VIII

JUNE, 1856

(ÆT. 38)

June 1. Horse-radish in yard, to-morrow.

Picked up an entire sternothærus shell yesterday, without scales. In the upper shell there appear to be six small segments of shell wholly dorsal, seventeen wholly lateral (nine in front), and twenty-two marginal, forty-five in all. The ribs, in this case spreading out and uniting to form a sharp and tight roof, suggest that ribs were the first rafters. So we turn our backs to the storm and shelter ourselves under this roof. The scales upon the shell answer to the shingles on the roof, breaking joints.

Saw the shell of another turtle, apparently a young painted turtle, one inch long, curiously wrinkled and turned up, like that found in Middleborough. This had been washed up on to meadow some weeks ago, apparently.

P. M. — To Walden.

Somewhat warmer at last, after several very cold, as well as windy and rainy, days. Was soothed and cheered by I knew not what at first, but soon detected the now more general creak of crickets. A striped yellow bug in fields. Most of the leaves of the *Polygonatum pubescens* which I gathered yesterday at Island had been eaten up by some creature.

A chewink's nest a rod and a half south of Walden

road, opposite Goose Pond path, under a young oak, covered by overarching dry sedge; four eggs, *pretty* fresh. I am pretty sure the bird uttered the unusual hoarse and distressed note while I was looking at them.

Linaria Canadensis on Emerson Cliff. Rock-rose, a day or two there. Whiteweed by railroad at pond to-morrow. Cotton-grass, several days before the 29th May. Heard a quail whistle May 30th. The late cratægus on hill, about May 31st.

June 2. *Carum, i. e.* caraway, in garden. Saw most hummingbirds when cherries were in bloom, — on them.

P. M. — With R. W. E. to Perez Blood's auction. Telescope sold for fifty-five dollars; cost ninety-five plus ten. See Camilla on rye, undulating light and shade; not 19th of April.[1] Returned by bridle-road. *Myrica cerifera*, possibly yesterday. Very few buds shed pollen yet; more, probably, to-day. Leaves nearly an inch long, and shoot and all no more. English hawthorn will open apparently in two days.

Agassiz tells his class that the intestinal worms in the mouse are not developed except in the stomach of the cat.

5 P. M. — To *Azalea nudiflora*, which is in prime. *Ranunculus recurvatus* the same; how long? White maple keys conspicuous.

In the first volume of Brewster's "Life of Newton" I

[1] [Alluding to the tradition that on the day of the "Concord Fight" (April 19, 1775) grass and grain were already waving in the wind, the season being exceptionally early.]

read that with one of the early telescopes they could read the "Philosophical Transactions" at five hundred feet distance.

June 3. *Tuesday.* Surveying for John Hosmer beyond pail-factory.

Hosmer says that seedling white birches do not grow larger than your arm, but cut them down and they spring up again and grow larger.

While clearing a line through shrub oak, which put his eyes out, he asked, "What is shrub oak made for?" R. Hoar, I believe, bought that (formerly) pine lot of Loring's which is now coming up shrub oak. Hosmer says that he will not see any decent wood there as long as he lives. H. says he had a lot of pine in Sudbury, which being cut, shrub oak came up. He cut and burned and raised rye, and the next year (it being surrounded by pine woods on three sides) a dense growth of pine sprang up.

As I have said before, it seems to me that the squirrels, etc., disperse the acorns, etc., amid the pines, they being a covert for them to lurk in, and when the pines are cut the fuzzy shrub oaks, etc., have the start. If you cut the shrub oak soon, probably pines or birches, maples, or other trees which have light seeds will spring next, because squirrels, etc., will not be likely to carry acorns into open land. If the pine wood had been surrounded by white oak, probably that would have come up after the pine.[1]

While running a line in the woods, close to the water,

[1] [*Excursions*, p. 190; Riv. 233.]

on the southwest side of Loring's Pond, I observed a chickadee sitting quietly within a few feet. Suspecting a nest, I looked and found it in a small hollow maple stump which was about five inches in diameter and two feet high. I looked down about a foot and could just discern the eggs. Breaking off a little, I managed to get my hand in and took out some eggs. There were seven, making by their number an unusual figure as they lay in the nest, a sort of egg rosette, a circle around with one (or more) in the middle. In the meanwhile the bird sat silent, though rather restless, within three feet. The nest was very thick and warm, of average depth, and made of the bluish-slate rabbit's (?) fur. The eggs were a perfect oval, five eighths inch long, white with small reddish-brown or rusty spots, especially about larger end, partly developed. The bird sat on the remaining eggs next day. I called off the boy in another direction that he might not find it.

Plucked a white lily pad with rounded sinus and lobes in Loring's Pond, a variety.

Picked up a young wood tortoise, about an inch and a half long, but very orbicular. Its scales very distinct, and as usual very finely and distinctly sculptured, but there was no orange on it, only buff or leather-color on the sides beneath. So the one of similar rounded form and size and with distinct scales but faint yellow spots on back must have been a young spotted turtle, I think, after all.

June 4. Surveying for J. Hosmer.

Very warm.

While running a line on the west edge of Loring's Pond, south of the brook, found, on a hummock in the open swamp, in the midst of bushes, at the foot of a pitch pine, a nest about ten inches over, made of dry sedge and moss. I think it must have been a duck's nest. This pond and its islets, half flooded and inaccessible, afford excellent places.

Anthony Wright says that he used to get slippery elm bark from a place southwest of Wetherbee's Mill, about ten rods south of the brook. He says there was once a house at head of hollow next beyond Clamshell. Pointed out the site of "Perch" Hosmer's house in the small field south of road this side of Cozzens's; all smooth now. Dr. Heywood worked over him a fortnight, while the perch was dissolving in his throat. He got little compassion generally, and the nickname "Perch" into the bargain. Think of going to sleep for fourteen nights with a perch, his fins set and his scales (!), dissolving in your throat!! What dreams! What waking thoughts! Also showed where one Shaw, whom he could just remember, used to live, in the low field north of Dennis's barn, and also another family in another house by him.

English hawthorn from Poplar Hill blossoms in house.

