

## II

APRIL, 1859

(ÆT. 41)

*April 1.* Some have planted peas and lettuce.

Melvin, the sexton, says that when Loring's Pond was drained once — perhaps the dam broke — he saw there about all the birds he has seen on a salt marsh. Also that he once shot a mackerel gull in Concord, — I think he said it was in May; that he sees the two kinds of yellow-legs here; that he has shot at least two kinds of large gray ducks, as big (one, at least) as black ducks.

He says that one winter (it may have been the last) there were caught by him and others at one place in the river below Ball's Hill, in sight of Carlisle Bridge, about two hundred pounds of pickerel within a week, — something quite unprecedented, at least of late years. This was about the last of February or first of March. No males were caught! and he thinks that they had collected there in order to spawn. Perhaps perch and pickerel collect in large numbers for this purpose.

P. M. — To Assabet over meadows in boat; a very strong and a cold northwest wind.

I land again at the (now island) rock, on Simon Brown's land, and look for arrowheads, and picked [*sic*] up two pieces of soapstone pottery. One was probably part of the same which C. found with me there

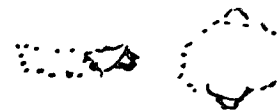
1859]

INDIAN RELICS

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the other day. C.'s piece was one side of a shallow dish, say an inch and a half deep, four eighths to six eighths of an inch thick, with a sort of ear for handle on one side, — almost a leg.

His piece, like mine, looks as if it had been scratched all over on the outside by a nail,



and it is evident that this is the way it was fashioned. It was scratched with some hard, sharp-pointed stone and so crumbled and worn away.

This little knoll was half plowed (through its summit) last fall in order to be cultivated this spring, and the high water standing over all but the apex has for a fortnight been faithfully washing away the soil and leaving the stones — Indian relics and others — exposed. The very roots of the grass, yellowish-brown fibres, are thus washed clean and exposed in considerable quantity there. You could hardly have contrived a better way to separate the arrowheads that lay buried in that sod between the rocks from the sod and soil.

At the Pokelogan up the Assabet, I see my first phoebe, the mild bird. It flirts its tail and sings *pre vit, pre vit, pre vit, pre vit* incessantly, as it sits over the water, and then at last, rising on the last syllable, says *pre-vee*, as if insisting on that with peculiar emphasis.

The villagers remark how dark and angry the water looks to-day. I think it is because it is a clear and very windy day and the high waves cast much shadow.

Crow blackbirds common.

April 2. P. M. — To Lee's Cliff (walking).

Alders generally appear to be past prime.<sup>1</sup> I see a little snow ice in one place to-day. It is still windy and cool, but not so much so as yesterday. I can always sail either up or down the river with the rudest craft, for the wind always blows more or less with the river valley. But where a blunt wooded cape or hill projects nearly in the direction to which the wind is blowing, I find that it blows in opposite directions off that shore, while there may be quite a lull off the centre. This makes a baffling reach. Generally a high wood close upon the west side of our river, the prevailing winds being northwest, makes such a reach.

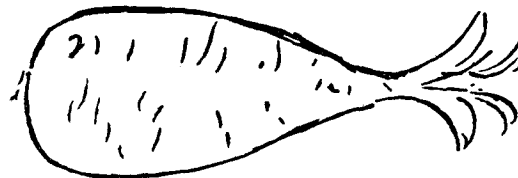
There are many fuzzy gnats now in the air, windy as it is. Especially I see them under the lee of the middle Conantum cliff, in dense swarms, all headed one way, but rising and falling suddenly all together as if tossed by the wind. They appear to love best a position just below the edge of the cliff, and to rise constantly high enough to feel the wind from over the edge, and then sink suddenly down again. They are not, perhaps, so thick as they will be, but they are suddenly much thicker than they were, and perhaps their presence affects the arrival of the phoebe, which, I suspect, feeds on them.

From near this cliff, I watch a male sheldrake in the river with my glass. It is very busily pluming itself while it sails about, and from time to time it raises itself upright almost entirely out of water, showing

<sup>1</sup> *Incana* on causeways, *i. e.* the earliest ones. See some same [?] species not open, the 10th.

its rosaceous breast. It is some sixty rods off, yet I can see the red bill distinctly when it is turned against its white body. Soon after I see two more, and one, which I think is not a female, is more gray and far less distinctly black and white than the other. I think it is a young male and that it might be called by some a gray duck. However, if you show yourself within sixty rods, they will fly or swim off, so shy are they. Yet in the fall I sometimes get close upon a young bird, which dashes swiftly across or along the river and dives.

In the wood on top of Lee's Cliff, where the other day I noticed that the chimaphila leaves had been extensively eaten and nibbled off and left on the ground, I find under one small pitch pine tree a heap of the cones which have been stripped of their scales, evidently by the red squirrels, the last winter and fall, they having sat upon some dead limbs above. They were all stripped regularly from the base upward, excepting the five to seven uppermost and barren scales, making a pretty figure like this:—



I counted two hundred and thirty-nine cones under this tree alone, and most of them lay within two feet square upon a mass of the scales one to two inches deep and three or four feet in diameter. There were also many cones under the surrounding pines. Those I counted

would have made some three quarts or more. These had all been cut off by the squirrels and conveyed to this tree and there stripped and eaten. They appeared to have devoured all the fruit of that pitch pine grove, and probably it was they that nibbled the wintergreen. No fruit grows in vain. The red squirrel harvests the fruit of the pitch pine. His body is about the color of the cone. I should like to get his recipe for taking out pitch, for he must often get his chaps defiled, methinks. These were all fresh cones, the fruit of last year, perhaps. There was a hole in the ground where they lodged by that tree.

I see fly across the pond a rather large hawk, and when at length it turns up am surprised to see a large blackish spot on the under side of each wing, reminding me of the nighthawk. Its wings appeared long and narrow, but it did not show the upper or under side till far off, — sailing [?] so level. What was it?

The bass recently cut down at Miles Swamp, which averages nearly two and a half feet in diameter at the ground, has forty-seven rings, and has therefore grown fast. The black ash is about eighteen inches in diameter and has forty-eight rings. The white ash is about fifteen inches in diameter and has seventy-eight rings.

I see the small botrychium still quite fresh in the open pasture, only a reddish or leathery brown, — some, too, yellow. It is therefore quite evergreen and more than the spleenworts.

As I go down the street just after sunset, I hear many snipe to-night. This sound is annually heard by the

villagers, but always at this hour, *i. e.* in the twilight, — a hovering sound high in the air, — and they do not know what to refer it to. It is very easily imitated by the breath. A sort of shuddering with the breath. It reminds me of calmer nights. Hardly one in a hundred hears it, and perhaps not nearly so many know what creature makes it. Perhaps no one dreamed of snipe an hour ago, but the air seemed empty of such as they; but as soon as the dusk begins, so that a bird's flight is concealed, you hear this peculiar spirit-suggesting sound, now far, now near, heard through and above the evening din of the village. I did not hear one when I returned up the street half an hour later.

*April 3.* An easterly wind and rain.

P. M. — To White Pond.

C. says he saw a striped snake on the 30th. We go by Clamshell. The water on the meadows is now visibly lowered considerably, and the tops of bushes begin to appear. The high water has stood over and washed down the base of that avalanche of sand from my new ravine, leaving an upright edge a foot high, and as it subsided gradually, it has left various parallel shorelines, with stones arranged more or less in rows along them, thus forming a regular beach of four or five rods' length.

The *bæomyces* is in its perfection this rainy day. I have for some weeks been insisting on the beauty and richness of the moist and saturated crust of the earth. It has seemed to me more attractive and living than ever, — a very sensitive cuticle, teeming with life, espe-

cially in the rainy days. I have looked on it as the skin of a pard. And on a more close examination I am borne out by discovering, in this now so bright bæomyces and in other earthy lichens and in cladonias, and also in the very interesting and pretty red and yellow stemmed mosses, a manifest sympathy with, and an expression of, the general life of the crust. This early and hardy cryptogamous vegetation is, as it were, a flowering of the crust of the earth. Lichens and these mosses, which depend on moisture, are now most rampant. If you examine it, this brown earth-crust is not dead. We need a popular name for the bæomyces. C. suggests "pink mould." Perhaps "pink shot" or "eggs" would do.

A great many oak leaves have been blown off in the late windy weather. When I disturb a leaf in the woods I find it quite dry within this rainy day. I saw the other day a long winrow of oak leaves, a foot high, washed up on the meadow-edge a quarter of a mile off, opposite Ball's Hill, whence they partly came.

It does not rain hard to-day, but mizzles, with considerable wind, and your clothes are finely bedewed with it even under an umbrella. The rain-drops hanging regularly under each twig of the birches, so full of light, are a very pretty sight as you look forth through the mizzle from under your umbrella. In a hard rain they do not lodge and collect thus.

I hear that Peter Hutchinson hooked a monstrous pickerel at the Holt last winter. It was so large that he could not get his head through the hole, and so they cut another hole close by, and then a narrow channel

from that to the first to pass the line through, but then, when they came to pull on the line, the pickerel gave a violent jerk and escaped. Peter tjunks that he must have weighed ten pounds.

Men's minds run so much on work and money that the mass instantly associate all literary labor with a pecuniary reward. They are mainly curious to know how much money the lecturer or author gets for his work. They think that the naturalist takes so much pains to collect plants or animals because he is paid for it. An Irishman who saw me in the fields making a minute in my note-book took it for granted that I was casting up my wages and actually inquired what they came to, as if he had never dreamed of any other use for writing. I might have quoted to him that the wages of sin is death, as the most pertinent answer. "What do you get for lecturing now?" I am occasionally asked. It is the more amusing since I only lecture about once a year out of my native town, often not at all; so that I might as well, if my objects were merely pecuniary, give up the business. Once, when I was walking on Staten Island, looking about me as usual, a man who saw me would not believe me when I told him that I was indeed from New England but was not looking at that region with a pecuniary view, — a view to speculation; and he offered me a handsome bonus if I would sell his farm for him.

I see by the White Pond path many fox-colored sparrows apparently lurking close under the lee side of a wall out of the way of the storm. Their tails near the base are the brightest things of that color — a rich

cinnamon-brown — that I know. Their note to-day is the *chip* much like a tree sparrow's. We get quite near them.

