

II

SEPTEMBER, 1860

(ÆT. 43)

Sept. 1. P. M. — To Walden.

Saw a fish hawk yesterday up the Assabet. In one position it flew just like a swallow; of the same form as it flew.

We could not judge correctly of distances on the mountain, but greatly exaggerated them. That surface was so novel, — suggested so many thoughts, — and also so uneven, a few steps sufficing to conceal the least ground, as if it were half a mile away, that we would have an impression as if we had travelled a mile when we had come only forty rods. We no longer thought and reasoned as in the plain.

Now see many birds about E. Hubbard's elder hedge, — bobolinks, kingbirds, pigeon woodpeckers, — and not elsewhere.

Many pine stipules fallen yesterday. Also see them on Walden to-day.

Hear that F. Hayden saw and heard geese a fortnight ago!

I see within an oak stump on the shore of Walden tomato plants six or eight inches high, as I found them formerly about this pond in a different place. Since they do not bear fruit the seed must be annually brought here by birds, yet I do not see them pecking the toma-

toes in our gardens, and this is a mile and a half from the village and half a mile from the nearest house in Lincoln.

River about eight inches above summer level yesterday.

We are so accustomed to see another forest spring up immediately as a matter of course, whether from the stump or from the seed, when a forest is cut down, never troubling about the succession, that we hardly associate the seed with the tree, and do not anticipate the time when this regular succession will cease and we shall be obliged to plant, as they do in all old countries. The planters of Europe must have a very different, a much correcter, notion of the value of the seed of forest trees than we. To speak generally, they know that the forest trees spring from seeds, as we do of apples and pears, but we know only that they come out of the earth.

See how artfully the seed of a cherry is placed in order that a bird may be compelled to transport it. It is placed in the very midst of a tempting pericarp, so that the creature that would devour a cherry must take a stone into its mouth. The bird is bribed with the pericarp to take the stone with it and do this little service for Nature. Cherries are especially birds' food, and many kinds are called birds' cherry, and unless we plant the seeds occasionally, I shall think the birds have the best right to them. Thus a bird's wing is added to the cherry-stone which was wingless, and it does not wait for winds to transport it. If you ever ate a cherry, and did not make two bites of it, you must have perceived it. There it is, right in the midst of the luscious morsel.

an earthy residuum left on the tongue. And some wild men and children instinctively swallow it, like the birds, as the shortest way to get rid of it. And the consequence is that cherries not only grow here but there, and I know of some handsome young English cherries growing naturally in our woods, which I think of transplanting back again to my garden. If the seed had been placed in a leaf, or at the root, it would not have got transported thus. Consider how many seeds of plants we take into our mouths. Even stones as big as peas, a dozen at once.

The treatment of forests is a very different question to us and to the English. There is a great difference between replanting the cleared land from the superabundance of seed which is produced in the forest around it, which will soon be done by nature alone if we do not interfere, and the planting of land the greater part of which has been cleared for more than a thousand years.

Sept. 2. P. M. — To Annurnsnack.

Solidago nemoralis apparently in prime, and *S. stricta*. The former covers A. Hosmer's secluded turtle field near the bridge, together with johnswort, now merely lingering.

Sept. 3. P. M. — To Bateman's Pond.

2 P. M. — River six and seven eighths above [summer level].

Here is a beautiful, and perhaps *first* decidedly autumnal, day, — a cloudless sky, a clear air, with,

¹ [Excursions, p. 188; Riv. 230, 231.]

maybe, veins of coolness. As you look toward the sun, the [*sic*] shines more than in the spring. The dense fresh green grass which has sprung up since it was mowed, on most ground, reflects a blaze of light, as if it were morning all the day. The meads and slopes are enamelled with it, for there has been no drought nor withering. We see the smokes of burnings on various sides. The farmers are thus clearing up their pastures, — some, it may be, in preparation for plowing. Though it is warm enough, I notice again the swarms of fuzzy gnats dancing in the cooler air, which also is decidedly autumnal.

See on the two pear trees by the Boze cellar ripe pears, some ripe several days. Most are bitter, others mealy, but one was quite sweet and good, of middling size, and prettier than most cultivated ones. It had a few faint streaks of red and was exceeding wax-like.

Sept. 4. P. M. — To Conantum.

At my Swamp Brook crossing at Willow Bay, I see where a great many little red maples have sprung up in a potato-field, apparently since the last plowing or cultivating this year. They extend more or less thickly as much as eleven rods in a northwest direction from a small tree, the only red maple in that neighborhood. And it is evidently owing to the land having been cultivated this year that the seed vegetated there; otherwise there would now be no evidence that any such seeds had fallen here. Last year and for many years it has been a pasture. It is evident that land may be kept as a pasture and covered with grass any number of years, and though there are maples adjacent to it, none of the

seed will catch in it; but at last it is plowed, and this year the seed which falls on it germinates, and if it chances not to be plowed again, and cattle are kept out, you soon have a maple wood there. So of other light-seeded trees.