June 5. *Thursday.* P. M. — To Indian Ditch.

Achillea Millefolium. Black cherry, apparently yesterday. The *Muscicapa Cooperi* sings *pe pe pe'*, sitting on the top of a pine, and shows white rump (?), etc., unlike kingbird.

Return by J. Hosmer Desert.

Everywhere now in dry pitch pine woods stand the

red lady's-slippers over the red pine leaves on the forest floor, rejoicing in June, with their two broad curving green leaves, — some even in swamps. Uphold their rich, striped red, drooping sack. This while rye begins to wave richly in the fields.

A brown thrasher's nest with four eggs considerably developed, under a small white pine on the old north edge of the desert, lined with root-fibres. The bird utters its peculiar *tchuck* near by.

Pitch pine out, the first noticed on low land, *maybe* a day or two. Froth on pitch pine.

A blue jay's nest on a white pine, eight feet from ground, next to the stem, of twigs lined with root-fibres; three fresh eggs, dark dull greenish, with dusky spots equally distributed all over, in Hosmer (?) pines twenty-seven paces east of wall and fifty-seven from factory road by wall. Jay screams as usual. Sat till I got within ten feet at first.

A cuckoo's nest[1] with three light bluish-green eggs partly developed, short with rounded ends, nearly of a size; in the thicket up railroad this side high wood, in a black cherry that had been lopped three feet from ground, amid the thick sprouts; a nest of nearly average depth (?), of twigs lined with *green* leaves, pine-needles, etc., and edged with some dry, branchy weeds. The bird stole off silently at first. Five rods south of railroad.

I must call that cerastium of May 22d *C. nutans* (??), at least for the present, though I do not see grooves in stem. Oakes, in his catalogue in Thompson's "History

[1] *Vide* 10th.

of Vermont," says it is not found in northeast out of that State. The pods of the common one also turn upward. It is about four flowered; no petals; pods, which have formed in tumbler, more than twice but not thrice as long as calyx, bent down nearly at right angles with peduncles and then *curving upward*. The common cerastium is in tufts, spreading, a darker green and much larger, hairy but not glutinous, pods but little longer than calyx (as yet) and upright.[1]

June 6. P. M. — To Andromeda Ponds.

Cold mizzling weather.

In the large circular hole or cellar at the turntable on the railroad, which they are repairing, I see a star-nosed mole endeavoring in vain to bury himself in the sandy and gravelly bottom. Some inhuman fellow has cut off his tail. It is blue-black with much fur, a very thick, plump animal, apparently some four inches long, but he occasionally shortens himself a third or more. Looks as fat as a fat hog. His fore feet are large and set sidewise or on their edges, and with these he shovels the earth aside, while his large, long, starred snout is feeling the way and breaking ground. I see deep indentations in his fur where his eyes are situated, and once I saw distinctly his eye open, a dull blue (?)-black bead, not so very small, and he very plainly noticed my movements two feet off. He was using his eye as plainly as any creature that I ever saw. Yet Emmons says it is a question whether their eyes are not merely rudimentary. I suppose this was the *Condylura*

[1] I afterward see these curving upward like the former!

macroura, since that is most common, but only an inch of its tail was left, and that was quite stout. I carried him along to plowed ground, where he buried himself in a minute or two.

Still see cherry-birds in flocks of five or six. A catbird-nest on shore of Andromeda and in shrub oak, three feet high, twigs and bark shreds lined with root-fibres; three eggs. Those nests in the andromeda are blackbird's. Many sound the alarm while I am wading through the swamp. Noticed one with three eggs.

That willow, male and female, opposite to Trillium Woods on the railroad, I find to be the *Salix rostrata*, or long-beaked willow, one of the *ochre-flowered* (I had remarked the peculiar yellow of its flowers) willows (*fulva*) of Barratt. It is now just beginning to open its long beaks. The *S. cordata* is another of the ochre-flowered ones.

How well suited the lining of a bird's nest, not only for the comfort of the young, but to keep the eggs from breaking! Fine elastic grass stems or root-fibres, pine-needles, or hair, or the like. These tender and brittle things which you can hardly carry in cotton lie there without harm.

J. Hosmer, who is prosecuting Warner for flowing his land, says that the trees are not only broken off when young by weight of ice, but, being rubbed and barked by it, become warty or bulge out there.

June 8. We have had six days either rain-threatening or rainy, the last two somewhat rainy or mizzling.

P M To Cedar Swamp.

Pulled up a yellow lily root, four feet long and branching, two and a half inches [in] diameter and about same size at each end where it had broken off, tree-like. Broken off, it floats. Great white rootlets put out all along it.

I find no *Andromeda racemosa* in flower. It is dead at top and slightly leafed below. Was it the severe winter, or cutting off the protecting evergreens? It grows four or five rods from knoll near a sawed stump between two large red maple clumps. The three-leaved Solomon's-seal has almost entirely done, while the two-leaved is quite abundant. *Stellaria longifolia* opposite Barbarea Shore not yet out. It is obviously different from what I call *S. borealis*, much more tall (one foot high) and upright, with branches ascending (not spreading) (the other grows in a dense mass at Corner Spring); leaves longer and more linear, and not at all ciliate like the other; stem much sharper-angled, almost winged; flower-buds more long and slender; and grows in high grass and is later.

I observe in a mass of damp shavings and leaves and sand there, in the shade, a little prostrate willow just coming into flower, perhaps a black willow. Pulling it up, I find it to be a twig about sixteen inches long, two thirds buried in the damp mass. This was probably broken off by the ice, brought down, washed up, and buried like a layer there; and now, for two thirds its length, it has put out rootlets an inch or two long abundantly, and leaves and catkins from the part above ground. So vivacious is the willow, availing itself of every accident to spread along the river's bank. The ice that

strips it only disperses it the more widely. It never says die. May I be as vivacious as a willow. Some species are so brittle at the base of the twigs that they break on the least touch, but they are as tough above as tender at base, and these twigs are only thus shed like seeds which float away and plant themselves in the first bank on which they lodge. I commonly litter my boat with a shower of these black willow twigs whenever I run into them.

