NUTTALL'S TRAVELS
into the
OLD NORTHWEST

An unpublished 1810 Diary

the Chronica Botanica Co., Waltham, Mass., U.S.A.
sides less. The claws of the petals are thick & fleshy, destitute of that membranaceous decurrent border which gives the lesser petals of the common blue Iris the appearance of an interior insertion. The filaments of this Iris are nearly linear, the anthers are linear sagittate, & each flower is inclosed within a membranaceous spathe. The flowers seem to lie almost on the earth Iris ***********? for the present (45) Virginica the petals when the flower opens appear cordato-oval, but soon become obtuse. There is a species of Salvia* now in flower in the dry plains, fol. villosus, sess. oblongis, obtusiusculis, parce denticulatis, nervosis bracteis, coloris, ovalibus, acuminatis, concavis; caule quadrangular; verticillis approximatis, conforo floris, coerulecentibus. — Salvia ***********? for distinction. (47) Near the lake I met with Parnassia palustris, & Staphylea Trifolia**. On Huron I met with a large erect species of (46) Astragalus pedunc. elongatis multifloris, fl. imbricatis petiolis polyphillis, foliol. oblongis, obtusis, pubescentibus; stip. subulatis. The flower is of a greenish white

Saturday, 25

Left Huron & arrived in Detroit Tuesday 26. The upper part of the Lake is full of small islands whose shores are covered with very white Lime-stone pebbles. Some of the islands are solid cretaceous rocks elevating their majestic hollow cliffs high above the water, in one of the islands is a cavern of considerable dimensions, but containing nothing very curious. The lake is far from being so filled with snakes as has been related; & the story of the fatal blowing snake is but a French fiction. At the mouth of the Detroit river is the town & fort of Malden. There were a

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167E. L. Mosesley’s “Sandusky Flora” (1899) lists no Salvia for this region. Professor M. L. Fernald suggests that this ‘Salvia’ was Blephilia ciliata (L.) Benth. which fits the description neatly.

168P. glauca Raf. and S. trifolia L. (Bladder Nut).

169A. canadensis L. (Canadian Milk Vetch).

170It was among these islands about three years later, in September 1813, that Commodore Perry’s decisive victory over the British squadron was to free the Great Lakes region from the control which the alerted British had promptly established there at the onset of the War of 1812. This operation was of the utmost importance in securing the Old Northwest Territory for the United States at the Treaty of Ghent.

171Heterodon contortrix contortrix (L.), the Hog-nosed Snake, known also as the Blow Snake, Hissing Viper, Puff Adder, etc. E. C. Driver in Name That Animal (Northampton, Mass., 1942, p. 861) gives a graphic description of its reactions:

One of the most amazing actors among the snakes is the spreading adder, Heterodon. When alarmed, it raises the front part of its body into the air and flattens out its head region much like a cobra. Its evil appearance is then supplemented by a loud hissing and all the preliminaries of an attempt to strike. If one is bold enough to call its bluff and offer it a hand for a target, he will find its strikes are so measured as to fall just short of the apparent goal.

R. L. Ditmars in The Reptile Book (1922, pp. 380-382) says, “In some sections the Hog-nosed Snake is thought to be so poisonous that its very hiss is the exhalation of a venomous breath.”

172Fort Malden at the site of the present Amherstburg, Ontario, was built by the British soon after 1796 when they evacuated Fort Detroit and other
considerable number of Indians encamped here, of the Otoways & Chippeways. The officers of the garrison are very liberal & indulgent to the aborigines who in return know how to be grateful. The Indians were loaded with silver ornaments. The Otoways affect the wreath or turban, & some of the venerable chiefs have all the suavity & graveness of a Grand Señor. From Malden to Detroit the river & adjacent country is nearly on the plane in one place the river scarcely possesses a determinate current branching into 3 different channels which have all in their turn been more or less navigable. The soil here & at Detroit is alluvial occasionally interspersed with adventitious masses of primitive rock, as granite, green & black basalt, but very little pure Quartz. Springs are very rare, & there is but one in the neighbourhood of Detroit consequently they use the river water exclusively as the spring called the belle fontaine lies 3 miles below the city. The river water is very pure, & the stream when not too deep is of a berryl green as is all the water of the lakes. A considerable precipitate takes place in this water on the addition of Nitrate of Silver, but none takes places with lime-water, muriate of Barytes, tincture of galls, or oxalate of potash. Lime-water occasions a considerable precipitation in the water of Belle fontaine, a small cloud is also formed by the addition of nitrate of silver, a minute precipitation also takes place on the addition of Oxalate of potash, muriate barytes & tincture of galls from whence it appears the river water contains a little muriatic acid possibly combined with Soda, the spring-water appears to contain a portion of Carbonic acid, but a much less proportion of muriatic acid than the river water it also contains a minute portion of Lime, Sulph. acid & iron. Detroit is pleasantly situated on the Western bank of Detroit-river, & contains about 1500 inhabitants mostly French people & Catholics, & in full possession of all the superstitions peculiar to that religion. Their holidays are so frequent & so strictly observed as to rob the community of much useful labour & to involve themselves in poverty; the Abbé Richard they their priest is a learned & intelligent observer. 3 miles from Detroit at belle fontaine are several high military posts on the lakes in accordance with the terms of Jay's Treaty. Detroit, founded by the French under Cadillac in 1701, was lost to the British in 1769.