Near to the pond I see a small hawk, larger than a pigeon hawk, fly past, — a deep brown with a light spot on the side. I think it probable it was a sharp-shinned hawk.

The pond is quite high (like Walden, which, as I noticed the 30th *ult.*, had risen about two feet since January, and perhaps within a shorter period), and the white sand beach is covered. The water being quite shallow on it, it is very handsomely and freshly ripple-marked for a rod or more in width, the ripples only two or three inches apart and very regular and parallel, but occasionally there is a sort of cell a foot long (a split closed at each end) in one. In some parts, indeed, it reminded me of a cellular tissue, but the last foot next the shore had no ripple-marks; apparently they were constantly levelled there. These were most conspicuous where a dark sediment, the dead wood or crumbled leaves, perchance, from the forest, lay in the furrows and contrasted with the white sand. The



cells were much more numerous and smaller in proportion than I represent them.

I find in drawing these ripple-marks that I have drawn precisely such lines as are used to represent a shore on maps, and perchance the sight of these parallel ripple-marks may have suggested that method of drawing a shore-line. I do not believe it, but if we were

to draw such a lake-shore accurately it would be very similar.

*April 4.* Clear, cold, and very windy; wind north-west.

For a fortnight past, or since the frost began to come out, I have noticed the funnel-shaped holes of the skunk in a great many places and their little mining tracks in the sand. Many a grub and beetle meets its fate in their stomachs.

Methinks the peculiar and interesting *Brown Season* of the spring lasts from the time the snow generally begins to go off — as this year the fore part of March — till the frost is generally (or entirely?) out. Perhaps it will be through the first week of April this year. Ordinary years it must be somewhat later. The surface of the earth is never so completely saturated with wet as during this period, for the frost a few inches beneath holds all the ice and snow that are melted and the rain, and an unusual amount of rain falls. All plants, therefore, that love moisture and coolness, like mosses and lichens, are in their glory, but also [?] I think that the very withered grass and weeds, being wet, are *blooming* at this season. The conspicuous reddish brown of the fallen brakes is very rich, contrasting with the paler brown of oak leaves.

Such an appetite have we for new life that we begin by nibbling the very crust of the earth. We betray our vegetable and animal nature and sympathies by our delight in water. We rejoice in the full rills, the melting snow, the copious spring rains and the freshets, as if

we were frozen earth to be thawed, or lichens and mosses, expanding and reviving under this influence.

The osier bark now, as usual, looks very yellow when wet, and the wild poplar very green.

P. M. — To Cliffs.

Those striped snakes of the 30th were found (several in all) on west side the railroad causeway, on the sand, which is very warm. It would seem, then, that they come out in such places soon after the frost is out. The railroad men who were cutting willows there to set on the sides of the Deep Cut, to prevent the gully-ing there, came across them.

The epigæa looks as if it would open in two or three days at least,<sup>1</sup> — showing much color and this form:



The flower-buds are protected by the withered leaves, oak leaves, which partly cover them, so that you must look pretty sharp to detect the first flower. These plants blossom by main strength, as it were, or the virtue that is in them, — not growing by water, as most early flowers, — in dry copses.

I see several earthworms to-day under the shoe of the pump, on the platform. They may have come up through the cracks from the well where the warm air has kept them stirring.

On the barren railroad causeway, of pure sand, grow chiefly sallows, a few poplars, and sweet-fern and blackberry vines.

When I look with my glass, I see the cold and sheeny snow still glazing the mountains. This it is which makes

<sup>1</sup> *Vide* 12th.

the wind so piercing cold. There are dark and windy clouds on that side, of that peculiar brushy or wispy character — or rather like sheafs — which denotes wind. They only spit a little snow at last, thin and scarcely perceived, like falling gossamer.

*April 5.* In running a line through a wood-lot in the southwest part of Lincoln to-day, I started from an old pine stump, now mostly crumbled away, though a part of the wood was still hard above ground, which was described in his [*sic*] deed of 1813 (forty-six years ago) as a pine stump. It was on the side of a hill above Deacon Farrar's meadow.

As I stood on a hill just cut off, I saw, half a dozen rods below, the bright-yellow catkins of a tall willow just opened on the edge of the swamp, against the dark-brown twigs and the withered leaves. This early blossom looks bright and rare amid the withered leaves and the generally brown and dry surface, like the early butterflies. This is the most conspicuous of the March flowers (*i. e.* if it chances to be so early as March). It suggests unthought-of warmth and sunniness. It takes but little color and tender growth to make miles of dry brown woodland and swamp look habitable and home-like, as if a man could dwell there.

Mr. Haines, who travelled over the lots with us this very cold and blustering day, was over eighty.

"What raw, blustering weather!" said I to my employer to-day. "Yes," answered he. "Did you see those two sun-dogs on Saturday?" They are a pretty sure sign of cold and windy weather.

*April 6.* Another remarkably windy day; cold north-west wind and a little snow spitting from time to time, yet so little that even the traveller might not perceive it.

For nineteen days, from the 19th of March to the 6th of April, both inclusive, we have had remarkably windy weather. For ten days of the nineteen the wind has been remarkably strong and violent, so that each of those days the wind was the subject of general remark. The first one of these ten days was the warmest, the wind being southwest, but the others, especially of late, were very cold, the wind being northwest, and for the most part icy cold. There have also been five days that would be called windy and only four which were moderate. The last seven, including to-day, have all been windy, five of them remarkably so; wind from northwest.<sup>1</sup>

The sparrows love to flit along any thick hedge, like that of Mrs. Gourgas's. Tree sparrows, *F. hyemalis*, and fox-colored sparrows in company.

A fish hawk sails down the river, from time to time almost stationary one hundred feet above the water, notwithstanding the very strong wind.

I see where moles have rooted in a meadow and cast up those little piles of the black earth.

*April 7.* The Cheney elm looks as if it would shed pollen to-morrow,<sup>2</sup> and the *Salix purpurea* will perhaps within a week.<sup>3</sup>

P. M. — Up Assabet with Pratt.

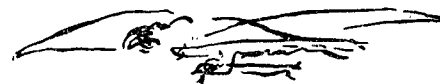
<sup>1</sup> Vide 10th. forward.

<sup>2</sup> No.

<sup>3</sup> Vide 13th.

Standing under the north side of the hill, I hear the rather innocent *phe phe, phe phe, phe phe, phe'* of a fish hawk (for it is not a scream, but a rather soft and innocent note), and, looking up, see one come sailing from over the hill. The body looks quite short in proportion to the spread of the wings, which are quite dark or blackish above. He evidently has something in his talons. We soon after disturb him again, and, at length, after circling around over the hill and adjacent fields, he alights in plain sight on one of the half-dead white oaks on the top of the hill, where probably he sat before. As I look through my glass, he is perched on a large dead limb and is evidently standing on a fish (I had noticed something in his talons as he flew), for he stands high and uneasily, finding it hard to keep his balance in the wind. He is disturbed by our neighborhood and does not proceed at once to eat his meal. I see the tail of the fish hanging over the end of the limb. Now and then he pecks at it. I see the white on the crown of the hawk. It is a very large black bird as seen against the sky. Soon he sails away again, carrying his fish, as before, horizontally beneath his body, and he circles about the adjacent pasture like a hawk hunting, though he can only be looking for a suitable place to eat his fish or waiting for us to be gone.

Looking under the limb on which he was perched, we find a piece of the skin of a sucker (?) or some other scaly fish which a hawk had dropped there long since.



No doubt many a fish hawk has taken his meal on that sightly perch.

It seems, then, that the fish hawk which you see soaring and sailing so leisurely about over the land — for this one soared quite high into the sky at one time — may have a fish in his talons all the while and only be waiting till you are gone for an opportunity to eat it on his accustomed perch.

I told Pratt my theory of the formation of a swamp on a hillside, but he thought that the growth of the alders, etc., there would not make the ground any more moist there, but less so, and stated that the soil (as he had noticed) was drier under rank grass in a mowing-field than at the same depth under a surface of bare and hot sand, because the grass took up the moisture from the soil.

I saw a hole (probably of a woodchuck) partly dug on the east side of the hill, and three or four large stones lay on the fresh sand-heap thrown out, which the woodchuck had pushed up from below. One was about six inches long by four or more wide and might weigh four pounds, and, looking into the hole, whose bottom I could not see, I saw another nearly as large about three feet down, on its way up. I have seen their holes dug in much worse places than this. This hole sloped downward at a considerable angle, so that the stones had to be pushed up a steep slope.

A small hawk flies swiftly past on the side of the hill, swift and low, apparently the same as that of April 3d, a deep rusty brown.

The woodchuck probably digs in a stony place that he may be the more secure.

I hear there the hovering note of a snipe at 4.30 P. M., — unusually early in the day.<sup>1</sup>

Find a *Sternotherus odoratus* so far from water on Simon Brown's knoll, where water has not been since about March 20th, that I think he was then washed and left there and has since lain in the ground. There are two or three small leeches on him, which may have adhered to him all winter. The white man's relics in the fields are like the Indian's, — pipes, pottery, and (instead of arrowheads) bullets.

*April 8. Friday.* I believe that I rarely hear the nuthatch's note from the elms toward evening, for when I heard it yesterday evening I was surprised.

P. M. — To epigæa and Well Meadow.

I see on the west side of the railroad causeway a peculiar early willow, now just beginning to bloom with the common *Salix discolor* there, perhaps (as I remember) some thirty rods beyond the wall, against A. Wheeler's land. The catkins (sterile) are peculiarly long and tapering, and grayish or mouse-

color, beginning to open low on one side, while the points have comparatively little down on them. I find no description of it. Perhaps rather more than one inch long.

The most decidedly opening first on one side near the base of any. Call it the gray bodkin-pointed.

As I stood by the foot of a middling-sized white pine

<sup>1</sup> Also the next day at 9 A. M. as much as ever, through the wind!





the other day, on Fair Haven Hill, one of the very windy days, I felt the ground rise and fall under my feet, being lifted by the roots of the pine, which was waving in the wind; so loosely are they planted.

We have had two more windy days, this and yesterday, though less so than the previous ones. We have had, most of the time, during this windy weather for a month past, when the wind was northwest, those peculiar brushy clouds which look as if a little snow or rain was falling in the northwest, but they prove to be wind chiefly. It has not rained, I think, with the wind in that quarter.

