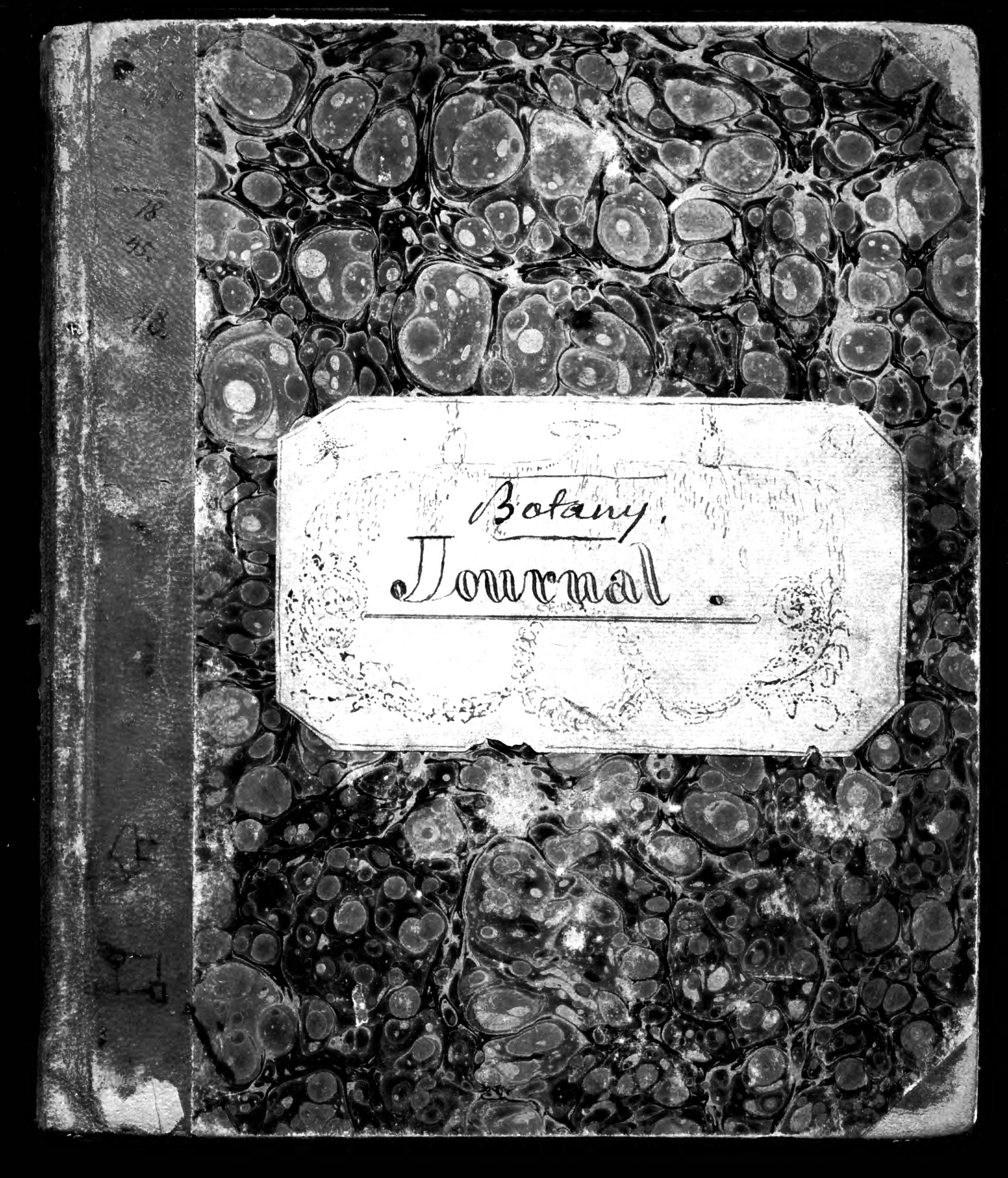


78  
45  
78

The image shows the front cover of an antique book. The cover is decorated with a traditional marbled paper pattern, featuring a dense, intricate design of dark, swirling, cell-like or organic shapes. A central, rectangular label with slightly rounded corners is pasted onto the cover. The label is white and contains the title 'Botany Journal' written in a cursive, handwritten script. The label is framed by a decorative border of small, repeating floral or geometric motifs. On the left edge of the book, the spine is visible, showing some wear and faint markings, including the numbers '78', '45', and '78'.



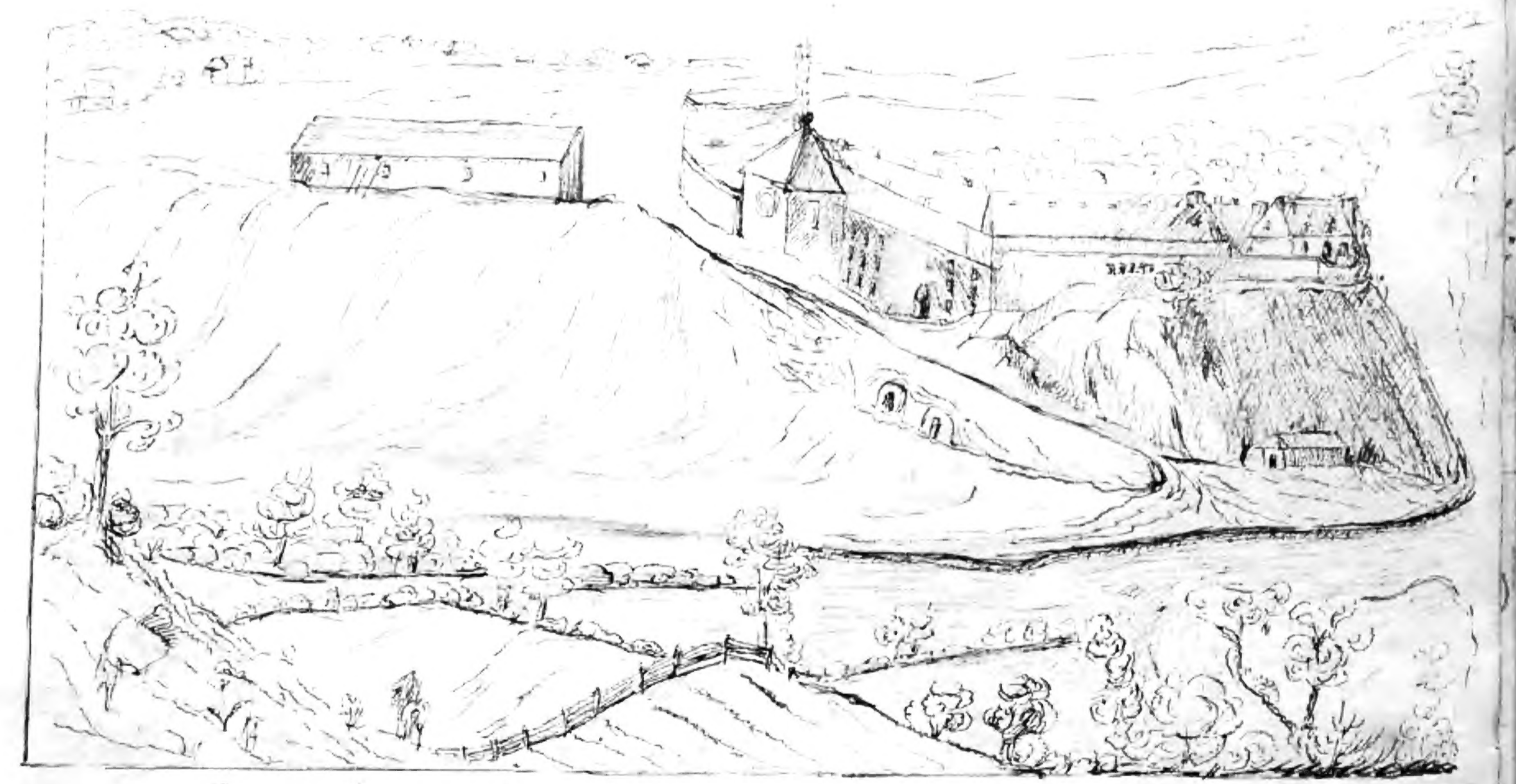
1838  
Nov.  
18<sup>th</sup>

From the lower end on the Mississippi

Went for a walk at Noon. Weather clear

After on the Western side of the Hill.

PLC 1 - 17



Fort Snelling from the East

[17]

1838. Found St Louis up the Mississippi.

May 18. Went from St Louis at noon. Weather clear.  
Hiked out the north side of that hill.

1. Verbena spicifera.
2. " " procumbens.
3. Squidicum?
4. Yucca?
5. Barbarea glauca.

Obs. Barb. is full grown. It is not with the spiny  
mosses. Barb. is with the Squidicum & Yucca  
here.

May 19. Weather, foggy towards morning, clear & sunshine over day; arrived at Clarksville 9 o'clock; 12 o'clock at Louisiana; 5 o'clock at Hannibal; 8 o'clock at Marion City and about 9 o'clock at Quincy.

No 7. *Salix nigra* appears at <sup>Hannibal</sup> <sup>in blossom again.</sup>

- 8. *Asarum canadense*
- 9. *Geranium maculatum*
- 10. *Ranunculus pedatifidus?*
- 11. *Actaea alba*
- 12. *Galium aparine*
- 13. *Arum 3-phyllum*
- 14. *Corydalis aurea*
- 15. *Anemone nemorosa*
- 16. *Senecio balsamitae*
- 17. *Rhus aromatica*
- 18. *Veronica* sp.
- 19. *Rumex* sp. River banks of Louisiana
- 20. *Stylypus verna*
- 21. *Rumex crispus*
- 22. *Poa* sp. with *Aquilegia canadensis*

Hillside at Louisiana  
Carboniferous Limestone

River side  
Louisiana

*Phlox divaricata* - *Cypriped. parvifl.*  
*Sanguinaria canad.* on the hill side at Louisiana, on carboniferous limestone rocks. *Acer* & *Cottonwood* <sup>fruits</sup> flying

*Cercis canadensis* with ripening fruits - *Psittula* <sup>fruits</sup> scattered on the river banks

- 23. *Amorpha salicifolia* <sup>mit</sup>
- Cephalanthus occidentalis* - <sup>the</sup>
- Rumex crispus* - *Syring. coronaria*
- Crataegus pyrifolia* - and the cultivated part covered with *Anthemis Cotula*

Open bottom  
River side  
of Louisiana

- 24. *Manisuris echinatus*
- 25. *Orchis spectabilis*
- 26. *Cyperaceae*
- 27. *Anemone aconitifl.*
- 28. *Utricularia* sp.
- 29. *Sanicula marylandica*

30. *Smilax* <sup>sp.</sup>  
*racemosa*

[4]

May 20.

5  
Fine weather, clear & sunshine, very warm. South west wind - 6 o'clock morning at Fort Edwards past the <sup>falls of the</sup> mouth of Des Moines River & foot of the rapids - 7 o'clock Fort Des Moines - Keokuk villages 10 o'clock Fort Des Moines - 11 o'clock Fort Madison about 12 o'clock New Albany - at 4 o'clock A.M. at Burlington W.V. - 8 o'clock at Oquakwa

Obs. Cedars appear on the rocky banks of the river at Fort Edwards - *Amorpha fruticosa* at Fort Madison on high barren banks with *Astragalus leucoph.* A reddish clay extends along the banks at Oquakwa. - The timber of less size & vigour - large open barren prairies on both sides - *Salix*, *Quercus* & *Cercis* in blossom. The country along the river we just to day was generally high and barren prairie with little or no timber, or inundated bottoms. - The many islands are thickly covered with willow, poplar & Maple.

[5]

May 21.

Last night we had very warm & a shower in the distance. - This morning the wind blew from the north; cloudy & but little sunshine over day - From 7-8 o'clock at Rockville, Stevenson & Rock Island, vegetation considerable back, - *Pyrus coronaria* in blossom also *Syringa vulgaris* in a garden at R. Island Appearance of the country on the east side barren with open prairies & little timber, the river bank on that side high & rocky 20 miles up to the *Meridiana opposita* <sup>sup</sup> *Camanche*, here the opposite side presents again a high & sterile prairie, <sup>Albany</sup> a little higher up, on the eastern bank also on a prairie. Again *Betula rubra* along the banks & borders of the woods, - On the western banks 45 miles below Galena in the woods:

- 31. *Viola cucullata*.
- 32. *Oxalis violacea*.
- 33. *Erigeron bellidifolius*.
- 34. *Carex* sp.
- 35. *Polygala seneca*.
- 36.
- 37. *Umbellifera*.

May 22.

Arrived at Galena as 11 o'clock last night. On the lone stone hills (rocks) at the lower river -

- 38. *Quercus voccina*? 39 *Zanthoxylum frax.*
- 40. *Thuja*? sp. (not in bloom). 41. *Crataegus parviflora* with: *Geranium maculatum* - *Adiantum pedatum* - *Monarda* <sup>(not in bloom)</sup> *Claytonia* - *Triostema perfoliatum* - *Thalictrum* sp. - *Tilia cordifolia* - *Asplenium ebenum* - *Polygonum multifidum* - *Viola cucullata* - *Asclepias purpurascens* - *Spiza* <sup>sp.</sup> *multifida* - *Menisperm. canad.* - *Lonicera chikassaw* - *Rhus typhina* - *Aquilegia canad.* - and on the naked top *Baptisia tinctoria*.

5 miles below Du Rague - West bank - large rocky woods -

- 42. *Haplophragma 3-foliata*. - 43. *Asarum* <sup>fol. cord. an. pilatis - pet. vis. caudatis tortis</sup>
- 44. *Viola cucullata striata*. - 45. *Dentaria laciniata*
- 46. *Phlox divaricata*. - 47. *Viola Muhlenbergiana*
- 51. *Hepatica acutiloba* - 52. *Mitella diphylla*
- 53. *Utricularia perfoliata* 54.

At Du Rague at 3 o'clock. On the high limestone hills.

- 48. *Balsamorhiza hirsuta* - 49. *Viviparus palmatus*.
- 50. *Syrphidochloa aeneus*. ~~sp.~~ with: *Potentilla arguta* - *Balsamorhiza* - *Phlox pilosa* - *Viola palmata*

About 30 miles below Prairie du Chien - West side, high limestone rocks -

- 55. *Crataegus pycnantha* - 56. *Anemone*?
- 57. *Quercus* sp. - 58. *Quercus* sp.
- 59. *Lycopodium parviflorum* - 60. *Euph.*?
- 61. *Podocarpus Menziesii* - 62. *Conium maculatum* inter...

Obs. To day we have passed through a rich & well cultivated country - Bottom filled with large timber, & not infrequently inundated. - *Betula* more frequent on the banks & in bloom. - Weather fine S.W. Wind - very cold in the morning. -

May 23. Arrived at Prairie du Chien early in the morning and remained there until 3 o'clock afternoon. weather clear + sunshine N.W. wind. We made an excursion to the bottom prairie + limestone hills east side of the river.

63. *Aralia nudicaulis* 64. *Scutellaria peruviana*  
 65. ~~*Thalictrum flavum*~~ 66. *Euchroma grandiflora*  
 67. *Fedicularia canadensis* 68. *Anemone ludoviciana*  
 69. *Aspidium (Trichia sp.)* 70. *Apocynum*?  
 71. *Gnaphalium leptogonum* 72. *Viola pedata*  
 73. *Ceanothus borealis* 74. *Aralia nudicaulis*  
 75. *Imyrnium bifolium* 76. *Asium 3-phyllum*  
 77. *Baptisia tinctoria* 78. *Smilax pedunculata*

With: *Ceanothus americanus* - *Smilax racemosa*.  
*Cypripedium parviflorum* - *Euchroma coccinea*. - *Polygala serotina* - *Anemone thalictroides* - *Convolvulus multiflorus* -  
*Aquilegia canadensis* - *Saxifraga hirsuta* - *Batardia hirsuta* - *Viola palmata* - *V. cucullata* - *Hephyrea 3-foliata* - *Potentilla arguta* - *Spiraea opulifolia* - *Betula alba* - *Sathyrium sp.* - *Corylus*, *Pinus* & *79 Pyrus*  
*Antennaria sp.*  
 Those marked with — are from the bottom prairie the rest from the rocks. - The only large timber white + (black oak?) On the opposite side fine timber.

May 24. Passed mouth of bad-ax river at 8 o'clock. - In the afternoon we saw several Indians on the east side of the river, from the Wapashie nation, and passed three miles off, from their village at 3 o'clock, - On the west side of the river, partly inundated, we found 80 *Equisetum uliginosum* which covered the bank, - ~~*Cedrus*~~ *Fagus* & *Fraxinus* (over of considerable size) but few *Ulmus* & *Platanus*. - *Betula alba* & *Pinus strobus* cover the naked rocks but little. The river narrowed & high banks frequently on both sides, bottoms more elevated. Cool weather, little sunshine, N.W. Wind.

May 25. At 6 o'clock we reached the lower entrance of Lake Pepin; after sounding we obtained bottom at 7 and 6 1/2 fathoms; width of the bar at one mile; - 7 o'clock obtained bottom, 6 miles from the ~~lower~~ entrance 7 fathoms; - 7 miles from there, 7 1/2 f.; - 2 miles below Lovers' Leap, 7 fathoms, - 1 mile further 7 fathoms & 6 3/4; - 1 mile below obtained 6 1/2 & 6 fath. - off again 100 yards east from; 6 3/4 & 7; - off Rush-River at 3 1/4 past 9 o'clock, we obtained 7 & 7 1/2; - 1/2 mile further up, 8 1/4; - 2 miles below the upper end 3 & 3. = On the point at Lake Pepin on the land we found:

- |                     |   |
|---------------------|---|
| 81. Salix alba?     | 82. Galium sp; caule caespitoso, erecto, ramoso, quadr- pubescente. - foliis 4 verticill. lin. lanc. subacut. 3-nerviis, marg. revolut. scabris, subtus pubes. floribus termin. (?) |
| 83 } Quercus        |   |
| 84 }                |   |
| 85. Acidium (Rosae) | 86. Cerastium depressum   |

- 11 o'clock first village of the Sioux on the elevated bank west:-

- |                           |                           |
|---------------------------|---------------------------|
| 87. Callitriche palustris | 88. Ribes floridum        |
| 89. Lathyrus sp.          | 90. (Rosaceae)            |
| 91. Ribes triflorum       | 92. Cenomicon conallifera |
- in the bottom on rotten wood, - 5 and 6 o'clock 2 villages of the Sioux. - High rocks along the east side, partly of the west also - ~~little pine~~ beautiful white pines & birches on the rocks - near St Peters which we reached at half past 3 o'clock in the evening. Weather beautiful, warm, cloudy in the afternoon, rain at night - W.

May 26. At St Peters. We were engaged in removing our baggage & on from the st. boat. Weather fine in the morning; stormy & rain in the afternoon & evening. NW.  
27. Sunday - cold & rainy weather high SW. wind.  
28. One night went off Pike Island near St Peters

- |                       |   |
|-----------------------|---|
| 92. Viola canadensis. | 95. Trillium  |
| 93. Ribes cynosbati?  | glabro, caesp. 3 part. (per donculo) ovata. acumin. nerv. lineaq. Corollae 3 pet. alba; petala obov. acumin. undul. nervis. Filam. brevissimi. intervall. ovario hexagon. (basi) inserta anther. lanc. obtus. stylo 3 part. revoluta & ovario rubesc. fol. tern. 3. sess. divaricatis, orb. ped. ovato acumin; nervis pet. lund. confluent. |
| 94.                   |   |

Woods 1. Lilia alba. a. Fraxinus. b. Betula alba Populus d. Fagus sylvat. e. Juglans. f. Arce. Nojundo. g. Lanthanum. frax. Undergrowth. 1 Cornus alba. a. Viburnum b. Staphylea 3 fol. c. Prunus obovata? d. Ribes floridum - e. Ribes 3 florum. f. Vitis aestivalis. \* Herbs. Urtica bifolia. L. S. racemosa. a. Anemone perfol. b. Fragaria. c. Polygon. multifl. d. Anem. 3 phyllum. e. Viola Muhl. f. Hydrophyllum. g. Actaea alba. h. Erythron. dens. c. i. Tanguinaria canad. k. Lycop. parviflor. Limestone. Trees on the rocky heights. 1. Quercus alba & nigra. a. Betula alba. - Shrubs. 1. Prunus amer. b. Corn. alba. c. Aleoanth. amer. \* Prunus serot? - Herbs. - 1. Pedicular. canad. a. \* Balch. hirs. b. Fragaria viny. c. \* Geranium macul. d. Thesium umbell. e. \* Urtica na. f. \* Viola caesp. lata & palmata. g. Artemisia sp. h. Stachys sp. i. Solidago. k. Gnaphol. plantaginum.

Deep on high moist places in the woods.  
96. <sup>deep</sup> Equisetum palustre. 97. Anemone nemor. [11] rosae.



St. Peters.

May 28. *Cypripedium spectabile* & *A. Equiset. uligin.*?  
Shady & dry. *Anemone* 5 fol., 2 *Anemone* *monosa.* a, *Pyrola elliptica.* b. *Hemeroc. amer.* d. *Hepat. acutiloba.*

In the water, borders of lakes 98. *Carex* sp. Culm. *Frigo*, fol. vernaequant. flor. monocid. sub-pan-  
autatis, folis acutalibus *Frigo* longissim. margini  
nervosa, verberans, vagini glaucoscentibus.

Rocky Prairie. High situation. Pilot Knob.

99. *Astragalus coryocarpus*? 100. *Batrach. longifl.*

101. *Genus* sp. fol. interrupte  
pinnatis. hirsutis, supra  
pilosis - stipul. lat. rubescent.  
pedunc. part. 2 stipulat, floribus  
pendulis; calyx 10 part. sep. extern  
lani. acut. diverg; infer. clausas  
ovata. acum. sanguineus. Corolla  
(clausa) roseo-alba. petal. lanceol.

On the Top of (limestone) high Prairie Pilot Knob.

1 *Anemone ludoviciana.* 2 *Batrach. hirs.* a. *Astragalus coryoc.* b. *Batrach. longifl.* c. *Genus* sp.

On the slope 1 *Viola pedata* (abundant) a. The  
leaves umbell.

Weather clear & beautiful. N.W.

St. Peters.

May

29.

heavy rain, cloudy until evening. E.

30.

Rainy, cloudy, sunshine N.E. heavy rain at  
night. S.E., on the rocky banks of the Mississippi  
102. *Corydalis aurea.* 103. *Cyathus* (*Ranunculi.*)

There is a great variety of colors in the  
*Viola pedata* in different situations - This  
side of St Peter river (on the right) especially.  
I counted 10 different varieties of colors, from  
yellowish-white & bluish white (milk color) gra-  
dually deeper to a deep crimson-violet,  
which last one is extremely beautiful and  
more rare than any other - in many places  
they are so dense, and as they arrive at  
blossom all at once, the hill sides are blue  
as the brightest sky, or still more beautiful.  
- I found it remarkable that in the midst of  
those millions of violets (*Viola pedata*) I did not  
notice a single individual of *V. palmata*, whe-  
ther among them, nor in the immediate neighbor-  
hood, the cause of it ~~was~~, I believe is the soil.  
The *V. palmata* seems to be more or less confined  
to alluvial bottoms & limestone formations,  
the *V. pedata* more or less to a primitive de-  
posit and to more elevated situations. On the  
left bank side of the St Peter River near the  
fortness

May  
31

St. Peters.