It is cooler these days and nights, and I move into an eastern chamber in the morning, that I may sit in the sun. The water, too, is cooler when I bathe in it, and I am reminded that this recreation has its period. I feel like a melon or other fruit laid in the sun to ripen. I grow, not gray, but yellow.

Saw flocks of pigeons the 2d and 3d. I see and hear on Conantum an upland plover. The goldfinch is very busy pulling the thistle to pieces.

What I have called *Muhlenbergia sobolifera* is in prime (say a week); the *M. Mexicana* not quite (say in two or three days).

Sept. 5. P. M. — To Ball's Hill.

The brink of the river¹ is still quite interesting in some respects, and to some eyes more interesting than ever. Though the willows and button-bushes have already assumed an autumnal hue, and the pontederia is extensively crisped and blackened, the dense masses of mikania, now, it may be, paler than before, are perhaps more remarkable than ever. I see some masses of it, overhanging the deep water and completely concealing the bush that supports them, which are as rich a sight as any flower we have, — little terraces of contiguous corymbs, like mignonette (?). Also the dodder is

¹ Vide Aug. 22d.

more revealed, also draping the brink over the water. The mikania is sometimes looped seven or eight feet high to a tree above the bushes, — a manifest vine, with its light-colored corymbs at intervals.

See the little dippers back. Did I not see a marsh hawk in imperfect plumage? Quite brown, with some white midway the wings, and tips of wings black?

What further adds to the beauty of the bank is the hibiscus, in prime, and the great bidens.

Having walked through a quantity of desmodium under Ball's Hill, by the shore there (*Marilandicum* or *rigidum*), we found our pants covered with its seeds to a remarkable and amusing degree. These green scales closely covering and greening my legs reminded me of the lemna on a ditch. It amounted to a kind of coat of mail. It was the event of our walk, and we were proud to wear this badge, as if he were the most distinguished who had the most on his clothes. My companion expressed a certain superstitious feeling about it, for he said he thought it would not be right to walk intentionally amid the desmodium so as to get more of the ticks on us, nor yet to pick them off, but they must be carried about till they are rubbed off accidentally. I saw that Nature's design was furthered even by his superstition.

Sept. 6. The willows and button-bushes have very rapidly yellowed since I noticed them August 22d. I think it was the 25th of August that I found the lower or older leaves of the willow twigs decidedly and rapidly yellowing and decaying on a near inspection. Now the change is conspicuous at a distance.

Sept. 7. P. M. — To Cardinal Shore.

I see many seedling shrub oaks springing up in Potter's field by the swamp-side, some (of last year) in the open pasture, but many more in the birch wood half a dozen rods west from the shrub oaks by the path. The former were dropped by the way. They plant in birch woods as in pines. This small birch wood has been a retreat for squirrels and birds. When I examine the little oaks in the *open* land there is always an effete acorn with them.

Common rose hips as handsome as ever.

Sept. 8. To Lowell via Boston.

Rainy day.

Pursh's [*sic*]¹ *Brassica Napus* is "radice caulescente fusiformi, fol. laevibus, superioribus cordato-lanceolatis amplexicaulibus, inferioribus lyratis dentatis." Frequently found wild. The lower leaves of mine are considerably bristly. Sowerby's Botany at Cambridge says of *B. campestris*, "Pods upright, cylindrical, or very obscurely quadrangular, veiny, the seeds slightly projecting, the beak awl-shaped, striated, square at its base." *B. Napus*, — "Pod on a slender stalk, spreading, round, beaded, with an angular point." Mine is apparently *B. Napus*, judging from pods, for the lower leaves are all eaten. *Vide* young plants in spring.²

Sept. 9. In Lowell. — My host says that the thermometer was at 80° yesterday morning, and this morning is at 52°. Sudden coolness.

¹ [The quotation is from Persoon's *Synopsis Plantarum*.]

² *Vide* back, Aug. 19th.

Clears up in afternoon, and I walk down the Merrimack on the north bank. I see very large plants of the lanceolate thistle, four feet high and very branching. Also *Aster cordata* with the *corymbosus*.

Concord River has a high and hard bank at its mouth, maybe thirty feet high on the east side; and my host thinks it was originally about as high on the west side, where now it is much lower and flat, having been dug down. There is a small isle in the middle of the mouth. There are rips in the Merrimack just below the mouth of the Concord. There is a fall and dam in the Concord at what was Hurd's factory, — the principal fall on the Concord, in Lowell, — one at a bleachery above, and at Whipple's, — three in all below Billerica dam.