These windy days the sparrows resort to the pines and peach trees on the east side of our house for shelter, and there they sing all together, — tree sparrows, fox-colored sparrows, and song sparrows. The *F. hyemalis* with them do not sing so much of late. The first two are most commonly heard together, the fine canary-like twitter of the tree sparrow appearing to ripen or swell from time to time into the clear, rich whistle of the fox-colored sparrow, so that most refer both notes to one bird.

What a pitiful business is the fur trade, which has been pursued now for so many ages, for so many years by famous companies which enjoy a profitable monopoly and control a large portion of the earth's surface, unweariedly pursuing and ferreting out small animals by the aid of all the loafing class tempted by rum and money, that you may rob some little fellow-creature of its coat to adorn or thicken your own, that you may get a fashionable covering in which to hide your head,

or a suitable robe in which to dispense justice to your fellow-men! Regarded from the philosopher's point of view, it is precisely on a level with rag and bone picking in the streets of the cities. The Indian led a more respectable life before he was tempted to debase himself so much by the white man. Think how many musquash and weasel skins the Hudson's Bay Company pile up annually in their warehouses, leaving the bare red carcasses on the banks of the streams throughout all British America, — and this it is, chiefly, which makes it *British* America. It is the place where Great Britain goes a-mousing. We have heard much of the wonderful intelligence of the beaver, but that regard for the beaver is all a pretense, and we would give more for a beaver hat than to preserve the intelligence of the whole race of beavers.

When we see men and boys spend their time shooting and trapping musquash and mink, we cannot but have a poorer opinion of them, unless we thought meanly of them before. Yet the world is imposed on by the fame of the Hudson's Bay and Northwest Fur Companies, who are only so many partners more or less in the same sort of business, with thousands of just such loafing men and boys in their service to abet them. On the one side is the Hudson's Bay Company, on the other the company of scavengers who clear the sewers of Paris of their vermin. There is a good excuse for smoking out or poisoning rats which infest the house, but when they are as far off as Hudson's Bay, I think that we had better let them alone. To such an extent do time and distance, and our imagina-

tions, consecrate at last not only the most ordinary, but even vilest pursuits. The efforts of legislation from time to time to stem the torrent are significant as showing that there is some sense and conscience left, but they are insignificant in their effects. We will fine Abner if he shoots a singing bird, but encourage the army of Abners that compose the Hudson's Bay Company.

One of the most remarkable sources of profit opened to the Yankee within a year is the traffic in skunk-skins. I learn from the newspapers — as from other sources (*vide* Journal of Commerce in *Tribune* for April 5, 1859) — that “the traffic in skunk-skins has suddenly become a most important branch of the fur trade, and the skins of an animal which three years ago were deemed of no value whatever, are now in the greatest demand.” “The principal markets are Russia and Turkey, though some are sent to Germany, where they are sold at a large profit.” Furs to Russia! “The black skins are valued the most, and during the past winter the market price has been as high as one dollar per skin, while mottled skins brought only seventy cents.” “Upward of 50,000 of these skins have been shipped from this city [New York] alone within the past two months.” Many of them “are designed for the Leipsic sales, Leipsic being next to Novgorod, in Russia, the most important fur *entrepôt* in Europe. The first intimation received in this market of the value of this new description of fur came from the Hudson's Bay Company, which, having shipped a few to London at a venture, found the returns so profitable that

they immediately prosecuted the business on an extensive scale.” “The heaviest collections are made in the Middle and Eastern States, in some parts of which the mania for capturing these animals seems to have equalled the Western Pike's Peak gold excitement, men, women, and children turning out *en masse* for that purpose.” And beside, “our fur dealers also receive a considerable sum for the *fat* of these animals!!”

Almost all smile, or otherwise express their contempt, when they hear of this or the rat-catching of Paris, but what is the difference between catching and skinning the skunk and the mink? It is only in the name. When you pass the palace of one of the managers of the Hudson's Bay Company, you are reminded that so much he got for his rat-skins. In such a snarl and contamination do we live that it is almost impossible to keep one's skirts clean. Our sugar and cotton are stolen from the slave, and if we jump out of the fire, it is wont to be into the frying-pan at least. It will not do to be thoughtless with regard to any of our valuables or property. When you get to Europe you will meet the most tender-hearted and delicately bred lady, perhaps the President of the Antislavery Society, or of that for the encouragement of humanity to animals, marching or presiding with the scales from a tortoise's back — obtained by laying live coals on it to make them curl up — stuck in her hair, rat-skin fitting as close to her fingers as erst to the rat, and, for her cloak, trimmings perchance adorned with the spoils of a hundred skunks, — rendered inodorous, we trust. Poor mis-

guided woman! Could she not wear other armor in the war of humanity?

When a new country like North America is discovered, a few feeble efforts are made to Christianize the natives before they are all exterminated, but they are not found to pay, in any sense. But the energetic traders of the discovering country organize themselves, or rather inevitably crystallize, into a vast rat-catching society, tempt the natives to become mere vermin-hunters and rum-drinkers, reserving half a continent for the field of their labors. Savage meets savage, and the white man's only distinction is that he is the chief.

She says to the turtle basking on the shore of a distant isle, "I want your scales to adorn my head" (though fire be used to raise them); she whispers to the rats in the wall, "I want your skins to cover my delicate fingers;" and, meeting an army of a hundred skunks in her morning walk, she says, "worthless vermin, strip off your cloaks this instant, and let me have them to adorn my robe with;" and she comes home with her hands muffled in the pelt of a gray wolf that ventured abroad to find food for its young that day.

When the question of the protection of birds comes up, the legislatures regard only a low use and never a high use; the best-disposed legislators employ one, perchance, only to examine their crops and see how many grubs or cherries they contain, and never to study their dispositions, or the beauty of their plumage, or listen and report on the sweetness of their song. The legislature will preserve a bird professedly not because it is a beautiful creature, but because it is a good sea-

venger or the like. This, at least, is the defense set up. It is as if the question were whether some celebrated singer of the human race — some Jenny Lind or another — did more harm or good, should be destroyed, or not, and therefore a committee should be appointed, not to listen to her singing at all, but to examine the contents of her stomach and see if she devoured anything which was injurious to the farmers and gardeners, or which they cannot spare.<sup>1</sup>

Cold as it is, and has been for several weeks, in all exposed places, I find it unexpectedly warm in perfectly sheltered places where the sun shines. And so it always is in April. The cold wind from the northwest seems distinct and separable from the air here warmed by the sun, and when I sit in some warm and sheltered hollow in the woods, I feel the cold currents drop into it from time to time, just as they are seen to ripple a small lake in such a situation from time to time.

The epigæa is not quite out. The earliest peculiarly woodland herbaceous flowers are epigæa, anemone, thalictrum, and — by the first of May — *Viola pedata*. These grow quite in the woods amid dry leaves, nor do they depend so much on water as the very earliest flowers. I am, perhaps, more surprised by the growth of the *Viola pedata* leaves, by the side of paths amid the shrub oaks and half covered with oak leaves, than by any other growth, the situation is so dry and the surrounding bushes so apparently lifeless.

I noticed the other day a leaf on a young oak very

<sup>1</sup> Vide April 21st.

rapidly revolving like a windmill, in the wind, not around its midrib for an axis, but about its broken stem, and I saw that this was the way those curiously broken and twisted and splintered petioles were made. It went round so fast as almost to appear like a circular figure.

I find that the cress (*Cardamine hirsuta*) which was so forward at Well Meadow a fortnight ago has been almost entirely browsed off by some creature, so that, if I had not detected it, I might have been surprised that it made no more show. The skunk-cabbage leaf-buds, which have just begun to unroll, also have been extensively eaten off as they were yet rolled up like cigars. These early greens of the swamp are thus kept down. Is it by the rabbit? I could see the tracks of some animal, apparently as large, very indistinct in the mud and water. Also an early kind of sedge there was cropped. The only animals at all likely to have done this are rabbits, musquash, woodchuck (though I doubt if the last has been about here long enough), and geese. Of these, I think it most likely to have been the first, and probably it was the same that gnawed the spathes and ate up the spadix of the cabbage some weeks ago. Woodchucks might nibble some plants now in warmer and drier places. These earliest greens must be very acceptable to these animals. Do partridges ever eat these things?

The *Alnus serrulata* is evidently in its prime considerably later than the *incana*, for those of the former which I notice to-day have scarcely begun, while the latter chance to be done. The fertile flowers are an interesting bright crimson in the sun.

C. says that he found a musquash's skull (which he showed me) at the fox-burrow in Laurel Glen, from which it would appear that they kill the musquash.

See the first bay-wing hopping and fitting along the railroad bank, but hear no note as yet.

I saw Heavy Haynes fishing for trout down the Mill Brook this morning, cold and blustering as it was. He caught two. He is splitting pine-knots at the alms-house door for spearing. Has already been spearing in Walden, and got some pickerel, all in the two little meadows there, and saw some pouts and perch. So the pickerel have come into those meadows, probably since January, for the bars were dry before. Perhaps they lie in shallow water, not for warmth, — for it is coldest there by night now, — but for food, the early insects and frogs which may soonest be found there!

#### *April 9. P. M. — To Goose Pond.*

The wind is as strong, and yet colder, being more from the north, than before. Through, I think, all this windy weather, or at least for about three weeks, the wind has regularly gone down with the sun, strong as it has been each day.

As we go up the hill in the woods east of Hubbard's Close, I hear a singular sound through the roaring of the wind amid the trees, which I think at first some creature forty rods off, but it proves to be the creaking of one bough on another. When I knew what it was I was surprised to find it so near, even within a rod. It was occasioned by two little dead limbs, an inch or less in diameter, on two different white pines

which stood four or five feet apart, — such limbs as are seen on every white pine below the living ones, some twelve feet from the ground. These with every motion of the trees in the wind were grating back and forth on each other, and had worn into one another, and this produced, not a mere coarse, grating sound, but a perfect viol sound, such as I never heard from trees before, — a jarring or vibratory creak, as if the bow leaped on the strings, for one limb was bow and the other string. It was on one key or note when the trees approached, and quite another and very fine and sharp when they receded. I raised one limb with a pole, and the music ceased. This was as musical as a viol, a forest viol, which might have suggested that instrument to some Orpheus wandering in the wood. He would only have to place a box of resonant wood beneath to complete a simple viol. We heard several others afterward which made a coarse, squeaking noise like a bird, but this would have suggested music to any one. It was mythologic, and an Indian might have referred it to a departed spirit. The fiddles made by the trees whose limbs cross one another, — played on by the wind! When we listened, in the wood, we heard all kinds of creaking and groaning sounds from the laboring trees.