A kingbird's nest on a black cherry, above Barbarea Shore, loosely constructed, with some long white rags dangling; one egg. At Cedar Swamp, saw the pe-pe catching flies like a wood pewee, darting from its perch on a dead cedar twig from time to time and returning to it. It appeared to have a black crown with some crest, yellowish (?) bill, gray-brown back, black tail, two faint whitish bars on wings, a dirty cream-white throat, and a gray or ash white breast and beneath, whitest in middle.

I had noticed when coming up the river two or three dead suckers, one with a remarkable redness about the anal fins; and this reminded me of the ephemeræ. It was the 2d of June, 1854, that I observed them in such numbers. When I returned to my boat, about five, the weather being mizzling enough to require an umbrella, with an easterly wind and dark for the hour, my boat being by chance at the same place where it was in '54, I noticed a great flight of ephemeræ over the water, though not so great as that. The greater part were flying down-stream against the wind, but if you watched one long enough you would see him suddenly turn at

length and fly swiftly back up the stream. They advanced against the wind faster than I floated along. They were not coupled nor coupling, — I only noticed two coupled, — but flew, most of them, with their bodies curved, thus:

from time to time each one descended to the water and touched it, or rested on it a second or two, sometimes several minutes. They were generally able to rise, but very often before it arose, or not being able to rise, it was seized by a fish. While some are flying down they are met by others coming up. The water was dimpled with the leaping fish. They reach about ten or fifteen feet high over the water, and I also saw a stream of them about as thick over a narrow meadow a dozen rods from the water in the woods. The weather was evidently unfavorable, what with the wind and the rain, and they were more or less confined to the shore, hovering high over the bushes and trees, where the wind was strong over the river. I had not noticed any on leaves. At one place, against Dodge's Brook, where they were driven back by a strong head wind at a bend, more than usual were wrecked on the water and the fishes were leaping more numerously than elsewhere. The river was quite alive with them, and I had not thought there were so many in it, — great black heads and tails continually thrust up on all sides of my boat. You had only to keep your eye on a floating fly a minute to see some fishy monster rise and swallow it with more or less skill and plashing. Some skillfully seized their prey without

much plashing, rising in a low curve and just showing their backs; others rose up perpendicularly, half their length out of water, showing their black backs or white bellies or gleaming sides; others made a noisy rush at their prey and leaped entirely out of water, falling with a loud plash. You saw twenty black points at once. They seemed to be suckers; large fish, at any rate, and probably various kinds. What a sudden surfeit the fishes must have!

They are of various sizes, but generally their solid bodies about three quarters of an inch long or less, yellowish tinge, transparent, with rows of brown spots; wings gauze-like, with a few opaque brown spots.[1]

June 9. P. M. — To Corner Spring.

Without an umbrella, thinking the weather settled at last. There are some large cumuli with glowing downy cheeks floating about. Now I notice where an elm is in the shadow of a cloud, — the black elm-tops and shadows of June. It is a dark eyelash which suggests a flashing eye beneath. It suggests houses that lie under the shade, the repose and siesta of summer noons, the thunder-cloud, bathing, and all that belongs to summer. These veils are now spread here and there over the village. It suggests also the creak of crickets, a June sound now fairly begun, inducing contemplation and philosophic thoughts, — the sultry hum of insects.

A yellowbird's nest in a poplar on Hubbard's Bridge

[1] Three which I brought home were dead the next morning. A shad-fly on our window is rather smaller than the average of the former; has but two streamers and no dark spots on wings.

causeway; four fresh eggs; ten feet high, three rods beyond fence. *Veronica scutellata* (how long?) at Corner Spring. Compelled to squat under a bank and stand under a wood-pile through a shower.

6.30 P. M. — Up Assabet.

Again, about seven, the ephemeræ came out, in numbers as many as last night, now many of them coupled, even tripled; and the fishes leap as before.

A young robin abroad.

June 10. 8 A. M. — Getting lily pads opposite Badger's.

Already the pads are much eaten before they are grown, and underneath, on the under side of almost every one, are the eggs of various species of insect, some so minute as to escape detection at first, in close, flat, straight-sided nests.

The yellow lily and kalmianâ are abundantly out. The under sides of the pads, their stems, and the *Ranunculus Purshii* and other water-plants are thickly covered and defiled with the sloughs, perhaps of those little fuzzy gnats (in their first state) which have so swarmed over the river. It is quite difficult to clean your specimens of them.

P. M. — To Dugan Desert.

Cornus alternifolia a day or two, up railroad; maybe longer elsewhere. *Spergularia rubra* by railroad, it having been dug up last year, and so delayed.

The cuckoo of June 5th has deserted her nest, and I

find the fragments of egg-shells in it; probably because I found it.

Oxalis freshly out: how long? Apparently but two or three days. I find *some* linnæa well out, after all, within a rod of the top of the hill, apparently two or three days. If it flowered more abundantly, probably it would be earlier. Chewink's nest with four young in the dry sprout-land of Loring's thick wood that was, under a completely overarching tuft of dry sedge grass. I hear the huckleberry-bird now add to its usual strain *a-tea tea tea tea tea.*

A painted tortoise laying her eggs ten feet from the wheel-track on the Marlborough road. She paused at first, but I sat down within two feet, and she soon resumed her work. Had excavated a hollow about five inches wide and six long in the moistened sand, and cautiously, with long intervals, she continued her work, resting always on the same spot her fore feet, and never looking round, her eye shut all but a narrow slit. Whenever I moved, perhaps to brush off a mosquito, she paused. A wagon approached, rumbling afar off, and then there was a pause, till it had passed and long, long after, a tedious, *naturlangsam* pause of the slow-blooded creature, a sacrifice of time such as those animals are up to which slumber half a year and live for centuries. It was twenty minutes before I discovered that she was not making the hole but filling it up slowly, having laid her eggs. She drew the moistened sand under herself, scraping it along from behind with both feet brought together, the claws turned inward. In the long pauses the ants troubled her (as mosquitoes me) by running

over her eyes, which made her snap or dart out her head suddenly, striking the shell. She did not dance on the sand, nor finish covering the hollow quite so carefully as the one observed last year. She went off suddenly (and quickly at first), with a slow but sure instinct through the wood toward the swamp.

