascending Purple Milk-Vetch,

(Astragalus striatus)

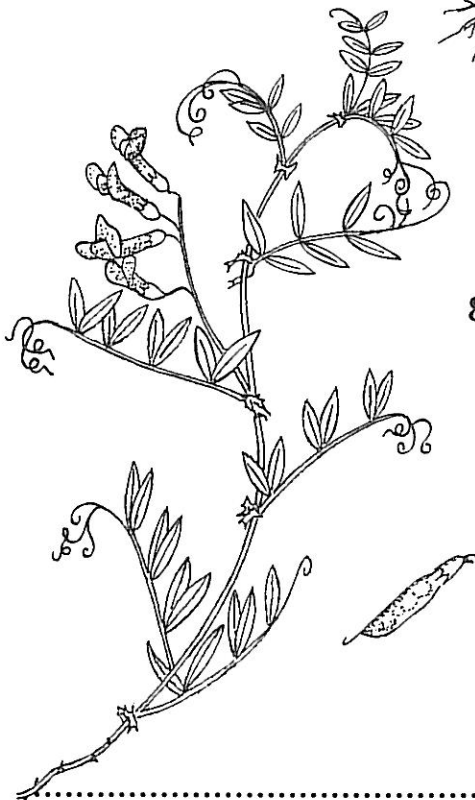
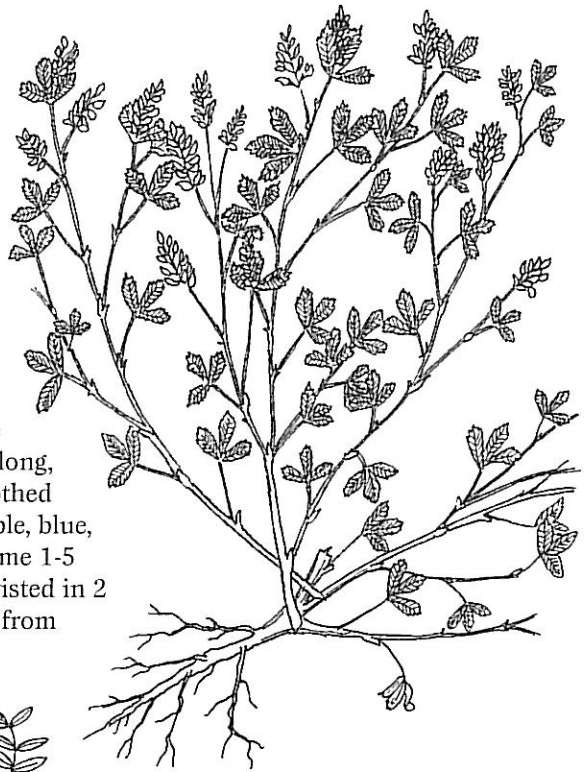
Either erect or decumbent, 10-45 cm. tall with straggling stems. Leaves 15 to 25 oval or linear-oblong leaflets 2-3 cm. long. Flowers purple, 15-20 mm. long in a dense, short spike at end of a long stem. Pods deeply grooved along the back, 10-15 mm. long. Very common on dry prairie.



81. Alfalfa,

(*Medicago sativa*)

Fairly erect perennial 30-90 cm. tall, much branched with trifoliate leaves. Leaflets 1-3 cm. long, obovate and sharply toothed near apex. Flowers purple, blue, or mauve, in dense raceme 1-5 cm. long. Pods hairy, twisted in 2 or 3 spirals. Introduced from Europe as fodder.



82. American Vetch,

(*Vicia americana*)

Smooth, trailing or climbing plant up 1 m. long. Leaves of 8 to 14 ovate or elliptic leaflets 15-35 mm. long with prominent veins. Flowers blue-purple 15-20 mm. long in loose 3-9 flowered racemes. Pods smooth. Common around bluffs and shady areas.



83. Wild Flax,

(*Linum lewisii*)

Perennial , 20-60 cm. tall, from woody root, hairless. Linear leaves 1-2 cm. long, crowded on stem. Flowers blue, 2-4 cm. wide, petals soon falling off. Capsules round. Common on dry prairie.

84. Early Blue Violet,

(*Viola adunca*)

Perennial 4-30 cm. high. Leafs ovate, somewhat cordate at base 1-2 cm. wide. Flowers violet, 1-2 cm. long, side petals somewhat bearded, has a spur almost as long as petals. Common on moist prairie and shady locations. Blooms in early May.



85. Oblong-leaved Gentian,

(*Gentian affinis*)

Leafy stemmed perennial, 15-30 cm. tall, often prostrate. Leaves oblong to lanceolate, 1-3 cm. long. Flowers dark blue or purple, about 25 mm. long in raceme-like dense clusters at upper end of stems. Common in sandy areas and moist meadows.



86. Bluebur,

(*Lapula echinata*)

A hairy weed 15-60 cm. high, many branched. Leaves 2-8 cm. long, only lower ones stalked. Flowers pale blue, 5 mm. across on erect leafy-bract racemes at branch ends. Fruit is small nutlets of hooked prickles on margins. Plant smells like a mouse nest. Introduced from Europe and is now widespread.



87. Field Mint,

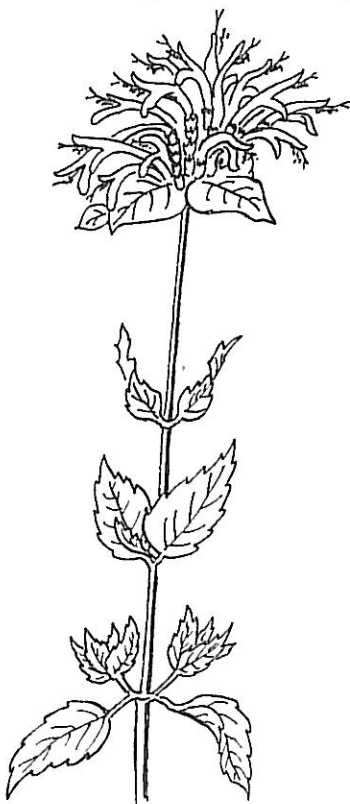
(*Mentha arvensis*)

Erect perennial herb with strong mint odor, 10-45 cm. tall. Stems square with a line of hairs along each angle. Leaves almost hairless but with small glandular dots on both surfaces, ovate to lanceolate in shape 1-5 cm. long. Flowers pink, 5 mm. long in crowded whorls around stems at leaf axils, common in wet places.