173 Father Gabriel Richard has been called "the apostle of Michigan."

Born in Saintes... (1761), he was... consecrated to the priesthood in Paris (1781). A member of the Sulpician order, the hostilities of the French Revolution drove him into exile. In 1792 he came to Baltimore, and was sent to minister to the French of the Illinois. In 1798 he was appointed to Detroit. The following year he took a voyage to Mackinac, where he remained for three months, bringing the voyagers and Christian Indians to a remembrance of their religious duties. His visit parish extended from Detroit to Sault-Sainte Marie and Prairie du Chien. He does not appear to have visited Wisconsin until 1809. Father Richard being an American, was during the War of 1812-15 arrested and confined by the British at Sandwich. In 1823 he was elected territorial delegate from Michigan to the United States House of Representatives, being the first priest to sit therein. He was active in educational movements, opening schools in Detroit and elsewhere, and aiding in the foundation of the University of Michigan.

sand hills, which have been raised by the Indians as tumuli or burying-places & are held in veneration by them. Mr. Hervey of Detroit on digging the foundation of a house on one of these sand hills discovered the implements of an Indian chief, viz. a rude axe head of green basalt, cylindric & rounded at one end and wedged at the other, & possessed of a considerable polish. The head of a halberd of rock-crystal about 1¼ foot long & 4 inches broad. Several spear-heads well formed, of white hornstone together with several arrow-heads of the same substance. The fragment of a fish-spear of bone barbed on one side a necklace of human toe or finger joints, & 2 pieces of thin plate copper one in the form of a crescent with 2 small holes in the centre. It is probable the copper is native, & has been beat out & cut by the Indians.  

The disease of Bronchocele or Goitre is very prevalent in Detroit & its neighbourhood, both amongst whites & Indians. The female sex is much more subject to it than the male, & there are few white women who have not experienced more or less of it. It is sometimes too rarely accompanied with fatuity. I saw one instance of this in an Indian man, a poor harmless idiot! It is more distressing to some individuals than others. Many carry about this disease for years without much apparent inconvenience, while others are threatened with suffocation & death.

The situation of Detroit is elevated & airy, the soil alluminous, & the surrounding country a stagnant marsh, but the ague is scarcely known.

Different opinions are entertained respecting the origin of this disease; some attributing it to an unknown property in the water of the river; others to drinking snow-water, &c. but this last opinion is in some measure confuted by the observation of the Abbe Molini. But they never suppose that the abundant & unhealthy miasmata naturally arising from the swamps near the city, have any influence in causing this disease. The water of the lakes is perhaps as pure & generally wholesome as any body of fresh water in the world, & the inhabitants of their banks generally speaking are as healthy or rather more so than in any other part of America, & by no means peculiarly afflicted with Goitre. The opinion of its arising from exposure to the inclemency of a cold climate; "wad-

174 There are several small sketches of the articles described.

In The Jesuit Relations (ed. by Thwaites, L., 265) Alouez who crossed Lake Superior in 1665 says:

One often finds at the bottom of the water pieces of pure copper. . . I have several times seen such pieces in the Savages' hands; and, since they are superstitious, they keep them as many divinities, or as presents which the gods dwelling beneath the water have given them, and on which their welfare is to depend. For this reason they preserve these pieces of copper, wrapped up, among their most precious possessions. Some have kept them for more than fifty years; some have had them in their families from time immemorial, and cherish them as household gods. (On trouve souvent au fond de l'eau, des pieces de culture tout formé, de la pesanteur de dix & vingt livres: L'en ay vu plusieurs fois entre les mains des Saunuge, & comme ils sont superstitieux, ils les gardent comme autant de divinites, ou comme des presents que les dieux qui sont au fond de l'eau, leur ont fait, pour estré la cause de leur bonheur: C'est pour cela, qu'ils conservent ces morceaux de culture envelopés parmi leurs meubles les plus précieux; il y en a qui les gardent depuis plus de cinquante ans; d'autres les ont dans leurs familles de temps immemorial, & les chérissent comme des dieux domestiques.)
ing in snow,” &c. is not well founded, as women in easy circumstances, are as much if not more liable to it than the poorer ranks, who are necessarily more exposed, & whose constitutions here are full as delicate.

Till the nature of this disease becomes better known, little can be done toward a cure, many inert substances, & even charms have had the credit of curing this disease, which baffles reasonable medicine, however, as it comes without any apparent cause so it frequently subsides gradually without the aid of any remedy. Amongst the Different substances said to cure this [——] desideratum in medicine [——] are pieces of sponge taken internally — A small woollen bag filled with common salt worn about the neck & frequently wet with vinegar; & fomentations of vinegar, or capillary substances wet with vinegar suspended about the neck, which last has been known to discuss this obstinate tumour in several instances.

The Huron or Wyandot village which formerly existed in Canada opposite Detroit is now no more & a settlement of white people is established on its site. There are now but 4 villages of the Hurons, viz. Upper & Lower Sandusky; the 1st. at the mouth of Sandusky river, & the second between 30 & 40 miles above on the river. A small village about 12 miles below Detroit called Maguaja, & another village opposite Maiden called Brown’s-town from the name of their white chief, who has lived with them from a child having been taken prisoner. They are about 300 men. I am informed it is their opinion that they are descended from the Iroquois or 6 confederated nations; be that as it may, their language has an affinity to that of the six nations, it is nearly destitute of labiate sounds, tho’ not absolutely so; & extremely full of aspirations, & consequently very laborious to the speaker. Their government is purely elective. They are mild looking Indians, but like the Iroquois possessed of that baneful superstition & belief in Witchcraft, to which one of their leading old chiefs lately fell victim. Besides these Indians there are a considerable number of

176 The Hurons or Wyandots were a branch of the Iroquois whom the French found established southeast of Georgian Bay of Lake Huron. They and the allied tribes of the area were brutally crushed by a series of Iroquois attacks in the mid-seventeenth century; only a small remnant escaped and fled westward. After years of wandering they returned to the environs of Lake Huron. They were always loyal allies of the French and were the most formidable enemies of the British in the Indian uprising under Pontiac, who was an Ottawa. The Ottawas, an Algonquin tribe who lived on the Ottawa River until 1650, suffered the same fate as the Hurons and their history is similar. See the Introduction to Francis Parkman’s The Jesuits in North America.

177 Nuttall has interchanged the locations of Upper and Lower Sandusky. The present city of Wyandotte is on the site of Maguaja.

178 In the papers of Thomas Palmer (in the Burton Historical Collection, Detroit Public Library) a letter of October 13, 1810, from J. Wetherell of Detroit, contains a passage which probably refers to this episode.

. . . , the Indians have took a strange whim into their head, lately, that some of their people are witches or wizards, and in fact have bewed three Indians and one squaw to Death with the Tomahawk in consequence of that suspicion — they say those witches kill other Indians, at any distance they please, by some unaccountable means or other.
Chipeways\textsuperscript{178} (called Sotos by the French) near Detroit. The most influential chief among them is Ogonce who has 5 wives, & a vast number of children, he is half French\textsuperscript{179} they plant but little corn.

