

- 1            %My summer level of River is
- 2    3 ft 6 1/2 inches below Hoars' wall at steps
- 3    2 ft 8 inches            "   notch in willow at boat place
- 4    7 ft 11   "                "   upper end of horizontal truss%



1 Friday Ap. 8th 59

2 I believe that I rarely hear the nuthatch's  
3 note from the elms toward evening, for  
4 when I heard it yesterday evening I was sur-  
5 prised--

6 Pm to Epigaea & Well Meadow.

7 I see on the W. side of the RR causeway  
8 a peculiar early willow--now just beginning //  
9  
10 to bloom with the common S. discolor there--  
11 perhaps (as I remember) some 30 rods beyond  
12 the wall--against A Wheeler's land. The  
13 (sterile)  
14 catkins ^ are peculiarly long & tapering--&  
15 grayish or mouse color--beginning to open {drawing}  
16 low on one side--while the points have  
17 comparatively little down on them--  
18 {drawing} I find no description of it

19 Perhaps rather more than  
20 The most decidedly opening first on one side near the base  
21 1 inch long. of any -- Call it the Gray Bodkin pointed.

22 As I stood by the foot of a middling sized  
23 white pine the other day on F. H. Hill--one  
24 of the very windy days--I felt the ground  
25 rise & fall under my feet being lifted by the  
26 roots of the pine which was waving in the wind--  
27 so loosely are they planted.

28 We have had 2 more windy days, this &  
29 yesterday--though less so than the previous  
30 ones. We have had most of the time  
31 during this windy weather--for a  
32 month past--when the wind was NW



1 the philosopher's point of view, it is  
2 precisely on a level--with rag & bone picking  
3 in the streets of the cities. The Indian  
4 led a more respectable life--before he  
5 was tempted to debase himself so much  
6 by the white man-- Think how many musquash  
7 & weasel skins the Hudson Bay Company  
8 pile up annually in their ware houses--leaving  
9 bare  
10 the ^ red canvas on the banks of the streams through  
11 out all British America--& this it is chiefly  
12 which makes it British America-- It is  
13 the place where Great Britain goes a  
14 mousing. We have heard much of the  
15 wonderful intelligence of the beaver, but  
16 that regard for the beaver is all a pretense  
17 & we would give more for a beaver hat  
18 than to preserve the intelligence of the  
19 whole race of beavers--

20 When we see men & boys spend their time  
21 shooting & trapping musquash & mink--we  
22 cannot but have a poorer opinion of them--  
23 unless, we thought meanly of them before--  
24 Yet the world is imposed on by the fame  
25 of the Hudson Bay & N. W. Fur Companies  
26 who are only so many partners more or  
27 less in the same sort of business with thousands  
28 of just such loafing men & boys in their  
29 service to abet them-- On the one side  
30 is the Hudson Bay Company on the other  
31 this company of scavengers who clear the

1 sewers of Paris of their ~~rats~~ vermin--  
2 There is a good excuse for smoking out  
3 or poisoning rats which infest the  
4 house--but when they are as far off  
5 as Hudson's Bay I think that we had  
6 better let them alone. To such an  
7 extent as time & distance & our imagoes-  
8 nations consecrate at last not only the  
9 most ordinary but even vilest pursuits--.  
10 The efforts of legislation from time to time to  
11 stem the torrent are significant as showing  
12 that there is some sense & conscience left--  
13 but they are insignificant in their effects.  
14 {So} we will fine abner if shoots a sing-  
15 ing bird--but encourage the army of  
16 abners that compose the Hudson Bay  
17 Company.

18           One of the most remarkable  
19 sources of profit opened to them you see within  
20 a year is the traffic in skunk skins--  
21 I learn from the newspapers (as from other  
22 sources--v. Journal of Commerce in Tribune for  
23 Ap. 5-59) that "The traffick in skunk skins  
24 has suddenly become a most important  
25 branch of the fur trade, & the skins of an  
26 animal which 3 years ago were deemed  
27 of no value whatever, are now in the  
28 greatest demand."--"The principal markets  
29 are Russia & Turkey, though some are sent

1                   Furs to Russia:  
2 to Germany, where they are sold at a large  
3 profit"-- -- --" The black skins are valued the  
4 most, & during the past Winter the market  
5 price has been as high as 1 dollar per skin,  
6 while mottled skins brought only 70 cts."-- --  
7 "Upward of 50.000 of these skins have been  
8 shipped from this city--[NY] alone within  
9 the past 2 months,"--many of them "are  
10 designed to the Leipsic sales, Leipsic being next  
11 to Nogorod, in Russia, the most important  
12 fur entre port in Europe. "The first intimation  
13 received in this market of the value of this were descriptions  
14 of fur came from the Hudson's Bay Company,  
15 which, having shipped a few to London at a  
16 venture, found the returns so profitable that  
17 they immediately prosecuted the business on an  
18 extensive scale, "-- -- -- "The heaviest collections are  
19 made in the Middle & Eastern states, in some  
20 parts of which the mania for capturing  
21 these animals seems to have equalled the  
22 western Pikes Peak gold excitement--men  
23 women & children turning out en masse for  
24 that purpose." & beside--"our fur dealers  
25 also receive a considerable sum for the fat  
26 of these animals"--!!

27               Almost all smile, or otherwise express their  
28 contempt--when they hear of this or the  
29 rat catching of Paris--but what is the  
30 difference between catching--& skinning the skunk  
31 & the mink<sup>3</sup>-- It is only in the course

---

<sup>3</sup>False start on "mink."

1 when you pass the palace of one of the  
2 managers of the Hudson Bay Company  
3 you are reminded that so much he  
4 got for his rat skins. In such  
5 a snarl & contamination do we live--  
6 that it is almost impossible to keep ones  
7 skirts clean. Our sugar & cotton are  
8 stolen from the slave--& if we jump out  
9 of the fire it is best to be into the frying  
10 pan at least-- It will not do to be thought-  
11 less with regard to any of our valuables or  
12 property-- When<sup>4</sup> you get to Europe you  
13 will meet ~~ther~~ most tender hearted & delicately  
14 bred-lady--perhaps the president of the  
15 Anti-slavery society--or of that for the en-  
16 courage ment of humanity to animals ^ with <sup>marching or presiding</sup>  
17 the scales from a tortoise back--obtained by  
18 laying live coals on it to make them curl  
19 up--stuck in her hair--ratskin-gloves  
20 fitting as close to her fingers as erst to the  
21 <sup>from</sup> <sup>trimmings</sup>  
22 rat's--& ^ her cloak ^ perchance adorned with  
23 the spoils of a hundred skunks-- ~~poor~~ rendered  
24 in-odorous, we trust. Poor misguided woman.  
25 Could she not wear other armor in the  
26 war of humanity?  
27  
28 When a new country like N. America is discovered  
29 a few feeble efforts are made to christianize  
30 the natives before they are all exterminated--but  
31 they are not found to pay in any sense-- But then  
32 energetic traders of the discovering country--

---

<sup>4</sup>Possibly "When" written over "you"?

1 organize themselves--or rather inevitably  
2 crystallize with a vast ratcatching society  
3 --tempt the natives to become mere vermin-  
4 hunters & ~~rat~~ rum drinkers--reserving half  
5 field  
6 a continent for the scene of their labors--  
7 savage meets savage & the white man's only  
8 distinction is that he is the chief.

9 She says to the turtle basking on the shore  
10 of a distant isle--I want your scales to adorn  
11 my head--(though fire be used to raise them)  
12 she whispers to the rats in the wall I want  
13 your skins to cover my delicate fingers--  
14 & meeting an army of a hundred skunks  
15 in her morning walk--she says worthless  
16 vermin--strip off your cloaks this instant  
17 & let me have them to adorn my robe with.  
18 --& she comes home with her hands muffled in  
19 the pelt of a grey wolf--that ventured abroad to  
20 find food for its young<sup>5</sup> that day.

21 When the question of the protection of birds  
22 comes up--the legislatures regard only a  
23 low use--& never a high use--the best dis-  
24 posed legislators employ one perchance  
25 only to<sup>6</sup> examine their crops & see how many  
26 gnats or cherries they<sup>7</sup> contain--& never  
27 to study their dispositions, or the beauty of  
28 their plumage--or listen & report on the  
29 sweetness of their song. The legislature  
30 will preserve a bird professedly not because  
31 it is a beautiful creature--but because it

---

<sup>5</sup>alteration or flourish at end

<sup>6</sup>preceded and followed by flourishes that suggest cancellations but are not

<sup>7</sup>Unidentifiable mark above "they."

1 is a good scavenger--or the like. This  
2 at least is the defence setup.  
3 the question were whether  
4 It is as if ^ some celebrated singer of the  
5 human race--some Jenny Lind or another,  
6 did more harm or good,--should be destroyed  
7 or not--& therefore a committee should  
8 be appointed, not to listen to her singing  
9 at all--but to examine the contents of  
10 her stomach & see if she devoured any  
11 thing which was injurious to the farmers & gardeners  
12 or which they cannot spare. %v. ap 21st%

13 Cold as it is & has been for several weeks,  
14 in all exposed places--I find it unexpectedly  
15 warm in perfectly sheltered places where  
16 the sun shines. & so it always is in April.  
17 The cold wind from the N. W. seems distinct  
18 & separable from the air here warmed  
19 by the sun--& when I sit in some warm  
20 & sheltered hollow in the woods I feel  
21 the cold currents deep into it from time  
22 to time--just as they are seen to ripple  
23 {~~seem to~~}  
24 a small lake in such a situation<sup>8</sup> from  
25 time to time.

26 The Epigaea is not quite out. The  
27 earliest peculiarly woodland herbaceous  
28 flowers are Epigaea--anemone--Thalictrum  
29 & (by the 1st of may) v. pedata. These grow  
30 quite in the woods amid dry leaves--  
31 nor do they depend so much on water

---

<sup>8</sup>A stroke added on "u" to clarify it is "situation" instead of "sitation."

1 as the very earliest flowers. I am perhaps  
2 more surprised by the growth of the  
3 viola pedata leaves--by the side of paths  
4 amid the shrub oaks & half covered with  
5 oak leaves--than by any other growth--  
6 the situation is so dry & the surrounding  
7 bushes so apparently lifeless.

8 I noticed the other day a leaf on a young  
9 oak very rapidly revolving like a wind  
10 mill--in the wind {drawing} not  
11 around its midrib for an  
12 axis--but about its broken stem, & I saw  
13 that this is the way those curiously broken  
14 & twisted & splintered petioles were made--  
15 It went around so fast as almost to appear like  
16 a circular figure.

17 I find that the cress (ca hirsuta) which was  
18 so forward at well meadow a fortnight ago  
19 --has been almost entirely browsed off by  
20 some creature--so that, if had not detected  
21 it, I might have been surprised that  
22 it made no more show-- The skunk-  
23 which have just begun to unroll-- //  
24 cabbage leaf buds ^ also have been ex-  
25 tensively eaten off as they were yet rolled up  
26 like cigars-- These early greens of the  
27 swamp are thus kept down-- Is it by  
28 the rabbit? I could see the tracks of  
29 some animal ap. as large very indistinct  
30 kind of  
31 in the mud & water. Also an early ^ sedge

1     there was crompt. The only animals at  
2     all likely to have done this are rabbits  
3     musquash--woodchuck (though I doubt  
4     it the last has been about here long enough) &  
5     Geese. Of these I think it most likely  
6     to have been the first--& prob it was the  
7     same that gnawed the spathes & ate up  
8     the spadix of the cabbage some weeks ago.  
9     Woodchucks might nibble some plants  
10    now in warmer & drier places-- These earliest  
11    greens must be very acceptable to these ani-  
12    mals. Do partridges even eat these things?

13           The alnus serrulata is evidently in its prime  
14    considerably later than the incana--for those  
15    of the former which I notice today have scarcely  
16    begun, while the latter chance to be done--  
17    The fertile flowers are an interesting bright  
18    crimson in the sun.

19           C. says that he found a musquash's skull  
20    (which he showed me) at the fox-borough in  
21    Laurel glen from which it would appear that  
22    they kill the musquash.

23           See the 1st Bay-wing %X%--hopping & flitting along  
24    //  
25    the RR. bank--but hear no note as yet.

26           I saw heavy Haynes fishing for trout  
27    down the mill brook this morning--cold &  
28    //blustering as it was. He caught two.

29           He is splitting pine knots at the almshouse  
30    door--for spearing-- Has already been

1 spearing in Walden & got some pickerel  
2 all in the 2 little meadows there--& saw //  
3 some pouts & perch. So the pickerel have  
4 come into those meadows probably since January  
5 for--the bars were dry before-- Perhaps  
6 they lie in shallow water not for warmth--  
7 for it is coldest there by night now--but for  
8 food--the early insects & frogs which may  
9 soonest be found there!

10 Ap. 9th<sup>9</sup> 59

11 Pm to Goose Pond--

12 The wind is as strong--& yet colder //  
13 being more from the north than before--  
14 through I think all this windy weather  
15 or at least for about 3 weeks the  
16 wind has regularly gone down with the  
17 sun--strong has it has been each day.

18 As we go up the hill in the woods  
19 & of Hub's close--I hear a singular sound  
20 through the roaring of the wind amid the trees  
21 which I think at first some creature 40  
22 rods off--but it proves to be the creaking of  
23 one bough or another-- When I knew what it  
24 was I was surprised to find it so near--even  
25 within a rod. It was occasioned by 2 little  
26 dead limbs an inch or less in diameter on  
27 2 different white pines which stand 4 or  
28 5 feet apart-- Such limbs as are seen on every  
29 white<sup>10</sup> pine below the living ones--some 12 feet from

---

<sup>9</sup>"9" altered from "8"

<sup>10</sup>"white" added in margin

1 the ground-- These with every motion of the  
2 trees in the wind were grating back  
3 & forth on each other & had worne in to  
4 one another--& this produced not a  
5 mere coarse grating sound--but a perfect  
6 viol sound such as I never heard from  
7 trees before--a jarring or vibratory creak as  
8 if the bow leaped on the strings--for one  
9 limb was bow & the other string-- It was  
10 on one key or note when the trees approached  
11 & quite another & very fine & sharp<sup>11</sup> when they  
12 receded. I raised one limb with a pole  
13 & the music ceased. This was as musical  
14 as a viola--a forest viol--which  
15 might have suggested that instru-  
16 ment to some Orpheus wandering in the  
17 wood-- He would only have to place a  
18 box of resonant wood wood beneath to  
19 complete a simple viol. We heard  
20 several others afterward which made  
21 a coarse squeaking noise like a bird--  
22 but this would have suggested music to  
23 any one. It was mythologic--& an Indian  
24 might have referred it to a departed spirit.  
25 The fiddles made by the trees whose limbs  
26 cross one another--played on by the wind!  
27 When we listened, {in} the wood--we  
28 heard all kind of creaking & groaning sounds  
29 from the laboring trees--

---

<sup>11</sup>Possibly "short"

1           We go seeking the south sides of hills  
2   & woods--or deep hollows to walk in  
3   this cold & blustering day. We sit  
4   by the side of Little Goose Pond--which  
5   C. calls Ripple Lake or Pool--to watch the  
6   ripples on it-- Now it is nearly smooth--&  
7   then there drops down on to it, deep as it lies  
8   amid the hills a sharp & narrow blast of  
9   the icy N wind careering above--striking it  
10   perhaps by a point or an edge--& swiftly spreading  
11   along it--making a dark blue ripple-- Now  
12   4 or 5 windy bolts sharp or blunt strike  
13   it at once & spread different ways. The  
14   boisterous but playful north wind evidently  
15   stoops from a considerable height to dally  
16   with this fair pool which it discovers beneath--  
17   You could sit there & watch these  
18   blue shadows--playing over the surface  
19   like the light & shade on changeable silk  
20   for hours-- It reminds me too of the  
21   swift camilla on a fields grain<sup>12</sup>--The  
22   wind often touches the water only by the  
23   finest points or edges. It is thus when  
24   you look in some measure from the sun--  
25   --but if you move round so as to come  
26   more opposite to him--then all these dark  
27   blue ripples are all sparkles too bright  
28   to look at--for you now see the sides of  
29   the wavelets which reflect the sun to you.

---

<sup>12</sup>Alexander Pope, "Essay on Criticism": "Not so, when swift Camilla scours the plain, / Flies o'er the unbending corn, and skims along the main."

1 A large fox-hole in Britton's hollow lately  
2 //  
3 dug--an ox cart load of sand or more  
4 thrown up on the hill side.

5 Watching the ripples fall & dart across the  
6 //  
7 surface of low lying & small woodland lakes  
8 is one of the amusements of these windy  
9 march & April days. It is only on small  
10 lakes deep sunk in hollows in the woods  
11 that you can see or study them ~~to at~~  
12 these days--for the winds sweep over the  
13 whole breadth of larger lakes incessantly  
14 but it only touches these sheltered lakelets  
15 by fine points & edges from time to time

17 And then there is such a fiddling in  
18 the woods--such a viol creaking of bough  
19 on bough--that you would think music  
20 was being born again as in the days of Or-  
21 pheus-- Orpheus & Apollo are certainly  
22 there taking lessons-- Aye & the jay & the  
23 blackbird--too--learn now where they stole  
24 their "thunder"--they are perforce silent  
25 meditating new strains.

26 When the playful breeze drops on the  
27 pool it springs to right & left--quick as  
28 a kitten playing with dead leaves--clapping  
29 her paw on them. Sometimes it merely raises  
30 side  
31 a ^ wave at one point as if a fish darted near  
32 the surface. While to you look down from  
33 a hill side partly from the sun these

1 points & dashes look thus dark blue almost  
2 black-- They are seen by another standing  
3 low & more opposite to the sun as the  
4 most brilliant sheeny & sparkling surface--  
5 too {—} bright to look at. Thus water agitated  
6 by the wind{ }is both far brighter & far darker  
7 than smooth water--seen from this side or that  
8 --that is as you look at the inclined surface  
9 of the wave which reflects the sun--or at  
10 the shaded side-- For 3 week's past when  
11 I have look northward toward the flooded  
12 meadows they have looked dark blue or  
13 blackish in proportion as the day was clear &  
14 the wind high from the NW--making high  
15 waves & much shadow.

16 We can sit in the deep hollows in the  
17 woods--like Frosty hollow near Ripple Lake  
18 e.g. & find it quite still & warm in the sun--  
19 as if a different atmosphere lurked there--  
20 but from time to time a cold puff from  
21 the rude boreas careering over head drops  
22 on us--& reminds us of the general charac-  
23 ter of the day. While we lie at length on the  
24 dry sedge--nourishing spring thoughts--  
25 looking for insects & counting the rings  
26 on old stumps.

27 These old gray or whitish stumps with their  
28 porous structure--where the ducts are seen  
29 are very much like ~~old~~ bones--the bones  
30 of trees-- I break a little cube out

1 out of this old oak stump which was  
2 sawed off some 30 yrs ago--& which has  
3 about 100 rings--a pice<sup>13</sup> sharply square  
4 corned<sup>14</sup> & exactly the form of a square  
5 bunch of matches--& the sawed end being regularly  
6 channeled by time in the direction of the ducts  
7 & of the silver grain--it looks precisely like  
8 the loose ends or dipt end of the bunch &  
9 would be mistaken for such on any shelf.

10 Those ripple lakes lie now in the  
11 midst of mostly bare brown or tawney dry  
12 woodlands--themselves the most living  
13 objects-- They may say to the first woodland  
14 flowers--we played with ~~with~~ the north  
15 winds here before ye were born--

16 Ap. 10th

17 A calm day at last--the water almost  
18 smooth--& now so low that I cannot  
19 //cross the meadows--so ends the spring  
20 freshet (apparently) which began  
21 (not to include the winter one) mar. 8th--  
22 & was at its height the 17th & 18th  
23 ^ It has lasted a month. & today too  
24 //ends the windy spell-- Since the 6th (q.v.)  
25 there have been 2 days the 7 & 8th of strong  
26 NW wind--& 1 the 9th of very strong  
27 & yet colder & more northerly wind than  
28 before-- This makes 22 days of windy  
29 weather in all reckoning only from the last

---

<sup>13</sup>Possibly misspelled "piece."

<sup>14</sup>Possibly misspelled "cornered."

1 still days (the 17 & 18 of Mar.) & not including  
2 today. Of these, 11 days have been of very strong  
3 & cold NW wind the last, or yesterday, more northerly--  
4 --except the first when the wind was S. W.--  
5 ^ 7 of strong wind & generally NW--& 4 only

6 of moderate wind--

7 We had rain on the 18th--22nd--24th--25th--29th of Mar.

8 & 3d of Ap. & always with an Easterly or Southerly

9 wind--or as often as the wind came from the East

10 or South it brought rain--~~& after~~ with generally

11 considerable wind driving--it--& it invariably

12 cleared off {cloud} cold with a wind from the NW.

13 The wind has regularly gone down with the

14 sun, & risen again with it. It has been

15 so strong as to interfere with all outdoor

16 occupations-- Yet I have not observed a

17 single tree which was blown <sup>down</sup> ^ by it.

19 Pm paddle to Well meadow--

21 I see some remarkable examples

22 of meadow crust floated off--on the

23 A. Wheeler Meadow & above--densely

24 covered with button bushes--& willows &c

25 One sund<sup>15</sup> in 5 feet of water on a

26 sandy shore--which I must examine again

27 I hear of a cinquefoil found

28 in bloom on the 8th-- It was in this

29 sproutland where it was protected--

30 This with bluets--mouse-ear & v. ovata--

31 (of the herbaceous plants) I would call pasture

32 flowers (among those of Mar. & April).

---

<sup>15</sup>1906 has "sunk."

1 I might class the 22 herbaceous flowers  
2 which I have known to be open before the 1st of  
3 May-- thus  
4 Garden Flowers--chickweed & Shephard's-purse<sup>16</sup>  
5 Meadow Flowers skunk cabbage--caltha--  
6 chrysosplenium--Dandelion--straw  
7 berry--V. cucullata--Ranunculus repens (?)  
8 Rock Flowers Saxifrage--Crowfoot--Columbine  
9 and tower mustard.  
10 Woodland Flowers Epigaea--Anemone & Thalictrum  
11 Pasture Flowers Cinquefoil--bluets--mouse ear  
12 & viola sagittata.  
13 Water flowers Callitriche verna--& Nuphar.  
14 The woody plants trees & shrubs might be arranged  
15 under 3 heads--{Viz}  
16 Wet Land Dry Land-- &-- Intermediate  
17 alders both (?) -- Aspens Elms  
18 Wht maple Hazels Red maple  
19 most willows arbutus Peach  
20 sweet gale (? Arbor vitae Abele  
21 Benzoin Red Cedar Cultivated Cherry  
22 Cassandra Fir Balsam  
23 White cedar<sup>17</sup> ~~Abele~~  
24 & Larch (?)Sweetfern  
25 Shadbush  
26 Salix humilis  
27 " Tristris<sup>18</sup>  
28 & Rostrata  
29 Yew  
30 The Hellebore budys are quite conspicuous & interesting  
31 //  
32 today--but not at all unrolled--though 6 or 8 inches high.

<sup>16</sup>This line was inserted after the next one was written.

<sup>17</sup>Possibly "elder." 1906 has "alder."

<sup>18</sup>Misspelling. Should be "Tristis."

1           The Alnus serrulata appears to grow on drier  
2           sometimes  
3 land than the others ^. See a kingfisher X //

4 flying very low in the ricochet manner across  
5 the water-- Shell drakes & Gulls & black //  
6 ducks still.

7           Hear the first stuttering frog croak X prob. halecine //  
8 in the lost Cassandra pond.

9                    Ap. 11th

10          Rain all day-- //

11                    Ap. 12th

12          Clears up in Afternoon--  
13          Pm paddle to Cliffs.

14          I saw a minnow on the 10th which looked  
15 like a young brook minnow--not 1 inch //  
16 long-- When was it spawned?

17          The small alder--A serrulata--is sometimes  
18 yellow flowered--sometimes reddish flowered-- It  
19 grows with the incana at cardinal shore.

20          I see where the musquash has eaten the  
21 whitebase<sup>19</sup> of the pontederia leaves. I first  
22 perceived the pickerel dart on the 10th--  
23 the river having gone down so much that  
24 you could not cross the meadows--& that  
25                    being the first really warm & pleasant day  
26                    since Mar. 17th

27          Saw a duck. ap. a shell-drake  
28 at the NE end of Cyanean meadow-- It dis-  
29 appeared at last by diving--& I could  
30 not find it. But I saw what looked  
31

---

<sup>19</sup>"ase" in "whitebase" is written over illegible letters; "white" was possibly added after "base."

1 like a ripple made by the wind--which  
2 moved slowly down the river at least 40  
3 rods toward the shore & then disappeared.  
4 Though I saw no bird there--I suspect that  
5 the ripple was made by it. 2 shell drakes  
6 flew away from this one when first observed.  
7 Why did this remain? Was it wounded?  
8 or can those which dart so swiftly across  
9 the river & dive be another species & not  
10 the young of the season or females of the com-  
11 mon one? Is it not after all the Red-  
12 headed Merganser--& did I not see them  
13 in Maine?

14 I see half a dozen shell drakes very  
15 busily fishing around the base of Lupine  
16 Hill or promontory. There are 2 full  
17 plumaged males & the rest females or per-  
18 haps some of them young males-- They are  
19 coasting along swiftly with their bodies  
20 sunk low & their heads half under--looking  
21 for their pry--one behind another--frequently  
22 turning & passing over the same ground again.  
23 Their rests<sup>20</sup> are very conspicuous thus--  
24 {drawing} When one sees a fish he at first  
25 swims rapidly after it--& then if necessary  
26 flies close over the water after it--&  
27 this excites all the rest to follow--  
28 swimming or flying--& if one seizes the  
29 fish which I suspect is commonly a pickerel

---

<sup>20</sup>Should be "crests," but apparently there is no "c."

1     they all pursue the lucky fisher--& he makes  
2     the water fly far in his efforts to get away  
3     & gulp down his fish-- I can see the  
4     fish in his bill all the while--& he must  
5     swallow it very skillfully & quickly if at all.  
6     I was first attracted to them by seeing these  
7     great birds rushing--shooting thus swiftly  
8     through the air & water--& throwing the  
9     water high about them. Sometimes they dive  
10    & swim quietly beneath--looking for their game.  
11    At length they spy me or my boat--& hear a  
12    faint quack--indicative of alarm & suddenly  
13    all arise & go off-- In the meanwhile  
14    I see 2 black ducks sailing with them along  
15    the shore-- These look considerably smaller, &  
16    They have a raw--gosling--look beside the others  
17    of course carry their heads more erect.  
18    & I see their light bills against their dusky necks & heads  
19    At length when I get near them--I hear  
20    their peculiar quack also--& off they go.  
21    The shell drakes appear to be a much more  
22    lively bird than the black duck-- How  
23    different from the waddling domestic duck.  
24    The former are all alive--eagerly fishing  
25    quick as thought--as they need to be to  
26    catch a pickerel.  
27    I look again at the meadow crust  
28    carried off by the ice-- There is one by the  
29    RR bridge say 3 rds x 1 covered with button  
30    bushes & willows--Another some 5 rds  
31    by 3 at the s end of Potter swamp meadow

1 also covered densely with button bushes &c  
2 It is far from the river by the edge of the  
3 wood. Another--& the most interesting  
4 one lies up high some 30 rods  
5 N of this near the woodside & 15 rds from  
6 the river. I measure it with a tape--  
7 It is rudely triangular & about 4 rods  
8 on a side--(though the sides are larger on  
9 the convex line) as well as the other it  
10 is from 1 to 3 feet thick & very densely  
11 covered with button-bushes, ~~black~~ with a  
12 few black & other willows & late roses--from  
13 4 to 7 feet high-- As dense & impassable  
14 as any kind of thicket that we have.  
15 & there are besides countless great yellow  
16 & white lily--& pontederia roots in it.  
17 It is a large & densely bushy island in the  
18 meadow-- It would surprise any one to be-  
19 hold it. Suppose that you were to find  
20 in the morning such a slice of the earth's  
21 crust with its vegetation dropt in your  
22 front yard--if it could contain it--  
23 I think we should not soon hear the  
24 last of it-- It is an island such as might  
25 almost satisfy sancho Panza's desires.  
26 It is a forest in short and not a very small  
27 one either-- It is Birnham<sup>21</sup> wood come  
28 to Dunsinane-- It contained at least 8 square  
29 rods.

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<sup>21</sup>"B" written over "b"; also 1906 has "Birnam," but the "h" is apparent.

1           There was another piece covered in  
2 like manner--~~which~~ some 5 rds long  
3 & 3 wide--sunk off cardinal shore  
4 on a hard sandy bottom & so deep--That  
5 its whole size did not appear above water  
6 I could not touch the bottom with my oars  
7 on the outside-- This no one would have  
8 detected for an immigrant--or new come  
9 land--unless very familiar with the shore--  
10 for it's the raw edge is concealed it looks  
11 exactly as if it grew there like the others near  
12 by. There was a strip without anything  
13 but grass on it some 5 rods long x 20 feet  
14 wide--& 2 pieces making as such more  
15 in length end to end with it on the-- In all  
16 there must have been from 1/3 to 1/2 an acre  
17 on this single meadow--which came from  
18 far up stream-- I could not tell from where--

19           I saw more up the stream--& they were  
20 all dropt nearly in a line on the E side  
21 for half a mile or more-- Such revolutions  
22 can take place & none but the proprietor  
23 of the meadow notice it--for the  
24 traveller passing within sight does not  
25 begin to suspect that the bushy island  
26 which he sees in the meadow has floated  
27 from elsewhere--or if he saw it when  
28 on its voyage--he would not know it  
29 for a voyager--

1 In one year all the raw edge is concealed  
2 & the vegetation there transplanted  
3 does not appear to find it out--

4 These must have been carried off  
5 about the 16th of mar. or when the  
6 river broke up. Perhaps in that  
7 strong SW wind of the 19th--The ice  
8 being 18 or 20 inches thick & having 10  
9 000 strong handles to take hold by--aided  
10 often  
11 too ^ by the lightness of the frozen meadow--  
12 can easily lift these masses & if there  
13 were rocks imbeded in them would moved  
14 them also. For the cake of ice may  
15 be a dozen rods or more in breadth--

16 These have generally grounded high on  
17 the meadows--where the lilies &c will  
18 all die--indeed most of them have already  
19 been killed by frost--& probably the button  
20 of it  
21 will much ~~or wholly~~ die too. Also that which  
22 has sunk in deep water will die

23 I saw one piece a rod wide {nearly} in  
24 the middle of the river & detected it only  
25 by the top a few twigs seen above the surface--.

26 The willows--or osiers will do well  
27 & the roses wherever they may lodge on the  
28 banks over the meadow--but the button  
29 bush must stand ~~the~~ immediately on  
30 the edge of the river or other water--  
31 & there they are most likely to be placed.  
32

1           The present islands--bushy or wooded--in  
2 the meadow--have no doubt commonly had this  
3 origin. The soil is there doubled & so elevated  
4 & the ground set out at the same time-- The  
5 surface being at once elevated ~~4 rods~~ 1 to 3  
6 feet for ~~but~~ 4 rods or more--though  
7 the button bush dies--willows will live &  
8 & alder  
9 maples &c spring up there. When the  
10 flood comes with icy hands--you have  
11 got a mighty lifter at work. Black  
12 willows 10 feet high & then 4 or 5 rods  
13 of button bushes are all taken up together  
14 with their soil--& carried up right a with-  
15 out jarring to a new locality--half a mile  
16 or more distant.