We go seeking the south sides of hills and woods, or deep hollows, to walk in this cold and blustering day. We sit by the side of Little Goose Pond, which C. calls Ripple Lake or Pool, to watch the ripples on it. Now it is nearly smooth, and then there drops down on to it, deep as it lies amid the hills, a sharp and nar-

row blast of the icy north wind careering above, striking it, perhaps, by a point or an edge, and swiftly spreading along it, making a dark-blue ripple. Now four or five windy bolts, sharp or blunt, strike it at once and spread different ways. The boisterous but playful north wind evidently stoops from a considerable height to dally with this fair pool which it discerns beneath. You could sit there and watch these blue shadows playing over the surface like the light and shade on changeable silk, for hours. It reminds me, too, of the swift Camilla on a field [of] grain. The wind often touches the water only by the finest points or edges. It is thus when you look in some measure from the sun, but if you move round so as to come more opposite to him, then all these dark-blue ripples are all sparkles too bright to look at, for you now see the sides of the wavelets which reflect the sun to you.

A large fox-hole in Britton's hollow, lately dug; an ox-cartload of sand, or more, thrown up on the hill-side.

Watching the ripples fall and dash across the surface of low-lying and small woodland lakes is one of the amusements of these windy March and April days. It is only on small lakes deep sunk in hollows in the woods that you can see or study them these days, for the winds sweep over the whole breadth of larger lakes incessantly, but they only touch these sheltered lakelets by fine points and edges from time to time.

And then there is such a fiddling in the woods, such a viol-creaking of bough on bough, that you would think music was being born again, as in the days of

Orpheus. Orpheus and Apollo are certainly there taking lessons; aye, and the jay and the blackbird, too, learn now where they stole their "thunder." They are perforce silent, meditating new strains.

When the playful breeze drops on the pool, it springs to right and left, quick as a kitten playing with dead leaves, clapping her paw on them. Sometimes it merely raises a single wave at one point, as if a fish darted near the surface. While to you looking down from a hillside partly from the sun, these points and dashes look thus dark-blue, almost black, they are seen by another, standing low and more opposite to the sun, as the most brilliant sheeny and sparkling surface, too bright to look at. Thus water agitated by the wind is both far brighter and far darker than smooth water, seen from this side or that, — that is, as you look at the inclined surface of the wave which reflects the sun, or at the shaded side. For three weeks past, when I have looked northward toward the flooded meadows they have looked dark-blue or blackish, in proportion as the day was clear and the wind high from the northwest, making high waves and much shadow.

We can sit in the deep hollows in the woods, like Frosty Hollow near Ripple Lake, for example, and find it quite still and warm in the sun, as if a different atmosphere lurked there; but from time to time a cold puff from the rude Boreas careering overhead drops on us, and reminds us of the general character of the day. While we lie at length on the dry sedge, nourishing spring thoughts, looking for insects, and counting the rings on old stumps.

These old gray or whitish stumps, with their porous structure where the ducts are seen, are very much like bones, — the bones of trees. I break a little cube out of this old oak stump, which was sawed off some thirty years ago, and which has about one hundred rings, — a piece sharply square-cornered and exactly the form of a square bunch of matches; and, the sawed end being regularly channelled by time in the direction of the ducts and of the silver grain, it looks precisely like the loose ends, or dipped end of the bunch, and would be mistaken for such on any shelf.

Those ripple lakes lie now in the midst of mostly bare brown or tawny dry woodlands, themselves the most living objects. They may say to the first woodland flowers, We played with the north winds here before ye were born.<sup>1</sup>

*April 10.* A calm day at last, the water almost smooth and now so low that I cannot cross the meadows. So ends the spring freshet (apparently), which began (not to include the winter one) March 8th and was at its height the 17th and 18th. It has lasted a month, and to-day, too, ends the windy spell. Since the 6th (*q. v.*) there have been two days, the 7th and 8th, of strong northwest wind, and one, the 9th, of very strong and yet colder and more northerly wind than before. This makes twenty-two days of windy weather in all, reckoning only from the last still days (the 17th and 18th of March) and not including to-day. Of these, eleven days have been of very strong and cold northwest wind,

<sup>1</sup> [Channing, p. 95.]

the last, or yesterday, more northerly, — except the first, when the wind was southwest, — seven of strong wind and generally northwest, and four only of moderate wind. We had rain on the 18th, 22d, 24th, 25th, 29th of March, and 3d of April, and always with an easterly or southerly wind; or as often as the wind came from the east or south it brought rain, with generally considerable wind driving it, and it invariably cleared off cold with a wind from the northwest. The wind has regularly gone down with the sun, and risen again with it. It has been so strong as to interfere with all outdoor occupations. Yet I have not observed a single tree which was blown down by it.

P. M. — Paddle to Well Meadow.

I see some remarkable examples of meadow-crust floated off on the A. Wheeler meadow and above, densely covered with button-bushes and willows, etc. One sunk in five feet of water on a sandy shore, which I must examine again.

I hear of a cinquefoil found in bloom on the 8th. It was in this sprout-land, where it was protected. This, with bluets, mouse-ear, and *Viola ovata* (of the herbaceous plants), I should call pasture flowers (among those of March and April).

I might class the twenty-two herbaceous flowers which I have known to be open before the first of May thus: —

<i>Garden flowers</i>	Chickweed and shepherd's-purse.
<i>Meadow flowers</i>	Skunk-cabbage, caltha, chrysosplenium, dandelion, strawberry, <i>Viola cucullata</i> , <i>Ranunculus repens</i> (?).
<i>Rock flowers</i>	Saxifrage, crowfoot, columbine, and tower-mustard.

*Woodland flowers* Epigaea, anemone, and thalictrum.

*Pasture flowers* Cinquefoil, bluets, mouse-ear, and *Viola sagittata*.

*Water flowers* *Callitriche verna* and nuphar.

The woody plants — trees and shrubs — might be arranged under three heads, viz.: —

<i>Wet Land</i>	<i>Dry Land</i>	<i>Intermediate</i>
Alders, both (?)	Aspens	Elms
White maple	Hazels	Red maple
Most willows	Arbutus	Peach
Sweet-gale	(?) Arbor-vitæ	Abele
Benzoin	Red cedar	Cultivated cherry
Cassandra	Fir-balsam	
White alder [?]	(?) Sweet-fern	
Larch	Shad-bush	
	<i>Salix humilis</i>	
	<i>S. tristis</i>	
	<i>S. rostrata</i>	
	Yew	

The hellebore buds [?] are quite conspicuous and interesting to-day, but not at all unrolled, though six or eight inches high.

The *Alnus serrulata* appears to grow on drier land than the other sometimes.

See a kingfisher flying very low, in the ricochet manner, across the water. Sheldrakes and gulls and black ducks still.

Hear the first stuttering frog croak — probably *halecina* — in the last Cassandra Pond.

*April 11.* Rain all day.

*April 12.* Clears up in afternoon.

P. M. — Paddle to Cliffs.

I saw a minnow on the 10th which looked like a


young brook minnow, not one inch long. When was it spawned?

The small alder (*A. serrulata*) is sometimes yellow-flowered, sometimes reddish-flowered. It grows with the *incana* at Cardinal Shore.

I see where the musquash has eaten the white base of the *pontederia* leaves. I first perceived the pickerel dart on the 10th, the river having gone down so much that you could not cross the meadows, and that being the first really warm and pleasant day since March 17th.

Saw a duck, apparently a sheldrake, at the northeast end of Cyanean Meadow. It disappeared at last by diving, and I could not find it. But I saw what looked like a ripple made by the wind, which moved slowly down the river at least forty rods toward the shore and there disappeared. Though I saw no bird there, I suspect that the ripple was made by it. Two sheldrakes flew away from this one when first observed. Why did this remain? Was it wounded? Or can those which dart so swiftly across the river and dive be another species and not the young of the season or females of the common one? Is it not, after all, the red-breasted merganser, and did I not see them in Maine?

I see half a dozen sheldrakes very busily fishing around the base of Lupine Hill or Promontory. There are two full-plumaged males and the rest females, or perhaps some of them young males. They are coasting along swiftly with their bodies sunk low and their heads half under, looking for their prey, one behind another, frequently turning and passing over the same ground

again. Their crests are very conspicuous, thus:  When one sees a fish he at first swims rapidly after it, and then, if necessary, flies close over the water after it, and this excites all the rest to follow, swimming or flying, and if one seizes the fish, which I suspect is commonly a pickerel, they all pursue the lucky fisher, and he makes the water fly far in his efforts to get away and gulp down his fish. I can see the fish in his bill all the while, and he must swallow it very skillfully and quickly, if at all. I was first attracted to them by seeing these great birds rushing, shooting, thus swiftly through the air and water and throwing the water high about them. Sometimes they dive and swim quietly beneath, looking for their game. At length they spy me or my boat, and [I] hear a faint quack indicative of alarm, and suddenly all arise and go off. In the meanwhile I see two black ducks sailing with them along the shore. These look considerably smaller, and of course carry their heads more erect. They have a raw, gosling look beside the others, and I see their light bills against their dusky necks and heads. At length, when I get near them, I hear their peculiar quack also, and off they go. The sheldrakes appear to be a much more lively bird than the black duck. How different from the waddling domestic duck! The former are all alive, eagerly fishing, quick as thought, as they need to be to catch a pickerel.

I look again at the meadow-crust carried off by the ice. There is one by the railroad bridge, say three rods by one, covered with button-bushes and willows. Another, some five rods by three, at the south end of



Potter Swamp Meadow, also covered densely with button-bushes, etc. It is far from the river, by the edge of the wood. Another, and the most interesting one, lies up high some thirty rods north of this near the wood-side and fifteen rods from the river. I measure it with a tape. It is rudely triangular and about four rods on a side, though the sides are longer on the convex line. As well as the other, it is from one to three feet thick and very densely covered with button-bushes, with a few black and other willows and late roses from four to seven feet high. As dense and impassable as any kind of thicket that we have, and there are, besides, countless great yellow and white lily and pond-tederia roots in it. It is a large and densely bushy island in the meadow. It would surprise any one to behold it. Suppose that you were to find in the morning such a slice of the earth's crust with its vegetation dropped in your front yard, if it could contain it. I think we should not soon hear the last of it. It is an island such as might almost satisfy Sancho Panza's desires. It is a forest, in short, and not a very small one either. It is Birnam wood come to Dunsinane. It contained at least eight square rods.