On the high Prairie around the Fortress.

104. \*Euchroma coccinea, with \*Ped. canad., \*Polygala senecio, \*Viola palmata. Asteris sp. \*Gerani. macul. Osmunda. inter. Ceanoth. ambr. Viburnum pr. Liburn. oxycois.

- Rocky swamps on the high prairies, covered with different kinds of willows, Prunus obov. 8f. Pyrus oval. Populus. 6. muloid 18-20 and 116 Salix fuscata 14-15. Around the

marshes different species of Carex with Iris & Scorus. & Eriophorum & Spinae Salicifolia.

106. Carex sp. 105. Eriophorum

107. Carex sp. 109. Carex.

- Up to the high rocky banks of the Mississippi. 110. Negundo fraxinifol. with fruit 18 feet.

111. Cerasus nigra Del. (?) 8 feet. with Rubus typhina (12) fraxinus. white & black oaks of middle size. Roses & Symphoric the most frequent underbrush also Rubus & Cornus. Herbs Triosteum spec. foliat. Viola capucut. - On the banks: Old cedars & white pines, birch, oaks of less size. The naked margins of the rocks is covered with a species of Artemisia, glaucous & suffruticose, probably frigida, not in blossom, with it we found -

112. Arenaria laterifl. Hook. 113. Arabis sp.

114. Arabis. sp. 115. Cardamine Rhomboid. (bottom swamps)

On sandy heights in the Prairie 108. Batschia Gmelin. with Viola pedata. - B. hirsuta

Menisperm. canad. & Humul. Lapp. the only Clim. in the Wood. Weather fresh. N.E. Cloudy and Sunsh. [14]

June

St. Peters.

1. up to the 9th of this month, we were preparing for our voyage up the St. Peter. River.

on hills, probably formed by drift-sand the Viola palmata appears among the V. pedata but very few, still closer down to the fortress the Viola palmata is found appears in its most common situation & association among hazel bushes, open plains with Pedicularis canadensis & Euchroma coccinea, The associates of Viola pedata are generally Geum rivale, Euchroma grandiflora & Anemone ludoviciana and sometimes Batschia longiflora.

[15]

June

Up the St. Peter River.

9.

From the mouth up, willow & Poplar cover the banks, chiefly *Salix petiolata* & *discolor*, ~~populus~~ <sup>populus</sup> ~~sp.~~ <sup>sp.</sup> and a few *Pseudoniana* - Low plains covered with *Agrostis* 3-4 feet high. - *Salix nigra* continuous on the edge of the water 30-40 feet high with *Filix alba*, *Ulmus fulva*, *Rosa* sp. & *Vitis aestivalis*.

On overflown ground under timber, *Carex*, *Helianth.*, *Lysium*, *vitata*. 117 *Smilax peduncul.*, *Oxalis stricta*, *Thalictrum rugosum*, *Urtica canad.* - At 9 mile creek the bank rise gradually and are covered with fine large timber, *Filix alba*, *Acer ~~saccharinum~~ <sup>excelsum</sup>*, the bluffs are near & covered with grass - Seeds of *Salix petiolata* ripe, also the *Acer saccharin.* - Of ten were the elevated banks for some distance covered with *Osmunda interrupt.* *Anemone acropitifolia*.

On the Prairie the other side of Riviere on credit. 118. *Vicia* 119 *Lathyrus*

120. *Saxifragaria maryland.* 121. *Rosa*

122. *Poa*

Weather clear very hot. Temperature of the Air at 3 o'clock P.M. 86, 0 of the River St. P. 70, 0. A very heavy thunder storm at 12 o'clock in the night. We made 18 miles. S.E.

June

Up the St. Peter River.

10.

No variation in the vegetation, which is very luxuriant. *Pinus pensilva* appears in high & deep swamps, which is also abundant at Lake Calhoun & Harriett near St. Peters.

About 8 or 10 miles below the Rapids on a rocky prairie

124. *Smilacina racem.* 125. *Thalictrum fimbria.* ~~Hydrophyllum~~ <sup>Hydrophyllum</sup> ~~Ta.~~ with *Thalictrum* much in abundance, also *Urtica* <sup>sp.</sup> *Smilacina rac.* *Aspidium filix mas.* *Sanicula marylandica*: *Gypriped. parviflor.*, *languin. canad.* *Yucca. ma.* *calatum*, *Yucca* sp. *Anem. acron.* *Thalictrum rugosum.* *Aquil. canad.* Very fertile land. - Weather changeable, thunder, cloudy, high wind at the evening. we made 20 miles.

June

Up the St Peter River.

11. Near Sandbar Creek above the little Rapids on the limestone ridge beyond the little swamps.

126. Allionia with Umbellifer. (36) Allium, Galium septentrionalis. At the spring near Sandbar village Phlox divar. & pilosa. Scyros lobata? - At the high bluffs near River Marchassaux:

128. Gramen 129. Menchma with Balth. Gmelin. Geum. No 94. Astray. eriocarp. Graph. plant. very much like the flora around the Pilot Knop. We passed to day several high Prairies, with little Oak timber; the bottoms contain the same timber we found since we started off. We encamped at night on the right bank of the river near a little swamp or lake opposite the beginning of Round Prairie found two species of snail shells, Vicia Carex & Thalictr. Asclepias and a species of Cyperus which is about 3 feet high & very abundant. Weather fair, clear sky NW.

June

Up the St. Peter River.

12. 130. Menzies? Piles plans, margine subnervulato. Cavitate furfuracea, nigrescente-fusc. centr. immers. Stigite subventr. terete, solido. furfur. striat; lamellis cellulosis confluent. (Popul. grandidentata.)

The country still of the same appearance fertile, but little timber, except the bottoms which are crowded with oaks, Elm, white & Sugar maple, and the borders of the River with Willow & Aspen. Grass high in the bottom prairies which consist generally of Carex, Vicia, & some more acutifol. and several of the Compositae. We encamped in the evening at Riviere de l'ile Haute, and an Excursion through the bottom to the bluff, we found:

- 131. Camp. rotundifol. 132. Lathyrus.
  - 133. Gramen 134. Phlox aristata.
  - 135. Cypris-candid. 136. Cyperus
  - 137. Carex 138. Carex
  - 139. Eriophorum 140. Equisetum
- with. Polygala tenax Balth. his. Galium septentr. G. fist. Astray. eriocarp. Scirp. Cracca Cyprispedium parvifl. Geum. macul. Phacelia fist. Fragaria. big. Weather fine, clouds, NW.

Up the St. Peters River.

Clancy early in the morning, from 9 o'clock in the morning rain, which continued until evening N.E. - At 11 o'clock we met with the only rocks on the shore (at the Albert Trott Creek) of Slaty, cherty, salmon red sandstone, river is more rapid, in some bends 90, 100, and 120 yards wide with several islands and benches. We encamped in the evening at the arroyo Prairie from the top of which we had a view of many miles. It contains a great many granite boulders, partly rotted as the hill slopes coarse gravel. Here we found

141 *Hypoxis erecta* 142 *Carex* sp. and very near the same flora of Pilot Knob St. P. the variety as far as it could be distinguished in this season was as follows: (beginning from the Top, *Anemone* *laevis*, Geom 101, *Astragalus* *ericoides*, *Batrachium* *hirsutum*, *Thesium umbell.*, *Petalostemum* *virgatum*, *Senecio* *balsamifolius*, (No. 76. in ripe seeds), *Potentilla* *agrippina*, *Gnaphalium* *plumb.*, *Trigonotis* *3-foliata*, Geom. 133., *Arnica* *montana*, *Lysimachia* *obovata*, *Heuchera* *abundant*, *Lupinus* *sp.*, *Tridax* *acris*, *Phlox* *crinitata*, *Pedicularis* *canad.*, *Thysanotus* *anceps*, *Eryngium* *aquaticum*, *Viola* *pedata*, not abundant., *Vicia* 118., *Scutellaria parviflora*, *Artemisia* *fol. glaucis*, *lami.* *arist.* *dent.* - *Gentiana craniata* and black oak at the foot of the hills *Prunus* *obovata*, *Vitis* *aestivalis*, *Equisetum* 140.)

143. *Agaricus pileo irregulari campanulato, glabro, croceis* *convexis, vel orbiculatis; stipite erectis, crassis, albo-limbo carno; lamellis regularibus croceis, albo-marginatis. margine pilei 2-3 plis.* On the ground. The *Hypoxis* called by the Indians Chah-chah - *chah* - *chah*, (designs the little pea like bulb.) is collected by the Prairie mice & subsist on through winter, but the Indians gather up their stores and use it for a food for winter, having very much of the taste of beans, when boiled.

Up the St. Peter River.

144. *Agaricus pileo grosse flabelliformi, lobato undulato, albo, margine subrevolutis; stipite laevi, lamellis inaequalibus. Pediculis candidis. Ad costis Salix nigra. putr. very fragile. On the River bank.*

144. *Paezalea pileo decomposito lobato undulato albo-lucido-zonato, margine crispo, lamellis fistulosis irregularibus. Ad lign. putr. Cettis putrile at White Rock.*

145. *Vitis riparia.* 146. *Prunus idaea.*

147. *Rhus racemosa.* 148. *Menisperm. Canad.*

149. *Cornus circin.* 150. *Rosa parviflora* *R. Canad.* *Max.* with *Prunus Chickasaw*, *Juniperus virginiana*, *Celtis* *occ. pumila*, *Stenotheca glaberrima* arrived at 7 o'clock at the Fort of the St. Peter. For Camp at *Traversi de Sioux*. Weather agreeable, rain at the evening. N. W. (Granular Sandstone, *strata horizontalia* (lower of Salmon color))



Le Rocher Blanc.

U. G. 7

June 15.

At Traverse de Sioux.

151. Agaricus, pileo decomposito, multilobato, lobis sub-sarcinatis, hirsuto, strigoso, muscino, margine revoluto, lamell. decurrentibus aequalibus albis. Hypesteriale vel centrale vel commune, An rollen Strau Books.

152, Stipa avenacea. 153, Monocleum jubatum.

154, 155 Senecio.

156, Poa 157. Oenothera, Plakta

perenn. suffruticosa multicaulis, ramosa, ramifi. radice lign. Ramis lignosis integribus gracilibus, pubesc. - fol. patentibus sessil. albis, linear-canaliculatis, acutis, nervis dent. ovulatis, subtus pubescentibus - flor. subsessil. axill. Form. Sandy elevations of the Prairie. Plakta glaucescens.

158. Epiphegus? Inaequalis succul. brev. aquosae radice libus appress. ovata, nudis, - caul. patentibus tenu. mag. invol. apice recurvis, peduncul. tenuiss. inaequaliter, sess. unifloris; - Calyx corup. 5 part., part. lanceo-acum. flor. patent. - Corolla form. pluvata 5. lobis, stigma peltate. Plakta parantica, viscid. pubesc. Sandy elevations of the Prairie. Weather fine. N.W.

June 10.

At Traverse de Sioux.

159. Lupinus. - Rad. granul. tuber. caudex angulatus, caule erecto, trunco villarissimo, pubescente, petiol. long. divergent. canalic. hirsut.; - foliis 5-7 digitatis; foliol. lance. acut., subtus. ... medio superficie velutina (conjugationis) ... peduncul. sub. divaricato, terete ... pedic. longior, floribus subventricill., spic. bract., - stipul. basi petiolo connatis lance. recurv. ciliatis; - bract., ovat. lance. concave connatis ciliatis, nervis pallid. - Calyx ves. venter inflatus, saginas gibbosus, nervis pallid. hirsute part. 4-5 lobatus, (lobis inferioribus longissimis) lac. lanceo-ovatis, 3 nerv. vix dit. - Vexill. spatul., subemargin. plicato; - alae semisagitt. obtus., carinae plicatae, - filum connata (libera). - Stylo vaginato, apice recurvato, basi barbato. Legumen

Prairie. Tiptonia weather fine. N.W.

Part Oenothera 157. foliis conjugatis subsessilibus, lanceolatis, acutis, acute serrulatis, ferrugineo-marginalis, subtus villosis. ... sessilibus axill. patentibus, petalis subcordatis marginibus crispis, staminibus subventricis uncinatis stigma 4 part. lob., subpeltato. capsula prismatica quadrangulata obtusa, albo sericea. capsulae colorata 4 part. 4. nervi. Plakta ... floribus aureis. At the Indian Red Pipe Stone Quarry July 1846

June 17

At Traverse des Sioux.

In the Prairies around the boulders:

- 160. Asclepias, 161. Physalis lanceolata.
- 162. Sparganium 163. Potentilla
- (150, 6. Rosa) 164. Lithospermum.
- 165. ~~Sparganium~~ Gynandrium laevi Michx.

The bluffs or hills along the St Peter River are remarkable for the variety of plants, which is owing to the variety of Soil & the different elevations of the hills. The alluvial bottom along the River abounds with all the rough plants with which they are most everywhere ornamented. (besides those):

The hill raise in shape of Terraces and consist of (decomposed Sandstone)? - here a different vegetation takes place, the whole plains are filled with *Hesperis matronalis* & *Helianthus annuus*, which are both in bloom. *Helianthus americana*.

June 18

From Traverse des Sioux to traverse des Riviere aux Liards.

We started off at 11 o'clock A.M. The road was very wet & swampy filled with the bloom of Iris & Senecio & with the common yellow umbellif also Eriophorum & 166. Asphodelus.

The dry part of the prairie were covered with *Gallium septentrionale* in the evening we encamped at Lake Milieu which is bordered with some very fine timber of the white oak; and filled with *Lizania aquatica*. The flora is still the same with the exception of the above Asphodelus & *Eryngium aquaticum* which is more frequently. Whether fine, a little rain in the afternoon, distant thunder in the evening. N.E.

June To Traverse des Rivières aux Liards.

19. Passed the Swan lake from 10 o'clock to 3 o'clock. 207 *Zizania aquatica*. Little groups of *Scrophul. marg.* in the prairie; prairies without change in the flora. Arrived at the crossing place of St. Peter's river at 6 o'clock in the evening, at nine o'clock we were encamped on the opposite side near the village of Sleepy eyes chief of that band of the Assiniboin band of Sioux. Weather extremely beautiful, N.W.

Temperature of the prairie at 4 o'clock in the morning 62, 5.

*Allionia* ... Wa-chanksi-tchah-tah-neh-zshu-tah. The medicine for the bear.

*Rudbeckia purpurea* I. Schach-po-hub. root that causes to fall, (the root is said is destructive to the rattlesnakes).

*Eryngium aquaticum* Kehy-yangtang.

[26]

June Started at 11 o'clock in the morning from our encampment on the opposite side of the St. Peter River. The valley of the River St. Peter, particularly the opposite side presents itself from the high ridge prairie beautifully, very much like the scenery along the Rhine in respect of form & vegetation. The white oak cover the banks & the heights appear like planted orchards, interrupted by green alleys with grass, and the foot of it the water of the river is visible & the windings of the river for many miles.

Plants in blossom.

- Phlox ... *Amorpha cana* ... *Ononis* ...
- Viola* ... *Stipa* ...
- Thalictrum* ... *Equiset.* 140. (Bart.)
- Thia hirsuta* ... 168

100. - *Lizia cordata*, *Pedicular. canad.*  
*Polygala senecal.* *Senecio* ... *Lupinus*  
 159 Little groups of *Ceanoth. amer.* in the prairie, the leaves of which the Indians use for a brew - on the hill sides groups of *Symphoricarpon glaberrimum* - lakes covered with *Senecio*, *Zizania aquatica* & *Eriophorum* encamped on the bluff of *Rivière aux Liards*. The bottoms consist chiefly of *Silva amer.* *Soer sachar.* & *Erica angustifolia* found on the banks *Allionia* ... in bloom collected  
 109 *Asclepias* ... 170. Potomac. [27]  
 171. Potomac. Weather fair S.E. cloudy at night



June 21.

Up the Coteau de Prairie.

Started from our encampment at the Riviere aux Liards at 5 h. 5 m. Passed several lakes in N. E. direction bordered with white-oak timber (white oak). About 9 o'cl. we passed about 6 miles off N. an unknown wood, or a Prairie Island with fine timber. The place where all the lower Indians go to hunt musk-rats; crossed a fork of the Riviere aux Liards ~~where~~ which banks we re covered with *Panus Michauxii*, and chiefly with *Betula populifolia*, & *Quercus bicolor* found; on the rocky side

- 172. *Astragalus* 173.
- 174. *Equisetum* 175. *Betula populif.*
- 176. *Ranuncul. fluit.* 177.

on the banks of Riviere aux Liards 178. *Delphinium tridactylon*. 179. *Astragalus*, rad. longior, <sup>caudice here</sup> multicapit. fol. radiat. impar. pinn., petiol. long. glabre canalic. crinito, foliol. line. linear. appon. cont. ~~sub~~ pubescent. glaucoc., infer. altern., sup. oppo. stipul. implexicaul. bifid. membran. fissis lance. ovate, ax. minutis, nervosis; peduncul. axill. erecto, elongato, subteret. pellucido. lineato, piloso, flor. opicatis, semivestibulatis sessilib., bract. ovata, long. acum., appressa villosis; calyce corolla, to alba velutina, sepalis adnatis, - *Planta* <sup>caudice</sup> glaucoc. conata, floribus purpureis. Rocky places in the prairie. Flora the same as yesterday with the addition of the above ~~with the~~ and *Cynopis caudicem*, *Hypoxis crecta*, *Troscortia v. v.* & *Hypoxis crecta*. We encamped <sup>on the</sup> ~~at the~~ of the tributaries of R. aux Liards. Weather fair, W. S. E. strong.

June 22.

Up the Coteau de Prairie.

No change in the appearance of the vegetation, we travelled the a very unford part to day, and encamped near one of the sources or tributaries of the Riviere aux Liards. We met at great many rocky situations with a great variety of granite which were examined & specimens collected by Mr. Nicolet, crossed the Riviere aux Liards, and encamped at night on one of the tributaries of the Riviere aux Liards, a little stream completely covered with grass & willows, out of it we collected to day

- 180 out of a grassy lake this morning.
- 181.
- 182. 183.
- 184. *Epilobium* 185. *Amorpha frutescens* <sup>River bank.</sup>

Weather fair, very cool. at night, S. E. W. very strong. clouds.

June  
23.

Up to the Couleau de Prairie. The Prairie is undulating, and the variation of the flora is only noticed on the ridges; the lower part, near the common plants, which are generally found in the low bottoms and wetted grounds. The ridge bears plants, generally with a whitish green foliage as several *Artemisia*, *Antennaria*, *Amorpha canescens*?, 189. *Oenothera canadensis*? 190. *Potentilla bipinnatifida*? and several others to pass advanced to find out their generic character. — Arrived and the so called Pelican Lakes (Made-nah-geh-which in Nak) we found 192., *Physalis* 193. *Senecio*? on the low banks. 186. *Potent. supina*. 187.

188. *Ranunculus sceleratus* and 189.  
191. *Ranunculus Purshii*? both in stagnant waters with *Cyperus* interwoven. Weather fair, S. E.  
The borders of the lakes are well timbered with white oak from 30 to 40 feet high, and the only high tree, <sup>near to \*</sup> the underwoods of *Fraxinus*. *Pinus chikasee* willows, *Symphoricarpos glomerata*. Raspberries, *Vitis riparia*, *Rhus* <sup>naiviana</sup>, *Ampelopsis* 3 fol. + *Polygonum grandident.* *Amorpha frutescens*, *Monarda canad.*  
*Anemone arifolia*. *Alliaria petiolata*? on the sandy shore with *Potent. sapida* & 187. *Rumex crispus*  
181, 182, 183, *Myriophyllum verticillatum* in the bottom of the lakes.

June  
24.

At Couleau de Prairie.  
Encampment near the Pelican Lakes.

Sunday — Weather fair, strong N. West Wind. Cloudy & calm at night. We rested ourselves & took several meteorological observations.

June  
25.

At Coquette de Prairie,  
Encampment near the Pelican lakes.

Floating 196. Potamogeton crispum, and  
out of the bottom with 199.  
On the <sup>low</sup> shores 194. Silene 197. Allium  
with Asclepias (160.) and Arabis (113.); low  
on little heaps in the bottom. On the ridge I found  
198. Astragalus, radice subliqu. radice multicaulis, tri-  
gato, flavido, caute prostrato, subterre; ramulis filis-  
que secundis, petiolis 2-stipulatis divergentibus, recurv.  
canalicul., foliis impari pinn. 8-9., foliolis suboppositis,  
sub-ovato-lanceolatis, obtusis, subcordatis, pedunculis axillaribus  
erecto-patentibus, petiolo dupl. longiore, quadrangul. repan-  
do vel exarato ~~stomatose~~, tenue; stipulis amplexicaulis,  
semi-ovate-acumin.; bract. minutis, filiform. villosis;  
floribus remote-panicatis, recurvis, calyce colorato, albo-  
velutino; sepalis minutis; Corolla parva, vexillo pur-  
pureo, albo striato, alis ~~concoloratis~~ <sup>atris</sup> purpureis, le-  
gumine pendulo, lanceol. subinfl., velutino, purpureo-pcto.  
Planta humifusa, basi caulium glabra, <sup>sub</sup> argen-  
tea, multicaulis, nitens. The first appearance.  
Weather fair. N.W.

June  
26.

At Coquette de Prairie,  
Encampment near the Pelican lakes.

200. radice subterr. fibroso caule  
erecto, ramoso, terete, glabro. petiolis, sensilis, semi-  
amplexicaulis, fol. patent. diverg. oppos. triangula-  
cordatis, subdecurrentibus scabris, pedunc. erecto  
ternis elongato, ovato, sepalis profunde ovatis, acutis  
involuta, rigida, apice recurva. Radix 2-3 dentatis  
plicatis. Pl. multicaulis, etata. fol. floralia sub-  
alternis. On borders of woods. The first appearance  
the morning of June 26, clear in the after-  
noon.

June  
27.

At Coiteau de Prairie to the Head Waters  
of River Des Moines.

Started from our encampment at the Pelican  
lakes at 10 o'clock. The flora on the prairie is  
still the same only *Artragalinus* is more fre-  
quent, also *Benothena canad.* We saw a little flock  
of large snow white birds with black wings, which  
our men called cranes, they were grazing on the  
prairie. 2 o'clock P. M. we crossed one of  
the head waters of sources of the River Des  
Moines, about 4-5 yards wide. We met with two  
other parts of Pelican lake. we encamped in the  
evening, at the ruined establishment of Mr  
Laframboise in a bottom like valley and an  
adjoining wood, and lake, this is the last Woods  
we shot with for a whole week. Weather  
fair. Thunder & rain at night. L. W.