The clustered blackberry of Dugan Desert not yet out, nor apparently for two or three days. Sweet viburnum apparently two or three days at most, by Warren Miles's, Nut Meadow Pond.

In a hollow apple tree, hole eighteen inches deep, young pigeon woodpeckers, large and well feathered. They utter their squeaking hiss whenever I cover the hole with my hand, apparently taking it for the approach of the mother. A strong, rank fetid smell issues from the hole.

Ripe strawberries, even in a meadow on sand thrown out of a ditch, hard at first to detect amid the red radical leaves.

The flower-buds of late there have now that rank smell. Lambkill out, at Clamshell. The *Cratægus Crus-Galli* is out of bloom. *Arenaria serpyllifolia* is out of bloom at Clamshell.[1]

Side-flowering sandwort abundantly out this side of Dugan Spring. Solanum well out, by Wood's Bridge.

June 11. P. M. — To Flint's Pond.

The locust in graveyard shows but few blossoms yet. It is very hot this afternoon, and that peculiar stillness of summer noons now reigns in the woods. I observe

[1] Abundant there June 20.

and appreciate the shade, as it were the shadow of each particular leaf on the ground. I think that this peculiar darkness of the shade, or of the foliage as seen between you and the sky, is not accounted for merely by saying that we have not yet got accustomed to clothed trees, but the leaves are rapidly acquiring a darker green, are more and more opaque, and, besides, the sky is lit with the intensest light. It reminds me of the thunder-cloud and the dark eyelash of summer. Great cumuli are slowly drifting in the intensely blue sky, with glowing white borders. The red-eye sings incessant, and the more indolent yellow-throat vireo, and the creeper, and perhaps the redstart? or else it is the parti-colored warbler.

I perceive that scent from the young sweet-fern shoots and withered blossoms which made the first settlers of Concord to faint on their journey.

Saw yesterday a *great* yellow butterfly with black marks.

See under an apple tree, at entrance of Goose Pond Path from Walden road, a great fungus with hollow white stem, eight or nine inches high, whose black funereal top has melted this morning, leaving a black centre with thin white scales on it. All the cistuses are shut now that I see, and also the veiny-leaved hieracium with one leaf on its stem, not long open. I notice no white lily pads near the bathing-rock in Flint's Pond. See a bream's nest two and a quarter feet [in] diameter, laboriously scooped out, and the surrounding bottom for a diameter of eight feet (!!) comparatively white and clean, while all beyond is mud and leaves, etc., and a very large green and cupreous bream with a

red spot on the operculum is poised over the centre, while half a dozen shiners are hovering about, apparently watching a chance to steal the spawn.

A partridge with young in the Saw Mill Brook path. Could hardly tell what kind of creature it was at first, it made such a noise and fluttering amid the weeds and bushes. Finally ran off with its body flat and wings somewhat spread.

Utricularia vulgaris very abundant in Everett's Pool. A beautiful grass-green snake about fifteen inches long, light beneath, with a yellow space under the eyes along the edge of the upper jaw.

The *Rubus triflorus* apparently out of bloom at Saw Mill, before the high blackberry has begun.

Rice tells me he found a turtle dove's nest on an apple tree near his farm in Sudbury two years ago, with white eggs; so thin a bottom you could see the eggs through.

June 12. P. M. — To Conantum on foot.

Sophia has sent me, in a letter from Worcester, part of an orchis in bloom, apparently *Platanthera Hookeri* (?), or smaller round-leafed orchis, from the Hermitage Wood, so called, northeast of the town; but the two leaves are elliptical. *Utricularia vulgaris* was abundantly out yesterday in Everett's Pool; how long? Sidesaddle-flower numerously out now. Apparently a small pewee nest on apple in Miles's meadow. Bird on, and not to be frightened off, though I throw sticks and climb the tree to near her.

June 13. *Friday.* To Worcester.

See the common iris in meadow in Acton. Brown shows me from his window the word "guano" written on the grass in a field near the hospital, say three quarters of a mile distant. It was one of the lions of Worcester last year, and I can now read some of the letters distinctly, so permanent are the effects of the guano. The letters may be two or more rods long, and the green is darker and more luxuriant. (On the side of a hill.)

June 14. Walk to Hermitage Woods with Sophia and aunts. *Uvularia perfoliata* very common there; now out of bloom. *Rhamnus cathartica*, common buckthorn, naturalized in those woods, now going out of bloom. It is diœcious, twelve feet high, north side. Maple-leaved viburnum out a day or more there apparently. Mallows abundantly out in street.

June 15. Mrs. Brown reads a letter from John Downs in Philadelphia to Mr. Brown, in which he remembers his early youth in Shrewsbury and the pout accompanied by her young. A Miss Martha Le Barron describes to me a phosphorescence on the beach at night in Narragansett Bay. They wrote their names with some minute creatures on the sand.

P. M. — To some woods southwest of Worcester.

The moist bass bark just stripped from a sapling swells very like a cucumber. All three of us were struck by it. A night-flowering cereus opens three or four times at a Mrs. Newton's while I am there. Once it opened at about 9 P. M., and closed and drooped and came to an end like a wet rag wrung out, at daylight. Transient

as my mushroom. Was about a foot in diameter, but an ordinary stem, like the turkey's feet. Diervilla well out.

June 16. Saw at the Natural History Rooms a shell labelled *Haliotis splendens*, apparently same with mine from Ricketson's son, with holes and green reflections.

To Purgatory in Sutton: by railroad to Wilkinsonville in the northeast corner of Sutton (thirty cents) and by buggy four or five miles to Purgatory in the south or southeast part of the town, some twelve miles from Worcester.