17           I observe that different meadows--are  
18 at different levels above the river-- The  
19 great Sudbury meadows are low-- Cyanean  
20 meadow is generally higher then the Ammania  
21 meadow-- I can cross the last still but  
22 not the first. The surface has been much  
23 taken off the last by the ice--& perhaps  
24 more has lodged on this other. Mantatuket  
25 meadow appears to be about the height of  
26 Cyanean meadow generally--or hardly so ~~high~~

27 low. The Potter swamp meadow is lower  
28       Perhaps those valleys parrallel with the river are where the water has swept  
29 than any that I have named in Concord.  
30       off the meadow crust the most--& not old channels?  
31 It is ~~not~~ evident that this transportation  
32 of the meadow surface--affects the relative  
33 height at the meadows very much--

1           Some meadows are now saved by  
2 the cause ways & bridges & willow rows  
3           Though there were a hundred pieces  
4 in Potter swamp meadow--there were  
5 none in the meadow this side the causeway.  
6 Prob. these meadow &c has transported  
7 2 hundred years ago than to day there--  
8 When the river at high water especially  
9 was less obstructed. This is the origin  
10 of almost all inequalities of surface in  
11 the meadows--& it is impossible to say how  
12 many of the clumps of bushes you see there  
13 have been thus transplanted.

14           As for that mass which sunk in deep water  
15 off cardinal shore--the cake of ice which  
16 transported it--may have struck the shore  
17 many rods from its burden & melted in  
18 that position.

19           Consider what a new arrangement of the  
20 clumps in the mead is thus made every  
21 year. The revolution for each source  
22 is now confined to the space between 2  
23 causeways & bridges--or 2 willow rows.  
24 While formerly it was only confined by  
25 the form or dimensions of the meadow--

26           I find on that most interesting mass  
27 of meadow & button bushes on the top of  
28 a rot of musquash mounds--a very  
29 peculiar stercus--precisely like a

1 human one in size & form & color externally  
 2 so that I took it for such-- But it was nearly  
 3 inodorous & contained some fish sales<sup>22</sup>--& it  
 4 has about the color of fireproof brick dust  
 5 within. I think it was that of an otter--quite  
 6 fresh-- I hear that the epigaea is no  
 7 more forward than on the 8th  
 8  
 9 Pine warblers heard in the woods by C. today.X //  
 //  
 10 This ~~is the~~ except the pigeon woodpecker &  
 11 & hawks as far as they are migratory  
 12 pigeon ^--is the first that I should call  
 13 woodland (a dry woodland) birds that arrives.  
 14 The red-wings generally sit on the  
 15 black willows & the swamp-white oaks & maples  
 16 by the water & sing o-gurgle-ee this eve--as  
 17 if glad to see the rivers brink appearing again  
 18 & smooth waters also. The grackles are  
 19 feeding on the meadow edge.  
 20 Ap 13th  
 21 A little snow fell on the 11th {st} the rain--  
 22 & on some very warm warm banks the south side  
 23 of houses & hills the grass looked quite  
 24 green by contrast in spots. //  
 25 The streets are strewn with the bud scales  
 26 of the elm--which they opening have lost off--  
 27 & their tops present a rich brown already--  
 28 I hear a purple finch X on one--& did I //  
 29 prob. a white bel-swallow  
 30 not hear a martin ^? rich warble also X? //  
 31 The birds are not so early now as I should  
 32 have expected. Were they not deterred from

---

<sup>22</sup>1906 has "scale." Apparently, there is no "c."

1 coming N. by the very strong & cold NW wind?  
2 --notwithstanding that the ground has been  
3 bare so long? The S. purpurea will hardly  
4 open for 5 days yet.  
5 //  
6 Pm paddle to Balls Hill  
7 & sail back--  
8 I see the small botrychium fresh & yellow  
9 still--so it is as much an evergreen as any  
10 fern.  
11 It is pleasant & pretty warm-- To  
12 //day is the awakening of the meadows now  
13 partly bare-- I hear the stuttering note  
14 //of frost. the R. halecina (see one X by shore)  
15 come up from all the great meadow  
16 --esp. the sedgy parts or where the  
17 grass was not cut last year--& now  
18 just peeps above the surface. There is  
19 something soothing & suggestive of halcyon  
20 days in this low but universal breeding  
21 note of the frog. Methinks it is a more  
22 unmistakable evidence of warmer weather  
23 --of the warmest we have at this date--  
24 than almost anything else. The hylodes  
25 and woodfrogs are other degrees on the  
26 thermometer of the season--indicating that  
27 the weather has attained a higher tempe--  
28 rature than before--~~but~~ a & winter fairly  
29 ended--but this note marks what  
30 you may call April heat (or spring

1 heat)  
2 I see no ducks on the meadows today--Perhaps //  
3 because there is so much less water & it is so  
4 fair.  
5 Saw a great bird flying rather low & circling  
6 more or less over the great meadows--which  
7 I at first thought was a fish hawk--having  
8 a fair sight of it from Ball's Hill--but  
9 with my glass I saw that it was a gull--  
10 but I should say wholly slate color & dark //  
11 at that--(though there may have been small  
12 spots which made no impression of another  
13 color). It was at least as large maybe  
14 larger than--the herring gull. Was it the  
15 saddle-back gull?  
16 Is that a potamogeton? or a pontederia? or a  
17 sium coming up so thickly now on the bottom  
18 of the river near the shore--not on a grassy bottom with //  
19 2 little roundish leafets becoming spatulate? & a  
20 seed {drawing} a triangular & pointed with one side more flat than  
21 the others.  
22 Ap 14th  
23 Wind was easterly yesterday--hence snow & rain  
24 today. I think that this is the 7th rain storm (as I //  
25 reckon) beginning with the 18th of mar. which  
26 resulted from the wind becoming easterly on the pre-  
27 in  
28 vious day-- After having been each instance but  
29 one NW the day before--& that once the  
30 previous day was quite calm.  
31 There are many worm-holes or piles in the door-  
32 yard this Am-- How long? //  
33

1           Transplanting currant bushes today-- I find  
2    that though the leafbuds have not begun  
3    to open--white shoots have shot up from the  
4 //bottom of the stocks 2 to 4 inches far below  
5    the surface as yet--& I think that they have  
6    felt the influence of the season--not  
7    merely through the thawed ground--but  
8    through that portion of the plant above  
9    ground. There is this growth at the root  
10   in early spring preceding any visible growth  
11   above ground.

12                            Ap. 15th

13 //           Ground white with snow this morning, but  
14    v the sun coming out  
15    it melts in a few hours)^-- I observe, after  
16    it is gone, much bluish vapor curling up  
17    from plowed ground--looking like a smoke  
18    there--but not from ground not recently plowed  
19    or from grass ground. Is it that the ploughed  
20    ground is warmer--(or merely that it has ab-  
21    sorbed more moisture?) Perhaps the sun penetrates  
22    it & so warms it more--since it lies up lighter.  
23    It is a Very noticeable phenomenon at any  
24    rate--That only the ground just ploughed  
25    thus smokes.

26                            Pm to Cliffs & Well meadow

27    There is quite a shimmer in the air--the  
28    day being pretty warm--but methinks it is  
29    a little greater over ploughed ground than  
30    over sod--but I see it in woods as high as



1 provided to fill its interstices with song! It is  
2 provided that while we are employed in our  
3 corporeal--or interllectual<sup>23</sup> or other exercises  
4 we shall be lulled & amused--or cheered  
5 by the singing of birds. When the laborer  
6 rests on his spade today--the sun having just  
7 come out--he is not left wholly to the mercy  
8 of his thoughts-- Nature is not a mere void  
9 to him--but he can hardly fail to hear the  
10 pleasing & encouraging notes of some newly ar-  
11 rived bird--the strain of the grass finch is very  
12 likely to fall on his ear--& convince him whether  
13 he is conscious of it or not--that the world  
14 is beautiful & life a fair enterprise to engage  
15 in. It will make him calm & contented.  
16 If you yield for a moment to the impressions of<sup>24</sup>  
17 sense--you hear some bird giving expression to  
18 its happiness in a pleasant strain. We are  
19 provided with singing birds & with ears to hear them.  
20 What an institution that. Now are we obliged  
21 to catch & cage them--nor to be bird-fancier  
22 in the common sense-- Whether a man's work be  
23 hard or easy--whether he be happy or unhappy  
24 --a bird is appointed to sing to a man while  
25 he is at his work--

26 Consider how much is annually spent  
27 on the farmer's life--the beauty of his  
28 abode--which has inspired poets since the  
29 world has made--the hundreds of deli-  
30 cate & beaufiful<sup>25</sup> flowers--scattered profusely

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<sup>23</sup>Should be "intellectual," but the extra "r" is apparent.

<sup>24</sup>"of" is written above the end of the word "impressions."

<sup>25</sup>Should be "beautiful," but the extra "u" is apparent.

1 under his feet & all around him--  
2 as he walks or drives his team afield he  
3 can not put his spade into uncultivated  
4 nor into much cultivated ground without  
5 disturbing some of them-- A hundred or 2  
6 of equally beautiful birds to sing to him--  
7 morning & evening--& some at noonday--  
8 a good part of the year-- A perfect sky  
9 arched over him--a perfect carpet--spread  
10 under him & c &c--& can the farmer speak  
11 or think carelessly of these gifts--will he find  
12 it in his heart to curse the flowers & shoot  
13 the birds?

14 Hear a gold-finch after a loud mew in  
15 an apple tree--sing in a rich & varied way--as if im- //  
16 itating some other bird.  
17

18 Observe in the small shallow rills in the  
19 sandy road beyond the Small Pox Burying Ground  
20 --made by the snow of the morning now melted--  
21 very interesting ripples over a pebbly or uneven bottom  
22 on this side or that. The beauty of these little  
23 ripples was occasioned by their shadows--amid the  
24 bright water--they were so arranged with re-  
25 markable order as to resemble the <sup>bright</sup> ^ scales of  
26 a portion of a snake's skin-- Thus {drawing}  
27 with geometrical regularity

28  
29 7 or 8 parallel rows in a triangular form  
30 successively diminishing in size-- The ripple  
31 is occasioned ~~by~~ merely by the impetuosity of the

1 water meeting some slight obstacle.  
2 Thus you see in the very ripples on a rill--  
3 a close resemblance in arrangement to the bright  
4 scales of a fish--& it greatly helps to conceal  
5 a fish--if it could lie under them. The  
6 water was generally less than an inch deep  
7 on a sandy bottom.  
8 The warm pine woods are all alive this  
9 //  
10 Pm with the jingle of the pine-warblers--The  
11 for the most part invisible minstrel. That  
12 wood e.g. at the Punk Oak--Where we sit  
13 to hear it. It is surprising how quickly the earth  
14 which was covered half an inch deep this morning  
15 & since so wet--has become comparatively  
16 dry--so that we sit on the ground--or on  
17 & smell the pines & see & hear the flies &c buzz about  
18 the dry leaves in woods--at 3 Pm ^ though the  
19 sun did not come out till 12. M That  
20 This morning the aspect of winter--at mid forenoon-- The ground {redening}<sup>26</sup> with  
21 {woodbine<sup>27</sup>} at 3 pm--sit on  
22 dry leaves--hear the flies buzz & smell the pines!!  
23 wood is now very handsome seen from the  
24 westerly side--the sun falling far through  
25 it--though some trunks are wholly in shade--  
26 This warbler impresses me as if it were calling  
27 the trees to life-- I think of springing twigs-- Its  
28 jingle rings through the wood at short inter-  
29 vals--as if like an electric shock--it imparted  
30 a fresh spring life to them. You hear the same  
31 bird, now here now there, as it incessantly flits  
32 about--commonly invisible--& uttering its simple jingle  
33 on very different keys--& from time to time  
34 a companion is heard farther or nearer--  
35 This is a peculiarly summer-like sound--

---

<sup>26</sup>1906 has "reeking."

<sup>27</sup>1906 has "moisture."

1 Go to a warm pine wood side--on a  
2 pleasant day at this season after storm-  
3 & hear it sing<sup>28</sup> with the jingle of the pine-  
4 warbler--

5 As I sit on the stump of a large white pine which  
6 was sawed off, listening to these warblers, in a warm  
7 sun--I see a fair weather cloud going over rather  
8 & hear the flies buzz about me  
9 low ^--& it reminds me of those long drawn sum-  
10 mer days when you lie out of doors--and are  
11 more related to the clouds travelling over  
12 The summer clouds, the thunder clouds especially  
13 are nearer to us than the clouds of winter.  
14 When we go huckle berrying the clouds are  
15 our fellow travellers, to greet or avoid.  
16 I might say--the clouds have come. I  
17 perceive that I am in the same apartment  
18 with them

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

24 The wood thrush X! at well meadow head-- Not //  
25 being prepared to hear it--I thought it a  
26 very whistling at first. Also a cat-bird mews?  
27 could this have been a gold finch? (not seen) //  
28 The epigaea opened ap. the 13 X //

29 Ap 16

30 Shell-drakes yet on Walden--but I have //  
31 not identified a whistler for several weeks--3 or  
32 more

---

<sup>28</sup>1906 has "ring."

1 Sunday Ap. 17th 59

2 Pm up Assabet

3 The river which had got down on the 10th so

4 that I could not cross the meadows--is up again--

5 //

6 on account of snow & rain--so that I push with

7 difficulty straight to Mautatukets Rocks--but

8 I believe is already falling-- Many grackles &

9 robins are feeding on those strips of meadow just

10 laid bare-- It is still rather cold & windy--

11 & I listen for new birds under the lee of

12 the Rock woods--in vain--but I hear

13 the hum of bees on a willow there. & this fair

14 susurrus makes the weather seem warmer than

15 it is--at the same time,--I hear the low stutter-

16 ing of the R. halecina from the Hunt Meadow

17 (call it the Winthrop Meadow) How pleasing

18 and soothing are some of the first & last

19 audible sounds of awakened nature in the

20 spring! as this 1st humming of bees &c--&

21 the stuttering of frogs. They cannot be called

22 musical--are no more even than a

23 noise--so slight that we can endure it.

24 But it is in part an expression of happiness--

25 an ode that is sung--& whose burden fills

26 the air-- It reminds me of the increased ge-

27 nialness of nature. The air which was so

28 lately void & silent--begins to resound as it were

29 with the breathing of a myriad fellow creatures

30 & even the unhappy man, on the principle that

1 misery loves company is soothed by this infinite din  
2 of neighbors-- I have listened for the note  
3 of various birds-- & now, in this faint hum  
4 of bees, I hear, as it were, the first twittering  
5 of the bird Summer-- Go ten feet that way  
6 to where the ~~NW~~ NW wind comes round the hill, &  
7 you hear only the dead mechanical sound of the blast--  
8 & your thoughts recur to winter--but stand as much  
9 this way in the sun & in the lee of this bush--& your  
10 charmed ears may hear this faint susurrus  
11 weaving the web of summer. The notes of  
12 birds are interrupted--but the hum of insects is  
13 incessant. I suppose that the motion of the  
14 wings of the small tipulidae which have swarmed  
15 for some weeks--produced a humming appreciated  
16 by some ears-- Perhaps the phoebe heard & was  
17 charmed by it-- Thus gradually the spaces  
18 of the air are filled. //  
19 A wood tortoise on bank--1st seen water so high--  
20 Nature has taken equal care to cushion our  
21 ears on this finest sound--and to inspire us  
22 with the strains of the wood-thrush & poet  
23 We may say that each gnat is made to vibrate its  
24 wings for man's fruition.  
25 In short we hear but little music in the world  
26 which charms us more than this sound produced  
27 by the ~~swift~~ vibration of an insects wing & in some  
28 still & sunny nook in spring.  
29 I heard lately the voice of a hound hunting  
30 by itself. What an awful sound to the

1 denizens of the wood! That relentless voracious  
2 demonic cry--like the voice of a fiend! At  
3 hearing of which, the fox, hare, marmot &c  
4 tremble for their young & themselves, imagining  
5 the worst-- This however is the sound which  
6 the lords of creation love to accompany &  
7 follow with the bugles & "mellow-horns"--con-  
8 veying a similar dread to the hearers--instead of  
9 whispering peace to the hare's palpitating breast.

10 A partridge drums

11 //

12 Ap 18th

13 8 Am to the S part of acton surveying

14 with {Stedman} Buttrick. When B. came

15 to see me the other evening & stood before

16 the door--in the dark--my mother asked

17 who is it? to which he replied quite seriously

18 -- "Left-tenant Stedman-Buttrick."

19 B. says that he shot some crossbills which

20 //

21 were opening pine-cones in the neighborhood

22 of the Easterbrook place some years ago.-- That

23 he saw 2 dildees here as much as a month ago

24 at least--& that they used to breed on that

25 island E of his house--(I think he called it Burr's

26 Island.)-- He sees the 2 kinds of tell-tale here

27 //--once shot an Eider-duck here. Has often

28 //shot the pintail (he calls it spindle tail) duck

29 here. Thinks he has killed 4 (!) kinds of

30 teal here. Once shot a shell-drake which

31 had a good sized sucker in its throat the tail

1 sticking out its bill--so that, as he thought, it<sup>29</sup>  
2 could not have flown away with it. It was a full  
3 plumaged male-- Once, in the fall, shot a  
4 mackerel gull on what I call Dove Rock. //

5 Once shot a whole flock of little ducks //  
6 not more than 2/3 the size of a pigeon, yet full  
7 grown--near the junction of the 2 rivers. Also  
8 got 2 ducks--the female all white & the male  
9 with a long & conspicuous bottle green crest above  
10 the white-- Looked through Audubon but could find  
11 no account of them. See 2 kinds of grey-ducks //  
12 one larger than a black duck. Has seen  
13 the summer duck here carrying its young to the  
14 water in {~~---~~} her bill as much as 30 rods. Says that  
15 teal have bred here.

16 His boy found one Feb. as much as a peck of  
17 chestnuts in different parcels within a short distance  
18 just  
19 of one another--^ under the leaves in Hildreth's chest-  
20 nut wood--placed there as he says, by the chip squirrel  
21 which they saw eating them. He has seen the  
22 cross fox here. //

23 I am looking for acorns these days to sow on  
24 the Walden Lot--but can find very few sound  
25 ones. Those which the squirrels have not  
26 got are mostly worm eaten & quite pulverized  
27 or decayed. A few--which are cracked at  
28 the small, having started last fall, have yet  
29 life in them--perhaps enough to plant. Even  
30 these look rather discolored when you cut them  
31 open, but Buttrick says they will do for pigeon  
32 bait--so each man looks at things from his

---

<sup>29</sup>This line was cut off in the copy.

1 own point of view. I found by trial that  
2 the last or ap. sound acorns would always  
3 sink in water while the rotten ones would float--  
4 & I have accordingly offered 5 cts a quart  
5 You can thus separate the good from the bad in a moment  
6 for such as will sink--^ I am not sure, however,--  
7 but the germs of many of the latter have been  
8 injured by the frost.

9 Hear a field-sparrow X  
10 //  
11 Ed. Emerson shows me his aquarium-- He  
12 has 2 minnows from the brook--which I think must  
13 //be the banded minnow a little more than an inch long  
14 with very conspicuous broad black transverse bars.  
15 //Some *R. sylvatica* spawn just began to flat out.  
16 Also several kinds of larvae in the water--one  
17 very like a dragon fly with 3 large feather-like  
18 //appendages to the tail {drawing} small  
19 gyrinus, which he says nibbled off the legs  
20 of the skater--(?) &c &c but no dragon fly grubs.  
21 2. salamanders one from ripple lake &  
22 the other from the pool behind my house that  
23 was-- One some 4 inches long--with a carinated  
24 & waved crenated edged tail--as well as  
25 light vermillion spots on the back--evidently  
26 the salamandra dorsalis (This, I suspect, is  
27 what I called S. symmetrica last fall.)  
28 This is pale brown above  
29 //The other 2/3 as large a very handsome bright  
30 orange salmon, also with vermillion spots--  
31 which must be the true S. symmetrica. Both  
32 //  
33 thickly sprinkled with black dots. The latter's  
34 tail comparatively thick and straight-edged.

1 Haynes (Heavy) says that trout spawn 2ce  
2 in a year--once in October--& again in the spring.

3 Saw snow-ice--a yard across to-day under //  
4 the N side of a wood.

5 Ap. 19th

6 Was it a vireo (?) I heard this Am on the elms?

7 Ch. sees the same small flock of shell drakes-- //

8 3 kinds in Walden still-- They have been there a week  
9 or 2--but I must see them the 22nd.

10 Pm Began to set White Pines

11 in R. W. E's Wyman Lot.

12 Ap. 20

13 Hear & see my Ruby-crowned or crested wren singing //  
14 at 6 1/2 Am in Wheildon's Pines.

15 Setting pines all day--

16 Ap 21st

17 Setting pines all day-- This makes 2 1/2 days

18 with 2 men & a horse & cart to help--some. We

19 have set some 400 trees at 15 feet apart

20 diamond wise--covering some 2 acres-- I set

21 every one with my own hand--while another digs the

22 holes where I indicate & occasionally helps the

23 other dig up the trees. We prefer bushy pines

24 only one foot high which grow in open or pasture

25 land--~~which I then~~ yellow looking trees

26 which are used to the sun--instead of the

1 spindly Dark green ones from the shade of the  
2 woods. Our trees will not average much more  
3 than 2 feet in height--& we take a thick rod  
4 with them  $\approx$  15 to 18 inches in diameter--  
5 There are a great many more of these plants to  
6 be had along the edges & in the midst of any  
7 which have wood than one would suppose. One  
8 man charged us 5 or 6 cts for them about  
9 a mile & a half distant! Got about 120  
10 for Geo Hymods's land--& the rest for the  
11 Brister's Lot & this Wyman Lot itself.  
12  
13 R. W. E has bough 1/4 lb of white pine seed at 400<sup>30</sup>  
14 per pound.  
15 We could not dig up pines on the N side of the  
16 //wood on the Brister Lot today on ac. of frost!  
17 Though we had quite forgotten it. & put the  
18 winter so far behind us.  
19 See the Vanessa antiopa-- C has seen it  
20 //  
21 a week or so. C. sees a cicindela  
22 //  
23 toda<sup>31</sup>-- I hear of a robin's nest began  
24 //& that geese go over today.  
25 Put out a fire in the woods--the Brister  
26 //Lot. Quite a warm day.  
27 Storer's account of the salamanders concludes  
28 with these words-- "All the salamanders here described,  
29 feed upon insects, which they devour in very large  
30 numbers, & hence their utility cannot be ques-  
31 tioned." The same might be said in behalf  
32 of the creatures that devour the salamanders.

---

<sup>30</sup>Thoreau likely intended \$4.00, but omitted the period.

<sup>31</sup>Might be "today," but there is no "y."



1 but not began to shed their pollen--not being loose  
2 & straight yet but curved--are a very  
3 rich crimson, like some ripe fruit--as  
4 mulberries seen against the sand-- I cannot  
5 {drawing} represent the number in a single cluster--  
6 but they are much the handsomest  
7 now before the crimson anthers have burst.  
8 & are all the more remarkable--for the very  
9 open & bare, habit of the tree.

10           When setting the pines at Walden the last 3 days  
11 I was sung to by the field sparrow-- for music I  
12 heard their jingle from time to time--that the music  
13 the pines were set to--& I have no doubt they will  
14 build many a nest under their shelter-- It would seem  
15 as if such a field as this (a dry open or half open  
16 pasture in the woods--with small pines scatted<sup>32</sup>  
17 in it) was well nigh, if not quite abandoned  
18 to this one alone among the sparrows. The surface  
19 of the earth is portioned out among them-- By  
20 a beautiful law of distribution, one creature  
21 does not too much interfere with another. I do  
22 not hear the song-sparrow here-- ~~when~~ As the  
23 pines gradually increase & a woodlot is formed  
24 these birds will withdraw to new pastures & the  
25 thrushes &c will take their place.

26           Yet as the walls of cities are fabled to have  
27 been built by music, so my pines were established  
28 by the song of the field sparrow-- They commonly  
29 place their nests here under the shelter of a little  
30 pine in {ane} the field.

---

<sup>32</sup>Probably "scattered," but there is no "er."

1           As I planted there wandering thoughts visited  
2 me--which I have now forgotten-- My  
3 senses were busily suggesting them, though I  
4 was unconscious of their origin. E.g. I first  
5 consciously found myself entertaining the thought  
6 of a carriage on the road--& directly after  
7 I was aware that I heard it. No doubt I  
8 had heard it before--or rather my ears had,  
9 ~~& told it to me~~ but I was quite unconscious  
10 of it-- it was not a fact of my then state  
11 of existence, yet such was the force of habit  
12 it affected my thoughts nevertheless--so--  
13 double--if not treble even, are we. Some-  
14 times the senses bring us information quicker  
15 than we can receive it. Perhaps these thoughts  
16 which run in ruts by themselves while we  
17 are engaged in some routine--may be called  
18 Automatic.<sup>33</sup> I distinctly entertained the idea  
19 of a carriage--without the slightest suspicion  
20 how it had originated--or been suggested to my  
21 mind. I have no doubt at all that my ears  
22 had heard it--but my mind just then preoccupied  
23 had refused to attend to it. This suggests that  
24 must if not all indeed, of {our} ideas may be  
25 due to some sort of sensuous impression of  
26 which we may or may not be conscious.

27           This pm there is an E. wind & {a} rain storm  
28 ac. Legging-- the 8<sup>th</sup> of the kind with this wind--  
29 We have had more so long without the wind--  
30 I shall see a large flock of grackles.

//

//

---

<sup>33</sup>Capital "A" written over lower case "a."



1           In about 5 quts of scarlet oak acorns  
2 gathered the other day there only some 3 gills  
3 that had life in them--or say 1 in 7--  
4 I do not know how many the squirrels had  
5 got--but as it was quite near a house--a tree  
6 by itself. I think not a great many-- The rest  
7 were ap. destroyed by worms--so that I should  
8 say the worms destroyed before spring--3/4 of them.  
9 As the grub is already in the acorn it may be  
10 just as well (except for the squirrels) to sow them  
11 now as in the fall, whatever you can get.

12           Clears up at 5 Pm

13           & a very strong S wind blows--

14 I go over<sup>36</sup> the water. I frequently observe that  
15 the waves do not always run high in proportion  
16 to the strength of the wind. The wind seems some-  
17 times to flat them down-- perhaps when it blows  
18 very hard in gusts--which interrupt a long roll--

19           What is that small willow or the N. side  
20 of S. Brown's stump--which ap--began to open 2 days ago.           //

21           A large hickory by the wall on the N side (or  
22 NE side) of the hill--ap. just blown down--The  
23 one I saw the screech owl go into 2 or 3 years ago.  
24 I think it may have fallen in this very high wind  
25 which arose within an hour--at any rate it was  
26 fallen since the grass began to spring for the owl  
27 hole contains a squirrel's nest made of half green  
28 grass somewhat withered--which could only have  
29 been found quite recently--& also the limbs have  
30 been driven so deep into the ground that I can-  
31 not pull them out--, which shows that the

---

<sup>36</sup>1906 has "on."

1 ground was thawed when it fell--also--the squirrel's  
2 nest which is perfectly<sup>37</sup> sheltered now the tree is  
3 fallen--was quite wet through--with rain--that  
4 of the morning as I think-- This nest, which I  
5 suppose was that of a red squirrel was at the  
6 //  
7 bottom of a large hole some 18 inches deep &  
8 25 feet from the ground where a large limb had  
9 been broken off formerly-- An opening on the side  
10 had been stopped with twigs as big as a pipe stem  
11 & larger--some of them the hickory twigs quite  
12 green & freshly gnawed off with their buds--form-  
13 ing a rude basket work--which kept up & in  
14 the grass & rotten wood 4 or 5 handfuls of which  
15 ~~compose~~ mixed with the rotten wood of the inside  
16 composed the nest-- This was the half old & withered  
17 & half green grass gathered a few days since about  
18 the base of the tree.

19 Sunday Ap. 24--59

20 Pm to Pine Hill & Heywoods meadow

21 The weather is windy still & cool-- I see  
22 //for several days past tipulidae of larger  
23 size dancing like the small--

24 A great many oak leaves had their petioles  
25 broken off 1/2 inch or more from the base--  
26 so that the leaves fall--before they are regularly  
27 cast off by the tree-- I see many young oaks  
28 a scarlet one this pm the half of whose  
29 petioles have been thus broken mechanically  
30 by the force of the wind on the blade of the  
31 leaf in the winter. These stub-ends will

---

<sup>37</sup>The "r" in "perfectly" is not apparent.

1 course be cast soon like the entire leaves.  
2 Thus you may have small trees entirely  
3 divested of their leaves excepting a fragment  
4 of the petioles--by merely mechanical means  
5 or violence long before they have all fallen regularly  
6 They were whirled about by the wind till  
7 they break off--& then broken & stringy  
8 petioles give to the tree a ragged appearance.

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

//

13 There is a season for everything, & we  
14 do not notice a given phenomenon--except  
15 at that season--if indeed it can be called  
16 the same phenomenon at any other season--  
17 There is a time to watch the ripples on  
18 Ripple-lake--to look for arrowheads--  
19 to study the rocks--& lichens--a time to  
20 walk on sandy deserts--& the observer  
21 of nature must improve these seasons  
22 as much as the farmer his. So boys  
23 fly kites & play ball or hawkie at  
24 particular times all over the state--  
25 A wise man will know what game to play  
26 to-day-- & play it-- We must not be governed  
27 by rigid rules, as by the almanack--but  
28 let the season rule us. The moods &  
29 thoughts of man are revolving just as  
30 steadily & incessantly as nature's. Nothing

1 must be postponed-- Take time by the  
2 forelock-- Now or never. You must  
3 live in the present--launch yourself {on}  
4 every wave--find your eternity in each  
5 moment. Fools stand on their island  
6 opportunities & look toward another land--  
7 There is not the land--there is no other  
8 life but this--or the like of this. Where  
9 the good husbandman is, there is the  
10 good soil. Take any other course & life  
11 will be a succession of regrets. Let us see  
12 vessels sailing prosperously before the  
13 wind & not simply stranded barks--  
14 There is no world for the penitent & regretful.

15         On the mill-dam a man  
16 is unmanned-- I love best to meet them in  
17 the outskirts-- They remind me of wharf rats  
18 in the other place. Let me see man a-  
19 farming--a-hunting, a-fishing a-walking--  
20 anything but a-shopping. Farmers  
21 coats are ugly in the shops & on the milldam  
22 --but become them in the fields.

23         Dr. B asked me what I found that was  
24 new these days--if I was still looking after  
25 the beautiful-- I told yes--& that I wished to  
26 hire 2<sup>38</sup> or 3 good observers.

27         With what energy nature carries out her  
28 plans! I see white birches 6 or 8 feet  
29 high growing in the seams of rocks 3 or 4

---

<sup>38</sup>"2" is written over an illegible letter.

1 feet from the ground--in the midst of  
2 a sproutland. If man will not let them  
3 grow on the surface of the earth Nature  
4 can still maintain the species by dropping  
5 seeds into the seams of the rocks. By their growth  
6 probably they help to split the rocks. How often  
7 seeds appear to catch & take root in what  
8 we should have deemed the most unfavorable  
9 place! Deep in the seam of a rock the seed  
10 is out of the way of birds & squirrels.

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

14 Sitting on lightning hillside--& looking over  
15 Heywood's meadow--I am struck by the vivid  
16 greenness of the tips of the sedge just pushing  
17 in the water  
18 up out of it--dry tussocks ^-- I observed it  
19 here on the 22d-- It is some 6 inches high or more--

//

21 {drawing} All the lower, or the  
22 greater, part of the tussock  
23 is brown & sere & prostrate  
24 %c. stricta v June 19th%  
25 withered blades of last year-  
26  
27 while from the top spring up ranks of green  
28 life like a fire from amid the withered  
29 blades. This new grass is green beneath  
30 %v ps forward}%<sup>39</sup>  
31 but yellow tipt--perhaps on ac. of the recent  
32 snow or higher water-- It is the renewal of  
33 life--the contract of life with death--spring  
34 with winter--is no-where more striking--  
35 such is the regularity the growth--& of the

---

<sup>39</sup>Unclear in MS copy.

