

IX

JULY, 1856

(ÆT. 38-39)

July 1. P. M. — Paddled on the Acushnet.

Passed through some schools of fishes which were rippling the surface about us in midstream.  The back fins, very long and sharp, projected two or three inches above water. Walton said afterward that they were menhaden.

July 2. Return to Concord.

Looked at the birds in the Natural History Rooms in Boston. Observed no white spots on the sparrow hawk's wing, or on the pigeon or sharp-shinned hawk's. Indeed they were so closed that I could not have seen them. Am uncertain to which my wing belongs. May I not have seen the white-crowned sparrow in company with the white-throated? They are much alike. Yet Wilson says they rarely associate. The hemlock and pine warbler are much alike. Is it possible I have confounded them?

July 3. P. M. — To Assabet River.

In the main stream, at the Rock, I am surprised to see flags and pads, laying the foundation of an islet in the middle, where I had thought it deep before. Apparently a hummock lifted by ice sunk there in the

spring, and this may be the way in which many an island has been formed in the river.

I scare up one or two woodcocks in different places by the shore, where they are feeding, and in a meadow. They go off with a whistling flight. Can see where their bills have probed the mud.

See a sternotherus on a small stump two feet over water. I approach and take hold of it, but cannot easily remove it. It appears to be shrunk on, withering away and dying there. It barely moves its head and eyes slightly, and its flippers look very much shrunken, yet it tumbles off after I leave. Apparently a male. I notice afterward, on succeeding days, many of them resting thus sluggishly, and find that I can approach and handle them and leave them as I found them. They appear much more sluggish than the other kinds now, though they were active enough in the spring. The tortoises improve every rock, and willow slanting over the water, and every floating board and rail. You will see one on the summit of a black willow stump several feet high, and two or more part way up. Some tumble from a height of five or six feet into the water before you. Even the great snap-turtle puts his head out and climbs up a rock on the bank with the rest.

July 5. A. M. — To Loring's Pond.

Pink-colored yarrow. *Epilobium coloratum*, a day or more. Young partridges (with the old bird), as big as robins, make haste into the woods from off the railroad. Plucked some large luscious purple pyrus berries. *Lactuca* some days out.

Borrowed Witherell's boat and paddled over Loring's Pond. A kingbird's nest in fork of a button-bush five feet high on shore (not saddled on); three young just hatched and one egg.

Much of this pond is now very shallow and muddy and crowded with pads, etc. I can hardly push through them. Yet I can see no more white lily pads shaped as that appears to have been which I found here a few weeks since. Many pickerel dart away from amidst the pads, and in one place I see one or two great snap-turtles.

I notice two varieties (?), perhaps, of *Asclepias Cornuti* now out, one on the railroad meadow this side the Brooks Crossing, the other beyond the first mile-post above. The last has broader leaves and blunter and more decidedly mucronate, and pedicels and peduncles quite downy, the former little more than twice the length of the petals. The other has narrower and more pointed leaves, peduncles and pedicels but little downy comparatively, the latter more than three times the length of the petals and not so numerous as in the other. *Vide* their pods, if spiny, by and by.

The *Spergularia rubra* was not open in the morning when I passed up, at 8 or 9 A. M., but was opened when I returned at noon, but closed again at 5 P. M.

The notes of barn swallows, perhaps with their young, are particularly loud now and almost metallic, like that of a mackerel gull.

The large evening-primrose below the foot of our garden does not open till some time between 6.30 and 8 P. M. or sundown. It was not open when I went to

bathe, but freshly out in the cool of the evening at sundown, as if enjoying the serenity of the hour.

July 6. P. M. — To Assabet Bath.

Campanula aparinoïdes, roadside opposite centaurea, several days. Early low blueberries ripe.

Crossed the river at bath place. On the sandy bank opposite, saw a wood tortoise voraciously eating sorrel leaves, under my face. In A. Hosmer's ice-bared meadow south of Turnpike, hear the distressed or anxious *peet* of a peetweet, and see it hovering over its young, half grown, which runs beneath and suddenly hides securely in the grass when but few feet from me. White avens, evidently Bigelow's *Geum album* (which Gray makes only a variety of *G. Virginianum*), a good while, very rough and so much earlier than the *G. Virginianum* that only one flower remains. The heads have attained their full size, with twisted tails to the awns, while the other will not open for some days. I think Bigelow must be right. *Lysimachia lanceolata*, a day or two. *Rhus typhina* in our yard; how long? Did not see it out in New Bedford ten days ago. There is a young red mulberry in the lower hedge beneath the celtis.

G. Emerson says the sweet-briar was doubtless introduced, yet, according to Bancroft, Gosnold found it on the Elizabeth Isles.

July 7. I see a difference now between the alder leaves near Island and edge of meadow westward, on Hill; the former slightly downy beneath, the latter

(apparently *Alnus serrulata*) green and smooth but yet *not pointed at base*. Do I not see a taller kind of wool-grass in that birch meadow east of Hill?

P. M. — To Gowing's Swamp.

The purple finch still sings over the street. The sagittaria, large form, is out, roadside, Moore's Swamp. The *Vaccinium Oxyccoccus* is almost entirely out of bloom, and the berries are as big as small huckleberries¹ (while the *V. macrocarpon* is in full bloom, and no berries appear on it). It must therefore have begun about the 1st of June. Saw the *Kalmia glauca* by the small cranberry, betrayed by its two-edged twig. The snake-head arethusa is now abundant amid the cranberries there.

July 8. 3 P. M. — To Baker Farm by boat.

River down to lower side of long rock.

When I landed on Hosmer flat shore, started a large water adder, apparently running on the bank. It ran at once into the river and was lost under the pads. *Ranunculus reptans* is abundantly out at mouth of brook, Baker shore. Is that small sparganium there, now abundantly out, about eighteen inches high, with leaves narrow and convex below, concave above, the same species with the larger? Some in press.

Got the downy woodpecker's nest, some days empty.²

Find several large and coarse *Potentilla arguta*, two and a half feet high and more, at Bittern Cliff, nearly out of bloom. Flowers in crowded corymbs. They are *white*, not yellow, as Gray calls them. In the side-

¹ Or as the common cranberry on the 20th. ² Vide 19th.

hill wood-lot (or spring wood-lot) behind, where the wood was cut last winter, poke-leaved milkweed (*Asclepias phytolaccoides*), apparently a day or two, and *Circea alpina*, some days, a foot high with opaque leaves and *bracts* (in press). This I find to be the same with the small, also bracted, one at Corner Spring (whose leaves were perhaps more transparent when in shade, but which now grows larger in sun).¹

Sophia saw this afternoon two great snap-turtles fighting near the new stone bridge, making a great commotion in the river and not regarding the spectators, she and another, and a teamster who stopped his team to observe them.