The stream rising from the bottom of it must empty into the Blackstone, perhaps through the Mumford River. Sutton is much wooded. The woman at the last house told [of] an animal seen in the neighborhood last year. Well, she "had no doubt that there had been a bad animal about." A Mr. Somebody, who could be relied on, between there and Sutton Centre, had been aroused by [a] noise early one morning, and, looking out, saw this animal near a wood-pile in his yard, as big as a good-sized dog. He soon made off, making nothing of the walls and fences, before he and his sons got their guns ready. They raised part of the town, a body of shoemakers, and surrounded a swamp into which it was supposed to have entered, but they did not dare to go into it. Also a strange large track was seen where it crossed the road.

Found at the very bottom of this Purgatory, where it was dark and damp, on the steep moss and fern covered side of a rock which had fallen into it, a wood thrush's

nest. Scarcely a doubt of the bird, though I saw not its breast fairly. Heard the note around, and the eggs (one of which I have) correspond. Nest of fine moss from the rock (hypnum?), and lined with pine-needles; three eggs, fresh.

Found in the Purgatory the panicled elder (*Sambucus pubens*), partly gone to ribbed seed, but some in flower, new to me; *Polygonum cilinode* (?), not yet in flower; moose-wood or striped maple; and also, close by above, *Actæa alba*, out of bloom; and a chestnut oak common. Cow-wheat numerously out. Heard around, from within the Purgatory, not only Wilson's thrush, but evergreen-forest note and tanager; and saw chip-squirrels within it.

June 17. Go to Blake's.

Indigo-bird on his trees.

A. M. — Ride with him and Brown and Sophia round a part of Quinsigamond Pond into Shrewsbury.

The southerly end of the pond covered for a great distance with pads of yellow and white lily. Measured one of the last: nine and seven eighths inches long by nine and six eighths, with sharp lobes, etc., and a reddish petiole. Small primrose well out: how long? The cedar swamp, source of Assabet, must be partly in Grafton, as well as Westboro near railroad, according to a farmer in Shrewsbury.

P. M. — Went to Rev. Horace James's reptiles (Orthodox).

He had, set up, a barred owl, without horns and a little less than the cat owl. Also a large lobe-footed bird

which I think must have been a large grebe, killed in Fitchburg. He distinguished the *Rana halecina* in the alcohol by more squarish (?) spots. Showed me the horned frog (?), (or toad?); also alive in bottle, with moss and water, the violet-colored salamander (*S. venenosa*) with yellow spots (five or six inches long), probably same I found in stump at Walden; and, in spirits, smaller, the *S. erythronota*, with a conspicuous red back. What looked like mine, or the common one in springs here, was *Triton niger*. I think he said Holbrook made the water ones tritons and land ones salamanders. Another small one, all red, with spots; another with a line of red spots on each side; and others. He finds a variety of *Emys guttata* with striated scales (mentioned by Holbrook and Storer). Saw a common box turtle shell with initials in sternum. One thought that whatever was cut in the scale was renewed in the new scale. Saw, in spirits, the *Heterodon platyrhinus* from Smithfield, R. I., flat-snouted, somewhat like a striped snake; and a very small brown snake. James gave me some of the spawn of a shellfish from a string of them a foot long.

At Natural History Rooms, a great cone from a southern pine and a monstrous nutshell from the East Indies (?); seed of the *Lodoicea Sechellarum*, Seychelles Islands.

June 18. Hale says the tiarella grows here, and showed it me pressed; also *Kalmia glauca* formerly, hobble-bush still, and yellow lady's-slipper near the Quarry.

June 19. Looked at a collection of the rarer plants made by Higginson and placed at the Natural History Rooms. Among which noticed: —

Ranunculus Purshii varieties α and β, with no difference apparent, unless in upper leaves being more or less divided.

Ribes lacustre, or swamp gooseberry, with a loose raceme such as I have not seen, from White Mountains.

A circæa, or enchanter's-nightshade, with a very large raceme and with longer branchlets than I have seen, methinks.[1]

Calla palustris, very different from the *Peltandra Virginica*.

Cerastium arvense, with linear leaves, quite new to me.

Smilacina stellata, from Dr. Harris, very different from the *racemosa*, being simple.

Ledum latifolium, from White Mountains, rather broader-leafed than mine from Maine.

Barbarea sativa, from Cambridge, apparently like my *B. vulgaris*.

Is the *Smilacina racemosa* with such long lower branchlets peculiar, there in Worcester? I saw several in woods.

On way to Concord see mountain laurel out in Lancaster. Had seen none out in Worcester.

June 20. *Friday*. A. M. — To Baker Farm with Ricketson.

[1] No, not longer.

A very hot day.

Two *Sternothærus odoratus* by heap in Sanborn's garden, one making a hole for its eggs, the rear of its shell partly covered. See a great many of these out to-day on ground and on willows.

Swamp-pink out apparently two or three days at Clamshell Ditch. Late thalictrum apparently a day or two there. Archangelica apparently two or three days.

A phœbe nest, second time, with four cream-white eggs. Got one. The second brood in the same nest. Saw a snap-turtle out in sun on tussock opposite Bittern Cliff. Probably the water was too warm for him. They had at Middlesex House, yesterday, snuff flavored with ground or pulverized black birch bark.

Walking under an apple tree in the little Baker Farm peach orchard, heard an incessant shrill musical twitter or peeping, as from young birds, over my head, and, looking up, saw a hole in an upright dead bough, some fifteen feet from ground. Climbed up and, finding that the shrill twitter came from it, guessed it to be the nest of a downy woodpecker, which proved to be the case, — for it reminded me of the hissing squeak or squeaking hiss of young pigeon woodpeckers, but this was more musical or bird-like.[1] The bough was about four and a half inches in diameter, and the hole perfectly circular, about an inch and a quarter in diameter. Apparently nests had been in holes above, now broken out, higher up. When I put my fingers in it, the young breathed their shrill twitter louder than ever. Anon the old ap-

[1] *Vide* July 19th.

peared, and came quite near, while I stood in the tree, keeping up an incessant loud and shrill scolding note, and also after I descended; not to be relieved.

Potentilla Norvegica; apparently petals blown away. Five young phœbes in a nest, apparently upon a swallow-nest, in Conant's old house, just ready to fly. *Rudbeckia hirta* budded.

