

IV

JUNE, 1859

(ÆT. 41)

June 1. Wednesday. Some boys found yesterday, in tussock of sedge amid some flags in a wet place in Cyrus Hosmer's meadow, west of the willow-row, six inches above the water, the nest evidently of a rail, with seven eggs. I got one to-day. It is cream-colored, sprinkled with reddish-brown spots and more internal purplish ones, on most eggs (not on mine) chiefly about the larger end. *Vide* September 7th and 9th and 21st and December 7th, '58, and June 13th, '59. The nest (which I have) is made of old sedge, five or six inches [in] diameter and one or two deep.

There has been an abundance of meadow sedges (*carices*) flowering and fruiting in May, but from the end of May to the middle of June is apparently the best time to study them.

Eleocharis palustris not quite open yesterday in river.¹

June 2. I hear that Farmer shot on the 28th *ult.* two marsh hawks, male and female, and got their four eggs, in which the young were moving.

P. M. — To Flint's Pond.

Red maple seed is partly blown off. Some of it is conspicuously whitish or light-colored on the trees.

¹ Open on the 3d.

Examine a small striped snake, some sixteen inches long. Dark-brown above, with a grayish dorsal line and squarish black spots in the brown; then lighter-brown or dead-leaf color on the sides, chocolate-brown still lower, and light or pale-cream brown beneath. A dark-brown spot on each side of each abdominal plate. The sides yellowish forward. This is apparently a striped snake, but not yellow-striped as described.

Strawberries reddening on some hills.

Found within three rods of Flint's Pond a rose-breasted grosbeak's nest.¹ It was in a thicket where there was much cat-briar, in a high blueberry bush, some five feet from the ground, in the forks of the bush, and of very loose construction, being made of the dead gray extremities of the cat-briar, with its tendrils (and some of this had dropped on the ground beneath), and this was lined merely with fine brown stems of weeds like pinweeds, without any leaves or anything else, — a slight nest on the whole. Saw the birds. The male uttered a very peculiar sharp clicking or squeaking note of alarm while I was near the nest. The egg is thickly spotted with reddish brown on a pale-blue ground (not white ground as Buonaparte and the New York ornithologist say), like a hermit thrush's, but rounder; very delicate.

June 3. Friday. P. M. — Up Assabet.

A large yellow butterfly (somewhat Harris *Papilio Asterias* like but not black-winged) three and a half to four inches in expanse. Pale-yellow, the front wings

¹ And one fresh egg (three on the 4th).

crossed by three or four black bars; rear, or outer edge, of all wings widely bordered with black, and some yellow behind it; a short black tail to each hind one, with two blue spots in front of two red-brown ones on the tail.¹

Arenaria lateriflora well out, how long? Common rum cherry out yesterday, how long? *Carex crinita* out a good while. *Carex lanuginosa*, Smith's shore, green fruit. *Carex pallescens*, Smith's shore (higher up bank), green fruit.

Nighthawk, two eggs, fresh. Quail heard.

June 4. P. M. — To Flint's Pond.

Cornus alternifolia well out, apparently three or four days. Yellow-eyed grass, how long? *Poa compressa* not quite out.

June 5. Sunday. P. M. — To Ball's Hill.

Cat-briar in flower, how long? Allium not out.

See several ducks, I think both summer and black.

A yellowbird's nest; four eggs, developed. Pigeon woodpecker's nest in a hollow black willow over river; six eggs, almost hatched.

The new white maple leaves look reddish, and at a distance brown, as if they had not put out yet.

June 6. P. M. — To Well Meadow.

Yellow wood-sorrel out. Umbellid thesium, how long? Red avens, how long? *Stellaria longifolia*, at Well Meadow Head, how long? *Cardamine rhomboidea* has green seed.

¹ *P. Turnus*?

Hear of a kingfisher's nest, just found in a sand-bank behind Abner Buttrick's, with six fresh eggs, of which I have one. The boy said it was six or seven feet deep in the bank.