Sam Wheeler, who did not know there were snap-turtles here, says he saw opposite to his boarding-house, on the sidewalk, in New York, the other day, a green turtle which weighed seven hundred and twenty pounds, which in a short time dropped eggs enough to fill a vessel some feet in diameter. He partook of some of the soup made of it, and there were several eggs in it, which were luscious.

After Jules Gérard, the lion-killer, had hunted lions for some time, and run great risk of losing his life, though he struck the lions in the right place with several balls, the lions steadily advancing upon him even though they had got a death-wound, he discovered that it was not enough to be brave and take good aim, — that his balls, which were of lead, lacked penetration and were flattened against the lions' bones; and accordingly he sent to France and obtained balls which were pointed with

¹ Vide [p. 406] and also July 24.

steel and went through and through both shoulder-blades. So I should say that the weapons or balls which the Republican Party uses lacked penetration, and their foe steadily advances nevertheless, to tear them in pieces, with their well-aimed balls flattened on his forehead.

In Gérard's book I find, according to a Mohamadan tradition, "when the lion roars, he says, 'Ya rabbi, ma teçallot mi â la ed-dâbèome,' which signifies 'Seignior, deliver to my power the wicked only, and let the good go free.'"

July 10. Yesterday a heavy rain.

A. M. — To Laurel Glen.

Chenopodium album, by railroad. Succory a week or more, by railroad causeway. *Stachys aspera* well out two or three days, low ground. *Chimaphila umbellata*, some days. *Pyrola elliptica*, how long? *P. chlorantha* done, near part of Cut woods. *P. rotundifolia* (how long?), Cut woods hollow. *Galium triflorum* of Bigelow (?), prostrate, from one centre, Laurel Glen hillside; how long? But the branches are not three-flowered, but have three pedicels and one, two, or all of them (commonly but one) are subdivided into two. Also *G. circæzans* gone to seed. I have pressed apparently *Galium lanceolatum*. *Sericocarpus conyzoides*, Deep Cut path.

Asclepias obtusifolia, which was out well on the 5th, has a bloom, and the curved horns are elevated above the flower.

See and hear young barn swallows about.

5 P. M. — Up Assabet.

As I was bathing under the swamp white oaks at 6 P. M., heard a suppressed sound often repeated, like, perhaps, the working of beer through a bung-hole, which I already suspected to [be] produced by owls. I was uncertain whether it was far or near. Proceeding a dozen rods up-stream on the south side, toward where a catbird was incessantly mewing, I found myself suddenly within a rod of a gray screech owl sitting on an alder bough with horns erect, turning its head from side to side and up and down, and peering at me in that same ludicrously solemn and complacent way that I had noticed in one in captivity. Another, more red, also horned, repeated the same warning sound, or apparently call to its young, about the same distance off, in another direction, on an alder. When they took to flight they made some noise with their wings. With their short tails and squat figures they looked very clumsy, all head and shoulders. Hearing a fluttering under the alders, I drew near and found a young owl, a third smaller than the old, all gray, without obvious horns, only four or five feet distant. It flitted along two rods, and I followed it. I saw at least two or more young. All this was close by that thick hemlock grove, and they perched on alders and an apple tree in the thicket there. These birds kept opening their eyes when I moved, as if to get clearer sight of me. The young were very quick to notice any motion of the old, and so betrayed their return by looking in that direction when they returned, though I had not heard it. Though they permitted me to come so near with so much noise,

as if bereft of half their senses, they at [once] noticed the coming and going of the old birds, even when I did not. There were four or five owls in all. I have heard a somewhat similar note, further off and louder, in the night.

I find (July 14th) (and it has been out some days), at Muhlenbergii Brook, circæas which are distinctly branched and with *large* leaf-like bracts, some nearly two feet high. Yet they are evidently the same species that I have found before, and I think that there is but one hereabouts, say *C. alpina*, which, however, is poorly described by Gray and inadequately by Bigelow. It is from four or five (in shade) to, as here, about two feet high (in sun); is never pubescent, but quite smooth, round-stemmed, swelling at the joints, more or less branched, in large specimens sometimes very much so (*vide* pressed one), with bracts quite small and slender in small ones, and very large and leaf-like (two on a common axillary branch) in large plants; leaves opaque in open places, heart-shaped, *rather* slightly and distantly toothed, of the large specimens, at least, *not* shining.¹

July 11. A. M. — To Tarbell Swamp Hill all day with W. E. C.

Landed at path end, Great Meadows. No haying there yet. In the now isolated ditches, etc., there [are] thousands of little pouts about one inch long, more or less. The water is muddy, and I see no old ones. They are rather difficult to catch (like minnows generally, but

¹ *Vide* 24th.

less so), but I got two and have them in spirit. I scare up several apparent snipes (?), which go off with a *crack*. They are rather heavy-looking, like woodcocks, but have gray breasts. Are probing the meadow. Quite numerous there. The *Ludwigia sphaerocarpa*, which had been out apparently a week on the 6th of August, 1855, shows hardly a sign of a flower yet. So it will hardly open before August 1st. The grass on the islets in those pools is much flattened in many places by the turtles, which lie out sunning on it. They tumble in before me, and by the sound and marks of one I suspect it a snap-turtle. They are commonly *E. picta*.

Bathed and lunched under the oak at Tarbell's first shore. It is about as cool a place as you can find, where you get the southwest breeze from over the broad meadow, for it draws through the valley behind. While sitting there, saw, some twenty-five rods up-stream, amid the pads on the south side, where we had passed, several apparently young ducks, which soon disappeared again in the meadow-grass. Saw them hereabouts August 6th last year. They regularly breed hereabouts, and the broad meadow affords lurking-places. The meadow is so broad and level that you see shadows of clouds on it as on the sea. A great snap-turtle floated by us with his head out, in midstream, reconnoitring us. Rambled over the hill at angle. Allium out some time on the shore. I have only seen it here, methinks, and on the Assabet shores.

Hear now the *link* of bobolinks, and see quite a flock of red-wing blackbirds and young (?). The water milk-weed, or *Asclepias pulchra*.

July 12. P. M. — Down Turnpike to Red Lily Meadow.