June 21. P. M. — To Walden.

Much pine pollen is washed up on the northwest side of the pond. Must it not have come from pines at a distance? Very hot day, as was yesterday, — 98° at 2 P. M., 99° at 3, and 128° in sun. Nighthawks numerously squeak at 5 P. M. and boom. Saw them fly low and touch the water like swallows over Walden. Find a dozen of the hydropeltis out, apparently several days. My canoe birch wine smells and tastes like mead considerably. All my birch wines are now more acid and very good indeed with sugar. Am surprised to see it effervesce, all white with white sugar only, like a soda-water.

June 22. *Sunday.* P. M. — To Walden.

Ricketson says that they say at New Bedford that the song sparrow says, *Maids, maids, maids, — hang on your tea-kettle-ettle-ettle-ettle-ettle.*

R. W. E. imitates the wood thrush by *he willy willy — ha willy willy — O willy O.* The woods still resound with the note of my tweezer-bird, or *Sylvia Americana.*

June 23. To New Bedford with Ricketson.

In R.'s mowing, apparently lucerne, out some days. His son Walton showed me one of four perfectly white eggs taken from a hole in an apple tree eight feet from ground. I examined the hole. He had seen a bluebird there, and I saw a blue feather in it and apparently a bluebird's nest. Were not these the eggs of a downy woodpecker laid in a bluebird's nest? They were all gone now.

Bay-wings sang morning and evening about R.'s house, often sitting on a bean-pole and dropping down and running and singing on the bare ground amid the potatoes. Its note somewhat like *Come, here here, there there, — quick quick quick* (fast), — *or I 'm gone.*

Prinos lævigatus common and just begun to bloom behind R.'s house.

June 24. To Sassacowen Pond and to Long Pond.

Common yellow thistle abundant about R.'s; open a good while. Maryland yellow-throats very common in bushes behind his house; nest with young. American holly now in prime. The light-colored masses of mountain laurel were visible across Sassacowen. A kingbird's nest just completed in an apple tree.

Lunched by the spring on the Brady farm in Freetown, and there it occurred to me how to get clear water from a spring when the surface is covered with dust or insects. Thrust your dipper down deep in the middle of the spring and lift it up quickly straight and square. This will heap up the water in the middle so that the scum will run off.

We were surrounded by whiteweed. The week before

I had seen it equally abundant in Worcester (in many fields the flowers placed in one plane would more than cover the surface), and here as there each flower had a dark ring of small black insects on its disk. Think of the many dense white fields between here and there, aye and for a thousand miles around, and then calculate the amount of insect life of one obscure species!

Went off to Nelson's Island (now Briggs's) in Long Pond by a long, very narrow bar (fifty rods as I paced it), in some places the water over shoes and the sand commonly only three or four feet wide. This is a noble island, maybe of eight or ten acres, some thirty feet high and just enough wooded, with grass ground and grassy hollows. There was a beech wood at the west end, where R.'s son Walton found an arrowhead when they were here before, and the hemlocks resounded with the note of the tweezer-bird (*Sylvia Americana*). There were many ephemeræ half dead on the bushes. R. dreams of residing here.

June 25. An abundance of the handsome corn-cockle (*Lychnis*), apparently in prime, in midst of a rye-field, together with morning-glories by the Acushnet shore. Black-grass in bloom, partly done. A kind of rush (?) with terete leaves and a long spike of flowers, one to two feet high, *somewhat* like a loose plantain spike. It inclines to grow in circles a foot or more in diameter. Seaside plantain and rosemary, not long out. *Veronica arvensis* one foot high (!) on the shore there. *Spergularia rubra* var. *marina*.

P. M. — Called at Thomas A. Greene's in New

Bedford, said to be best acquainted with the botany of this vicinity (also acquainted with shells, and somewhat with geology). In answer to my question what were the rare or peculiar plants thereabouts, he looked over his botany deliberately and named the *Aletris farinosa*, or star-grass; the *Hydrocotyle vulgaris* (probably *interrupta* of Gray), which he thought was now gone; *Proserpinaca pectinacea*, at the shallow pond in Westport where I went last fall with Ricketson; *Panax trifolium*. That chenopodium-like plant on the salt-marsh shore, with hastate leaves, mealy under sides, is *Atriplex patula*, not yet out.

Brewer, in a communication to Audubon (as I read in his hundred(?)-dollar edition), makes two kinds of song sparrows, and says that Audubon has represented one, the most common about houses, with a spot in the centre of the breast, and Wilson the other, more universally spotted on the breast. The latter's nest will be two feet high in a bush and sometimes covered over and with an arched entrance and with six eggs (while the other has not more than five), larger and less pointed than the former's and apparently almost wholly rusty-brown. This builds further from houses.[1]

June 26. *Thursday.* In Loudon's "Encyclopædia of Agriculture" *far* (of the Romans) is translated Indian corn or *zea!*

According to Audubon's and Wilson's plates, the *Fringilla passerina* has a for the most part clear yellowish-white breast (*vide* May 28th), but the Savannah

[1] *Vide* June 23, 1860.

sparrow no conspicuous yellow on shoulder, a yellow brow, and white crown line. Rode to Sconticut Neck or Point in Fair Haven, five or six miles, and saw, apparently, the *F. savanna* near their nests (my seringo note), restlessly flitting about me from rock to rock within a rod. Distinctly yellow-browed and spotted breast, not like plate of *passerina*. Audubon says that the eggs of the Savannah sparrow "are of a pale bluish color, softly mottled with purplish brown," and those of the yellow-winged sparrow are "of a dingy white, sprinkled with brown spots." The former is apparently my seringo's egg of May 28th. Is not Nuttall mistaken when he describes the notes of the Savannah sparrow in March in Georgia as "very long, piping, and elevated" and says that they sometimes have a note like a cricket? Audubon refers to the last note only.

Saw a farmer on the Neck with one of Palmer's patent wooden legs. He went but little lame and said that he did his own mowing and most of his ordinary farm work, though plowing in the present state of his limb, which had not yet healed, wrenched him some. He had lost a leg just below the knee, and was supported mainly on his thigh above the stump.