June 8. Wednesday. Notice that one of these little silvery scales on a stone is now empty of eggs; how long? See a painted turtle beginning to lay. She has merely scratched the ground a little, and moistened it very much. This must be to make it adherent. It is at the same time beginning to rain. See lightning-bugs to-night.

Noticed yesterday, dancing before our chamber windows, swarms of little plumed gnats with white wings and a reddish body forward. One on my book at night incessantly leaps backward. It seems to be a kind of *Chironomus*.

June 9. Thursday. A boy shows me one of three (apparent) hen-hawk's eggs, fresh, obtained on the 6th from a pine near Breed's house site.

June 10. Friday. Surveying for D. B. Clark on "College Road," so called in Peter Temple's deed in 1811, Clark thought from a house so called once standing on it. Cut a line, and after measured it, in a thick wood, which passed within two feet of a blue jay's nest which was about four feet up a birch, beneath the leafy branches and quite exposed. The bird sat perfectly still with its head up and bill open upon its pretty large young, not moving in the least, while we drove a stake

close by, within three feet, and cut and measured, being about there twenty minutes at least.

June 11. P. M. — To Owl Swamp.

Lambkill flower. Carrion-flower up a day or two. *Panicum latifolium* (not out) grows by riverside at Dakin's Brook. Ferns generally were killed by the frost of last month, *e. g.* brakes, cinnamon fern, flowering and sensitive ferns, and no doubt others. I smell the strong sour scent of their decaying. *Galium triflorum*, how long?

In one grove pitch pine shoots are from seven to nine tenths as long as last year's growth.

When I return, about 5 P. M., the shad-flies swarm over the river in considerable numbers, but there are very few at sundown. Hemlocks are about at height of their beauty, with their fresh growth.

June 12. Sunday. P. M. — To Gowing's Swamp.

I am struck with the beauty of the sorrel now, *e. g.* *Lepidium campestre* field. What a wholesome red! It is densest in parallel lines according to the plowing or cultivation. There is hardly a more agreeable sight at this season.

Maryland yellow-throat four eggs, fresh, in sphagnum in the interior *omphalos*.

June 13. To Boston.

My rail's egg of June 1st looks like that of the Virginia rail in the Boston collection. A boy brought me a remarkably large cuckoo's egg on the 11th. Was it not

that of the yellow-billed? The one in the collection looks like it. This one at B. is not only larger but lighter-colored.

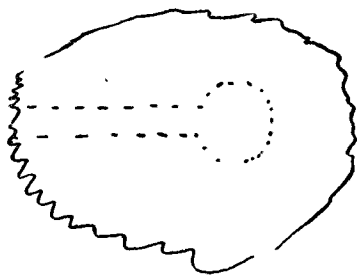
In the plates of Hooker's "Flora Boreali-Americana," the leaves of *Vaccinium cespitosum* are not so wide as the fruit; yet mine of Tuckerman's Ravine may be it.

June 14. P. M. — To Flint's Pond.

Early strawberries begin to be common. The lower leaves of the plant are red, concealing the fruit. Violets, especially of dry land, are scarce now.

Eleocharis palustris abundant in Stow's meadow, by railroad. See a rose-bug.

A pout's nest (at Pout's Nest) with a straight en-



trance some twenty inches long and a simple round nest at end. The young just hatched, all head, light-colored, under a mass of weedy hummock which is all under water.

The common utricularia out. Hear the *phebe* note of a chickadee. Cow-wheat, how long? A rose-breasted grosbeak betrays itself by that peculiar squeak, on the Britton path. It is evident that many breed in the low woods by Flint's Pond. Catbird's nest with four eggs in a swamp-pink, three and a half feet up.

The rose-breasted grosbeak is common now in the Flint's Pond woods. It is not at all shy, and our richest

singer, perhaps, after the wood thrush. The rhythm is very like that of the tanager, but the strain is perfectly clear and sweet. One sits on the bare dead twig of a chestnut, high over the road, at Gourgass Wood, and over my head, and sings clear and loud at regular intervals, — the strain about ten or fifteen seconds long, rising and swelling to the end, with various modulations. Another, singing in emulation, regularly answers it, alternating with it, from a distance, at least a quarter of a mile off. It sings thus long at a time, and I leave it singing there, regardless of me.