Hear the plaintive note of young bluebirds, a reviving and gleaming of their blue ray. In Moore's meadow by Turnpike, see the vetch in purple patches weighing down the grass, as if a purple tinge were reflected there. White vervain. Smooth sumach, apparently yesterday. Rue is beginning now to whiten the meadows on all hands. The *Ranunculus aquatilis* appears to be about done, though it may have been submerged by the rain of yesterday. I see hardly one freshly open, and it [is] quite moist and lowering yet. By the myosotis ditch there, is an abundance of *Galium trifidum* (apparently *obtusum* or *latifolium*, in press). It is densely massed and quite prickly, with three corolla-lobes. As yet I think I have observed only two varieties of *G. trifidum*, smooth and rough. *Lactuca sanguinea*, some time, with dark-purple stem, widely branched. *Pycnanthemum muticum* and the narrow-leaved, not long.¹

In the still wet road on the hill, just beyond Lincoln bound, a short-tailed shrew (*Sorex brevicaudus* of Say), dead after the rain. I have found them thus three or four times before. It is $4\frac{1}{2}$ inches long; tail 1+; head and snout, 1+. Roundish body. Lead-color above, somewhat lighter beneath, with a long snout, $\frac{3}{8}$ inch beyond lower jaw, incisors black, delicate light-colored (almost silvery) mustachial bristles, and also from lower lip; nose emarginate; nails long and slender, a purple bar across each; ears white and concealed in the fur; the nostrils plainly perforated, though Emmons says that in

¹ Several days at least.

the specimens of *Sorex* he had seen he could detect no perforations with a microscope. It has a peculiar but not *very* strong muskiness. There was an insect-wing in its mouth. Its numerous teeth distinct. Have I not commonly noticed them dead after rain? I am surprised to read in Emmons that it was first observed in Missouri, and that he has "not been able to meet with it" and doubts its existence in the State; retains it on the authority of former catalogues; says it nests on the surface and is familiar with water. In spirits.¹

Red lilies in prime, single upright fiery flowers, their throats how splendidly and *variously* spotted, hardly two of quite the same hue and not two spotted alike, —leopard-spotted, —averaging a foot or more in height, amid the huckleberry and lambkill, etc., in the moist, meadowy pasture.

Apparently a bluebird's egg in a woodpecker's hole in an apple tree, second brood, just laid. In collection. Parsnip at Bent's orchard; how long? Also on July 5th, almost out. Agrimony well out. Chestnut in prime. See *Lysimachia quadrifolia* with from three to five (or six?) leaves in a whorl. *Iberis umbellata*, candytuft, roadside, Tuttle's, naturalized; how long? New plant.

July 13. P. M. — To Corner Spring.

Orchis lacera, apparently several days, lower part of spike, willow-row, Hubbard side, opposite Wheildon's land. See quite a large flock of chattering red-wings, the flight of first broods. Thimble-berries are now fairly ripe and abundant along walls, to be strung on herd's-

¹ Given to Agassiz for Baird. *Vide* Oct. 25, 1856.

grass, but not much flavor to them; honest and wholesome. See where the mowers have plucked them. Gather the large black and blackening ones. No drought has shrivelled them this year.

Heard yesterday a sharp and loud *ker-pheet*, I think from a surprised woodchuck, amid bushes, — the *sif-fleur*. Reminds me somewhat of a peewee, and also of the squeak of a rabbit, but much louder and sharper. And all is still.

Hubbard's meadow — or I will call it early meadow — aster, some days, now rather slender and small-bushed. *Drosera longifolia* and also *rotundifolia*, some time. *Polygala sanguinea*, some time, Hubbard's Meadow Path; say meadow-paths and banks. Saw and heard two or three redstarts at Redstart Woods, where they probably have nests. Have noticed bright-red geranium and pyrus leaves a week or more.

In Hubbard's euphorbia pasture, cow blackbirds about cows. At first the cows were resting and ruminating in the shade, and no birds were seen. Then one after another got up and went to feeding, straggling into the midst of the field. With a chattering appeared a cowbird, and, with a long slanting flight, lit close to a cow's nose, within the shadow of it, and watched for insects, the cow still eating along and almost hitting it, taking no notice of it. Soon it is joined by two or three more birds.

An abundance of spurry in the half-grown oats adjoining, apparently some time out. Yellow lily, how long? Am surprised to see an *Aster laevis*, out a day or two, in road on sandy bank. Goldfinches twitter over. Hydrocotyle, some time.

July 14. P. M. — To Muhlenbergii Brook.

Anthony Wright found a lark's nest with fresh eggs on the 12th in E. Hubbard's meadow by ash tree, — two nests, probably one a second brood. *Nasturtium hispidum* (?), apparently three or four days. See and hear martins twittering on the elms by riverside. Bass out about two days at Island. There is a pyrus twenty feet high with small fruit at Assabet Spring.

Noli-me-tangere already springs at Muhlenbergii Brook, some days. Saw apparently my little ruby (?) - crested wren (?) on the weeds there. Senecio long gone to seed and dispersed. Canada thistle some time on Huckleberry Pasture-side beyond. Ceratophyllum with a dense whorl of twelve little oval red-dotted apparent flower-buds (?) in an axil.

While drinking at Assabet Spring in woods, noticed a cherry-stone on the bottom. A bird that came to drink must have brought it half a mile. So the tree gets planted!

July 15. P. M. — To Hubbard's Close and Walden.

Carrots by railroad, how long? I notice the froth concealing a grub, not only on trees and bushes, but on *Potentilla Norvegica*, *Lechea* (great-fruited), etc., etc., *Pycnanthemum muticum*, even *Lobelia inflata*, red clover, *Aster puniceus*.¹ This spots my clothes when going through bushes. Both small hypericums, *Canadaense* and *mutilum*, apparently some days at least by Stow's ditch. Bobolinks are heard — their *link, link* — above and amid the tall rue which now whitens the

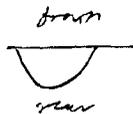
¹ Also Aug. 1st on sweet-gale and Roman wormwood.

meadows. Checkerberry, a day or two. *Spiranthes gracilis* well out, in dry, slender grass by roadside. I do not notice the krigia out in my afternoon walks, and so it is not known by many, but in the morning its disk is very commonly seen.

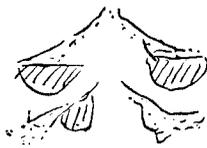
When I crossed the entrance to the pond meadow on a stick, a pout ran ashore and was lodged so that I caught it in the grass, apparently frightened. While I held it, I noticed another, very large one approach the shore very boldly within a few feet of me. Going in to bathe, I caught a pout on the bottom within a couple of rods of the shore. It seemed sick. Then, wading into the shallow entrance of the meadow, I saw a school of a thousand little pouts about three quarters of an inch long without any attending pout, and now have no doubt that the pout I had caught (but let go again) was tending them, and the large one was the father, apparently further off. The mother had perhaps gone into deep water to recruit after her air-bath. The young were pretty shy; kept in shallow water, and were taking pretty good care of themselves. If the water should suddenly fall, they might be caught in the meadow.

Ludwigia alternifolia not quite; in a day or two.