Sept. 10. Lowell to Boston and Concord.

There was a frost this morning, as my host, who keeps a market, informed me.

Leaving Lowell at 7 A. M. in the cars, I observed and admired the dew on a fine grass in the meadows, which was almost as white and silvery as frost when the rays of the newly risen sun fell on it. Some of it *was* probably the frost of the morning melted. I saw that this phenomenon was confined to one species of grass, which grew in narrow curving lines and small patches along the edges of the meadows or lowest ground, — a grass with very fine stems and branches, which held the dew; in short, that it was what I had falsely called *Eragrostis capillaris*, but which is probably the *Sporobolus serotinus*, almost the only, if not the only, grass there in its prime. And thus this plant has its day. Owing to the number of its

very fine branches, now in their prime, it holds the dew like a cobweb, — a clear drop at the end and lesser drops or beads all along the fine branches and stems. It grows on the higher parts of the meadows, where other herbage is thin, and is the less apt to be cut: and, seen toward the sun not long after sunrise, it is very conspicuous and bright a quarter of a mile off, like frostwork. Call it dew-grass. I find its *hyaline* seed.¹

Almost every plant, however humble, has thus its day, and sooner or later becomes the characteristic feature of some part of the landscape or other.

Almost all other grasses are now either cut or withering, and are, beside, so coarse comparatively that they can never present this phenomenon. It is only a grass that is in its full vigor, as well as fine-branched (capillary), that can thus attract and uphold the dew. This is noticed about the time the first frosts come.

If you sit at an open attic window almost anywhere, about the 20th of September, you will see many a milkweed down go sailing by on a level with you, — though commonly it has lost its freight, — notwithstanding that you may not know of any of these plants growing in your neighborhood.

My host, yesterday, told me that he was accustomed once to chase a *black* fox² from Lowell over this way and lost him at Chelmsford. Had heard of him within about six years. A Carlisle man also tells me since that this fox used to turn off and run northwest from Chelmsford, but that he would soon after return.

¹ Also saw it the 16th.

² Like the silver, made a variety of the red by Baird.

Sept. 11. George Melvin came to tell me this forenoon that a strange animal was killed on Sunday, the 9th, near the north line of the town, and it was not known certainly what it was. From his description I judged it to be a Canada lynx. In the afternoon I went to see it. It was killed on Sunday morning by John Quincy Adams, who lives in Carlisle about half a mile (or less) from the Concord line, on the Carlisle road.

Some weeks ago a little girl named Buttrick, who was huckleberrying near where the lynx was killed, was frightened by a wild animal leaping out of the bushes near her — *over* her, as she said — and bounding off. But no one then regarded her story. Also a Mr. Grimes, who lives in Concord just on the line, tells me that some month ago he heard from his house the loud cry of an animal in the woods northward, and told his wife that if he were in Canada he should say it was a bob-tailed cat. He had lived seven years in Canada and seen a number of this kind of animal. Also a neighbor of his, riding home in the night, had heard a similar cry. Jacob Farmer saw a strange animal at Bateman's Pond a year ago, which he thinks was this.

Adams had lost some of his hens, and had referred it to a fox or the like. He being out, his son told me that on Sunday he went out with his gun to look after the depredator, and some forty or fifty rods from his house northwesterly ¹ (on Dr. Jones's lot, which I surveyed) in the woods, this animal suddenly dropped within two feet of him, so near that he could not fire. He had heard a loud hiss, but did not mind it. He accordingly struck

¹ *Vide* forward.

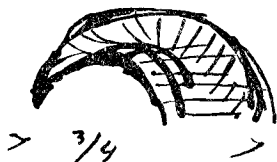
it with the butt of his gun, and it then bounded off fifteen feet ¹ or more, turned about, and faced him, whereupon he fired directly into its eyes, putting them out. His gun was loaded with small shot, No. 9. The creature then bounded out of sight, and he had a chance to reload, by which time it appeared again, crawling toward him on its belly, fiercely seeking him. He fired again, and, it still facing him, he fired a third time also, and finally finished it with the butt of his gun.

It was now skinned and the skin stuffed with hay, and the skull had been boiled, in order to be put into the head.