June 15. A. M. — To lead-mill, Acton.

Suddenly hot weather, — 90° — after very cool days. Yarrow out, how long? Blue flag abundant. Blue-eyed grass at height.

Saw near mill, on the wooded hillside, a regular old-fashioned country house, long and low, one story unpainted, with a broad green field, half orchard, for all yard between it and the road, — a part of the hillside, — and much June-grass before it. This is where the men who save the country are born and bred. Here is the pure fountain of human life.

Walked over a rocky hill there in the midst of the heat. How interesting a thin patch of strawberry vines now on a rocky hillside, though the fruit is quite scarce! Good for suggestion and intention, at least.

Herd's-grass spikes just appear; not in bloom. (My notes on this hitherto not to be trusted.)

Sitting by Hubbard Bath [?] swamp wood and looking

north, at 3 P. M., I notice the now peculiar glaucous color of the very water, as well as the meadow-grass (*i. e.* sedge), at a dozen or twenty rods' distance, seen through the slight haze which accompanies this first June heat. A sort of leaden color, as if the fumes of lead floated over it.


Young crow blackbirds which have left the nest, with great heads and bills, the top of the head covered with a conspicuous raised light-colored down.

A fly (good-sized) with a large black patch on the wing and a reddish head alights on my hand. (A day or two after, one with a greenish head.)

Birds *shoot* like twigs. The young are as big as the old when they leave the nest; have only got to harden and mature.

June 16. P. M. — Paddle to Great Meadows.

Small snapdragon, how long?

Examined a kingfisher's nest, — though there is a *slight* doubt if I found the spot. It was formed singularly like that of the bank swallow, *i. e.* flat-elliptical, thus:  some eight inches, as I remember, in the largest diameter, and located just like a swallow's, in a sand-bank, some twenty inches below the surface. Could feel nothing in it, but it may have been removed. Have an egg from this.

Walked into the Great Meadows from the angle on the west side of the Holt, in order to see what were the prevailing sedges, etc.

On the dry and hard bank by the river, grows June-grass, etc., *Carex scoparia*, *stellulata*, *stricta*, and *Bux-*

baumii; in the wet parts, pipes two and a half feet high, *C. lanuginosa*, *C. bullata* (?), [*C.*] *monile*, *Eleocharis palustris*, *Panicum virgatum*¹ (a little just begins to show itself), and *Glyceria fluitans* here and there and out. There was a noble sea of pipes, — you may say pipes exclusively, — a rich dark green, quite distinct from the rest of the meadow and visible afar, a broad stream of this valuable grass growing densely, two and a half feet high in water. Next to this, south, where it was quite as wet, or wetter, grew the tall and slender *C. lanuginosa*, the prevailing sedge in the wetter parts where I walked. This was a sheeny glaucous green, bounding the pipes on each side, of a dry look. Next in abundance in the wet parts were the inflated sedges above named.² Those pipes, in such a mass, are, methinks, the richest mass of uniform dark liquid green now to be seen on the surface of the town [?]. You might call this meadow the "Green Sea."

Phalaris Americana, Canary grass, just out. The island by Hunt's Bridge is densely covered with it.

Saw, in the midst of the Great Meadows, the trails or canals of the musquash running an indefinite distance, now open canals full of water, in which ever minnows dart constantly, deep under the grass; and here and there you come to the stool of a musquash, where it has flatted down the tufts of sedge and perhaps gnawed them off.

June 17. Rain, especially heavy rain, raising the river in the night of the 17th.

¹ Blue-joint.

² *Vide* July 7th, '59, also June 22d, '60.

June 18. P. M. — Sail up river.