88. Wild Bergamot,

(*Monarda fistulosa*)

Erect plant with strong, pleasant odor, 60-90 cm. high. Leaves lanceolate or ovate-lanceolate rounded to cordate at base, 2-10 cm. long. Flowers in terminal and head-like clusters 4-7 cm. wide of narrow green tubes with small purplish teeth in hairy corollas protruding above the calyxes, pink or lilac, very conspicuous. Common in woods and shady places.



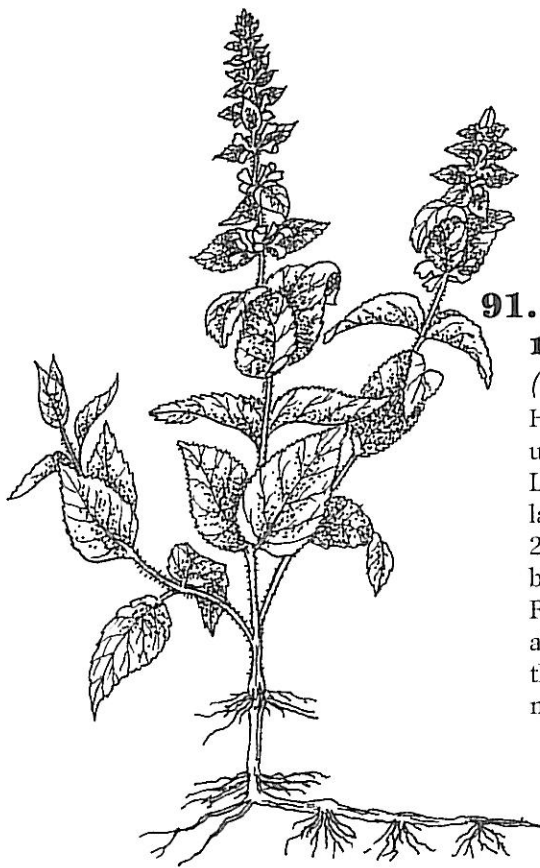
89. False Dragonhead,
(*Physostegia virginiana*)

Erect, rarely branched plant 30-90 cm. tall. Leaves linear-lanceolate, 8-10 cm. long, stalkless, with short sharp teeth. Flowers in terminal spikes, purple, about 2 cm. long. Common along stream banks.



90. Marsh Skullcap,
(*Scutellaria galericulata*)

Erect plant 30-90 cm. tall. Leaves oblong to oblong-lanceolate, wavy margined, 2-6 cm. long, upper ones stalkless. Flowers single or in pairs in leaf axils, blue, about 2 cm. long. Common in wet areas.



91. Marsh Hedge-nettle,

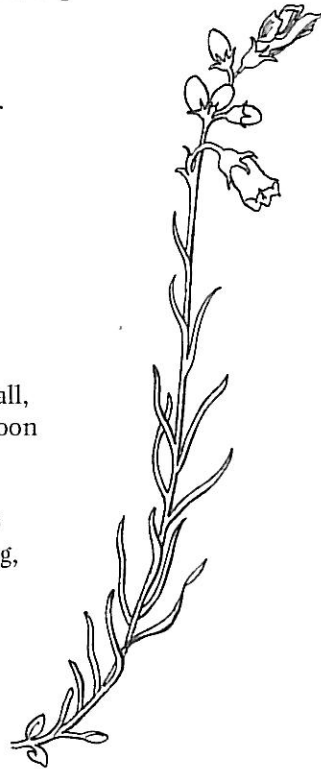
(*Stachys palustris*)

Hairy, branched perennial, usually erect, 30-120 cm. tall. Leaves somewhat coarse, hairy, lanceolate to oblong-lanceolate, 2-13 cm. long, generally round at base, usually without stalks. Flowers purple with darker spots about 1 cm. long in clusters at the top of the stem. Common in moist places.

92. Hairbell,

(*Campanula rotundifolia*)

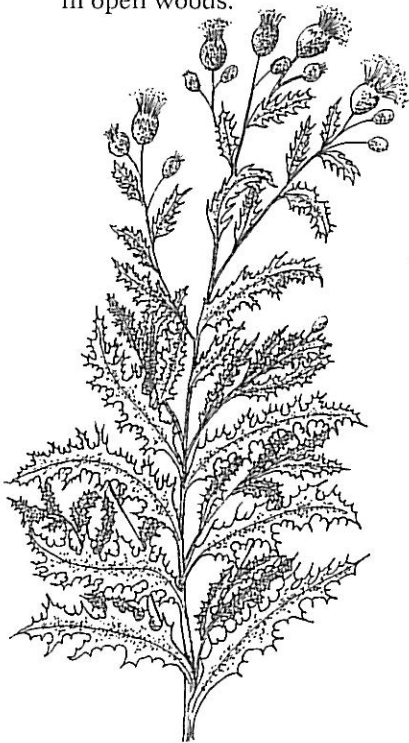
Perennial from rootstocks, 10-50 cm. tall, often with many stems. Basal leaves soon disappearing, ovate or deeply cordate-based, 10-25 mm. long, on long stalks; stem leaves linear or linear-oblong, 1-5 cm. long. Blue flowers, 15-25 mm. long, usually in a raceme of 3 or 4 flowers. Common on prairies.