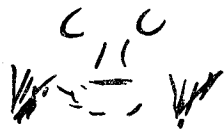
I measured the stuffed skin carefully. From the forehead (the nose pointing down) to end of tail, 3 feet 4½ [inches]. Tail stout and black at the abrupt end, 5 inches. Extreme length from fore paws to hind paws, 4 feet 8 inches, when stretched out, the skin being *stiff*. (They said it measured 5 feet before it was skinned, which is quite likely.) Forehead to extremity of hind feet, 50½ inches. It stood, as nearly as I could measure, holding it up, 19 to 20 inches high from ground to shoulder. From midway between the legs beneath, the hind legs measured 19 inches, within; the fore legs, 16 inches, within. From skull to end of tuft on ear, 4½ inches; tuft on ear (black and thin), 1½ inches. The width of fore paw gently pressed was 3½ inches; would have made a track perhaps four inches wide in snow. There was a small *bare* brown tubercle of flesh to each toe, and also a larger one for the sole, amid the grayish-white

¹ Another says he told him thirty feet and that they went and measured it. *Vide* forward.

hair. A principal claw was $\frac{3}{4}$ inch long measured directly, but it was very curving.



For color: It was, above, brownish-gray, with a dark-brown or black line down the middle of the back. Sides gray, with small dark-brown spots, more or less within the hair. Beneath, lighter, hoary, and long-haired. Legs gray, like the sides, but more reddish-brown behind, especially the hind legs, and these, like the belly and sides, were indistinctly spotted with dark brown, having the effect more of a dark-brown tinge at a little distance than of spots. General aspect brownish-hoary. Tail, above, more reddish than rest of back, much, and conspicuously black at end. Did not notice any white at tip. Throat pretty white. Ears, without, broadly edged with black half an inch or more wide, the rest being a triangular white. There



was but a small muffler, chiefly a triangular whitish and blackish tuft on the sides of the face or neck, not noticeably under the chin.

It weighed, by their account, nineteen pounds. This was a female, and Farmer judged from his examination of the mammae — two or more of them being enlarged, and the hair worn off around them — that it had suckled young this year. The fur was good for nothing now.

I cannot doubt that this is a Canada lynx; yet I am somewhat puzzled by the descriptions of the two lynxes. Emmons says of the Canada lynx that it has “no naked

spots or tubercles [on the soles of its feet] like the other species of the feline race;” and Audubon says, “Soles, hairy;” but of the *Lynx rufus*, “Soles . . . naked.” It is Audubon’s *L. rufus* in the naked soles, also in “ears, outer surface, a triangular spot of dull white, . . . bordered with brownish-black,” not described in his *Canadensis*. It is his *L. Canadensis* in size, in color generally, in length of ear-tuft (his *L. rufus* tufts being only half an inch), in “upper surface of the tail, to within an inch of the tip, and exterior portion of the thighs, rufous,” in tail being stout, not “slender” like *rufus*. Audubon says that the *L. rufus* is easily distinguished from small specimens of the female *L. Canadensis* by “the larger feet and more tufted ears of the latter, . . . as well as its grayer color.” This is four inches longer than his smaller Canada lynx and exactly as long as his larger one, — both his being males. Emmons’s one is also just 37 inches, or the same length. Emmons’s largest *L. rufus* is, thus measured, only 29 inches long and Audubon’s “fine specimen” only 30 inches.

Grimes, who had lived seven years in Canada, called this a “bob-tailed cat,” and said that the Canada lynx was as dark as his dog, which would be called a black dog, though somewhat brownish.

They told me there that a boy had seen another, supposed to be its mate,¹ this morning, and that they were going out to hunt it toward night.²

The water is cold to-day, and bathing begins to be questionable.

¹ Only a stone.

² Vide next page.

The turtles, painted and sternotherus, are certainly less timid than in the spring. I see a row of half a dozen or more painted turtles on a slanting black willow, so close together that two or three of them actually have their fore feet on the shells of their predecessors, somewhat like a row of bricks that is falling. The scales of some are curled up and just falling.

Sept. 12. Very heavy rain to-day (equinoctial), raising the river suddenly. I have said, within a week, that the river would rise this fall because it did not at all in the spring, and now it rises. A very dark and stormy night (after it); shops but half open. Where the fence is not painted white I can see nothing, and go whistling for fear I run against some one, though there is little danger that any one will be out. I come against a stone post and bruise my knees; then stumble over a bridge, — being in the gutter. You walk with your hands out to feel the fences and trees. There is no vehicle in the street to-night.

The thermometer at 4 p. m. was 54°.

There was pretty high wind in the night.

Sept. 13. I go early to pick up my windfalls. Some of them are half buried in the soil, the rain having spattered the dirt over them.