There was another piece covered in like manner, some five rods long and three wide, sunk off Cardinal Shore on a hard sandy bottom, and so deep that its whole size did not appear above water. I could not touch the bottom with my oars on the outside. This no one would have detected for an immigrant or new-come land unless very familiar with the shore, for if the raw edge is concealed it looks exactly as if it grew

there like the others near by. There was a strip without anything but grass on it, some five rods long by twenty feet wide, and two pieces making as much more in length end to end with it on the [sic]. In all there must have been from a third to half an acre on this single meadow, which came from far up-stream, I could not tell from where. I saw more up the stream, and they were all dropped nearly in a line on the east side for half a mile or more.

Such revolutions can take place and none but the proprietor of the meadow notice it, for the traveller passing within sight does not begin to suspect that the bushy island which he sees in the meadow has floated from elsewhere, or if he saw it when on its voyage, he would not know it for a voyager. In one year all the raw edge is concealed, and the vegetation thus transplanted does not appear to find it out. These must have been carried off about the 16th of March or when the river broke up, perhaps in that strong southwest wind of the 19th. The ice, being eighteen or twenty inches thick and having ten thousand strong handles to take hold by, aided too often by the lightness of the frozen meadow, can easily lift these masses, and if there were rocks imbedded in them, would move them also. For the cake of ice may be a dozen rods or more in breadth. These have generally grounded high on the meadows, where the lilies, etc., will all die. Indeed, most of them have already been killed by frost, and probably the button[-bush] will much of it die too. Also that which has sunk in deep water will die. I saw one piece a rod wide nearly in the middle of the river, and detected it only

by the top [of] a few twigs seen above the surface. The willows or osiers will do well, and the roses, wherever they may lodge on the banks or in the meadow, but the button-bush must stand immediately on the edge of the river or other water, and there they are most likely to be placed.

The present islands, bushy or wooded, in the meadow have no doubt commonly had this origin. The soil is there doubled, and so elevated, and the plants set out at the same time. The surface being at once elevated one to three feet for four rods or more, though the button-bush dies, willows will live and maples and alders, etc., spring up there. When the flood comes with icy hands you have got a mighty lifter at work. Black willows ten feet high and these four or five rods of button-bushes are all taken up together with their soil and carried upright and without jarring to a new locality half a mile or more distant.

I observe that different meadows are at different levels above the river. The great Sudbury meadows are low. Cyanean Meadow is generally higher than the ammannia meadow. I can cross the last still, but not the first. The surface has been much taken off the last by the ice, and perhaps more has lodged on the other. Mantatuket Meadow appears to be about the height of Cyanean Meadow generally, or hardly so low. The Potter Swamp Meadow is lower than any that I have named in Concord. Perhaps those valleys parallel with the river are where the water has swept off the meadow-crust the most, and not old channels? It is evident that this transportation of the meadow

surface affects the relative height of the meadows very much.

Some meadows are now saved by the causeways and bridges and willow-rows. Though there were a hundred pieces in Potter Swamp Meadow, there were none in the meadow this side the causeway. Probably more meadow, etc., was transported two hundred years ago than to-day there, when the river, at high water especially, was less obstructed. This is the origin of almost all inequalities of surface in the meadows, and it is impossible to say how many of the clumps of bushes you see there have been thus transplanted.

As for that mass which sunk in deep water off Cardinal Shore, the cake of ice which transported it may have struck the shore many rods from its burden and melted in that position.

Consider what a new arrangement of the clumps in the mead is thus made every year. The revolution from each source is now confined to the space between two causeways and bridges, or two willow-rows, while formerly it was only confined by the form or dimensions of the meadow.

I find, on that most interesting mass of meadow and button-bushes, or the top of a sort of musquash-mound, a very peculiar stereus, precisely like a human one in size and form and color externally, so that I took it for such. But it was nearly inodorous and contained some fish-scales, and it was about the color of fireproof-brick dust within. I think it was that of an otter, quite fresh.

I hear that the epigæa is no more forward than on the 8th.

Pine warblers heard in the woods by C. to-day. This, except the pigeon woodpecker and pigeon and hawks, as far as they are migratory, is the first that I should call woodland (or dry woodland) birds that arrives. The red-wings generally sit on the black willows and the swamp white oaks and maples by the water, and sing *o-gurgle-ee* this evening, as if glad to see the river's brink appearing again and smooth waters also. The grackles are feeding on the meadow-edge.

*April 13.* A little snow fell on the 11th with the rain, and on some very warm banks, the south sides of houses and hills, the grass looked quite green by contrast in spots.

The streets are strewn with the bud-scales of the elm, which they, opening, have lost off, and their tops present a rich brown already. I hear a purple finch on one, and did I not hear a martin's<sup>1</sup> rich warble also? The birds are not so early now as I should have expected. Were they not deterred from coming north by the very strong and cold northwest wind, notwithstanding that the ground has been bare so long? The *Salix purpurea* will hardly open for five days yet.<sup>2</sup>

P. M. — Paddle to Ball's Hill and sail back.

I see the small botrychium fresh and yellow still, so it is as much an evergreen as any fern.

It is pleasant and pretty warm. To-day is the awakening of the meadows now partly bare. I hear the stuttering note of probably the *Rana hylecinia* (see one by shore) come up from all the Great Meadow,

<sup>1</sup> Probably a white-bellied swallow.

<sup>2</sup> *Vide 23d.*

especially the sedgy parts, or where the grass was not cut last year and now just peeps above the surface. There is something soothing and suggestive of halcyon days in this low but universal breeding-note of the frog. Methinks it is a more unmistakable evidence of warmer weather — of the warmest we have at this date — than almost anything else. The hylodes and wood frogs are other degrees on the thermometer of the season, indicating that the weather has attained a higher temperature than before and winter fairly ended, but *this* note marks what you may call April heat (or spring heat).

I see no ducks on the meadows to-day, perhaps because there is so much less water and it is so fair.

Saw a great bird flying rather low and circling more or less over the Great Meadows, which I at first thought was a fish hawk, having a fair sight of it from Ball's Hill, but with my glass I saw that it was a gull, but, I should say, wholly slate-color and dark at that, — though there may have been small spots which made no impression of another color. It was at least as large, maybe larger than the herring gull. Was it the saddle-back gull?

Is that a potamogeton, or a pontederia, or a sium, coming up so thickly now on the bottom of the river near the shore, especially on a grassy bottom, with two little roundish leaflets becoming spatulate, and a seed triangular and pointed with one side more flat than the others?

*April 14.* Wind was easterly yesterday; hence snow

and rain to-day. I think that this is the seventh rain-storm (as I reckon), beginning with the 18th of March, which resulted from the wind becoming easterly on the previous day, after having been in each instance but one northwest the day before, and that once the previous day was quite calm.

There are many worm holes or piles in the doorway this forenoon. How long?

Transplanting currant bushes to-day, I find that, though the leaf-buds have not begun to open, white shoots have shot up from the bottom of the stocks two to four inches, far below the surface as yet, and I think that they have felt the influence of the season, not merely through the thawed ground, but through that portion of the plant above ground. There is this growth at the root in early spring, preceding any visible growth above ground.

*April 15.* Ground white with snow this morning, but it melts in a few hours, and, the sun coming out, I observe, after it is gone, much bluish vapor curling up from plowed ground, looking like a smoke there, but not from ground not recently plowed or from grass ground. Is it that the plowed ground is warmer, or merely that it has absorbed more moisture? Perhaps the sun penetrates it and so warms it more, since it lies up lighter. It is a very noticeable phenomenon, at any rate, that only the ground just plowed thus smokes.

P. M. — To Cliffs and Well Meadow.

There is quite a shimmer in the air, the day being

pretty warm, but methinks it is a little greater over plowed ground than over sod, but I see it in woods as high as the tree-tops. M. [?] Pratt refers it chiefly to heat, as about a stove, and thinks I should [see] the most over the driest sand, and it occurs to me that if it is chiefly owing to evaporation I ought to see considerable over water, but I believe that I do not. Carpenter refers it (in part, at least) to the exhalation of plants, but they are not now exhaling, — not leafed or leafing as yet. I am uncertain, therefore, whether to regard [*sic*] the earliest shimmer in the spring, on pleasant days, to heated air in motion or to vapor raised by heat into the air. (*Vide* back to April 10th.)

I see and hear white-bellied swallows as they are zigzagging through the air with their loud and lively notes. I am pretty sure it was these and not the martin I heard on the 13th.

The bay-wing now sings — the first I have been able to hear — both about the Texas house and the fields this side of Hayden's, both of them similar dry and open pastures. I heard it just before noon, when the sun began to come out, and at 3 p. m., singing loud and clear and incessantly. It sings with a pleasing deliberation, contrasting with the spring vivacity of the song sparrow, whose song many would confound it with. It comes to revive with its song the dry uplands and pastures and grass-fields about the skirts of villages. Only think how finely our life is furnished in all its details, — sweet wild birds provided to fill its interstices with song! It is provided that while we are employed in our corporal, or intellectual, or other,

exercises we shall be lulled and amused or cheered by the singing of birds. When the laborer rests on his spade to-day, the sun having just come out, he is not left wholly to the mercy of his thoughts, nature is not a mere void to him, but he can hardly fail to hear the pleasing and encouraging notes of some newly arrived bird. The strain of the grass finch is very likely to fall on his ear and convince him, whether he is conscious of it or not, that the world is beautiful and life a fair enterprise to engage in. It will make him calm and contented. If you yield for a moment to the impressions of sense, you hear some bird giving expression to its happiness in a pleasant strain. We are provided with singing birds and with ears to hear them. What an institution that! Nor are we obliged to catch and cage them, nor to be bird-fanciers in the common sense. Whether a man's work be hard or easy, whether he be happy or unhappy, a bird is appointed to sing to a man while he is at his work.