93. Smooth Aster,

(*Aster laevis*)

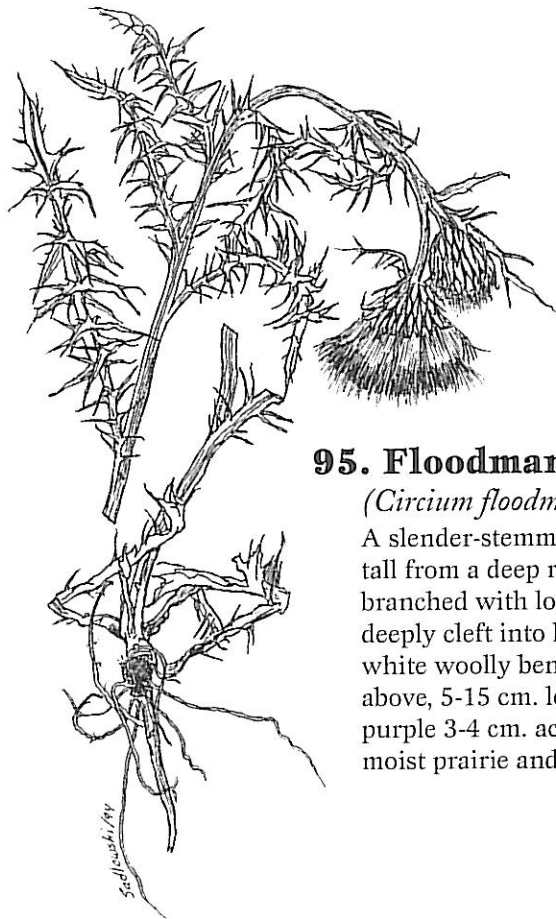
A stout stemmed hairless species 30-100 cm. tall. Thick leaves 2-10 cm. long, often toothed, ovate or lanceolate with basal leaves on wing-margined stalks but the upper ones are stalkless and often clasping. Many flower heads 2-3 cm. wide with blue ray florets and tawny-colored pappus. Common on moist prairie around bluffs, shrubby or in open woods.



94. Canada Thistle,

(*Cirsium arvense*)

A persistent perennial from deep running rootstocks, 30-100 cm. tall, usually in patches. Leaves stalkless, clasping, curled and wavy-surfaced, 5-15 cm. long, roughly lanceolate, deeply incised with toothed prickly segments; basal leaves sometimes stalked. Numerous flower heads in large loose corymbs at tops of stems with purple or occasionally white florets. Plants bear florets of only one sex. Common introduced weed.



95. Floodmans Thistle,

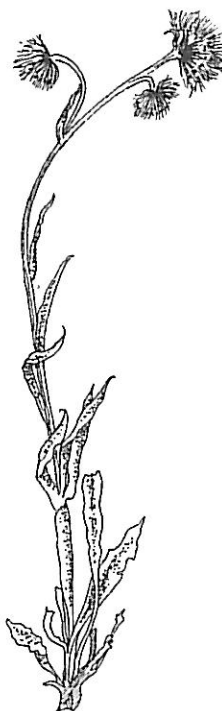
(*Cirsium floodmanii*)

A slender-stemmed perennial 40-100 cm. tall from a deep root. Stem usually branched with loose cottony hairs. Leaves deeply cleft into lanceolate spiny lobes, white woolly beneath, somewhat cottony above, 5-15 cm. long. Flower heads rose to purple 3-4 cm. across. Not common; found moist prairie and valleys.

96. Smooth Fleabane,

(*Erigeron glabellus*)

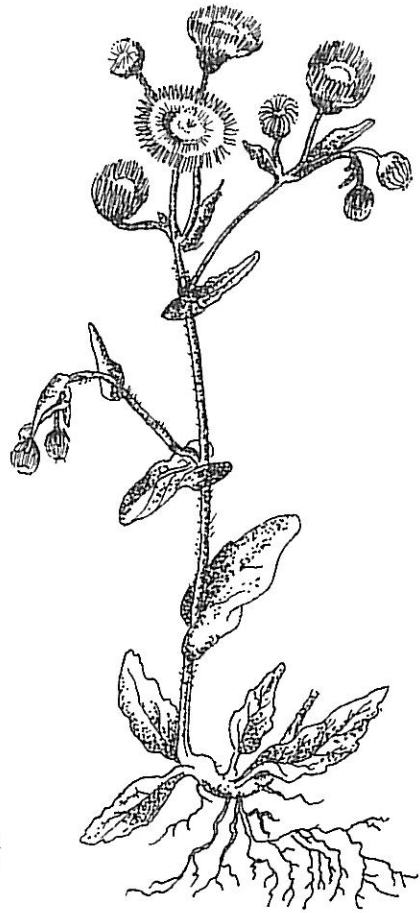
A perennial from a tufted rootstock, 15-40 cm. tall. Stems hairless or sparingly hairy, usually horizontal at the base. Basal leaves 5-10 cm. long, oblanceolate and hairless; the upper leaves much smaller and linear-lanceolate with only one prominent nerve. Flower heads 1-3, 1-2 cm. wide with numerous purple ray florets. Common in moist woods.



**97. Philadelphia
Fleabane,**

(Erigeron philadelphicus)

A slender stemmed upright perennial 30-60 cm. tall. Stem sometimes downy. Lower and basal leaves spatulate blunt-rounded, toothed, partly clasping, and shorter. Flower heads in a terminal corymb 12-25 mm. across, with many narrow pinkish or white ray florets. Common in moist open woodlands.



98. Blue Lettuce,

(Lactuca pulcherr)

A pale bluish-green, smooth, glaucous perennial 30-100 cm. tall with running rootstalks. Leaves linear-lanceolate, often with backward-pointing lobes. Flower bright blue, about 25 mm. wide, in a few flowered panicle. A common weed.

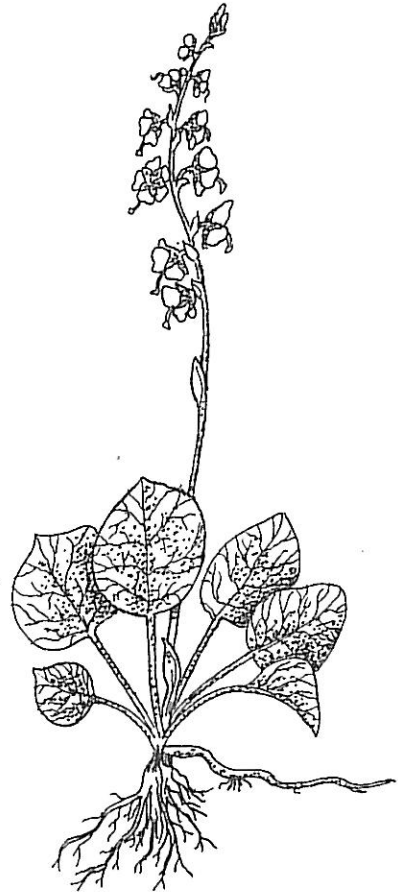


99. Blazing Star,
(Liatris ligulistylis)

An erect plant 30-60 cm. tall, from a corm or tuber. Leaves 3-10 cm. long, linear-oblongate bright green with a conspicuous whitish midrib. Flowers 2-3 cm. wide, reddish purple, on short stalks in a long raceme. Common in moist places, and forest openings.