The older houses about New Bedford, as on this neck (and one a hundred years old is an old one), have commonly stone chimneys, which are agreeable to my eye and built with more taste than brick ordinarily, *i. e.* more elaborately. Yet they are now pulled down and brick substituted, or else concealed with a coat of mortar!

This neck, like the New Bedford country generally, is very flat to my eye, even as far inland as Middleborough. When R. decided to take another road home from the latter place, because it was less hilly, I said I had not observed a hill in all our ride. I found on the rocky and rather desolate extremity of this point the common *Oxalis stricta* on the seashore, abundant, going to seed; apparently carrots (?) naturalized; atriplex not yet out; beach pea, still out and going to seed. An abundance of the small iris in the field near by. It was thick weather, after a drizzling forenoon, and we could just see across Buzzard's Bay from the point to Falmouth. Mattapoisett was the point next above on this side. I had been expecting to find the aletris about New Bedford, and when taking our luncheon on this neck what should I see rising above the luncheon-box, between me and R., but what I knew must be the *Aletris farinosa;* not yet out, but one near by would open apparently in two or three days.

I was struck by the number of quails thereabouts, and elsewhere in this vicinity. They keep up an incessant whistling these days, as also about R.'s house, within a stone's throw of it; and I several times saw them in the middle of the road in front of his house, in coveys, and on the road fence there. Also saw cowbirds in flocks on the road there. Around R.'s shanty was heard an incessant whistling of quails, and, morning and evening, the strain of the bay-wing, and some rather feeble purple finches, young males without the purple, dark-colored.

Talked with a farmer by name of Slocum, hoeing on the Neck, a rather dull and countrified fellow for

our neighborhood, I should have said. Asked him, by chance, about getting to Cuttyhunk, if it was safe to cross the bay in a whale-boat. Yes, or "Ye-e-s," his boat was only some twelve feet long and went over two or three times a year. His relations lived there. Perhaps he understood navigating here. Well, he 'd been round the world considerably. "Have you been master of a whaler?" Yes; he 'd been to most all parts of the world.

Heard of, and sought out, the hut of Martha Simons, the only pure-blooded Indian left about New Bedford. She lives alone on the narrowest point of the Neck, near the shore, in sight of New Bedford. Her hut stands some twenty-five rods from the road on a small tract of Indian land, now wholly hers. It was formerly exchanged by a white man for some better land, then occupied by Indians, at Westport, which he wanted. So said a Quaker minister, her neighbor. The squaw was not at home when we first called. It was a little hut not so big as mine. *Vide* sketch by R., with the bay not far behind it. No garden; only some lettuce amid the thin grass in front, and a great white pile of clam and quahog shells one side. She ere long came in from the seaside, and we called again. We knocked and walked in, and she asked us to sit down. She had half an acre of the real tawny Indian face, broad with high cheek-bones, black eyes, and straight hair, originally black but now a little gray, parted in the middle. Her hands were several shades darker than her face. She had a peculiarly vacant expression, perhaps characteristic of the Indian, and answered our questions listlessly, without being interested or implicated, mostly in monosyllables, as if

hardly present there. To judge from her physiognomy, she might have been King Philip's own daughter. Yet she could not speak a word of Indian, and knew nothing of her race. Said she had lived with the whites, gone out to service to them when seven years old. Had lived part of her life at Squaw Betty's Neck, Assawampsett Pond. Did she know Sampson's? She 'd ought to; she 'd done work enough there. She said she was sixty years old, but was probably nearer seventy. She sat with her elbows on her knees and her face in her hands and that peculiar vacant stare, perhaps looking out the window between us, not repelling us in the least, but perfectly indifferent to our presence.

She was born on that spot. Her grandfather also lived on the same spot, though not in the same house. He was the last of her race who could speak Indian. She had heard him pray in Indian, but could only understand "Jesus Christ." Her only companion was a miserable tortoise-shell kitten which took no notice of us. She had a stone chimney, a small cooking-stove without fore legs, set up on bricks within it, and a bed covered with dirty bed-clothes. Said she hired out her field as pasture; better for her than to cultivate it. There were two young heifers in it. The question she answered with most interest was, "What do you call that plant?" and I reached her the aletris from my hat. She took it, looked at it a moment, and said, "That 's husk-root. It 's good to put into bitters for a weak stomach." The last year's light-colored and withered leaves surround the present green star like a husk. This must be the origin of the name. Its root

is described as intensely bitter. I ought to have had my hat full of plants.

A conceited old Quaker minister, her neighbor, told me with a sanctified air, "I think that the Indians were human beings; dost thee not think so?" He only convinced me of his doubt and narrowness.

June 27. P. M. — Went with R. and his boys in the Steamer Eagle's Wing, with a crowd and band of music, to the northeast end of Naushon, "Woods Hole," some fifteen miles from New Bedford; about two hours going. Talked with a Mr. Congdon, cashier of a bank and a vegetarian. Saw all the Elizabeth Isles, going and coming. They are mostly bare, except the east end of Naushon. This island is some seven miles long, by one to two wide. I had some two and a half hours there. I was surprised to find such a noble primitive wood, chiefly beech, such as the English poets celebrate, and oak (black oak, I think), large and spreading like pasture oaks with us, though in a wood. The ground under the beeches was covered with the withered leaves and peculiarly free from vegetation. On the edge of a swamp I saw great tupelos running up particularly tall, without lower branches, two or three feet in diameter, with a rough light-colored bark. Noticed a thorn, perhaps cockspur, with an undivided leaf, gooseberries, stag-horn sumach, not in bloom. Most of the passengers expected to find strawberries. Saw a common wild grape-vine running over a beech, which was apparently flattened out by it, which vine measured, at six feet from ground, twenty-three inches in circumference. It was

large below, where it had already forked. At five feet from ground it divided into three great branches. It did not rise directly, but with a great half-spiral sweep or *anguish*. No sight could be more primeval. It was partly or chiefly dead. This was in the midst of the woods, by a path-side. Just beyond we started up two deer.