There are not many animals in the vicinity of Detroit but at no great distance there are Wolves, bears, Wild Cats, black, & ground squirrel, racoon, musquash, Weasel, a species of Talpa,\textsuperscript{180} nearly the size of a rat, covered with a fine black soft fur the base of the head as broad as the shoulders, so as to appear without neck, & the nose furnished with a radiated process of red fungous flesh ft. 5-toed, tail long, thicker at the base, the tail long thick in the middle covered with short hair. probably Talpa Longicaudata. a small species of — Sorex\textsuperscript{181} hardly as large as a mouse & of a mouse grey. The head somewhat disproportionately large, the feet 5-toed, small, & the toes slender, its concave ears large; it frequents habitations like mice. & is subterraneous. The tail small & very short eyes perceptibly none (N. p. 52.) There are wild mice but no rats, the mice are large & active & found wild in the woods in the summer season. they are pale ferruginous on the back, whitish beneath the ears are broad & large, & the beard long, the eyes also are large & prominent, & the tail rather long, probably Mus sylvaticus\textsuperscript{182} There are no rats in this country, & rarely if ever the opossum. Considerable quantities of wild honey are collected in the woods but the bee here is certainly of European origin. The Salamandra horrida is sometimes met with in Detroit river, & the gar-fish, furnished with a long serrated process issuing from the lower jaw Esox viridis\textsuperscript{183} There are also cat-fish Silurus Felis, white & black bass,\textsuperscript{184} pike Esox Lucius, sturgeon &c. I saw no great variety of birds, there are, Falco columbarius, Corvus Corax, Corvus cristatus,\textsuperscript{185} Picus pileatus, P. auratus, P. erythrocephalus, P. villosus, Gracula quiscula,\textsuperscript{186} Alcedo alcyon, Ardea herodias, this seems a little like the old practice in Salem, where they used to hang and drown for Witchcraft — if they would carry the work on to perfection I should have no objection.

\textsuperscript{178}The Chipewways (Ojibways), one of the largest Algonquian tribes, roamed over a great tract extending from the shores of the three upper Great Lakes half way to Hudson's Bay.

\textsuperscript{179}A treaty by which the Indians sold land on the south shore of Lake Erie to the Connecticut Land Company in 1805 was signed by a number of chiefs including Ogonse for the Ottowas and Adam Brown for the Hurons. See Bald, op. cit., p. 254.

\textsuperscript{180}Star-nosed Mole, Condylura cristata (L.).

\textsuperscript{181}This is the same species of Shrew as that seen on May 30 near Erie, which he indicates by his reference to page 52 of the diary. See note 102.

\textsuperscript{182}Like many of Nuttall's suggestions this is a name of a European species. The description fits Peromyscus leucopus (White-footed Mouse, Deer Mouse) and the form was probably noveboracensis (Fischer).

\textsuperscript{183}This is the Linnaean name for a pike from Carolina; the gar-pike is Lepisosteus longirostris Raf.

\textsuperscript{184}The cat-fish was probably Ictalurus punctatus (Raf.); the two bass, Lepisosteus chrysops (Raf.) and Micropterus dolomieu Lacépède. The editor is indebted to Mr. Henry W. Fowler for the identification of the fishes mentioned in the diary.

\textsuperscript{185}Cyanocitta cristata brownei Oberholser, Blue Jay.

\textsuperscript{186}Quiscalus quiscula versicolor Vieillot, Bronzed Grackle.
Charadrius vociferus, Trochilus colubris,197 Tetrao umbellus Tetrao
Marilondus,198 Columba migratoria199 Turdus migratorius, T. Poly-
glottos, T. rufus199 Loxia cardinals, L. Curvirostra, Musciopha
Carolinensis,191 Lannius tyrannus,192 Caprimulgus Virginiana, Ori-
olus phoeniceus, Ardea cinerea,193 Motacilla Sialis, Hirundo pur-
purea,191 H. rustica, Anas Boschas, Anas sponsa,195 Emberiza eri-
thropthalma.196 &c. but no extraordinary birds.

The productions of the vegetable kingdom in the neighbour-
hood of Detroit differ little from the West of Pennsylvania.
Neither the Persimmon, nor Magnolia acuminata are here. I have
not seen this last since I left Grand river L. Erie, neither have I
seen the Buckeye, Aesculus flavescens,197 since I left Sandusky Bay.
The principal trees here are, Quercus nigra, Q. rubra, Q. tinctoria,
Q. phellus, Q. Castanea,198 Juglans Alba,199 J. Nigra, Lyriodendron
tulipifera, Platanus occidentalis, P. grandidentata,200 Popu-
lus angulata201 (called Liard by the French, it has also the trivial