100. Pink Wintergreen,
(Pyrola asarifolia)

Low growing evergreen herb, leaves round or oval stalked basal leaves which are shiny, 2-5 cm. wide. Flowers 7-15, pink, in a narrow raceme, about 15 mm. across, usually nodding, with 5 petals & sepals and a protruding style. Common in moist woods, has a refreshing taste when chewed.



SECTION IV

Species with Green or Inconspicuous Flowers

Horsetail Family

(*Equisetum*)

Rush - like plants with toothed, jointed stems, with scale like leaves at the nodes, surface of stem is ridged and bonded. Formerly used for scouring kitchen utensils hence its name: scouring rush., also used for polishing wood because of its ability to absorb silica (sand) molecules from the soil.



101. Common or Field Horsetail

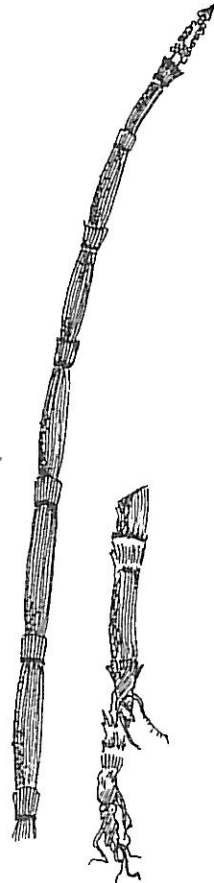
(*Equisetum arvense*)

10 - 50 cm. tall, numerous branches in dense whorls found in moist meadows.

102. Scouring Rush

(*Equisetum hyemale*)

Stems solitary or clustered, rigid, 5 - 25 cm. long, very rough, 18 - 40 ridges. Often ashy and black-banded at base and apex with brown teeth, found on sandy shores, open woods and moist slopes.

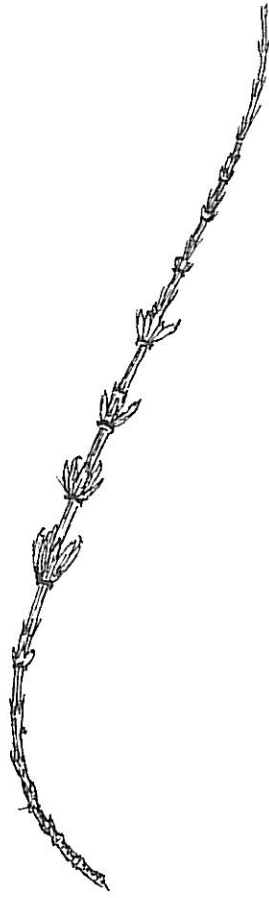


Sadowski

**103. Smooth Scouring
Rush**

(Equisetum laevigatum)

Erect, unbranched, 30 - 80 cm.
tall, soft ridged and smooth with
dark bands at the top of each
sheath, found in meadows and
stream banks.



Sadlovschi

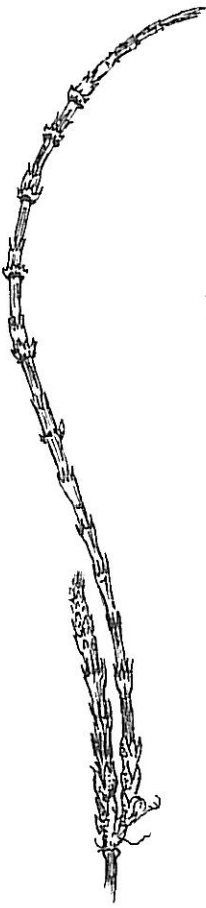


Sadlovschi

**104. Dwarf
Scouring Rush**

(Equisetum scirpoides)

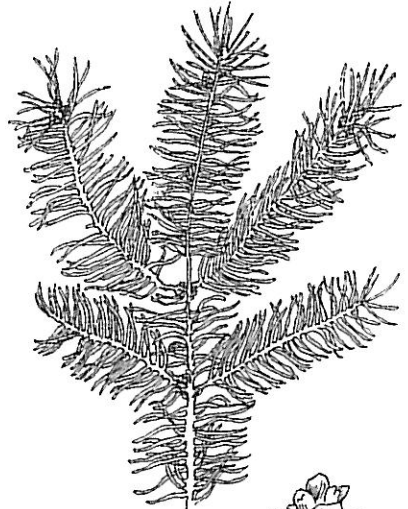
Stems densely clustered, 5 -
15 cm. long, very slender,
about 6 ridged. Sheaths
with 3 -4 teeth, with white
margins. Found in damp
woods and mossy banks.



105. Variegated Horsetail

(*Equisetum variegatum*)

Clustered stems, erect, 10 - 40 cm. long branched near base, 5 - 10 ridged sheaths with broad black band at summit, found in wet thickets, bogs and sandy shores.



106. White Spruce,

(*Picea glauca*)

Large trees with small cones, scaly thin bark. Needle leaves sharp pointed, 4-sided on all sides of twigs (Evergreen)





107. Low Juniper,

(*Juniperus communis*)

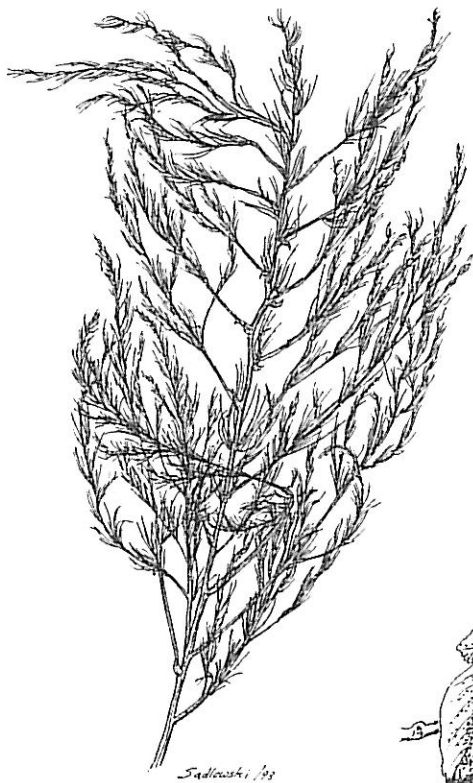
Spreading shrub, forming broad clumps up to 1 M high, leaves in whorls of 3 crowded sharp-pointed needles, whitish on upper surfaces. Female plants have pale blue berry. Found in open sunny areas.