1 fallen grass--that it affects you like a  
2 geometrical figure. The fallen dead & decaying  
3 last years grass is dead past all resurrection--  
4 perfectly brown & lifeless--while this vivid green  
5 that has shot up from its midst--close upon  
6 the heels of winter--even through snow--is  
7 like the first phalanx of spring's forces--

8         The green has the regularity of a parapet  
9 or rampart--to a fortress-- It winds along  
10 the irregular lines of tussocks like the wall  
11 of China over hill & dale--

12                     Ap 25th

13             Pm to Kalmia Swamp--

14 //         1st notice martins

15             I got today & yesterday the first decided

16 // impression of greenness--beginning to prevail--

17 summer like-- It struck me as I was going

18 past some opening & by chance looked up

19 some valley or glade--greenness just be-

20 ginning to prevail over the brown or tawnly<sup>40</sup>

21 -- It is a sudden impression of greater genial-

22 ness. in the air--when this greenness

23                                     at    at

24 first makes an impression on you ~~from~~

25 some turn--from blades of grass decidedly

26 green though thin in the sun & the still

27 warm air--on some warm orchard slope

28 perhaps. It reminds you of the time, not far

29 off when you will see the dark shadows

30 of the trees there & buttercups spotting the

31 grass.-- Even the grass begins to wave, in the

---

<sup>40</sup>Misspelled "tawny"?

1 19th of April fashion. When the wind is still  
 2 cool elsewhere, I glance up some warm southern  
 3 slope--sunny & still--where the thinly scattered  
 4 blades of green-grass lately sprung--already  
 5 perchance begin to wave--& I am suddenly ad-  
 6 vertised that a new season has arrived.  
 7 This is the beginning of that season, which  
 8 methinks culminates with the butter-cup &  
 9 wild-pink--& viola-pedata-- It begins when the  
 10 first toad is heard--  
 11       Methinks I hear through the wind today,  
 12 & it was the same yesterday--a very faint  
 13 low singing of toads--as if distant & just  
 14 begun-- It is an indistinct undertone--& I  
 15 was far<sup>41</sup> from sure that I hear anything--  
 16 It may be all imagination.  
 17       I see the meadow-sweet--thimble berry (even in  
 18 a swamp) high blackberry--& (on a dry rock //  
 19 in the woods in a sunny place) some Vac. Penn-  
 20 sylvanicum leafing--(even the last) ap. 2 or 3 days  
 21       Fern scrolls are 8 inches high (beyond Hubbard //  
 22 Bridge on the N bank of road.  
 23       A mosquito endeavors to sting me //  
 24       Ranunculus repens at Cor spring ap. yesterday X  
 25 5 of them out now. Thus early now because exposed  
 26 to light. The V. blanda are numerously open there //  
 27 say 2 days at least (also bluets & potentilla //  
 28 are first noticed by me)  
 29                               & V. sagittata  
 30 The more yellowish red maples of this pm are one barked NE corner Hubs Dracaena  
 31 Grove--the easternmost tree of the row S of Hud's grove--the larger about  
 32 10 rds this side Hub Bridge S. side-- The 2 at this end of bridge are quite red. NB

---

<sup>41</sup>Stray mark above "far" may signify "fair."

1 I hear still--the what what what  
2 //of a Nuthatch & directly after its ordinary  
3 winter note--of gnoh gnoh--quite  
4 distinct. I think the former is its  
5 spring note or breeding note.  
6 E. Bartlet<sup>42</sup> has found a crows nest with 4  
7 //a little {~~consistently~~} developed--~~{~~  
8 eggs in a tall white pine in the grove E  
9 of Beck Stow's-- The snipe have hovered  
10 commonly this spring an hour or 2 before  
11 sunset--& also in the morning-- I can  
12 & very  
13 see them flying ^ high over the mill dam &  
14 they appear to make that sound when descending  
15 one quite by himself-- Toads have been  
16 //  
17 observed or disturbed in gardens for a week--  
18 One saw a striped snake the 3d of April on  
19 a warm RR. sand bank--(a similar place  
20 to the others I heard of).  
21 Young Stewart tells me that he saw last  
22 //year a pout's nest at Walden in the pond  
23 hole by the by<sup>43</sup> pond-- The spawn lay on the mud  
24 quite open & uncovered--& the old fish was  
25 tending it-- A few days after he saw that it  
26 was hatched & little pouts were swimming  
27 about.  
28 Ap. 26th  
29 Start for Lynn--  
30 Rice says that he saw a large mud turtle  
31 //  
32 in the river about 3 weeks ago--& has seen  
33 2 or 3 more since-- Thinks they come out about  
34 //the 1st of April. He saw a woodchuck the 17th

---

<sup>42</sup>Should be "Bartlett," but obviously there is only one "t."

<sup>43</sup>1906 has "big."

1 says he heard a toad on the 23d.<sup>44</sup> ?

2 Pm Walked with C. M. Tracy in the rain  
3 This is the last of the rains ~~whi~~ (Spring rains!) which invariably followed an E.//  
4 wind v back  
5 in the W. part of Lynn--near Dungeon Rock--

6 Crossed a stream of stones 10 or more rods  
7 wide reaching from top of Pine Hill to Salem.

8 Saw many discolor-like willows on hills (rocky hills)  
9 but, apparently passing into S. humilis-- Yet  
10 no eriocephala, or distinct form for discolor-- Also  
11 one S. rostrata. Tracy thought his neighborhood's  
12 a depauperated Flora, being on the porphyry--  
13 Is a marked difference bet. the vegetation other  
14 porphyry & the sienite.

15 Got the Cerastium arvense--from T's garden--said to be //  
16 abundant on N about--& to have flowers big as a 5 cent piece.  
17 very like a dianthus--the leaf-- Also got the Nastur--  
18 tium officinale--or common Brook cress from Lynn & //  
19 set in<sup>45</sup> in depot Field Brook. Another of these in bloom--  
20 His veor<sup>46</sup> virginica of Cardamine grows on dry ground--

21 Ap. 27

22 Walk a long Swampscott Beach--from Red  
23 Rock--NE--the beach strewn with beautifully  
24 colored purple & whitish algae just left by  
25 the tide. Hear & sea the seringo in fields next  
26 the shore. No noticeable yellow shoulder--  
27 pure whitish beneath--dashed throat & a  
28 dark brown line of dashes along the sides of the  
29 ours examined the 30th is ap. or perhaps a little smaller--& less distinctly  
30 whitish beneath  
31 & with a less distinct dark line on the sides--but breast equally dashed  
32 body-- with brown. Did not see the yel. shoulder. & the head was a little less  
33 yellow--  
34 Struck inland & passed over--the W end of High  
35 also note of ours ap. more feeble--1st part like a match spring--last more ringing &  
36 clear--in both birds.<sup>47</sup>  
37 Rock-- & Through the cemetery--& over  
38 Pine Hill (where I heard a strange warbler

39 methought a dark colored perhaps reddish headed

---

<sup>44</sup>The "d" has been transcribed, but it does not appear in the MS copy.

<sup>45</sup>1906 has "it."

<sup>46</sup>1906 has "variety."

<sup>47</sup>These inserted two lines should follow "yellow--."

1 bird). Thence through E saugus to saugus  
2 to Clifftondale I think in the S. part of Saugus.  
3 The little brown snake with the light line  
4 //  
5 along the back--just killed in the road.  
6 Saw at the Aquarium in Broom-  
7 field Street. Ap. Brook minnows with the  
8 longitudinal dark lines bordered with light.  
9 A little pout incessantly nibbles at the dorsal  
10 fin of the common perch--also at--ap. the  
11 mucus on its back. See the sea-raven--  
12 //Toads ring<sup>48</sup> &, no doubt, in Concord also  
13 Ap 28  
14 8 1/2 Am Row to Carlisle Bridge with  
15 Blake & Brown. See black ducks &  
16 //shell drakes still. The first myrtle bird that  
17 //I have noticed. A small hawk perhaps pigeon  
18 // A gull.  
19 //hawk. Sit on Balls Hill The Water partly  
20 over the Great Meadows-- The wind is NE &  
21 at the W base of the hill we are quite sheltered--  
22 Yet the caves run quite high there &  
23 still further up the river--waves raised  
24 by the wind beyond the hill--while there are  
25 very slight waves or ripples over the meadow  
26 S of the hill, which is much more exposed--  
27 evidently because the water is shallow there--  
28 & large waves are not so easily formed--on ac.  
29 of friction--  
30 S. Higginson brought me the arbutus in  
31 //bloom on the 26th (~~how long?~~)one twig only out prob. X

---

<sup>48</sup>Possibly "sing."



1 began a day or 2--& Luzula Campestris is  
2 //almost out at Clamshell. Its now low  
3 purplish & silky haired leaves are the blooming  
4 early  
5 of moist ground--& ^ meadow edges-- See  
6 //2 or 3 strawberry flowers X at Clamshell--  
7 The 27 & today are weather for a half thick  
8 //  
9 single coat-- This old name is still useful.  
10 There is scarcely a puff of wind till I get  
11 to clam shell. There<sup>51</sup> it rises & comes from  
12 the NW instead of NE--& blows quite hard  
13 //& fresher-- See a stake driver--  
14 Land at Holden Wood-- that interesting  
15 small blue butterfly (size of small red)  
16 //  
17 is ap. just out fluttering over the warm dry  
18 oak leaves within the wood in the sun. Ch. also  
19 first sees them today. The moment it rests  
20 & closes its wings it looks merely whitish slate  
21 & you think at first that the deeper blue was  
22 produced by the motion of its wings--but the  
23 fact is you now see only their undersides  
24 which this whitish spitted with black--with  
25 a dark~~ed~~ waved line next the edge. This  
26 first off-coat warmth just preceding the  
27 advent of the swamp warblers--(particolored  
28 red start &c) brings them out--  
29 I come here to listen for warblers--but hear  
30 black & white  
31 or see only the ^ creeper & the chicadee--  
32 ? Did I not hear a tree sparrow this am?  
33 The viburnum nudum around the edge of the  
34 swamp on the N edge of the warm bays in sunny  
35 //& sheltered places, has just expanded--say 2 days

---

<sup>51</sup>1906 has "Then."

1 the 2 diverging leafets having 1 inch long nearly  
2 V--pretty yellowish brown leafets in the  
3 sun--the most noticeable leafiness here now--  
4 just spotting & enlivening the dead dark bare  
5 twigs. under the red-blossoms of the maples.  
6 small  
7 It is a day for many ^ fuzzy gnats & other  
8 insects swarm about the expanding buds  
9 small insects. ^ The viburnum buds are so large  
10 & long like a spear head--that they are  
11 conspicuous, the moment the 2 leafets diverge  
12 & they are lit up by the sun-- They unfold  
13 their wings like insects & arriving warblers.  
14 These too mark the season well-- You see  
15 them a few rods off in the sun through the  
16 stems of the alders & maples.  
17 That small curled grass in tufts in<sup>52</sup> dry pastures & hills  
18 spoken of about a month ago is not early sedge. //  
19 I noticed under the S edge of the Holden Wood  
20 on the arrow-head field a great many little birches  
21 in the grass--ap. seedlings of last year-- & I take  
22 up a hundred & 10 from 3 to 6 or 7 inches high.  
23 They are already leafed--the little rugose leafets more  
24 wild  
25 than 1/2 inch wide or larger than any ^ shrubs or //  
26 trees--while the larger white birches have not started.  
27 I could take up a thousand in 2 or 3 hours. They  
28 should a week or 10 days early or before they leaf--  
29 say-- Ap. 20th though then hard & first in grass. //  
30 I set 10. in our yard--  
31 Ch. saw ducks--he think female sheldrakes! //  
32 in Walden today--  
33 Julius Smith says he saw a little hawk kill a  
34 robin yesterday--

---

<sup>52</sup>Perhaps "on."



1 vegetation--! This is the way we glorify God  
2 & enjoy him forever-- Come out here & behold  
3 a thousand painted butterflies & other beautiful  
4 insects--which people the air--then go to  
5 the libraries & see what kind of prayer & glori-  
6 fication of God is there recorded. Mass has  
7 published her report on "Insect-- -- -- Injurious  
8 to vegetation"--& our neighbor<sup>54</sup>--the "Noxious  
9 Insects of NY"-- We have attended to the evil  
10 & said nothing about the good. This is  
11 looking a gift horse in the mouth with a  
12 vengeance-- Children are attracted by the  
13 beauty of butterflies but their parents & legis-  
14 lators deem it an idle pursuit. The parents  
15 remind me of the Devil--not the children of  
16 God. Though God may have pronounced his work  
17 good--we ask-- Is it not poisonous?

18 Science is inhuman-- Things seen with a microscope  
19 begin to be insignificant. So described they are  
20 as monstrous--as if they should be magnified  
21 a thousand diameters. Suppose I should see &  
22 described men & houses & trees & birds--as if they  
23 were a thousand times larger than they are--  
24 with our prying instruments we disturb the balance  
25 & harmony of nature.

26 Pm to 2d Division--

27 Very warm Looking from Clam Shell over Hos- //  
28 mer's meadow--about half covered with water-- see  
29 hundreds of turtles chiefly picta now first lying out  
30 brown--  
31 in numbers on--the ^ pieces of meadow which

---

<sup>54</sup>"bor" is written over illegible letters.

1 rise above the water-- You see their black  
2 backs shine on these hummocks left by the  
3 to 80  
4 ice 50 or ~~60~~ rods off-- They would rapidly  
5 tumble off if you went much nearer-- This  
6 heat & still-ness draws them up. It is remarkable  
7 how surely they are advertised of the first warm  
8 & still days--& in an hour or 2 are sure  
9 to spread themselves over the hummocks-- There is  
10 today a general resurrection of them--& there  
11 they bask in the sun-- It is their sabbath.  
12 At this distance, if you are on the look out--  
13 esp. with a glass--you can discover what  
14 numbers of them there are, but they are shy & will  
15 drop into the water on a near approach-- All up  
16 & down our river meadows their backs are  
17 //shining in the sun today-- It is a turtle day--  
18 As we sat on the steep hill side S of Nut-  
19 meadow Brook Crossing--we noticed a remarkable  
20 whirlwind on a small scale--which carried up the  
21 oak leaves from that {Isand}<sup>55</sup> copse in the  
22 meadow-- The oak leaves now hang thinly & are  
23 very dry & light--& these small whirl  
24 winds--which seem to be occasioned by the  
25 sudden hot & calm weather--(like whirl  
26 pools or dimples in a smooth stream) wrench  
27 them off & up then go somewhat spirally  
28 in countless flocks, like birds with a rustling  
29 sound, & higher & higher into the clear blue  
30 deeps they rise above our heads--till they  
31 are fairly lost to sight, looking when

---

<sup>55</sup>1906 has "island," but there is no "l."

1 last seen--mere light specks against the  
2 by day  
3 blue--like stars ^ in fact-- I could distinguish  
4 some I have no doubt 5 or 600 feet high  
5 at least--but if I looked aside a moment  
6 they were lost-- The largest oak leaves looked  
7 not bigger than a 5 cent piece. These were  
8 drifting Eastward--to descend where? Methought  
9 that instead of ~~being~~ decaying on the earth--or  
10 by fire  
11 being consumed ~~these~~ these were being translated  
12 & would soon be taken in at the windows of  
13 heaven-- I had never observed this phenomenon so  
14 remarkable-- The flight of the leaves-- This //  
15 was quite local--& it was comparatively still  
16 when<sup>56</sup> we sat a few rods on one side-- Thousands  
17 went up together in a rustling flock--  
18 Many of the last oak leaves hang thus ready  
19 to go up-- I noticed 2 or more similar whirl-  
20 winds in the woods elsewhere this pm-- One  
21 took up small twigs & clusters of leaves from  
22 the ground--matted together-- I could easily  
23 see where it ran along with its nose (or point  
24 of its tunnel) close to the ground--stirring up the  
25 leaves as it travelled--like the snout or some  
26 hunting or rooting animal.  
27 a  
28 See & hear chewink. //  
29 & chips  
30 See a little snake on the dry twigs, in the sun near the  
31 arbutus--uniformly brown (or reddish brown)above except  
32 a a yellowish ring on the occiput--the head also lighter  
33 than the body--beneath vermilion--with ap. a row  
34 of light dots along each side. It is ap. C. amoenus? //  
35 except that it has the yellowish ring.

---

<sup>56</sup>1906 has "where."

1 Luzula campestris X Also the Oryzopsis  
2 //  
3 Canadensis by the Maj Heywood path side--  
4 //say a day--or Ap. 30th 6 inches high or  
5 more--with fine bristle like leaves-- See  
6 //a Thrasher--

7 NB --What is that rush at 2d division--  
8 It now forms a dense & very conspicuous mass  
9 some 4 rods long & 1 foot high--the top for  
10 3 inches is red--& the impression at a little  
11 distance is like that made by sorrel. Certainly  
12 no plant of this character exhibits such  
13 a growth now--i.e. in the mass. It surprises  
14 you to see it--carries your thoughts on  
15 to June.

16 The climbing fern is persistent--i.e retains  
17 //  
18 its greenness still--though now partly brown &  
19 withered.

20 May 2d 59

21 // Small Pewee to young lackey caterpillars  
22 // I see on the S. rostrata by RR--  
23 many honey bees--laden with large & peculiarly  
24 orange colored pellets of its pollen.

25 Pm up Assabet--

26 Those swarms of small miller-like insects  
27 //  
28 which fly low over the surface of the river--some-  
29 times constantly falling to & touching the surface  
30 & then rising again. When at rest they are seen  
31 to be blackish winged--but flying they look  
32 light-colored. They flutter low & continuously

1 over the same place-- Theirs is a sort of dance--  
2 A Peetweet & its mate--at Mantatuket Rock //  
3 The river seems really inhabited when the peetweet  
4 is back--& those little light winged millers (?)--  
5 This bird does not return to our stream until the  
6 weather is decidedly pleasant & warm-- He is perched  
7 on the accustomed rock-- Its note peoples  
8 the river--like the prattle of children  
9 once more in the yard of a house that has stood  
10 empty.

11 I am surprised by the tender yellowish  
12 green of the aspen leaf--just expanded suddenly //  
13 even like a fire, seen in the sun, against the  
14 dark brown twigs of the wood--though these leafets  
15 are yet but thinly dispersed. It is very enlivening.

16 I heard heard yesterday--& perhaps for several  
17 days--the soft purring sound of what I //  
18 take to be the rana palustris--breeding--though  
19 I did not this time see the frog.

20 I feel no desire to go to California or Pikes  
21 Peak-- but I often think at night with  
22 inexpressible  
23 ^ satisfaction & yearning--of the arrowheadiferous  
24 sands of Concord. I have often spent whole  
25 afternoons, esp. in the spring,--pacing back  
26 & forth over a sandy field--looking for these  
27 relics of a race. This is the gold which our  
28 sands yield. The soil of that rocky spot  
29 on Simon Brown's land is quite ash colored  
30 --(now that the sod is turned up) by Indian  
31 fires--with numerous pieces of ~~cto~~ coal in it.

1 There is a great deal of this ash-colored soil  
2 in the country-- We do literally plough up  
3 the hearths of a people & plant in  
4 their ashes. The ashes of their fires colors  
5 much of our soil.

6 May 3d

7 Surveying the Bedford road-- Hear the  
8 //te-e-e of a White-throat sparrow  
9 I hear of Phoebe-robins & bluebird's nests  
10 //  
11 & eggs. I have not heard any snipes  
12 //boom for about a week. Nor seen a  
13 tree-sparrow certainly since Ap. 30(??) nor F. hiemalis  
14 ////  
15 for several days

16 Wednesday 4th--59

17 Pm to Lee's Cliff on foot--

18 This the 4th warm day--

19 The cassandra (in full bloom) swarms with  
20 little bees & amid them is one Bumble bee  
21 which they appear to molest from time to time  
22 & afterward I see one flying high over head  
23 at Holden swamp.

24 Notice the White willows on Hubbard's Bridge Cause-  
25 way--quite a mass of green when seen aslant

26 //from this side & have been 2 or 3 days--but as yet  
27 no bloom there {~~u~~} nor hum of bees. Also their  
28 {freshets} {osiers} are very bright--yet I think most  
29 of it is due to the height at which the sun  
30 runs. They are priests of the sun--report his  
31 brightness--heliometers. We do not realize how  
32 much more light there is in the day--Than

1 in winter-- If the ground should be covered with  
2 snow--the reflection would dazzle us &  
3 blister our faces-- This willow begins to be  
4 green before the aspens--say 5 or 6 days ago-- //  
5 It is now quite dry--esp. the leaves in the  
6 woods--& this is the time for fires in the //  
7 woods-- I have seen the smoke of several--within  
8 a week--or 10 days--  
9 A small willow inside wall just beyond Conants bars  
10 has begun to leaf 2 or 3 days-- It is either discolor //  
11 or humilis having large & old fertile catkins.  
12 Crossing that first Conantum field I perceive  
13 a peculiar fragrance in the air (not the meadow  
14 fragrance--) like that of vernal flowers or  
15 of expanding buds. The ground is covered with  
16 the mouse-ear in full bloom & it may be  
17 that in part. It is a temperate SW breeze  
18 & this is a scent as<sup>57</sup> of willows (flowers & leafets) bluets--~~than~~--  
19 mouse ear  
20 violets--shadbush--^ &c combined--or perhaps the last  
21 chiefly--at any rate it is very perceptible.  
22 The air is more genial--laden with the  
23 fragrance of spring flowers-- I sailing in  
24 the spring ocean--getting in from any winter  
25 sail--begin to smell the land. Such a  
26 scent perceived by a mariner would be very  
27 exciting. I not only smell the land breeze  
28 but I perceive in it the fragrance of  
29 spring flowers. I draw near to the land-- I  
30 begin to lie down & stretch myself on it.

---

<sup>57</sup>It seems that "as" is added into this sentence.

1 After my winter voyage-- I begin to smell  
2 the land.

3 I came out expecting to see the redstart  
4 or the particolored warbler--& as soon  
5 as I get within a dozen rods of the Holden  
6 wood I hear the screeper note of the  
7 tweezer bird--i.e. particolored warbler--which  
8 //  
9 also I see, but not distinctly--2 or 3  
10 are flitting from tree top to tree top about  
11 the swamp there & you have only to sit still  
12 on one side & wait for them to come round.  
13 The water has what you may call a  
14 summer ripple & sparkle on it i.e. The ripple  
15 does not suggest coldness in the breeze that raises it.  
16 It is a hazy day--the air is hazed you  
17 might fancy--with a myriad expanding buds.

18 After crossing the arrowhead fields we  
19 see a woodchuck run along & climb to  
20 //  
21 the top of a wall & sit erect there--our  
22 first-- It is almost exactly the color of the  
23 ground & the wall & the bare brown twigs.  
24 all together-- & when in the Miles swamp  
25 field we see 2 one chasing the other coming  
26 very fast down the lilac field hill--straight  
27 toward--while we squat still in the middle  
28 of the field. The foremost is a small gray  
29 or slaty colored one--the other 2 or 3 times as  
30 heavy & a warm tawney decidedly yellowish in the  
31 sun--a very large & fat one--pursuing the  
32 first. I think this must be the male in pursuit

1 of the female. Suddenly the foremost when  
2 30 or 40 rods off perceives us & tries as it  
3 were to sink into the earth--& finally  
4 gets behind a low tuft of grass & peeps out  
5 -- Also the other (which at first appears to  
6 fondle the earth inclining his cheek to it &  
7 dragging his body a little along it) tries to  
8 hide himself--& at length gets behind an  
9 apple tree & peeps out on<sup>58</sup> one side in an-  
10 amusing manner-- This makes 3 that we  
11 see. They are clumsy runners with their  
12 short legs & heavy bodies--run with  
13 an undulating or wobbling motion, jerking  
14 up the hind quarters-- Their tails were  
15 dark tipped. They can run pretty fast however--  
16 Their tails are low when running.

17       Looking up thro' this soft & warm S. West wind  
18 I notice the conspicuous shadow of ~~Bull~~ mid. //  
19 Conantum cliff now at 3 Pm--& elsewhere  
20 the shade of a few apple trees their--trunks  
21 & boughs-- Through this warm & hazy air the  
22 sheeny<sup>59</sup>  
23 ^ surface of the hill now considerably greened  
24 looks soft as velvet--& June is suggested to  
25 my mind-- It is remarkable that shadow  
26 should only be noticed now when decidedly warm  
27 weather comes--though before the leaves have  
28 expanded--i.e when it begins to be grateful to  
29 our senses. The shadow of the Cliff is like  
30 a dark pupil on the side of the hill.

---

<sup>58</sup>Written over a false start of "from."

<sup>59</sup>An apparent "I" dot may suggest "shiny." (1906 has "sheeny.")

1 This first shadow is as noticeable and memorable  
2 as a flower-- I observe annually the 1st shadow  
3 of this<sup>60</sup> cliff--when we begin to pass from  
4 sunshine into shade for our refreshment--  
5 when we look on shade with yearning as on a  
6 friend-- That cliff & its shade suggests  
7 dark eyes & eyelashes & over hanging brows. Few  
8 things are more suggestive of heat than this  
9 first shade. Though now we see only the  
10 tracery of tree-boughs on the greening grass  
11 & the sandy street. This I notice at the  
12 same time with the 1st bumble bee--when  
13 generally  
14 the r. palustris purrs in the meadow ^--the  
15 white willow & aspen--display their tender  
16 green full of yellow light--the particolored  
17 warble is first heard over the swamp--the wood-  
18 chuck, who loves warmth, is out on the hillsides  
19 The jingle of the chip bird is incessantly heard  
20 in numbers-- The thrasher sings incessantly--  
21 //The 1st cricket is heard in a warm rocky place.  
22 & that scent of vernal flowers is in the air.--  
23 //This is an intenser expression of that same influence  
24 or aspect of nature which I began to perceive  
25 10 days ago (V 25th)the same lieferung.  
26 These days we begin to think in earnest of  
27 to  
28 //bathing in the river-- & ~~love~~ sit at an open window  
29 -- Life out of doors begins  
30 It would require a good deal of time &  
31 patience to study the habit of woodchucks.  
32 They are so shy--& watchful. They hear the least

---

<sup>60</sup>"this" may be written over "cliff."

1 sound of a foot step on the ground--& are  
2 quick to see also-- One should go clad in a  
3 suit somewhat like their own-- The warp of  
4 tawney to the woof of green--&--then with a painted  
5 or well tanned face he might lie out on  
6 a sunny bank till they appeared.

7 We hear a thrasher sing for half an hour  
8 steadily--a very rich singer--& heard 1/4 or a  
9 mile off very distinctly-- This is first heard com-  
10 monly at planting time-- He sings as if con-  
11 scious of his power.

12 See little apple tree just spring up in cow dung. //  
13 Under Lee's Cliff--a phoebe's nest & one egg-- //  
14 with ap. a cow-birds egg--(which is here then) //  
15 but unusually long with a very broad ring of  
16 chestnut brown about the larger end--contrasting  
17 with the smaller flesh colored egg of the phoebe

18 shooting up  
19 The grass of the river ^ meadows ^ is now  
20 a glaucous green--while that of the uplands  
21 is dark green-- The former or sedge--is very erect  
22 spear  
23 & stiff ^ while the later is an inclined & flexible  
24 blade.

25 Hear the exact note of the pepe once, but at the // ?  
26 same time with the thrasher at Bittern cliff--  
27 could it have been the last??

28 A carex at Lees say May 1st aleast<sup>61</sup> with broadish //  
29 flaccid glaucous leaves-- call it C. laxiflora like  
30 I can find but one tuft that has not been nibbled  
31 off--by rabbits--or wood-chucks--so fond are they

---

<sup>61</sup>Possibly "at least" without "t" in "at."

1 of this early grass--also a small curly<sup>62</sup>  
2 sedge like one--yet with 2 or 3 distinct fertile  
3 {drawing} sterile  
4 spikes close at base of sterile which last is not yet  
5 //out--ap 85-86-or 87 of Gray. Say May 4th  
6 //2 grasses are almost in flower there  
7 %Is one the sweet scented vernal?%  
8 ?Gather an ap. V. cucullata (v. press) but close  
9 under the rocks--can it be a distinct var?  
10 Thursday May 5th  
11 Pm to Melvin's Preserve--  
12 // Red-wings fly in flocks yet Near the  
13 oak beyond Jarvis land--a yellow-butterfly--  
14 //  
15 how hot? this meteor dancing thro' the air.  
16 Also see a scalloped edge dark colored butter-  
17 fly resting on the trunk of a tree where both by  
18 its form & color--its wings being closed it resembles  
19 a bit of bark or rather a lichen. Evidently their  
20 forms & colors esp. of the under sides of their  
21 wings are designed to conceal them when at  
22 rest with their wings closed.  
23 Am surprised to find the viola muhlenbergii  
24 quite abundant beyond the bayberry & near the  
25 wall-- Ac to my obs. this year it now stands  
26 thus with the violets-- The v. ovata is the  
27 //  
28 commonest--but not abundant in one spot.  
29 The V. Muhlenbergii is most abundant in par-  
30 ticular spots. coloring the hummocks with its  
31 small pale flowers. The v. blanda & cucullata  
32 are, equally, less abundant than the former or  
33 rather rare. V. pedata & lanceolata rarer

---

<sup>62</sup>Possibly "early."

1 yet or not seen--

2 I noticed lately where mid-sized ants--(half black  
3 & half sorrel) had completed removed the pine  
4 needles from the crown of their large hills--leaving  
5 them bare, like a mt top.

6 Am struck by the beauty of the yellow birches now  
7 fairly began to be in bloom at yel. birch or Botrychium  
8 swamp-- It is perhaps the handsomest tree or  
9 shrub yet in bloom (ap. opened yesterday) Of similar  
10 character to the alders & poplars, but larger &  
11 of higher color. You see a great tree all hung  
12 with long yellow or golden tassels at the end  
13 of its slender drooping spray--in clusters at  
14 intervals of a few inches or a foot-- These  
15 are all dangling & incessantly waving in the  
16 wind--a great display of lively blossoms--  
17 (lively both by their color & motion) without  
18 a particle of leaf. Yet they are clean  
19 enough to reveal the outline of the tree  
20 --seen against the bare twigs of itself  
21 & other trees-- The tassels of this one in  
22 bloom are elongated to 2 or 3 times the length  
23 those of  
24 of ^ another not in bloom by its side-- These  
25 dancing tassels have the effect of the leaves  
26 of the tremble. Those not quite open  
27 have a rich dark speckled or braided look  
28 almost equally handsome. Golden tassels  
29 all trembling in the gentlest breeze--the  
30 only signs of life on the trees-- A careless observer  
31 might not notice them at all.

1 The reawakened springy life of the swamp--the  
2 product of its golden veins-- These graceful  
3 pendants--not in too heavy or dense masses--but  
4 ~~though~~ thinly dispersed with a noble moderation.  
5 --Great vegetable chandeliers they stand  
6 in the swamps. The unopened--catkins  
7 some more golden--others brown or coppery  
8 are like living worms ready to assume a  
9 winged life. These trees which cannot  
10 stir their stumps thus annually assume  
11 this lively color & motion.

12 I see and am bitten by little black-flies  
13 //  
14 I sh say the same with those of Maine  
15 here on the Melvin's Preserve. 1/8 inch long.

16 //Brakes are 5 inches high.

17 Poa annua (small & flat spreading  
18 //  
19 in Pratt's garden) say a week.

20 The sun sets red (1st time) followed  
21 by a very hot & hazy day.

22 // The wilderness in the eyes of  
23 our forefathers--was a vast & howling  
24 place--or space where a man might roam  
25 naked of house & most other defence--  
26 exposed to wild beasts & wilder men-- They  
27 who went to war with the Ind. & french  
28 were said to have been "out"--& the  
29 wounded & missing who at length returned  
30 after a fight--were said to have  
31 "got in" to Berwick or Saco as the  
32 case might be.