Rain again, and we take shelter under a bridge, and again under our boat, and again under a pine tree. It is worth the while to sit or lie through a shower thus under a bridge or under a boat on the bank, because the rain is a much more interesting and remarkable phenomenon under these circumstances. The surface of the stream betrays every drop from the first to the last, and all the variations of the storm, so much more expressive is the water than the comparatively brutish face of earth. We no doubt often walk between drops of rain falling thinly, without knowing it, though if on the water we should have been advertised of it. At last the whole surface is nicked with the rebounding drops as if the surface rose in little cones to accompany or meet the drops, till it looks like the back of some spiny fruit or animal, and yet the different-colored currents, light and dark, are seen through it all; and then, when it clears up, how gradually the surface of the water becomes more placid and bright, the dimples growing fewer and finer till the prolonged reflections of trees are seen in it, and the water is lit up with a joy which is in sympathy with our own, while the earth is comparatively dead. I saw swarms of little gnats, light-winged, dancing over the water in the midst of the rain, though you would say any drop would end one's days.

The swamp white oaks and red maples and willows, etc., now first begin to show a slight silveriness on the under edges of their flakes, where the under sides of the new leaves are shown.

June 19. Sunday. P. M. — To Heywood Meadow and Well Meadow.

In Stow's meadow by railroad, *Scirpus Eriophorum*, with blackish bracts, not long out.

A flying squirrel's nest and young on Emerson's hatchet path, south of Walden, on hilltop, in a covered hollow in a small old stump at base of a young oak, covered with fallen leaves and a portion of the stump; nest apparently of dry grass. Saw three young run out after the mother and up a slender oak. The young half-grown, very tender-looking and weak-tailed, yet one climbed quite to the top of an oak twenty-five feet high, though feebly. Claws must be very sharp and early developed. The mother rested quite near, on a small projecting stub big as a pipe-stem, curled cross-wise on it. Have a more rounded head and snout than our other squirrels. The young in danger of being picked off by hawks.

Find by Baker Rock the (apparently) *Carex Muhlenbergii* gone to seed, dark-green, as Torrey says. Resembles the *stipata*.

Blackbirds nest in the small pond there, and generally in similar weedy and bushy pond-holes in woods.

The prevailing sedge of Heywood Meadow by Bartlett Hill-side, that which showed yellow tops in the spring, is the *Carex stricta*. On this the musquash there commonly makes its stools. A tall slender sedge with conspicuous brown staminate spikes. Also some *C. lanuginosa* with it. *C. canescens*, too, grows there, less conspicuous, like the others gone to seed.

Scare up young partridges; size of chickens just

hatched, yet they fly. The old one in the woods near makes a chuckling sound just like a red squirrel's bark, also mewing.

Flies rain about my head.

Notice green berries,—blueberries and huckleberries.

Is that red-top, nearly out on railroad bank? *Eriophorum polystachyon* of Torrey, Bigelow, and Gray, the apparently broadish-leaved, but Gray makes the wool top long. In Pleasant and Well Meadow; at height.

Carex polytrichoides in fruit and a little in flower, Heywood Meadow in woods and Spanish Meadow Swamp. *Trisetum palustre* (?), Well Meadow Head, in wet; apparently at height.

June 20. River, on account of rain, some two feet above summer level.

Great purple fringed orchis.

What that colored-flowered locust in Deacon Farrar's yard and house this side Lincoln?

June 21. Tuesday. P. M. — To Derby's pasture behind and beyond schoolhouse.

Meadow-sweet. Hedge-hyssop out. In that little pool near the Assabet, above our bath-place there, *Glyceria pallida* well out in water and *Carex lagopodioides* just beginning. That grass covering dry and dryish fields and hills, with curled or convolute radical leaves, is apparently *Festuca ovina*, and not *Danthonia* as I thought it. It is now generally conspicuous. Are any of our simpler forms the *F. tenella*?¹

¹ Vide July 2d, 1860.

You see now the *Eupatorium purpureum* pushing up in rank masses in the low grounds, and the lower part of the uppermost leaves, forming a sort of cup, is conspicuously purplish.

June 22. Paddle up the river to Lee's, measuring the bridges.

The sun coming out at intervals to-day, after a long rainy and cloudy spell in which the weeds have grown much, I observe that the rough goldenrods and one other, which have grown one to two feet high, have many of them in various parts of the town immediately drooped their tops, hanging down five or six inches. This weed appears to be particularly tender in this respect, having probably grown very rapidly in the rain.