June  
28.

At Coiteau de Prairie to the dividing  
ridge of Mississippi & Missouri.

At 5 o'clock in the morning we proceed-  
ed. after we took a good provision of  
wood. This wood is one of the most fertile  
and the timber is not inferior to any  
in the Mississippi bottom. it consists chief-  
ly of *Quercus bicolor*, *Tilia americana*, *Juglans  
lyrata*, *Fraxinus americana*, *Celtis occidentalis*, *Larix  
thorntoni*, *Juniperus*, &c. The adjoining lake is filled  
partly with *Calamus*, *Strandus*, *Equisetum* & and  
full of birds, & fowls, Muskrats, &c.

201. *Hexaclerum villorum* from the Woods.  
with *Trillium erectum*, *Anolis nudicaulis*.  
As soon as we had passed the wood the  
Prairies appeared still with shorter grass, about  
3 inches long; about 9 o'clock we crossed another  
branch of the head waters of River Des Moines.

208. *Potentilla* <sup>varied</sup> covering the ground  
under high *Carex* in low places. At 4 o'clock P. M. we ar-  
rived at the Dividing Ridge of the Mississippi - Missouri  
ri. Vegetation very poor. Shortly before sunset we  
encamped in a valley on one of the sources  
of Sioux River. covered with *Nuphar* with  
lilies. Weather fair, Thunder and very little rain  
in the afternoon. Stray S. E. [35]

June  
29.

Arrival at the Indian Red Pipe Stone Quarry.

Started from our encampment at 6 o'clock arrived at 8<sup>h</sup> 30<sup>m</sup> at the main source of Sioux River, in a winding valley, surrounded by high barren & gravelly, with a little vegetation; (3000 feet above the level of the sea) such as *Thesium umbell* Adnagal. *Euchroma grand?* *Sarcocolla Balsamita*,

202. *Linum* 3-5 inches with large flowers. & 203. *Gaura bicolor?* but 3-6 inch high. *Oenoth. canad* 2-3" *Lupinus vari* 3-4". *Geum* with ripe seed. *Anemone*. Arrived at the Battle ground of the ancient Yanktons & Tetons, where the breastworks are still visible and at 2<sup>h</sup> 15<sup>m</sup> at the celebrated Indian Red Pipe stone quarry, under a heavy thunder shower & strong N.W. Weather clear towards evening. 204. *Pentastem. grandiflorum?* at the top & foot of the Quarry. Rad. inconv. amara. Caud. erecto (integr<sup>o</sup>?) tenete, glabro. fol. radical. petiolatis spatulatis, ovato lanceol. acutis decurrentibus. Fol. caulia connata, opposita, patent. cordato-ovata lanceol. (oblonga). fol. floral hemisphaericis acutis divergentibus. Flor. laxis & limbo. pedum brevi. incrassato post aestivationem erecto, rigido. sepalis calycis, caetera lanceolata, acuta. Planta gymnosperma nigra, <sup>robusta</sup> glauca, speciosa, grandiflora. fl. lilacibus.

The Quarry.  
According to the information of Mr Nicolle.

June  
31.

At the Indian Red Pipe Stone Quarry.

204. *Pentstemon grandiflorum*? radice subcaeserosa, <sup>amanda</sup> caudice  
incrassato: caule erecto integro terete glabro; foliis radicalibus  
decurrentibus-petiolatis, spatulatis, ovato-lanceolatis, sinuatis.  
filibus; foliis caulibus connatis, oppositis, petiolatis, cordatis, ovatis,  
lanceolatis; fol. floral. divergentes, hemisphaerice, acuta, bracteosa,  
floribus axillaribus & terminalibus. pedunculo brevi, post aesti-  
vationem incrassato, erecto, unifloro; Sepala calycis, ovata  
laev. acuta. - Planta rigida glauca gymnosperma, floribus  
conspicuis lilacinis 4. On the Rocks, in the creek and on  
the humus kept on by rain with *Talinum* tenet. *Potent.*  
*bipinnatifida* &c.

205. *Pentstemon pumilus*? caule erecto glabro, foliis  
radicalibus <sup>sessilibus</sup> (ovato)-lanceolatis, integerrimis; caulibus, semiem-  
plexicaulibus, patentibus, oppositis, lanceolatis, acuminatis remote  
serulatis, floribus axillaribus & terminalibus, parvifloris spiratis, (p-  
ris). pedunculis erect 1-2 furcatis (bracteatis vel stipulatis foliis  
floralibus.) sepala calycis semi-ovata laevia acuta, (sepala  
superiora ovata, acuminata, reflexum.) corolla pubescenti lobis  
subaequalibus. Stigmata <sup>longuata</sup> recurva, superficie longitudi-  
nallyter aureo-barbato. with the former on the Rocks  
~~at~~ 206. *Aster*

207. *Talinum tenetifolium*, on the tops of the rocks  
in the humus. with 208. *Plantago*.

209. *Crataegus crus galli*. 210. *Evonym. atropurpureum*.

211. *Acalypha virginiana*  
Weather fair.

July  
1

At the Indian Red Pipe stone Quarry.

212. *Althoea* rad. carnosus, nigro, dulci; caudice  
1-4 partito, caule erecto, (ramoso), terete, rigido, villoso, foliis  
subsessilibus, paterite divergentibus, ovatis, acutis, undulatis,  
subnervis, subconvolutis, vers. subtus subrosis, floribus axilla-  
ribus & terminalibus, subracemosis, pedunculo suberecto, post aesti-  
vationem divaricato.

Planta rigida, alba-villosa, hirta, foliis subtus pallidioribus  
floribus roseis, filam. violaceis, corolla rotata 10. lobis.

213. *Spiraea salicifolia*, caule frutescente lignoso, vixato, ramis  
pallido-fulvis, nitidis, ramis patent. divergent. floriferis, nitidis, foliis  
subsessilibus, patent. divergentibus, lanceol. (oblong.) serratis, subtus  
pallidioribus, floribus terminalibus, spicatis paniculatis, albis.  
(fol. floralia minuta.) pedunc. partial. subpubesc. bracteolatis, sepal.  
calycis, 3-angul. floribus, 5-angul. albis. On the Rocky plains,  
from 2-3 feet high.

214. *Cerastium* covering the cracks of the  
Rocks but already gone, intermixed with *Cerastium*  
*patens*.

215. *Lythrum alatum*? caule erecto vixato 4-angul.  
lato, alato, foliis sessilibus, oppositis, subalternis, subternis,  
lanceolatis, basi cordatis, undulatis, floribus axillari-  
bus, subsessilibus, hexandris, petalis, spatulatis, lilaci-  
nis. - Planta subsolitaria, gracilis, foliis floral. bractea-  
formis, Radice subserpentaria. Around the little lakes & ponds  
between the Rocks, not abundant here.

216. *Paspalum* with the former but more abundant.

217. *Euphorbia helioscopia*, scattered over the dry rocks,  
which were inundated in the spring. Very small & not abundant.

218. Borders of the creek below the falls.

219. with the former, both not abundant.

July  
2

At the Indian Red Pipe Stone Quarry.

220. *Geum album*, On the border of the creek with the former, not abundant

221. *...* climbing over the shrubbery under the shade of the rocks, (This plant and the *Coccyzus atropurp.* & *Vitis riparia* prove that this place formerly was covered with high timber, as the area now found but as undergrowth, with several others.)

222. *...* } Both along the rocky  
223. *...* } Ponds among *Carex*, *Spergularia*, *Taraxacum*, the pond itself decorated with *Ranunculus fluitans*, *Najas advena*, *Myriophyllum verticillatum*, *Sium* in several species, *Veronica beccabunga*.

224. *...* with the former.

225. *...* On dry rocks amidst *Penstemon grandiflorum*, *Cactus* & c.

226. *Amonophis canescens*, the striking character & color of the N. Western prairies from *Galena* ~~up to~~ <sup>as far as</sup> this place, the first blossom which appears I have found it also in the prairie in the upper Missouri but not so abundant.

*Desmodium* 105. *Traverse des Sioux*, this plant is in great perfection in shades under the rocks.

*Radix* verticalis, ramosa subligosa, carnosae fibrosae, externe fuscae nigrae, amarae, caudice incrassato, 1-3 partito; caule erecto, nemoso, terete, ramis patentibus divergentibus, nunculis axillaribus floriferis; foliis subsessilibus, oppositis, divergentibus, subpinnatis, ovatis, basi, acutis, subtus pubescentibus, pallidioribus;

July  
3

At the Indian Red Pipe Stone Quarry.

floribus axillaribus & term. corymbosis; pedunc. general. divergentibus, canaliculatis, post-nunculis basi stipulatis, Stigmatis lanceol. acuminatis, ciliatis, calyce minuto, 5-lobato, corolla campanulata 5-loba, lobis acutis reflexis; Staminihus sagittatis, oviformis cohaerentibus, Stigma ovali (stipitato?) includ; gemine 2-partito, folliculis subglobosis circumdati, filamentis alternantibus. Pl. glabra, foliis basi, floribus roseis, albo-striatis, 1-2 feet high. *Cyananthum laevi*? *Mischocarpus*. The follicles are alternating the filaments, which are closely united or expressed & include the stigma, in a conic shape (Stigma on both parts of the ovary).

July  
4.

At the Indian Rock Limestone Quarry.

Flora.

a, On the top, or surface of the Rocks, exposed to the sun. - spring flowers, now with near ripe seeds.

*Draba caroliniana*, *Cerastium nutans*, *Androsace septentrionalis*, *Planchonella americana*, *Cerastium dichotomum?* *Aquilegia canadensis*, *Scum vivale*, *Gnaphalium plantaginifolium*, *Veronica peregrina*, *Travis stricta*, *Anemone Thesium umbellatum*, *Dicentra virginica*.

The lower rocks are partly covered with *Lycopodium podium?* most destroyed by the heat of the sun, with *Opuntia vulgaris* & a smaller variety, perhaps both distinct species. b, Summer flowers, now in blossom.

In the cracks of the upper & lower Rocks, & in the accumulated vegetable substance deposited by inundation & rain.

*Tatimum tenetifolium*, *Delphinium 3 dactylorum*, *Potentilla arguta*, *Pot. bipinnatifida*, *Oenothera canadensis?*, *Plantago virginica*, ~~Plantago~~ *Pentstemon grandiflorum*, *Pentstemon pinnatifidus?*, *Artemisia frigida* (as yet in bloom).

Lower down & on the Prairie.

*Thalictrum dioicum*, *Aster amplexicaulis*, *sericeus*, *Aster* 195 *Achillea* *Oralis violacea*, 197 *Allium* *Anemone virginiana*, 37. *Umb.* *Smilacina* *Allionia hirsuta* *Oralis stricta*, *Amorpha canescens*, *A. frutescens*, *Vicia americana*, *V. cracca*, *Tradescantia virginica* *Petalostemon violaceum*, *Oenothera canadensis*, *Asterias* *Syphium alatum*, 160. *Asphodelus*, *Polyg.* *num amphibiaum*, *Euphorbia heliopsis*, *Arabis stricta*, *Silene stellata?* 218. *Graven* 219. *Nuphar advena*, *Myriophyllum verticillatum*, *Ranunculus fluitans*, *Asarum virginica*, *Lilium uniflorum*.

July  
4.

On the top, and amidst the Rocks

Trees and Shrubs with fruit. *Fagus sylvatica*, *Quercus bicolor*, *Inaximus acuminata*, *Enataegus crus galli*, *Evonymus atropurpureus*, *Anonia ovalis*, *Cerasus hyemalis*, *Cerastus depressa* (on the top in the cracks), *Corylus americana*, *Ribes cynosbati* & *floridum*, *Vitis riparia*, *Menispermum canadense*, *Smilax herbacea*, *Rhus toxicodendron*, *Amorpha frutescens* *Ampelopsis 5 folia*.

*Spinaea salicifolia* now in bloom. *Symphoricarpos racemosa*. In consequence of the scarcity of woods in this place the timber here is more scanty & is daily decreasing, depriving this beautiful scenery of the grandeur, which belonged to it to some extent.

The ponds below the falls of the creek are bordered by *Salix petiolaris*, but the more they are toward the Prairie the more they are naked, and only surrounded by high grasses.

Remarks.



July  
5

At the Indian Red Pipe Stone Quarry.

227. *Polygonum amphibium*. - *Poa aquatica* var. *americana* For. along the creek, collected 3 days ago -

Post 100. *Riviera* and *Liards*. Rad. (sublignoso) crasso, caudice 1-2 partito, - caule stricto, ramoso, subterete, obtuse 4 angulato; foliis sessilibus, divergentibus, oblongis, acutis, basi cordatis, crassinerviis; (nerv. albis pellucidis) subtus pallascentibus; - floribus terminalibus, (corymboseis) umbellatis; - Ped. uni. part. stipulatis; ~~stipulis~~ stipulis; - stipulis linear-lanceol. acuminatis, appendiculatis membranaceis; - Sepala Calycis, - lance-linear-acuminata, membranaceis, corollae subaequalia; - Corolla minuta alba-vivida, monopetala, lobis semiovatis. \* Shades, particularly in the high grasses of the Couleers & River Bottoms & margins of Lakes & Ponds. Very Abundant.

228. Umbelliferat.

*Cicuta maculata* Linn.

Rad. subbulboso, pro-noso, fibroso, carnoso, caule erecto, subflexuoso, ramoso, articulat. rubro, lineato, glabro, nitido, fistuloso; - fol. rad. longe-petiolatis, 3 angulatis, 2-3 pinnatis, apice saepe-replicatis; - petiola com. subterete, solido, pulverulento, partial. conalutatis; - foliis sessilibus, lanceol. acute & mucronulato-serratis, subinduplicatis, folia caulina amplexicaulia, patentes; - flor. lineari-lanceolata, ternata; - ramis patentibus.

divergentibus, subsolidis; - Involucro generali monophyllo, lineato; - partite 3-10 phylla laterale, lineare-acute; - petali subcordatis, marginibus inflexis, apice subcordatis; - sepalis calycis, minutis, 3-angular. albis; petalis alternantibus; - filamentis suberectis, petalis aequalibus, (& petalisq. cal. sep. altern.) The filaments, are with the segments of the calyx alternating the petals, germ flat, the short style upon it, in the centre subbid. the surface of the germ shining & uneven. Rocky wet Meadows, in the high grasses with the former, abundant.

229. *Scirpus*, gravelly inundated soil & marks on inundated Rock now dry.

Post 200. *Aster*

Rad. fibra. comoso, bienne, caule erecto flexuoso, folioso, subhirsuto, sulcato-lineato; - fol. rad. petiolatis, subopthalmis, acutis, remote-dentatis, hirsutis, 3-nerviis, caninis erecte-patentibus, sessilibus, decurrent, lanceolat. acutis, laevibus, 3-nerviis; - floribus corymboseis, ramulis patent. divergentibus, axillaribus floriferis, folia floralia minuta, fimbriata; - pedunculis-diversicatis, unifloris; - Perianthis imbricatis; - sepalis linearibus, acutis, pilosis, pellucidis, appressis; - Radis duplicatis linearibus, carinatis, disco luteo. - Planta inconspicua, pubescens, tristis, pallidescens, Borders of Woods & River banks, Common & abundant.

July 6.

From the Indian Red Pipe Stone Quarry up to the Coteau de Prairie Perre

Left our encampment at the Pipe Quarry at 4<sup>h</sup> 30<sup>m</sup> & went on North. The morning was very foggy, so that we often were compelled to stop. The vegetation is very poor on the ridges; the grass is thin & short. 231 *Lilium Catesbaei* with its bright vermilion colors appears high & low; with *Rosa parvifolia* but no other species of Rose appeared yet. A small rigid 232 *Aster* in bloom, probably deformed by the burning, with a white flower petals & disk. with 233 *Acerates*

234 *Anemone virginiana*, - 237 *Labellia* fol. ovatis-spathulatis, fimbriatis, subdentatis, caulibus sessilibus, caule pubescente, suberecto, a small erect species with azure flowers & white inside 6-8" low & high Prairie.

239 *Tuonicium canadense*. Root repent, articulate, joints fibrose, stem erect, integer, articulate, 4 angled, subrepand, hirsute, pithis replicatis, foliis subseriatis, patent. diverg., lanceol. ovate adunminatis, base truncate; serrate, hirsute, nerves white & pellucid, spike verticillate bracteate; - bracts ovales subdentate, cuspidate (acumin.) villosae fimbriate; - Calyx 5 dentate, acute, corolla bilabiate, inferior lobe 3 lobes, whereof the middle one is coriaceous, the upper part is fimbriate & entire, *Didymia Gymnarrh.*

Among the high grasses, flowers purple & white variegated, in whorled spikes. very abundant in the boulders.

238. Radice tuberosa palmato, succulento, caudato; - caudice gemipari, caule erecto, foliis, irregulari-angulatis, subtorto; - foliis vaginantibus, - Folia radicalia patentia, breviores, ovalia, <sup>vel squamose</sup> *Caulina* suberecta, lanceol. elongat. plicata superiora, angustata appressa, (caulinis & radicalibus, cristalliana,) floribus spicatis dense bracteatis, gemine sessile, torte, inequali-angulato; - Sepala perianthii subaequalia, superior ovatum incurvum; lateralibus obliqua; - Petala 3, superiora conniventia, lanceolata, obliqua, limbo integra, lanceolata acuta incurva, calicem clavato subinflato, <sup>germinali</sup> *lobis* brevioribus; - Columna 3-lobata, 2 auriculata antherifera, ovata, (Pollinia lateralibus stipitata glandulae stellatae aggregatae -) The whole flower very indistinct & small. Boulders at Coteau de Prairie Perre near Woods - 20" high.

Post Astragal. 119. Legum. <sup>ide</sup> sessile erect, sides subinflated, acuto, (style persistente poroant), albo tomentoso-villosa, coriacea, rubescente. *Buffalae* seen by our Indians, Lake <sup>bordered</sup> with fine timber. The most substantial trees, *Tilia americana* & *Fraxinus americana* *Quercus bicolor*, - the Lake 1 mile off is 13 miles long & 1 1/2 wide; the boulders contain fine coal & clear water, that of the lake is greenish. - The Spanish fly is here so abundant on the above Astragalus, that the air is fetid on the shores of the Ravines. - N. Wind fair weather.

July. From Coteau de Prairie Perce, to The  
7. Riviere Croche.

Left our encampment at Lake Perce, at  
5<sup>h</sup> 15<sup>m</sup> N by West. Cloudy dull morning.  
*Cypripedium candidum* on the slopes of the  
ridges, in fruit. On the elevations with  
*Antennaria*, 240. *Pentstemon*, - caudex  
radicans, caespitose, with many stems; stem erect,  
low, leafy, radical leaves with long petioles, in-  
volut, lanceolate, acuminate, obtuse; cauline ones sub-  
sessile, patent, opposite, superna, acuta, sessilia;  
pedunculis axill. erectis, rigidis bifloris - partice  
ones bistipulate, inaequal (flowers paniculate)  
pale-purple, the sepals of the calyx equal,  
lanceolate, acute, mucronate, rigid, - capsule  
ovate bivalved, mucronate, glabrous, (the leaves  
are coriaceous, entire & sharp dentate, remote  
& acute serrate, subundulate & crisp, variable)  
supra cum caule & pedunculo pubescentia & glan-  
descens. - A plant very differing in its foliage  
and only found on dry ridges, very rigid &  
scarcely 10 inches high. -

Pod. Lupinus 159. Legumine monosperm  
nostrato-ovuminate, albo villosa, & sem. compla-  
reniforme.

241. Leguminose, Radice e-  
longata, tenace, albo, cortice 1-3 partito, caule  
erecto, subflexuoso, terete, subcato, pubescente  
& albo-verruculoso, liliato, piloso; foliis

impari-pinnatis, petiolis commune, cana-  
liculato, partibus tectibus; = foliata (5-8 par.)  
lanceol. acute, (punctate verruculose.) - Stipen-  
tis, linearibus acutis, minutis, dichiscentibus,  
floribus, axill. sonico-spiratis, bracteatis,  
pedunculis berribus, erect-patent, (exar-  
petiolo brevior); - bracteis ovatis acuminat.  
membranaceis; - Calyx inaequalis (basi gibbosa)  
inflatus, 5fidus, glandulos & glutinoso piloso,  
sepalis linearibus; - vexill. elongat. oval lance-  
olate, patent. fulvido-lineato; alis minutis, semi-  
partatis, angustatis, carina minuta, viride alba  
elongata. Legumine verrucosa. Stip.  
incurvo, - (Radical leaves are all sti-  
pulate 2, semiamplexicaul. 3 ang. ovate acute.  
This plant appeared first on the crooked river  
in the high grass & then often on high gravelly  
situations & margins of Ponds & lakes. abundant  
1-2 1/2 f. high. Weather fair.

July 8. From Riviere Croche to ~~Two~~ <sup>2</sup> Lodge Lakes.

Left our C. at 8<sup>h</sup> 45<sup>m</sup> in N. direction. the crooked river for a long time on our left. with some Willow & Oak on the margins. - the bottom of it contains very high grass, intermixed with *Thalictrum* & the Legum. 241. The silvery Lupine is still increasing uniting with other plants, additional to the former of that color. We crossed the crooked river at 10 o'clock A. M. the current is swift, the water white & clear, bed rocky & gravelly we found a species of Unio with the same species of *Lecches* as in Lac Pelican. The river is about 12-16 yards wide & full of Conifers & Potomacston, the lowest stand of water about 18-24 ft. a branch of Rock River?) On a sandy elevation close by the river, covered with *Gillenia*, *Artemisia* I found a *Buphthalmum*?

242. Rad. caudata perpendicular. caudice multipartito, caule prostrato, expanso, suberectis ascendens) ramose, tenete, folioso, hirsutissimo, rubescenti, foliis integris, ovatis, laevibus, undulatis, costatis, alternis, - inferioribus, lanceol. basi angust. subpetiol. decurrentibus, obtusis, superna semiamplexicaul. oblong-lanceol. recurvis; - Perianth. imbricat. squamis erectis linearibus, appressis, sericeis; foliis floralibus circumdati. Pappus setosus articulat.

Consumed between the Lake of the two Bank Lodges. Sultry & warm weather. S. C.

July 9. From the Lakes of the two Bank Lodges to the Cactus Lake,

243. *Lupinus* Radice crasso divergente ramoso, caudice nodoso, caule erecto, ramoso, flexuoso; - foliis petiolatis, divergentibus; - Caulinia digitata; superna & fol. ramulorum ternata; - foliola subsess. elliptica-lanceolata, obtusa? peduncul. axillar. patente. inflexo vel coarctato, - petiolo communis canaliculato, destipulato; - *Stipulis* lanceolatis, (arminatis), margin. incurv. obtusis, floribus spiratis; - spicis paucifloris; - axemulis 3 floris, sessilibus, bracteatis; calyx bilabiatus; lobis superna brevissima fimbriatis, inferna linear-acuta elongata, corollam sequente; marginibus involutis, - Vexillum cordatum, marg. involutis; - alis unisagittatis, obtuse-ditatis, carina minuta. - Plente erectis, floribus minutis aruncis. This plant appears on the bluffs along the St. Peters, near Inverness des Sioux, and is very abundant on the Coteau de Prairie, that it characterizes the country, by its beautiful silvery color, it is more generally on level ground, but sometimes noticed in every situation.