108. Creeping Juniper

(*Juniperus horizontalis*)

Prostrate shrub, forming large mats 10 - 30 cm. high. Scale like overlapping bluish green leaves, dark blue berry. Found in dry sandy areas.



109. Asparagus

(*Asparagus officinalis*)

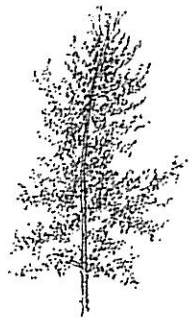
Tall slender much branched and multi stemmed plant escaped from cultivation producing edible young shoots in spring.



110. Balsam Poplar

(*Populus balsamifera*)

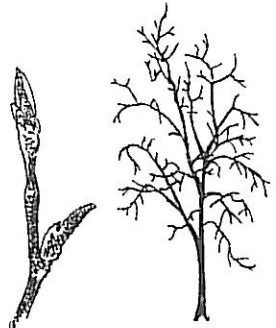
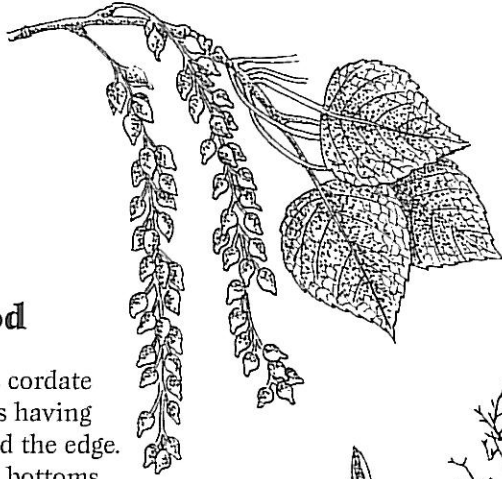
Large tree with dark green leaves, shiny on the upper side and usually rusty brown on the underside. Buds are very sticky. Common on wet grounds.



111. Cottonwood

(*Populus deltoides*)

Large tree with large cordate (heart shaped) leaves having rounded teeth around the edge. Common along river bottoms and moist areas.



112. Pussy Willow

(*Salix bebbiana*)

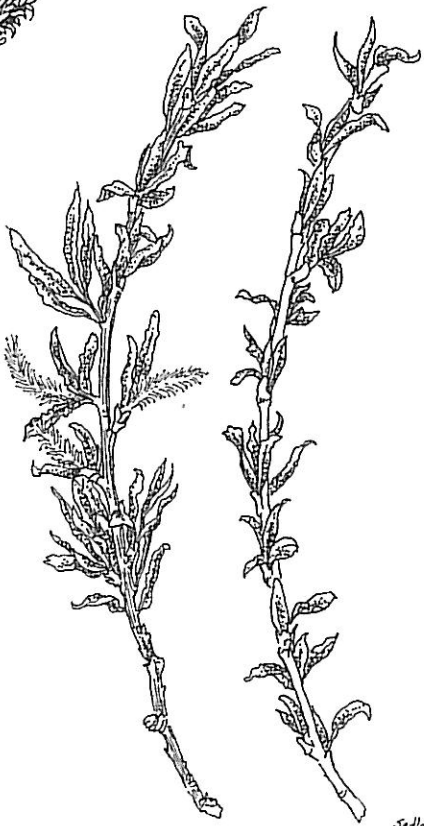
Large shrub, leaves 2-4 cm. long and about 15 mm. wide, pales on underside. Common in moist areas. Catkins appear in early spring before the leaves.



113. Diamond Willow

(*Salix discolor*)

Large shrub or low tree. Leaves bright green above and pale green beneath. Self pruned branch scars form large deep diamond shaped depressions on stems.



114. Sandbar Willow

(*Salix interior*)

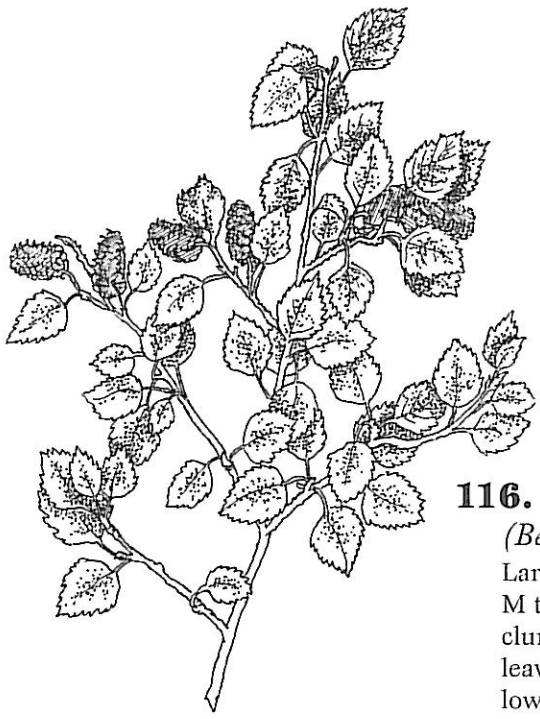
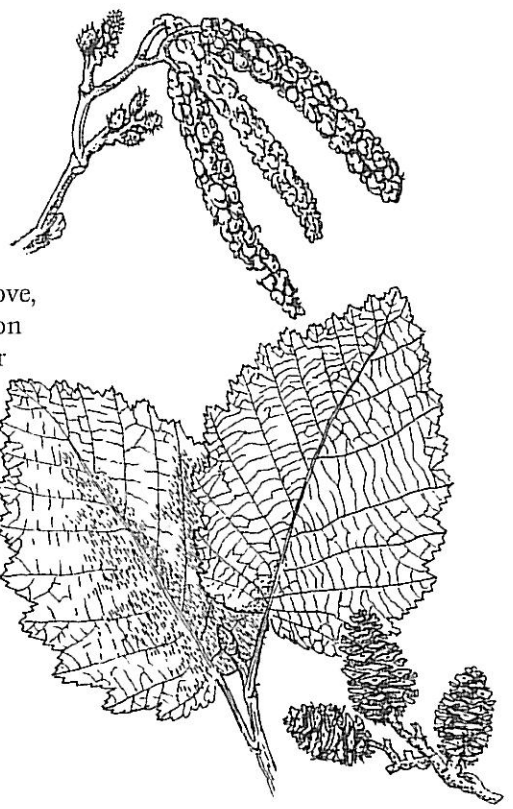
Thin flexible stems and long narrow leaves. Found in wet areas in dense thickets along streams.