1 Veronica peregrina xxx Pratt's garden-- //

2 May 6th 59

3 Surveying for Willis & Damon at the

4 Factory-- Hear the tea-lee of the white //

5 throat sparrow-- It is suddenly very warm--& //

6 oppressive--esp. in the woods with thick clothing.

7 V. pedata begins to be common about white pine

8 woods--there.

9 While surveying this Am behind Willis house

10 on the shore of the mill pond--I saw remarkable

11 swarms of that little fuzzy gnat (tipulidae)--

12 Hot as it was--oppressively so--they were collected

13 in the hollows in the meadow--ap. to be out of the

14 way of the little breeze that there was--and in many

15 such<sup>63</sup> places in the meadow within a rod of the

16 water the ground was perfectly concealed

17 by them. Nay much more than that--

18 shallow

19 I saw one ^ hollow some 3 feet across which

20 was completely filled with them all in motion

21 but resting one upon another to the depth

22 as I found by measurement with a stick

23 of more than an inch--a living mass of

24 insect life. There were a hundred of these

25 basins full of them--& I then discovered

26 that what I had mistaken for some

27 black dye on the wet shore--was the

28 bodies of those that were drowned & washed

29 up--blackening the shore in patches

30 for many feet together like so much

---

<sup>63</sup>"such" may have been added later.

1 mud. We were also troubled by getting them  
2 into our mouths & throats & eyes.  
3 This insect resembles the plate of the Chironomus  
4 plumosus--Lib Ent knowledge Trans. p 305 also  
5 the Corethra plumicornis p 287--both of which--live  
6 at first in the water--like the mosquito  
7  
8 Young red-maples suddenly bursting into leaf  
9 //  
10 are very conspicuous now in the woods--among  
11 the most prominent of all shrubs or trees. The  
12 sprouts are reddish.  
13 // Hear yel. throat vireo & prob. some  
14 //new warblers. See the strong-scented  
15 wood ants in a stump.  
16 Black suckers so called are being  
17 speared at the Factory bridge.  
18 This is about the last of the very dry leaves  
19 //  
20 in the woods--for soon the ground will  
21 green  
22 be shaded by expanded ^ leaves-- It is  
23 quite hazy if not smoky--& I smell  
24 smoke in the air-- this hot day.  
25 My assistants being accustomed to work in-  
26 doors in the factory are quite overcome  
27 by this sudden heat. The old leaves and  
28 earth are driest now just before the  
29 new leaves expand--& when the heat is  
30 greatest. I see the black traces of many  
31 a recent fire in the woods--esp in young  
32 woods.  
33 // At evening--I hear the first sultry buzz

1 of a fly in my chamber--telling of sultry nights  
2 to come.

3                   Saturday--May 7th

4            Surveying Damon's Acton Lot-- It is  
5 hotter still--88° or more as I hear in //  
6 the Pm. I frequently see pigeons dashing //  
7 about in small flocks or 3 or 4 at a  
8 time over the woods here-- Theirs is a peculiarly  
9 swift dashing flight. The may flower is  
10 still sparingly in bloom--on what I //  
11 will call may-flower Path in this Lot--  
12 It is almost the prevailing under shrub here.  
13 I think I hear the red-start-- ?

14            Today & yesterday--the sun light is peculiarly  
15 yellow--on one of the smoky haze-- I //  
16 notice its peculiar yellowness almost orange  
17 even when coming through a knot hole  
18 in a dark room it falls on the opposite wall.  
19 Such is the first hot weather.

20                   Sunday 8th  
21 //  
22            Hotter still than the last 2 days--90° & more  
23 Summer Yellow-bird--C. sees a chimney swallow /////  
24 Indeed several new birds have come--&  
25 many new insects with the expanding leafets--  
26 Cat-bird-- The swollen leaf buds of the //  
27 White pine (& yet more the P. pine) look  
28 whitish & show life in the tree  
29            Going on the river-- The sweet flags--  
30 both pads--& equisetum & pontederia are  
31 suddenly becoming conspicuous--also //  
32 the arum peltandrum--

1// // Grackles here yet-- Tree-toad is heard  
2 Apple trees begin to make a show with their  
3 green--  
4 See 2 great devils needles go by coupled--  
5 //  
6 the foremost blue the 2d brown.  
7 Hear a daw-bug in the house at evening.  
8 //  
9 May 9th  
10 Surveying for Stow near Flint's Pond.  
11 //Hear the warbling-vireo &--oven-bird,  
12 yel. throat vireo (?)--One helping we says he  
13 //scared up a whipporwill from the ground.  
14 // See black-birch bloom fallen effete  
15 //The 1st thunder this pm  
16 Wednesday 11th  
17 // Go robin yesterday. Fir balsam well  
18 //out in the rain--so say 9th  
19 Pm to Flints Pond--  
20 Arum triphyllum out--almost every one has  
21 //  
22 a little fly or 2 concealed within--One of the  
23 handsomest formed plants when in flower--  
24 //Sorrel out in rain--ap. a day or 2--say 9th XXX  
25 // A blue heron flies away from the shore of the  
26 pond.  
27 Is that Carex Pennsylvanica so common  
28 //  
29 in wood paths & by road sides 8 or 10 inches  
30 at length  
31 high--(fruit often blasted & black--^ speared  
32 ap.--now going to seed--  
33 // Scirpus planifolius in bloom on smiths wooded  
34 hill side or Saw Mill Brook--  
35 fresh  
36 A partridge nest with 11 ^ eggs at  
37 //  
38 foot of a chestnut--one upon another  
39 It is quite a deep cavity amid the leaves  
40 with some feathers of the bird in it--

1           Young or fresh expanding oak leaves  
2  
3           are very handsome now--showing their colors //  
4           It is a leafy mist throughout the forest.  
5           Uvularia perfoliata out in rain--say then  
6           the 9th XXX Just after plucking it--I //  
7           perceived what I call the meadow fragrance  
8           though in the woods--but I afterward found  
9           that this flower was peculiarly fragrant--  
10          and its fragrance like that, so it was  
11          prob. this which I had perceived. {I}<sup>64</sup> was  
12          reminded of the lily of the valley by it.  
13          The witch hazel has one of the broadest //  
14          leaves now.  
15          In the path is Stows wood lot-- I find ap. Thas- //  
16          pium aureum (Zozia Aurea) which will open  
17                            13th in house & prob. abroad--  
18          the 1st fair day ^--shows quite yellow now. (For this  
19          & {allied} plants V. June 3d 52 July 8--58 & for  
20          T. tripoliatrum V May 25-58)  
21          Found in the paths in the woods by the  
22          mill brook ditch Flint's Pond--dead--the  
23          Coluber punctatus 13 1/4 inches long-- //  
24          but no row of spots in middle of abdomen  
25          The head above blackish with a blackish  
26          ring behind the yellow. Tail 3 inch  
27          long--breadth of body 5/16 plates 162--scales  
28          55--above uniform glossy slate color  
29          with a yellowish white band across the occi-  
30          put--the head above blackish & a blackish  
31          band close behind the yellowish one. Beneath

---

<sup>64</sup>1906 has "S.."

1 yellow or buff--(whitish under head) with  
2 One  
3 a row of small slanting black spots ^ on  
4 each side of each abdominal plate ex-  
5 cept the 1st 3/4 inch behind the head. In  
6 the midst of the path in the woods. I ad-  
7 mired the iridescence from its glossy belly.  
8 It differs from Storers C. punctatus--for it is  
9 not brown above, nor "reddish yellow" beneath,  
10 & has no row of spots in middle of the abdomen.

11 In that first thunder shower the eve of  
12 the 9th the grass evidently erected itself & grew  
13 darker--as it were instantaneously-- Was it the  
14 effect of electricity in the air? It looked very  
15 differently from what it had 10 minuets before--

16 ~~Da~~

17 May 12th

18 Dug up today--the red-brown dan-bug--

19 //

20 My Red oak acorns have sent down

21 long radicles--under ground-- A particolored

22 //warbler hangs head downward like a gold-

23 finch on our gooseberries within a few feet

24 of me--ap. about the blossoms.

25 The sedges which I have noticed this

26 year--are

27 sterile

28 1st the small with short colored ~~fertile~~ spikes

29 & still shorter fertile ones--the last by then--

30 the

31 {sober} & quite concealed in the leaves--On Cliffs

32 & at Rail-Pine very early--(particularly<sup>65</sup> examined

33 ap. 30th)

34 2d The broadish leaved laxiflora-like--so

35 much nibbled by hares (?) at Lees Cliff

---

<sup>65</sup>particularly] Altered from "particulary"; "y" cancelled; "ly" added.

1 May 4th & prob. earlier--  
 2 3d A very common one on dry & also ~~(prett)~~ low  
 3 ground-- May 4 & before 2 or 3 distinct--fertile  
 4 spikes about base of the sterile 55-86-or 87 (?) of  
 5 Gray-- %say C. Pennsylvanica W 60%  
 6 4th A very short colored one in low ground--  
 7 May be distinct--in meadow Clarks Orchard  
 8 in front of my house--May 5th  
 9 5 A larger<sup>66</sup> sized one (some common meadow  
 10 one which becomes larger yet) with a large  
 11 sterile spike overtopping about 3 fertile ones  
 12 May 11th roadside just below Shannon's.  
 13 6th The common slender one of wood paths  
 14 & dry fields & roadsides--with commonly 3  
 15 fertile spikes below one sterile--which this  
 16 year I have called--C. Pennsylvanica-- Is it  
 17 the same as the 3dt? X  
 18 7th The glaucous green ~~dr~~ at length drooping  
 19 ??? large  
 20 or prostrate varia ^ like one in ^ tufts at Bear-  
 21 swamp. May 11th then 5 or 6 inch high.  
 22 Friday 13th  
 23 Surveying Damon's acton Lot--  
 24 //  
 25 Hear the Pe-pe--& evergreen forest note //  
 26 also night-warbler--(the last perhaps the 11th) //  
 27 Apple in bloom X //  
 28 Sat 14  
 29 Surveying for Damon--  
 30 Rhodora out says C. Yorrick heard the 12th //  
 31 //

---

<sup>66</sup>Possibly "longer."

1 // Did I hear a bobolink this morn?  
2 // C. says he heard a yellow legs yesterday--  
3 // Bought a Black sucker (?) just speared  
4 at the Factory Dam--15 inch long--blacker  
5 than I am used to I think, at any rate a  
6 very good fish to eat, as I proved--while  
7 the other common sucker there is said not  
8 to be-- This had very conspicuous corruga  
9 tions on the lips. I suspect that the other  
10 one is the horned chub. They have speared  
11 the former--long time there & it is getting late  
12 for them.

13 // Vernal grass quite common at Willis--  
14 spring now-- May 15 Sunday

15 // Observe C. florida involucres. Sarsaparilla  
16 //flower--XXX S. Discolor seed or down begins  
17 //to blow.

18 // A woodcock--starts up with whistling sound.  
19 I have been struck of late with the promi-  
20 nence of the vib. nudum leaf in the swamps  
21 reddish brown & 1 inch over--a peculiarly large  
22 & mature looking--firm looking leaf--

23 // Swamp white oak leafed several days--but  
24 generally appears as in winter at a little distance.  
25 //S. lucida well out, how long?  
26 // ~~Refe~~ Nemopanthus flower ap a day or 2.

27 Now when the warblers begin  
28 to come in numbers with the leafing of  
29 the trees, the woods are so open that you

1 can easily see them. They are scarce & silent  
2 in a cool & windy day--or found only in  
3 sheltered places.

4 I see an oak shoot (or sprouts) already grow  
5 10 inches--when the buds of oaks & of most  
6 trees are but just burst generally-- You are  
7 surprised to see such a sudden & rapid devel-  
8 opment when you had but just begun to  
9 think of renewed life--not yet of growth.  
10 Very properly these are called shoots-- This  
11 plant has perhaps in 4<sup>67</sup> or 5 days accomplished  
12 1/4 part its whole summer growth-- (So on  
13 the 4 of June I notice the shoots of the  
14 white pine--5 to 9 inches long arranged ray wise  
15 about the terminal one & the end of their branches--  
16 having in about a fortnight accomplished  
17 1/4 to 1/3 their whole summer growth-- Thus they  
18 may be properly said to shoot when their season  
19 comes--& then stand to harden & mature before  
20 the winter.)

21 Monday 16th  
22 Surveying Damons Farm & Factory Lot  
23 Our Coryldalis<sup>68</sup> was out the 13th-- Hear //  
24 a tanager today--& one was seen yesterday--  
25 //  
26 Sand cherry out. Rancunculus abortivus  
27 well out--where? SW angle of Damons  
28 Farm. Hear a bobolink--& Kingbird //  
29 & find sparrows nests on the ground. //  
30 At eve the 1st sport of a night-hawk. //  
31

---

<sup>67</sup>Not clear.

<sup>68</sup>Possible misspelling of "Corydalis."

1                    May 18th  
2            Surveying for Stow in Lincoln--  
3 //2--leaved Sol seal ap X-- I hear of young  
4 //song-sparrows & young robins since the 16th  
5            That handsome spawn of Ed. Emerson's aquarium  
6    minute transparent ova in a double ~~(row)~~ on the glass  
7    or the stones--turns out to be snail spawn it  
8            not Paludina decisa but the smaller & simpler one  
9 //having just hatched--& there was no salamander  
10    spawn as I thought on the 18th of Ap.  
11                    May 19th  
12            Our azalea nudiflora flower XX  
13 //            It is a warm muggy rainy eve when  
14 //the night-hawks commonly spark & the  
15 //whippoorwill is heard.  
16                    Sunday 22d  
17            A warm drizzling day--the tender yellow  
18 //leaflets now generally conspicuous & contrasting  
19    with the almost black evergreens which  
20    they have begun to invest. The foliage is never  
21    more conspicuously a tender yellow than now--  
22            from this date  
23    This lasts a week ^ & then begins to be con-  
24    founded with the older green-- We have  
25    had rain for 3 or 4 days & hence the tender  
26    foliage is the more yellow.  
27 //            Swallows fly low-- The Ranunculus bulbosus  
28 //is abundant.  
29            I see that by the very severe frost of about the 15th  
30 //or full of the moon--a great many leaves  
31            cultivated grapes  
32    were killed--as young oak--butter nuts  
33            ap. p verticillata--for it is not leafed again the 24th  
34    ferns ^ &c &c which now show brown or blackish  
35    %white ash--ferns generals%



1 //Eriophorum vaginatum how long. Ledum out  
2 //ap 2 or 3 days. Andromeda polifolia out how  
3 //  
4 //long? Tall swamp huckle berry just budded  
5 //to bloom-- Do I not hear the nuthatch  
6 note in the swamp? Do not detect the  
7 ? Sheutzeria there yet--%V 30th%  
8 The air is full of terebinthine odors today--  
9 //  
10 the scent of the sweet fern &c--  
11 The reddish leaves (& calyx) of the v. vacillans  
12 just leafed--are interesting & peculiar now--  
13 perhaps more or less crimson.  
14 // See a flock of cow birds--the first I have seen  
15 //cows in water--so warm has it got to be.  
16 //Geranium how long? (behind bittern cliff--&  
17 //wild pink--  
18 // P. pine pollen at Lees. Cherry birds--  
19 //  
20 //Ascendant potentilla abundant--how long?  
21 //Juniper repens pollen how long? Interrupted  
22 //fern pollen. The Dicksonia fern is one  
23 //  
24 foot high but not fairly unfolded.  
25 The tender--white-downy stems of the meadow  
26 //saxifrage--seen toward the westering sun are  
27 very conspicuous & thick in the meadows now.  
28 // A purple finch's nest in one of our firs.  
29 Friday May 27--59  
30 Pm up Assabet.  
31 // Now first I notice a linty dust on the  
32 surface of the dark river at the hemlocks--  
33 evidently from the wet<sup>70</sup> & downy leaves--

---

<sup>70</sup>Perhaps "new"?

1 These expressions of the face of nature are as  
2 constant & sure to recur as those of the eyes  
3 of maidens--from year to year--sure to be repeated  
4 as long as time lasts. It is a new & peculiar  
5 season when this phenomenon is observed. Rivers  
6 flow already leaving<sup>71</sup> the dust of summer on their bosoms.  
7 The dark river now that shades are increased--  
8 is like the dark eye of a maiden--

9       Azalea nudiflora blooms generally-- //  
10       Hear a black & white creeper sing--ah vee vee,  
11 vee vee, vitchet vitchet vitchet vitchet.

12       A peculiarity of these days is the first //  
13       hearing of the crickets' creak--suggesting  
14       philosophy & thought-- No greater event transpires  
15       now-- It is the most interesting piece of news to be  
16       communicated--yet it is not in any newspaper.

17  
18       Melvin & Skinner tell me of 3 wild geese //  
19       to their surprise seen within a week down  
20       the river--(a gander & 2 geese) which  
21       must be breeding here-- Melvin got near  
22       them a fortnight ago. They are too much  
23       disturbed to rear a brood I think.

24  
25       Melvin tells of seeing once in June dead  
26       shadflies washed up on the N. Branch  
27       in windrows along the shore.

28       Golden senecio--at least tomorrow. //  
29       & Went by Temple's for rural  
30       interest give me the houses of the poor  
31       --with simply a cool spring--a good deal

---

<sup>71</sup>Perhaps "bearing."

1 of weather stained wood, & a natural door  
2 stone. A house standing somewhere in Nature  
3 %on a measured lot%  
4 & not merely in an atmosphere of art--^  
5 On a hill side perchance obviously not made  
6 by any gardener--amid rocks--not placed there  
7 by a landscape gardener for effect--with  
8 nothing "pretty" about it. but life reduced  
9 to its lowest terms & yet found to be beautiful.  
10 This is a good foundation or board to spring  
11 from.-- All that the natives erect themselves  
12 above that will be a genuine growth--  
13 // Blue-eyed grass out  
14 Sat May 28th  
15 Pm to Cliffs  
16 // Some *S. rostrata* seed begins to fly. Low black--  
17 //berry in bloom on RR. bank. X Also *S. Torrey-*  
18 //ana seed just begun to fly. *S. pedicellaris*  
19 //long out of bloom there.  
20 At the extreme E side of Trillium wood--  
21 //come upon a black-snake which at  
22 first keeps still prudently thinking I may not  
23 see him (in the grass in open land) then glides  
24 to the edge of the wood & darts swiftly  
25 up into the top of some slender shrubs  
26 there vib. dentatum & alder--& lies stretched  
27 out eyeing me in horizontal loops 8 feet high.  
28 The biggest shrub was not over 1 inch thick  
29 at the ground-- At first I thought I thought its  
30 neck was its chief member--as if it draw itself  
31 up--by it--but again I thought that it

1 rather (when I watched it) ascending) extended its  
2 neck & a great part of its body upward--  
3 while the lower extremity was more or less coiled &  
4 rigid on the twigs from a point d'appui--thus  
5 it lifted itself quickly to higher forks-- When  
6 it move along more horizontally--it extended its  
7 neck far & placed it successively between the  
8 slender forks. This snake some 4 feet long--  
9 rested there at length 12 feet high--on twigs  
10 not one so big as a pipe stem--in the top of  
11 a shad-bush--yet this ones tail was broken off  
12 where 1/3 inch thick--& it could not cling with  
13 that. It was quick as thought in its motions  
14 there & perfectly at home in the trees--so far  
15 was it from making the impression of a snake  
16 in an awkward position.

17 Cinnamon fern pollen X //

18 Ladies slipper pollen-- These grow //

19 under ~~at~~ pines even in swamps--as at

20 Ledum swamp

21 The lint from leaves sticks to your clothes

22 R. b--

23 now-- Hear a ^ grossbeak. //

24 //

25 So that the ~~ser~~ Juncus effusus just peeking out

26 on side of Cardinal spring? //

27 or more

28 Methinks every tree & shrub is started ^ now but

29 the vac. dumosum--which has not burst //

30 Sunday 29th

31 Thorn bushes & the Ranunculus bulbosus are

32 ap in prime-- //

33 Coming out of Sleepy Hollow Cemetery today--where I had

34 just been to deposit the corpse of a man-- I picked

1 up an oak 3 inches high with the acorn at--  
2 //tached. They are just springing up now on  
3 all sides.  
4 The Republican swallow at Hosmer's barn just  
5 //  
6 began to lay.  
7 May 30th  
8 Pm to Gowing's Swamp.  
9 Sorrel begins to redden fields. The peculiarly  
10 //  
11 tender foliage (yellowish) which began to  
12 //invest the dark evergreens on the 22d lasts  
13 a week or more growing darker-- No Ameri-  
14 //can mt ash out-- Find no lepidum campestre  
15 Pasture.  
16 When I entered the interior meadow of Gowing's  
17 swamp I heard a slight snort & found that  
18 I had suddenly come upon a woodchuck  
19 amid the sphagnum ~~&c there~~ lambkill--Kalmia  
20 glauca--Andromeda--cranberry &c there-- It  
21 was only 7 feet off, & being surprised would  
22 not run-- It would only stand erect from  
23 time to time--(perfectly erect with its <sup>blackish</sup> ^ paws  
24 like hands held like hands near together in  
25 front) just so as to bring its head or eyes  
26 above the level of the lambkill Kalmia &c  
27 and look round--turning now this ear  
28 toward me then that--& every now &  
29 then it would make a short rush at me  
30 half a foot or so--~~& dra~~ with a snort &  
31 then draw back & also grit its teeth { }<sup>72</sup>  
32 with a rattling sound  
33 (which it showed) very audibly ^-- Evidently  
34

---

<sup>72</sup>Might be a leak through.

1 to intimidate me. I could not drive it  
2 but it would steadily face me & rush  
3 toward me thus-- Also it made a short motion  
4 occasionally as if to bury itself by burrowing there.  
5 r.  
6 It impressed me as a singularly wild & grizzly  
7 native--survivor of the red man. He may have  
8 thought that no one but he came to Gow-  
9 ings Swamp these afternoons.

10 Its colors were gray--reddish brown--& blackish  
11 --the gray-tipped wind hairs giving it a ~~gritt~~  
12 grizzly look<sup>73</sup> above--and when it stood up  
13 its distinct rust color beneath was seen--  
14 while the top of its head was dark brown becoming  
15 black at snout--{&} also its paws & its little  
16 rounded ears--its head from snout to ears--  
17 when it stood up erect--made a nearly horizontal  
18 line. It did much looking round-- When thus  
19 erect, its expression & posture were very bear  
20 like--with the clumsiness of the bear-- Though  
21 I drew off 3 or 4 rods it would not retreat  
22 into the thicket (which was only a rod off)  
23 while I was there {or} so near.

24 The Scheuchzeria is at height or past //  
25 E. Emerson's calla palustris out the 27th X //  
26 Eleocharis palustris R. W. Es meadow--not long. //  
27 Hear of Linnaea out--the 28th //

28 Tuesday 31st

29 Small black flies or millers over-river (with  
30 long feelers--flying low in swarms--now X //

---

<sup>73</sup>The "l" in look is crossed, as a "t."





1                                   Friday June 3d

2                   Pm up Assabet--

3                   A large yellow butterfly--(some what

4 //

5                   Harris Papilio Asterias like--but not black

6                   winged--) 3 1/2 to 4 inch in expanse. Pale

7                   yellow--the front wings crossed by 3 or 4 black

8                                   or outer

9                   bars--rear ^ edge of all wings widely bordered

10                                   & some yellow behind it--

11                   with black-- ^ A short black tail to each

12                   hind one. with 2 blue spots in front

13                   or 2 red-brown ones--on the tail--

14 //               Arenaria lateriflora well out. how long?

15 //               Common rum cherry out yesterday--how long?

16 //               Carex crinita out a good while--

17 //               Carex lanuginosa--Smiths shore--green fruit--

18

19 //               Carex pallescens Smiths' shore (higher up bank)

20                   green fruit--

21 //               Night hawk 2 eggs--fresh.

22 //               Quail heard.

23                                   June 4th

24                   Pm to Flints Pond

25 //               Cornus Alternifolia well out ap. 3 or 4 days.

26 //               Yellow-eyed grass how long?

27 //               Poa compressa--not quite out

28                                   Sunday June 5th

29                   Pm to Balls hill--

30 //               Catbriar in flower how long? Allium not out.

31 //

32 //               See several ducks I think both summer & black.

33 //               A yellow birds nest 4 eggs developed.

34 //               Pig-woodpecker's nest in a hollow black willow

1 over river--6 eggs almost hatched

2 The new white maple leaves look reddish

3 --& at a distance brown as if they had not

4 put out yet.

5 June 6th

6 Pm to Well meadow--

7 Yellow wood-sorrel out-- Umbelled //

8 Thesium how long? Red avens how long? //

9 //

10 //

11 stellaria longifolia at Well meadow head how long? //

12 Cardamine rhomboidea has green seed--

13 Hear of a Kingfisher's nest just found in

14 a sandbank behind Abner Buttricks--with

15 6 fresh eggs--of which I have one. The boy //

16 said it was 6 or 7 feet deep in the bank--

17 Wednesday June 8

18 Notice that one of these little silvery scales

19 on a stone is now empty of eggs--how long? //

20 See a painted turtle begging to lay-- She //

21 has merely scratched the ground a little &

22 moistened it very much-- This must be to make

23 it adherent. It is at the same time beginning

24 to rain. See lightening bugs tonight //

25 Noticed yesterday dancing before our chamber windows

26 little swarms of<sup>74</sup> plumed gnats with white wings &

27 a reddish body forward-- One on my book at night

28 incessantly leaps backward-- It seems to be a kind of

29 Chhironomus

30 Thursday June 9th

31 A boy shows me one of 3 (ap.) Hen hawk's eggs //

---

<sup>74</sup>A changing position mark here indicating "swarms of" goes before "little."

1 fresh--obtained on the 6th from a pine near Breeds  
2 house site--

3 Friday June 10th

4 Surveying for D.B. Clark on "College  
5 Road" so called in Peter Temples deed in 1811  
6 Clark thought from a house so called once  
7 standing on it. Cut a line & after  
8 measured it in a thick wood--which passed  
9 within 2 feet of a blue jay's nest which  
10 //  
11 was about 4 feet up a birch--beneath the  
12 leafy branches & quite exposed. The bird  
13 sat perfectly still with its head up & bill open  
14 upon its pretty large young--not moving  
15 in the least--while we drove a stake close  
16 by within 3 feet & cut and measured being  
17 about there 20 minutes at least.

18 June 11th

19 Pm to Owl Swamp--

20 Lamb-kill flower ap. X Carrion flower

21 //

22 //ap a day or 2

23 // Panicum latifolium (not out) grows by river side

24 at Dakin's Brook.

25 Ferns generally were killed by the frost of last

26 //

27 month--e.g. Brakes--cinnamon fern--

28 flowering & sensitive fern & no doubt others

29 I smell the strong sour scent of them de-

30 //caying. Galium triflorum how long?

31 In one grove--P. Pine shoots are

32 //

33 from 7 to 9/10 as long as last year's growth

1           When I return about 5 Pm  
2   the shadflies swarm over the river in considerable //  
3   numbers but there are very few at sundown.  
4   Hemlocks are about at height of their  
5   beauty with their fresh growth. //

6                       Sunday June 12

7           Pm to Gowing's Swamp--

8           I am struck with the beauty of the //  
9   sorrel now--(e.g--Lepid campestre field)--  
10   what a wholesome red! It is densest in  
11   parallel lines ac to the plowing or culti-  
12   vation-- There is hardly a more agreeable  
13   sight at this season. //

14           Maryland yel-throat 4 eggs fresh--in sphagnum  
15   in the interior omphale.

16                       June 13th

17           To Boston--  
18                               of June 1st  
19           My rails egg ^ looks like that of the  
20   Virginia rail or the Boston collection-- A //  
21   Boy brought me a remarkably large cuckoo's  
22   egg on the 11th-- Was it not that of the yellow- //  
23   billed-- The one in the collection looks like it-<sup>75</sup>  
24                       one at B.  
25   This ~~it~~<sup>76</sup> ^ is not only larger but lighter colored. ?

26           In the plates of Hooker's Flora Boreali  
27   Americana the leaves of vac. Caespitosum  
28   are not so wide as the fruit--yet mine  
29   of tuckerman's ravine may be it.

---

<sup>75</sup>There is a question mark in the right margin.

<sup>76</sup>"This" added to the sentence after "it" is struck out.



1 twig of a chestnut high over the road  
2 (at Gourgas wood) & over my head--&  
3 sings clear & ~~loud~~ loud at regular in-  
4 tervals--the strain about 10 or 15 seconds  
5 long--rising & swelling to the end--with various  
6 modulations. Another singing in emulation,  
7 regular answers it alternating with it--from  
8 a distance--at least 1/4 of a mile off-- It  
9 sings thus long at a time & I leave it singing  
10 there--regardless of me.

11 June 15th

12 Am to Lead mill Acton--  
13 90°+

14 Suddenly hot weather ^ (after very cool days)

//

15 Yarrow out how long? Blue flag abundant. //

16 Blue-eyed grass at height.

// //

19 Saw near mill on the wooded hill side

20 a regular old fashioned Country house

21 long & low one story unpainted with a

22 broad green--field half orchard for

23 all yard between it & the road--a part

24 of the hill side--& much June grass before it--

25 This is where the man who save the

26 country are born & bred--here is that pure

27 fountain of human life--

28 Walked over a rocky hill there in the midst

29 of the heat-- How interesting a thin patch

30 of strawberry vines now on a rocky hill side--

31 though the fruit is quite scarce--good for

32 suggestion--& intention at least

33 spikes

34 Herd's grass ^ just appears not in bloom

//

1 NB (My notes on this hitherto not to be trusted)  
2           Sitting by Hubbard bath swamp wood  
3 & looking N at 3 pm-- I notice the now  
4 peculiar glaucous color of the very water  
5                           at a dozen or 20 rd distance  
6 as well as the meadow grass ^ (ie sedge) seen  
7 through the slight haze which accom--  
8 panies this first June heat. A sort of  
9 leaden color as if the fumes of lead  
10 floated over it.  
11           Young crow black birds which have left  
12 //  
13 the nest--with great heads & bills--  
14 the top of the head covered with a conspicuous  
15 raised light colored down--  
16 //        A fly (good sized) with a large black  
17 patch on the wing & a reddish head alights  
18 on my hand--(a day or 2 after one with  
19 a greenish head--)  
20           Birds shoot like twigs. The young  
21 one as big as the old when they leave  
22 the nest--have only yet<sup>78</sup> to harden to  
23 mature.  
24                           June 16th  
25           Pm Paddle to great meadows--  
26 //        Small snap dragon how long?  
27           Examined a king fishers nest (~~esp~~ though  
28 there is a slight doubt if I found the spot)  
29 It was formed singularly like that of the  
30 bank swallow ie flat elliptical  
31 thus {drawing} some 8 inches as I remember  
32 in the largest diameter--& located

---

<sup>78</sup>1906 has "got."

1 just like a swallows in a sand bank--  
2 some 20 inches below the surface--  
3 Could feel nothing in it--but it may have  
4 been removed-- Have an egg from this.