Started at 8<sup>h</sup> 30<sup>m</sup> (after we witnessed several heavy thunder showers around us, without having much of the rain, by J. E. Wind.) took our route N. E., at about 10 o'clock we reached a Lake surrounded by some shrubbery of Black choke Cherry, Willows, *Fraxinus* & *Quercus bicolor*?, on the rocky & gravelly inundated shore I found in the high grass & other plants the *Buphthalmum*, but not in blossom with the *Leguminosa*.

245. Caule erecto ramoso, terete, gracile, foliis brevipedicellatis, ternis, divergentibus, petiolo communi dilatato, foliis sessilibus

July 10.

At the Cactus Lake, or Lac des Amourettes.

ellipticos-lanceolatis, verrucis, integerrimis, floribus terminalibus solitariis minutis, (folia floralia supra singularem pet. sess.) floribus patentibus, calycis 5fidis fissis linearibus lanceolatis acutis, fimbriatis, Vanill. rotundatis, (cordatis) conduplicatis, albo, carneo-venosis; albis linearibus, obtusis albis; Corinae stans, acuta, apice lutea; - Legumen perpend. rectinato, elongato, lineare-terete; - Planta annua, pusilla, glauca-villosa, pubescenti, Sepala calycis corollam longiora -

246. *Helianthus* caule erecto (suffraginoso) ramoso, multipartito, tereti, lineato, scaberrimo; - ramis radicalibus ~~divergentibus~~ <sup>patentibus</sup>, supernis divergentibus; - foliis caulibus longipetiolatis, laxis; angulatis cordatis, acuminatis, grosse serratis, nervibus, undulatis, scaberrimis; - floribus terminalibus subsolitariis; - squamis antheridis, lanceolatis; acutis, ciliatis, trisutis; - Receptaculo villoso, - Radiis ellipticis, plicatis, conspicuis; - Discis convexo scaberrime purpureo; - Planta raris, solitaria, annua pyramidata glaucovirens, floribus conspicuis.

This plant appeared only along the sandy beach of this Lake, very few in number scattered among *Artemisia* *Cleome* *val* biennis & *Baphthalmum* & *Artemisia* *Cleome*. it is evidently an annual plant.

Encamped at the Cactus Lake, after we travelled about 15 miles, passed a fine timbered Wood on the left, separating 2 lakes, of about 20 miles circumference & this lake is about 10 miles circumference; contains apparently 3 species of *Conchyliæ*, & the sandy beach is covered with *Cleome* *Spudra*. - Weather sultry, J. E. Thunder & rain at night.

July 10.

At the Cactus Lake, or Lac des Amourettes.

Post July 6th In the colon 247 *Equisetum*, Post July 7 *Lilium* <sup>248</sup> *Catesbaei*; - Post July 8th. 249. *Physalis* with *Syngenes*. 242 along the banks of Riviere Croche. - 249 *Lysimachia ciliaris*, in wetted places & among high grasses. Post 8 of July. 250. *Trifolium* Buffalo Clover - low places in prairies generally *Patty* Leaks. - this species of *Trifol.* covers the soil closely by its stolones. - 251 - (10 of July) *Cleome dodecanava* var. *Canadensis*, - vel *Polarisia graveolens* \* Rafin. - This plant is called by the Sioux and used as a medicine to find out many *Buffaloe* as they want, which is performed by mixing this plant with another, pounding both together & with this mixture the performer goes on horse back near the *buffaloe*, by which attracted by the agreeable scent, follow him in the enclosure, (put up for the purpose) through a narrow pass entrance, wherein they meet their death. This medicine is not very public among the Indians only few know the ingredients and performance so that it is said, an Indian will give for the first article 5 horses & for the second his Lodge; we have not been able to learn the second species. 252. *Hedysarum*? found on wetted spots in the high grasses, in a low place, near this Lake. - 253. *Sonchus* from the shore of the Lake of 2 Ledges July 8th abundant. 254. *Astragalus* from the sandy & gravelly shore of Lake Cactus, ~~apparently~~ yellowish flower July 9th. - 255 *Dartingtonia brachyloba* scattered through the Weeds with *Legum.* 245 which appeared also on this Lake, only among the boulders in grass

\* *Richtshaska*. Gray Stem.

July  
10.

At the Cactus Lake, on Lac des  
Amourettes.

Soil with *Sonchus* (253) - 254. *Verbena* from  
the sloping banks near the shore of the Lakes  
& two bank Lodges, with 256 *Stachytarpheta* from  
the same places. 258. *Cyperaceae*. prostrate  
flat on the bottom of dry lakes of some parts  
of the above Lake. - 259. *Triticum* from the  
high dry banks of the shore of Cactus & 2 Lodges  
Lakes. 259. *Triticum* from the high dry shore  
of 2 bank Lodges Lakes. - 260. *Acerates* leaves  
lanceol. curved-reticulate, obtuse, from the  
high shore of the Lakes & hill slopes along the  
Ravines. - 261. *Cyperaceae*? - the bottom  
of the dry Lakes are covered with it - with  
(263. *Tipha* Lake  
258) 262. *Scirpus*. (July 8th) with *Scirpus*, *Punc-*  
cus *Polygonum amphibium*. *Potentilla lupina*.  
*Oenothera biennis* - The little timber around  
the lakes chiefly *Ulmus americana*, & *Frag-*  
*axinus acuminata* - *Quercus discolor*. - *Populus*  
*grandidentata*, & *Amorpha frutescens*, the trees  
about 25 feet high depressed; - *Vitis riparia* among  
it. - 264. *Symphoricarpos racemosa*. -

July  
11.

From Cactus Lake to the  
Village of Kinihampi at the two  
Woods.

Light wind N.W. in the morning, clear, 48°  
at 5 o'clock -

*Post Lupinus* (243. Spica subreticulata; - racemu-  
lis suboppositis, 3 flor. bracteatis; - bracteis ovato acu-  
minatis; - calyx 2 part. part. super. 3 fidem brevior-  
inferior, integro, elongato, abstrato; corollam  
longiore, (apice conduplicato) - vexillo cordato, albo  
striato-nervato; - alae pennis parallelas recurvas,  
carina clausa, minuta vexillo coarctata, floribus  
atro-azucis, minutis. *Rosalea*

265. between the acumin-  
lated granite boulders, shore of Lake Cactus

266. *Rosa* with the former. - *Rosa* folio  
obovatis, ellipt. (flore albo.) glaucescens, the leaves  
somewhat cuneate, and serrate, pubescent un-  
derneath, spinis acicularis, erecte patent. co-  
rous, near the shore of Cactus Lake with a great  
flock of *Pentstemon grandiflorum*. This *Rosa*  
as far as it appears is probably only a  
variety of *Rosa parviflora* Ehrh. -

268. *Euphorbia* prostrate & a little ascending  
when in the grass, this one on the gravelly  
shore with *Legumin* (245) which is very ab-  
undant, and still in bloom, and also with  
a *Tetradynamis* plant, & with

270. *Astragalus* acaulis, radice (fusi-  
forme) caudato, caudice multiparti prostrato,  
a low stemless species, glaucous, & as the flowers  
were gone, some remains of them had a pedicel  
yellow color; the legumens an inflated - not very  
numerous.

July 11. From the Cactus Lake to the Village of Kinihampi at the two Woods.

with the former & Pent. grand. & Astelep. Tyrinaca. Here the Flora has a different appearance. Rosa parviflora & 267 is about 1/2 feet high, covering large high & dry places where the glaucous green <sup>near to the water</sup> ~~near to the water~~; Cleome dresses the shore with a purplish green & the slopes of the shore, is covered with Buple. thalium (242) and principally with the former preceding one the silvery Artemisia intermixed with a green species; Amorphia-Lupinus & Lygodium, with a species of Diplopappus, the above Roses, Helianthus, Rudbeckia pinnata & are the remotest of the water; in some places, between fallen timber & large boulders is Potentilla lupina & Tetrad. 246. the prevalent plants. The timber is chiefly American Elm & Cotton wood (Pop. grandis) but the most part is dead, destroyed by the fire.

Started from our encampment at Cactus Lake at 2 o'clock, P. M. and arrived at the Confluence of river, at Riviere Croche; encamped on the opposite side. The river is bordered with some Willow & high grasses, Junus, 271. Salix on the bank 272. 273 Lespedeza with the former. Weather fair, a little cloudy at the evening, 9 o'clock the Thermom. 47°

[56]

July 12. From the Confluence of River & Riviere Croche, to the Village of Kinihampi at the two Woods.

Started off at 5h 45m in N. W. direction, the night was extremely fresh, but 39° at sunrise. The prostrate, capitate Astragalus very abundant. Intermixed with the large Thernom & Pentstemon gracile? - the last in great abundance & profusion with panicles of 8-10" long, plant 1/2 feet high, also Oenoth. canad. & Petalost candidum Lupinus - all in full blossom, the last still in great abundance, Achillea millefolium on rotted spots, Amorphia very abundant, but not in bloom yet, Geum rivale in ripe seed; Potent. anguta in bloom; & Astragalus (67) still in bloom - Fleu- where americana in ripe seed; - all in high situations, Liliun. Patesbaei; Lithosperm. & Leg. (245) in blossom & great abundance with Xerophyllum asphodeloides? in Salt Licks. - From the bluffs of cracked river on high ridges & barren gravelly soil, intermixed with limestone parts, 274. Galardia sp. Radice gracile, tenui, caudice collato, 1-4 partito, caule erecto, diviso; terete, suboblineato, hirsuto & tomentoso, foliis ~~not~~ divergens, radicalibus longepetiolatis, <sup>apice</sup> ~~apice~~ serratis, lanceolatis obtusis; pilosis vel tomentosis villosis, carnosis, 3-nerviis, integerrimis, caulibus ~~subtili~~ lanceolatis ut pinnatifidis, semiamplexicaulis (pinnulis <sup>apice</sup> ~~apice~~ basi villosis) - floribus solitariis terminalibus, pedunculatis, ped. unifloro; - Perianth 3plis catis, stellato, imbricato, squamae exterioris lanceolatae, divaricatae, apice incurvae, - interiora appressa, lineares, acuminata villosa-fimbriata, basi flexuosa, tomentosa, Radiis 15? divergente-divaricatis, trifidis subunciformibus, subplicatis, auris, ramunculaceo-striatis, regularibus, disco hemisphaerico, fructu sericeo, Pappus

[57]

July  
12.

From the Confluence of River  
& Riviere Croche to the Village of  
Kinihampi at the two Woods.

erectus, setosus, lat. 3-4-5. rigidis. Planta ste-  
gans, 10-15" high. Silvery-tomentose, villosa  
floribus, croceo-ranunculaceis, disco amaran-  
thino, floribus conspicuis.

Port Pentstemon (240.) Calyx  $\frac{1}{3}$  of the length  
of the corolla, corolla tubulosa, ventricosa, -  
caux purple spotted, 2 parted part 5 lobed, upper  
part 2 lobed, patent-reflexed, infer. 3 lobed straight  
reclinate, flat, pubescent, in & outside. - With  
the former and on all high dry banks & ridges,  
up to the Courteau & particularly near the dividing  
ridges, 8-10" high, caespitosa - 245. Potentilla

radice tunicata nigra, caudice comoso, can-  
be sabreoto, gravele; - foliis radicalibus palmato-pinnatis,  
foliolis 6 parvis, inferior appendiculatis, subconduplica-  
tatis, incisae-serratis, argenteo-sericeis, tomentosis,  
villosis; - petiolis brevibus crassis, rigidis, ~~caule~~  
~~caulis~~, folia caulina (few) stipulata, stipulae  
dolabriformis, apice recurvis, floralia cum sti-  
pulis adnatis. 3 fidis, minutis, (appear as so with  
the stipules) petalis obcordatis, floribus axillaribus  
& terminalibus, racemoso-corymbosis - Calyx infe-  
rior corollam aequante. - Another beautiful silvery  
plant, with fine small golden yellow flowers,  
with the bipinnatifida & the former Pentstemon 240.  
Silvery Artemisia, and all plants mentioned on  
this date above.

Lilium Catesbaei very abundant on the Sloops of  
the hills, near the Lakes with Cerophyllum & Scorta

[58] done.

July  
12.

From the Confluence of River  
& Riviere Croche to the Village of  
Kinihampi at the two Woods.

with some scattered Syrinchium anceps in  
blossom.

Psoralea? 159. Tubero napiforme, ovato, tunica  
la corticata, tunica externa membranacea  
naphanea; interna aurantiaca, subter alba  
lignosa & tenax, caro alba medullosa, cen-  
tro lignoso-fibroso. Caudice nodoso, collato,  
cauda ramosa & fibrosa. Caulis foliis &  
pedunculisque affixis, pyramidatus, cine-  
reo-villosus, basi angustus 1-4 partitus.

This is one of the most remarkable plants  
of this region. it is the Psoralea esculenta of  
Pursh, and the plant where the Indians subsist  
on during the summer season, dried they trade with  
it as ~~the~~ Partides.

Arrived at the Village of at  
the two Woods at 6 o'cl. P. M. - The Indians re-  
ceived us with an unexpected cordiality, they  
met us 3 miles before their Village, in a warlike  
armature, forming a regular procession on horse-  
back; when we arrived at their village, they invited  
us to a feast, prepared for us, where we of  
course could not hesitate, it consisted of  
Dagmeat & Breadroot from the prairies.  
Weather as usually very favorable. N. W.

[59]



July  
19.

At the Village of Kirihampiat,  
The two Woods.

This lakes are surrounded by some timber  
of Lind, Elm, Acer Negundo, the usual oak,  
Ash & chiefly Populus grandidentata, but this  
timber is only thus remained & escaped from  
the burnings of the Prairies by the Indians. - The  
shores & the Lakes itself are full of Juncus, Scir-  
pus - Tipha & Triphorum. Linaria, the shore  
is very sandy with a great portion of Limestone  
parts. - one of the lakes is very salty; -  
on the lower margin of the lake, in the wet  
gravel; - 276. *Rubella Radix fasciculata*.  
brevi, caulis 1-8 partitis; caule erecto, namoso, fle-  
xoso, subterete, rubro, maculato, verruculoso,  
hirsuto-piloso, pilis glandulosis; articulis; fo-  
lia radicalia longipetiolata, flaccida, lateris decur-  
rentibus, subaequalibus, ovatis, ellipticis, obtusis  
trinerviibus, erose serratis, hirsutis; - Caulinia  
sessilia patentia, basi dilatata, subauriculata,  
vel cordata, undulata, 3 nervia, erose-dentata ci-  
liata, hirsuta, marginibus rubescentibus; - flo-  
ribus terminalibus (ramisum) perianth basi vel-  
losum (receptaculo) exteriori replicato-dissociato  
lanceolata; 3 nervibus, ligulis aequantibus, integ-  
rancel. acum. ciliatae, superficie glabra, cum pro-  
ced. setose ciliatae, pedunculo exserto, Radix  
divaricatis-pendulis, bidentatis, replicatis;  
lanceolatis, 14-25. Disco conico, scabis lance-  
olatis amaranthinis) Radix externe pallidior  
& pubescentibus interne intense - aurantiacis  
[60] Planta

July  
13

At the Village of Kirihampiat,  
The two Woods.

rigida, hirsuta, scabra, crassinervia,  
floribus conspicuis aurantiacis; -  
277. The abundant glaucous Green  
in the concavities of the Prairies; this one  
from the borders of the Lakes at the two Wood.  
278. *Geum* fol. rad. interrupte -  
pinnatifidis, pinnae supremae majores,  
pinnae subalterne - interruptae, dentatae  
petiolo canaliculato strigoso, stipulato, sa-  
b. suberecto, flexuoso, terete, hirsuto, foliis sti-  
pulatis, subpinnatifidis, subternis, dentatis,  
lobis acuminatis; stipulis rhomboidalis,  
palmatis, floribus axillari-terminali-  
bus, pediculis puberentibus; - partiales in-  
crassatis, (Sepala calycis) infer oval acu-  
minatas, replicatas? 3 nervia, mar-  
ginibus albo-tomentosis; - exterior;  
linearibus innerviis, - petalis rotun-  
datis, fructu <sup>replicato</sup> cordato, vel geniculato-  
spirale \* fol. flor. lanceol. denticul; -  
With the former two, & *Helianthus* 200.  
here very abundant.

July  
14.

From the Two Woods to Lac Qui  
parle.

Started at 6 O'clock in the morning from  
our encampment, at the two Woods, N.E.,  
passed several Lakes, covered with *Sarcus*  
*Scirpus* (281) &c. On a sandy elevation  
at the shore of a Lake 279. *Lithospermum*  
*squarrosam* with *Lied.* with *Euphorb. by.*  
*perisifolia*. & 280  
*cheicantus* like, glaucous, root fusiform, sent of *Raphe*  
*rus*; - We encamped in the afternoon at Riv. aux  
Plus, a small stream with some timber in the  
low grounds, *Urtica americ.* & July. *Inaxinus* *acm*  
*minuta*, *Acer Negundo*, *Tyrus ovalis*, *Prunus obovatus*?  
*Ribes 3 florum* & *Rosa parvifolia* in fruit, *Menispermum*  
common *Rhus*, and along the shore the first appearance  
of *Asclepias verticillata*, There is a great many gra  
nit boulders scattered on the upper banks, and later  
some Missouri limestone. Here we suffered a very  
severe storm through the whole night, so that we had  
to break up our tents, - No rain - S. E.

[62]

July  
15.

From the Two Woods to Lac  
Qui parle.

Sunday. The storm subsided at 8 o'clock.  
We travelled on N.N.E. along this River  
on our right sometimes 20 miles off - this  
river has in some <sup>places</sup> very high banks, where we  
found 282 the \* *Euphorbia variegata* in great  
perfection, and expanded after a days  
journey of about 25 miles at the junction  
of Riviere aux Plus with the Beaver River.  
Weather as usual fair, cloudy in the night,  
but no rain. N.E.

\* Another Southern plant of Mr. ~~Smith~~ <sup>Smith</sup>, though  
he mentions Missouri & Louisiana - This plant  
is certainly here so abundant as it can be seen  
Louisiana, and still higher up it appears not  
less abundant at several branches of the  
River, the River Eau de Vie, and last  
I saw some imperfect individuals at the junc  
tion of Watchwak and Makato River  
at the River banks, and on the same  
bank about 20 feet higher on open gravelly  
soil the *Euphorbia cyathophora* W. again a  
Southern plant of ~~Smith~~ <sup>Smith</sup> which is more ab  
undant than the former on the dry sand on  
the banks of Lac d'esprit & titanka taunian  
Spengel's *E. cyathophora* is ascribed to the  
East Indies - -

[63]

July

Arrival at Las Qui Parle

We went on along the same River, which timber increases in vigour more & more, toward its mouth at the St. Peters, near Las Qui Parle, which Port we reached at 4 o'clock P. M. - Heavy Thunder Shower at night -

[64]

July

16.

At Las Qui Parle

Monday. Sultry & cloudy weather. 283 *Lycopodium minor*, on the dry hills, noticed at Traverre des Sioux, & very often found in great abundance, (Castro Lake) 284. *Asteres foliis lanceolatis elongat.* on all dry hills common with the former but more solitary. 285 Probably *Asclepias acuminata*, caule elongato erecto, ramoso, obtuse-angulo, foliis subsessilibus divergentibus, ovato-acuminatis, integris, crassinerviis, supra pilosis, subtus glabris, venis pellucidis, floribus umbellatis terminalibus, pediculi gener. paris, subaequalibus; caule superne pubesc. - Involucro polyphylo, lineare, dehiscente. - Calyx 5part. reclinator. - Nectaria corpiculatis. (pediculi part succul. puberula coronata) This plant is always to be found in the shade of the Ravines, in the River bottoms and always among the high grasses.

286 *Lespedeza* caudex caespitosa, caule erecto gracile, terete, exanato, velnoscuto, lineato; - foliis ternis, aequalibus, lanceolatis, supra scabris, subtus pubescentibus, nervosis cum venis reticulatis, pellucidis; - Stipulis linearibus, acuminatis, membranaceis, fimbriatis; petiolis partibus setosis stipulatis, brevibus teretibus & pilosis; - floribus paniculatis (spiratis) glabris & hirsutis - Calyx 4fidus (4partitus) <sup>sepalis inf. majore imbricatis</sup> albis sericeis, sepalum superum dilat. complanatum - bracteis linearibus acuminatis, villis siliatis, dehiscentibus; - vexillo rotundato; - alis lanceol. obtusis, obliquis; - Carinae truncata, crispata, stigma truncata.

*Hedysarum Canadense* ?

[65]

margine verruculoso, centro immenso. — Legu-  
mine articulato.

This very ornamental Plant appears first  
in great Perfection on the Crooked & Plus ri-  
ver bottoms in large bushes 3 feet high, the  
panicles <sup>flowers</sup> of a crimson color  $\frac{1}{2}$  of its height,  
in the high grasses only — According to the  
fruit it is the *Gledysium Canadense*? It  
is also very abundant along the St Peter River  
& Riviere on Pommé des Terre.

July  
17.

## St Lac Qui Parle.

Around the River & Lake on the Heights is  
the *Prunus obovata* (of mine) with *Symphoricar-  
pa racemosa*, *Quercus* & *Fraxinus*, the only trees  
& Shrubbery; the timber in the bottoms along  
the River is Soft Maple, *Fraxin. arum. pubescens*,  
sour Elm & a great many Poplar & Willow  
— *Amorpha canescens* with *Rudbeckia purpurea*  
in Honor *Linum rigidum* & *Lygodesmia minor*,  
*Rosa parvifolia* is scattered on the heights; & *Ascle-  
pias syriaca* & *acuminata* in the clefts & in  
the low prairie of the bottoms, with *Gnaphalium* (288)  
very abundant & *Ranunculus cymbalaria?* covers  
the inundated open soil, *Amorpha nana* is found  
on the usual place among the Grass, often lower than  
the grass, a little elevated above the wet, now in  
seed. This as said by the Indians is very much alike the  
other species of the celebrated Buffalo Medicine, and  
they say it only differs in the flower & root, & that very  
species was to be found on the Mississippi with a  
common root & Red paniculate flower the same  
sweet, Form of the leaves & size.

The Weeds near the cultivated Grounds are  
the same (with a few exceptions) ~~that~~ in the Ame-  
rican bottoms. — Weather very sultry all day, with  
thunder showers & rain — S. E. S. W.

July  
18.

At Lac Qui Parle.