Sadlowski

115. Alder

(Alnus incana)

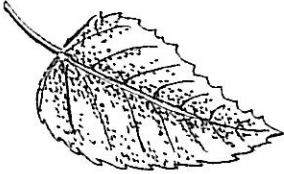
Tall shrub, small tree with elliptic leaves, dark green above, usually some hairs on veins on the underside. Leaves appear slightly wrinkled. Flowers appear before the leaves.



116. Black Birch

(Betula occidentalis)

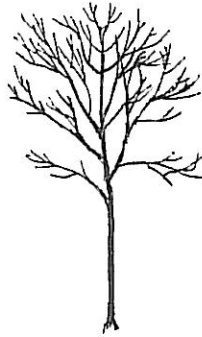
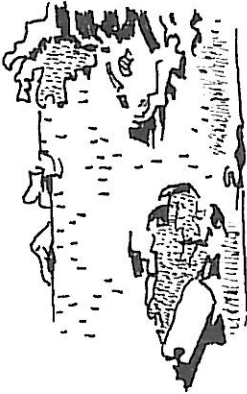
Large shrub or small tree up to 10 M tall. Grows in multi-stemmed clumps with ovate or almost round leaves 2-5 cm. long. Common in low moist places.



117. Paper (White) Birch

(*Betula papyrifera*)

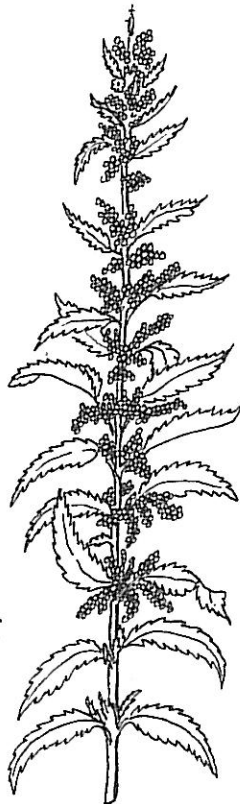
Tree with white bark which peels off readily, up to 18 M tall. Leaves ovate and pointed at apex, dark green above paler and slightly hairy below. Common along rivers.



118. Nettle

(*Urtica dioica*)

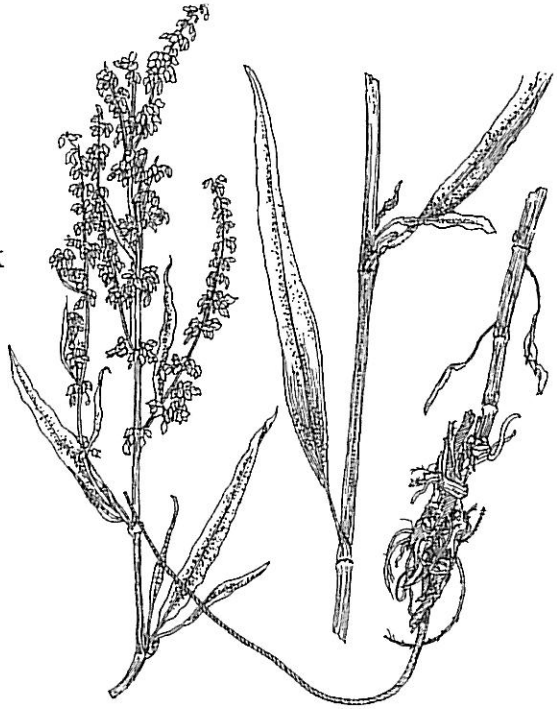
Plants with tall straight stems, usually square in cross section. Leaves are ovate to lanceolate, toothed stinging hairs. Greenish flowers in clusters at junction of stem and leaf. Very common in moist places.



119. Western Dock

(*Rumex occidentalis*)

Tall coarse erect plant to 1.25 M tall. Leaves broadly oblong or lanceolate, up to 30 cm. long, often heart shaped at base. Dense, conspicuous heads of fruits. Common in moist places.



Sadloski/99

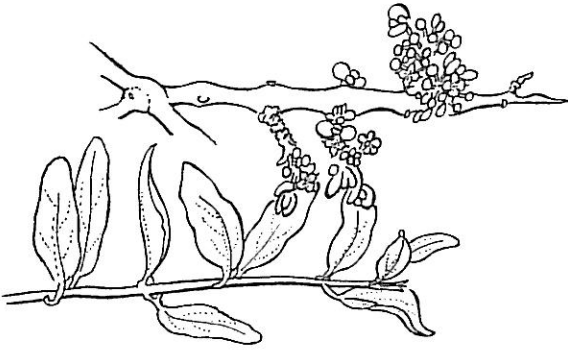


120. Manitoba Maple,

(*Acer negundo*)

Tree, to 10 M tall, rough grayish bark. Leaves 3 to 5 lanceolate or ovate, toothed leaflets, pale green. Flowers appear before leaves, not very conspicuous. Found along streams.