197Archilochus colubris (L.), Ruby-throated Humming-bird.
198Colinus virginianus virginianus (L.), Bob-white.
199Ectopistes migratorius (L.), Passenger Pigeon (extinct).
190The first Turdus is of course the Robin; the two additional species are
now Mimus polyglottos polyglottos (L.), Mockingbird, and Towcestoma rufum
rufum (L.), Brown Thrasher.
191Dumetella carolinensis (L.), Catbird.
192Tyranus tyrannus (L.), Kingbird.
193This is the European Great Blue Heron. The only bird of this region
of a size and color to be confused with it, aside from our Great Blue Heron
which is also recorded and therefore could not be intended, is the Sandhill
Crane, Grus canadensis tabida (Peters).
194Progne subs subs (L.), Purple Martin.
195These two ducks are Anas platyrhynchos platyrhynchos L., Mallard
Duck, and Anas sponsa (L.), Wood Duck.
196Pipilo erythropthalmus erythropthalmus (L.), Red-eyed Towhee.
197A. flavescens, now A. octandra Marsh., does not extend as far north as
the Lakes. The species which Nuttall had been seeing was A. glabra Willd.
(Fetid or Ohio Buckeye).
198Of the five oaks which Nuttall lists the second, third and fifth present
no problem. Their present names in order are Q. rubra L. (Red Oak), Q. velan-
tina Lam. (Black Oak), and Q. Muhlenbergii Engelm. (Yellow or Chestnut
Oak).
Q. nigra L. (Water Oak) is a small tree of the south with a distinctive
leaf. It is futile to speculate what Nuttall intended by it for he has left un-
named at least seven species which are more or less abundant in the region,
but it may be that he confused the words nigra and alba (not the species)
in the haste of writing. Q. phellus (Willow Oak) is also southern but its leaf
form is similar to that of Q. imbricaria Michx. (Laurel or Shingle Oak) which
occurs in the area.
199Some species of Hickory.
200It is obvious that this should be Populus grandidentata Michx. (Large-
toothed Aspen).
201Entangling the names which have been given to our two largest poplars
has been a confusing problem. The present decision is that P. balsamifera L.
(P. Tacamahaca Mill.) is the correct name for the northern species which
extends to Labrador and Alaska (Rhodora XLVIII (1946), 108), and P. del-
toides Marsh. (P. carolinensis Muench, P. monilifera Ait., P. angulata Ait.)
for the more southern which reaches Florida and Texas. Their ranges overlap
in southern Canada and northern United States. The tree described is P.
deltoidea, but the tree of the Mackenzie River is the Balsam Poplar. In 1801
name of Cottonwood, the ament after florescence lengthens out into a pendulous raceme of ovati-conic follicles each of which become somewhat larger than a pea, & the seeds have abundance of cottony pappus, from whence originates the above name. This same plant, I believe has also received a new name in the Botanic Garden of Charleston from the circumstance of its somewhat moniliform raceme of seed-vessels, it is believed to be a distinct new species, but probably further investigation will identify it to be the above. On this rout I 1st saw it on Detroit river, how far this tree extends North McKenzie's Journal will shew. Its leaves are cordato-deltoid, acuminate, sinuate or hooked serrate with a cartilaginous border & diverging divergent nerves the petiole is anciptal with vertical edges. Its habit is principally on the alluvion banks of rivers, & next to the Platanus it is the largest tree on the great Western waters. The other trees of this country are, Fraxinus epipetala, F. platycarpa, Fagus sylvestris, Betula papyrifera which is extensively used by the Indians for constructing canoes about which they display considerable ingenuity & skill. These boats are much used by the fur-traders being very light of carriage across the numerous portages of the N. West & Lake countries & also admirably adapted for navigating the shallowest streams. Here is also Pyrus coronaria, Tilia Lixifera, T. Canadensis, Prunus Hiemalis, Cretaegus crus galli, C. punctata, C. tomentosa, Rubus occidentalis R. saxatilis. Of herbaceous & shrubby plants there are Fragaria Canadensis Geum rivale, G. Canadense, G. geniculatum, Agrimonia parviflora of Alt., Lythrum, Spiraea salicifolia, Narthecium glutinosum, Prosperpinaca, Cypripedium Canadense, Cymbidium pulchellum, Arethusa ophioglossoides, a new linear leav'd Lysimachia.