The river this morning, about 7 A. M., is already twenty-eight and a half inches above summer level, and more than twenty inches of this is owing to the rain of yesterday and last night!! By 1.30 p. m., when it has risen two or three inches more, I can just cross the

meadow in a straight line to the Rock. I see a snake swimming on the middle of the tide, far from shore, washed out of the meadow, and myriads of grasshoppers and beetles, etc., are wrecked or clinging to the weeds and stubble that rises above the flood. At evening the river is five inches higher than in the morning.

There is very little current at my boat's place this evening, yet a chip floats down (and next morning, the 14th, I see that a large limb has been carried up-stream during the night, from where it lay at evening, some twenty rods above the junction, to a place thirty rods above the junction). Yet, when I try the current (in the evening of the 13th) with a chip, it goes down at Heron Rock, but the limb was large and irregular, and sank very deep in the water; so I think that the Assabet water was running up beneath while the Musketaquid flowed down over it slowly.

A Carlisle man tells me of a coon he killed in Carlisle which weighed twenty-three and a half pounds and dressed fourteen pounds. He frequently sees and hears them at present.

On the 13th I go to J. Q. Adams's again to see the lynx. Farmer said that if the skin was tainted the hair would come off.

The tail is black at extremity for one inch, and no white at tip; the rest of it above is rust-color (beneath it is white), with the slightest possible suggestion of white rings, *i. e.* a few white hairs noticed. When stretched or spread the fore foot measured just 5 inches in width, the hind foot scarcely less than 6 inches. The

black border on the ear was broadest on the inner (*i. e.* toward the other ear) and forward side, — $\frac{1}{2}$ inch and more. The tufts on the ears only about $\frac{1}{8}$ + inch wide.

Adams went to show me the carcass. It was quite sweet still (13th, in afternoon), only a little fly-blown. No quadruped or bird had touched it. Remarkably long and slender, made for jumping. The muscles of the thigh were proportionately very large. I thought the thigh would measure *now* 9 inches in circumference. I had heard that there was nothing in its stomach, but we opened the paunch and found it full of rabbits' fur. I cut off a fore leg.

He said that he had lost two or three hens only, and apparently did not think much of that. The first he knew the animal was within three feet of him, so that he could hardly turn his gun to strike him. He did not know where he came from, — whether from over the wall, to which he was near, or from a chestnut, for he was in the midst of the woods of Jones's lot, *not cut*. He felt somewhat frightened. Struck him with the butt of his gun, but did not hurt him much, he was so quick. He jumped at once *thirty feet*, turned round, and faced him. He then fired, about thirty feet, at his eyes, and destroyed one, — perhaps put out the other, too. He then bounded out of sight. When he had loaded he found him crawling toward him on his belly as if to spring upon him: fired again, and thinks he mortally wounded him then. After loading, approached, and the lynx faced him, all alive. He then fired, and the lynx leapt up fifteen feet, fell, and died. Either at the second or last shot

leapt within ten feet of him. He was much impressed by his eyes and the ruff standing out on the sides of his neck.

This was about one hundred and thirty rods easterly from his house.

The skinned tail measured 5 inches. I boiled the leg on the 14th (five days after it was killed) for the bone. It smelled and looked like very good meat, like mutton.

Vide Salem lynxes, September 23d, 1858.¹

It is remarkable how slow people are to believe that there are any wild animals in their neighborhood. They who have seen this generally suppose that it got out of a menagerie; others that it strayed down from far north. At most they call it *Canada lynx*. In Willey's White Mountain book the same animal is spoken of as a terror to the hunter and called the "Siberian Lynx." What they call it I know not.

I do not think it necessary even to suppose it a straggler, but only very rare hereabouts. I have seen two lynxes that were killed between here and Salem since '27. Have heard of another killed in or near Andover. There may have been many more killed as near within thirty years and I not have heard of it, for they who kill one commonly do not know what it is. They are nocturnal in their habits, and therefore are the more rarely seen, yet a strange animal is seen in this town by somebody about every year, or its track. I have heard of two or three such within a year, and of half a dozen within fifteen years. Such an animal might range fifteen to twenty miles back and forth from Acton to Tewksbury

¹ *Vide* extract from Richardson, Nov. 10, 1860.

and find more woodland than in the southern part of New Hampshire generally.

Farmer says that a farmer in Tewksbury told him two or three years ago that he had seen deer lately on the pine plain thereabouts.

Adams got a neighbor to help him skin the lynx, a middle-aged man; but he was "so nervous" and unwilling to touch even the dead beast, when he came to see it, that he gave him but little assistance.