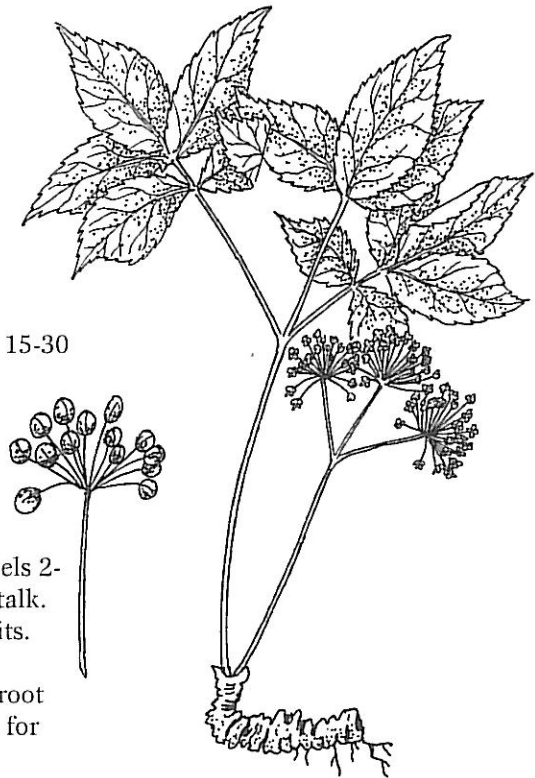


121. Buffalo Berry,
(Shepherdia argentea)

Shrub with long thorns, branches whitish. Leaves oblong, 2-5 cm. long silvery - scruffy on both sides. Small brownish flowers in clusters. Fruit round, orange, sour, but makes good jelly after a hard frost. Common in moist areas.

122. Wild Sarsaparilla,
(Aralia nudicaulis)

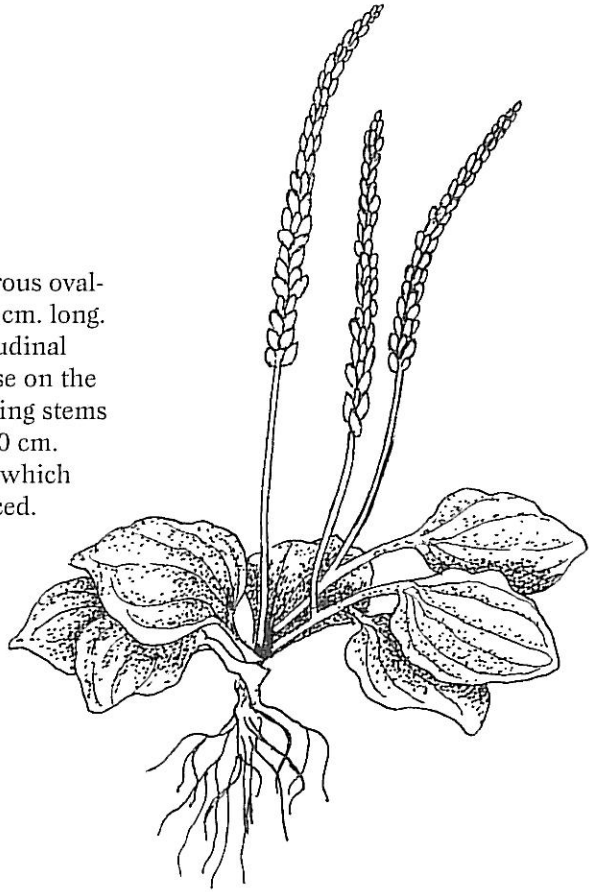
Perennial, from creeping rootstalk. Single leaf stalk 15-30 cm. tall divided into 3-5 leaflets. Leaflets oval, pointed at apex, 5-13 cm. long, finely toothed on margins, dark green above, pale green below. Greenish flowers in 3 umbels 2-5 cm. across, on a flower stalk. Purple - black globular fruits. Common in shady, rich, woodlands, long aromatic root of this plant is a substitute for true sarsaparilla.



123. Common Plantain,

(*Plantago major*)

Short plant with numerous oval-ovate basal leaves, 2-25 cm. long. They have many longitudinal ribs that meet at the base on the long stalk. Long flowering stems are narrow spikes a 3-30 cm. long. A common weed which may have been introduced.



124. Prairie Sage,

(*Artemisia ludoviciana*)

A white woolly much branched perennial 15-60 cm. tall. Leaves 1-7 cm. long usually less woolly on the upper side. Lower leaves oblanceolate occasionally with a few lobes, upper leaves linear-lanceolate few lobes, upper leaves linear-lanceolate and entire. Flowers in dense axillary spikes, making a leafy panicle with brownish flower heads. Common on Prairie.

BIBLIOGRAPHY

Battlefords River Valley Authority, *River Valley Study Preliminary Report*, Battlefords River Valley Authority, Battleford Sask., 1989.

Budd, Archibald C. and Keith F. Best, *Wild Plants of the Canadian Prairies*, Canada Department of Agriculture, Ottawa, 1964.

Environment Canada, *Canadian Climate Normals*, Volume 2, Canadian Climate Center, Downsview, Ont., 1982.

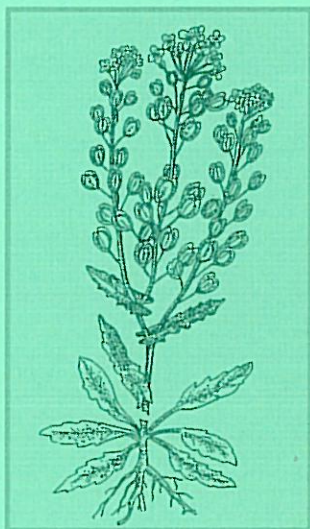
Moss, E. H., *Flora of Alberta*, University of Toronto, Toronto, 1967.