High Wind & cloudy in the morning—  
287. *Amorpha nana* N. in fruit. This plant ap-  
peared first after we had crossed the St Peter's near  
Riviere aux Liard — then in full blossom.

288. *Gramen* (*Utricularis*?) This grass is ab-  
undant in wet bottoms & borders of Rivers, of-  
ten 6 feet high.

289. *Ranunculus* *hirvute* or white-  
villous with a small yellow flower, abundant in  
the wet bottom, high grass of the St Peter near L. qui P.

290. *Ranunculus* *Scutellaria* Remarkable  
abundant on the morasses, the stolones cover the  
whole surface.

291 *Ranunculus* *Juncus* With the former &  
has been found in stagnant water before near Sioux  
River. — not abundant here.

292. *Potentilla*, *foliis tenuis*, with Ran (289) abun-  
dant & 293 *Asclepias* *Syrinca* with *tauminata*  
both abundant. 294. Among the *Symphoricarpos* <sup>and covered by</sup> *shrubs*  
& *Asclepias*, *Sylphium*, *Scutellaria* root creeping  
stem ascending, branching, vinate & angled, brownish  
pubescent, — *foliis sessile*, opposite, divergent, bran-  
ches patent divergent, axillary, flowers axillary, so-  
litary, secund; — Calyx pubescent, sepals rounded, trun-  
cate, corolla tubulose, ~~vane~~ ventricose, lower lip of  
the corolla 3 angular obtuse, lobed, whitish, margins in-  
flamed, upper lip coriaceous, 3 lobed, the middle one bifid,  
bright blue & white pubescent, corolla bend upwards in  
fornice — the leaves are cordate at base, oblong-  
lanceolate, acute, serrul. crenate, white toment. beneath, very little puber-  
ulent above. Weather ~~fair~~ J. E. Rainy.

Scut. galeniculata.

July  
19.

At Lac Qui Parle.

We were preparing for our departure to-  
morrow. — The weather improved & the  
sky cleared up at 4 o'clock P. M.

We visited a mineral spring about 2  
miles off Mr. Renville's Establishment, in  
a little valley near the Lake, surrounded by  
some timber, most destroyed by the cattle. — The  
temperature of the spring was 46, 5 at 2  
o'clock P. M. (yesterday).

July  
20.

From Lac Qui Parle to Big Stone  
Lake.

Started from Mr. Pennoille at 10 o'clock P.M. for the Survey of Lac Qui Parle & Big Stone Lakes over very <sup>stony</sup> rocky ridges and encamped at 5 o'clock in the evening at the Riviere on Pomme des Terre - This river is timbered, but the timber is of smaller size than on the St. Peter river. - The variety is just the same. The bottom on that place extended far out in the Prairie - Raspberry were growing & ripe in great quantities - The river is about 15 yards wide & the current considerable strong - on (rotated) places in the bottom the 295 Rudbeckia with pinnate leaves. This plant I noticed first in blossom at C. D. P. Perce, it is much smaller & delicate on high situations, & a very ornamental plant; from the same place Gramen 296 which varies very much in size. Probably a Bromus. Weather fair. S. C.

July  
21.

From Lac Qui Parle to Big Stone  
Lake.

Started from our encampment at the mouth of Pome des Terre River at 5 o'clock in the morning, after crossing it I found on the slopes of its banks, the Aster (233) in abundance & full bloom. This species of Aster is to be found on all high gravelly situations, with the purple Astragalus & Potamogeton. cand. around it. never above 8" high. Liatris pycnostachya? very abundant in level fertile places, but not yet in bloom.

297. *Lysimachia* (Radice perennis fibroso, caule erecto ramoso, (caudice caespitose), 4-angulare. - folia radicalia petiolata, linear-lanceolata acuta, caul. sessil. oppos. patent. linear-elongat. canaliculata, marginibus revolutis, uninerviis, subtus pubescentibus; ramis floriferis geniculatis, flexuosis, erecto-patentibus, floribus axillaribus terminalibus (subgymosis); - pedunculis 4-angularis filiformibus, laevibus, ante aestivationem pendulis, folia longioribus. A plant which appears abundant in the short dense grasses on fresh places in the prairie, when it appears it appears abundant, caespitose without any covering & remarkable fine yellow flowers. - Sepala Calycis lanceolata acuta, lobae corollae rotundatae, abrupte-angulatae. This is the true *Lys. revoluta* of Nutt. Descript. Post Aster 233. Caudice caespitose multipartito, caule erecto rigido, 1-5 floro, foliis bifoliis decurrentibus patente-divergentibus, linearibus, ensiformibus saepe repliatis; 3 nervibus, marginibus & superficialibus (nervis media canaliculata.)

*Aster albus* Nutt.

July 21 From Lac Qui Parle to Big Stone Lake.

scabris, basi setose - fimbriatis, - floralia  
minuta; squamis anthodii lanceolatis, acutis  
appressae, (3-ripped) <sup>concoloribus</sup> marginibus membranaceis,  
pubescentibus, verruculosa exaratae, - Radius 18?  
elliptico-lanceolatis, candidis; disco ochraceo.  
Nerves & veins pellucid; leaves of a deep green.  
A very rigid plant generally abundant when it  
appears. (Corymbs level-top) inclined to little  
purple spots. 298 Allium with canaliculate flat to  
leaves, cornucous before the aestivation, not ripe  
rous, the Allium cornucum of Roth. 299. Lobelia  
virgate & strict flowers dens & pale blue, probably  
the Lobelia Claytoniana of Michaux, very abundant  
in the short grasses on fresh places, often on dry  
& salty Leeks, with Lithosperm. (164) which is now in ripe  
seed & blossom, both.) - Tradescantia virgin still in bloom  
and some afterflowers of Anem. aronitifol. - 300 Gram  
with the former. & Chrysozoma linearifolia abund. in the  
high grasses. \* 300 Another species of Lysimachia  
larger & higher than the former with elongate lance-  
olate divergent leaves, in the high grasses with  
the Jonckheer of the high & low Prairies with lilac blossom.  
We encamped at the granite masses near the  
Mouth of Truxa river. Weather fair. N. W.

304 not 340.

[72]

July 22 From Lac Qui Parle to Big Stone Lake.

Sunday, 383 A little willows  
Panicum between the rocks & also on the  
heights, probably the Panicum scoparium of Lamark.  
305. Petalostemum violaceum - 306. Poly-  
gala verticillata Lin. 307 Salix Purshii?  
fol longissimis lineare-lanceolatis, serrulatis  
On wet grounds near the River with 308 Sta-  
chys? the common one. From the Rocks 309 Rha-  
nus with the former 310 Polypodium  
out of the cracks. 311 Polygala purpurea Aut.  
on the soil which covered the granite -

Here on the shady part on the West  
side of this granite rocks I found the  
Mammillaria rubra in great perfection  
in flower & ripe seed. It appears on other  
granite with the Silene antirrhina & Dian-  
thi Lycopodium apodum? & with the abund-  
ant Plautonia? Opuntia vulgaris in fruit  
& blossom on sunny places on the Rocks with Po-  
tentilla bipinnatifida & arguta. Heavy Thunder  
& Rain in the morning. S. E. & N. in the Eve-  
ning.

[73]

July  
23.

From the Mouth of Foxa River,  
on the Right Bank of the St Peters  
along Big Stone Lake.

Started from our encampment early in the  
morning, crossed the St Peter River & travelled  
along the high ridge along Big Stone Lake, which is  
on this side about 120 feet or more above the level  
of the water. 312

Grass in Paspalum  
low & high situations near the Lake, - 313 with  
the former a ~~...~~ & 314 Peta-  
lastemon candidum. & 315

Paspalum with the former, encamped at a  
bend of the Big Stone Lake near the woods  
on a little rivulet, 316 Clematis among the  
undergrowth, - This wood are very luxuriant, the  
Filia americana in blossom. 317

probably a Tritidum. 318 *Hyssopus Joniculum*  
(caule stricto ramoso, (caudex avert.) radix artic.  
articulis fibrosis, -) H-angulare articulato, glabro,  
articulis pubescentibus (joints); - foliis petiolatis, patente-di-  
vergentibus, oppositis, cordatis, acutis, dentato-serratis,  
subtus glaucis, pedunculis canaliculatis, pilosis,  
- ramis patent-divergentibus; - foliis floralis (bract  
like) ovata acuta-acuminata angustata <sup>colorata</sup> - mar-  
ginata, / calyx tubulosus subcylindricus, 5-fidus, pubescens,  
coloratus, striatus. - Corolla bilob. pilosa, labio superiore  
bilobo, lobis rotundatis. - Infer. 3 lobis. Loba media elon-  
gata, reclinata, <sup>margine</sup> - filamentis elongatis, exsert-  
tis, divaricatis - Anther. reniformis, bivalvis, ~~...~~ nity,  
lo, elongato erecto, funicato, filament. aequante. Planta gymnosperma  
ornata, floribus caesis, foliis nitidis, subtus glaucis, corolla externe pilosa  
varice loba infera villosa. This plant appears on the slopes of the Coals near  
wood, in little gulches about 3

[74]

July  
24.

From Big Stone Lake, up the Coteau de  
Prairie.

Started from the Rivulet at Big Stone Lake,  
at 5 o'clock, crossed at 8 o'clock the River and  
(here? towards the Coteau S. E. 322 *Syngnema* in  
blossom before flowering (collected at the Lac des Anouette  
with *Allionia* (212), *Lygodesmia minor*, *Artemisia boreal.*  
both *Petalostemum*; *Amorpha canesc.* - Low Prairies  
along side of rivers & ponds 322  
arrived at 3 o'clock P. M. at the beginning of the  
Coteau de Prairie and encamped at 4 o'clock on  
the bridge of a coteau with a little timbered stream  
containing oak, ash, poplar, and on the high gra-  
velly slopes on dry situations, the *Phlox* <sup>15 feet</sup> ca-  
nadensis, (?) 324 collected *Budbeckia purpurea* which  
is so very abundant, and from the coals with the  
former 325. *Cornus alba*, the Bois rouge of the Ca-  
nadian travellers, the bark is used as a substitute  
for tobacco.

feet high, the leaves, ~~...~~ a taste & scent, resembling  
*Anis*, often with a simple <sup>spike</sup>, but perfect ~~...~~  
it is often somewhat paniculate or decussately branched. [75]



July  
25

At the Coteau de Prairie.

Post Synq. 322. Radice caudato, fibroso; caudice multo  
pantito, caule erecto, ramoso, folioso, terete, tomentoso, rigi-  
do. - foliis sessilibus, alternis, patentibus divergentibus, alternis  
interrupte pinnatifidis, ~~multis~~ bipinnatifidis; (pinnulae line-  
are-lanceol., albo <sup>pubescenti</sup> - cuspidatae, uninerviatae,) albo tomen-  
tosis, floribus term. corymb. panicul. - Anthodis imbricatis.  
Squamis orate-lanceolatis, cuspidatis, superiorem elonga-  
tis, membranaceis, coloratis, (Anthod. hemisphaer.) Radice  
20-30. linearibus, ligulatis, subtruncatis. - Pappus setosus  
penicillatus, pericarpis albo ~~pubescenti~~ - Planta argentea  
toment. villosa, foliis setose-cuspidatis, ramis pan-  
ticulis, aequalibus paniculatis vel corymbosis, floribus co-  
cais erectis.

A very heavy thunder storm early in the morn-  
ning, by 66, 8° temper. cleared up at 7 o'clock, star-  
ted off in S. E. 45 miles of from Lac Qui Parle,  
at 6 o'clock we encamped at a little woody  
creek 8 miles distant, passed over high tops  
of ridges, covered with Psoralea esc. & Rudbeckia purp.  
& Astragalus (176.) 326 a species of Sonchus or Lac-  
tuca not in blossom only found on this place.  
with Liatris & Helianth. fol. sagitt. lanceol. - Weather  
fair lightning & Thunder at night. S. E. W.

July  
26.

At the Coteau de Prairie.

Started at about 5 o'clock from our encamp-  
ment, passed over very broken & undulate coun-  
try; - Rudbeckia fulgida in wet places abundant  
Galandria on gravelly heights in seed. - Amorphe  
& Lupinus less abundant. - Rudbeckia purpurea  
pinnata, & both Petalostemon with Aster 233. Sy-  
goesmia minor all in full blossom. Xerophyllum as-  
phodeloides & Heuchera am. in ripe seeds, also Psoralea  
esculenta, - Salicaria 318 in bloom in slopes down to the  
valleys, - The timber in the valleys in very depressed  
& branching, never reaches the heights of the  
surrounding ridges. On noted places: the

- 327. Atriplex
- 328. Gramen
- 329. Gramen Andropogon } dry situations.
- 330. Plantago fol. lanceolat glabris canis } Salt Licks
- 331. Spumosa caule brevi scand. toment. } low situations.
- fol. longipet. pat. hast. lanceol.

Fine & clear day a very heavy thunder storm  
at night toward morning. S. W. We en-  
camped at the 4th branch of Souza river.

July At the Coteau de Prairie.

27. Started off from our encampment at 11 h 10. <sup>am</sup> crossed the ~~Chana Wakon~~ <sup>Sandstone</sup> river and encamped on its mouth in the Chana Wakon on a little Conic mount. Weather warm & clear heavy thunder & rain at night.

From the Sandstone river 332. *Potamogeton foliis ellipticis*.

28. We started at about 8 o'clock & travelling about 30 miles we reached Lac Qui parle at 6 o'clock P.M. - At the Coulee near the river

334. *Gramen*

335. *Eupatorium* foliis longis, caulis, ovatis, acuminatis, serratis - verticillatis, flor. pallide - purpureis. from the same place.

From this date up to the 4<sup>th</sup> of August we remained at the River with Mr. Fur Camp. Establishment, waiting for favorable weather for the necessary observations & preparation for our departure. The 4<sup>th</sup> Mr. Nichol departed on horse shoes down the Peta. River feet 12 o'clock P.M.

August From Lac Qui Parle to Patterson's Rapids by Land, under M. Fremont & Co.

15<sup>th</sup> Off from Lac Qui Parle at 7 o'clock in the morning & crossed Chippewa River at 9 o'clock - *Astragalus ochroleucus* abundant, with *Petalostemon violaceum* & *Melanth.* (200.) *Panicum?* (296.) with *Melanth. foliis lanceol. subsagitt.* & abundant *Solidago* in bloom with the *Labiata* (318.) the *Senecus* (326) appears in the bottom-prairies, all on and along the bottoms of Chippewa river with *Gramen* 336. scattered also on the heights. - The bottom of this river & on that place is very extensive maple more so on the right bank with some oak & maple timber. - On our road on more elevated Prairie *Liatris spicata*, often in moist places with *Spiraea salicifolia*, *Solidago foliis glabris & nitidis*, *Vernonia pectinata?* 1337. 12 o'clock in the afternoon we reached the Lake of the Black Oak, (this is name designates burned oaks), *Vernonia virginica* L. (?) in groups together intermixed with some *Liatris*. We arrived at the Eau Claire River at 6 1/2 where we encamped 27 miles from L. Qui Parle - A very heavy thunder shower this afternoon by 3 1/2 at 4 o'clock. it cleared up in the West at 8 o'clock in the evening.

August  
6th

From River Eau de Vie to Patterson's  
Rapids.

We started off from our C. at the Eau de Vie  
River at 9 o'clock in the morning, crossed the ri-  
ver, on the gravelly banks on the other side  
338 Gerardia puberula with 339 Coreopsis  
fruticosa with 340. Solidago (pubescens), with  
Linum rigidum with Scutellaria parvula  
abundant, with both Petalostemon, Liatris spi-  
cata & Aster (rigidus), sericeus & (foliolosus)  
& Solidago (337) Allium cernuum. - Obs. In  
this situation is (338) & (339) the most figuring  
on the high dry gravelly soil next (339) the rest  
scattered. - The course of the River Eau de Vie  
is visible for many miles by its high bank  
woods on its slopes with Ficus sp. Ulmus  
amer., Neyunda frax., Populus grand., the  
Vitis riparia & Menisperm. Rhus parvifol  
& Amorphia fruticosa, Symph. glomerata. &c.,  
341. Oenothera biennis on the open gravel  
of the banks very abundant with Hedyssa-  
rum canadense. In moist places in the prairie  
near the glaucous dense-paniculate grasses with  
the lanceolate Helianth. & the silvery Conoclinium  
tenuis. - We arrived at 3 o'clock P.M. at the  
Patterson - Rapids St. Peter River, & encamped  
on a high ridge of the bluff, where we had  
a view of several miles over these immense wet-  
land masses of granite, scattered in great irreg-  
ularity, resting on the alluvial. Weather  
beautiful, though very foggy in the morning.  
N. W. (20 miles)

August  
7.

At Patterson's Rapids, waiting for the  
arrival of Mr. Nicolle.

Cut of the Swamps near the River with  
Pedicularis pallida, Eupatorium (335), &  
perfoliatum, Achillea acuminata, Lysimachia  
obliqua ciliaris, Ranunculus (289) with Gramen  
(336) Silphium connatum, Labiata (318), the  
common white Corvolvulus and others.  
342. Aster *Rasica repens*, caudice breviter  
caule elongato, erecto, folioso, lineato, albo & inermi-  
pubescente; - foliis uniformibus, cordato-lanceolatis,  
acuminatis, (sessilibus & patentibus), (ellipticis)  
basi angustatis, marginibus scabris, subtus albo-  
villosis, 3-pli-nerviis, subundulatis, floribus ter-  
minalibus corymbosis pedunculis brevibus inas-  
satis, lineare-bracteatis; - Anthodis cylindrico,  
squamis auricularis appressis, viridibus, margini-  
bus membranaceis, albis; - ligulis 6-10, ellipticis  
& brevissimis vel lanceol., obtusis; disco luteo, plis  
pro plumoso. This plant appears also on higher  
& often on gravelly situations & its leaves are  
then more narrow, and the whole habitus of the  
plant is diminished, generally about 20 inches  
high. I found it abundant in some places with  
the narrow-leaved Lysimachia under it. - Cut of the  
cutler 343. Rudbeckia  
with 344. Salix This willow with any  
other different species cover the Ravines in low  
shrubs, there was nothing to be seen of the fruits.  
345. Helianthus (lanceolat-hastatus). This  
plant is very abundant on high situations, in  
lower places the habitus is quite different, the stem  
is ramose & bears many flowers, when those on the high  
places have generally only one flower. Weather fair  
[81]

Aug. 7. At Patterson's Rapid, waiting for the arrival of Mr. Nicolle.

346. *Urtica* with the former 347. *Seeha major* with *Peltostemon*, so that the last is the first in the group. — Mr. Nicolle arrived exactly at 12 o'clock noon, and we separated & both parties left the place at 2 o'clock P.M. — we passed a swampy & disagreeable road, high grass where the *Peltost* was also very abundant. This is the more remarkable as this is often the only plant which is found covering the most sterile situations, it was grouped with *Liatris spicata*, and both in full blossom, also *Astragalus ochroleucus* gr. with the same *Liatris*; often mixed with *Pterocaulon*. — On some moist places in lower grasses *Solidago tinctoria* & the *Lysimach. angustifol.* with *Lobelia Claytoniana* 348. *Platanus blephariglossis* with *Graven* (336.). we arrived at Castor River at 6 o'clock, 17 miles from the P. Rapids. where we encamped. Weather fair, Wind S.E.

Aug. 8. From Castor River to Lac aux Jones (near Petite Rocher, St. Peter River).

We left our encampment early in the morning; along the bottom of the above river in the high grass the 349. *Veronica virginica*, there was very little variety in the flora of the journey of this day, being a constant repetition of the former. We travelled 27 miles. Weather cloudy, sultry, Temp. 9 o'clock 65, 0.° S.E. cloudy. — 12 o'clock 69, 0.° cloudy sultry, S.E. — 3 o'clock P.M. 71, 8.° cloudy, sultry S.E. Arrived at Lac aux Jones at about 6 o'clock in the evening. —

Aug.  
9.

At Lac aux Jones, near Petite  
Rocher St. Peter R.

The timber around the Lake is most  
the same, except some little trees of The  
Red oak appeared towards the St. Pierre  
River. Leguminosa 350. Hedysarum ~~XXXXXX~~  
~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~ acuminatum.

351. Solidago (virgaurea?), Radice repens  
crasso, caudice incrassato, caule erecto rigido,  
terete, lineato, hamato-piloso, pubescente, fo-  
lioso, foliis caulibus lanceolatis, sessilibus  
& patentibus, acuminatis, ex medio serratis,  
3-phi-nerviis, reticulatis (nervis & nervis  
pellucidis, marginibus scaberrimis,) pubes-  
centibus subtus pallidioribus, panicula se-  
cunda, racematis foliosis, divergente recur-  
vis, flavo-virentibus; - Anthrad. cylind. basi  
dilatato, squamis appressis linealibus, incesse-  
tis luteis, viride-lineatis obtusis, & hamato pi-  
losis, spirale vel sublinato-imbricatis. Ligul.  
12-15, regularibus, lineatis, apice truncatis,  
3-dentatis, 2-plicatis, divergentibus, (subuna-  
alis, brevibus auris,, On high & low situations,  
generally found on wet places with He-  
lianthus 200 & Rudbeckia (343).

Post Helianthus 345. Radice serpentaria, cau-  
dice brevi, caule stricto, gracile, elongato, terete,  
scabro-hirsuto; foliis petiolatis, decurrentibus,  
oppositis, divergentibus, patente lanceol. basi an-  
gustatis, integris, serratis, acuminatis, 3 nervi-  
bus, reticulatis, scaberrimis, - Subsessilibus,

[84] foliis

Aug.  
9.

At Lac aux Jones, near Petite  
Rocher St. Peter River.

suprema & floralia erecte - patentia, subop-  
posita, hirsuta-fimbriata, petiolis exarsa-  
tis rubescente, elongatis; - Squamis antho-  
dii ovatis acutis appressis, fimbriatis, gla-  
bris & exaratis; - Radius 10. elliptico-lance-  
olatis, plicatis, Stigma novol. bifidus, very  
abundant on dry & high gravelly situations  
1-3 feet high -

352. Liatris macrostachya Michx

353. Andropogon with the for-

mer. 354. Artemisia the most  
common on wet spots & on the rise  
of sandy bluffs near the Rivers & often  
abundant & in very different habit in  
the bottom intermixed with ~~them~~ (acciden-  
tal location) of many different plants, of  
ten more disguised than they would be by  
cultivation.

355. ~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~ Juncus arvensis, This plant  
I found on the borders of the outlet of  
Lac aux Jones, & again in the prairie near  
the St. Peter River (opposite) on the right side  
opposite Swan Lake crossing place.

caudice multipartito, caule elongato, e-  
recto, ascendente, folioso, foliis diversis,  
lanceolatis, acuminatis, uninatis, dentatis,  
hirsutis, (cum comae supero toto) floribus dense

[85]

At Aug.  
9  
9

At Lac aux Jones near Petite Rocher  
St. Peter River.

corymbosis terminalibus; - (receptaculo  
squamoso), anthodis calyculatis, squamis  
calyculi semi-lanceol. acum. apice recurv.  
- Squamis anthod. lance-acum., elongate  
appress.; - ligulis lineato-cuneatis, divergen-  
te-divaricatis, 5-dentatis, auriculatis,  
disco ligul. ~~auriculatis~~. On the border of the  
Woods near the Lake.