Amid the high grass or rushes by that meadow-side started a water adder. It was about three feet long, but large round in proportion, with about one hundred and forty abdominal plates and a long, slender tail. It was black above, with indistinct transverse brown bands. Under its head



on sides; the white gradually becomes more narrow and yellowish for the latter half of the abdomen, bordered by more numerous and still darker reddish marks, becoming confluent and alternating with silvery ones, giving a handsome regularly mottled or spotted look. The silvery thus across the belly: The barred part dark-reddish. Under the tail no reddish.



Corylus rostrata differs from common in the twig being smooth and not glandular-hairy. *Scutellaria galericulata*, some time. *Polygonum sagittatum*, almost.

That green sponge plant gathered yesterday is remarkably slow to dry; though it has been many hours exposed to the sun and wiped with many papers and has been a whole day exposed to the air, it is far from dry yet. It is more pungent and strong-scented than ever and sickens me to stay in the room with a little of it.

July 16. Sium out not long. I see many young shiners (?)¹ (they have the longitudinal bar), one to two and a half inches long, and young breems two or three inches long and quite broad. *Geum Virginianum*, apparently two or three days.

See several bullfrogs lying fully out on pads at 5 p. m. They trump well these nights.

It is remarkable how a copious rain, raising the river a little, flattens down the heart-leaf and other weeds at bathing-places.

¹ Probably minnows.

July 17. Found a great many insects in white lilies which opened in pan this forenoon, which had never opened before. What regular and handsome petals! regularly concave toward the inside, and calyx hooked at tip.

P. M. — To Water Dock Meadow and Linnæa Hill-side.

Hear a new note from bank swallows when going over the Hosmer pastures, a sort of *screep screep*, shrill and like what I have referred to the barn swallow. They are probably out with young.

Ludwigia palustris and *ilysanthes* have been out apparently some time on the flat Hosmer shore or meadow, where the surface has been laid bare by the ice. There, too, the *Hypericum Sarothra* has pushed up abundantly. I see many young toads hopping about on that bared ground amid the thin weeds, not more than five eighths to three quarters of an inch long; also young frogs a little larger. Horse-mint out at Clamshell, apparently two or three days.

Bathed at Clamshell. See great schools of minnows, apparently shiners, hovering in the clear shallow next the shore. They seem to choose such places for security. They take pretty good care of themselves and are harder to catch with the hands than you expect, darting out of the way at last quite swiftly. Caught three, however, between my hands. They have brighter golden irides, all the abdomen conspicuously pale-golden, the back and half down the sides pale-brown, a broad, distinct black band along sides (which methinks marks the shiner), and comparatively transparent beneath behind vent. When the water is gone I am surprised to see how they

can skip or spring from side to side in my cup-shaped two hands for a long time. This to enable them to get off floating planks or pads on the shore when in fright they may have leaped on to them. But they are very tender, and the sun and air soon kill them. If there is any water in your hand they will pass out through the smallest crack between your fingers. They are about three quarters of an inch long generally, though of various sizes.

Half a dozen big bream come quite up to me, as I stand in the water. They are not easily scared in such a case.

The large skunk-cabbage fruit looks quite black now where the haymakers have passed. Stooping to drink at the Hosmer Spring, I saw a hundred caddis-cases, of light-colored pebbles, at the bottom, and a dozen or twenty crawled half-way up the side of the tub, apparently on their way out to become perfect insects.

Cows in their pasture, going to water or elsewhere, make a track four or five inches deep and frequently not more than ten inches wide.

The great water dock has been out some days at least. Its valves are quite small at first, but lower leaves *pointed*. I hear in the meadow there a faint incessant z-ing sound, as of small locusts in the meadow-grass. Under the oak in Brown's moraine pasture, by Water Dock Meadow, a great arum more than three feet high, like a tropical plant, in open land, with leaflets more than a foot long. There is rich-weed there, apparently not quite out.

Going up the hillside, between J. P. Brown's and rough-cast house, am surprised to see great plump ripe low blackberries. How important their acid (as

well as currants) this warm weather! It is 5 P. M. The wood thrush begins to sing.

A very warm afternoon. Thermometer at 97° at the Hosmer Desert. I hear the early locust. I have come to collect birds' nests. The thrasher's is apparently made partly beneath the surface, some dirt making its sides. I find the nests by withered twigs and leaves broken off in the spring, but commonly nearly concealed by the recent growth. The jay's nest had been filled with white oak leaves. Not one could have been blown into it. On Linnaea Hill many thimble-berries and some rasp-berries.

Evening by river to Ed. Hosmer's. Hear at distance the hum of bees from the bass with its drooping flowers at the Island, a few minutes only before sunset. It sounds like the rumbling of a distant train of cars. Returning after ten, by moonlight, see the bullfrogs lying at full length on the pads where they trump.

July 18. P. M. — To Wheeler meadow to look at willows.

Again scare up a woodcock, apparently *scated* or sheltered in shadow of ferns in the meadow on the cool mud in the hot afternoon. *Rosa Carolina*, some time, at edge of Wheeler meadow near Island Neck.

You see almost everywhere on the muddy river bottom, rising toward the surface, first, the coarse multifid leaves of the *Ranunculus Purshii*, now much the worse for the wear; second, perhaps, in coarseness, the *Ceratophyllum*, standing upright; third, perhaps, the *Bidens Beckii*, with its leaflets at top; then the *Utricu-*

laria vulgaris, with its black or green bladders, and the two lesser utricularias in many places.

July 19. P. M. — Marlborough Road *via* railroad and Dugan wood-lot.

A box tortoise, killed a good while, on the railroad, at Dogwood Swamp; quite dry now. This the fourth I have ever found: first one, alive, in Truro; second one, dead, on shore of Long Pond, Lakeville; third one, alive, under Fair Haven Hill; and fourth, this. This appeared to have been run over, but both upper and under shells were broken into several pieces each, *in no case* on the line of the serrations or of the edges of the scales (proving that they are as strong one way as the other), but at various angles across them, which, I think, proves it to have been broken while the animal was alive or fresh and the shell not dry. I picked up only the after half or two thirds and one foot. The upper shell was at the widest place four and three eighths inches. It was broken irregularly across the back, from about the middle of the second lateral scale from the front on the left to the middle of the third lateral on the right, and was, at the angle of the marginal scales, about sixteen fortieths to seventeen fortieths of an inch thick, measured horizontally. The sides under the lateral scales and half the dorsal were from four to five fortieths of an inch thick. The thinnest part was about three eighths of an inch from middle of back on each side, directly between the spring of the sides [?], where it was but little more than two fortieths thick. So nature makes an arch. I have about half the sternum, the rear of it at one

point reaching to the hinge. It is thickest vertically just at the side hinges, where it is one fourth thick; thinnest three eighths from this each side, where it is one eighth thick; and thence thickens to the middle of the sternum, where it [is] seven and a half fortieths thick. The upper shell in this case (*vide* May 17, 1856) is neither pointed nor notched behind, but quite straight. The sternum and the *lower* parts of the marginal scales are chiefly dark-brown. The marking above is sufficiently like that of the Cape Cod specimen, with a still greater proportion of yellow, now faded to a yellowish brown.