INDEX

Acer negundo	120	Buckbrush	*34
Achillea sibirica	37	Buffalo Berry	121
Achillea millefolium	36	Camas	*2
Alder	115	Campanula rotundifolia	92
Alfalfa.	81	Canada Fleabane	40
Alnus incana	115	Canada Thistle	94
Amelanchier alnifolia	17	Canada Anemone	7
American Vetch	82	Capsella bursa pastoris	14
Anemone canadensis	7	Choke Cherry	19
Anemone multifida	*9	Chrysopsis villosa	61
Anemone quinquefolia	10	Cicuta maculata	27
Anemone cylindrica	8	Cirsium floodmanii	95
Antennaria aprica	38	Cirsium arvense	94
Arabis glabra	12	Comandra umbellata v.pallida	5
Aralia nudicaulis	122	Comandra pallida	4
Aranaria congesta	6	Common Plantain	123
Arctostaphylos uva-ursi	30	Common Dandelion	74
Artemisia ludoviciana	124	Common Yarrow	36
Ascending Purple Milk-Vetch	80	Common Horsetail	101
Asclepias ovalifolia	31	Coneflower	65
Asparagus officinalis	109	Cornus stolonifera	29
Asparagus	109	Coronilla varia	23
Aster laevis	93	Cottonwood	111
Astragalus tenellus	22	Creeping Juniper	108
Astragalus aboriginum	21	Crepis tectorum	62
Astragalus bisulcatus	79	Cut-Leaved Anemone	9
Astragalus striatus	80	Cypripedium calceolus	43
Balsam Poplar	110	Descurainia sophia	47
Balsam Groundsel	68	Descurainia pinnata	46
Bastard Toadflax	5	Diamond Willow	113
Bearberry	*30	Dwarf Milkweed	31
Betula occidentalis	116	Dwarf Scouring Rush	104
Betula Papyrifera	117	Early Yellow Loco-Weed	52
Black Birch	116	Early Blue Violet	84
Black-Eyed Susan	66	Elaeagnus commutata	56
Blazing Star	99	Equisetum variegatum	105
Blue Lettuce	98	Equisetum scirpoides	104
Blue-Eyed Grass	76	Equisetum arvense	101
Bluebur	86	Equisetum hymale	102
Bristly Buttercup	44	Equisetum laevigatum	103
Brook Cinquefoil	50	Erigeron caespitosus	39

Erigeron strigosus	42	Low Juniper	107
Erigeron philadelphicus	97	Lysimachia ciliata	59
Erigeron hyssopifolius	41	Manitoba Maple	120
Erigeron glabellus	96	Marsh Skullcap	90
Erigeron canadensis	40	Marsh Hedge-Nettle	91
Erysimum inconspicuum	13	Marsh Ragwort	67
Euphorbia esula	55	Meadow Rue	11
False Dragonhead	89	Medicago sativa	81
Field Mint	87	Melilotus alba	25
Field Crown Vetch	23	Melilotus alba	51
Fleabane Daisy	42	Mentha arvensis	87
Flixweed	47	Maianthemum canadense	3
Floodmans Thistle	95	Monarda fistulosa	88
Fragaria virginiana	18	Narrow Leaved Hawks-Beard	62
Fringed Loosestrife	59	Nettle	118
Gaillardia aristata	63	Northern Bedstraw	32
Gaillardia	63	Oblong-Leaved Gentian	85
Galium boreal	32	Oenothera fruticosa	58
Gentiana affinis	85	Oenothera biennis	57
Geum triflorum	77	Oxytropus sericea	52
Glycyrrhiza lepidota	24	Pale Comandra	4
Golden Bean	53	Paper (White) Birch	117
Goldenrod	69	Philadelphia Fleabane	97
Gooseberry	16	Physostegia virginiana	89
Hairbell	92	Picea glauca	106
Hairy Golden-Aster	61	Pink Wintergreen	100
Helianthus nuttallii	64	Plantago major	123
High-Bush Cranberry	35	Polygala senega	26
Indian Milk Vetch	21	Populus balsamifera	110
Juniperus communis	107	Populus deltoides	111
Juniperus horizontalis	108	Potentilla anserina	48
Lady's Slipper	43	Potentilla norvegica	49
Lappula echinata	86	Potentilla rivalis	50
Large Sundrops	58	Prairie Sage	124
Leafy Spurge	55	Prunus virginiana	19
Liatris ligulistylis	99	Pussy Toes	38
Lilium philadelphicum	75	Pussy Willow	112
Linum lewisii	83	Pyrola asarifolia	100
Long-Fruited Anemone	8	Ranunculus cymbalaria	45
Lonicera dioica var.		Ranunculus pensylvanicus	44
glaucensens	60	Ratibida columifera	65
Lonicera tartarica	33	Red Osier Dogwood	29
Loose-Flowered Milk Vetch	22	Red-Seeded Dandelion	73
Low Goldenrod	70	Ribes setosum	16

Rosa woodsii	78	Thlaspi arvense	15
Rough Cinquefoil	49	Thalictrum venulosum	11
Rubus strigosus	20	Thermopsis rhombifolia	53
Rudbeckia serotina	66	Three Flowered Avens	77
Rumex occidentalis	119	Tower Mustard	12
Salix interior	114	Trifolium aureum	54
Salix bebbiana	112	Tuberous Rooted Sunflower	64
Salix discolor	113	Tufted Fleabane	39
Sandbar Willow	114	Twining Honeysuckle	60
Sandwort	6	Two-Grooved Milk-Vetch	79
Sanicula marilandica	28	Urtica dioica	118
Saskatoon	17	Variegated Horsetail	105
Scouring Rush	102	Viburnum trilobum	35
Scutellaria galericulata	90	Vica americana	82
Seaside Buttercup	45	Viola adunca	84
Seneca Snakeroot	*26	Water Hemlock	27
Senecio congestus	67	Western Dock	119
Senecio pauperculus	68	White Spruce	106
Shepherdia argentea	121	White Sweet Clover	25
Shepherds purse	14	Wild Sarsaparilla	122
Silverweed	48	Wild Lily-of-the Valley	3
Sisyrinchium montanum	76	Wild Licorice	24
Small Flowered Rocket	13	Wild Red Raspberry	20
Small Wood Anemone	10	Wild Flax	83
Smilacina stellata	1	Wild Daisy	41
Smooth Aster	93	Wild Bergamot	88
Smooth Fleabane	96	Wild Rose	78
Smooth Scouring Rush	103	Wolf Willow	56
Snake Root	*28	Wood (Prairie) Lily	75
Solidago missouriensis	70	Yarrow	37
Solidago canadensis	69	Yellow Evening-Primrose	57
Sonchus arvensis	71	Yellow Clover	54
Sow Thistle	71	Yellow Sweet-Clover	51
Stachys palustris	91	Zygadenus elegans	2
Star-Flowered Solomons Seal	1		
Stinkweed	15		
Strawberry	18		
Symphoricarpos occidentalis	34		
Tanacetum vulgare	72		
Tansey Mustard	46		
Tansey	72		
Taraxacum officinale	74		
Taraxacum laevigatum	73		
Tartarian Honeysuckle	*33		



ISBN 0-9699848-0-4

PRINTED: MARIAN PRESS LTD., BATTLEFORD SK