I suppose the white gull I saw and heard (somewhat like the sound of the small mackerel gull of the Cape) at Naushon was the *Sterna hirundo*, or great tern, with long forked tail. A Mr. Wall, artist, at New Bedford, told me of a high pine wood or swamp some miles down Naushon with "storks' nests" (!) in the pines. Were they blue herons?

Naushon is said to be part of the township of Chilmark, Martha's Vineyard, and to belong to Mr. Swain of New Bedford and Forbes of Boston; some say to Swain alone.

Walton Ricketson went down in a schooner the next day again, and found the pond near Swain's well stocked with pickerel, of which he caught many in a few hours.

Returning, I caught sight of Gay Head and its light-house with my glass, between Pasque and Nashawena. This lighthouse, according to Congdon, who says he measured it trigonometrically, is not more than one hundred and fifty feet above the sea. The passages between the islands are called "holes." Quick's is one. Cuttyhunk was very plain. Congdon said that he was there about thirty years ago, but could see no traces of Gosnold there, and does not believe there are any. Captain Slocum (of the day before), who has relations there, never saw any. Mr. Wall said that there was one

old gentleman still alive, a Mr. Howland, who went on there with Belknap, who could tell all about it. The island is cultivated.

June 28. *Lamium amplexicaule* still out behind R.'s shanty. I picked up two arrowheads amid oyster and clam shells by a rock at the head of the creek opposite R.'s. One was of peculiar form, quite blunt and small, thus: of quartz, apparently to knock over small game without breaking the skin.

P. M. — I paddled up the Acushnet, about a mile above the paper-mill, as far as the ruined mill, in Walton's skiff with Arthur R. (Walton was named from I. Walton, the angler, and Arthur from Dana's hero in "Sun not set yet," etc.) I never saw such an abundance of peltandra as borders that sluggish and narrow stream, in bunches alternating with pickerel-weed; leaves of very various forms and sizes.

June 29. *Sunday.* P. M. — Bathed in the creek, which swarms with terrapins, as the boys called them. I find no account of them in Storer!! They put their heads out and floated about just like the *Emys picta*, and often approached and played (?) with each other. Some were apparently seven or eight inches long and of a yellowish color. A man by the riverside told us that he had two young ducks which he let out to seek their food along the riverside at low tide that morning. At length he noticed that one remained stationary amid the grass or salt weeds and something prevented its following the other. He went to its rescue and found its foot shut tightly in a quahog's shell amid the grass which the tide had left. He took up all together, carried to his house, and his wife opened the shell with a knife, released the duck, and cooked the quahog. Bathed again near Dogfish Bar. It was warm and dirty water, muddy bottom. I probably found an Indian's bone at Throgg's Point,[1] where their bodies have been dug up.

June 30. *Monday.* A. M. — To Middleborough ponds in the new town of Lakeville (some three years old). What a miserable name! It should have been Assawampsett or, perchance, Sanacus, if that was the name of the Christian Indian killed on the pond. By the roadside, Long Plain, North Fairhaven, observed a tupelo seven feet high with a rounded top, shaped like an umbrella, eight feet [in] diameter, spreading over the wall, and the main stem divided suddenly at two feet only below the top, where it was six inches in diameter!

On the right hand in the old orchard near the Quitticus Ponds, heard and at last saw my tweezer-bird, which is extremely restless, flitting from bough to bough and apple tree to apple tree. Its note like *ah, zre zre zre, zritter zritter zrit'. Sylvia Americana*, parti-colored warbler, with golden-green reflections on the back, two white bars on wings, all beneath white, large orange mark on breast, bordered broadly with lemon yellow, and yellow throat. These were making the woods ring

[1] [Coggeshall's Point (W. Ricketson).]

in Concord when I left and are very common hereabouts.

Saw a haymaker with his suspenders crossed before as well as behind. A valuable hint, which I think I shall improve upon, since I am much troubled by mine slipping off my shoulders.

Borrowed Roberts's boat, shaped like a pumpkin-seed, for we wished to paddle on Great Quitticus. We landed and lunched on Haskell's Island, which contains some twenty-five or thirty acres. Just beyond this was Reed's Island, which was formerly cultivated, the cattle being swum across, or taken over in a scow. A man praised the soil to me and said that rye enough had been raised on it to cover it six inches deep. At one end of Haskell's Island was apparently a piece of primitive wood, — beech, hemlock, etc. Under the first I found some low, dry brown plants, perhaps beech-drops and the like, two species, but saw none of this year. One who formerly owned Reed's Island said that a man once lived on Haskell's Island and had a hennery there. The tweezer-birds were lively in the hemlocks.

Rode on to the old Pond Meeting-house, whence there is a fine view of Assawampsett. It is probably the broadest lake in the State. Uriah (?) Sampson told me it was about eight or ten feet deep in the middle, but somewhat deeper about the sides. The main outlet of these ponds is northeast, by Taunton River, though there is some connection with the Mattapoisett River, and Assonet River drains the neighborhood of Long Pond on the west.

Two men spoke of loon's eggs on a rocky isle in Little Quitticus. I saw the *Lobelia Dortmanna* in bloom in the last.

A southwest breeze springs up every afternoon at this season, comparatively cool and refreshing from the sea.

As we were returning, a Mr. Sampson was catching perch at the outlet from Long Pond, where it emptied into Assawampsett with a swift current. The surface of the rippling water there was all alive with yellow perch and white ones, whole schools showing their snouts or tails as they rose for the young alewives which *appeared* to be passing out of the brook. These, some of which I have in spirits, were about an inch and a half long. Sampson fished with these for bait, trailing or jerking it along the surface exactly as for pickerel, and the perch bit very fast. He showed me one white perch. It was a broader fish than the yellow, but much softer-scaled and generally preferred. He said they would not take the hook after a certain season. He swept out some young alewives (herring) with a stick on to the shore, and among them were young yellow perch also an inch and a half long, with the transverse bands perfectly distinct. I have some in spirit. The large ones were devouring these, no doubt, together with the alewives. Is not June the month when most of our fresh-water fish are spawned?