This night we had a tremendous shower  
from S., it commenced after sunset with  
a violent wind & lasted until 4 o'clock.  
Mr Fremont spoke Mr Nicolet on his  
survey at the Little Rocks St. Peter River.  
Dist from Cadon River to Lac aux Jones  
according Mr Fremont 21 miles.

Aug.  
10

From Lac aux Jones To The Traverse  
des Liard at the St. Peters.

We proceeded at 6 o'clock in the morn-  
ing. The atmosphere was light but damp-  
ness & clouds lasted until 12 o'clock noon.  
We crossed Jones River and several other  
small lively streams - The road we had to  
pass was still worse, the Flora precisely  
the same. - We arrived one hour before  
sunset at our former crossing place <sup>near</sup>  
the confluence of of St Peter & Des Liars  
river where we met again with Mr Nicolet  
who arrived one hour before us.

Temperature 72, 5. 3 o'clock P.M. 79, 2. NW.  
70, 2. at sunset N.E. Cloudy. Distance of the  
day 21 miles -

Aug. 9-11. At the Traverse des Liards.

We had a feast at the Village of I-shtachmka. (Sleepy Eye.) + were served with boiled wild rice, (*Zizania aquatica*), the Indians were engaged in collecting their crop of corn, and were much disposed to improve in agriculture. The Maïs of these Indians has been propagated down from the upper tribes + is now cultivated over the U. S. — At the evening they gave us a grizzly bear dance, which was well performed, particularly Kan-~~mentoka~~ mentoka, (Male de Corbeau) —

Among the Willows on the River borders 356. *Chelone* (glabra?), with the *Scutellaria* (294.) *Polygonum* and others we had fair weather, N. — S.E. — N.W.

12. We have still beautiful weather, but we were compelled to leave for provisions to Traverse des Sioux, for the arrival of which we were waiting. Weather fair — S.E. — N.W. —

Aug. 13. From Traverse des Liards, to the Survey of the Makato-River + its tributaries and Mr Nicolle's by Land.

We were divided into three parties, all of them departed for their duty in the best order + at the same minute. Mr Fremont with two canoes took the survey of the St Peter + the Makato by water + Mr Nicolle by Land, whom I accompanied and the rest of our Transports were sent forthwith to Traverse des Sioux. All were in the best spirit. —

After we crossed the St Peter again, we had right after ward to cross the Riv. a second time at 9 o'clock; here appears the Red Oak more abundant with the *Betula populifolia*. The village of Sleepy eye is a beautiful and well timbered bottom, very rich soil, with some elevations in the prairie which command a view almost over the whole surrounding country. 357. *Pycnanthemum virginicum?* with 358. *Eryngium aquaticum* with *Liatris squarata* + the high *Digitaria*, We reached Long Lake about 6 o'clock where we encamped with fine weather and a high East W.

Aug. 14. From Traverse des Liards to the Makato River.

We left our encampment at Long Lake at 7<sup>h</sup> 30<sup>m</sup>. and arrived at 9 o'clock at the first branch of Makato River, the outlet of the Long Lakes. & we crossed it at 12 o'clock. The River has the same timber as the des Liards. - At the heights of the second arm of the Makato in the open prairie,

350. *Siphocampylus* sp. found? 4, 5, 6, 7 feet high. scattered over the wide prairies. - The Indians eat the gum which is generally found on injured places in the axilla of the leaves & the perianth. it stands generally alone, under it some *Liatris*, & *Eryngium aquat.* After we crossed that branch with some difficulty we encamped on a high & narrow ridge by side of a slough, close by the river. - On that ridge 362. *Rubia Eupatorioides* which we after saw on gravelly elevations of the prairie (perhaps a different species). 363, *Desmodium canadense* Lignos. diviso; caule stricto gracile - ringto, terete, caesato-lineato, lin. albo-tomentosis, foliis petiol. patent. ternatis, unilateral. - foliola lanceol. obtuse (basi & apice) uniformis, pubescentibus, subtus albo-tomentosis; - panic. pyramid. flexuosa. nervis multis, patentibus, flor. sessilibus parvis, calyx 5 dent. (basi subaerato) <sup>dentibus</sup> equib. pubescente-lineato, divergentibus; corolla minutis, carina truncata; vexillum subcordat-acutum, (colore Glycine Apios) rosea. The whole plant has a pallid green appearance it is only found on the rise of hills on gravelly soil & not very abundant. Temp 40<sup>th</sup> Noon 54, 6. S.E. cloudy - [90]

Aug 15. From the Junction of Penche Lake River & Wakonwan River to the Makato.

361. *Polygonum persicifol.* with 300. *Amaranthus* both on the banks of Wakonwan River.

364. *Eryngium aquaticum*. in the prairie with We left our camp at 6 o'clock in the morning & arrived at 9 o'clock at the Makato river a few miles below the mouth of the Riv. de Coteau de Cr. Crack & the outlet of a group of Coulee-swamps & Sloughs. - We met several Indians of the Wapexikitch band from whom we got a supply of Buffalo meat which they killed near the Deming head waters. There in the hard bushes was Silene (*Cucubalus*) very abundant. - We left that place at 3<sup>h</sup> 40<sup>m</sup> P. M. & encamped about 6 o'clock on the same River about 10 miles distance. Here this river is very interesting, we found in the stratified banks stone coal, & there is no doubt that the whole region belongs to that formation. The current of the river is very swift & the bed was about ten - 15 feet, the width of 60 feet. On the banks

365. *Cassia chamaecrista*. Temp. of the day Sun rise 61, 8. calm & 9 o'clock 64, 5. Cloudy gentle breeze from W. 12 o'clock 76, 0. Cleared up. W. 3 o'clock P.M. 78, 5. ☉ clouds, sultry. ~~Had off~~ distant Thunder at night, no rain.

Port Aug 14. 9 o'clock 67, 0. S.E. Cloudy & sultry. Noon. 70, 0. Cloudy sultry, S.E. - 3 o'clock P.M. 69, 5. Cloudy, sultry Sunset 65, 12. Cloudy, distant Thunder - [91]



A  
1  
Aug.  
16.

From the Makato river, in the District of Sleepy Eye to the place where the blue earth is found.

We left our camp at 10 o'clock westward. The country was very beautiful & rich - The prairies between the rivers are even & not much filled up with shrubbery, except close by the rivers - The same Silphium is scattered all over the prairies, reaching high over all other plants, in swampy situations 366.

367. Gerardia auriculata, In the high grass borders of Woods, foots of bluffs, bottom-brushes.

368 - Gramen. With it the Arthropogon (353). Passed the Rocky & rapid Watowah river at 12 o'clock, this river is full of Fluvialites 369. Potamogeton narrow leafed - 370. Potamogeton with lanceolate ovate leaves.

We took observations on the junction of Watowah & Makato-rivers, the river banks are found 20 to 80 feet high, the country is still more beautiful - we proceeded on about 5 or 8 miles more & encamped on the Makato (from which rocky banks we could see above the Wood and the windings of the river, this scenery is beautiful, the river is often interrupted by Rocks & Rapids The banks are about 100 feet high & Sandstone with Limer. ~~From~~ in perpendicular direction covered with Betula & Red Cedars) - On the Water edge among Eupatorium 371. Lobelia siphilitica. 372. Lythrum (with the Campanulaceae) (366) 373 Euphorbia diversifolia? scattered in the open dry gravelly banks high.

[92]

From the Makato river in the country of Sleepy Eye, to the place where the blue earth is found along the same river.

Aug.  
16.

373 Chrysothrix linariifolia. - We left this place after we took the necessary astronomical observations & arrived at about 6 o'clock at a very interesting & romantic place on the Makato River. The banks are intervelled by the Sandstone Rocks & the River course is divided by an island & is foaming over the Rapids, here the Campanula rotundifolia was still in blossom in the cracks of the Rocks. Here the Woods are composed of more species of oaks the Quercus macrocarpa, Linn. & 376 rubra Linn. 377.

Panicum? hirsute panicle very large & spreading (on the little rapids St Peter Riv) 378 Lechea minor. 379. Lespedeza prostrata. 380. Lespedeza whitish strict Corolla red striped. - 381. Eupatorium grandifolium River border. with 382

The most common of the climbing Legumin plants. 383 (higher the ridge, Asclepias tuberosa - 384. in clubs strict, 1 1/2 feet high, 385.

This country around the Makato increases in beauty & fertility the more we approach their junctions. Temp. 59, 0. W. Clear sky. - 9 o'clock, 72, 2. W. clear ☉ - Noon 81, 5. clear, high five breeze W. 3 o'clock 81, 5. ☉ N.W. clouds, Sunset 71, 2. ☉ clear N.E. - I was unable to ascertain the variety of timber on the other side of the river on account of the high water & not being provided with a Canoe. It is said that the Black Walnut & Butternut is abundant, I saw none on the left bank -

[93]

Aug. 17. To the bank, where the blue earth is found.

We left our camp shortly after sunrise, about 5 miles West we reached the bank or the rocks at the Makato, where the blue earth is found. at the borders of the woods we saw groups of *Betula populifolia*. *Rosa parvifolia*. *Pop. grandidentata*. The woods near the river contain a great variety of timber, *Juglans cinerea*. *Fraxinus acuminata*. Different oaks, seeds of *Trillium erectum* ripe of (N<sup>o</sup> 94.) ripe seed. also *Aralia hispida*? in seed. *Cyrus obovata* (black choke berry) in ripe fruit - under hazel bushes near the woods 386. *Pyrola rotundifolia*. 387. *Pedicularis pallida* with *Eupatorium* in swampy situations. - The place of the blue earth ~~is~~ an almost perpendicular Rock (Sandstone carbon.) the very banks of the River, about 200 feet above. We got some of it with great difficulty ascending & descending the heights. Red Cedar & Oak dress these rocks, at some distance they appeared most naked here again in a sand bar islands in the river, which is here as rapid as above; - we took our way back to our camp, having about 1 1/2 mile to pass through thick woods & brush. - 3 o'clock we took our way off and arrived about sunset at 1 or 2 miles distance from the St Peter Riv. *Glycyrrhiza* (355) in the prairies with the *Sarcocolla*. *hastata* *Melicope*, 388. *Ceanothus americanus*, abundant under scattered oaks in the pr. Temp. sunrise 50, 2°. heavy dew. - 9 o'clock 75, 0°, S.W. clear sky, noon see observations; - 3 o'clock P.M. 77, 0°. cloudy S.W. fine breeze. - sunset 68, 0°. S.E. moderate. [94]

Aug. 18. Crossing of the St Peter River, opposite Big Swan Lake.

We started from our encampment at about 4 o'clock P.M. after we arrived at the road of the Red-river people, we crossed the river at 6 o'clock in the evening - 389. (with *Lysimachia*) in damp prairies, & low grass. - (297.) sunrise 52, 2°. clear S.W. - 9 o'clock 72, 4°. clouds S.W. - Noon 81, 0°. high breeze from S.W. 3 o'clock P.M. 81, 0°. sultry. calm - sunset 75, 0°. S.W. clouds. -

Aug. 19.

From the crossing Place, opposite Swan Lake to the Am. F. C. Establishment at Traverse de Sioux

We left our camp at about 6 o'clock, arrived at the Woods of Lake Milieux at 9 o'clock. - Dense groups of *Silphium laciniatum* conspicuously scattered over the borders of lakes, along the river Bois rouge? we saw again the *Silphium laciniatum*? scattered along over the prairies about 7-9 feet high. -

Temp. 72, 0 at sunrise ☉ clouds, high S.E.

- 9 o'clock 76, 5. ☉ clouds, high S.E.

- 12 o'clock 81, 5. Calm. clouds ☉ S.E.

- 3 o'clock 80, 0, S.E. ☉ clouds.

Sunset. 78, 2. S.E. cloudy all over.

Arrived at Mr. L. Blenars Am. Fur Co Establishment at 4 o'clock P.M. where Mr. Fremont had already been waiting for 2 days past.

[96]

Aug 20. At Traverse de Sioux.

On the sandy elevations near the Fort, the *Petalostemum villosum* Nutt. Root subligose, tenacious, caudex nodose, many parted; - stem subserot, branched, humide, terete, sulcate, silky-villose, foliose; leaves pinnate, divaricate, every where sericeous villous; - leaflets elliptic, perforate-pellucidly punctate; - ramulis patentibus; floribus terminalibus paniculate-spicatis, spicis imbricatis & compactis, cylindricis, pedunculis sub-reflexis; calyx sessile, minute, 5-dentate; sericeous-villous; corolla irregularis papilion. 5-petala, petal. subspathulate, vexillum bifidate, & longer unguiculate than the rest, & inclinate; - stamens diverging, stigma incurved subequal; anthers rising & pettate; - A suffruticose & subligose shrub, like *Amorpha* but its stems die away every year. I found it only on that place & collected the plant before blowing in June; the root is of a bright cinnamon color. & the flower pale lilac & fragrant, the whole plant is beautiful & of a silvery habitus. Perhaps a *Dalea*? - with the former *Amorpha canescens* the low *Pyrola*, *Solidago pyramidata*, & *Solidago recurvata*, *Liatris hirsuta* & *macrostachya*, *Andropogon argenteus*.

39th, *Solidago*, Root subnodose? perennate fibrose on one side, caudex with many stems. Stem erect almost strict, rigid, foliose, glabrous, sulcate-lineate - folia radical, long petioled, decurrent ovate-lanceolate, out of the middle dentate, reticulate, nerves & veins pellucid; margins sericeous, glabrous.

[97]

Aug. 20 & 21.

At Traverse des Sioux.

Cauline leaves lanceol., subdentate, supreme leaves & floral ones lanceolate, minute - panicle regular pyramidal, racemes patent, coloration; greenish yellow with the bractelets anthodium or Perianthium imbricate, scales of the anthod. lanceol., obtuse, appressed, verruculose; - Rays about 7, elliptic, divergent, the most symmetrical of the whole genus, generally on sandy soil, hill slopes & dry prairie in general, abundant here with Patal. villosum. On the naked sand 391. Phallus caninus of reddish pink color, reflexed - 392. On the same place 392. Cyperoides with 393. Liatris Root uniform very thick, caudex flat & much divided, stem erect, rigid, terete, leafy, linear & humile, leaves linear subensiform? elongate, patent, rigid, black punctate, subsulcate; - Inflorescence in appressed spikes; - anthodium cylindrical, - scales ovate lanceolate, acute, colored (cuspidate?) florets 4-7, corolla tubulose, 5-lobed, ~~lobes~~ <sup>segments</sup> lanceolate reflexed, the pistil divided in 2 from the middle, the segments reflexed, seeds 4 angular, furrowed & sericeous; - Pappus plumose, colored - This plant is scattered over every high & gravelly situation & sandy soil, more abundant & perfect on the Coteau de Prairie, the color is of a vivid pink or lilac with crimson, general height 18" <sup>here</sup> with squarrose & spicate in great perfection, with the lanceol. pyramidal Artemisia - the remaining stalks of Batisia Gmelini Stipa oenavea. the (Phleum) Polygala verticill. Com.

Aug. 21.

At Traverse des Sioux.

sis tript. Helianthus 345. Cenothera canadensis, Lachea both sp. of the north. The small Paspalum & the middle are prevailing with the Helianth. Solidago (340) Root repent, stem erect, recurved, terete, pubescent, radical leaves long-petioled lanceol. out of the middle serrate, everywhere scabrous, pellucid reticulate, often subfalcate; - cauline leaves lanceolate, acute, acute-patent, supreme leaves incurved, subtortad, acute; - panicle secund, the point or top reflexed, racemes, patent, top recurved, anthers, cylindrical, scales imbricate, appressed, unequal, linear & semiterete, obtuse, colored, Rays about 9, patent - divergent, lance-acute, biplicate regular; On dry soils woods & prairies, banks of rivers - this plant is easily distinguished from the other species by its reflexed stem & secund panicle, grayish habitus & <sup>often</sup> curved leaves - with the former & often in moist grassy places in the prairie. 394. Liatris squarrose? Root bulbous tuberoso, bulb often cordate, (generally plain or one on the top) & fibrose, caudex collate, stem strict, elongate, leafy, terete, subsulcate, lined; - radical leaves erect-patent, petioled, lanceol., elongate, with one flat nerve, and perforate-punctate, rigid & coriaceous; superior leaves patente diverging & with the ends incurved, linear lanceolate, acute; - Supreme leaves & floral ones linear lanceolate, acute; - inflorescence remote-spicate, flowers subminute, incurved; - anthodium remote-spicate, flowers subminute, axillary & patente; - anthodium conic., scales rotundate, involute, from the middle amaranth colored; - Corolla tubulose, 5-dentate; - Pappus plumose, longer than the segments of the corolla; - stigma bilobed colored erect, perianth 4 angular pubescent. Weather fair - high S.E. Thunder [99]

Aug.  
22.

From Traverse des Sioux, down the  
St. Peter River.

After our boat was loaded we left the place  
about 12 o'clock at noon - The day was very hot  
& dry air, towards night it got cloudy & the  
wind from S.E. brought a gentle rain; which commenced  
after 12 o'clock at night & continued until 7 o'clock in  
next morning, when the wind changed to N.W. & it  
cleared up about 8-9 o'clock - We encamped at  
Little Rush River -

[100]

Aug.  
23.

From Traverse des Sioux down the  
St. Peter River.

After the weather had a little improved we  
left our encampment, at 8 h - The bottom prairie  
near the river are filled up with *Silphium*  
*lanceolatum* & the high *Carduus*, both in full blossom,  
& the umbellated *Sambucus*, with green berries, -  
with the *Arenaria* or *Bromus* (368.) & the  
*Leersia* with the clavate shoots; - *Solidago* (351.)  
*Iris* (trilobed), *Teucrium canadense*, & the blue *Veronica*,  
and 395. *Artemisia* Root serpent,  
stem strict, elongate, terete, lined & flavose -  
tomentose, cauline leaves sessile, patens - diverging,  
lanceol. acuminate, out of the middle dentate, outer  
serrate, shining above, silvery tomentose beneath.  
nerves green, Stipules appendiculate, whole plant  
& the panicle pyramidal, branchelets axillary, pe-  
tente, rigid, racemes axill. 3-5 flowered; - floral lea-  
ves linear-lanceol. acute, minute, - flower or with  
peduncles reflexed, - anther duplicate, outer scales  
lance-ovate; green, crested; imbricate, inner one  
pellucid & membranaceous, ovate & crispate on the  
margins, very short, brownish & reflexed. - This  
plant is most abundant on sandy plain & eleva-  
tions, bottoms & bluffs but it differs very much in  
size & cover in differ. situations. - From the little  
rapids on the Rock, 396. *Euphorbia hypericifol.*  
with the *Gramen* (384.) with the high *Paspalum* on the wa-  
ter edge. - 397. *Phaseolus* in open soil  
on sunny situations, on ravines, & banks of  
rivers, stony & gravelly shores of ponds & lakes  
398. *Poa* <sup>bank</sup> *capitata* covering the sandbars in the  
ri-

[101]

Aug.  
24.

From Traversse des Sioux down the St. Peter River.

We were very much annoyed last night by a sudden change of wind & weather, after midnight the wind changed again to S.E. and a gentle rain followed for several hours, at 9 o'clock 30 m. the wind shifted again to N.W. when it cleared up, after which a beautiful day followed. From the sandbars with the former mentioned:

401. Root fasciculate-fibrose, stem divided, branched, terete, scabrous & shining, cauline leaves semiamplexicaule, divaricate-diverging - lance-acuminate, remote & acute serrate; (opposite and connate at base) glaucous beneath; - branches diverging; - inflores. terminal, flowers subsolitary, short-peduncled; antheridium calypulate; Caliculus leafy or leaf shaped regular, the leaflets elongate, lance-obtuse, with the margins scabrous like the stem leaves; - scales of the Anther. lanceol. acute, appressed. colored & brownish-lined - Rays elliptic about 8, 3 dentate, 2-plicate, shorter than the Caliculus, divergent-divaricate, golden yellow, - among Willows, in Sandy Swamps & Sloughs, - 402. Sagittaria latifolia & 403 Sagittaria angustifolia 404 Ranunculus with the former 405.

former, - The water edge all along full of Sagittaria (402.)

we, with *Amaranthus pennsylvanicus* (Nutt) ? & 399 a *Cyperus* sp. with *Gramen* 400.

Weather beautiful, we determ. to drift down the river all night. Clouds from the N.E. about 10 o'clock. -

Aug.  
25.

From Traversse des Sioux down the St. Peter River.

*Vitis riparia* in ripe fruit. 10 o'clock we reached Six's Village on the River banks & edge of the Water. 406  
foliis 3-5 lobis - 407 a very scabrous Gramen. 408. *Zizania aquatica* in the Water with *Sagittaria*. 409. from the banks of the River -

410. on our last encampment, with 411. *Urtica* with horizontal fan-shaped racemes; with 412 *Urtica* with verticillate racemes - with the high *Carduus* 413. & 414 *Melicanthus*, started from our encampment about 10 o'clock & arrived at 3 o'clock at the entrance at St. Peters. Weather fair. N.E. -

Aug.

At St Peter's Mr Sibley's Am. Fur Co. Est.

26.

At the Pilot Knob & on all elevated dry gravelly prairie situations 415 *Euphorbia corollata*. extends down to the margins of the woods, with 416. *Aster sericeus* which is one of the plants omnibus locis but only on such soils which may be properly termed barren gravelly soil. 417. *Prenanthes Serpentina*, on the slopes of the bluffs among harel & other bushes, mixed with all those rough plants associated among the harel in the prairies & shrubs on the borders of Woods, 418. *Vallisneria spiralis*, this remarkable plant I found in the water of the Mississippi, close by the junction of the St. Peter river, on the water edge on muddy places floating. - 419. *Iva pinnatifida* of my remark book, properly the *Ambrosia elatior* of Linnæ I believe grows on notated spots on the high & lower prairies, sandy shores of Lakes & river & abundant near cultivated grounds. often with the *A. trifida* which is very abundant around the spot of the bluffs at St Peter's & generally also near cultivated ground, particularly along the St. Peter river near the Indian Corn fields at Lac Qui Paré, - mixed with the *Bidentis* - 420. *Liatris Squarrosa* - a plant which is found generally very abundant when it appears, on dry sandy plains, on slopes & tops of elevated gravelly & sandy prairies often with the *L. pilosa*? of Willd. abundant near the Pilot Knob & at the sandy borders of Woods, more abund. at the sandy elevations at the Iva

[104] verse

Aug.

At St Peter's Mr Sibley's Am. Fur Co. Establishment.

27.