5 Walked into the Great Meadows from  
6 the angle on the west side of the Holt  
7 in order to see what were the prevailing  
8 sedges &c

9 On the dry & hard bank--by the river  
10 grows June grass--&c--C. scoparia  
11 & Buxbaumii  
12 --stellulata--stricta ^-- In the wet parts  
13 pipes 2 1/2 feet high-- C. lanuginosa  
14 C bullata(?) manile-- Eleocharis palus-  
15 %Blue fumes%  
16 tris--~~Panicum virgatum~~ (a little  
17 just begins to show itself) & Glyceria fluitans  
18 here & there & out X

19 There was a noble sea of pipes--you  
20 may say pipes exclusively--a rich dark  
21 green--quite distinct from the rest  
22 of the meadow & visible afar--a  
23 broad stream of this valuable grass  
24 growing densely--2 1/2 feet high in  
25 water-- Next to this S.--where it was  
26 quite as wet or wetter--grew the  
27 tall & slender C. lanuginosa--the  
28 prevailing sedge in the wetter parts  
29 sheeny  
30 where I walked-- This was a ^ glaucous  
31 green--bounding the pipes on each  
32 side--of a dry look-- Next in abundance

1 in the wet parts were the inflated sedges  
2 above named. %V July 7th 59 also June 22-60%  
3 Those pipes--in such a mass  
4 are methinks the richest mass  
5 uniform liquid  
6 of ^ dark ^ green now to be seen on the  
7 surface of the {tyacuar}-- You might  
8 call this meadow "the Green Sea."  
9 //Phalaris americana Canary grass just  
10 out XX-- The Island by Hunt's bridge  
11 is denselely covered with it.  
12 Saw in the midst of the Great  
13 meadows the trails or canals of the  
14 musquash running an indefinite  
15 distance--now open canals full of water  
16 in which ever minnows dart con-  
17 stantly deep under the grass--& here  
18 & there you come to the stool of  
19 a musquash where it has flatted  
20 down the tufts {from} sedge & perhaps gnawed  
21 them off--

22 June 17th  
23 Rain--esp--heavy rain raising the  
24 river in the night of the 17th

25 18th  
26 Pm sail up river--  
27 Rain again & we take shelter under  
28 a bridge & again under our boat--  
29 & again under a pine tree.

30 It is worth the while to sit or lie through

1 a shower thus under a bridge--or  
2 under a boat on the bank--because  
3 the rain is much more interesting & remarkable  
4 phenomenon under these circumstances-- The  
5 surface of the stream betrays every drop from  
6 the first to the last--& all the variations  
7 of the storm--so much more expressive is  
8 the water than the comparatively brutish  
9 face of earth-- We no doubt often walk<sup>79</sup>  
10 between drops of rain falling thinly--  
11 without<sup>80</sup> knowing it--though if on the water  
12 we should have been advertized of it--  
13 ~~So when it~~ A last the whole surface  
14 is wicked with the rebounding drops as  
15 if the surface rose in little cones to accompany  
16 or meet the drops--till it looks like  
17 the back of some spiny fruit or animal--  
18 & yet the different colored current--  
19 light & dark are seen--through it all  
20 & then when it {clears} up--how  
21 gradually the surface of the water becomes  
22 more placid & bright--the dimples  
23 (till the prolonged reflections of trees are seen in it,  
24 growing fewer & finer ^--& the water is  
25 lit up with a joy which is in sympathy with  
26 our own while the earth is comparatively  
27 dead-- I saw swarms of little gnats  
28 light winged dancing over the water  
29 in the midst of the rain--though you  
30 would say any drop would<sup>81</sup> end ones days.

---

<sup>79</sup>There appears to be an "e" (or a possible flourish) at the end of "walk."

<sup>80</sup>"without" written over illegible word.

<sup>81</sup>"would" appears to be written over "with."





1 // Trisetum palustre (?) well meadow head  
2 in wet--ap. at height--  
3 A somewhat stellulata like C. call  
4 // it for present Deweyana-like Spanish  
5 Brook swamp--in fruit--& in bloom--  
6 June 20  
7 // River on ac. of rain some 2 feet  
8 above Summer level--  
9 // Great purple fringed orchis--  
10 ? What that colored flowered locust  
11 in Dan Farmers yard & house this side  
12 <sup>82</sup>Lincoln--?  
13 Tuesday June 21st 59  
14 Pm to Derby's pasture behind & beyond  
15 // School House-- Meadow sweet ap. X--  
16 // hedge hyssop out-- In that little pool  
17 near the assabet--above our bath place there--  
18 // Glyceria pallida well out in water{.} & Carex  
19 // lagopodioides just beginning. That  
20 grass covering dry & dryish field, & hills--  
21 with a curled or convolute radical leaves  
22 is ap. festuca ovina--(& not Danthonia  
23 // as I thought it) It is now generally conspicuous.  
24 <sup>82</sup>some "://" marks show through from next page  
25 Are any of our simpler forms the F. tenella?%^%  
26 You see now the Eupatoreum purpu-  
27 reum pushing up in rank masses in  
28 the low grounds--& the lower parts of the  
29 upper most leaves--forming a sort of  
30 // cup--is<sup>83</sup> conspicuously purplish.

---

<sup>82</sup>some "://" marks show through from next page  
<sup>83</sup>poss written over "are"

1 June 22d

2 Paddle up the River to Lees measuring the  
3 bridges. The sun coming out at  
4 intervals today--after a long rainy & cloudy  
5 spell--in which the weeds have grown  
6 much-- I observe that the rough golden  
7 rods & one other--which have grown  
8 1 to 2<sup>84</sup> feet high--have many of them in  
9 various parts of the town immediately drooped //  
10 their tops hanging down 5 or 6 inches.

11 This weed appears to be particularly tender  
12 in this respect--having probably grown very  
13 rapidly in the rain.

14 Comara palustris how long? Scirpus //  
15 lacustris is freshly out //

16 I notice a black willow top a foot above  
17 water--a dozen rods from shore near the  
18 {entr} outlet of Fair Haven Pond--or just  
19 off the point of the island where the water is  
20 10 feet deep by my measure--& it is alive  
21 & green-- Yet one who was out almost  
22 daily on the river would not perceive this  
23 revolution constantly going on-- Only in  
24 & at lowest water a month late{r}  
25 very few cases ^ can I discover where the surface  
26 has been taken up--since the water stands over  
27 & conceals the scar till it is healed--& for  
28 similar reasons it is hard to tell what is a  
29 fresh deposit & what an old growth-- I should  
30 say that the largest masses or islands

---

<sup>84</sup>"2" written over text and/or blotched

1 of button bushes standing in the meadows  
2 had drifted there-- Even the owner of  
3 the meadow & the haymakers may not  
4 always detect what was imported thus  
5 the previous spring-- These transplanted plants  
6 look so at home there-- So the  
7 revolution is almost an imperceptible  
8 one-- Many seeing the green willow tops<sup>85</sup>  
9 rising above the surface in deep water--  
10 think that there is a rock there on  
11 which they grow. There is a very large  
12 mass of bushes thus moved on the right  
13 shore some way above sherman's bridge  
14 & a large mass above Heards' Bridge  
15 some distance on the E side (having drifted across)  
16 // I hear now that snapping sound under  
17 the pads--or probably as soon as  
18 the pads are thickly spread over the  
19 also I hear it made by a fish darting to the surface  
20 surface-- in midstream where are no weeds--a dry snapping  
21 sound.  
22 June 23d  
23 Ride to Wayland Surveying the Bridges  
24 // Veiny leaved hawkweed freshly out.  
25 At Heard's Bridge The white maple  
26 is the prevailing one & I do not notice  
27 nor at Bridle pt. bridge  
28 a red one there^-- I think I saw the white  
29 as far down as the Sudbury Causeway--  
30 A foggy (cape-cod day) with an easterly wind.  
31 (<sup>86</sup>The next day--saw the white maple & Hibiscus in  
32 Billerica on the river) the maple at least as far down  
33 as the Falls.

---

<sup>85</sup>poss "willow-tops"

<sup>86</sup>An insertion line (I think) runs from the left of this parenthesis to the space in between the line beginning "a red one there" and the one beginning "as far down as"



1 Col. David Heard who accompanied  
2 me--& is best acquainted of any with  
3 the details of the controversy--has worked  
4 at clearing out the river (I think about  
5 1820)--said that he did not  
6 know of a rock in the river from the  
7 falls near the Framingham line to  
8 perhaps the rear of Hubbards in Concord.

9 The grass not having been cut last  
10 year--the ice in the spring broke off great  
11 quantities of pippes &c immense masses  
12 of them which were floated & drifted down  
13 against the causeways & bridges--& there  
14 the<sup>87</sup> lie still almost concealing any green  
15 grass like a raft on the meadows along  
16 the S side the causeways-- The<sup>88</sup> inhabitants  
17 of Wayland used a good deal for  
18 mulching trees. One told me that  
19 at Sherman's bridge they stretched quite  
20 across the river above the bridge so that  
21 a man "could walk across on them"--  
22 {perhas} "did walk across on them"--but  
23 on inquiring of one who lived by the bridge  
24 I learned <sup>89</sup>that "a dog could not have  
25 walked across on them"

26 Daniel Garfield whom I met fishing  
27 on the river & who has worked on Nine acre  
28 corner & Lees bridges for 50 years or more  
29 could remember one year that when  
30 capt. Wheeler dug much mud from

---

<sup>87</sup> 1906 has "they" which makes sense in this sentence, but no "y"

<sup>88</sup> "T" written over "t"

<sup>89</sup> First open quote crossed out.

1 the river--when the water was so low  
2 that he could throw out pickerel  
3 on each side outside the bushes (where  
4 the pads now are) says that his old  
5 master with whom he lived in Lincoln  
6 when he was young--told him that he  
7 wheeled the first barrow load at the  
8 building of Lees bridge & road--& that  
9 if he were alive now he would be a good-  
10 deal over a hundred years old. Yet Shat-  
11 tuck says that bridge was a new bridge in  
12 1660.

13 Ebenezer Conant remembers when the  
14 Canal dam was built & that before  
15 that it used to be dry at midsummer  
16 ~~between~~ outside the bushes on each side.

17 Lee says that about 1819 the  
18 bridge near him was rebuilt & the  
19 mud sills taken up. These are are  
20 said to remain sound an indefinite while.  
21 When they put in a new pile (Buttrick the  
22 carpenter tells me) the find the mortice in  
23 the mud sill & place it on that.

24 Dea Farrar says that he can remember  
25 Lees bridge 75 years ago & that it was not a  
26 new bridge then. That it is sometimes obstructed  
27 by hay in the spring-- That he has seen a  
28 chip go faster up stream there than ever down  
29 His {son} said this was the case considerably further  
30 up in the meadows toward Rices & he thought it

1 the effect of stow river backing up.  
2 Dea Farrar thought the Hay bridge called  
3 Farrars bridge was for foot passengers only.

4 I found the water in F. H. Pond on the 22d  
5 12 to 13 feet deep in what I thought the chan-  
6 nel--but in Purple Utricularia bay half  
7 a dozen rods from the steep hill 22 1/2 feet  
8 was the most I found.

9 John Hosmer tells me that he remembers  
10 Maj. Hosmers testifying that the south bridge  
11 was carried up stream--before the court  
12 at the beginning of the controversy.

13 Simonds of Bedford who is measuring  
14 the rapidity of the current of Carlisle Bridge  
15 says that a {bord} with a string attached ran  
16 off there 100 yards in 15 minutes at the  
17 height of water ({~~thaw~~ in may ) when the  
18 & pretty high<sup>90</sup>  
19 Commissioners were here. That he  
20 has found it to be swiftest just after the  
21 water has begun to fall.

22 The character of the river valley changes  
23 about at Hills {bridge}-- The meadows are  
24 quite narrow & of a different character--  
25 higher & firmer--a long hill bounds the  
26 meadow & almost the river on the west  
27 for a good way--& highland on the E--  
28 said to be (?)  
29 & the bottom is harder & often rocky--  
30 sounded with a paddle & guessed at  
31 The water was about 4 1/2 feet ^ deep at  
32 the fordway--& at that stage so swift &  
33 strong that you could not row a boat

---

<sup>90</sup> "& pretty high" replaces crossed out text in paren

1 against it in the swiftest part of the falls.  
2 (July 22d the av. depth of water at the Fordway was  
3 2 feet--it having fallen in C. 2{ft}--9 3/4 inches since  
4 June 23d--so that the water fell possibly as much  
5 in this month at the Fordway as at C. I think  
6 surely within 1/2 a foot as much.)



1 of each wing-- It is very sluggish & allows me  
2 to turn it over & cover it up with another  
3 leaf--sleeping till the night comes. It has  
4 more relation to the moon by its pale hoary  
5 green color & its sluggishness by day than by  
6 the form of its tail. A frail creature--rarely  
7 met with, though not uncommon--

8 June 29th

9 Pm to Walden--

10 Very hot The{--}piper grass bloom in prime

// //

11 Examined the Flying squirrels nest--at the  
12 base of a small white or 2 (sprouts) 4 inches  
13 through--in a small old white oak stump--  
14 half open above--just below the level of the  
15 ground--composed of quite a mass of old withered  
16 oak leaves & a few fresh green ones--& the  
17 inside wholly of fine dry sedge--& sedge-like  
18 bark fibers-- The upper side of the nest was half-  
19 visible from above-- It was 8 or 9 inches across  
20 In it I found the wing of an Attacus luna  
21 & July 1st another wing near 2nd Division--  
22 which makes 3 bet. June 27 & July 1st

//

23 At the RR. spring in Howard's meadow

24 I see 2 chestnut sided warblers--hoping  
25 & skipping as if they had a nest within 6 feet of me  
26 a long time--no doubt they are breeding near.  
27 Yellow crown with a fine dark longitudinal line--  
28 reddish chestnut sides--black triangle  
29 on side of head--white beneath--  
30 River falls several inches--

//

//

1                                June 30th  
2                    Cooler--with a northerly wind--  
3                    The pads blown up by it already show crimson  
4                    it is so strong--but this not a fall phenomenon  
5                    yet.  
6                                July 1st  
7                    Pm to 2d Division Brook--  
8                    Have heard the peculiar {peep} of young tailless  
9 // golden robins for a day or more  
10                    White water ranunculus in full bloom (at  
11 // least a week in 2d Division Brook near the  
12                    Dam--in the shade of the bank a clear  
13                    day-- Its leaves & stems waving in the  
14                    brook are interesting--much cut & green  
15                    That juncus at the 2d Division  
16                    has long been out of bloom & is now most  
17                    of it withered & brown at top-- If described  
18                    it must be the juncus filiformis--but it  
19    but much more slender than the effusus  
20                    is taller than that-- It must have  
21 // bloomed about the 1st of June-- It is  
22                    much the earliest true juncus we have  
23                    or I know of--  
24 //                    The Holcus lanatus past prime near j. P.  
25                    Browns' little meadow beyond end of his moraine--  
26    also grows near SW end of Hub. Grove--  
27 //                    Agrostis--either vulgaris or alba (or  
28                    both) now generally coming into bloom  
29                    in fields both moist & dry--but I should  
30                    say with considerable ligules & rather roughish  
31                    sheathes--



1                                July 4th

2                        June 28th I observed up the Assabet

3 // some exceedingly handsome Amelanchier leaves

4    bright crimson regularly striped with green

5                                scattered

6    on the veins & with ^ yellow spots-- The

7    shrub probably dying -- V some in press--

8                        Pm to FH Pond--measuring depth

9    of river--

10                      As you walk beside a ditch or brook--

11    you see the frogs which you alarm--

12    launching themselves from a considerable dis-

13    tances into the brook-- They spring considerably

14    upward so as to clear all intervening obstacles--

15    & seem to know pretty well where the brook is--

16    Yet no doubt they often strike to their chagrin

17    & perhaps sorrow on a pebbly shore or rock--

18    Their noses must be peculiarly organized to

19    resist accidents of this kind & allow them

20    to cast themselves thus heedlessly into the air{--}

21    trusting to fall into the water--for they come

22    down nose foremost. A frog--reckons that

23    he knows where the brook is-- I shudder for

24    them when I see their soft unshielded proboscis

25    falling thus heedlessly on whatever may be

26    beneath--

27                      I observe at Well meadow head that

28 // the fall has already come conspicu-

29    ously to the Hellebore--& they are mostly

30    turned yellow, while their large green seed

31    vessels are ripening-- But the skunk cabbage

1 is still green

2 The front rank {~~polon~~} polyg- //

3 onum having been submerged by the unusually

4 high water of the last fortnight--is a

5 conspicuous red or purple color--& this is

6 evidently the effect of the water alone-- As, I

7 think, it is the water which turns the early

8 %both white & red when the leaves are not half developed--long ago%

9 maples%^%. All the rivers edge is now tinged

10 with this purplish streak-- Yet they are healthy

11 looking leaves--

12 Johnswort is just fairly begun-- Hypericum //

13 ellipticum & Jersey tea--1st observed-- //

14 The deepest place I find in the river today is

15 off bittern cliff answering to the bold shore--

16 There is an uninterrupted deep & wide reach of

17 the river from FH Pond to Nut meadow Brook--

18 July 5th

19 Pm to Ball's Hill--sounding River--

20 Having sounded the river yesterday & today from

21 Entrance to F. H. Pond to oak at Ball's Hill--

22 the water being today 3 inches lower than yesterday--

23 or now 1 1/4 feet above what I call summer level

24 -- I make these observations

25 %above Ball's Hill%

26 Calling any place %^% where the water is 11 feet

27 %a deep hole%

28 deep or more at ~~mid~~summer--level--%^%

29 I find 6 such Deep holes within the

30 1st

31 above limits viz under the steep hill

32 at S. W. part of F. H. Pond--2d--At Bittern Cliff

33 3d 4rds below French's rock or op. mouth of Bill Brook--

34 4th Deep Hole at Ash--5th Deep hole at sharp bend

1     6 Deep hole at N. E angle of the Holt.  
 2     In the order of depth they stand thus  
 3     1--Purple Utricularia Bay--19 1/2  
 4     2--Sharp bend by Holt            17 feet  
 5     3--NE angle of Holt            ~~14 3/4~~ 16 1/4  
 6     4--French's Rock                12 1/4  
 7     5--Bittern Cliff                11  
 8     6--Deep Hole by ash            11<sup>96</sup>  
 9             ~~In 2 if no~~ These "holes" appear to be  
 10    of 2 kinds-- In 2 if not 3 of the above  
 11    instances they appear to be a {trace} of the origi-  
 12    nal formation of the river valley--& to  
 13                                    & not necessarily at an angle  
 14    be independent of the river^--no 1 is evidently  
 15    traceable to a very steep & high hill half a  
 16    dozen rods off--& no 5 to a small  
 17    there is a part of the bare precipitous cliff under water at lowest level  
 18    rock cliff some 3 rods off.^ No 4 appears  
 19    to be of a similar character with the last--  
 20             The others (or 2--3--&6) are of a  
 21    different character--when there is meadow  
 22    on each side--& they are not betrayed by ~~the~~  
 23    any elevation of the shore-- In each case  
 24    they are close to the positive side at an angle  
 25    in the river The deepest, (& also the deepest of  
 26    any in the river proper) which will serve for a  
 27    sample--is at the sharpest bend in the  
 28    river in Concord--& I think at the narrowest  
 29    part of the river in the town-- The stream  
 30    not deep & rather more than ordinarily swift  
 31    above here strikes square (or {worse}) against the  
 32                                    which is  
 33    Easterly bank (^ only some 3 feet above summer level)

---

<sup>96</sup>T draws brackets on left and right of "Bittern Cliff" and "Deep Hole by ash" to connect the 2 lines.



1 (5 1/2 in sluggish water)  
 2 Potamogetons begin to prevail below 4 1/2^  
 3 & reach quite across the river at 3 feet  
 4 except the one below ash tree with a bottom of shifting sand--  
 5 They invariably occupy<sup>100</sup> these shoals^-- though they  
 6 are densest on broad sand bars ~~in mid~~ Oc.-  
 7 copying the mid stream, on which there is ^ 2 1/2  
 8 or ~~to~~ 3 feet water--& {a} clearer channel on one or  
 9 both sides--or in the middle--  
 10  
 11 With one {exaction} (IE Barretts bar) these shoals  
 12 the 5th in order  
 13 are just below (?) considerable bends-- Also the  
 14 river is generally narrower than the average at  
 15 the shoals.  
 16 The river (in Concord) is much more variable in depth  
 17 below the junction of the 2 rivers--than above it.  
 18 %above Balls hill%  
 19 The great bends in Concord %^% are  
 20 about 9 ♀--viz 1 Lees Bridge  
 21 2 Lees swimming place  
 22 3 Clam shell  
 23 4 Hub bath  
 24 5 T.<sup>101</sup> {'Bridge'}  
 25 6 Merricks  
 26 7 Junction  
 27 8 Burr's Island  
 28 9 & The Holt  
 29 (& there are a dozen more before you get to Pelham Pond up stream)  
 30 in Concord  
 31 The only remarkable or Great Bend ^ is the  
 32 Holt--where a new channel might be  
 33 cut saving nearly 2/3 the distance.  
 34 in C  
 35 All these bends ^ (except perhaps the holt in  
 36 part (??)) are occasioned by the river striking  
 37 firmer land on a hill or cliff & being turned  
 38 by it. It is like the wriggling of a snake con-  
 39 trolled between 2 fences. It is not so with the Sud. meadow {bend}  
 40 From a rude estimate I should say about 1 mile  
 41 (?)  
 42 or say 1/8 ^ part the river in concord is weedy--

<sup>100</sup>stray mark?

<sup>101</sup>Probably an abbreviation of Turnpike. Falls in the right place on the map.



1 is from Boats place to oak--  
2 for density shallowness, & length, all-together,  
3 is Barretts' bar  
4 The swifter places that I remember, bet FH. Pond  
5 & Balls Hill leaving out bridges--are  
6 (Aug 4th I do not remember any  
7 Clam Shell of consequence above except amid weeds  
8 at Rice Bend)  
9 Hub bath  
10 Merricks  
11 Island shoal &c  
12 {~~Old N~~} French Rock--&c The Shoal below  
13 Rocks below Old N Bridge  
14 Barretts Bar--  
15 Sharp bend reach  
16 Holts ford  
17 i.e. generally the shoal & weedy places--but also  
18 where the obstruction is a sharp bend or rocks--  
19 NB July 6th  
20 My Eng. Cress Nasturtium officinale--  
21 // at Depot Field Brook--~~has bl~~ is in bloom and has  
22 already begun to go to seed--turning purplish as it  
23 withers (from white)  
24 Pm to Lees' Cliff--  
25 The fields are now purplish with the {antlers}  
26 // of the herd's grass which is ap. at its height  
27 Grass now for a week or more has  
28 // been seriously in the way of the walker--but  
29 already I take advantage of the few fields  
30 that are mowed-- It requires skilful {tacking}  
31 a good deal of observation & experience  
32 to get across the country now--

1 At Lees Cliff--Pellitory ap. not long--yet I see //
  
2 green //
  
3 small ^ fruit-- The gymostichum grass
  
4 just begun X //
  
5 The heart leaf flower is now very conspicuous //
  
6 & pretty--(3 pm) in that pool westerly of the
  
7 old Conantum house. Its little white 5-petalled
  
8 flower--about the size of a 5 cent piece looks
  
9 like a little<sup>103</sup> white-lily. Its perfectly heart shaped
  
10 leaf floating leaf an inch or more long is the
  
11 smallest kind of pad-- ~~{But} under~~There
  
12 is a single pad to each slender stem (which
  
13 is from one to several feet long in prop. to
  
14 the depth of the water) & these ~~tall~~ padlets
  
15 cover sometimes like an imbrication the whole
  
16 surface of a pool-- <sup>Close</sup> ^Under each leaf or pad--
  
17
  
18 is concealed an umbel of 10 to 15 flower buds--
  
19 of various ages curls
  
20 ^& of these one at a time (& sometimes more) curves
  
21 upward between the lobes of the base & expands
  
22 its corolla to the light & air about 1/2 inch
  
23 above the water--& so on successively till all
  
24 have flowered. Over the whole surface of the
  
25 shallow pool you see thus each little pad
  
26 with its pretty lilly between its lobes--turned
  
27 toward the sun. It is simply leaf & flower
  
28 %Galium pilosum (Galium) how long?% //
  
29 July 7th
  
30 Pm to Great meadows--
  
31 P. Hutchinson says he once found a
  
32 wood-ducks nest in a hollow maple by
  
33 Heywoods meadow (now by RR{.}) & tried to get the

---

<sup>103</sup>poss partially crossed out

1 young as soon as hatched--but they were gone too  
2 soon for him.

3 On the first or westerly part of the Great meadows  
4 i.e the firmer parts & the bank I find  
5 of dif. kinds  
6 mixed with sedges ^ much red top--(coloring  
7 // the surface extensively) fowl meadow (just begun  
8 to bloom & of a purplish lead color--taller than  
9 the red top) the slender purple spiked panic--  
10 Agrostis (perennans? or scabra??)

11 In the wet or main part--beside various  
12 other sedges--as stellulata--lanuginosa--stricta  
13 &c &c Wool grass, now in flower--a sedge  
14 (ap C. ampullacea var. utriculata toward  
15 Holbrook's) thicker culmed than woolgrass but  
16 softer & not round--with fertile spikes often 3  
17 NB inches long--& slender-- A great part of  
18 the meadow is covered with I think either  
19 this or wood grass not in flower. I am not  
20 certain which prevails--but I think wool-  
21 grass which does not flower-- Also mixed  
22 with these & lower dulichium--Eleocharis  
23 palustris &c &c %v back June 16%

24 // First notice Pontederia out--also Tephrosia  
25 how long?

26 // The note of the bobolink has begun to sound  
27 rare?

28 ? Do not young Night-hawks run pretty soon  
29 after being hatched? I hear of their being gone  
30 very soon.

31 Bathing at Barretts Bar, I find

1 it to be composed in good part of Saw  
2 dust--mixed with sand-- There is a narrow  
3 channel on each side deepest on the south--  
4 The potamogeton is 8 feet long there in  
5 18 inches of water--

6 Measuring on Baldwin's 2d map--  
7 By thread of river--  
8 From Bridle pt Bridge to Sudbury Canal Br.  
9 feet rods  
10 is 5625 or 341

11 From Entrance to Canal (going back a little) to  
12 Sherman Br 16500 or 1000

13 Shermans Br  
14 feet  
15 (to Town Line 10725 \ (650 \  
16 + to Lees 2775 / 13500 168) / 818  
17  
18 " to Corner Br 12375 -- 750  
19 S Bridge 7975 -- 483  
20 to Stone Br. say 525 (map has 723) 32--  
21 Stone B--(to junction 4750 (288)  
22 Hunts Bridge 5625 -- 341  
23 to N. Bridge 2830 -- 171  
24 N. Br (to Bedford line 11000 (667)  
25 + (to Carlisle ? line 5250) (318)  
26 as on map  
27 NB The Bedford line is just about 1/2 way  
28 from N Br. to Carlisle Br.)

29 Whole Dist from NB to Carlisle Br. 21750 -- 1,318  
30 C. B. to Hills B. 13330 -- 658  
31 HB to Turnpike B. 7475 -- 453  
32 T. B to middle B 2250 136  
33 mid B to Corner B 6500 394  
34 C. B. (to Falls 5000) (303)  
35 to Dam 7160~~0~~ 434

1 I learn from measuring on Baldwin's  
2 speaking {of}  
3 2d map --that the<sup>104</sup> river--(i.e ^ that  
4 part below Framingham) is much  
5 the straightest in the lower part of its  
6 course--or from Balls Hill to the Dam  
7 From Bridle Point Br to the Dam in a straight  
8 line is 16 miles 48 rods  
9 by the {thread} of the river 22 miles 289 rods  
10 i.e 6 miles 41 rds difference-- {or} about 3/8  
11 further by the windings  
12 From where it enters to where it leaves Concord is  
13 in a straight line 1942 rds (6 miles 22 rds)  
14 by the river thread--2930 (9 miles 50 rds) or nearly  
15 1/2 as far again  
16 ~~The greatest meander~~ It winds most in  
17 the broad meadows. The Greatest meander  
18 is in the Sudbury meadows--  
19 From upper end of Sudbury Canal to shermans bridge  
20 3  
21 direct is 558 rds (1 mile 238<sup>105</sup> rds)  
22 by thread of River 1000 rds (3 miles 40 rds) or nearly  
23 2ce as far--  
24 But though meandering it is straighter<sup>-106</sup>  
25 in its general course than would be be-  
26 lieved-- These nearly 23 miles in length  
27 (or 16+ direct) are contained within a  
28 breadth of 2 miles 26 rds i.e so much  
29 it takes to meander in{.} It can be plotted  
30 by the scale of 1000 feet to an inch on a  
31 sheet of paper 7 {ft} 1 1/4 inches long by

---

<sup>104</sup>poss "The"

1 <sup>105</sup> Originally 228, with the second two turned into 3, and another 3 written above.

<sup>106</sup>poss "straighter"

1 11 inches wide  
2 deep &  
3 The ^ lake-like are the straightest reaches  
4 within  
5 The straightest reach ~~above~~ these limits  
6 above Balls hill is from F. H. Pond--to Clam-  
7 Shell Hill.

8 The falls are about 10 miles 286  
9 rods by the river below the mouth of the  
10 Assabet.

11 Ac to the levels of Baldwins 2d map taken  
12 Sep 1833 The fall bet Bridle Point Bridge

	feet	Drift in rods by river	Fall in 100 rds was <u>about</u>
13 & Sudbury canal was	.090	341	.03-
16 Thence to Shermans B--	.485	1000	.048
17 " Lees	.390	818	.05-
18 " 9 acre Corner [NB <u>rises</u>	<u>.120</u>	750	/.027+
20 S. Br.	<u>.135</u>	483/	/.103-
22 Stone	.025	32	/.017
23 Hunts'	.360	341/	/.064-
24 N. .	.035	171/	/.026
25 Carlisle B	.855	1318/	/.054
27 Hills	.095	658/	/0
28 Turnpike	.250	453/	/.016
29 Middle	.000	136/	
30 Corner	.065	394/	
31 Dam	.200	434--	--.04+ <sup>107</sup>
32	<u>2985</u>		This column
33	120		rudely calculated
34	<u>2.865</u> feet		
35 Whole fall			
36			
37 In 1811 it was	<u>4.325</u>		
38			
39 or 1.460 feet more			

1 <sup>107</sup> T draws lines from columns, roughly represented here with slashes. T connects  
2 "483" with ".27+", "341" with ".103-", "171" with ".017" and so on through "434"  
3 with ".04+".

1           In Sep. 33 the fall between Bridle  
2 point Bridge & the Dam--was  
3 measuring along the thread of the  
4 river, on an average just 1 1/2 inches  
5 to a mile

6           The most sluggish place was between  
7 Lees & 9 acre Corner Bridge, it having  
8 been 1.44 inches higher at the last  
9 place than at the first. (Probably this  
10 sluggishness reached as far as Nut-  
11 meadow Brook<sup>108</sup>)

12           The greatest fall between 2 bridges  
13 was bet. the Stone & Hunts' Bridge--  
14 4.05 inches to a mile

15           The next ~~swiftest bet~~ greatest fall  
16 between two bridges--was bet the North  
17 Bridge & Carlisle B. about 2 1/2 inches to  
18 a mile (And prob far the greater  
19 part of this fall is in the 1st half of  
20 this distance.

21           The regular fall is the greatest  
22 in the broad meadows.

23           I observed in Maine that the Dam at  
24 the outlet of Chesuncook lake some 20  
25 miles off had raised the water so as to kill  
26 the larches on the Umbazookskus extensively.

27           They were at least 4 or 5 miles up the  
28 Umbazookskus.  
29

---

<sup>108</sup>bleedthrough following word

1 Friday July 8th

2 I see an emperor moth--A. Cecropia which  
3 came out the 6th //

4 Pm to Clam Shell by river--

5 The Carex Muhlenbergii is common on Clam Shell  
6 slope--just beyond the ravine //

7 Found yesterday in the Great meadows near  
8 Holbrooks--a new Carex--ap. C. ampullacea  
9 var. Cylindrace--(V pressed one) It is most //  
10 like what I have called {monile}<sup>109</sup> but the  
11 fertile spikes are not only much larger--but  
12 more densely spiked--& the perigynium smaller  
13 & more spreading.