Consider how much is annually spent on the farmer's life: the beauty of his abode, which has inspired poets since the world was made; the hundreds of delicate and beautiful flowers scattered profusely under his feet and all around him, as he walks or drives his team afield, — he cannot put his spade into uncultivated, nor into much cultivated, ground without disturbing some of them; a hundred or two of equally beautiful birds to sing to him morning and evening, and some at noonday, a good part of the year; a perfect sky arched over him, a perfect carpet spread under him, etc., etc.! And can the farmer speak or think carelessly

of these gifts? Will he find it in his heart to curse the flowers and shoot the birds?

Hear a goldfinch, after a loud mewing on an apple tree, sing in a rich and varied way, as if imitating some other bird.

Observe in the small shallow rills in the sandy road beyond the Smallpox Burying-Ground, made by the snow of the morning, now melted, very interesting ripples over a pebbly or uneven bottom on this side or that. The beauty of these little ripples was occasioned by their shadows amid the bright water. They were so arranged with remarkable order as to resemble the bright scales of a portion of a snake's skin, thus:

with geometrical regularity, seven or eight parallel rows in a triangular form, successively diminishing in size. The ripple is occasioned merely by the impetuosity of the water meeting some slight obstacle. Thus you see in the very ripples on a rill a close resemblance in arrangement to the bright scales of a fish, and it [would] greatly help to conceal a fish if it could lie under them. The water was generally less than an inch deep on a sandy bottom.



The warm pine woods are all alive this afternoon with the jingle of the pine warbler, the for the most part invisible minstrel. That wood, for example, at the Punk Oak, where we sit to hear it. It is surprising how quickly the earth, which was covered half an inch deep this morning, and since so wet, has become comparatively dry, so that we sit on the ground or on the dry leaves in woods at 3 p. m. and smell the pines and see and

hear the flies, etc., buzz about, though the sun did not come out till 12 M. This morning, the aspect of winter; at mid-forenoon, the ground reeking with moisture; at 3 P. M., sit on dry leaves and hear the flies buzz and smell the pines! That wood is now very handsome seen from the westerly side, the sun falling far through it, though some trunks are wholly in shade. This warbler impresses me as if it were calling the trees to life. I think of springing twigs. Its jingle rings through the wood at short intervals, as if, like an electric shock, it imparted a fresh spring life to them.<sup>1</sup> You hear the same bird, now here now there, as it incessantly flits about, commonly invisible and uttering its simple jingle on very different keys, and from time to time a companion is heard farther or nearer. This is a peculiarly summer-like sound. Go to a warm pine wood-side on a pleasant day at this season after storm, and hear it ring with the jingle of the pine warbler.

As I sit on the stump of a large white pine which was sawed off, listening to these warblers, in a warm sun, I see a fair-weather cloud going over rather low, and hear the flies buzz about me, and it reminds me of those long-drawn summer days when you lie out-of-doors and are more related to the clouds travelling over. The summer clouds, the thunder-cloud especially, are nearer to us than the clouds of winter.

When we go huckleberrying, the clouds are our fellow-travellers, to greet or avoid. I might say the clouds have come. I perceive that I am in the same apartment with them.

<sup>1</sup> [Channing, p. 95.]

Going up a mountain is like travelling half a day through a tan-yard, till you get into a fog, and then, when the fog blows away, you discover yourself and a buzzing fly on the sunny mountain-top.

The wood thrush! At Well Meadow Head. Not being prepared to hear it, I thought it a boy whistling at first. Also a catbird mews?<sup>1</sup>

The epigæa opened, apparently, the 13th.

*April 16.* Sheldrakes yet on Walden, but I have not identified a whistler for several weeks, — three or more.

*April 17. Sunday. P. M.* — Up Assabet.

The river, which had got down on the 10th so that I could not cross the meadows, is up again on account of snow and rain, so that I push with difficulty straight to Mantatuket's Rock, but, I believe, is already falling. Many grackles and robins are feeding on those strips of meadow just laid bare. It is still rather cold and windy, and I listen for new birds under the lee of the Rock woods in vain; but I hear the hum of bees on a willow there, and this fine susurrus makes the weather seem warmer than it is. At the same time I hear the low stuttering of the *Rana halecina* from the Hunt meadow (call it the Winthrop meadow).

How pleasing and soothing are some of the first and least audible sounds of awakened nature in the spring, as this first humming of bees, etc., and the stuttering of frogs! They cannot be called musical, — are no

<sup>1</sup> Could this have been a goldfinch? (Not seen.)

more even than a noise, so slight that we can endure it. But it is in part an expression of happiness, an ode that is sung and whose burden fills the air. It reminds me of the increased genialness of nature. The air which was so lately void and silent begins to resound as it were with the breathing of a myriad fellow-creatures, and even the unhappy man, on the principle that misery loves company, is soothed by this infinite din of neighbors. I have listened for the notes of various birds, and now, in this faint hum of bees, I hear as it were the first twittering of the bird Summer. Go ten feet that way, to where the northwest wind comes round the hill, and you hear only the dead mechanical sound of the blast and your thoughts recur to winter, but stand as much this way in the sun and in the lee of this bush, and your charmed ears may hear this faint susurrus weaving the web of summer. The notes of birds are interrupted, but the hum of insects is incessant. I suppose that the motion of the wings of the small tipulidæ which have swarmed for some weeks produced a humming appreciated by some ears. Perhaps the phœbe heard and was charmed by it. Thus gradually the spaces of the air are filled. Nature has taken equal care to cushion our ears on this finest sound and to inspire us with the strains of the wood thrush and poet. We may say that each gnat is made to vibrate its wings for man's fruition. In short, we hear but little music in the world which charms us more than this sound produced by the vibration of an insect's wing and in some still and sunny nook in spring.

A wood tortoise on bank; first seen, water so high.

I heard lately the voice of a hound hunting by itself. What an awful sound to the denizens of the wood! That relentless, voracious, demonic cry, like the voice of a fiend! At hearing of which, the fox, hare, marmot, etc., tremble for their young and themselves, imagining the worst. This, however, is the sound which the lords of creation love to accompany and follow, with their bugles and "mellow horns" conveying a similar dread to the hearers instead of whispering peace to the hare's palpitating breast.

A partridge drums.

*April 18.* 8 A. M. — To the south part of Acton, surveying, with Stedman Buttrick.

When B. came to see me the other evening, and stood before the door in the dark, my mother asked, "Who is it?" to which he replied, quite seriously, "Left-tenant [*sic*] Stedman Buttrick."

B. says that he shot some crossbills which were opening pine cones in the neighborhood of the Easterbrook place some years ago, that he saw two *dildees* [*sic*] here as much as a month ago at least, and that they used to breed on that island east of his house, — I think he called it Burr's Island. He sees the two kinds of telltale here. Once shot an eider duck here. Has often shot the pintail (he calls it spindle-tail) duck here. Thinks he has killed four (!) kinds of teal here. Once shot a sheldrake which had a good-sized sucker in its throat, the tail sticking out its bill, so that, as he thought, it could not have flown away with it. It was a full-plumaged male. Once, in the fall, shot a mackerel

gull on what I call Dove Rock. Once shot a *whole flock* of little ducks not more than two thirds the size of a pigeon, yet full-grown, near the junction of the two rivers. Also got two ducks, the female *all* white and the male with a long and conspicuous bottle-green crest above the white. Looked through Audubon, but could find no account of them. Sees two kinds of gray ducks, one larger than a black duck. Has seen the summer duck here carrying its young to the water in her bill, as much as thirty rods. Says that teal have bred here.

His boy found, one February, as much as a peck of chestnuts in different parcels within a short distance of one another, just under the leaves in Hildreth's chestnut wood, placed there, as he says, by the chip-squirrel, which they saw eating them. He has seen the cross fox here.

I am looking for acorns these days, to sow on the Walden lot, but can find very few sound ones. Those which the squirrels have not got are mostly worm-eaten and quite pulverized or decayed. A few which are cracked at the small [end], having started last fall, have yet life in them, perhaps enough to plant. Even these look rather discolored when you cut them open, but Buttrick says they will do for pigeon-bait. So each man looks at things from his own point of view. I found by trial that the last or apparently sound acorns would always sink in water, while the rotten ones would float, and I have accordingly offered five cents a quart for such as will sink. You can thus separate the good from the bad in a moment. I am not sure,

however, but the germs of many of the latter<sup>1</sup> have been injured by the frost.

Hear a field sparrow.

Ed. Emerson shows me his aquarium. He has two minnows from the brook, which I think must be the banded minnow; a little more than an inch long with very conspicuous broad black transverse bars. Some *Rana sylvatica* spawn just begun to flat out. Also several kinds of larvæ in the water, — one very like a dragon-fly, with three large feather-like appendages to the tail, small gyrinus, which he says nibbled off the legs of the skater (?), etc., etc., but no dragon-



fly grubs. Two salamanders, one from Ripple Lake and the other from the pool behind my house that was. One some four inches long, with a carinated and waved (crenated) edged tail as well as light-vermilion spots on the back, evidently the *Salamandra dorsalis*. (This I suspect is what I called *S. symmetrica* last fall.) (This is pale-brown above.) The other two thirds as large, a very handsome bright orange salmon, also with vermilion spots, which must be the true *S. symmetrica*. Both thickly sprinkled with black dots. The latter's tail comparatively thick and straight-edged.

Haynes (Heavy) says that trout spawn twice in a year, — once in October and again in the spring.

<sup>1</sup> [That is, such as will sink. The sentence "You . . . moment" was written afterward and inserted over a caret.]



Saw snow ice a yard across to-day under the north side of a wood.

*April 19.* Was it a vireo I heard this forenoon on the elms?

Channing sees the same small flock of sheldrakes, three birds, in Walden still. They have been there a week or two, but I cannot see them the 22d.

P. M. — Began to set white pines in R. W. E.'s Wyman lot.

*April 20.* Hear and see my ruby-crowned or crested wren singing at 6 A. M. on Wheildon's pines.

Setting pines all day.

*April 21.* Setting pines all day. This makes two and a half days, with two men and a horse and cart to help me. We have set some four hundred trees at fifteen feet apart diamondwise, covering some two acres. I set every one with my own hand, while another digs the holes where I indicate, and occasionally helps the other dig up the trees. We prefer bushy pines only one foot high which grow in open or pasture land, yellow-looking trees which are used to the sun, instead of the spindling dark-green ones from the shade of the woods. Our trees will not average much more than two feet in height, and we take a thick sod with them fifteen to eighteen inches in diameter. There are a great many more of these plants to be had along the edges and in the midst of any white pine wood than one would suppose. One man charged us five or six cents for them

about a mile and a half distant! Got about one hundred and twenty from George Heywood's land and the rest from the Brister lot and this Wyman lot itself.