Des Sioux, a very ornamental plant, - 422. *Ptero-caulon*? this plant appears in every low wet & damp situation, on margins of swamps, rivers, ditches from 2 to 3 feet high, flower through the whole of the autumn until the frost destroys it, this is the great medicine of the Sioux Ind. the long "black root" has an sitting aromatic taste. 423. *Chelone glabra*. The only plant I found of this species is the preserved specimen out of a swamp, in the borders of the Woods, with 424. *Polypodium* associated with (406.) *Synzyges*. 425. *Helianthus*. fol. lance. acum. This is again but apparently a plant ex omnibus locis. - In the dry prairies it remains a low 1 foot high, the lower it is situated the higher and more vigorous & hexarient is its habitus on the first it has generally 1 flower. and in the rich bottoms 4-5 feet high & branched with many flowers. with 426. *Aster* fol. amplexicaulis lance. acuminat. flor. coerul. bilacinis. - 427. *Aster* from the limestone quarry of Mr Sibley below the establishment, - this is the beautiful species, found on the gravelly & high ridges of the Coteau des Prairies. generally 8-12 inches high & much diffused & branched, with a rose lilacine flowers. (see description lower down) [Another descript. given before.]

Post Aster 233. [Another descript. given before.]  
 Radical leaves lanceol. subpatulata, often acute, 3-5 nerved. (leaves with elevated pellucid nerves, veins re-

[105] veins re-

29

Post Aster 427. Root sublignose, creeping, stem short, straight, often a little flexuose or subdecumbent, terete, glabrous, grayish brown, woody & very brittle, branched, irregular ~~diverging~~ <sup>diverging</sup> branches ~~at the apex~~ leaves sessile, subclasping, cartilaginous serrulate along the margins, scabrous on both sides, one- or absolutely 3 nerved, most all lanceolate & divaricate, on a young shoot from the root I found the leaves distinct spatulate, & a few of them bidentate at the apex, the stem leaves are all lanceolate and acute, branch leaves much smaller linear lanceolate, superior & floral leaves still smaller ~~and with the linear~~ <sup>and with the linear</sup> & dilated ~~towards the apex~~ <sup>towards the apex</sup> & slightly incurved. - branchlets very thin & leafy, irregularly spreading one-flowered, <sup>flowers</sup> sessile & densely surrounded by leaves, which form the outer ~~perianth~~ <sup>perianth</sup> ~~row of scales~~ <sup>row of scales</sup> linear & long acuminate, carinate at base, scabrous on the margins, upper half & apex green & white & rugose, punctate, & reflexed, rays numerous about 30-36 long linear, point reflexed, purple violet: pappus plumose. 4. Limestone Rocks 12-18 inches high.

truncate, strigose, siliate, cauline leaves very long linear-lanceolate, rigid, twisted and very characteristically marked with two notched teeth towards the point, sessile, patente & diverging, 3-5 nerved, the nerves less elevated & canaliculate, (\*) so that the point appears much sharper. - The superior leaves narrower & the floral ones merely scales, incurved, very distinct & hispid-siliate, - stem very stiff & strict, divided into many flowers bearing branches, which form a level-top-corymb, - branches generally from 6-14 flowers, branchlets 1 flowered, flowers erect, the branchlets erect-patente, - Anthodium most globular, scales lance-obtuse, closely appressed, with membranaceous margins, so that they might be added to the division

29

Aster with scales marked with green dots (by Beck.) - Rays about 20. (\*) or scales with two longitudinal confluent green stripes which leave along the centre a light stripe & the membranaceous margins. - Disk bright yellow, after blossom fuscous. 12-14 inches.

Post Aster 420. Caulis exaltato, erect, sublignose, ramose, divided, terete, canescent, or grayish brown, superior leaves, semi-amplexicaulibus, cordate-appendiculatis flavid, lanceol., acutis, 3-nervis, middle nerve below elevated, both sides <sup>short</sup> pilose, margins scabrous, a little undulate or twisted, paler beneath, (if the leaves were petiolated they would appear hastate leaves, except being rounded at the appendages, - Superior leaves patente, also sub-undulate, & twisted a little, with the superior & floral ones, - all of them are pulverulent & scabrous on the margins, - branches patente, reddish blue, white pilose, at the base of the branchlets flexuose, branches form a convex corymb or clustered panicle, each for itself, - Anthodium flattened, outer row leaf like, about 10, mostly connivent inner ones narrower, all nearly even in length - Rays about 30. 3 rows very long, linear obtuse, (points a little darker & reflexed.) lined or dark striped, - Disk orange yellow; - this beautiful species grows among the basal bushes on hill slopes with the rough Solidagineae Monarda clypea & others. Woods border. - Aster serotinus Willd. 428. On the inundated bottoms along the Mississippi Boltonia glastifolia? 429. Gentiana coccinea damp heights, Rocky damp or even a dry situations frequently among bushes north of St. Peter river.



Augt Mt St. Peter's Mr. Sibley's Am. Fur Co. Estab.

30.

430. *Aster* caule erecto, subflexuoso, ramuloso, purpureo  
glabro vel nitido, - fol. rad. laxis, longe petiolat.  
cordato-ovata, acum., basi cordato crispo, supra ve-  
bro, subtus puberi. & pallido; marginibus scabris; pe-  
tiolis long. canalicul. convolut. scabro-fimbriatis -  
fol. super. petiolo decurrent. patentibus, basi crispis  
subulul. - fol. superna sessilia, <sup>erect</sup> patent. lanceolat.  
acumin. - fol. superna sessile, (linear) lanceol. acu-  
minata. - ramificat. et inflorescentia pyramid-  
panicul. axill., patente, <sup>longe</sup> diverg., foliosa, - racema-  
lis secundis; peduni. 1 floribus, ramulis callegensup.  
enatis, - anther. subcylindric. squamis dense imbricatis  
appressis, ovatis, acutis; apice viride-guttate, mar-  
ginibus membranaceis, Ravis duplicatis, linocibus  
obtusis truncatis duplicatis. - This species varies much  
in different portions of its habitus, generally in the  
covering & color. The branchlets are beset with flo-  
ral leaves, more scales, which are more or less acute,  
peduncles 1 flowered, 1 inch or less long; the lower ones  
as common, the longest., branchlets & upper stem fur-  
rowed. - perianth. subcylindric, pointed with a dark green  
dot, margins white membranaceous, - Rays in a double  
row about 12 in each. linear obtus lanceate, with 2  
folds, Disk with about 12 to 15 florets, a little narrower  
golden yellow. among hazel bushes, in the Woods, in  
deep shades, often very abundant, & I believe the  
same species appears in the open Prairies under a  
different habitus. - 18 to 24 inches high. -

Augt Mt St. Peter's Mr. Sibley's Am. Fur Co. Est.

31.

431. Stem erect, branched, - rad. leaves - long petioled  
D, petioles canaliculate & convolute often crisp,  
winged, villous-fimbriate, the winged substance  
with longitudinal parallel yellowed veins base  
distinct cordate, aurate acuminate, dentate  
serrate, or only serrate, at the base entire &  
often crisp, pubescent above, paler & white vil-  
lous underneath, reticulate, nerves & veins per-  
sistent - Superior leaves with more broadly winged petioles  
narrowed & contracted near the base of the leaves,  
ovate acuminate, about 5-nerved, regularly serrate  
from the middle; - Superior & Supreme leaves with  
thout distinct petioles; a little contracted tow-  
ards the base, all the leaves diverging; floral leaves  
minute, lance acute or acuminate, those of the  
perianth scaly, curved, & a little undulate. Rami-  
fication pyramidal forming the panicle, branch-  
lets divergent, forming little regular panicles; ra-  
cemes, diverging from the branchlets, 1-4 flowered.  
Anther. cylindrical, scales long linear acute or acum.  
with the points a little woody and a dark green  
upper half and whitish membranaceous margins.  
- Rays in a single row, elliptic, - linear, lanceate,  
2-plicate, true lilac, about 10?, a little narrower  
florets of the Disk about 12, golden yellow, with  
the former, but more in dry gravelly soil, & open  
warm situations, borders of dry Woods, - (The upper  
part of the stem sulcate, and at the axils of  
the leaves pubescent, - in the woods the stem is often  
villous.

Sept. At St. Peter's Mr. Sibley's Am. Fur. Co. Est.

Sept. At Mr. Sibley's Am. Fur. Co. Establishment  
St. Peter's.

1. 432. Aster, Stem erect, robust, stiff, ramose  
foliose, green purplish shining, upper part &  
branches puber., & a little sulcate. (rad. leaves de-  
cayed;) superior leaves lax, divaricate-patent-  
ulous, sessile, long-lanceolate, acuminate, serr-  
ulate, remotely & unequally serrate from the middle  
undulate & crispous towards the base; nerves &  
veins reticulate, pellucid; - Superior & Supreme  
leaves the same but patente-diverging; branches  
patente, forming a pyramidal panicle; branch-  
leaves uniform sessile, erect-patente or patente  
diverging; unved, lance-acute & acuminate.  
branchlets again forming a panicle, 1-5 flowered  
beset with floral leaves, semi-lanceol minute, in-  
curved acute; - perianth. Dilated, with many  
scales linear, subulate-acuminate, most of equal  
length, Rays in one row, a great many, linear ob-  
tuse, most white, a little plicate, regular & gene-  
rally very perfect, a little recurved; Disk with about  
25 florets, golden-yellow, - all the leaves are of  
a fine green without any covering, & with no  
brown margins, paler beneath, - On Road sides  
& high brushy situations.

2. 433. Solidago, caudex caespitose; Stem erect, vinate,  
flexuose, square & subulate; squares often a little reflex-  
ed pilose, the rest of the stem shining; - cauline leav-  
es subcordate, ovate, acuminate; Decurrent down  
the petiole, incisely & acutely dentate-serrate, dark  
green above, paler & white pilose beneath & more or  
less diverging; - upper leaves lanceolate, more acum.  
serrulate in the middle; - Superior leaves lanceol. ex-  
treme, divergente-divaricate, entire, smooth. - Floral  
leaves short, minute, subulate. Inflor. intrafoliarous,  
panicle spiked; racemes axillary, elongated (lower  
ones.); upper ones short, erect-patente, with the flowers  
single or in pairs. - Scales spreading & lanceolate  
obtus. with a light green stripe along the midrib.  
perianth. cylindrical. - florets of the rays 5-6 -  
rays elliptic-oblong, 2 plicate. - florets of the disk  
about 9. Stamens spreading & exserted, golden  
yellow. - Borders of woods; Shady banks of  
streams never in open sunny situations, & rarely  
distinguished by its leafy spiked panicle, by  
its soft membran. leaves & dark green foliage  
in general, a very ornamental plant.

From St Peter's to Lac D'Esprit. under  
the guide of Mr. Nicollat.

Sept 14. Left St Peter's at 12 o'clock at noon. -  
from the top of the high bluffs near St Peter's a  
lilac variety of Aster (426) Ast. serotinus. with  
434. Gentiana 5 flora. with the G. crinita & 435. G.  
ochroleuca. all of them appear more or less fre-  
quent along the margins of lakes & woods, rivers.  
\* under white & red oak. - On the table land is  
the Oak. the Ceph. corollata abundant, but this time of  
flowering is gone. - We passed at Sunset Castle.  
Rock reached Vermillion River at 8 o'clock in  
the evening, having travelled a distance of about  
15 miles, Weather fair S.W. 10 o'clock at night -  
Th = 43, 0. - A beautiful Aurora borealis -

[112]

From Vermillion to Cannon River.  
(Yan bus data. Watapah -)

Sept. 15. Crossed Vermillion River at 6 1/2 30 m -  
crossed a very extensive prairies, including  
several small & muddy rivers. covered with  
rough grasses - 436. Solidago, foliis angustis  
conduplicatis reptans. glaberrimis. floribus  
corymbosis compactis aureis. - 437 Arundo  
the common Reed of the Swamps. - At  
6 1/2 20 m we arrived at Cannon River. - the banks  
are not richly timbered at the crossing place  
the soil is poor & sandy & the hills are  
down to the River. - Here were all these plants  
together which generally are found on dry sandy  
slopes - Solid. pyram. & lunata. Gent. crinita  
Saponaria on the top of the shrubby bluffs -  
lower down is Gent. ochroleuca abund. with  
Prenanth. Serpentina. & Pren. cernua (?) & Lythium  
pinnatifid. with ripening seeds also Eryngium  
aquaticum, is scattered abundantly. Sistris macro-  
stach. mostly gone, the scarious in some flowers  
yet. - The Agrostideae & Paspal. with most ripe  
seeds. Melianth. (345.) - NB. Every species of  
Aster in flower. Weather fair, cloudy in the  
afternoon, S.W. 18 miles from Vermill. River.

[113]

From the crossing Place of Cannon River  
to Lac (~~Lakata~~) (Izura Mde.)

Sept. 16. At the crossing place of Cannon River 438. Aster. Stem erect, elongate, a little sulcate & striate above and scabrous; peniculate-ramosa; - lower leaves petioled, petioles broad, membranaceous, margins convolute, fimbriate at the base, and along side of the membr. substernia. - lateral of the leaves unequal, cordate at the base, ovate, undulate, dentate-serrate, crisp at the base, pale & white pilose underneath; upper leaves ovate lanceol. serrulate, sub-prime leaves most entire, patente, pellucid-reticulate, lance-acumin.; floral ones minute, linear; branches axillary, patente, short, rigid, in a pyramidal panicle arranged, racemes close, subopposite, of ten axillary, regular small panicles; branchlets & racemes sharply sulcate, racemes generally 3 flowered; peduncles short full of acute scales, on smaller floral leaves.

We started at 10 o'clock & crossed Cannon River at 10 20<sup>m</sup>. the river is about 60 yards wide, 3 feet water & has a very swift current, the timber where it appears is chiefly Amer. Elm. & White Soft Maple, with white & Red Oak on the heights, & Bet. populifol. after crossing we traversed a prairie with rough weeds, & on some damp places the Gentiana 5-flora was in the most beautiful state of perfection, in company

From Izura Mde through Bois franc, to  
Lac Titanka tanninar.

Sept. 17. Left our camp at Izura lake at 5 30<sup>m</sup>. entered the high timbered parts, or sections of Cannon river, what is called by the french Bois franc. - Red & white oaks, White & Sugar Maples, Black Walnut, Fraxinus acumin. Celtis occident. are here to be found in a perfection & health & size which is not to my eye with any timber at the St. Peters River or the Mississippi about St. Peters. Viburnum Opulus var. edule was in ripe fruit so the Alice, a species of Cornus. - We had to cut a road through this magnificent & valuable wood. - Lanthornia racemosa is abundant, also Panax 5-lobum, Aralia hispida and nudicaulis, Prunella sp. tabilis in seed; when we got through we stopped at the Prairie for breakfast 439. Aster foliolosus. this Aster is on all prairies abundant & forms a part of the principal colors of the vegetation. We reached at 3 50<sup>m</sup>. after a rain shower the beautiful Lake Titanka tanninar. Weather fair in the forenoon, cloudy & sultry, & afterwards a rain shower of 2 hours in the afternoon. 44 miles from our last encampment.

G. Saponaria, Pedicularis pallida and some few of Gent. ochroleuca & saponaria. Reached our Campment at 5 o'clock, having traveled 15 1/2 miles. Weather fair. Rain at 8 o'clock in the morning.

Observation of the <sup>Waiting</sup> Eclipse of the Sun at the  
Lake Titanka tanninan, or the Lake of the two an-  
cient Villages.

Sept. 18. Lake Titanka tanninan is very beautiful situated.  
The place of our Camp was at the South end of the  
Lake bordered right & left by ~~the~~ woods of little  
consequence, we only had the view of one half  
of the water sheet, it on account of a high  
elevated ridge like point at the east bank,  
which narrows the extent of the Lake at that  
place, and this, our camping spot no doubt  
was once the place of one of those ancient  
villages. Some ruined Indian lodges, build of  
logs & covered with bark, which are still to be  
found there are of a more recent time, the  
level extent of ground as far as the banks are  
cleared from timber, appear to me as having  
the ~~same~~ appearance of a wasted field, this  
part however is not large at least not more  
than 2 or 3 acres, Digitalis & Panicum Ama-  
ranthus & chiefly Strawberries some are part  
of it, Vitis riparia is creeping along the sand  
at the banks of the Lake, we found them full of  
bunches <sup>some</sup> of them were very good. - Here on  
the sand beach is the Potamogeton grass again very  
abundant mixed with the Euphorbia diversifo-  
lia. The first day & in ripe seed the latter still green  
with some flowers. - with Ranthium Humarium &  
Bidens (H. 1.) with B. concorsis? - One individual of  
Pyrus coronaria. - <sup>\*</sup>Mnisperm. canad. abundant -  
acorns falling - Artemisia biennis gone - Digitalis  
& Panicum ripe - Smilacina racemosa (of mine) with  
ripe scarlet berries on the timbered shady banks ripe

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Liatis

Lake Titanka tanninan.

Sept. 18. Squarrose & Dioscorea - Mamondia ripe.  
This day was one of the most beautiful days  
I remember - The morning sun shone undisturbed  
by clouds on the beautiful sheet of  
water calm & serene was the whole atmos-  
phere, the Lake appeared like an large Mirror  
sky blue with its beautiful shrubbery & groups  
of Oaks & Lindens, ashes on both sides & in  
the distance, - This picturesque scene was still  
brightened when a <sup>swarm</sup> of Swans off about 3 or  
40 were descending to navigate over this part  
of their favorite elements. - The day passed  
undisturbed by any inconveniences, and at  
10 o'clock we made preparations for the obser-  
vation of the eclipse - the result of which  
is with proper meteorological observations  
reported in the diary of Astronomic  
observ. of Mr Nicollet. The effect of the  
eclipse seemed to prolong the day, and as  
easy & pleasant was the evening after  
this beautiful & interesting day, which we  
spend in a very social manner & good  
humor -

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From Lake Okaman to Lake Wapatah or  
Lac aux Racine croche.

Aug. 20  
Sept. 21. Left our encampment at 1<sup>h</sup>. 20<sup>m</sup> P.M. —  
passed again very broken country, swamps  
on which elevated borders the *Cypripedium*  
*pubescentis* was very abundant — whole woods  
of *Betula populifolia* 30 feet high & 1 $\frac{1}{2}$  feet  
diameter, so confined is this tree here that  
I could not discover any other different tree  
for more than 2 miles. We encamped at  
5 o'clock, compelled by stormy rainy weather  
at an extensive swamp, having travelled 7  
miles. S.W.

[120]

From Lake Okaman to Lake Wapatah  
or Lac aux Racine Croche.

Sept. 22. Left our swampy encampment early in  
the morning & reached Lac aux Racine croche  
at 10<sup>h</sup> 15<sup>m</sup>. This lake is full of *Nymphæa*  
*alba*, the roots of which are gathered by  
the Indians as a winter food, where the  
name derives from. We only stopped a few  
hours here, proceeded further about 1 o'clock  
P.M. through a very much obstructed wood  
which contained large & fine timber, the same  
variety as is mentioned about Cannon River  
we reached Rivière la Pêche at 5 o'clock, after  
crossing it we encamped at the opposite side. — The  
bed of the river is about 40 feet wide, full of  
gravelly banks, current swift but little water  
of this season. Its name derives from the  
*Equisetum uliginosum* which grows very  
abundant along its banks, called la Pêche  
by the voyageurs. — Weather Rainy, Showery.

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From Rivière la Puelle (Tchankasma-sna) to  
the River Tchanyushka, a tributary river of  
Fremont Fork of the Makato river.

Aug.  
20

Sept. 23. After the necessary Astron. Observations  
we left our camp at 11 o'clock A. M. we had  
about 1 mile more of woods to cross, after  
wards we reached the high prairie; we pass-  
ed Lac and Puelle. & encamped close by  
the Tchanyushka river at the right bank,  
where we met a band of Wahpekutch In-  
dians, encamped at the Lac la Puelle —  
*Gent. angustifolia* very abundant on the high & dry  
prairie. — 14 miles

[122]

From River Tchanyushka to the Makato  
River.

Sept.  
24.

The Wahpekutch Indians collected last night  
at our camp, returned this morning when  
they received their presents of Mr. Nicolle.  
We were detained until 2<sup>h</sup> 30<sup>m</sup>. when we  
started. crossed the above river, passed a little  
wood of overcup oaks, here we encamped having  
travelled 9 miles from our encampment. here  
*Amorpha nana* was very abundant around  
the borders of the swamps in ripe seed & still  
some green foliage. weather fair.

[123]



From Tchanyushka River to the Makato River.

At the Makato River.

Sept. 25. Left our encampment at the oak wood at 7<sup>h</sup> 30<sup>m</sup> in the morning - passed 2 Summer lodges of Wahpetchah Indians - crossed Merry River, another tributary stream (30-40 feet wide) which constitutes Fremont Fork of the Makato. - This river has timber of middle size, *Juglans nigra*, *Neopendula fraxinifolia*, *Celtis occidentalis*, - after having crossed the river we reached another high prairie, crossed a little lively stream & reached another high prairie with *G. angustifolia*, *G. japonaria*, & the *Solidago* (436) - *Sedum major*. reached Sawatch okuch Mde or Beaver Lake with some oak timber. & at 11<sup>h</sup> 30<sup>m</sup> we reached again the very rich & extensive bottom prairie & woods of the Makato river, passing through the woods we arrived at 2<sup>h</sup> 45<sup>m</sup> & crossed it until 3<sup>h</sup> 15<sup>m</sup>. here we were compelled to stop for the want of timber on our further road. - The river is about 20 yds. wide at the crossing place, & 3 feet deep in average, - the water is very clear, the bed gravelly & very swift current - 447 *Aster*, stem strict, green, shining, grooved, branched, forming an *aster* cone, at the top - cauline leaves sessile, semiamplexicaul, patent, lanceolate, elongate, long acuminate, revolute at the base, entire, out of the middle sharply serrulate, (base undulate,) entire at the point, thick, nonouson with a bluish tinge, (aeruginous) - all other leaves behold

Sept. 25.

448. *Erigeron* ~~abundant~~ abundant on the high grassy & gravelly escarpments along the banks of Makato - with *Phaseolus* (399) & *Aster salignus* along the shades among the willows at the water edge. - *Oenothera biennis* very abundant on these escarpments - *Gramen* (446) *Larria* very abundant. - The timber on the left bank along the course is chiefly overcup oak - on the prairie close by is the same vegetation the above described *Aster* is mostly confined to the humbered places & along of the course - *Amorpha fruticosa* is mixed with the willows - *Polygonum convolvulus*, - *Poa reptans*, - weather fair. N.W. moderate cloudy evening clear night - 9<sup>1</sup>/<sub>2</sub> mile dist. from our last encampment.

same shape, but proportionally longer pointed, points reflexed, those of the upper stem, the axillary leaves of the branches are cordate, lanceol. acuminate, - The midrib with 3 yellow lines, with two parallel vein-like nerves on each side, veins of the leaves reticulate pellucid, - This character of the nerves & veins is visible on the larger size stem being the higher & smaller ones having only yellow line along the midrib. - Branches all but are decidedly 3 nerved & also reticulate veined; - Branches all patent, foliose, branchlets generally with 1, rarely with 2 flowers, paniculate base, flowers straight branch & branchlets generally more green than the stem, also with the peduncles thickened towards the stem. Ray with 24, lance. very acute, green & succulent towards the middle & the apex, whitish & membr. towards the base; base appressed, points recurved; - Rays about 24, lance, obtuse, slightly 2-plicate, revolute, lilac colored. - Disk elevated in the center, about 20 florets, annular yellow, afterw. amethyst. -

From the Makato River across Coteau Croche  
to the Thaukushka Watapadan or to the  
Rise of the maple trees.