On Linnæa Hills, sarsaparilla berries. *Lobelia inflata*, perhaps several days; little white glands (?) on the edges of the leaves. On the under side of a *Lobelia spicata* leaf, a sort of *loose-spun* cocoon, about five eighths of an inch long, of golden-brown silk, beneath which silky mist a hundred young spiders swarm.

Examined painted tortoise eggs of June 10th. One of those great spider(?) -holes made there since then, close to the eggs. The eggs are large and rather pointed, methinks at the larger end. The young are half developed. Fleets of yellow butterflies on road. Small white rough-coated puffballs (?) in pastures. Appear not to have two coats like that of Potter's Path, *q. v.*

As I come by the apple tree on J. P. B.'s land, where I heard the young woodpeckers hiss a month or so ago, I now see that they have flown, for there is a cobweb over the hole.

Plucked a handful of gooseberries at J. P. B.'s bush, probably ripe some time. It is of fair size, red-purple

and greenish, and apparently like the first in garden, except it is not slightly bristly like that, nor has so much flavor and agreeable tartness. Also the stalk is not so prickly, but for the most part has one small prickle where ours has three stout ones. Our second gooseberry is more purple (or dark-purple with bloom) and the twig less prickly than the wild. Its flavor is insipid and in taste like the wild.

It is the *Hypericum ellipticum* and *Canadense* (linear-leaved) whose *red* pods are noticed now.

On the sand thrown out by the money-diggers, I found the first ripe blackberries thereabouts. The heat reflected from the sand had ripened them earlier than elsewhere. It did not at first occur to me what sand it was, nor that I was indebted to the money-diggers, or their Moll Pitcher who sent them hither, for these blackberries. I am probably the only one who has got any fruit out of that hole. It's an ill wind that blows nobody any good. Looking up, I observed that they had dug another hole a rod higher up the hill last spring (for the blackberries had not yet spread over it), and had partly filled it up again. So the result of some idler's folly and some spiritualist's nonsense is that I get my blackberries a few days the earlier.

The downy woodpecker's nest which I got July 8th was in a dead and partly rotten upright apple bough four and three quarters inches [in] diameter. Hole *perfectly* elliptical (or oval) one and two sixteenths by one and five sixteenths inches; whole depth below it eight inches. It is excavated directly inward about three and a half inches, with a conical roof, also arching at back, with a

recess in one side on level with the hole, where the bird turns. Judging from an old hole in the same bough, directly above, it enlarges directly to a diameter of two and one fourth to two and one half inches, not in this case descending exactly in the middle of the bough, but leaving one side not a quarter of an inch thick. At the hole it is left one inch thick. At the nest it is about two and three eighths inches [in] diameter. I find nothing in the first but bits of rotten wood, remains of insects, etc., when I tip it up, — for I cannot see the bottom, — yet in the old one there is also quite a nest of fine stubble (?), bark shred (?), etc., mixed with the bits of rotten wood.

July 20. P. M. — Up Assabet.

Button-bush, apparently two or three days.

I suspect that those very variously formed leaves in and about woods which come to naught — like the sium in deep water — are of the nabalus.

Caught a middle-sized copper-colored devil's-needle (with darker spots on wings), sluggish, on a grass stem, with many dark-colored elliptical eggs packed closely to outside, under its breast.

July 21. P. M. — To A. Wheeler's grape meadow.

Mimulus, not long. *Hypericum corymbosum*, a day or two. Rusty cotton-grass, how long?

The small hypericums are open only in the forenoon. Pursley, also, in our garden opens *now* not till 8 A. M., and shuts up before 12 M.

The flat euphorbia is now in prime on the sandy path beyond Potter's Desert, five-finger fungus path.

Plucked a handful of huckleberries from one bush! The *Vaccinium vacillans* thick enough to go picking, and probably for a day or two in some places. Low blackberries thick enough to pick in some places, three or four days. Thimble-berries about the 12th, and *V. Pennsylvanicum* much longer.

These hot afternoons I go panting through the close sprout-lands and copses, as now from Cliff Brook to Wheeler meadow, and occasionally come to sandy places a few feet in diameter where the partridges have dusted themselves. Gérard, the lion-killer of Algiers, speaks of seeing similar spots when tracking or patiently waiting the lion there, and his truth in this particular is a confirmation of the rest of his story. But his pursuit dwarfs this fact and makes it seem trivial. Shall not my pursuit also contrast with the trivialness of the partridges' dusting? It is interesting to find that the same phenomena, however simple, occur in different parts of the globe. I have found an arrowhead or two in such places even. Far in warm, sandy woods in hot weather, when not a breath of air is stirring, I come upon these still sandier and warmer spots where the partridges have dusted themselves, now all still and deserted, and am not relieved, yet pleased to find that I have been preceded, by any creature.

Grapes ready to stew.

Mr. Russell writes me to-day that he visited the locality of the *Magnolia glauca* the 18th, on Cape Ann, and saw lingering still a few flowers and flower-buds. It is quite open and rising above the bushes.

The brook cress might be called river cress, for it is

very abundant rising above the surface in all the shallower parts of the river.

Verbena hastata, apparently several days.

Sonchus, some time.

This has been a peculiarly fine afternoon. When I looked about casually, was surprised at the fairness of the landscape. Though warm, it is clear and fresh, and the air imparts to all surfaces a peculiar fine glaucous color, full of light, without mistiness, like the under side of the *Salix lucida* (?) leaves at present. Not only the under sides of the leaves, but the very afternoon landscape, has become glaucous. Now, when the fashionable world goes to Saratoga, Nahant, and Newport, we frequent our oldest haunts with new love and reverence and sail into new ports with each fresh varnish of the air.

July 23. 9 A. M. — Up river for *Nuphar Kalmiana* with Russell.

Pasture thistle, not long. *Hypericum Sarrhentra*, not long, or perhaps some days. *Antennaria margaritacea*. *Scutellaria lateriflora*, apparently some days.