R. W. E. has bought a quarter of a pound of white pine seed at \$4.00 per pound.

We could not dig up pines on the north side of the wood on the Brister lot to-day on account of frost! Though we had quite forgotten it, and put the winter so far behind us.

See the *Vanessa Antiopa*. C. has seen it a week or so. C. sees a cicindela to-day. I hear of a robin's nest begun, and that geese go over to-day.

Put out a fire in the woods, the Brister lot. Quite a warm day.

Storer's account of the salamanders concludes with these words, "All the salamanders here described, feed upon insects, which they devour in very large numbers, and hence their utility cannot be questioned." The same might be said in behalf of the creatures that devour the salamanders.

In those little Ripple Lakes in the cool hollows in the woods, there you find these active bright-spotted salamanders, — *S. dorsalis*, the brown (olive-brown or palish-brown), with carinated and wave-crenate thin tail, and the *S. symmetrica*, the bright orange salmon, with a thick, straight-edged tail, — both with vermilion spots on back and countless fine black dots above and beneath. The first-named is quite voracious, catching many of the larvæ in the aquarium, in fact depopulating it. He gulps them down very deliberately after catching them.

What pretty things go to make up the sum of life in

any valley! This Ripple Lake with the wind playing over it, the bright spotted butterflies that flutter from time to time over the dry leaves, and the minnows and salamanders that dart in the water itself. Beneath this play of ripples which reflect the sky, — a darker blue than the real, — the vermilion-spotted salamanders are darting at the various grotesque-formed larvæ of the lake.

*April 22.* The *Salix purpurea* in prime, out probably three or four days; say 19th. Arbor-vitæ, how long?

P. M. — In a fine rain, around Walden.

I go by a *Populus grandidentata* on the eastern sand slope of the Deep Cut just after entering, whose aments (which apparently here began to shed pollen yesterday) in scattered clusters at the ends of the bare twigs, but just begun to shed their pollen, not hanging loose and straight yet, but curved, are a very rich crimson, like some ripe fruit, as mulberries, seen against the sand. I cannot represent the number in a single cluster, but they are much the handsomest now before the crimson anthers have burst, and are all the more remarkable for the very open and bare habit of the tree.

When setting the pines at Walden the last three days, I was sung to by the field sparrow. For music I heard their jingle from time to time. That the music the pines were set to, and I have no doubt they will build many a nest under their shelter. It would seem as if such a field as this — a dry open or half-open pasture in the woods, with small pines scattered in it — was well-nigh, if not quite, abandoned to this one alone

among the sparrows. The surface of the earth is portioned out among them. By a beautiful law of distribution, one creature does not too much interfere with another. I do not hear the song sparrow here. As the pines gradually increase, and a wood-lot is formed, these birds will withdraw to new pastures, and the thrushes, etc., will take their place. Yes, as the walls of cities are fabled to have been built by music, so my pines were established by the song of the field sparrow. They commonly place their nests here under the shelter of a little pine in the field.

As I planted there, wandering thoughts visited me, which I have now forgotten. My senses were busily suggesting them, though I was unconscious of their origin. *E. g.*, I first *consciously* found myself entertaining the thought of a carriage on the road, and directly after I was aware that I heard it. No doubt I had heard it before, or rather my ears had, but I was quite unconscious of it, — it was not a fact of my then state of existence; yet such was the force of habit, it affected my thoughts nevertheless, so double, if not treble, even, are we. Sometimes the senses bring us information quicker than we can receive it. Perhaps these thoughts which run in ruts by themselves while we are engaged in some routine may be called automatic. I distinctly entertained the idea of a carriage, without the slightest suspicion how it had originated or been suggested to my mind. I have no doubt at all that my ears had heard it, but my mind, just then pre-occupied, had refused to attend to it. This suggests that most, if not all, indeed, of our ideas may be due

to some sort of sensuous impression of which we may or may not be conscious.

This afternoon there is an east wind, and a rain-storm accordingly beginning, the eighth of the kind with this wind.

I still see a large flock of grackles.

Within a few days I pricked my fingers smartly against the sharp, stiff points of some sedge coming up. At Heywood's meadow, by the railroad, this sedge, rising green and dense with yellow tips above the withered clumps, is very striking, suggesting heat, even a blaze, there.

Scare up partridges feeding about the green springy places under the edge of hills. See them skim or scale away for forty rods along and upward to the woods, into which they swiftly scale, dodging to right and left and avoiding the twigs, yet without once flapping the wings after having launched themselves.

*April 23.* Rain, rain.

Hear seringo, by chance the first, and while it rains. The tree sparrows abundant and singing in the yard, but I have not noticed a *hyemalis* of late. The field sparrow sings in our yard in the rain.

The sidewalk is all strewn with fishworms this forenoon, up and down the street, and many will evidently die in the cold rain. Apparently the rain tempted them to remain on the surface, and then the cold and wet benumbs and drowns them. Some of them are slowly crawling across the paths. What an abundant supply of food for the birds lately arrived! From Gil-

bert White, and the notes by others to his last edition, I should infer that these were worms which, having been tempted out in unusual numbers by the rain, lost their way back to their holes. They say that they never take their tails out of their holes.

In about five quarts of scarlet oak acorns gathered the other day there [were] only some three gills that had life in them, or say one in seven. I do not know how many the squirrels had got, but as it was quite near a house, a tree by itself, I think not a great many. The rest were apparently destroyed by worms; so that I should say the worms destroyed before spring three fourths of them. As the grub is already in the acorn, it may be just as well (except for the squirrels) to sow them now as in the fall, whatever you can get.

Clears up at 3 P. M., and a very strong south wind blows.

I go on the water. I frequently observe that the waves do not always run high in proportion to the strength of the wind. The wind seems sometimes to flat them down, perhaps when it blows very hard in gusts, which interrupt a long roll.

What is that small willow on the north side of S. Brown's stump, which apparently began to open two days ago?

A large hickory by the wall on the north side (or northeast side) of the hill apparently just blown down, the one I saw the screech owl go into two or three years ago. I think it may have fallen in this very high wind which arose within an hour; at any rate it has fallen since the grass began to spring, for the owl-hole con-

tains a squirrel's nest made of half-green grass somewhat withered, which could only have been found quite recently, and also the limbs have been driven so deep into the ground that I cannot pull them out, which shows that the ground was thawed when it fell; also the squirrel's nest, which is perfectly sheltered, now the tree is fallen, was quite wet through with rain, that of the morning, as I think. This nest, which I suppose was that of a red squirrel, was at the bottom of a large hole some eighteen inches deep and twenty-five feet from the ground, where a large limb had been broken off formerly. An opening on the side had been stopped with twigs as big as a pipe-stem and larger, some of them the hickory twigs quite green and freshly gnawed off with their buds, forming a rude basketwork which kept up and in the grass and rotten wood, four or five handfuls of which, mixed with the rotten wood of the inside, composed the nest. This was the half old and withered and half green grass gathered a few days since about the base of the tree.

*April 24. Sunday. P. M.* — To Pine Hill and Heywood's meadow.

The weather is windy still and cool. I see for several days past tipulidæ of larger size dancing like the small.

A great many oak leaves have their petioles broken off half an inch or more from the base, so that the leaves fall before they are regularly cast off by the tree. I see many young oaks — a scarlet one this afternoon — the half of whose petioles have been thus broken

mechanically by the force of the wind on the blade of the leaf in the winter. These stub ends will, [of] course, be cast soon, like the entire leaves. Thus you may have small trees entirely divested of their leaves excepting a fragment of the petioles by merely mechanical means or violence, long before they have all fallen regularly. They are whirled about by the wind till they break off, and these broken and stringy petioles give to the tree a ragged appearance.

I notice that the white pine cones in Wheildon's grove have now almost entirely fallen.

There is a season for everything, and we do not notice a given phenomenon except at that season, if, indeed, it can be called the same phenomenon at any other season. There is a time to watch the ripples on Ripple Lake, to look for arrowheads, to study the rocks and lichens, a time to walk on sandy deserts; and the observer of nature must improve these seasons as much as the farmer his. So boys fly kites and play ball or hawkie at particular times all over the State. A wise man will know what game to play to-day, and play it. We must not be governed by rigid rules, as by the almanac, but let the season rule us. The moods and thoughts of man are revolving just as steadily and incessantly as nature's. Nothing must be postponed. Take time by the forelock. Now or never! You must live in the present, launch yourself on every wave, find your eternity in each moment. Fools stand on their island opportunities and look toward another land. There is no other land; there is no other life but this, or the like of this. Where the good husbandman is,

there is the good soil. Take any other course, and life will be a succession of regrets.<sup>1</sup> Let us see vessels sailing prosperously before the wind, and not simply stranded barks. There is no world for the penitent and regretful.

On the Mill-Dam a man is unmanned. I love best to meet them in the outskirts. They remind me of wharf rats in the other place. Let me see man a-farming, a-hunting, a-fishing, a-walking, — anything but a-shopping. Farmers' coats are ugly in the shops and on the Mill-Dam, but become them in the fields.

Dr. B. asked me what I found that was new these days, if I was still looking after the beautiful. I told [him] yes, and that I wished to hire two or three good observers.

With what energy Nature carries out her plans! I see white birches six or eight feet high growing in the seams of rocks three or four feet from the ground, in the midst of a sprout-land. If men will not let them grow on the surface of the earth, Nature can still maintain the species by dropping seeds into the seams of the rocks. By their growth, probably, they help to split the rocks. How often seeds appear to catch and take root in what we should have deemed the most unfavorable place! Deep in the seam of a rock the seed is out of the way of birds and squirrels.

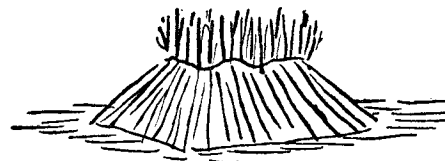
For several weeks past I have noticed stumps which had had their bark stripped off, I think by skunks on their nightly rounds.

Sitting on Lightning Hillside and looking over Hey-

<sup>1</sup> [Channing, p. 85.]

wood's meadow, I am struck by the vivid greenness of the tips of the sedge just pushing up out of its dry tussocks in the water. I observed it here on the 22d.