Dr. Reynolds tells me of a lynx killed in Andover, in a swamp near Haggerty's Pond, one winter when he kept school in Tewksbury, about 1820. At first it was seen crossing the Merrimack into Tewksbury, and there was accordingly a story of an animal about that was ten feet long. They turned out, all the hunters of the neighborhood, and tracked it in the snow, across Tewksbury to the swamp in Andover and back again to Tewksbury. One old hunter bet something that they could not show him a track which he did not know, but when they showed him this he gave up. Finally they tracked it to the Andover swamp, and a boy shot it on a tree, though it leapt and fell within a few feet of him when shot.

Rice tells of a common wildcat killed in Sudbury some forty years ago, resting on some ice as it was crossing the Sudbury meadows amid ice and water.

Mr. Boutwell of Groton tells me that a lynx was killed in Dunstable within two or three years. Thinks it is in the State Museum.¹

This makes five that I have heard of (and seen three)

¹ *Vide* "New England's Prospect" near beginning of Indian Book No. 9.

killed within some fifteen or eighteen miles of Concord within thirty years past, and no doubt there have been three times as many of them killed here.¹

Sept. 14. A. M.—River still rising; at 4 P. M. one and an eighth inches higher than in morning.

Sept. 15. In morning river is three feet two and a half plus inches above summer level. 6 P. M., river is slightly higher than in morning, or at height. Thus it reached its height the third day after the rain; had risen on the morning of the third day about thirty inches on account of the rain of one day (the 12th).

Joe Smith's man brings me this forenoon a fish hawk which was shot on George Brooks's pigeon-stand last evening. It is evidently a female of this year, full grown. Length 23 inches; alar extent 5 feet 6½ inches. It probably lit there merely for a perch.

Looked at Mr. Davis's museum. Miss Lydia Hosmer (the surviving maiden lady) has given him some relics which belonged to her (the Hosmer) family. A small lead or pewter sun-dial, which she told him was brought over by her ancestors and which has the date 1626 scratched on it. Also some *stone* weights in an ancient

¹ *Vide* Sept. 29, 1856. Walcott [?] saw a lynx of some kind which was killed in (his father's?) barn in Bolton [?] some twenty-five years ago; not so big as mine. Bradford says the Essex Institute have another killed in that neighborhood more recently.

Oct. 15. — Channing reads in papers that within a few days a wildcat was killed in Northampton weighing twenty-two pounds and another in Tyringham, Berkshire County, of thirty-six pounds (of course *L. Canadensis* both).

linen bag, said to have been brought from England. They were oval stones or pebbles from the shore, — or *might* have been picked up at Walden. There was a pound, a half-pound, a quarter, a two-ounce, and several one-ounce weights, now all rather dark and ancient to look at, like the bag. This was to me the most interesting relic in his collection. I love to see anything that implies a simpler mode of life and greater nearness to the earth.

Sept. 16. 7 A. M. — River fallen one and a half inches. Is three feet and seven eighths of an inch above summer level, *i. e.* at notch on tree. I mark a willow eight feet above summer level.

See no zizania seed ripe, or black, yet, but almost all is fallen.

Sept. 17. 6.30 A. M. — River thirty-four and an eighth above summer level, or fallen about four inches since evening of 15th. It flows now (a sunk bottle) one hundred feet in two minutes at boat's place, there being no wind.

P. M. — Up river.

Pontederia seeds falling.

See a flock of eight or ten wood ducks on the Grindstone Meadow, with glass, some twenty-five rods off, — several drakes very handsome. They utter a creaking scream as they sail there, — being alarmed, — from time to time, shrill and loud, very unlike the black duck. At last one sails off, calling the others by a short creaking note.

Sept. 18. According to all accounts, very little corn is fit to grind before October 1st (though I have one kind ripe and fit to grind September 1st). It becomes hard and dry enough in the husk in the field by that time, much of it. But long before this, or say by the 1st of September, it begins to glaze (or harden on the surface), when it begins to be too hard to boil.

P. M. — To beeches.

This is a beautiful day, warm but not too warm, a harvest day (I am going down the railroad causeway), the first unquestionable and conspicuous autumnal day, when the willows and button-bushes are a yellowed bower in parallel lines along the swollen and shining stream. The first autumnal tints (of red maples) are now generally noticed. The shrilling of the alder locust fills the air. A brightness as of spring is reflected from the green shorn fields. Both sky and earth are bright. The first clear blue and shining white (of clouds). Corn-stalk-tops are stacked about the fields; potatoes are being dug; smokes are seen in the horizon. It is the season of agricultural fairs. If you are not happy to-day you will hardly be so to-morrow.