14 Thimble berries have begun //

15 The islands of the river below the Assa-  
16 bet especially--as {Hosmer's}, & the one just  
17 below French's rock are now covered--with  
18 Canary grass (which has ~~grow~~ almost entirely done  
19 & closed up) Fowl meadow (poa serotina)  
20 now fairly begun to bloom--(first noticed the middle  
21 of June its slender green panicles shaped like a  
22 green red-top) Glyceria fluitans going out  
23 of bloom--also the sensitive fern ({~~p~~} hand  
24 leaf of hay makers--) pipes--(& sedges which  
25 might as<sup>110</sup> named as soon as any) as the crinita  
26 which over hangs the water)

27 I judge that in a freshet the water  
28 rises higher as you go down the river--both  
29 from the height to which it rose last  
30 march--as shown me at several

---

<sup>109</sup>stray mark following word

<sup>110</sup> Hard to read. 1906 has "be"

1 bridges & from the height of the  
2 bridges themselves--which the builders  
3 have been gradually compelled to raise  
4 for the most part just above high-  
5 water mark.  
6 lower side string pieces in middle of the  
7 The average height of the ^ 3 wooden  
8 above water  
9 bridges in Wayland^--when I measured  
10 in June was-- 3ft 7 inches  
11 of the 5 do in Concord 5--9 " & 2/5  
12 of the 4 " in Carlisle & Billerica 6--4  
13 Showing a steady increase in the height of  
14 the bridges & one in each section had water  
15 on one end last march-- The Concord (&  
16 perhaps Billera<sup>111</sup>) averages are both a little  
17 too high in proportion {however}--one or more bridges  
18 being unnecessarily high--  
19 July 9th  
20 Saddle<sup>112</sup> up river & sound a little--above  
21 FH Pond.  
22 // See young king-birds which have lately  
23 flown perched in a family on the willows--  
24 the airy bird--lively twittering.  
25 The water having gone down I  
26 notice a broad red base to the bayonet  
27 rush--ap. the effect of the water--even  
28 as the maples (of both kinds) & the polygo-  
29 nums, are reddened. The bayonet rush  
30 // is not quite out.  
31 I see, at length, where the floated

---

<sup>111</sup>or "Billeca", T misspells "Billerica"

<sup>112</sup>T prob misspells "Paddle". For comparison, see "S" in "See" line 22.

1 meadow (on Hubbards meadow) came  
2 from last spring--from op. Bittern Cliff--  
3 & {som} below. There is a pond created in the  
4 water being 11 1/2 inch above sum  
5 meadow there some 5 rds X 4 & 3 to 3 1/2^ mer level  
6 a regular oval pond  
7 feet deep where nothing rises above water--  
8 but I see pontederia--grass-like leafets  
9 springing up all over this bottom-- The piece  
10 taken out here probably contained no button-  
11 bushes-- So much of the meadow which  
12 has been mowed<sup>113</sup>--is thus converted into a  
13 pool. Close by S. are still larger  
14 scars where masses of button bush  
15 thickets have been ripped up-- No doubt  
16 some of these on Hubbards meadow came  
17 from here-- The water where they stood  
18 is about the same depth as in the other place.  
19 I see a piece of floated button bush  
20 on the S side of F. H. Pond. West of  
21 the old boat place of Baker shore--  
22 which which is 12 rods long X 1 rod wide  
23 & in 2 or 3 pieces where it is several thicknesses  
24 it is full 3 feet thick of solid earth.  
25 The whole is set in a straight liney  
26 separating the meadow in the rear  
27 from the pond--forming in fact just such  
28 a brink there as exists in perfection on  
29 the W side of the pond. This might  
30 be called Brink bush<sup>114</sup>--or Drift bush  
31 River fence  
32 It is the floating fencing stuff of the

---

1 <sup>113</sup>1906 has "moved"  
<sup>114</sup>poss "Bush"

1 the river-- Possibly that (in the spring)  
2 island S of the mouth of Well meadow Brook  
3 & even the large island in the Pond had  
4 its beginning thus not only willows but  
5 maples & alders having at length spring up  
6 on it & built it up.

7 The next day (10th) I see just above  
8 Shermans Bridge on the E side a piece  
9 some 8 rods long X 1 rod wide arranged  
10 as a brink separating a meadow from  
11 the river in the same manner--& a quarter  
12 of a mile higher up on the same side  
13 more or less broken  
14 a ^ piece which I estimated by my eye  
15 to be<sup>115</sup> 5 rods X 12 The larger<sup>116</sup> mass  
16 or collection of the kind moved together  
17 that I ever saw.

18 I have seen 6 pieces moved last march or spring  
19 which contained all together more than  
20 1/2 an acre. There was more than a quarter  
21 of an acre in the last piece alone.

22 The button bush & black willow generally grow  
23 together esp on the long<sup>117</sup> of the stagnant parts  
24 of the river--(very little comparatively in the  
25 great Sudbury meadow & in our Great meadows)  
26 Perhaps {they} are there carried off by the ice  
27 ^They stand generally in line (sometimes half a dozen  
28 rods wide) on the brink of the river--separating  
29 it from some (commonly narrow) meadow behind--  
30 & at high water are a distinct line of separation  
31 rising above the surface & indicating the sum-  
32 mer boundary. The best example is at F. H. Pond

---

<sup>115</sup>T writes around bleedthrough here and throughout page

<sup>116</sup>Possibly "larges"

<sup>117</sup>1906 has "brink"

1 west side-- It is often pretty deep water quite  
2 up to the bushes--or there are pads &c outside them.  
3 There they stand in massive & regular straight or  
4 curving lines & you suppose that they have stood  
5 (IE in one piece{ })  
6 there for ages-- But I have see 12 rods together^  
7 of such fence the whole width of it transplanted  
8 half a mile to some shore--where there was  
9 none--& forming a fence to the pond or<sup>118</sup>  
10 river there. We are accustomed to refer changes  
11 in the shore & the channel--to the very gradual  
12 influence of the current washing away & depositing  
13 matter which was held in suspension--but certainly  
14 in many parts of our river the ice which moves  
15 these masses of bushes & meadow is a much  
16 more important agent. It will alter the  
17 map of the river in one year-- The whole  
18 shore for 40 rods on the E side below bittern  
19 Cliff was stripped of its button bushes & willows &c &c  
20 last spring--& as I floated over the river there  
21 to day-- I could not at first account for  
22 the remarkable breadth of the river there  
23 like a bay-- I got {a} very novel impression of  
24 the size of the river though it is now low water.  
25 In fact the width of the river has been  
26 increased fully 3 or 4 rods for more  
27 than 40 rods in length--& it is 3 to 4 feet  
28 deep on that side now-- You cannot tell  
29 of any clump or row of button bushes whether it  
30 grew up where it stands or was thus set out there{.}

---

<sup>118</sup>"or" written over "ther"

1 I have seen these masses sunk in mid stream  
2 produce a small weedy spot the<sup>119</sup> same year--  
3 & possibly a large mass might thus form  
4 an extensive shallow & weedy place or island.

5 Potamogetons begin to prevail at 5 1/2 feet  
6 in sluggish water (at summer level-- ) though  
7 they will still be visible when the water rises higher  
8 rising with it-- They appear at 4 1/2 if more  
9 rapid--and are densest at 3 feet if the  
10 stream is not exceedingly rapid.

11 The Kalmiana lily grows to 7 1/2 feet (summer  
12 level) where it is sluggish (& is still atop  
13 when it is a foot or 2 deeper) & you  
14 see this, the heart leaf--utricularia & pota-  
15 mogeton all together in 5 feet water (also  
16 in same place when a {foot} or 2 higher)  
17 The front rank polygonum grows outside  
18 the pontederia--next to the potamogeton--  
19 in Wayland  
20 & near the causeway bridge reach (except 4 or  
21 5 feet) quite across the river ~~in 3 feet water~~ 3 feet water

22 We have not only the Assabet uniting  
23 with the main stream about in the middle  
24 of the township--but 3 high ways thus raying  
25 out in different directions-- As great  
26 an amount of river within these limits  
27 as could well be-- Neither stream runs direct  
28 through the town-- The main stream runs  
29 first Northerly or N westerly & then NEly  
30 & perhaps this is as convenient for sailing

---

<sup>119</sup>"the" poss underlined

1 in flat bottomed boats as any arrangement  
2 could be-- The prevailing winds being NW  
3 & SW--but sailing is much affected by  
4 hills woods &c

5 To day July 9th water is 11 1/2 inches above summer //  
6 level--

7 July 10th

8 Water 10 1/2 inches above summer level //

9 8 Am take boat at FH. Pond & paddle  
10 up to Sudbury Causeway--sounding the river--

11 To day like yesterday is very hot--with  
12 a blue-haze concealing the mts & hills--looking  
13 like hot dust in the air-- //

14 Hearing a noise I look up & see a pigeon  
15 woodpecker pursued by a kingbird & the former  
16 utters loud shrieks with fear.

17 Paddling thro' the wild sudbury meadows--  
18 I am struck with the regularity with which the  
19 phalanxes of bull rushes (*scirpus lacustris*) occur--  
20 They do not grow in a continuous line like  
21 pipes or pontederia--but in small isolated  
22 patches-- At each bend, though it does not  
23 appear on Baldwins map there is a  
24 bay like expansion of the river, now half  
25 emerged--thus {drawing}<sup>120</sup>  
26 where the more stagnant water has deposited mud--

---

<sup>120</sup>drawing of river, takes up 2 lines, with the words "bull rush" included in drawing  
139

1 & in each {such} place, with remarkable regularity  
2 a phalanx of bullrushes presents itself as you  
3 ascend. ~~Th~~ It occasionally occupies a corresponding  
4 place as you descend--and also intermediate  
5 shores of a similar character-- Yet it so  
6 constantly occurs in just this position as  
7 as to be remarkable. It is not very common  
8 along our river--being mainly<sup>121</sup> confined to  
9 at any rate to the expansions be they larger or smaller  
10 the larger & wilder meadows.^ These  
11 phalanxes are from 1 to 3 or more rods  
12 wide & the rush is of a glaucous green--  
13 very interesting with its shafts slanting different  
14 ways. At one bend especially grows  
15 (& I have not noticed it elsewhere except in  
16 great  
17 // this meadow--) the ^ scirpus fluviatilis (how long  
18 out?) Yet the leaves are not so roughish  
19 nor so long as described.  
20 // The Arundo phragmites is not nearly out--though  
21 quite tall. Spartina cynosuroides well out  
22 {Th} green pipes border the stream for  
23 long distances--  
24 The high water of the last month has  
25 left a whitish scum on the grass--  
26 // We scare up 8 or a dozen wood ducks--  
27 already about grown--the meadow is quite  
28 alive with them.  
29 What was that peculiar loud note from  
30 //  
31 some invisible waterfowl near the Concord  
32 line? Any kind of plover? or Clapper rail?--

---

1 <sup>121</sup>Underlining possibly should be for "larger or" in inserted line below.

1 H. Buttrick says he has shot a meadowhen much larger than the small one here //  
2 I hear in the ridge the peculiar notes--of I  
3 think the meadow hen--(some e.g. when I //  
4 got an egg & nest) the young are probably  
5 running there--often hear it in the great Sud-  
6 bury meadow--  
7 See many young birds now--blackbirds<sup>122</sup>--swallows--  
8 kingbirds &c--in the air--even hear //  
9 one link from a bobolink.  
10 I notice at Bittern Cliff that the spar--  
11 ganium floats up stream {drawing} prob  
12 because the wind has blown thus.  
13 The bottom of F. H. Pond is very muddy--  
14 I can generally thrust a pole down 3 feet  
15 into it--& it may be very much deeper--  
16 Young pouts are 1 inch long--& in some //  
17 ditches left high & dry & dead with the old.  
18 July 11  
19 Another hot day with blue haze //  
20 & the sun sets red. threatening still hotter  
21 weather--& the very moon looks through a  
22 somewhat reddish air at first.  
23 The position of the button bushes determines the  
24 width of the river--no less than the width or  
25 depth of the water determines the position of the  
26 button bushes. We call that all river  
27 between the button bushes--though sometimes they  
28 in a regular brink fashion  
29 may have landed or sprung up ^ 3 or 4 rods  
30 further from, or nearer to, the channel--  
31 That mass (described on the 9th seen the 10)  
32 in the Wayland meadows above Sherman's

---

<sup>122</sup>"black" inserted

1 bridge--was, I think, the largest mass drifted  
2 or growing at all on that Great meadow--  
3 So this transplantation is not on an insignifi-  
4 cant scale--when compared with {whole}  
5 body that grows by our river-- The largest  
6 single mass on the Wayland meadow; consider-  
7 ing both length & breadth, was the recently drifted  
8 one. To day the farmer owns a meadow  
9 slightly inclined toward the river--& generally  
10 (IE taking the year together) more or less inundated  
11 on that side) To morrow--it is a meadow  
12 quite cut off from the river--by a fence  
13 of button bush & black willow a rod or  
14 more in width & 4 to 7 or 8 feet high  
15 set along the inundated side--& concealing  
16 the river from sight.

17 I hear that Mr & Mrs Such-a-one are  
18 "going<sup>123</sup> to the beach" for 6 weeks-- What a  
19 failure & defeat this suggests their lives  
20 to be! Here they live perchance the rest  
21 of the year trying to do as they would be done  
22 by--& to exercise charity of all kinds--& now  
23 at last--the parents not having realized  
24 their aspirations in the married state  
25 & the misses, now begun to be old maids  
26 without having found any match at all,  
27 succumb & slope to the beach for 6 weeks  
28 Yet so far from being felt to be as proof  
29 of failure in the lives of these christians

---

<sup>123</sup>stray mark after "going"

1 it is thought to be the culminating point of their  
2 activity-- At length their season of activity is  
3 arrived--& they go to the beach--they energetically  
4 keep cool-- They bathe daily & are blown  
5 on by the sea breeze-- This keeps their courage  
6 up for the labors of the year-- This recess  
7 which the sabbath-school teachers take!  
8 What if they were to abide, instead<sup>124</sup>, with the  
9 caravan of sweltering pilgrims making their way  
10 over this sahara--to their Mecca!

11 We hear at length that Miss Such a one  
12 now--well advanced in years--has at length shut  
13 up house & gone to the beach. Man servant  
14 & maid-servant went long ago to prepare  
15 the way for her-- --to get the bottles of all kinds  
16 ready-- She has fought the good fight  
17 here until at length no shield nor pretense  
18 will serve--& now she has gone to the  
19 beach--& have not her principles gone  
20 with her? She has {flitted} to swallow-cave  
21 where perchance no duties lurk--

22 Ah-- Shall we not go to the beach after  
23 another fashion some of us one day?

24 Think of the numbers who are imbeached  
25 by this time--how they flutter like devil's needles  
26 & butterflies commingled along our pontederia{'d}  
27 shores!

28 They have gone & left an empty house-- The  
29 silver is cache'd--as prairie travellers leave

---

<sup>124</sup>poss "in-stead"

1 behind provisions which they expect to re-  
2 turn to. But the rent of the last house  
3 goes on nevertheless--& is to be added  
4 to the board at the great watering place  
5 So is it with every {domicil} we rent--the  
6 rent never ceases but enlarges from year  
7 to year-- They have gone to the beach to get  
8 a few pebbles--which help digestion for  
9 the rest of the year.

10 July 12th

11 // Another hot day--96° at mid afternoon  
12 Pm to Assabet Bath. The elm avenue  
13 above the wheeler farm is one of the hottest  
14 places in the town--the heat is reflected from  
15 the dirty<sup>125</sup> road. The grass by the roadside  
16 // begins to have a dry hot dusty look--  
17 The melted ice is running almost in a  
18 stream from the countrymans covered  
19 wagon--containing butter, which is to be  
20 conveyed hard to Boston {market}. He stands  
21 on the wheel to relieve his horses at each  
22 shelf in the ascent of Colburn hill.

23 I think I have distinguished our Eriophorums  
24 now-- There is the E. ~~polysta~~ vaginatum  
25 // the earliest--out long ago--The E. Polystachyon  
26 well out June 19th & today I see the E. gracile  
27 // which ap has not been out quite so long as the last--  
28 its leaves are channelled triangular  
29 Saw yesterday the E. virginicum ap. in bloom  
30 //  
31 though very little woolly or reddish as yet--a dense head.

---

<sup>125</sup>1906 has "dusty"



1 When on July 11th I sounded River the water was 1ft 9 1/2 inch  
2 below notch in willow or 10 1/2 inches above summer level

3 Subtracting this--I {found} there 12 ~~addit~~ Deep  
4 Holes (IE 11 feet & upward) above F. H. Pond--

5	viz		Depth	Plainly referable
6	order of depth			to original form of valley
7	10	Below Lee's	11 1/2	
8	8	Lee's High Rock	11 3/4	X
9	9	50 rds above Bridge	11 3/4	X
10	12	Near Farrars meadow	11	
11	4	Below Haybridge	13 3/4	
12	7	Weir Hill bend	12	
13	3	Great Bend above	14	
14	1	Just above Shermans Br.	15 1/2	
15	5	Above Drifted bushes	13 3/4	
16	2	Hard land bend	14 3/4	
17	11	Beyond Scirpus	11 1/2	
18	6	Arundo Bay	13 1/4	

19 Shallows & deep holes often close upon each  
20 other.

21 The Shallow & weedy places are  
22 %Including 3 more than 4 feet deep%<sup>126</sup>  
23 Depth

24	Hay Bridge (very short)	5ft	hardly across
25	Rices bend Long	3	
26	Weir Hill Bend ( <del>very short</del> )	4	<del>hardly a</del> % {barely} a dozen rods long%
27	Big bend above Long	4	
28	Above Sherman's Br (very short)	5 1/2	hardly across
29	S. W. of Tall's I 2 short	4 1/2 & 5 1/2	{sho}
30	(& 1 pretty long		
31	E of Scirpus pretty long	5	
32	1/2 mile SW of last (pretty long)	4	
33	Causeway Bend (very long)	3	

---

<sup>126</sup>pencil inserted almost on the same line as "Depth", T writes around it. Represented here on 2 separate lines.

1 Cause way--Big Bend--& Rice's Bend are the  
2 largest<sup>127</sup>--& the 1st & last of these the shallowest--

3 All these shallows--(which are at the  
4 same time weedy places) are at bends--& they may  
5 be said (?) to be low a bend or part of a bend  
6 though the bends are so numerous that they are  
7 often also above one also.

8 In the sluggish water of this part of Concord &  
9 Wayland, Potamogetons begin to prevail at  
10 5 1/2 feet

11 The average depth (measuring every 1000 feet) Bet.  
12 Balls Hill & Sudbury Causeway--is 7.67 feet

13 At highest water nearly 15 1/2 feet

14 at medium " more than 11 1/2

15 %IE squaw Harbor%  
16 The av. depth Bet. Balls' Hill ^ & mouth of Assa-

17 bett a little less than 7 feet or 7-

18  
19 Between Mouth of Assabet & S. W. line of Concord 8 ft  
20 % " " " & Nut mead Brook 6ft 2/10%

21 Between Ball's Hill & S. W. line of Concord 7 3/5

22 " Concord S. W. line & Sudbury causeway 7 3/4 % {say 5 miles} %

23 %Yet " " " & Shermans is 7 7/10%

24 " Shermans Bridge & Sudbury Causeway 7 4/10

25  
26 %So%The average in Wayland bet Concord line &

27  
28 Sud. Causeway is quite--{great} if not greater than in C.

29 Bet. Hay Bridge narrows (near Concord Line, &

30 Nut meadow Brook average is 9 4/10 feet

31 F. H. or Hill Lake

32 This may be called the ~~Deep~~ Reach--includes

33 F. H. Pond & is more than 3 miles long & ~~the ave~~ is

34 is without weeds anywhere reaching quite across it--

35 Its average depth is greater than that of F. H.

36 Pond--& at very highest water is more than 17 feet

---

<sup>127</sup>poss "longest"

1 (At highest water the Deep hole at the  
 2 Holt is 24 3/4 feet deep.)  
 3 % {Purple Utria Bay 24 3/4 feet} %  
 4 This deepest reach (yet surveyed) is amid  
 5 the hills--the Cliffs--& Lees {e} cliff &  
 6 Hill.  
 7 The river is sluggish--not only through-  
 8 out the reach--but all through the sud-  
 9 bury meadows--scarcely<sup>128</sup> faster in the weedy parts  
 10 of those meadows.

11 Pelham Pond  
 12 The narrowest places on the river Bet ^ ~~Hunts~~  
 13 B. & the Dam is at Farrars {Hwy} Bridge  
 14 where pan pipes in 1 foot water to polygonum  
 15 in 3 (at summer level as usual) it is 44 feet  
 16 to Pontederia in one foot 53 feet or say  
 17 ~~60~~ 60 feet from standing ground for fisher-  
 18 men to do.

19 I have obtained the following {remarkable} proof  
 20 of the uniformity with which the river rises over  
 21 a great distance in a given freshet

22 As I measured on the 10th taking 10 1/2 inches  
 23 off both here & in wayland, & calling that  
 24 summer level--

25 The E end of shermans Br upper side was above  
 26 summer level 7ft 7 1/2 inches  
 27 E end Lees do 7 4 1/2 " or about  
 28 the thickness of the  
 29 planking less  
 30 The mark of high water  
 31 at our stone Bridge Mar<sup>129</sup> 17--59 7ft 6 3/4

---

<sup>128</sup>poss "Scarcely"

<sup>129</sup>Probably "Mar" 1859 March 17th and 18th entries are about measuring the depth of the river, and there is no May 17th entry

1 Now Lee tells me that the water went just  
2 over the E end of Lee's Bridge in the March freshet  
3 and Sherman tells me that it struck against the  
4 planking (underneath) of Shermans Bridge.  
5 Now, by my measures, suffering it to have  
6 {~~rose~~} risen just as much higher at those  
7 bridges above the freshet level, as it did  
8 above Stone bridge, it would have gone  
9 3/4 inch ~~or to the plan~~ above the lower edge of  
10 the planking at Shermans Bridge--& 2 1/4 inches  
11 above the upper edge of this planking at Lee's bridge.

12 The extreme distance is 6 1/2 inches--&  
13 the fall, ac. to Baldwin, was in 33 .430  
14 feet--(more than 5 inches--) V July 31st

15 July 14

16 The above uniformity appears to extend as  
17 far down as Flints B.--from the top of  
18 the little bridge<sup>130</sup> there is; as I measured the bridge--  
19 7 feet 8 3/8 inches above summer level (though  
20 I prob. did not measure this quite as carefully  
21 as the others) & as Pratt says, & I observed,  
22 the water did not quite (but very nearly) come  
23 on to that bridge. ^  
24 V July 31st

25 Simonds of Bedford showed me where the water  
26 stood over the E. end of Carlisle Bridge in march  
27 59--ac to which it was about 8 1/2 feet above  
28 summer level there--which would make it to have  
29 been about a foot higher there than at Flints  
30 Bridge & above. I find today that the upper

---

<sup>130</sup>"bridge" inserted

1 side of Carlisle Bridge 7 feet from the E end is  
2 ~~8 feet 6 3/4~~ inches above summer level, & there  
3 9 feet 1 1/2 inches  
4 <sup>131</sup>is a quantity of hay  
5 which may have been drifted on--the  
6 extreme E end is 6 inches or more lower--  
7 Pm sounded river from Ball's  
8 i.e off Squaw Harbor  
9 Hill ^ to Atkin's Boat House Corner--  
10 water 6 3/4 inches above summer level.  
11 // after subtracting this  
12 ^The average depth in this distance (measuring  
13 as usual every 1000 feet--)=10 3/8 feet  
14 NB (could not locate places between  
15 Tarbell Hill & Skelton bend on the map)  
16 This distance is generally muddy & from 3 to 400  
17 feet wide (ac. to plan)  
18 Calling any place in this part of the river 13 feet  
19 or more in depth a deep hole--there  
20 are 2 such--~~one n~~  
21 One near the N side of the maple tree off the  
22 highest part of Balls Hill  
23 15 1/2 feet  
24 Another in the narrowest place off height of  
25 Tarbell Hill & toward that side  
26 also 15 1/2 feet  
27 N both off the highest part of the only hills which  
28 the river washes in the reach & on the hill side  
29 of the stream holes not originated by the river &  
30 sandy at bottom  
31 The Deep Holes (bet. sud. Causeway & Atkins boat-

---

<sup>131</sup>indented 1/2 of line

1 house bend) to be referred to the original form  
2 of the Valley--are no's 1--5--& 4 in the  
3 1st section--8 & 9 in the 2d section--&  
4 these 2--or 7 out of 20.

5 The river in all the above distance, no where  
6 washes the base of an isolated (i.e to except  
7 long lowish hill banks--like clam shell &c) steep  
8 hill, without a greater depth off it.

9 The average depth bet. Sud. Causeway  
10 & Atkins Boat house bend at wall--or  
11 for 15 miles 282 rods--is 8 1/8 feet--

12 There extends from Tarbell Hill to  
13 Skelton Bend--what I will call the  
14 Straight Reach--1 1/3 miles long--& quite  
15 straight-- This is the finest water view  
16 making the greatest impression of {size} of any that  
17 very  
18 I know on the river-- It is ^ broad deep--& clear of  
19 weeds---av. depth 11+ feet (& at highest  
20 water some 19 feet)-- The bottom is al-  
21 most every where muddy--no weeds in the middle--  
22 measuring on the plan {by} Baldwin it is 3 to 400  
23 feet wide. The depth is also very uniform--  
24 varying but little (in the thread) from the average  
25 11+ (Except a deep hole & channel at the  
26 commencement off Tarbell Hill.)

27 Yesterday (the 13th) Frank Adams  
28 brought me a bird's nest and egg from //  
29 an apple tree near the road by Addison Fay's House

1 He {say} it was about 12 feet high in  
2 the tree & it appears to have been in a  
3 fork. The nest is most like a king bird's  
4 or a stout thick cherry-birds--or even  
5 a very thick tanagers or a purple  
6 again  
7 finches half as large ^ as usual.--

8 The egg is the size and form of the Phoebe's  
9 but ~~white tinged with bluish-white~~<sup>132</sup>  
10 The nest is 3 inches high & 5 inches wide  
11 outside--2 inches deep & 2 1/2 wide in-  
12 side Composed of coarse stubble, strings,  
13 coarse root fiber &c externally--& neatly lined  
14 with fine withered grass

15 The egg is pale blue-white 4/10 inch long  
16 X 3/10 wide at the larger end--being broad at  
17 one end like a phoebe's

18 Can it be a cherry bird's without spots &  
19 of the form described by Wilson?

20 He also has a very large Cuckoos egg--  
21 which again makes me suspect that  
22 //  
23 we have the Yellow billed Cuckoo.

24 July 15th 59

25 Pm to Ledum swamp--

26 // 1st notice Canada thistle--aralia hispida--  
27 stachys aspera & asclepias pulchra--

28 // The eriophorum vaginatum done. The white

29 // orchis not yet ap. for a week of more. Hairy

30 // huckleberry still in bloom but chiefly done--

31 // Gather a few vac. pennsylvanicum--

---

<sup>132</sup> The "I" in the original "bluish" apparently converted into the "e" in "blue"

1 Raspberries, in one swamp, are quite abund-  
2 ant--and ap. at their height.

//

3 July 16 & 18 afternoons I sounded  
4 the Assabet--as far up as the Stone Bridge  
5 the 16 the water was 5 3/4 inches above sum-  
6 mer level & the 18th 5 inches " " "  
7 there having been a shower on the evening of the 17th{--}  
8 but referring all to the summer level--

%{//}%

9 The average depth over this distance  
10 from mouth to stone bridge--about 2 3/8 miles  
11 is about 3 3/4 feet.

12 Av. beneath about 6 1/2 rods.

13 The only thing approaching a deep hole which  
14 the river has made in this distance without the  
15 interference of man is at the hemlock eddy--which  
16 is only 8 3/4 feet deep{.} In short 8 feet  
17 makes a deep hole for this stream  
18 where it took 11 feet on the other--& this  
19 occurs only here & 15 rds below--

20 But about 4 ~~miles~~ rds below the stone  
21 bridge there is a remarkably deep hole--  
22 shallow as this stream commonly is--I find  
23 (23 when measured)  
24 in mid channel 22 1/2 feet ^ depth there &  
25 all, as I suppose, to be referred to the bridge  
26 which is only 25 feet wide.

27 This bridge as I see by the town records,  
28 was talked out (IE the building) in 1807 &  
29 was probably built that year or the next--  
30 {though} E. Wood says that the turnpike Co. who

1 then proposed to build it, did not {fullfil}  
2 their contract) Shattuck's date 1802{--}  
3 is wrong. Ac. by building this narrow  
4 bridge here--25 feet in width--or con-  
5 tracting the stream to about 1/4 its average  
6 width--the current has been so increased  
7 as to wash away about 1/4 of an acre  
8 of land which rises a dozen or 14 feet  
9 above water--(or at least an acre  
10 4 {feet} in depth) & dig a hole 6<sup>133</sup> times  
11 the average depth of the stream 22 1/2  
12 feet deep--or considerable IE 3 feet  
13 deeper than any place in the main-  
14 stream from Sudbury Causeway to Atkins  
15 & all this in <sup>35%</sup>50<sup>134</sup> years{--} %V July 21st% or say 32 (?)  
16 Boat House bend--^yet the depth under  
17 the bridge is only 2 1/2 feet plus. It falls  
18 in 4 rods from 2 1/2 to 22 1/2.  
19  
20 A considerable island has been formed  
21 there at least 3 feet {1/2} above low water  
22 composed of sand--& 2 or 3 rods lower  
23 <sup>135</sup>are deposited the stones generally larger  
24 than a hens egg without sand forming  
25 bars & islands--quite distinct from the  
26 former-- This is much the swiftest place  
27 & deeper than any for 25 miles of other streams  
28 on the stream thus far--^& consequently  
29 there is a great eddy--where I see cakes  
30 of ice go round & round in the spring--&  
31 as usual the shoal water & islands  
32 formed by the ruins of the bank & of the

---

<sup>133</sup> Possibly changed from 8? Given an average depth of 3 3/4 feet (see previous page), a hole 22 1/2 feet deep would be 6 times the average depth.

<sup>134</sup> "50" crossed out in pencil

<sup>135</sup> starting here, 5 sets of dashes show through in left margin from prev. page

1 bottom are close by-- As usual the shoal  
2 water is produced by the rapidity of the current  
3 close by--

4 The sand & gravel are deposited chiefly in the  
5 immediate neighborhood of the swiftest water--  
6 the swift water producing an eddy-- Hence {apparently}  
7 the sandy islands at the junction of the rivers--  
8 the sand bar--at the swift place on the assabet {&c}  
9 Contract the stream & make it swift & you  
10 will wear a deep hole & make sand bars &  
11 islands below--

12 The stream is remarkably different from  
13 the other-- It is not half so deep-- It is  
14 considerably more rapid. The bottom is not  
15 muddy but sandy & occasionally stony-- Though  
16 far shallower it is less weedy than the  
17 other-- In the above distance weeds do  
18 not anywhere grow quite across it--

19 A shallowness of 2 1/2 feet does not necessarily  
20 bring in weeds--& for long distances 3 feet  
21 is clear of weeds. This is owing perhaps  
22 not only to the greater swiftness of the current--  
23 but to the want of mud under the sand.  
24 The banks & bars are peculiar-- They are  
25 commonly composed of a fine sand mixed  
26 with sawdust shavings &c in which the  
27 black willow loves to grow. I know of no  
28 such banks on the main stream

29 Again there are comparatively few {pota} of  
30 the large floating Potamogetons here--

1 (I don't remember any of the very largest  
2 species) The weeds are chiefly bur-reeds--  
3 & a slenderer potamogeton & an<sup>136</sup> immersed  
4 species--(I speak of weeds in the middle)  
5 You wonder what makes the difference bet  
6 this stream and the other. It seems impossible  
7 that it should be a geological difference in  
8 the beds of the streams so near together--  
9 Is it not owing simply to the greater swiftness<sup>137</sup>  
10 of this stream. Does not this produce a  
11 sandy & gravelly & stoney bottom--&  
12 so invite a different fauna & flora.  
13 I suspect that a fall of 2 or 3 inches more in  
14 a mile will produce a different fauna &  
15 flora to some extent--The fresh water sponge  
16 --the wood tortoise--the sucker--the king-  
17 fisher--the stone heaps

18 It is remarkable how the stones are separated  
19 from the sand at the eddy bridge & deposited  
20 in a bar or islands by themselves a few  
21 rods lower down--

22 The sand bar there--partly under water  
23 looks exactly like a snow drift-- It is  
24 a narrow sharp ridge extending SW from  
25 the island with deep water on each side--  
26 The sand carried round by the eddy  
27 falls there where the ice is observed  
28 to loiter most. The larger stones are per-  
29 haps swept away by a stronger current  
30 beneath.