It is some six inches high or more.<sup>1</sup> All the lower, or the greater, part of the tussock is



brown and sere and prostrate withered blades of last year, while from the top spring up ranks of green life like a fire, from amid the withered blades. This new grass is green beneath, but yellow-tipped, perhaps on account of the recent snow or higher water. It is the renewal of life. The contrast of life with death, spring with winter, is nowhere more striking. Such is the regularity [of] the growth and of the fallen grass that it affects you like a geometrical figure. The fallen dead and decaying last year's grass is dead past all resurrection, perfectly brown and lifeless, while this vivid green that has shot up from its midst close upon the heels of winter, even through snow, is like the first phalanx of Spring's forces.

The green has the regularity of a parapet or rampart to a fortress. It winds along the irregular lines of tussocks like the Wall of China over hill and dale.<sup>2</sup>

April 25. P. M. — To Kalmia Swamp.

First notice martins.

<sup>1</sup> *Carex stricta*. Vide June 19th.

<sup>2</sup> [Channing, p. 104.]

I got to-day and yesterday the first decided impression of greenness beginning to prevail, summer-like. It struck me as I was going past some opening and by chance looked up some valley or glade, — greenness just beginning to prevail over the brown or tawny. It is a sudden impression of greater genialness in the air, when this greenness first makes an impression on you at some turn, from blades of grass decidedly green, though thin, in the sun and the still, warm air, on some warm orchard-slope perhaps. It reminds you of the time, not far off, when you will see the dark shadows of the trees there and buttercups spotting the grass. Even the grass begins to wave, in the 19th-of-April fashion.<sup>1</sup> When the wind is still cool elsewhere, I glance up some warm southern slope, sunny and still, where the thinly scattered blades of green grass, lately sprung, already perchance begin to wave, and I am suddenly advertised that a new season has arrived. This is the beginning of that season which, methinks, culminates with the buttercup and wild pink and *Viola pedata*. It begins when the first toad is heard.

Methinks I hear through the wind to-day — and it was the same yesterday — a very faint, low ringing of toads, as if distant and just begun. It is an indistinct undertone, and I am far from sure that I hear anything. It may be all imagination.

I see the meadow-sweet, thimble-berry (even in a swamp), high blackberry, and (on a dry rock in the woods in a sunny place) some *Vaccinium Pennsylvanicum* leafing (even the last) apparently two or three

<sup>1</sup> [See *Journal*, vol. xiii, p. 303.]

days. Fern scrolls are eight inches high, — beyond Hubbard Bridge on the north bank of road.

A mosquito endeavors to sting me.

*Ranunculus repens* at Corner Spring apparently yesterday; five of them out now. Thus early now because exposed to light. The *Viola blanda* are numerous open there, say two days at least. Also bluets and potentilla are first noticed by me, and *V. sagittata*. The more yellowish red maples of this afternoon are one, barked, northeast corner Hubbard's Dracena Grove, the easternmost tree of the row south of Hubbard's Grove, the larger about ten rods this side Hubbard Bridge, south side. The two at this end of bridge are quite red.

I hear still the *what what what* of a nuthatch, and, directly after, its ordinary winter note of *gnah gnah*, quite distinct. I think the former is its spring note or breeding-note.

E. Bartlett has found a crow's nest with four eggs a little developed in a tall white pine in the grove east of Beck Stow's.

The snipe have hovered commonly this spring an hour or two before sunset and also in the morning. I can see them flying very high over the Mill-Dam, and they appear to make that sound when descending, — one quite by himself.

Toads have been observed or disturbed in gardens for a week. One saw a striped snake the 3d of April on a warm railroad sand-bank, — a similar place to the others I heard of.

Young Stewart tells me that he saw last year a pont's

nest at Walden in the pond-hole by the big pond. The spawn lay on the mud quite open and uncovered, and the old fish was tending it. A few days after, he saw that it was hatched and little pouts were swimming about.

*April 26.* Start for Lynn.

Rice says that he saw a large mud turtle in the river about three weeks ago, and has seen two or three more since. Thinks they come out about the first of April. He saw a woodchuck the 17th; says he heard a toad on the 23d.

P. M. — Walked with C. M. Tracy in the rain<sup>1</sup> in the western part of Lynn, near Dungeon Rock. Crossed a stream of stones ten or more rods wide, reaching from top of Pine Hill to Salem. Saw many *discolor*-like willows on hills (rocky hills), but apparently passing into *S. humilis*; yet no *criocephala*, or distinct form from *discolor*. Also one *S. rostrata*. Tracy thought his neighborhood's a depauperated flora, being on the porphyry. Is a marked difference between the vegetation of the porphyry and the sienite.

Got the *Cerastium arvense* from T.'s garden; said to be abundant on Nahant and to have flowers big as a five-cent-piece; very like a dianthus, — the leaf. Also got the *Nasturtium officinale*, or common brook cress, from Lynn, and set it in Depot Field Brook. Neither of these in bloom. His variety *Virginica* of *Cardamine* grows on dry ground.

<sup>1</sup> This is the last of the rains (spring rains!) which invariably followed an east wind. *Vide* back.

*April 27.* Walk along Swampscott Beach from Red Rock northeast. The beach is strewn with beautifully colored purple and whitish algæ just left by the tide. Hear and see the seringo in fields next the shore. No noticeable yellow shoulder, pure whitish beneath, dashed throat and a dark-brown line of dashes along the sides of the body.<sup>1</sup>

Struck inland and passed over the west end of High Rock, through the cemetery, and over Pine Hill, where I heard a strange warbler, methought, a dark-colored, perhaps reddish-headed bird. Thence through East Saugus and Saugus to Cliftondale, I think in the southern part of Saugus.

The little brown snake with the light line along the back just killed in the road.

Saw at the Aquarium in Bromfield Street apparently brook minnows with the longitudinal dark lines bordered with light. A little pout incessantly nibbles at the dorsal fin of the common perch, also at apparently the mucus on its back. See the sea-raven.

Toads ring and, no doubt, in Concord also.

*April 28.* 8.30 A. M. — Row to Carlisle Bridge with Blake and Brown.

See black ducks and sheldrakes still. The first myrtle-bird that I have noticed. A small hawk, perhaps

<sup>1</sup> Ours examined the 30th is apparently or perhaps a little smaller and less distinctly whitish beneath and with a less distinct dark line on the sides, but breast equally dashed with brown. Did not see the yellow shoulder, and the head was a little less yellow. Also note of ours apparently more feeble, first part like a watch-spring, last more ringing and clear in both birds.

pigeon hawk. A gull. Sit on Ball's Hill. The water partly over the Great Meadows. The wind is northeast, and at the western base of the hill we are quite sheltered; yet the waves run quite high there and still further up the river, — waves raised by the wind beyond the hill, — while there are very slight waves or ripples over the meadow south of the hill, which is much more exposed, evidently because the water is shallow there and large waves are not so easily formed on account of friction.

S. Higginson brought me the arbutus in bloom on the 26th, one twig only out.

See a shad-fly, one only, on water.

A little snake, size of little brown snake, on pine hill, but uniformly grayish above as far as I could see.

E. Emerson's *Salamandra dorsalis* has just lost its skin.

April 29. 7 A. M. — To Walden, and set one hundred larch trees from England, all two years from seed, about nine inches high, just begun to leaf.

See and hear a black and white creeper.

First observe the dandelion well out in R. W. E.'s yard; also anemone at Sassafras Shore. Interrupted fern scrolls there, four to five inches high.

Those red maples are reddest in which the fertile flowers prevail.

Haynes was fishing for pickerel with a pole yesterday, and said that he caught several the day before, *i. e.* 27th.

April 30. P. M. — Sail to Holden Swamp.

The warmest afternoon yet. Sat in sun without fire this forenoon.

The wind has at length been easterly without rain following. Fishes, especially pickerel, lie up in greater numbers, though Haynes thinks the water is still too cold for them. See a bream. A small willow some ten rods north of stone bridge, east side, bloomed yesterday. *Salix alba* leafing, or stipules a quarter of an inch wide; probably began a day or two [ago]. *Luzula campestris* is almost out at Clamshell. Its now low purplish and silky-haired leaves are the blooming of moist ground and early meadow-edges. See two or three strawberry flowers at Clamshell.

The 27th and to-day are weather for a half-thick single coat. This old name is still useful. There is scarcely a puff of wind till I get to Clamshell; then it rises and comes from the northwest instead of northeast and blows quite hard and fresher. See a stake-driver.

Land at Holden Wood. That interesting small blue butterfly (size of small red) is apparently just out, fluttering over the warm dry oak leaves within the wood in the sun. Channing also first sees them to-day. The moment it rests and closes its wings, it looks merely whitish-slate, and you think at first that the deeper blue was produced by the motion of its wings, but the fact is you now see only their under sides which thus [*sic*] whitish spotted with black, with a dark waved line next the edge. This first *off-coat* warmth just preceding the advent of the swamp warblers (parti-colored, red-start, etc.) brings them out. I come here to listen for



warblers, but hear or see only the black and white creeper and the chickadee.

Did I not hear a tree sparrow this forenoon?

The *Viburnum nudum* around the edge of the swamp, on the northern edge of the warm bays in sunny and sheltered places, has just expanded, say two days, the two diverging leaflets being an inch long nearly, — pretty yellowish-brown leaflets in the sun, the most noticeable leafiness here now, just spotting and enlivening the dead, dark, bare twigs, under the red blossoms of the maples.

It is a day for many small fuzzy gnats and other small insects. Insects swarm about the expanding buds.

The viburnum buds are so large and long, like a spear-head, that they are conspicuous the moment their two leaflets diverge and they are lit up by the sun. They unfold their wings like insects and arriving warblers. These, too, mark the season well. You see them a few rods off in the sun, through the stems of the alders and maples.

That small curled grass in tufts in dry pastures and hills, spoken of about a month ago, is not early sedge.

I notice under the southern edge of the Holden Wood, on the Arrowhead Field, a great many little birches in the grass, apparently seedlings of last year, and I take up a hundred and ten from three to six or seven inches high. They are already leafed, the little rugose leaflets more than half an inch wide, or larger than any wild shrubs or trees, while the larger white

birches have not started. I could take up a thousand in two or three hours. I set ten in our yard.

Channing saw ducks — he thinks female sheldrakes! — in Walden to-day.

Julius Smith says he saw a little hawk kill a robin yesterday.