Alexander Mackenzie published an account of his voyages of 1789 down this river to the Arctic Ocean, and of 1792-3 across the Rockies to the Pacific Ocean.

202 The first ash is F. americana L. (White Ash); the second name belonging to a southern species, Nuttall misapplied. He was evidently trying to use Michaux's limited flora to identify his species and not having much success.

203 Fagus grandifolia Ehrh. (American Beech).

204 Pyrus coronaria L. (American Crab).

205 T. americana L. (Basswood) and its very close relative T. neglecta Spach are the only species of Tilia growing this far north.

206 P. americana Marsh. (Wild Plum).

207 F. virginiana Duchesne (Wild Strawberry).

208 The G. canadensis given in Michaux's Flora is that of Murray which is in synonymy with G. aleppicum Jacq. var. strictum (Alt.) Fern. (Yellow Avens). G. geniculatum Michx. carries such a generalized description that its application has remained in doubt; however, a careful comparison of it with herbarium specimens indicates that Nuttall used it for G. canadense Jacq. (White Avens).

209 The only Lythrum with proper range is L. alatum Pursh (Winged Loosestrife).

210 S. alba DuRoi (Meadow-sweet).

211 Tofoedio glutinosum (Michx.) Pers. (False Asphodel).

212 P. palustris L. var. crebra Fern. & Grisc. (Mermaid-weed).

213 The two newly recorded orchids are Calopogon pulchellus (Salisb.) R. Br. (Grass-pink) and Pogonia ophioglossoides (L.) Ker.

214 Lysimachia quadriflora Sims (Linear-leaved Loosestrife).
Lobelia Cardinalis very sparingly, L. Siphilitica, L. Kalmii, L. Claytoniana, Datura stramonium, Hiosciamus nigra, Ribes nigra, R. cymoshati, the asperifoliate plant which I met with at Painsville Ohio & which I take to be the Datura Sibrica or Bactia of Michaux. Galega Virgini*, Aselepios tuberosa, A. Syriaca, A. longifolia A. verticillata, A. purpur* a[scens] A. amoena, A. Apocynum cannabinum; a fine new species of Rosa, producing its flowers in corymbs, & is introduced into the gardens of Detroit for the beauty & vast numbers of its flowers. I shall hereafter distinguish it R. *********. on the margin of Detroit River grows a fine new Thlaspi, with small greenish yellow flowers, succeeded by very large roundish obcordate, flat, & broad margined silicles, which are sinuately emarginate, leaves I think obovate & distantly toothed the whole plant lucid & fleshy, Thlaspi *****. with it grows Callicle Aegyptica! fl. violet. of aquatic there are Pontediva cordata, Nymphaeà odorata, N. alba, & another with yellow flowers which might be called ********* as it has but 3 petals & 3 calyx leaves in other respects it scarcely differs from N. advena, Callitriche aquaticâ, Valisneria americana, scape spiral, Chara hispida, Potomogoton perfoliatum & a species with leaves linear lanceolate alternate, sessile, 3 nervèd, Eloede, &c.

On July 29th, I left Detroit for Michilimakinak in a birch bark canoe accompanied by the surveyor of the territory. On the

215 Lobelia spicata Lam.
216 A. purpurascens L. has not been distinguished from A. amoena L., but A. amoena Bronn. is in synonymy with A. incarnata L. which is common in this area. For A. longifolia see note 169.
217 In his Genera of North American Plants Nutall describes Rosa rubifolia as a “very fine flowering species... abundant round Detroit, and through all the western states.” This species of Robert Brown is now known as R. setigerà Michx. var. tomentosa T. & G. (Prairie Rose).
218 A sketch of the silicle is drawn in the diary. The drawing and the description (except the color of the flowers) suit T. aureo Le. (Pennywort) which Nutall in his Genera says is “A common weed around Detroit (Michigan Territory).”
219 Not an American species. See note 107.
220 N. tuberosa Paine (Magnolia Water Lily).
221 Nuphar advena Ait. (Cow Lily, Yellow Spatterdock) which has six unequal sepals and “petals shorter than the stamens and resembling them” (Gray’s Manual 7th ed.).
222 C. palustris L. (Water Starwort).
223 A European Stonewort.
224 See note 248.
225 Michigan Territory was established in 1805 and Aaron Greely (1778-1829) of Hopkinton, N. H., became its surveyor in 1806. His wife was a niece of Major Robert Rogers who received the surrender of Detroit in 1760 and was later commandant at Mackinac. In “Detroit Biographies: Aaron Greely” M. M. Quilfè says:

In the summer of 1810, he journeyed to Mackinac, where he surveyed the town lots and other land holdings of the villagers. For many years this visitation was carried in memory by the people of Mackinac.