---

<sup>136</sup>"an" inserted

<sup>137</sup>poss "swift-ness"

1           The bars & banks of this stream are peculiar  
2 --i.e of fine sand--without mud-- This in-  
3 dicates {a} fall & swifter water--& consequently  
4 it is on such a stream the mills are built  
5 & sawdust & shavings are mixed with such  
6 sand to form the bank. One such bank at  
7 the swift place has been recently raised 4 or  
8 5 feet above the present level--by freshets--

9           It is apparently advancing down stream  
10 {drawing}  
11 what<sup>138</sup> is deposited by the eddy--occasioned  
12 by the narrows--is building it up--& so  
13 the stream is being narrowed further down &  
14 Eddies are the great builders of sand  
15 bars & islands & banks. Any agent that  
16 stops the progress of the water downward  
17 builds up the bottom in some place.

18           At the bottom of the deep hole at  
19 Eddy bridge I felt several water logged  
20 trunks of trees & saw some--which probably  
21 were carried round & round by the eddy  
22 until they became water-logged & sank--

23                           July 18th

24           One tells me that he stopped at  
25 Steadman Buttrick's on the 10th & found  
26 him sitting under a cherry tree ringing  
27 a bell, in order to keep the birds off!

---

<sup>138</sup>poss "What "

1 If you get on to a rock in the river--  
2 rock the boat, while you keep steadily  
3 pushing, & thus there will be moments when  
4 the boat does not rest on the rock  
5 at all, & you will rapidly get it off--  
6 The river is getting low--so that  
7 the entrances to musquash holes in the  
8 bank are revealed & often laid bare--  
9 with fresh green rushes or flags &c  
10 in them. ~~It~~

11 Nathan Hosmer remembers that when  
12 the 2 new stone piers at Hunts bridge  
13 were built about 1820 one Nutting  
14 went under water to {place} the stones--  
15 & he was surprised to see how long he would  
16 remain under about this business.

17 Nothing has got built without labor.  
18 Past generations have spent their blood  
19 & strength for us. They have cleared the  
20 land--built roads &c for us. In all  
21 fields men have laid down their lives for  
22 us. Men are industrious as ants.

23 I find myself very heavy-headed these  
24 days. It seems to me that probably  
25 in different states as what we call  
26 health--even in morbid states--men  
27 are peculiarly fitted for certain investi-  
28 gations--we are the better able to  
29 deal with certain phenomena.

1 N Barret says that he has formerly cut 6 cocks of hay on his bar.  
2 July 19th  
3 Pm up Assabet--  
4 The architect of the river builds with  
5 sand chiefly not with mud. Mud is  
6 only  
7 deposited very slowly ^ in the stagnant places--  
8 but sand is the enduring building ma-  
9 terial.  
10 It is remarkable how the river--while  
11 it may be encroaching on the bank on  
12 one side, preserves its ordinary breadth  
13 by filling up--the other side-- Generally  
14 speaking up & down this & the other  
15 stream where there is a swift place  
16 & the bank borne away on one side--  
17 --which (other things being equal) would  
18 leave the river wider there--a bank or  
19 island or bar is being built up on the  
20 other--since the eddy where on one  
21 side sand &c are deposited is produced  
22 by the rapidity of the current--  
23 thus {drawing}  
24 eg N side of Egg Rock--at hemlocks--  
25 at Pigeon rock{.} bend--at swift-place bank--  
26 &c--& on main stream at Ash tree bend--  
27 The eddy occasioned by the swiftness  
28 deposits sand &c close by on one side  
29 & a little {of} shore--leaving finally a  
30  
31 <sup>139</sup>

1 low meadow outside where was once the  
2 bed of the river. There are countless  
3 places where the one shore is thus advancing  
4 {and}, as it were, dragging the other  
5 after it

6 I dug into that sand bank, once sand  
7 bar, at the narrow & swift place  
8 off Hildreth's--5 1/2 feet deep, this Pm.  
9 It is more than a rod wide & covered  
10 with willows & alders--&c--

11 It is built up 4 or 5 feet above the  
12 summer level. It is uniformly fine  
13 <sup>decayed</sup>  
14 sand more or less darkened with ^ vegetation--  
15 probably much of it saw-dust--& it has  
16 been deposited this depth here by the  
17 eddy at high water within a very  
18 recent period. The same agent is  
19 in a great many places steadily advancing  
20 such a bar or bank down the stream  
21 a rod or more from the old shore--  
22 The more recent & lower extremity of  
23 this bank or bar--is composed of saw-dust  
24 & shavings--almost entirely so to a depth  
25 of 2 feet-- Before it reaches the surface  
26 pads & ~~pontederia~~ spring up in it--  
27 when begins to appear-- Pontederia shows  
28 & bull rushes  
29 itself^--& next black willow--button bushes  
30 &{c}. The finest black willows on the  
31 river grow on these sand-banks--  
32 They are also much resorted to by the

1 turtles for laying their eggs I dug up  
2 3 or 4 nests of the E. insculpta--&  
3 S. odoratus while examining the contents of  
4 the bank this p. m. This great pile of  
5 dry sand in which the turtles now lay--was  
6 recently fine particles swept down the swollen  
7 river.

8           Indeed I think that the river once ran  
9 from opposite Merriams to Pinxter swamp  
10 & thence along Hosmer's hard land toward the  
11 Bridge--& all the firm land N of Pinxter  
12                           sand  
13 swamp--is such a ^ bank which the river  
14 has built (leaving its old bed a low meadow  
15 behind) while following its encroaching N. E  
16 side. That extensive hard land which  
17 the river annually rises over--& which  
18 supports a {good} growth of maples &  
19 swamp--white--oaks, will prob be found to be  
20 all alluvial & free from stones--

21           The land thus made is only of a certain  
22 height say 4 to 6 feet above summer level  
23 or oftener 4 or 5 feet. At highest water  
24 I can still cut off this bend by paddling  
25 through the weeds<sup>140</sup> in the old bed of the river.  
26 Islands are formed which are shaped  
27 like the curving ridge of a snow-drift.

28           Stagnant rivers are deep & muddy  
29 --swift ones shallow & sandy.

30           Scirpus subterminalis river off Hoar & Cheneys  
31                           not long-

//

---

<sup>140</sup>poss "woods"

1                                July 20

2                    The little Holbrook boy showed me an  
3 egg--which I unhesitatingly pronounced  
4 a peetweet's, given him by Joe Smith.

5                    The latter to my surprise declares it a  
6 meadow hens, saw the bird & young & says  
7 the latter were quite black & had hen-bills.

8 ? Can it be so--?

9 //                Humphrey Buttrick says he finds snipes  
10 nests in our meadows oftener than wood-  
11 cocks.

12                                July 21 %20%

13                    Pm to Eddy Bridge

14                    Abel Hosmer says that the Turnpike  
15 Co. did not fulfil their {enagment}  
16 to build a new bridge over the Assabet in  
17 1807--that the present stone bridge  
18 was not built till about the time

19 the orthodox meeting house was built--

20                    Benjamin says it was built soon after the M. H. or perhaps 1827  
21 (That was in 1826--) ^ & was placed

22 some 50 feet higher up stream than

23 the old wooden one. ~~That the~~

24 ~~Turnpike~~

25                    Hosmer says that the eddy & wearing  
26 away of the bank has been occasioned  
27 wholly by the {~~bank~~} bridge--that there  
28 was only the regular bend there before.

29                    He had thought that it was in

1 consequence of the bridge being set  
2 askew or diagonally with the stream  
3 so that the abutments turned the  
4 water--& gave it a slant into the  
5 bank. Thus {drawing}<sup>109</sup> I think that  
6 this did not  
7 create only increase the  
8 evil-- The bank which it has worn away  
9 rises some 16 feet above low water & consider-  
10 ing the depth of the water you may say that  
11 it has removed the sand to a depth of 25 feet  
12 over an area of 1/4 of an acre--or say  
13 to the depth of 3 feet or 1 yard over 2 acres  
14 or 9680 cubic yards or cartloads  
15 which, at 25 cts per load, it would have  
16 or enough to fill the present river for 1/4 of a mile, calling it 6 rods wide  
17 & 12 feet deep  
18 cost ~~at~~ \$2420.^ to move in the ordinary  
19 manner-- Beside creating some small  
20 islands & bars close by this sand &  
21 gravel has of course been distributed  
22 along in the river and on the adjacent  
23 meadows below--Hosmer complains  
24 that his interval has accordingly been  
25 very much injured by the sand washed  
26 on {to} it below. "Hundreds of dollars"  
27 damage done to him-- All this within  
28 or 32?  
29 some 35 ^ years.

30 It may well be asked what has  
31 become of all this sand? Of course  
32 it has contributed to form sand-

---

<sup>109</sup>drawing continues for 3 lines, text written around it

1 bars below--possibly a great way below--  
2           Jacob farmer tells me that he remembers  
3 that when about 21 years old he  
4 & Hildreth were bathing in the Assabet  
5 at the mouth of the brook above Winn's  
6 & Hildreth swam or walked<sup>110</sup> across to  
7 a sand bar (now the island there) but  
8 the water was so deep on that bar that  
9 he became frightened & would have been  
10 drowned if he had not been dragged out  
11 & resuscitated by others. This was directly  
12 over where that island is now & was then  
13 only a bar beginning under water. That  
14 island as he said had been formed  
15           %Farrar (blacksmith) does not remember such a change%  
16 within 35 years--%^%(or since the  
17 Eddy Bridge was built) & I suggest  
18 that it may have been built mainly  
19 of the ruins of that bank. It is the  
20 only island in the Assabett for 2 1/2  
21 miles.  
22           There is a perfect stand still<sup>111</sup> in the  
23 eddy at eddy bridge now--& there is  
24 a large raft of grass weeds & lumber  
25 perfectly at rest there against Hosmer's  
26 bank. The coarser materials stones  
27 as big as a hens egg are dropt

---

<sup>110</sup> 1906 has "waded"

<sup>111</sup>poss "stand-still"

1 close by--but the sand must have  
2 been carried far down stream.  
3 Hosmer says that when he digs down  
4 in his millet field 20 rods or more  
5 from the river in his interval at 3 or 4  
6 feet depth he comes to coarse stones  
7 which look like an old bed of the river.  
8 I see them at each of the small  
9 wooden bridges--& very likely they under-  
10 lie the whole of that interval covered with  
11 sand. Such is the character of a river  
12 bottom--the stones from a hens egg to the  
13 size of your head--dropped down to one level  
14 the sand being washed away--& now found in  
15 one stratum.  
16 So completely emasculated & de-  
17 moralized is our river that it is  
18 even made to observe the christian  
19 sabbath--& Hosmer tells me  
20 that at this season on a Sunday  
21 he should rather say Monday morning  
22 morning ^ (for then the river runs lowest  
23 owing to the factory & mill gates being  
24 shut above) little gravelly islands begin  
25 to peep out in the channel below--  
26 Not only the operatives<sup>112</sup> make the  
27 Sunday a day of rest--but the river  
28 too to some extent--so that the very  
29 fishes feel the influence (or want  
30 of influence) of mans religion--

---

<sup>112</sup>poss "operations"

1 The very rivers run with fuller streams  
2 on Monday morning. All nature  
3 begins to work with new impetuosity on  
4 Monday.

5 // I see where turtles eggs are still being  
6 dug up!

7 July 21st 59

8 Pm to Assabet above Factory.

9 For about 1/3 the way from the Factory  
10 dam to the powder mills the river is  
11 broad and deep--in short a mill pond--  
12 One deepest place over 10 feet--but the  
13 deep water commonly 9 feet--& 8+ lessening  
14 at last to 5 1/2 at about 1/3 the way  
15 and finally to 4 near the powder mills.

16 There is more visible at the bridge  
17 just above the Dry House now than  
18 at the falls in in Billerica

19 Damons dam judging partly by measure-  
20 ment & partly by my eye--looks 5 or 6 feet  
21 high. If I suppose the original depth of  
22 water in the pond above, at this season,  
23 was 3 feet & the average depth now (in the  
24 thread) even 9 it would leave 6 as due  
25 to the dam. John Brown Sr Thought  
26 the dam was about 8 feet high--but  
27 I think this could not be.



1 does not rise nearly so high at the factory  
2 bridge as at his bridge--since it runs  
3 so swiftly & has a double outlet there.  
4 He has known it to stand on the planking  
5 of his bridge 2 or 3 times--though the  
6 height of the planking has been altered  
7 a little from time to time--

8 He says that they once talked of building  
9 a factory near Cyrus Hosmers & then took  
10 the level for his bridge across to the  
11 main stream & found the fall to be "about  
12 3 feet", not enough for their purposes.  
13 Ac to this there is a fall of 3 feet in the  
14 Assabett in about 3 miles--or about  
15 1 foot to a mile & this is a very trifling  
16 {hinderance} to navigation--though it is  
17 said that a fall of 10 inches in a  
18 mile makes a stream unnavigable.

19 Harrington has what he calls {his} Elm  
20 hole where he thinks he finds the old bed  
21 of the river some 10 rods from the present--  
22 The river in many places evidently once  
23 washed the base of hills--from which it  
24 is now separated by 50 rods of meadow--

25 The pontederia on the assabet  
26 is a very fresh & clear blue today & in  
27  
28 // its early prime--very handsome to see  
29 The Nesaea grows commonly along the

1 river near the powder mills-- --one very dense  
2 bed of it at the mouth of the Powder-Mill canal.

3 The canal is still cluttered with the wreck  
4 of the mills that have been blown up in  
5 times past timber, boards &c &c-- --& the  
6 steep hill is bestrewn with the fragments  
7 of the mills--which fell on it more than half  
8 a dozen years ago--(many of them) visible  
9 1/2 a mile off-- As you draw near the  
10 powder mills--you ~~find~~ see the hill behind  
11 bestrewn with the fragments of mills which  
12 have been blown up in past years--the frag-  
13 ments of the millers having been removed--  
14 & the canal is cluttered with the larger ruins--  
15 The very river {~~seems to~~} makes greater haste  
16 past the dry house, as it were for fear  
17 of accidents.

18 July 22d

19 Start just before 8 Am & sail to the Falls  
20 of Concord River--

21 Water 2 1/4+ inches above summer level //

22 A SW wind rises & blows us rapidly along.

23 We are early enough to see the light  
24 reflected from the sides of the gyrating  
25 water bugs-- Heard from a bittern  
26 above the factory yesterday--too large  
27 for the small one & too small perhaps for  
28 the large one--a peculiarly hoarse  
29 grating note--lazily uttered a bittern's

1 croak at 1 Pm as it flew over the  
2 meadows--a sound perfectly becoming  
3 the bird{.} far as possible from music--  
4 // Some have just begun to get the hay on our great meadows--  
5 The peetweet our only beach-bird  
6 {teters} along the shore--reminding me  
7 that this is an arm of the ocean stream.  
8 At Hills bridge we begin to find  
9 {ourselves} shut in by hills & the character of  
10 the shores is fairly changed-- There is  
11 very little meadow along the stream  
12 henceforward--but commonly a firm bank--  
13 & pastures & cultivated fields corn & potatoes  
14 down to the shore--for it is commonly a  
15 firm shore though it may be subject to  
16 inundation. The shores are still un-  
17 inhabited--the roads being remote--esp.  
18 on the West side--& in the neighbor-  
19 hood of Middle bridge we find ourselves  
20 off the middle of Billerica, the quiet  
21 town--& see its rural spire rising  
22 above the trees-- Many handsome elm-  
23 tops & groves of elms are visible in  
24 Billera<sup>113</sup>-- There is a fine grove of elms  
25 about the 1st house of the Atkin's  
26 boat house. Jug island is a peculiar  
27 one--the only one of the kind that I know  
28 %except the small one at the Falls%  
29 in the river ^ firm & rocky--not made  
30 by the river--with deep water about it

---

1 <sup>114</sup> The "ic" seems to be missing.

1 esp.--on the E side--always separated  
2 from the shore--rising to a considerable  
3 height above the surface--a part of the  
4 adjacent rocky range ~~of {hill}~~ cut off by the  
5 river. The interval becomes more  
6 or firm  
7 & more narrow & sandy ^ below this island  
8 & range of hills--& you see red top &  
9 corn on it & woods--  
10 For the last mile--above the falls the river  
11 becomes rocky--the rocks gradually increasing  
12 in {number}--until at the falls its bed is crowded  
13 with them. Some of the rocks are curiously  
14 water worn.<sup>114</sup> They are as usual in  
15 our black river--almost as black  
16 as ink--the parts much submerged--  
17 & I notice that bricks & white crockery  
18 on the bottom acquire the same color  
19 from the water as if painted black-- The  
20 water of this river is a black paint brush--  
21 which coats all things with fast colors  
22 Rocks half a dozen feet in diameter  
23 which were originally of the usual lumpish  
24 form {drawing} are worn thus  
25 {drawing} by the friction of the pebbles  
26 &c washed against them--  
27 by the stream at high water  
28 Several of them have this peculiar  
29 sheaf like form--& black as ink--

---

<sup>114</sup>poss "worn--"

1 But though evidently worn into this form  
2 by the rush of water--they are by no means  
3 worn smooth--but are as rough as a  
4 grater--such being their composition--  
5 These are just above the Fordway.  
6 There are 2 pleasant old houses  
7 near the Fordway on the E side.  
8 I was surprised to {se} on the upright sides  
9 of these rocks 1 or 2 feet above the present  
10 water very distinct white spots--looking  
11 like white paint across the river.  
12 {drawing} Examining I found them  
13 to be 3/4 to one inch in diameter  
14 of an oval or circular form--the  
15 white coating spreading on to the rock  
16 in an irregular fringe like the feet  
17 of an insect--increasing their resemblance  
18 to a bug {drawing} & they were raised 1/8  
19 or 1/10 of {anch} & finely dotted  
20 %V Aug. 8th%  
21 with the contained ova--remind-  
22 ing me of coins--& I at first  
23 shaped like bugs or coins  
24 bent to read the inscription as if they were  
25 a work of art-- They were full of ova  
26 with much water in them or other liquid--  
27 Subtracting 2 1/4 inches I find the water at  
28 the Fordway<sup>115</sup> W side 2 1/4 feet deep--but  
29 generally not quite 2 feet.  
30 Apparently the stream has been cleared  
31 of rocks & deepened on<sup>116</sup> the westerly side

---

<sup>115</sup>"y" written over text

<sup>116</sup>"on" written over text

1 at the falls-- At the narrowest place  
2 by the where there is a willow in the middle  
3 there is a clear channel on the west {~~some~~}  
4 about 35 feet wide & 4 1/4 feet deep (at  
5 deepest) or to the willow 38 1/4 feet to  
6 opposite shore 54 feet more & about 2 feet  
7 deep at deepest with many rocks in all  
8 say 92 feet

9 We lunched about 12 o'clock (having got  
10 to the Falls about 11) sitting on the  
11 largest rocky islet<sup>117</sup> there--which as I remember  
12 may have been 4 to 6 rods long--but though  
13 if so much  
14 it was not 6 feet above the water^--there  
15 was no trace of the water ever having washed  
16 over it-- Indeed I think it does not  
17 rise more than 5 feet there ever--to  
18 judge from appearances-- The obvious  
19 water marks were about 4 feet above  
20 the present water-- On this rock were  
21 dense trees & bushes grass & soil &c &c  
22 only 5 feet above the present surface &  
23 evidently not disturbed by water or ice.

24 In the very midst of the falls on  
25 the rocky ridge where is some earth--  
26 only a foot or 2 above the water grows  
27 the Nesaea--as also abundantly  
28 on the sides. The hibiscus is very  
29 common along the neighboring shores.

---

<sup>117</sup>poss "inlet"



1     though chiefly gone to seed. Gray says it is  
2     "attached to loose stones"--& Torrey<sup>120</sup> says it  
3     "adheres to pebbles"--but here it covered the  
4     rocks under water in the swiftest place  
5     only--& was partly uncovered by the fall of  
6     the water. I found in what I gathered  
7     a little pout which had taken refuge  
8     in it. Though the botanist in obedience to  
9     his rules puts it among phaenogamous plants  
10    I should not hesitate to associate it with the  
11    rock weed-- It is the rock weed of our  
12    river. I have never seen it elsewhere in the  
13    river--though possibly it grows at the factory  
14    or other swift places. It seemed as if  
15    our river had there for a moment antici-  
16    pated the sea--suffered a sea-change--  
17    --mimicked the great ocean streams. I did  
18         a few rods  
19    not see it ^ above or below where the water  
20    is more sluggish. So far as I know then  
21    it grows only in the swiftest water, &  
22    there is only one place & that the Falls  
23    in Concord River where it can grow-- Gray  
24    only speaks of it as growing at "the bottom of  
25    of shallow streams"-- Torrey say "at the bottom  
26    of shallow pebbly streams" & Bigelow only  
27    says it is attached to stones at the bottom--  
28    Yet apparently our sluggish river is only  
29    a stream--& sufficiently like ordinary rippling  
30    streams--to admit of its growth at this one spot.

---

<sup>120</sup>looks like T corrected "t" to "T"

1 A careless observer might confound it  
2 with the rock weed of the sea-- It covers  
3 the rocks in exactly the same manner--  
4 & when I tore it off, it brought more  
5 or less of the thin scaly surface of the  
6 rocks with it. It is a fore taste of the  
7 sea. It is very interesting & remarkable  
8 that at this one point we have in our  
9 river a plant which so perfectly represents  
10 the rock weed of the sea shore. This is from  
11 4 to 8 ~~inche~~ or 9 inches long. It has the pe-  
12 culiar strong fresh water scent.

13 The W. end of Hill Bridge is (upper side of  
14 11 inches  
15 planking) 8 feet ^ ~~6 1/2 inch~~<sup>121</sup> above summer level  
16 under side of string piece 7{ft} 8 inch-- I cannot  
17 hear that it ever rises onto this bridge--but  
18 there is a good deal of fresh drift stuff  
19 on the top of the abutment under the string  
20 pieces at 7ft 8 inch above summer level--  
21 ap. washed on in the spring.

22 The upper side of Planking at E end is about  
23 9 ft 8 inches above summer level

24 <sup>122</sup>At Middle Bridge judging from water marks  
25 on the piers I should think the water might  
26 2 have risen there 7 ft 7 inches (more or less) above  
27 summer level--(i.e up to the timber which rests cross-wise  
28 on the piers 22 inches below top of planks)

29 <sup>123</sup>At Turnpike B the water has apparently  
30 1 washed away a part of the abutment some  
31 7 1/2 feet above summer level

32 A carpenter who lives (?) at Billerica Corner  
33 says the water stood all around the  
34 nearest inhabited 2 story ~~bridge~~ house to the bridge

---

<sup>121</sup>T writes "inch" in and "ft" on line 20 in superscript and underlines "ft"

<sup>122</sup>From "At Middle Bridge..." to "...on the piers 22 inches below top of planks" bracketed in left margin.

<sup>123</sup>From "At Turnpike Bridge..." to "...7 1/2 feet above summer level" bracketed in left margin.

1 last spring--so that you could {go} round  
2 it in a boat (It is the opposite side the  
3 road to the river.) I think that this  
4 proves a rise here of at least 7 feet above  
5 summer level & perhaps more.

6 Therefore, as far as my observation goes  
7 the rise of the river last spring from Sher-  
8 mans B. to Billerica Corner B--was very  
9 to  
10 uniform--& ^ about the same height above summer  
11 level--but it must fall off rapidly  
12 2 or 3  
13 (a couple of) feet or more at the falls.

14 I see neither of the small islands  
15 which are on Baldwins map below the  
16 Atkins House.

17 The bottom continues muddy about down to  
18 Hills' Bridge & is<sup>124</sup> there harder & not muddy  
19 though deep to about 1/2 mile above  
20 The Turnpike B. abutments-- It is deep  
21 again between the Turnpike & Middle  
22 bridges--& then comparatively shallow  
23 & sandy  
24 ^almost to the corner bridge--whence  
25 to the falls it averages a little deeper  
26 & is more & more rocky--

27 The average depth between the Sud.  
28 causeway & the Falls (referred to summer  
29 level--) is about 8 feet--

30 From {Pad} Island to the height<sup>125</sup> of the  
31 hill<sup>126</sup> on the W. below Jug Island, or more than  
32 4 1/2 miles--it is broad--(& pretty direct)

---

<sup>124</sup>inserted

<sup>125</sup>poss "Height"

<sup>126</sup>poss "Hill"

1 with scarcely a perceptible current  
2 --averages 10 1/3+ feet in depth--& is  
3 no where less than 8 feet deep in the thread.  
4 {Or} from {Pad} I. to the pads about  
5 20 rds above the Turnpike B. abutments  
6 about 5 miles it averages 10 1/8 feet--  
7 being considerably shallowest within the last 1/2  
8 mile--but for the whole distance no  
9 weeds extend across it-- This is the  
10 longest reach clear of weeds bet--  
11 Pelham Pond  
12 Sudbury Causeway ~~Heards~~ B. & the Dam.  
13 All this reach is broad--& it is muddy  
14 except the last 1 1/2 miles.

15 The broad deep & exclusively muddy reach  
16 from Pad I. to Hills Br 3 3/4 miles (or excepting  
17 a quarter of a miles above the B--3 1/2) averages  
18 about 10 1/5 feet in depth--

19 From opposite the height of the hill  
20 on the W. below Jug I. to the falls nearly  
21 3 1/4 miles--av. depth is 6 feet--with  
22 a sandy & at last rocky bed.

23 -- For about a mile of the distance between Middle  
24 rather soft  
25 & Corner Bs--it is broad--& ^ sandy & only  
26 5 1/4 feet deep--(very uniformly)--with a few  
27 weeds showing themselves on one side here  
28 & there--

29 From Corner Bridge to Falls (or about  
30 1 mile) it averages say<sup>127</sup> 6 1/5 feet--becoming  
31 shallower at the falls.

32 Between {Pad} I. & the Falls the weeds  
33 no where extend quite across except at 20

---

<sup>127</sup>"s" written over "6"

1 rods this side the Turnpike B. abutments  
2 where they stretch across diagonally some  
3 3 or 4 rods in breadth--& there is a large  
4 rock rising above the water ({now}) toward  
5 the westerly side--& the depth is about 3 1/2  
6 feet--

7 There is also a weedy place (not reaching across)  
8 some dozen rods above middle B.

9 Between Hills & Corner B's there is generally  
10 no house in sight from river--(unless it be  
11 the spire of Billerica M. H. which rises very  
12 picturesquely above the woods ~~or hills~~ or  
13 elms.

14 I have indicated rudely the soft meadow  
15 by pencil dots on the map.

16 There are 4 deep places below Atkins  
17 Boat House bend viz

18 1 (the deepest) on the E side of the head of {Jug} I.  
19 where the stream is narrowed 15 1/4 feet deep  
20 2d about 100 rods below off the highest  
21 part of the long rocky hill on the west--14ft  
22 & this extends along par. with the hill at  
23 least 40 rds nearly as deep--being related to  
24 the last hole.

25 3d 40 or 50 rds below the Turnpike B. 13--

26 4th In the bend just this side the Corner B.

27 Resuming the statement of July 14th

28 there are 24 Deep Holes--& 8 of these or 1/3  
29 (& perhaps 4 or 5 more)  
30 ^are to be referred to the original form of the valley  
31 (including no 2 of this last or 4th section)

1           2--3--6 (of sec 1) & 3--5--2--11--6 (of sec 2d)  
 2      & 8 of these ^ at least are evidently dug out  
 3      by the river--  
 4           & some of the last named 8  
 5           3 at least ^ (nos 4--7--1 of sec 2d) occur  
 6      immediately after a shallow place--& may  
 7      have been dug by the water falling into them  
 8      for I notice that the current falling  
 9      over a shallow & at the same time contracted  
 10     place--digs a hole below it--& behind  
 11     the rocks in the stream {wher} it is shallow &  
 12     swift will accordingly be seen a deeper  
 13     & clear space (i.e. without weeds) for this  
 14     reason.  
 15           Calling all places below Squaw Harbor  
 16     which are less than 5 feet deep Shallows  
 17     there are 4 viz  
 18           {Pad} I.                   4 1/2           (very short)  
 19           above Mid. T. P. B       3 3/4 & weeds across (very short)  
 20           above Middle B           4 1/2           (very short)  
 21           & the Falls & Fordway<sup>128</sup>  
 22           This makes some 20 shallow places  
 23     bet Sud causeway & the Falls (inclusive)  
 24     Of these I should say that 4 were originally  
 25     shallow--as indicated by rocks in the bed--viz  
 26   4           1st  
 27           At Hubbards Bath           The 1st 2d & 4 being  
 28           Egg Rock--                   the very shallowest places  
 29           Middlesex T. P. B.       in the river--  
 30           And The Falls  
 31           It is a question then if this river has as much  
 32     created the shoal places as found them.

---

1      <sup>129</sup> A line here indicates that the positions of "Falls" and "Fordway" should be  
 2      switched.

1           The shallowest place in all the  
2           also from Pelham Pond  
3 River above described ^ is<sup>129</sup> at the Fordway above  
4 the Falls where it is but 2 1/2 at deepest  
5 to day--& generally only 2 feet--with a hard  
6 bottom & numerous rocks in its bed. It is  
7 quite fordable in a carriage.

8           The weediest place is at the sudbury Cause-  
9 way-- The most of a sand-<sup>130</sup>bar visibly formed  
10 or forming is Barrett's Bar-- If a  
11 large piece of meadow should lodge on this  
12 It would help make an Island of it rapidly.

13           The deepest & broadest place is in F. H. Pond  
14 I think that the river proper is no where  
15 so wide as in some parts between--Squaw Harbor  
16 & Skelton bend.

17           The presence or absence of weeds at a  
18 given shallowness--is a good gage of the  
19 rapidity of the current. At the Ford-way  
20 they do not grow where it is only 2 feet on  
21 an average--owing to the swiftness of the current  
22 (as well as stoniness) and in the very swiftest  
23 & narrowest part of the falls occurs one  
24 species--the Podostemon--which I  
25 have not found in any other part of the  
26 river.