Comara palustris, how long? *Scirpus lacustris* is freshly out.

I notice a black willow top a foot above water, a dozen rods from shore, near the outlet of Fair Haven Pond, or just off the point of the Island, where the water is ten feet deep by my measure, and it is alive and green. Yet one who was not almost daily on the river would not perceive this revolution constantly going on. Only in very few cases¹ can I discover where the surface has been taken up, since the water stands over and conceals the scar till it is healed, and for similar reasons it is hard to tell what is a fresh deposit and what an old growth. I should say that the largest masses, or islands, of button-bushes standing in the

¹ And at lowest water a month later.

meadows had drifted there. Even the owner of the meadow and the haymakers may not always detect what was imported thus the previous spring, these transplanted plants look so at home there. So the revolution is almost an imperceptible one. Many seeing the green willow-tops rising above the surface in deep water think that there is a rock there on which they grow. There is a very large mass of bushes thus moved on the right shore, some way above Sherman's Bridge, and a large mass above Heard's Bridge some distance, on the east side (having drifted across).

I hear now that snapping sound under the pads, or probably as soon as the pads are thickly spread over the surface. Also I hear it made by a fish darting to the surface in midstream where are no weeds, — a dry, snapping sound.

June 23. Ride to Wayland, surveying the bridges.

Veiny-leaved hawkweed freshly out.

At Heard's Bridge the white maple is the prevailing one, and I do not notice a red one there nor at Bridle Point Bridge. I think I saw the white as far down as the Sudbury causeway.¹

A foggy, Cape-Cod day, with an easterly wind.

June 24. To Billerica dam, surveying the bridges.

Another foggy [*sic*], amounting from time to time to a fine rain, and more, even to a shower, though the grass was thickly covered with cobwebs in the morning. Yet

¹ The next day saw the white maple and hibiscus in Billerica on the river, — the maple at least as far down as the falls.

it was a condensed fog, I should say. Its value appeared to be as a veil to protect the tender vegetation after the long rainy and cloudy weather.

The 22d, 23d, and 24th, I have been surveying the bridges and river from Heard's Bridge to the Billerica dam. I hear of two places in Wayland where there was formerly what was called a hay bridge, but no causeway, at some narrow and shallow place, a hundred years ago or more. Have looked after all the swift and the shallow places also.

The testimony of the farmers, etc., is that the river thirty to fifty years ago was much lower in the summer than now. Deacon Richard Heard spoke of playing when a boy on the river side of the bushes where the pads are, and of wading with great ease at Heard's Bridge, and I hear that one Rice (of Wayland or Sudbury), an old man, remembers galloping his horse through the meadows to the edge of the river. The meadow just above the causeway on the Wayland side was spoken of as particularly valuable. Colonel David Heard, who accompanied me and is best acquainted of any with the details of the controversy, — has worked at clearing out the river (I think about 1820), — said that he did not know of a rock in the river from the falls near the Framingham line to perhaps the rear of Hubbard's in Concord.

The grass not having been cut last year, the ice in the spring broke off great quantities of pipes, etc., immense masses of them, which were floated and drifted down against the causeways and bridges; and there they lie still, almost concealing any green grass,

like a raft on the meadows, along the south side the causeways. The inhabitants of Wayland used a good deal for mulching trees. One told me that at Sherman's Bridge they stretched quite across the river above the bridge, so that a man "could walk across on them," — perhaps "did walk across on them," — but on inquiring of one who lived by the bridge I learned that "a dog could not have walked across on them."

Daniel Garfield, whom I met fishing on the river, and who has worked on Nine-Acre Corner and Lee's Bridges for fifty years or more, could remember one year when Captain Wheeler dug much mud from the river, when the water was so low that he could throw out pickerel on each side outside the bushes (where the pads now are). Says that his old master with whom he lived in Lincoln when he was young told him that he wheeled the first barrow-load at the building of Lee's Bridge and road, and that if he were alive now he would be a good deal over a hundred years old. Yet Shattuck says that bridge was a new bridge in 1660.

Ebenezer Conant remembers when the Canal dam was built, and that before that it used to be dry at midsummer outside the bushes on each side.