R. says that my five-finger fungus is the *Lycoperdon stellatum* and can be found now. I find it in some places. (It is different from the white rough-coated puffball now found.) It was exhibited lately in Boston as the "resurrection plant" (!) to compete with the one imported from Palestine. That what I have called fresh-water sponge is such, *Spongia fluvialilis*, and, like the marine, is uncertain whether vegetable or animal. When burned it leaves a mass of white spicula which have been mistaken for infusoria! Thinks the dry brown last-year's

plant I brought from Haskell's Island, Lakeville, the *Epiphegus*. That the *Rubus Canadensis*, low blackberry, is not found far west of us. That there is described — he thinks in Hooker's English Flora — a certain massing up of a conferva similar to that of my eriocaulon balls. Has seen a Mexican species, allied to the potato, cultivated hereabouts, which became a weed, — would not become larger than a walnut. Speaks of the young pouts *with their bladders attached*, accompanied by the old. That the berries of the celtis are pleasant to taste, those of the sassafras abominable. Showed me the *Dulichium spathaceum*, leaves in three ranks, so common along river, now in bloom; also the *Carex lupulina* (?) or *retrorsa* (?), hop sedge, with the inflated perigynia. Said that those reddish clusters of buds on a rush or carex were enlarged by disease. That the two white cotton-grasses (*Eriophorum*) were probably but one species, taller and shorter; also the two wool-grasses *Scirpus* — *Trichophorum* [*sic*] were probably but one species, the tall and short. That there was an account of the lecheas by Tuckerman in *Silliman's Journal*.

P. M. — To Walden for *hydropeltis*.

A young sternothærus which R. picked up recently dead, on the shore of the pond, was one and one sixteenth inches long, — the upper shell, — probably therefore a last year's one, or not yet one year old. Very high and sharp back, but broader than old. No hook to upper bill.

That fern leaf on my coal (?) is probably the *Neuropteris* as figured in Richardson's Botany.

Saw at Hydropeltis Meadow a small bullfrog in the act of swallowing a young but pretty sizable apparently *Rana palustris*, such as now hop about, an inch and a half long. He took it down head foremost, and as the legs were slowly taken in, — stuffing himself, — for the legs were often straightened out, — I wondered what satisfaction it could be to the larger to have that cold slimy fellow, entire, lying head to tail within him! I sprang to make him disgorge, but it was too late to save him. Though I tossed the bullfrog out of the water, the *palustris* was entombed. So little while had he been in the light when he fell into that recess! Bathing in Walden, I find the water considerably colder at the bottom while I stand up to my chin, but the sandy bottom much warmer to my feet than the water. The heat passes through the water with[out] being absorbed by it much. The hydropeltis leaves so crowded they cannot lie flat, but their edges show (a good part [of] the under side) as if blown up by wind.

The water adder killed on the 15th and left hanging on a twig has decayed wonderfully. I perceive no odor, and it is already falling to pieces. I can see most of its ribs and through and through in many directions!! It is already mere skin and skeleton, as empty as [a] flute. I can count the bare ribs, and it [is] inoffensive to the smell.

See apparently young goldfinches about, very *freshly* bright golden and black.

The small potamogeton, *heterophyllus* (?) or *hybridus* (?), out some time. *Ludwigia alternifolia*, five or six days.

July 24. P. M. — To Flint's Pond.

Solidago stricta,¹ Ingraham Path, well out, some days. *Chimaphila maculata*, three flowers, apparently but few days, while the *umbellata* is quite done there. Leaves just shooting up. See those light-bordered dark spots on tall and other goldenrod leaves (fungi (?) says Russell). In the low Flint's Pond Path, beyond Britton's, the tall rough goldenrod makes a thicket higher than my head. Many hazelnut burs now look rough and reddish about the base. Tobacco-pipe much blackened, out a long time.

I find, at the shallow stone wharf shore, three balls in good condition, walking about half the length of that shore. Methinks it was about a week earlier than this that they were found last year. There is on the surface of the water, washed up and floating about, a good deal of the eriocaulon, loosened up, perhaps, by pouts or other creatures, and also some other *fine* weeds with it. Yet the eriocaulon has but just begun to bloom! So also the vallisneria has washed up some time in river. There is also a very fine rush (?) on the bottom there like hair. Is that a little submerged kind of utricularia or ranunculus on the sandy bottom in shallow water there, looking thin and dissolving from above, like a conferva? — like little regular green masses of conferva?

The red lilies are completely out of bloom now at Smith's meadow pasture, but the yellow ones are still very abundant in the meadows. The *Ranunculus Purshii* is now very hard to meet with. Saw one double

¹ *Arguta* var. *juncea*.

flower with sixteen petals (at least) in two rows. Time to get seeds of it. Hardhack well out, how long? The small purple fringed orchis, apparently three or four days at least. The fall has already come to skunk-cabbage and hellebore. Their yellow and black decaying leaves and stems now cover the floor of the swamps which they recently clothed in early green. The *Lobelia Dortmanna* still, but no full spikes. It is apparently the worse for the wear. The oldest stems of it are covered here and there with apparently the red ova of some insect. Some *Gnaphalium uliginosum* going to seed; how long?

July 25. Friday. A. M. — Up river to see hypericums out.

Lycopus Virginicus, with its runners, perhaps some days, in Hosmer Flat Meadow. Whorled utricularia very abundantly out, apparently in its prime. *Lysimachia ciliata* some days. The *Hieracium Canadense* grows by the road fence in Potter's hydrocotyle field, some seven or eight inches high, in dense tufts!

The haymakers getting in the hay from Hubbard's meadow tell me the cock says we are going to have a long spell of dry weather or else very wet. "Well, there's some difference between them," I answer; "how do you know it?" "I just heard a cock crow at noon, and that's a sure sign it will either be very dry or very wet."

The *Hypericum perforatum*, *corymbosum*, and *ellipticum* are not open this forenoon, but the *angulosum*, *Canadense*, *mutilum*, and *Sarothra* are partly curled up

(their petals) even by 9 A. M.; perhaps because it is very warm, for day before yesterday, methinks, I saw the *mutilum* and *Sarothra* open later.

The street is now strewn with bark under the button-wood at the brick house. Has not the hot weather taken the bark off?

The air begins to be thick and almost smoky.

July 26. Saturday. 5 A. M. — Up Assabet.

The sun's disk is seen round and red for a long distance above the horizon, through the thick but cloudless atmosphere, threatening heat, — hot, dry weather.

At five the lilies had not opened, but began about 5.15 and were abundantly out at six.

Arranged the hypericums in bottles this morning and watched their opening.

The *H. angulosum* (?) has a pod one-celled (with three parietal placentæ), conical, oblong, acute, at length longer than the sepals, purple. (The *Canadense* has from three to five (!) placentæ and the *mutilum* three to four (!), as I find, notwithstanding Gray.) Styles three, short, distinct, and spreading; stamens twenty, more or less, obscurely clustered. Petals oblong. (Do not see the single lateral tooth mentioned by Eaton.) Corolla twelve to fourteen fortieths of an inch in diameter. It is strict, slender, ten to twenty inches high; stem sharply four-angled, like *Canadense*, and cyme as naked or more so. The large ones make a singularly compact (flat-topped) corymb, of many narrow pods at last. Leaves oblong-lanceolate or linear-lanceolate, commonly blunt, but often gradually tapering and acute,

broadest near the base and clasping, one to one and a half inches long by one eighth to three eighths wide, black-dotted beneath. Ground neither very dry nor very moist. It differs from *Canadense*, which it resembles, in being a larger plant every way, narrower in proportion to height, having more stamens, and in the form of its leaves.