We are indebted to Mrs. Elléine H. Stanes, Chief, Burton Historical Collection, Detroit Public Library, for the following information: Aaron Greely, the surveyor, signed a paper in Detroit on July 27 (1810), arrived at Mackinac on August 22, and returned on the 23. Unfortunately we have no letter from him about the journey.
sandy banks of Detroit River grew a species of *Spermacoce* &. Coming out of Lake Sinclair [St. Clair] I saw a number of bank martins. (*Hirundo riparia*) The country is very flat on this lake, as is also that watered by the River Sinclair which empties itself into the lake by numerous channels, forming many islands covered with little else but reeds, the banks of the river are covered with lofty trees all common to alluvion soil. Not far from the outlet of L. Huron are numerous impressions & incrustations of organized marine substances, as several species of *Anomia, stylostalam, tubipores, & madrepores*, &c. We saw & conversed with a number of Chippeway Indians, who were very poor & almost destitute of any kind of provision except a little sturgeon, and they are likely to remain so, as they have such an aversion to agricultural labour, at the same time that their animal food becomes continually scarcer we saw here a considerable band, yet they had scarcely 2 acres of maize. On asking a very well informed Indian the use of the mounds or Indian fortifications as they are called he informed me that their forefathers employed them as means of defense when they yet fought with the bow & arrow, the spear & the for by his description they certainly also made use of this means of defense, he informed me that they fastened a stone to one end of a leather thong which they whirl'd at the enemy, while they jerked it back again into the hand by means of the other end which was wound round the hand. From the simplicity of this weapon, which next to hurling stones alone, would seem almost primeval with man himself, we may naturally conclude this is no short-liv’d tradition, & more particularly as weapons & warlike achievements, must ever rank first in the oral traditions of savage nations, whose very existence as distinct tribes depends almost solely upon their strength. The Indian fortifications with which Western

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224 *Diodia teres* Walt. var. *setifera* Fern. & Grisc. (Buttonweed).
227 Bivalves and different types of corals.
228 Paul Radin in *The Story of the American Indian* (1887, p. 192) refers to a change of view regarding the identity of the mound-builders.

American scholars are still at loggerheads as to the identity of the people who built this (the Trappist mound near St. Louis mentioned later in the diary) and other numerous mounds scattered so lavishly over the eastern half of the United States. Three generations ago it was the consensus of opinion that they had been built by a wonderful people who had preceded the Indians, and who had come from outside the United States. But then about fifty years ago, a strong reaction set in against this view.

In *Indians Before Columbus* (1947) by P. S. Martin, G. I. Quimby and D. Collier, four chronological stages of culture in eastern North America are recognized. The second phase, dated about 500-900 A.D., was marked by the first building of burial mounds in the Mississippi Valley indicating a change in ideas regarding the dead. The third, about 900-1300, was characterized by the largest burial mounds and earthworks, and perfection of work in copper and polished stone, displaying

... a dignity and formality which was lacking in earlier times or in later stages...
One of the most spectacular developments of the fourth stage was the appearance of flat-topped mounds of earth in the Mississippi Valley and its tributaries... These mounds usually square or rectangular truncated pyramids but sometimes truncated cones, were used as substructures for temples or chief's houses... Toward the latter part of this period some Indians built tremendous mounds sixty to one hundred feet high... (pp. 236, 237).
APPENDIX II

List of Animals Noted by Nuttall

--- Insects ---
Acroneuria sp. (?) — Stone-fly, 22
Chauliodes sp. — Fish-fly, 47
Platysamia cecropia L. — Cecropia Moth, 48
Actias luna L. var. rubromarginata Davis — Luna Moth, 27
Synchlora sp. (?) — Measuring Worm Moth, 40

--- Fishes ---
Acipenser fulvescens Raf. — Lake Sturgeon, 61
Lepisosteus longirostris Raf. — Gar-pike, 61
Alosa alabamae Jordan & Evermann (?) — Shad, 71
Ictalurus punctatus (Raf.) — Channel Cat, 61
Esox lucius L. — Pike, 61
Micropterus dolomieu Lacépède — Small-mouthed Black Bass, 61
Lepisosteus chrysops (Raf.) — White Bass, 61