Leaving Lowell on the morning of the 10th, after the rain of the day before, I passed some heaps of brush in an opening in the woods, — a pasture surrounded by woods, — to which the owner was just setting fire, wet as they were, it being the safest time to burn them. Hence they make so much smoke sometimes. Some farmer, perhaps, wishes to plow this fall there, and sow rye perchance, or merely to keep his pasture clear. Hence the smokes in the horizon at this season. The

rattle-pod (in Deep Cut) has begun to turn black and rattle for three or four days.

Notice some green pods of lady's-slipper still, full of chaffy seed.

The beechnut burs are browned but not falling. They open directly in my chamber. The nuts are all empty.

White pine cones (a small crop), and all open that I see.¹

The toadstools in wood-paths are perforated (almost like pepper-boxes) by flattish slippery insects, bronze and black, which are beneath and within it. Or you see their heads projecting and the dust (or exuviae) they make like a curb about the holes.

Smooth sumach berries are about past their beauty and the white creamy incrustation mostly dried up.

I see in the Walden road two dead shrews and some fox-dung by them. They look as if bitten and flatted by the fox. Were they not dropped there by him? Perhaps they will not eat one.²

Sept. 19. 4 P. M. — River fallen about one foot.

Sept. 20. Cattle-Show.

Rainy in forenoon.

Sept. 21. Hard rain last night. About one and seven eighths inches fallen since yesterday morning, and river rising again.

See, at Reynolds's, Hungarian millet raised by

¹ Are they not last year's?

² Vide 24th.

Everett. It is smaller and more purple than what is commonly raised here.

P. M. — To Easterbrooks Country.

The fever-bush berries have begun some time, — say one week; are not yet in prime. Taste almost exactly like lemon-peel. But few bushes bear any.

The bayberries are perhaps ripe, but not so light a gray and so rough, or wrinkled, as they will be.

The pods of the broom are nearly half of them open. I perceive that one, just ready to open, opens with a slight spring on being touched, and the pods at once twist and curl a little. I suspect that such seeds as these, which the winds do not transport, will turn out to be more sought after by birds, etc., and so transported by them than those lighter ones which are furnished with a pappus and are accordingly transported by the wind; *i. e.*, that those which the wind takes are less generally the food of birds and quadrupeds than the heavier and wingless seeds.

Muhlenbergia Mexicana by wall between E. Hosmer and Simon Brown, some time. Some large thorn bushes quite bare.

Sept. 22. P. M. — To Clamshell by boat.

Find more pieces of that Indian pot. Have now thirty-eight in all.

Evidently the recent rise of the river has caused the lower leaves of the button-bush to fall. A perfectly level line on these bushes marks the height to which the water rose, many or most of the leaves so high having fallen.

The clematis yesterday was but just beginning to be feathered, but its feathers make no show. Feathers out next day in house.

See a large flock of crows.

The sweet-gale fruit is yet quite green, but perhaps it is ripe. The button-bush balls are hardly reddened.

Moreover the beach plum appears to prefer a sandy place, however far inland, and one of our patches grows on the only desert which we have.

Some of the early botanists, like Gerard, were prompted and compelled to *describe* their plants, but most nowadays only measure them, as it were. The former is affected by what he sees and so inspired to portray it; the latter merely fills out a schedule prepared for him, — makes a description *pour servir*. I am constantly assisted by the books in identifying a particular plant and learning some of its humbler uses, but I rarely read a sentence in a botany which reminds me of flowers or living plants. Very few indeed write as if they had seen the thing which they pretend to describe.

Sept. 23. P. M. — To Cliffs.

Some small botrychium ripe.

I see on the top of the Cliffs to-day the dung of a fox, consisting of fur, with part of the jaw and one of the long rodent teeth of a woodchuck in it, and the rest of it huckleberry seeds with some whole berries. I saw exactly the same beyond Goose Pond a few days ago, on a rock, — except that the tooth (a curved rodent) was much smaller, probably of a mouse. It is evident,

then, that the fox eats huckleberries and so contributes very much to the dispersion of this shrub, for there were a number of entire berries in its dung, — in both the last two I chanced to notice. To spread these seeds, Nature employs not only a great many birds but this restless ranger the fox. Like ourselves, he likes two courses, rabbit and huckleberries.

I see everywhere in the shady yew wood those pretty round-eyed fungus-spots on the upper leaves of the blue-stemmed goldenrod (*vide press*), contrasting with the few bright-yellow flowers above them, — yellowish-white rings (with a slate-colored centre), surrounded by green and then dark.

Red pine-sap by north side of Yew Path some ten rods east of yew, not long done. The root of the freshest has a decided checkerberry scent, and for a long time — a week after — in my chamber, the bruised plant has a very pleasant earthy sweetness.

I hear that a large owl, probably a cat owl, killed and carried off a full-grown turkey in Carlisle a few days ago.