Corolla of *mutilus* nine to eleven fortieths of an inch in diameter; *Canadense*, twelve to thirteen fortieths; *corymbosum* eighteen fortieths.

The *corymbosum* in chamber shut up at night. All but *Sarothra*, which may not be advanced enough, (I have no *elodea*), opened by 5 A. M., *corymbosum* and *angulosum* very fairly; but *mutilus*, *Canadense*, and *angulosum* curled and shut up by 9 A. M.!! The *corymbosum* shut up in afternoon. The *perforatum* and *ellipticum* alone were open all day. The four lesser ones are very shy to open and remain open very little while, this weather at least. I suspect that in the fields, also, they are open only very early or on cloudy days. *H. Canadense* and *mutilus* are often fifteen inches high.

The largest and most conspicuous purple pods are those of the *ellipticum*. Those of the *angulosum* and *Canadense* are smaller and more pointed; are also purple, and the *mutilus* perhaps duller purple and less conspicuous.

The pod of the *ellipticum*, when cut, smells like a bee. The united styles arm it like a beak or spine. This appears to be the most nearly out of bloom of all. I am surprised that Gray says it is somewhat four-angled. It is distinctly two-angled and round between.

The Hubbard aster may be the *A. Tradescanti*.¹

The large potamogeton off Dodd's seems to be the *natans*, from size of nutlets, etc. Then there is the second, off Clamshell, a long time out.² And the third, *heterophyllus* (?), or what I have called *hybridus*, also long out.

Drank up the last of my birch wine. It is an exceedingly grateful drink now, especially the aromatic, mead-like, apparently checkerberry-flavored one, which on the whole I think must be the black birch. It is a surprisingly high-flavored drink, thus easily obtained, and considering that it had so little taste at first. Perhaps it would have continued to improve.

P. M. — To Poorhouse Pasture.

Nettle, some time. *Ambrosia botrys*, apparently a few days. *A. Radula*, ditch by pasture, several days apparently. *Lycopus sinuatus*, some time.

I see young larks fly pretty well before me.

Smaller bur-reed (*Sparganium Americanum*), judging from form of stigma (ovate and oblique), yet the leaves are almost entirely concave (!), Stow's ditch. Is this the same with that in river? How long?

It is very still and sultry this afternoon, at 6 P. M. even. I cannot even sit down in the pasture for want of air, but must keep up and moving, else I should suffocate. Thermometer ninety-seven and ninety-eight to-day. The pig pants and melts in his pen, and water must be cast on him.

¹ Vide Aug. 21, 1854.

² Observed yesterday. Vide Aug. 3d.

Agassiz says he has discovered that the haddock, a deep-sea fish, is viviparous.

July 27. *Lobelia cardinalis*, three or four days, with similar white glands (?) on edges of leaves as in *L. spicata*. Why is not this noticed? *Cornus sericea* about done.

As I was paddling by Dodge's Brook, a great devil's-needle lit on my paddle, between my hands. It was about three inches long and three and a half in spread of wings, without spots, black and yellow, with green eyes (?). It kept its place within a few inches of my eyes, while I was paddling some twenty-five rods against a strong wind, clinging closely. Perhaps it chose that place for coolness this hot day.

To-day, as yesterday, it is more comfortable to be walking or paddling at 2 and 3 P. M., when there is wind, but at five the wind goes down and it is very still and suffocating.

I afterward saw other great devil's-needles, the forward part of their bodies light-blue and very stout.

The *Stellaria longifolia* is out of bloom and drying up. *Vide* some of this date pressed.

At Bath Place, above, many yellow lily pads are left high and dry for a long time, in the zizania hollow, a foot or more above the dry sand, yet with very firm and healthy green leaves, almost the only ones not eaten by insects now.

This river is quite low. The yellow lilies stand up seven or eight inches above the water, and, opposite

to Merriam's, the rocks show their brown backs very thick (though some are concealed), like sheep and oxen lying down and chewing the cud in a meadow. I frequently run on to one — glad when it's the smooth side — and am tilted up this way or that, or spin round as on a central pivot. They bear the red or blue paint from many a boat, and here their moss has been rubbed off.

Ceratophyllum is now apparently in bloom commonly, with its crimson-dotted involucre.

I am surprised to find kalmiana lilies scattered thinly all along the Assabet, a few *small*, commonly reddish pads in middle of river, but I see no flowers. It is their great bluish waved (some green) radical leaves which I had mistaken for those of the heart-leaf, the floating leaves being so small. These and *vallisneria* washed up some time. The radical leaves of the heart-leaf are very small and rather triangular.

I see, on a rock in midstream, a pectwect within a foot of a turtle, both eying me anxiously within two rods, but not minding each other.

Zizania scarce out some days at least.

July 28. At 1.30 a thunder-shower, which was much needed, the corn having rolled and trees suffered.

3.30 P. M. — To Climbing Fern.

Virgin's-bower, apparently two or three days. *Nabalus albus*, a day or two.

Sand cherry ripe. The fruit droops in umbel-like clusters, two to four peduncles together, on each side the

axil of a branchlet or a leaf. Emerson and Gray call it dark-red. It is black when ripe. Emerson, Gray, and Bigelow speak of it as rare in this State! It is common enough here. I have seen it as abundant as anywhere on Weir (or Ware) Hill in Sudbury, Bigelow's own town.¹ Cherry three eighths of an inch [in] diameter, peduncle seven sixteenths long. Emerson calls it eatable! On Linnaea Hill. By factory road clearing, the small rough sunflower, two or three days. *Gerardia flava*, apparently several days. *Cicuta bulbosa*, several days. Richweed at Brown's oak, several days (since 16th; say 22d).

July 29. *Rhexia*. Probably would be earlier if not mowed down. What I have called *Hieracium Gronovii*, with three cauline leaves and without veins, has achenia like *H. venosum*; so I will give it up. Its radical leaves are very hairy beneath, especially along midrib. Another smart rain, with lightning.