--- Salamanders ---
Cryptobranchus alleganiensis (Daudin) — Hellbender, 27, 61
Trimeresurus viridescens viridescens Raf. — Common Newt, 37

--- Lizards ---
Eumeces fasciatus (L.) — Five-lined Skink, 37, 39, 44

--- Snakes ---
Diadophis punctatus edwardsii (Merrem) — Ring-necked Snake, 46
Heterodon contortrix contortrix (L.) — Hog-nosed Snake, 57
Thamnophis sirtalis sirtalis (L.) — Garter Snake, 46
Crotalus horridus horridus (L.) — Timber Rattlesnake, 46

--- Birds ---
Ardea herodias herodias L. — Great Blue Heron, 61
Anas platyrhynchos platyrhynchos L. — Mallard, 62
Anas sponsa (L.) — Wood Duck, 62
Cathartes aura septentrionalis Wied. — Turkey Buzzard, 21, 70
Buteo jamaicensis borealis (Gmelin) — Red-tailed Hawk, 42
Falco columbarius columbarius L. — Pigeon Hawk, 61
Bonasa umbellus umbellus (L.) — Ruffed Grouse, 24, 62
Colinus virginianus virginianus (L.) — Bob-white, 62
Meleagris gallopavo silvestris Vieillot — Turkey, 41, 42, 51
Grus canadensis tabida (Peters) — Sandhill Crane, 62
Choradrius vociferus vociferus L. — Killdeer, 62
Eotopistes migratorius (L.) — Passenger Pigeon, 21, 62
Nyctic scandiacus (L.) — Snowy Owl, 51
Caprimulgus vociferus vociferus Wilson — Whip-poor-will, 27, 62
Aegithalos colubris (L.) — Ruby-throated Hummingbird, 37, 62
Muscicapa aestivalis aestivalis (L.) — Eastern Bluebird, 33, 61
Cecropis australis hucus Bangs — Flicker, 61
Myiarchus phoebe abietiae (Bangs) — Pileated Woodpecker, 61
Colaptes auratus auratus Bangs — Red-headed Woodpecker, 61
Lophotrochopterus villosus villosus (L.) — Hairy Woodpecker, 61
Tyranus tyrannus (L.) — Eastern Kingbird, 62
Cerurus riparia riparia (L.) — Bank Swallow, 65
Chimacoma macrorhyschos robbins — Barn Swallow, 21, 62
Campephilus subsulis (L.) — Purple Martin, 62
Cottus cristata bromica Oberholser — Northern Blue Jay, 61
Cyrtonyx corax principalis Ridgway — Northern Raven, 61
Parus atricapillus atricapillus L. — Black-capped Chickadee, 39, 40
Mimus polyglottos polyglottos (L.) — Mockingbird, 62
Dumetella carolinensis (L.) — Catbird, 62
Toxostoma rufum rufum (L.) — Brown Thrasher, 21, 62
Turdus migratorius migratorius L. — Robin, 62
Sialia sialis sialis (L.) — Bluebird, 21, 62
Dolichonyx oryzivorus (L.) — Bobolink, 58
Sturnella magna magna (L.) — Meadowlark, 21
Agelaius phoeniceus phoeniceus (L.) — Red-winged Blackbird, 21, 53, 62
Quiscalus quisquaud versicolor Vieillot — Bronzed Grackle, 61
Richmondia cardinalis cardinalis (L.) — Cardinal, 37, 62
Pheucticus ludovicianus (L.) — Rose-breasted Grosbeak, 37
Loxia curvirostra minor (Brehm) — Red Crossbill, 62
Pipilo erythrophthalmus erythrophthalmus (L.) — Red-eyed Towhee, 62

— Mammals —

Condylura cristata (L.) — Star-nosed Mole, 61
Blarina brevicauda (Say) — Short-tailed Shrew, 42, 61
Tomius striatus (L.) — Chipmunk, 46
Sciurus carolinensis leucotis (Gapper) — Gray Squirrel, 46
Peromyscus leucopus noveboracensis (Fischer) — Deer Mouse, 61
Erethizon dorsatum dorsatum (L.) — Porcupine, 40, 41