Sept. 26. At 6<sup>h</sup> 35<sup>m</sup> we started & ascended the Coteau croche  
a little beautiful group of mountainous hills, crown-  
ed with many irregular most conic shaped tops.  
before we had a wide level prairie to cross  
without seeing any thing of timber or woods areas  
us. - crossed several deep grassy lakes. - On the  
level croche I found the Aster (427) very abundant  
full of very perfect flowers, of a beautiful lilac-  
purple & orange disk about 8-10 inches high in the  
apparent stony exposed top on coarse gravel  
in its immediate neighborhood *Lister's jimbrata* &  
*Astragalus assurgens*. - The prairies are already in  
the color of Autumn, only very few flowers are  
to be found scattered over their vast extent, not  
all the many is only *Gent. crinita*, *G. angustifolia*,  
*G. Saponaria*, & *G. ochroleuca*. - *Solidago stricta* det.  
*Aster* (447.) *Melicanth.* (345.) *Aster sericeus*, & *Aster* 427.  
which species I have collected also from Mr Sibley's  
Quarry St. Peter's where it appeared luxuriant in dense  
conglomerate bushes 1/2 feet high quite different in  
habit of *Aster foliolosus*? some *Eupatorium perfoli-*  
atum in sheltered swamps. - After we travelled  
about 20 miles we encamped at the Thaukushka  
Watapadan river. Weather - cloudy all day, & dull,  
we stopped at 5<sup>h</sup> 30<sup>m</sup>.

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From Thaukushka Watapadan to Lake  
Warhara and to the Lake Omanhu Wita.

Sept. 27. The Thaukushka river is on that place timbered  
with *Ulmus americ.* *Fraxinus americana*, but its name  
refers to sugar maples which are visited by the  
beavers in the spring, it is about 20-30 feet wide  
& 1 1/2 feet deep at that place. and with high banks.  
We left our camp at 7<sup>h</sup> 50<sup>m</sup> & arrived at 9<sup>h</sup> 50<sup>m</sup> clock  
at the crossing place, 3 miles off., where we took  
the Arts. Obsv. - here, the high dry gravelly banks  
were covered with the *Gent. angustifolia* in the highest  
state of perfection, the *Lespedeza* (363) in ripe seeds. -  
reached Warhara Lake or Lake of the poplars at  
at 5<sup>h</sup> 0<sup>m</sup> clock we reached the Lake Omanhu Wita on  
the Lake with the Walnut Island - the *Juglans* in  
abundance is abundant on the Island of this Lake, some  
of them are also scattered along the banks mixed  
with *populus grandis*. 448. *Polygonum* with  
the green common pyramid. *Artemisia*, in the sand, with  
*Polanisia grac.*, *Potentilla lupina*, *Amorpha fruticosa*,  
& found also plants of this year from the younger  
relict (187) along the sandy beach - Weather beautiful.  
This is a very beautiful lake.

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From Lake Omanhu Wita to the Des Moines River.

Sept. 23. We departed from our camp at 7 o'clock in the morning, went for some hours over a wide prairie - at 9 o'clock we reached two lakes of 1/2 mile length each Lake Manyaska, the Lakes of the white cliffs, and before we left a group of Lakes at our right, Lake Okamampodan was the largest, (the Lakes of the small meadow) timbered sparingly like the former Lakes Pop. grandid. Frax. acum., We proceeded with great anxiety to reach the Des Moines River to day - at 3 o'clock P.M. we crossed one branch of it (Pike river?) with very high banks, after a continual ascension of hills through a very broken country, we came on an extensive plateau, grassed several large & beautiful lakes, but very sparingly timbered, full of boulders around the banks - chiefly granite - overcup oak & Frax. acum. Vitis riparia - reached a creek close by the Des Moines River at 7 o'clock in the night, before we had to pass a great ridge with large boulders of granite - some of us were compelled to pass so far to find wood & water, one of the fairest days - cloudy from 5 o'clock P.M. until 8 evening - 25 rainy days -

Visible plants of the prairies - \* Aster sericeus. \* Aster foliolosus \* Solidago (351.) \* Gentiana angustifolia. Astragalus adurgens. \* Rosa va. peruvifolia. Anemone ludoviciana? Oxybaphus (112.) Helianthus americanus. Ceanothus americanus. Anemone (212.) Helianthus (345.) Tramen (328.) Petalost. viol. Petal. candid. Solidago nemoralis Ait. Silphium pinnatif. - Lonicus (326.) Gram. (396.) Liatris mar. rostrata. Liatris scariosa. Liatris ciliata. Gram (336.) Coreopsis tripteris Baptisia tinctoria? Anemone virginiana. Tramen Polypogon. Rubia angustifolia? Rudbeckia purpurea \* Aster (424) \* Podicalis pallida. Pisonia imana Nutt. Parnelia exalata Nutt. Laptandra virginica Nutt. Glycerhiza sp. Polygonum erectum Nutt. Atriplex arenaria Nutt. Silphium compositum. Scirpus canad. Rudbeckia digitata. P. ruthena bicolor. Galium septentrionale. Polygonum amph. luum Glauious Tramen from the basins Leersia angustifolia Swartz.

From Des Moines River over the dividing Ridge of the Waters of the Mississippi & the Missouri to the Great Spirit's Lake.

Sept 29. Left our Camp at 7 o'clock in the morning, after we made one mile we crossed the Des Moines river at 8 o'clock to breakfast & the Astron. Observations, on the left bank. - On the bluffs of the right bank (which is at that place only 150 yards off) on the slope is the Quercus macrocarpa Michx. very abundant. 40-50 feet high & about 2-2 1/2 foot Diameter; on the left Bank are very few, perhaps more lower down. Populus grand. of large size & Frax. acum. The river is 40-50 yards wide 1-2 feet deep in average, full of granite & other boulders, current swift, water edge embowered with Salix petiolaris. - The bottom weeds are generally the high Carduaceae & Helianthus (425.) - Solidago (351.) and the Artemisia foliol. lanceol. subint. graphaloides. leaving this place we ascended the dividing Ridge of the Waters of the Missouri & those of the Mississippi, here was again the Rosa parvifolia very abund. on the ridge with Amorphia canescens & Rubus purp. Coreopsis tripteris. We reached Lac D'Esperant at 4 P.M. - Weather fair, high S.E. after sunset.



Lac D'Esprit

October 2. The Wood & timber Shrubs & c., around the Lake of the great Spirit. - These Wood are about 12-15 feet above the level of the water mark present. - Regular accumulations of granite boulders, Inauwacke ~~are~~ show the former extent of the Lake, which are at some places about 500 yards distant from the present banks of the Lake. - The woods 1. Ulmus americana 2. Juglans cinerea, 3 Fraxinus acumin. 4 Celtis occident, 5. Tilia americana. 6. Populus grandid. 7. Ulmus fulva. 8. Nyssa fraxinifol. 9. Sambucus canadensis. 10. Cerasus ob. ovata, 11. Prunus Chickasaw. 12. Vitis riparia. 13. Tamus. 13. Ribes splanum. 14. Rhus glabra. 15. Salix alba. # Rhus glabra. Stem bluish brown, gray dotted, young branch lower colored, bluish red. Petioles articulate & indurated at base, & pubescent with the stem opposite & subopposite along lanceol. cordate acuminate equally serrate, 7-nerved with alternate ribs, one to each serrature; shining green above, glaucous underneath. - Leaves 8 or 9 pairs & 1 odd one. # Ribes splanum fol. 3-lobed, Spicis axillaris 1-2 & 3. petiol. foliisque subtus albo-sericeo pubescentibus. petiol. hisp. basi plumoso-ciliatis. - 16 Rosa pruri-flora. 17. Smilax armod, leaves cordate mucron. 7-nerved, shining, pubescent, cirrhos 2 axill. oppos. at the foot of the petiole, young leaf buds thorn like, pointed & enveloped - berries in small clusters, umbellike, abundant, ink blue. Smilax rotundifolia. Linn. 18 Rhus radicans. 20. Quercus a seed plant. foliis subtus subvatis pallidis, supra nudis, nitidis ~~scutellatis~~ - Smilax 17 # Spinis nigris divaricatis, reflexis, foliis ~~legatis~~ ~~nevo~~. Subt hamatis, knorpelig fimbriate short acum + 2. Quercus ~~divariformis~~. 19. Evonymus atropurp. 20 Symploc. nicaeopus na-emulus, which is abund. all the way from St Peter's.

From Lac D'Esprit to the Des Moines River over the dividing Ridge. Return road.

October 3<sup>d</sup> Left our camp at Lac D'Esprit at 12<sup>h</sup> 30<sup>m</sup> proceeded N.E. reached Des Moines River at 60' dock in the evening after crossing we encamped on the right bank, in the narrow timbered bottom, with Quercus macro. the bluffs along the river on this side are about 80 feet high in some places, with some overhang, they are gravelly & covered in some places with granite & old red sandstone boulders, with Linum rigidum, Potent. arguta, Phytolacca, Paspalum? & Oenothera canadensis, the bottoms full of Bromus (308) & Silphium perfol. & other rough plants. Weather fair, sky serene. West W. 14 miles

21. Crataegus armod with horizontal spurr like thorns, fol. ovatis, 5-7 lobis lobis opposit. acuminate serrate, white tomentose underneath, light green & pubescent above, sometimes the leaves are 9-lobed, petioles pink long, young bark white, branches diverging, 15-20 feet high. Chazy woods - Crataegus cordata to Arl. 23. Salix pedicelata? fol. longissimis subres. (short & dilated pedicel) serrate - Saw at, serratures mucronulata, midrip above subtransversal, ending celerated, pubesc. serratures sharp & acute - young wood blond red, brown with whitish dots, old wood ash colored, leaves tinted with one lateral edge up, some leaves are falcate, from the strong banks 455. Aster salignus. with Aster (426.) Weather fair calm. On rocky damp places in the wood Geastrum stellatum.

From Des Moines River to Lake Okamanpidan. <sup>River</sup> Return road.

Oct. 4. Left Des Moines River at 10<sup>h</sup> 15<sup>m</sup> passed some lakes swamps, most all of the same appearance as they are already described - only less timbered - arrived at 6<sup>h</sup> 20<sup>m</sup> at the great Lake Okamanpidan - prairie the entire appearance of the late autumn - only *S. angustifol.* - *Beptunia tinctoria*? abundant in elevated situation but all the seed destroyed by worms. - also *Psoralea caryocarpa* abundant, but dead & off from their roots - weather fair. W. 45 miles from our encampment.

From Lake Okamanpidan to the River of the Lakes <sup>River</sup> Return Road.

Oct 5. We took the necessary astronom. observations, & left our camp at the Lake Okpd. at 6<sup>h</sup> 30<sup>m</sup> in the morning - passed along side of the immense & beautiful lake which is in some places well timbered & fortified with large accumulations of boulders on its banks, - *Ulm. amer.* & *fulva*, *Tilia amer.* with *Quercus macrocarpa* some *Fraxinus americana* constitute the timbered banks - some parts are more extensively timbered & they appear like timbered bottoms, at 11 o'clock we reached another extensive lake still better timbered but more wood-like with very large *Elms* & *Oaks*. - *Cet. cand.* & *viol.* abundant. - *Eryngium aquaticum* & *Beanothus amer.* abund. 456. *Eupator. pubescens.* & *Crataegus cordata* Ait. - A prairie island with sugar maple trees where the Sioux go to in the spring. - Beautiful detour very & very broken country, a great many prairie islands of Oak (overcup.) We reached one of the branches of Des Moines River at 4<sup>h</sup> 52<sup>m</sup> crossed it & encamped on the opposite timbered heights. Weather fair. W. 85, 0 " at noon. 17 miles distant.

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460. *Spiranthes cernua* Richard. Root lignose-tuberosa (horizontal) warty, contracted, scape erect, short, stiff, covered with appressed lance-acute or acuminate sheaths, which are lined & glabrous, spike dense, flowers cernuous, bracts lanceolate & long acuminate, lip elliptic? entire, margins a little involute crispous and crenulate, subun-  
 pinculato; outer segments lanceolate, diverging, co-  
 lumnae carinate, obtuse. - From the sandy hills near  
 Embarrass River, Sept. Found by Mrs Fremont &  
 Flandin - 6-10 inches high, has a very agreeable & strong  
 scent. Description from dried specimens -  
 whole plant glabrous.

461. *Solidago*. Stem robust, <sup>erect</sup> elongate, terete, sulcate, leafy and pubescent above, corymbose paniculate divided above. leaves lanceol. (sessile) acuminate, more or less diverging, entire, or appressed incisely-serrate, often denticulate-serrate, hampous hispid on both sides, 3 nerved, reticulate pellucid veined, nervos subvillous underneath, branches, with the branchlets form a pyramidal panicle, more or less regular, and compose a conglobata panicle, racemules <sup>short, horizontal,</sup> remain a little reflexed with the point peduncles, filiform, 1-3 flowered, white pubescent with the branchlets & upper stem. perianth cylindrical. scales few-rays short. - Floral leaves very minute long subulate. + lanceolate, obtuse, divaricate. linear lance acute loose-  
 imbricate, yellow obsolete greenish lined, whitish margined.

*S. procera*. [138] St Peters.

462. *Solidago*. caule <sup>elongato</sup> erecto glabro, subsulcate ~~paucifloro~~ divided into a panicle at the top. - stem leaves sessile, diverging, broad lanceolate, acuminate, attenuated at the base, <sup>appressed incisely</sup> serrate ~~often~~ dentate-serrate from the middle towards the apex, glabrous on both sides, or scabrous <sup>& paler</sup> beneath, margins scabrous, flowers leaves white-ciliate, branchlets <sup>hispid</sup> divaricately recurved, racemules short and ~~paniculate~~ <sup>glomerate</sup>, recurved. Antheridium cylindrical, scales unequal, linear, <sup>subacute</sup> elong. obtus white membranaceous, with 2 greenish confluent nerves towards the apex (peduncles and lower scales pubescent) rays short, divaricate, elliptic, with 3 confluent light lines, Pappus plumose.

463. *Arbutus Uva Ursi*, caule lignoso <sup>ramoso</sup> ~~paucifloro~~ prostrato, foliis alternis, secundis, petiolatis, obovatis, glaberrimis, <sup>supra nitidis</sup> ~~coriaceis~~, reticulatis, (ramis, prostratis, foliosis), marginibus <sup>terguinis</sup> ciliolatis.

452, *Gramen* <sup>stem</sup> Root geniculate, <sup>articulate</sup> fibrous, fasciculate, finely and densely fibrillate, very villous, wiry, lignous, white, stem geniculate, articulate, joints <sup>fructiferous</sup>, root ing, leaves sheathing the stem, sheaths sulcate, white silky ciliate, much longer so <sup>at</sup> the base of the leaf, which is jointed, spreading, linear, long acuminate, with a cartilagineous & pellucid scabrous margin, plaited; grass-like regular, pyramidal, lower branchlets divaricate or horizontal, <sup>paniculate</sup> with the racemules generally 3 flowered, spikelets one-flowered all the short peduncles, <sup>filiform</sup> ~~flaves~~ paleae 2, unequal, both cartilagineous, one of them very small, the other longer than the <sup>rate</sup> [139] next



with scabrous lines or keels, inner valves like the outer ones scabrous, all acute. — *Poa spectabilis* Pursh.  
Solidago 436. — Stem erect, stiff, foliose, terete, <sup>lined</sup> glabrous, leaves equitant, spreading from the base, falcate, <sup>or</sup> acute conduplicate, scabrous along the margins, about 3-nerved radical ones very long, <sup>lar</sup> attenuate towards the middle, branches, spreading, sheathed from their base by axillary leaves, subterete, with sessile opposite lanceolate, <sup>or</sup> mucronate, appressed leaves, racemes <sup>in</sup> clusters at the top of the branches, pedicels narrowed, pubescent. scales of the anther, few, <sup>(lance ovate)</sup> obtuse, one-nerved, fimbriate, sub-rugose; rays linear obtuse short, saffron yellow. —

Vermillion River (Sioux country).

448. Polygonum, stem erect, <sup>terete</sup> branched, <sup>shortly</sup> subterete, flexuose, striate, grooved; branches & leaves stipulated, branches spreading, subterete, <sup>mostly</sup> slender, <sup>tabular</sup> undivided; stipules white membranaceous lacinate, leaves subsessile, lanceolate acute or ~~obovate~~ acuminate, upper stipules not lacinate, nut sharply triangular, brownish black, shining, flowers axillary, solitary or in pairs. — Sandy banks at Spirit Lake.

Physalis 453. Root caespitose, stem, prostrate and ascending, <sup>in unequal pairs</sup> flexuose, subterete, pubescent, leaves petioled, <sup>broad</sup> sides unequal slightly decurrent down the petiole, <sup>ovate</sup> acute, <sup>unequally</sup> serrate-dentate, nerves & veins white tomentose. Fruit with the peduncles pendulous, calyx vesicular glandular pubescent, reticulate, teeth short acute, [140]

conspicuously ciliate, berry reddish yellow, —  
464. Aster Senecius, Root thickened, contracted with few radicles, stems solitary or several, heads, wingate, branched, terete, almost shining yellowish brown;

Eupatorium, stem erect, branched, terete, pubescent, leaves petioled, opposite, 3 angular cordate, acuminate, <sup>coarse</sup> serrate, subscabrous along the margins, divergent, petioles canaliculate by the slightly decurrent sides of the leaves, pubescent with the under sides of the leaves, branches opposite spreading divergent, their leaves shorter petioled, racemes corymbose at the top, pedicels pubescent, elongated, with filiform scales on floral leaves; scales of the anther, linear, <sup>(obtus)</sup> 3-nerved, curved pubescent, membranaceous margined conspicuously fimbriate, seed black <sup>pent</sup> tetragonous shining, Pappus marginal elongated, abplumous.

Aster 455. caule erecto, foliis <sup>parvis</sup> paniculato-ramosis, subsul-  
 cato glabro, foliis sessilibus <sup>divaricato-reflexis</sup>,  
 obovatis, elongatis acuminatis, <sup>basi attenuatis</sup> medio serratis, gla-  
 berrimis, marginibus scabris; ramis subintegris;  
 ramis axillaribus patentibus, brevibus pubescentibus,  
 floriferis; floribus apice congestis, pedunculis brevibus  
 pubescentibus; antheris imbricatis, squamis linearibus  
 subacutis marginibus albo-membranaceis fimbriatis  
 apicibus viridibus; Pappiis numerosis, linearibus obtusis  
 brevibus, albis.

467. *Dartingtonia*, radice incrassato, <sup>(herba)</sup> carnosu-lignoso, caulis  
 erecto, <sup>subflexoso</sup> elongato, ramoso, angulato-nervoso, glabro, sublignoso,  
 medulloso, foliis bipinnatis, multijugis; petiolo generalibus  
 subcanaliculatis, angustis marginibus pilosiusculis, basi  
 petiolum <sup>inferiorum sub-recticulato-</sup> glandulosis, pinnatisque apicibus  
 acutis; foliolis valde-approximatis, sessilibus <sup>(basi)</sup> obliquis  
 to oblongo-lanceolatis, obtusiusculis, ciliolatis, unineu-  
 ribus; stipulis filiformibus elongatis; ramis patentibus di-  
 vergentibus, <sup>angustatis</sup> ~~caulis~~ floriferis; floribus axillaribus pe-  
 dunculatis, divergentibus, elongatis, ~~inverso~~ rigidis, flor-  
 bundis, ~~ramis~~ ~~floribus~~ ~~subsessilibus~~ floribus subsessilibus, legu-  
 minibus turbinato-congestis, falcatis, acutis, 3-5 per-  
 mis.

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3

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3  
14  
Vegetation of the Mountain Island in the  
Upper Mississippi. October

This place exhibits a great variety of subalpine plants. At the foot of the rock close to the water the common *Quercus rubra* & *Ulmus americana* & *U. fulva* constitute the principal trees, like in the other bottom woods in that region, and with *Cornus stolonifera* as the most prevailing undergrowth; besides that is the Smilax *laurifolia* very abundant and at this full of its bunches or umbels of black berries, in the midst of it dense foliage. The lower rock, shaded by the trees is covered with *Polypodium vulgare* s. interspersed with *P. phegopteris* s. bushes of *Vaccinium uliginosum* var. *alpinum* Michx. hang immediately above it on the nearly perpendicular rocks, still nearly in full blossom - up to the height of about 80 or 100 feet the *Pinus strobus* fills up the intervals of the mount, and as they are sheltered by the rock they are larger than in any other place I saw on the banks of the Mississippi. - At the foot of those graceful pines, the *Chimaphila corymbosa* of Pursh, and *Goodyera pu-*

besides form scattered groups, among them also the *Micracium marianum*, at this time the first was with ripe fruit. The upper Rocks more exposed to the weather was full of different ferns, among which the *Asplenium rhizophyllum* Willd. and *Pteris atropurpurea* Linn. with a few plants of *Anabis laevigata* Cand. — On other places of the lower rocky intervals *Pyrola rotundifolia* & *elliptica* with their evergreen leaves were covering the ground, and at the same place *Monotropa uniflora* was in great abundance. There must be a great variety of Orchideous plants at that place, I only noticed a ~~withered~~ withered stalks of some species of *Platanaria*, *Cypripedium* and *Spiranthes* —

*Petalostemon villosum* Nutt.

This beautiful species of *Petalostemon* I met first at the Sandy and elevated prairies at the Traverse des Sioux, close by the fort of the Am. Fur Co. where it is noticed already on

other page. After we left that place I never saw it again for the whole first journey. On our second trip to Lac d'esprit I searched for it with great care but nothing was to be seen of it, nor was there any such sandy hills in the whole country until we reached Vermillion River on our Return Road, there, on the top of Castle Rock hill, on the almost base on Thrift Sand, I found it in great abundance & perfection in ripe fruit, with *Amorpha canescens* & *Arbutus Uva Ursi*, *Poa pestinata* & other more common plants. Again I missed it in the whole neighbourhood of St Peter on the left bank of the Mississippi, & down the Mississippi, as far as one mile below Riviere aux embarras, on the bastions of Thrift Sand of Carver's and Featherstonaugh's fortifications of the ancients, and here again in abundance and with *Geastrum hygrometricum*, often solitary in the Prairies with *Amorpha canesc.* The last time I found it on the Thrift Sand hills on the left bank of Lake Pepin. —

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