Pratt gave me a chimney swallow's nest, which he says fell down Wesson's chimney with young in it two or three days ago. As it comes to me, it is in the form of the segment of the circumference of a sphere whose diameter is three and a half inches, the segment being two plus wide, one side, of course, longer than the other. It bears a little soot on the inner side. It may have been placed against a slanting part of the chimney, or perhaps some of the outer edge is broken off. It is composed wholly of stout twigs, one to two inches long, one sixteenth to one eighth inch [in] diameter, held quasi cob-

¹ Was it not choke-berry?

fashion, so as to form a sort of basketwork one third to one half inch thick, without any lining, at least in this, but very open to the air. These twigs, which are quite knobby, seem to be of the apple, elm, and the like, and are firmly fastened together by a very conspicuous whitish semi-transparent glue, which is laid on pretty copiously, sometimes extending continuously one inch. It reminds me of the edible nests of the Chinese swallow. Who knows but their edibility is due to a similar glue secreted by the bird and used still more profusely in building its nests? The chimney swallow is said to break off the twigs as it flies.



Pratt says he one day walked out with Wesson, with their rifles, as far as Hunt's Bridge. Looking downstream, he saw a swallow sitting on a bush very far off, at which he took aim and fired with ball. He was surprised to see that he had touched the swallow, for it flew directly across the river toward Simon Brown's barn, always descending toward the earth or water, not being able to maintain itself; but what surprised him most was to see a second swallow come flying behind and repeatedly strike the other with all his force beneath, so as to toss him up as often as he approached the ground and enable him to continue his flight, and thus he continued to do till they were out of sight. Pratt said he resolved that he would never fire at a swallow again.

Looked at a Sharp's rifle, a Colt's revolver, a Maynard's, and a Thurber's revolver. The last fires fastest

(by a steady pull), but not so smartly, and is not much esteemed.

July 30. P. M. — To *Rudbeckia laciniata* via Assabet. *Amaranthus hybridus* and *albus*, both some days at least; first apparently longest.

This is a perfect dog-day. The atmosphere thick, mildewy, cloudy. It is difficult to dry anything. The sun is obscured, yet we expect no rain. Bad hay weather. The streams are raised by the showers of yesterday and day before, and I see the farmers turning their black-looking hay in the flooded meadows with a fork. The water is suddenly clear, as if clarified by the white of an egg or lime. I think it must be because the light is reflected downward from the overarching dog-day sky. It assists me very much as I go looking for the ceratophyllum, potamogetons, etc. All the secrets of the river bottom are revealed. I look down into sunny depths which before were dark. The wonderful clearness of the water, enabling you to explore the river bottom and many of its secrets now, exactly as if the water had been clarified. This is our compensation for a heaven concealed. The air is close and still. Some days ago, before this weather, I saw haymakers at work dressed simply in a straw hat, boots, shirt, and pantaloons, the shirt worn like a frock over their pants. The laborer cannot endure the contact with his clothes.

I am struck with the splendid crimson-red under sides of the white lily pads where my boat has turned them, at my bath place near the Hemlocks. For these pads, *i. e.* the white ones, are but little eaten yet.

Rudbeckia laciniata, perhaps a week. When I have just rowed about the Island a green bittern crosses in my rear with heavy flapping flight, its legs dangling, not observing me. It looks deep slate-blue above, yellow legs, whitish streak along throat and breast, and slowly plows the air with its prominent breast-bone, like the stake-driver.

July 31. Thursday. P. M. — To Decodon Pond.

Erigeron Canadensis, some time. *Alisma* mostly gone to seed. Thoroughwort, several days. Penthorum, a good while. *Trichostema* has now for some time been springing up in the fields, giving out its aromatic scent when bruised, and I see one ready to open.

For a morning or two I have noticed dense crowds of little tender whitish parasol toadstools, one inch or more in diameter, and two inches high or more, with simple plaited wheels, about the pump platform; first fruit of this dog-day weather.

Measured a *Rudbeckia hirta* flower; more than three inches and three eighths in diameter.

As I am going across to Bear Garden Hill, I see much white *Polygala sanguinea* with the red in A. Wheeler's meadow (next to Potter's). Also much of the *Bartonia tenella*, which has been out some days at least, five rods from ditch, and three from Potter's fence.

Went through Potter's *Aster Radula* swamp this dog-day afternoon. As I make my way amid rank weeds still wet with the dew, the air filled with a decaying musty scent and the z-ing of small locusts, I hear the distant

sound of a flail, and thoughts of autumn occupy my mind, and the memory of past years. Some late rue leaves on a broken twig have turned all a uniform clear purple.

How thick the berries — low blackberries, *Vaccinium vacillans*, and huckleberries — on the side of Fair Haven Hill! The berries are large, for no drought has shrunk them. They are very abundant this year to compensate for the want of them the last. The children should grow rich if they can get eight cents a quart for blackberries, as they do.

Again I am attracted by the hoary, as it were misty morning light on the base of the upper leaves of the velvety *Pyenanthemum incanum*. It is the most interesting of this genus here. The smooth sumach is pretty generally crimson-berried on the Knoll, and its lower leaves are scarlet-tipped (though there are some blossoms yet), but the *Rhus copallina* there is not yet out. See dense fields of the great epilobium now in its prime, like soldiers in the meadow, resounding with the hum of bees. The butterflies are seen on the pearly everlasting, etc., etc. *Hieracium paniculatum* by *Gerardia quercifolia* path in woods under Cliffs, two or three days. Elodea two and a half feet high, how long? The flowers at 3 p. m. nearly shut, cloudy as it is. Yet the next day, later, I saw some open, I think.

Another short-tailed shrew dead in the wood-path. Near Well Meadow, hear the distant scream of a hawk, apparently anxious about her young, and soon a large apparent hen-hawk (?) comes and alights on the very top of the highest pine there, within gunshot, and utters

its angry scream. This a sound of the season when they probably are taking their first (?) flights.

See yellow Bethlehem-star still.

As I look out through the woods westward there, I see, sleeping and gleaming through the stagnant, misty, glaucous dog-day air, *i. e.* blue mist, the smooth silvery surface of Fair Haven Pond. There is a singular charm about it in this setting. The surface has a dull, gleaming polish on it, though draped in this glaucous mist.

The *Solidago gigantea* (?), three-ribbed, out a long time at Walden shore by railroad, more perfectly out than any solidago I have seen. I will call this *S. gigantea*, yet it has a yellowish-green stem, slightly pubescent above, and leaves slightly rough to touch *above*, rays small, about fifteen.¹

Mine must be the *Aster Radula* (if any) of Gray, yet the scales of the involucre are not appressed, but *rather* sub-squamose, nor is it *rare*. Pursh describes it, or the *Radula*, as *white*-flowered, and mentions several closely allied species.

Waded through the northernmost Andromeda Pond. Decodon not nearly out *there*.

Did I not see some kind of sparrow about the shore, with yellow beneath?

Mountain cranberries apparently full grown, many at least.

¹ *Vide* Aug. 2d.