Lee says that about 1819 the bridge near him was rebuilt and the mud-sills taken up. These are said to remain sound an indefinite while. When they put in a new pile (Buttrick the carpenter tells me) they find the mortise in the mud-sill and place it in that. Deacon Farrar says that he can remember Lee's Bridge seventy-five years ago, and that it was not a new bridge then. That it is sometimes obstructed by hay in the spring.

That he has seen a chip go faster up-stream there than ever down. His son said this was the case considerably further up in the meadows toward Rice's, and he thought it the effect of Stow River backing up.

Deacon Farrar thought the hay bridge called Farrar's Bridge was for foot-passengers only.

I found the water in Fair Haven Pond on the 22d twelve to thirteen feet deep in what I thought the channel, but in Purple Utricularia Bay, half a dozen rods from the steep hill, twenty-two and a half feet was the most I found.

John Hosmer tells me that he remembers Major Hosmer's testifying that the South Bridge was carried up-stream, before the court, at the beginning of the controversy.

Simonds of Bedford, who is measuring the rapidity of the current at Carlisle Bridge, says that a board with a string attached ran off there one hundred yards in fifteen minutes at the height of water (in May, and pretty high), when the Commissioners were here. That he has found it to be swiftest just after the water has begun to fall.

The character of the river valley changes about at Hill's Bridge. The meadows are quite narrow and of a different character, — higher and firmer, — a long hill bounds the meadow, and almost the river, on the west for a good way, and high land on the east, and the bottom is harder and said to be often rocky (?).

The water was about four and a half feet deep — sounded with a paddle and guessed at — at the Ford-way, and at that stage so swift and strong that you

could not row a boat against it in the swiftest part of the falls.¹

June 26. Sunday. P. M. — Up Assabet.

The black willow down is now quite conspicuous on the trees, giving them a parti-colored or spotted white and green look, quite interesting, like a fruit. It also rests on the water by the sides of the stream, where caught by alders, etc., in narrow crescents ten and five feet long, at right angles with the bank, so thick and white as to remind me of a dense mass of hoar-frost crystals.

June 27. I find that the tops of my stakes in Moore's Swamp are nearly two feet lower than a fortnight ago, or when Garfield began to fill it.

P. M. — To Walden.

At the further Brister's Spring, under the pine, I find an *Attacus luna*, half hidden under a skunk-cabbage leaf, with its back to the ground and motionless, on the edge of the swamp. The under side is a particularly pale hoary green. It is somewhat greener above with a slightly purplish brown border on the front edge of its front wings, and a brown, yellow, and whitish eye-spot in the middle of each wing. It is very sluggish and allows me to turn it over and cover it up with another leaf, — sleeping till the night come. It has more rela-

¹ July 22d, the average depth of water at the Fordway was two feet, it having fallen in Concord two feet nine and three fourths inches since June 23d; so that the water fell possibly as much in this month at the Fordway as at Concord, — I think surely within half a foot as much.

tion to the moon by its pale hoary-green color and its sluggishness by day than by the form of its tail. A frail creature, rarely met with, though not uncommon.

June 29. P. M. — To Walden.

Very hot. The piper grass bloom in prime. Examined the flying squirrel's nest at the base of a small white [oak] or two (sprouts), four inches through, in a small old white oak stump, half open above, just below the level of the ground, composed of quite a mass of old withered oak leaves and a few fresh green ones, and the inside wholly of fine, dry sedge and sedge-like bark-fibres. The upper side of the nest was half visible from above. It was eight or nine inches across. In it I found the wing of an *Attacus luna*, — and July 1st another wing near Second Division, which makes three between June 27th and July 1st.

At the railroad spring in Howard's meadow, I see two chestnut-sided warblers hopping and chipping as if they had a nest, within six feet of me, a long time. No doubt they are breeding near. Yellow crown with a fine dark longitudinal line, reddish-chestnut sides, black triangle on side of head, white beneath.

River falls several inches.

June 30. Cooler, with a northerly wind. The pads blown up by it already show crimson, it is so strong, but this not a fall phenomenon yet.