Sept. 24. P. M. — To Flint's Pond *via* Smith's chestnut grove.

See a dead shrew in road on Turnpike Hill. (Had hard rain the night of the 20th.) *Vide* back, 18th.

It is remarkable how persistently Nature endeavors to keep the earth clothed with wood of some kind, — how much vitality there is in the stumps and roots of some trees, though small and young. For example, examined the little hickories on the bare slope of Smith's

Hill. I have observed them endeavoring to cover that slope for a dozen years past, and have wondered how the seed came there, planted on a bare pasture hillside, but I now see that the nuts were probably planted just before the pine wood (the stumps of which remain) was cut down, and, having sprung up about that time, have since been repeatedly cut down to keep the pasture clear, till now they are quite feeble or dying, though many are six feet high. When a part of the hill has been plowed and cultivated I examine the roots which have been turned out, and find that they are two inches thick at the ground though only one to three feet high above. I judge that it is fifteen years since the pine wood was cut, and if the hickories had not been cut down and cattle been kept out, there would have been a dense hickory wood there now fifteen to twenty feet high at least. You see on an otherwise perfectly bare hillside or pasture where pines were cut, say fifteen years before, remote from any hickories, countless little hickories a foot high or little more springing up every few feet, and you wonder how they came there, but the fact that they preserve their vitality, though cut down so often and so long, accounts for them.

This shows how heedlessly wood-lots are managed at present, and suggests that when one is cut (if not before) a provident husbandman will carefully examine the ground and ascertain what kind of wood is about to take the place of the old and how abundantly, in order that he may act understandingly and determine if it is best to clear the land or not. I have seen many a field perfectly barren for fifteen or twenty years, which, if

properly managed, or only let alone, would naturally have yielded a crop of birch trees within that time.

In Wood Thrush Path at Flint's Pond, a great many of the geiropodium fungus now shed their dust. When closed it is [a] roundish or conical orange-colored fungus three quarters of an inch in diameter, covered with a mucilaginous matter. The thick outer skin of many (it is pink-red inside) had already curled back (it splits into segments and curls parallel to the axis of the plant) and revealed the pinkish fawn-colored puffball capped with a red dimple or crown. This is a hollow bag, which, when you touch it, spurts forth a yellowish-white powder three or four inches through its orifice.

See two very handsome butterflies on the Flint's Pond road in the woods at Gourgas lot, which C. had not seen before. I find that they are quite like the *Vanessa Atalanta*, or red admiral, of England.

2 P. M. — The river risen about thirty-three inches above summer level.



Sept. 25. Hard, gusty rain (with thunder and lightning) in afternoon. About seven eighths of an inch falls.

Sept. 26. P. M. — Round Walden and Pleasant Meadow.

Small oaks in hollows (as under Emerson Cliff) have fairly begun to change.

The taller grass and sedge is now generally withered and brown, and reveals the little pines in it.

I see that acorns—white oak, etc.—have fallen after the rain and wind, just as leaves and fruit have.

I see, just up, the large light-orange  toadstools with white spots,—at first:  then:

Sept. 27. A. M. — Sawing up my raft by river.

River about thirty-five inches above summer level, and goes no higher this time.

Monroe's tame ducks sail along and feed close to me as I am working there. Looking up, I see a little dipper, about one half their size, in the middle of the river, evidently attracted by these tame ducks, as to a place of security. I sit down and watch it. The tame ducks have paddled four or five rods down-stream along the shore. They soon detect the dipper three or four rods off, and betray alarm by a tittering note, especially when it dives, as it does continually. At last, when it is two or three rods off and approaching them by diving, they all rush to the shore and come out on it in their fear, but the dipper shows itself close to the shore, and when they enter the water again joins them within two feet, still diving from time to time and threatening to come up in their midst. They return up-stream, more or less alarmed, and pursued in this wise by the dipper, who does not know what to make of their fears, and soon the dipper is thus tolled along to within twenty feet of where I sit, and I can watch it at my leisure. It has a dark bill and considerable white on the sides of the head or neck, with black between it, no tufts, and no observable white on back or tail. When at last disturbed by me, it suddenly sinks low (all its body) in the water without diving.

Thus it can float at various heights. (So on the 30th I saw one suddenly dash along the surface from the meadow ten rods before me to the middle of the river, and then dive, and though I watched fifteen minutes and examined the tufts of grass, I could see no more of it).

Sept. 28. Butternuts still on tree and falling, as all September.

This morning we had a very severe frost, the first to kill our vines, etc., in garden; what you may call a black frost,—making things look black. Also ice under pump.

Sept. 29. Another hard frost and a very cold day.

Sept. 30. Frost and ice.