27           The muddiest are the most stagnant parts  
28 The Hibiscus & White maple do not occur  
29 on the main stream for a long distance above  
30 the mouth of the Assabett may be 10 miles

---

<sup>129</sup> Changed from "as"

<sup>130</sup>"sand-" inserted

1 It is remarkable how the river (even  
2 from its very source to its mouth) runs with  
3 great bends or zigzags regularly recurring  
4 & including many smaller ones  
5 ^1st Northerly then NEasterly--~~for the greater~~  
6 growing more & more  
7 ~~part of its course the NE curves are~~  
8 {simple} & direct as it descends--like a tree  
9 ~~the longest--~~ as if a {might} current  
10 had once filled the valley of the river  
11 meandered  
12 & zig-zagged in it, ac. to the same law  
13 that this small stream does in its own  
14 meadows.  
15 Between Sudbury Causeway & the  
16 Falls I should divide the river into  
17 v. July 31st  
18 these different Reaches viz^--  
19 1st The Sudbury Meadow or Meandering Reach  
20 <sup>131</sup>(i.e to Hay Bridge near Concord Line)  
21 2d The Fair Haven or Hill-Lake Reach  
22 (to Nut meadow B.)  
23 3d The Rapid Reach--  
24 (to Holt Ford Inclusive)  
25 or perhaps to Pad I.)  
26 4th The Carlisle or Deep Lake Reach  
27 (to--off height of Hill below Jug I.)  
28 5th The Billerica or Shallow Reach  
29 (to the Falls--)  
30 In the 1st reach it meanders thro'  
31 2 & part of a 3d broad meadows (the  
32 1st the largest on the river) with an average  
33 depth of about 7 1/2 feet--& a fall  
34 on the surface of about 7 9/10 inches in a

---

<sup>131</sup>prob. bleedthrough before parenthesis

1                   7  
2 mile--with ~~12~~ deep holes varying from  
3 11 1/2 to 15 1/2 feet in depth, & 9 shallow  
4 & weedy places from 2 to 70 rds long where  
5 it is only from 3 to 5 1/2 feet deep--  
6                   The 2d Reach winds amid Rocky Hills  
7 --the highest on the part of the river described--  
8 (chiefly gneiss with some of Hornblende slate)  
9 & considerable meadows  
10 ^The bottom now falls suddenly to an  
11 average depth of 9 4/10 feet (or about  
12 2 feet greater than before)-- with an  
13                   in a mile  
14 average fall ^ of about zero at the time  
15 of Baldwins levelling--with 7 deep holes  
16 from 11 to 19 1/2 feet in depth--& no  
17 shallows--or any place less than 6 1/2 ft<sup>132</sup> deep.  
18                   a little less than 4 1/2 miles  
19                   The 3d Reach ^ winds through broad  
20 meadows & {the} the ancient intervals of the  
21 river--with an average depth of say 6 feet 7/10  
22                   prob.  
23 & an average fall of ^ about 3 inches to a mile  
24 with 4 deep holes from 11 to 17 feet deep  
25 & 7 shallow & weedy places from 2 1/2 to 3 3/4  
26                   shallow  
27 feet deep--& one ^ place without weeds.  
28 Weeds perhaps 40 rds long in one place  
29 The bottom being about on a level with the  
30 bottom of the River in the first reach.  
31                   The 4th reach--extends from the  
32 last Great meadow to what you may call  
33                   some 5 1/5 (5 1/5) miles  
34 the end of the meadows ^ with an average  
35                   say  
36 depth ^ of 10 1/4 feet--({av} 1 1/3 miles of it  
37 averages 11+ feet) & on av. {prob.} to a mile of

---

<sup>132</sup>T writes "ft" in superscript

1 prob. some 1 1/10 inches to a mile with 4 deep  
 2 holes from 14 to 15 1/2 feet deep & only one  
 3 weedy spot with water 4 to 4 1/2 feet deep at Pad. I.  
 4 The 5th Reach (nearly 3 1/4 miles)  
 5 has an average depth of about 6 feet (which  
 6 on ac. of its place in the river & the breadth  
 7 of the stream there, I call the Shallow  
 8 Reach) or 4 1/4 to 5+ less than the  
 9 last reach--with a sandy & at last  
 10 Rocky bed--with 2 deep places  
 11 12 to 13 feet in depth--& 1 or perhaps  
 12 slight  
 13 2 ^ weedy places from 3 1/4 to 4 1/2 feet deep  
 14 with a fall of possibly 1 4/10 inches to a mile.  
 15 If you should lower the river  
 16 6 feet uniformly--it would be dry for  
 17 about 1 mile in Billerica (between  
 18 middle<sup>133</sup> & Corner Bridges) leaving numerous  
 19 narrow  
 20 & 3<sup>134</sup> long ^ ones Wayland Carlisle  
 21 small lakes ^ above in ^ Concord & ~~sudbury~~ &  
 22 If you should lower it thus 7 1/2  
 23 feet--there would be left only 3<sup>135</sup>  
 24 long & shallow lakes (i.e the 2d & 4th  
 25 The upper {margin} about 2 feet deep the lower 2 3/4 to 3 1/2  
 26 & the Pel. Pond Reach 2 1/2 deep half a dozen  
 27 Reaches^ ) & a few pools 1 to ~~4 or 5~~ rods  
 28 across--  
 29 One mile of the 5th reach is  
 30 the shallowest mile of the 20 & {odd}  
 31 described--& the bottom there is very  
 32 nearly on a level<sup>136</sup> (say within 1/4 of a

---

<sup>133</sup>poss "Middle"

<sup>134</sup>"3" ap. written over "2"

<sup>135</sup>"3" ap. written over "2"

<sup>136</sup>first "l" poss written over "L"

1 foot) with the bottom 20 miles above  
2 and if a level were carried back from  
3 at least 2 feet in the Pel--Pond reach  
4 this bottom, it would leave below it^  
5 nearly 2 1/2 feet of water in the Fair Haven  
6 reach--& about 5 1/4 feet in the Straight  
7 Reach--beside many small pools--the deepest  
8 at Purp. Utric. Bay--about 12 ft  
9 A river of this character can hardly be  
10 said to fall at all-- it rather runs over  
11 the extremity of its trough--being filled to  
12 over flowing. Its only fall, at present,  
13 %& this side Framingham%  
14 (above The Falls %^%) is like the fall produced  
15 by a dam--the dam being in this case  
16 the bottom in a shallow. If after  
17 flowing 20 miles all the water has got  
18 to rise as high as it was when it started  
19 or rather if it was yet<sup>137</sup> to pass over a  
20 bottom which is as high as that was  
21 where it started-- it cannot be said  
22 to have gained anything or have fallen  
23 at all. It has not got down  
24 to a lower level. You do not pro-  
25 duce a fall in the channel or bottom  
26 of a trough by cutting a notch in its  
27 edge. The bottom may lose as much as  
28 the surface gains.  
29 The 3 deepest places measuring  
30 from the surface of the water--are also the  
31 the deepest absolutely--in the same  
32 order--viz Purp. Utricularia Bay

---

<sup>137</sup> Instead of "was yet", 1906 has "has got"

1 about 20 1/2 feet below surface at  
2 Bridle Point B.  
3 1st Deep Hole at Holt nearly 18 1/2 " "  
4 % (bend below B. P. B. is deepest but not absolutely)%  
5 2d " " nearly 17 3/4%^% " "  
6 %absolutely%  
7 The next %^% is at Jug I. nearly 17 3/4 " "  
8 -- The next 2 off Balls & Tarbell Hills nearly 17.  
9 Rocks which are covered by freshets a week  
10 or more will have lichens on them--as  
11 %old%  
12 that on my %^% plan just below the hemlocks  
13 If our river had been dry a thousand years  
14 it would be {difficult} to guess{e} even where  
15 its channel had been, without a spirit level,  
16 I should expect to find water worn stones--& a few  
17 muddy pools & small swamps.  
18 The bottom in that shallow mile in  
19 Billerica is not quite 7 3/4 feet below  
20 the ~~level~~ the surface at Sudbury Causeway--  
21 while the average depth of the river between  
22 the Causeway & the Falls--is about 8 feet  
23 If, as in the 5th reach--, after flowing  
24 some 5 or 6 miles the surface has fallen  
25 some 5 or 6 inches--but the bottom  
26 river some 5 or 6 feet--(supposing a circula-  
27 tion going on by which the water at the  
28 bottom is carried along as well as that  
29 at the top)-- I should say that there  
30 was more of a rise than a fall.

1 July 23d

2 Pm to Walden--

3 Going through Thrush Alley & beyond I  
4 am pestered by flies about my head--  
5 not till now (though I may have said //  
6 so before) They are perfect imps--for they  
7 gain nothing for their pains & only pester  
8 me-- They do not for the most part  
9 attempt to settle on me--never sting me{--}  
10 Yet they seriously interfere with walking in  
11 the wood-- Though I may keep a leafy  
12 twig constantly revolving about my head--  
13 they too constantly revolve nevertheless--  
14 & appear to avoid it successfully-- They  
15 leave you only when you have got fairly out  
16 of the wood. They seem to do it for deviltry  
17 & sport--

18 The 2 & 4th or Lake-like reaches  
19 of the river--are those in which there  
20 is the least fall, if indeed there can  
21 be said to be any, much of the year--  
22 A slight Northerly wind or a shower at  
23 the lower end--will make it easier to  
24 row up stream than down--

25 Low black-berries have begun-- //

26 I notice the scarlet leaves of the sand cherry //  
27 which grows in dry places--& Skunk cabbage //  
28 leaves--have now begun to decay--turning black  
29 & the angelica fall has commenced along the  
30 brooks

1 // Rhexia in bloom, how long?  
2 // What I call juncus {scirpoidus} is common  
3 at Hubbard's close--& also what I  
4 // call juncus marginatus--(somewhat like  
5 the {~~D. lo~~} Luzula<sup>138</sup>--  
6 // Prenanthes alba how long?  
7 of various sizes  
8 // See an early kind of wool grass done ^ &  
9 another with larger reflexed sheathes--  
10// //not begun. Aster radula how long?  
11 July 24th  
12 Pm to Ledum swamp  
13 // The hairy huckleberry still lingers in  
14 // bloom a few of them--the white orchis  
15 will hardly open for a week. Mulgedium  
16 // how long?  
17 Near the ditch beyond Dennis' Lupine  
18 Hill-- a vac. near to Pennsylvanicum--  
19 perhaps a var. of it with ripe fruit--  
20 little or no bloom--broader leaved than  
21 that & not shining beneath--but some  
22 what glaucous.  
23 July 25  
24 The Rice boy brings me what he  
25 thought a snipe's egg {~~reg~~} recently taken<sup>139</sup>  
26 from a nest in the Sudbury meadows--  
27 // It is of the form of a rails egg--but  
28 is not whitish like mine, but olive  
29 colored with dark brown spots-- Is it

---

<sup>138</sup>poss "luzula"

<sup>139</sup>"t" uncrossed in "taken"

1 the sora rail? He has also a little egg  
2 as he says taken out of a Thrasher's nest--  
3 ap. 1/3 grown.  
4 Flagg says that the chimney swallow  
5 is sometimes abroad "the greater part of  
6 the night." is informed by Fowler that  
7 the rose-breasted grossbeak often sings in  
8 the light of the moon.  
9 Pm  
10 Water 3 1/2 inches above summer level //  
11 I measure the rapidity of the river{'}'s current.  
12 At my boats place behind channing's{,}  
13 a bottle--sunk low in the water--floats  
14 100 feet in 5 minutes--100 feet higher  
15 up--in 4 1/2 minutes (I think the last the  
16 most correct--) It came out 1 1/2 rods  
17 ahead of 2 chips.  
18 Against the island at the junction--  
19 100 feet in 1 1/2 minutes (with some  
20 aft wind-- My boat floats just  
21 as fast.  
22 By the side of the 2d island--  
23 100 feet in 3/4 of a minute  
24(Aug 14 " " " 1 2/3 minutes--perhaps 40 feet lower down %(being no wind)%  
25 On the 27{th} there being a strong  
26 NW wind the bottle floated  
27 up stream 6 rds above 9 acre Corner B.  
28 & the wind blows quite diagonally  
29 in 3 minutes--though sunk to the surface^--  
30 Evidently the surface water ~~water~~ was  
31 moving that way. It was much harder  
32 to row down stream than up.

1 100 feet in 4 1/2 minutes = 1 mile in 4 hours  
2 100 feet in 3/4 minutes = 1 mile in 40 minutes  
3 then at 3 miles per hour the water would  
4 be 2 days & nights or 48 hours in gaining  
5 16 miles--or to the mouth of the river--  
6 From 1 foot water to 1 foot water it is 88 1/2  
7 feet (the width) at Boats place--

8 Therefore (ac to soundings) & not allowing  
9 anything for water more or less stagnant  
10 or sides & in weeds--about 6 266 cubic  
11 feet pass here in a minute.

12 ~~The deepest place is about 4/7 the~~  
13 ~~way from~~ is about the middle--

14 July 26

15 Pm to Great meadows

16 I see in Clark's (?) land behind Garfields  
17 a thick growth of white birches  
18 ap. 3 yrs old blown from the wood on  
19 the W & SW--

20 Looking from Peter's the meadows are  
21 somewhat glaucous--with a reddish  
22 border or bank--by the ~~redd~~ river where  
23 the red top & agrostis scabra grow--  
24 & a {greener} stream where the pipes  
25 are in the lowest part by the Holt  
26 and in some places yellowish green ferns  
27 & now brown topped wool grass.



1                                July 28th

2                                Pm up Assabet--

3                                I see what I take to be young purple  
4 finches--eating Mt ash berries (our's)  
5 The king-birds eat currants

6                                I notice that the common greenish rock  
7 lichen (parmelia) grows on the rocks of  
8 the assabet down to within 2 feet of  
9 summer level--i.e it is submerged perhaps  
10 1/4 part of the year--

11                                The black willows are the children of  
12 the river--they do not grow far from the  
13 water, not on the steep bank which  
14 the river is wearing into--not on the  
15 unconverted shore--but on the bars  
16 & banks which the river has made--

17                                A bank may soon get to be too high for  
18 it. It grows & thrives on the river-made  
19 shores & banks--& is a servant which the  
20 river uses to build up & defend its banks  
21 & isles. It is married to the river--

22                                Where an eddy is depositing a sand bar  
23 anon<sup>141</sup> to be elevated into an island or bank  
24 there especially the black willow flourishes  
25 There are certain trees and other plants  
26 as this, the white maple--mikania, &c  
27 which do not grow away from the river  
28 side. The river has not simply to their  
29 base--but they accompany it, where-

---

<sup>141</sup>poss "anew"



1 of meadows now, is very interesting & handsome  
2 on being inspected now with its bright chestnut  
3 purple sided flat spikelets. A plant & color  
4 looking toward autumn. Very neat & hand-  
5 some on a close inspection-- V. about  
6 Hubbard's brook pickerel ditches--

7           Also in dry sandy soil the little tufts  
8 // of Fimbristylis Capillaris in bloom are  
9 quite brown & withered-looking now--another  
10 yet more autumnal suggesting sight  
11 In dry pastures see also the round  
12 // green heads of the Cyperæus filiculmis.

13           The river is very nearly down to summer  
14 level now--& I notice there, among  
15 other phenomena of low water by the river--  
16 the great yel. lily pads flat on bare  
17 mud-- the ranunculus flammula (just  
18 begun) a close but thin green matting  
19 now bare for 5 or 6 feet in width--bream  
20 nests bare & dried up--or{e} else bare  
21 stones & sand{s} for 6 or 8 feet--

22           The white lilies are generally lifted  
23 an inch or 2 above ~~by~~ water by their stems  
24 also the Utricularia vulgaris & purpurea  
25 are raised higher above the surface than usual  
26 Rails are lodged amid the potamo-  
27 getons in mid stream {&} have not moved  
28 for 10<sup>145</sup> days-- Dog days & fogs--  
29 Rocks unsuspected peep out are become  
30 visible--the water milfoil (the ambiguum

---

<sup>145</sup>"10" written over text

1 {var} natans) otherwise not seen shows  
2 itself-- This is observed only at lowest water.

3 I examined some of these bream nests  
4 left dry at cardinal shore These were  
5 a foot or 2 wide & excavated 5 inches  
6 deep (as I measured) in hard sand. The  
7 fishes must have worked hard to make these  
8 holes. Sometimes they are amid or in pebbles  
9 where it is harder yet. There are now left  
10 at their bottoms high & dry a great  
11 many snails (paludina decisa also {drawing}  
12 young & old{--}some very minute. They either  
13 wash into them or{e} take refuge there as  
14 the water goes down. I suspect they die  
15 there. The fishes really work hard at  
16 making their nests--these the stone-heaps  
17 &c--when we consider what feeble means  
18 they possess--

19 Vac-- vacillans begin to be pretty thick & //  
20 some huckleberries-- //

21 See large flocks of Red wings now //  
22 the young grown-- --Bartonia tenella //  
23 how long?

24 July 30

25 Am on river to ascertain the  
26 rate of the current--

27 This dog-day weather I can see the  
28 bottom where 5 1/2 feet deep-- At

1 5 feet it is strewn clear across  
2 with Sium--heart-leaf--ranunculus  
3 pushii<sup>146</sup> &c It is quite green & verdurous  
4 esp. with the first. I see the fishes  
5 moving leisurely about amid the weeds  
6 --their affairs revealed--esp. perch--  
7 some large ones prowling there--&  
8 pickerel large & small are imperturbable  
9 ~~Ab~~ I see more moss? covered rocks  
10 on the bottom ~~the~~ & some rising quite  
11 near the surface--3 or 4 bet my boats place  
12 & 30 rds above & a good many 3  
13 feet over on the bottom--revealed  
14 in the sunny water & little suspected  
15 before. Indeed the bottom may be  
16 considered rocky from above Dodd's to my  
17 boats place--though you would suspect  
18 it only when looking through {this} clear  
19 water. They are so completely covered with  
20 moss-like weeds or tresses--that you do  
21 not see them{.}--like the heads of mer-  
22 maids. A rock there is a nucleus or  
23 hard core to a waving mass of weeds--&  
24 you must probe it hard with a paddle  
25 to detect the hard core. No doubt many  
26 a reach is thus rock-strewn--which is  
27 supposed to have an uninterruptedly muddy  
28 bottom-- They sleep there concealed under  
29 these long tresses on the bottom--suggesting

---

<sup>146</sup> There is no "r"

1 a new kind of antiquity. There is nothing  
2 to wear on & polish them there-- They do  
3 not bear the paint rubbed off from any  
4 boat. Though unsuspected by the oldest  
5 fisher, they have eyed Concord<sup>147</sup> for centuries  
6 through their watery veil--without  
7 ever parting their tresses to look at her

8         Perchance the increased stagnancy  
9 of the river at this season makes the  
10 water more transparent--it being easier  
11 to look into stagnant<sup>148</sup> water--than when  
12 the particles are in rapid motion.

13         The outside heart-leaves above dodds  
14 grow in 6 feet of water & also the Kalmiana  
15 lily. Trying the current there--there  
16 being a very faint chiefly side wind--  
17 commonly not enough to be felt on the  
18 cheek or to ripple the water--what  
19 would be called by most a calm--

20         My bottle floats about 75 feet in 40  
21 minutes & then a very faint breeze beginning<sup>149</sup> to  
22 drive it back-- I can not {wait} to see when  
23 it will go a hundred--

24         It is in short an exceedingly feeble current  
25 almost a complete standstill my boat  
26 is altogether blown up stream even by this  
27 imperceptible breath. Indeed you can  
28 in such a case feel the pulse of our  
29 river only in the shallowest places

---

<sup>147</sup>poss "concord"

<sup>148</sup>Seems that there is an extra letter between "a" and "g".

<sup>149</sup>T ap. corrects spelling as he writes out word

1 where it preserves some slight passage  
2 between the weeds. It faints & gives  
3 up the ghost in deeper places--  
4 on the least adverse wind--& you  
5 would presume it dead a thousand  
6 times, if you did not apply the nicest  
7 tests--such as a feather to the nostrils  
8 of a drowned man. It is a mere  
9 string of lakes which have not made up  
10 their minds to be rivers-- As near as  
11 possible to a stand still.

12         Yet by sinking a strawberry box beneath  
13 the surface--I found that there was a  
14 slight positive current there that  
15 when a chip went pretty fast up stream  
16 in this air--the same with the box sunk  
17         & tied to it  
18 1 foot ^ went slowly down at 3 feet  
19 deep or more went faster than when  
20 the box was sunk only 1 foot. The water  
21 flowed faster down at 3 feet depth than  
22 at one there where it was about 7 feet  
23 deep{.} & though the surface for several  
24 inches deep may be flowing up in the  
25 wind--the weeds at bottom will  
26 all be slanted down. Indeed I suspect  
27 that at 4 or 5 feet depth the  
28 weeds will be slanted downward in the  
29 strongest wind that blows up--IE<sup>150</sup>  
30 that the current is always creeping

---

<sup>150</sup>1906 has "in"

1 along downward underneath-- After my  
2 first experiment, I was surprised to find that  
3 the weeds at bottom slanted down stream.

4 I have also been surprised to find  
5 that in the clear channel between the  
6 potamogetons--though it looked almost  
7 stagnant--it was hard to swim against  
8 it-- As{.} at Rice's bend.

9 See many cow birds about cows. //

10 Pm lef<sup>151</sup> boat at Rices  
11 bend. I spoke to him of the clapper rail

12 -- He remembered that his father once  
13 killed a bird, a sort of mud hen, which  
14 they called the Tinker--since he made  
15 noise just like a tinker on brass--& they  
16 used to set it agoing in the meadows  
17 by striking two coppers together-- His father  
18 stuffed it & did not know what it was.  
19 It had a long body.

20 Yet the river in the middle of Concord  
21 is swifter than above or below--& if  
22 Concord people are slow in consequence  
23 of this river's influence--the people of  
24 Sudbury & Carlisle should be slower still.

25 July 31st 59

26 7 1/2 Am--up River--

27 C. & I, having left our boat at Rice's Bend  
28 last night, walk to it this Am on our  
29 way to Saxonville--  
30 water 3/4 inch above summer level //

31

---

<sup>151</sup> There is no "t"

1 It is emphatically one of the dog days--  
2 A dense fog--not clearing off till  
3 we are far on our way--& the clouds  
4 (which ~~wh~~ did not let in any sun all day)  
5 were the dog day fog and mist which  
6 threatened no rain. A muggy but com-  
7 fortable day.

8 As we go along the Corner Road,  
9 the dense fog for a back ground--relieves  
10 pleasantly the outlines of every tree, {thoug}  
11 only 20 rods off--so that each is seen  
12 as a new object--esp. that great  
13 oak scrag behind Hubbards, once  
14 bent in to a fence--now like a double  
15 headed eagle--dark on the white ground.  
16 We go in the road to Rices on account  
17 of the heavy dew-- Yet the fine tops  
18 of red-top drooping with dew over the path  
19 blue with dew  
20 with a bluish hue from the dew wet our  
21 shoes through-- The roads are strewn  
22 meadow  
23 with ^ hay which the farmers teamed home  
24 last eve (Saturday)

25 The grass is thickly strewn with ~~the~~  
26 white cob webs--tents of the night--which  
27 promise a fair day-- I notice that they  
28 are thickest under the apple trees--  
29 Within the woods the mist or dew on them  
30 is so very fine that they look smoke like  
31 & dry--yet{,} even there, if you put your

1 finger under them & touch them you take off  
2 the dew & they become invisible. They are  
3 revealed by the dew--& perchance it is the dew  
4 & fog which they reveal which are the sign  
5 of fair weather-- It is pleasant to walk  
6 thus early in the Sunday morning while the  
7 dewy napkins of the cobwebs are visible on  
8 the grass--before the dew evaporates &  
9 they are concealed.

10           Returning home last evening I heard  
11 that exceedingly fine zing or creaking of crickets (?)  
12 low in the grass in the meadows-- You might //  
13 think it was a confused ringing in your head, it  
14            Heard it again toward eve  
15 is so fine-- ^Autumnalish.

16           On the 26th I saw quails which had been  
17 pecking dung in a cart path-- Prob. their broods //  
18 are grown.

19           The gold finch's note--the cool watery twitter  
20 is more prominent now //

21           We had left our paddles sail--&c under  
22 one of Rice's buildings on some old wagon  
23 bodies--Rice who called the big bittern  
24 "cow-poke-baked-plum-pudding"

25           It is worth the while to get at least a  
26 dozen miles on your journey before the dew  
27 is off-- Stopped at Weir Hill bend to  
28 cut a pole to sound with{.} & there came  
29 2 real country boys to fish--one little  
30 fellow ~~who~~ of 7 or 8 who talked like  
31 a man of 80--an old head--who had been

1 probably, brought up with old people. He  
2 was not willing to take up with my companion's  
3 jesting advice, to bait the fish by casting in  
4 some of his worms--because he said "It is too  
5 hard work to get them wher{e} we live."

6       Begin to hear the sharp brisk--dittle  
7 ittle-ittle of the wren amid the grass &  
8 reeds--generally invisible-- I only  
9 hear it between Concord line & Framing-  
10 ham line--

11       What a variety of weeds by the river  
12 side now--in the water of the stagnant  
13 portions not only lilies of 3 kinds--  
14 but heartleaf--utricularia--vulgaris  
15 & purpurea all (at least except 2 yel lilies)  
16 // in prime-- Sium in bloom too & B. beckii  
17 just begun--& R. purshii still--

18       The more peculiar features of C. river  
19 are seen in these stagnant lake like  
20                               & heart leaf  
21 reaches--where the pads--^pickerel weed--  
22 button bush--utricularias black-willows  
23 &c--abound--

24       Above the sudbury Causeway I notice again  
25 // that remarkable large & tall Typha--  
26 ap. T. latifolia (yet there is at least  
27 more than an inch interval bet. the 2 kinds  
28 of flowers--judging from the stump of the  
29                               V 11 ps forward  
30 sterile {but}<sup>152</sup> left on)^ It is 7 or 8 feet  
31 (its leaves)  
32 high ^ with leaves flat on one side (only concave  
33 at base the sheathing part) & regularly convex on

---

1 <sup>153</sup> ? 1906 has "bud"

1 the other. They are so much taller than  
2 any I see elsewhere as to appear a peculiar  
3 species. Long out of bloom They are what  
4 you may call the tallest reed of the meadows--  
5 unless you rank the arundo with them--but  
6 these<sup>153</sup> are hardly so tall.

7 The button bush, which<sup>7</sup> is, perhaps, at  
8 the height of its bloom{--}resounds with //  
9 bees &c perhaps as much as the bass  
10 has-- It is remarkable that it is these late  
11 flowers about which we hear this susurrus.  
12 You notice it with your back to them 7 or  
13 8 rds off.  
14 several times  
15 See a blue heron ^ today & yesterday-- They must //  
16 therefore breed not far off  
17 We also scare up many times green bitterns //  
18 perhaps young which utter their peculiar note  
19 in the Beaver<sup>154</sup> hole meadows & this side--  
20 For refreshment on these voyages we<sup>155</sup>  
21 compelled to drink the warm & muddy tasted  
22 which we keep  
23 river water out of a clam shell^--so  
24 that it reminds you of a clam soup--  
25 taking many a sup--or else leaning over  
26 the side of the boat--while the other  
27 leans the other way to keep your balance,  
28 & often {plugging} your whole face in at {~~dip~~} that  
29 when the boat dips or the waves run.  
30 To begin at the upper end  
31 {&} reverse the order of our observations--

---

<sup>153</sup>poss "those"

<sup>154</sup>poss "beaver"

<sup>155</sup> 1906 has "are"

1	(for we went as far as the great	
2	<u>say</u> 1 mile below Saxonville	
3	bend or "ox-bow" ^ as they call it there	
4	15 1/2	
5	<u>some</u> 16 <del>rds</del> miles from our boats place	
6		miles
7	--viz boats place to stone Br.	1/2--
8	stone B to shermans B.	6 1/2
9	Sh. B to <del>Sud Causeway</del>	3 1/8
10	upper end Sud {Canal}	
11	upper end Canal to B P. B { <del>so</del> }	1 1/8
12	B. P. B. to Heards B	7/16
13	Then ( <u>measuring</u> on county map) Southerly	
14	to Chestnut house cliff	3/4
15	SW to shallow	1/2
16	to weeds (1/4 below P. Pond)	1/4
17	to Sudbury line	1. (or 3/4?)
18	Then SWly	3/4
19	then SEerly	5/8
20		
21		15 7/12
22		<hr/> 156

23           At about 1 mile below saxonville the river  
24       from  $\alpha$   
25 winds ^ amid high hills--& commences a great  
26 bend called the oxbow-- Across the neck  
27 of this bend as I paced--it is scarcely 20 rds  
28 while it {must be} (as I judged by looking &  
29 was told) a mile or more round. Fisher-  
30       & others  
31 men ^ are accustomed to drag their boats  
32 overland here, it being all hard land  
33 on this neck-- A man by the bridge be-  
34 low had warned us of this cut off<sup>157</sup>--  
35 which he said would save us an hour!  
36 close above the bend there is a distinct  
37 fall in the river & rocks laid across it  
38 stones & falling fast quite {            } itself below

---

<sup>156</sup>T's line under the total curves around "15 7/12"

<sup>157</sup>poss "cutoff"





1 It is ap. much earlier than ours-- Yet ours may be  
 2 a feeble growth from its very seeds floated down  
 3 Can it be that in this wild & muddy  
 4 meadow the same plant grows so  
 5 It is decidedly earlier as well as larger than any I find in C.  
 6 rankly as to look like a new species^-- It  
 7 does not grow in water of the river  
 8 but densely like flags in the meadow  
 9 far & wide. 5 or 6 feet high & this  
 10 with the scirpus fluviatilis &c makes a  
 11 very novel sight Where there are rare  
 12 wild rank plants--there too some  
 13 ~~mud~~ marsh  
 14 wild bird will be found-- The ^ wrens &  
 15 the small green bitterns are especially  
 16 Doubtless many rails here  
 17 numerous there-- They lurk amid these  
 18 Behind<sup>160</sup> the reeds on the E side opp the Pond was a  
 19 great breadth of Pontederia  
 20 reeds ^ Zizania there just begun--X //

21 This wren (excepting perhaps the red wing b. bird)  
 22 is the prevailing bird of the sudbury meadows  
 23 I hear of another in Nine acre corner this year--<sup>161</sup>  
 24 Yet I do not remember to have heard it in  
 25 Rice saw one in his meadow (at the Dam Meadows) in Concord half a dozen-  
 26 Concord-- I get a nest ^ suspended in a patch years ago--  
 27 (Sc. lacustris)  
 28 of bull rush ^ by<sup>162</sup> the rivers<sup>163</sup> edge just below  
 29 the Sud<sup>164</sup>. Causeway in the pm. It is a large nest  
 30 (for the bird) 6 inches high with the entrance on  
 31 one side--made of coarse material--ap. withered  
 32 bull rush--& perhaps pipes & sedge & no particular  
 33 lining. Well woven & not very thick{.} some 2 1/2 or  
 34 3 feet above water. The bird is shy & lurks amid  
 35 the reeds.  
 36 We could not now detect any passage into  
 37 Pelham Pond--which at the nearest--near the  
 38 head of this reach came within 30 rds of the river--  
 39 About 1/4 mile below P{.} Pond the river

---

<sup>160</sup>"B" written over "b"

<sup>161</sup> Although this sentence is inserted between line 22 starting with "is the prevailing bird" and line 24 starting with "yet I do not remember" it should prob. follow the inserted sentence starting with "Rice saw one"

<sup>162</sup>"by" written over "be"

<sup>163</sup>poss "river's"

<sup>164</sup>"S" written over "C"

1           very much    with considerable depth  
2    became ^ troden & free{~~s~~} of weeds ^ & about  
3           or 1/2 below narrowest stream at pond  
4    1/4 mile further ^ after passing a few weeds  
  
5    a new & remarkable reach decidedly commenced  
6    --running first about 1/2 mile NEasterly  
7    to<sup>165</sup> the cliff on E side behind Chestnut house--then  
8    about 3/4 mile northerly almost to Heards B.  
9    for this (about a) mile & a quarter it  
10                    at first 7 feet & ~~soon~~ soon  
11    is broad & deep & stagnant with ^ an  
12    average depth of 10 feet (off the  
13    cliff at the bend 12 1/2 at least) It is  
14    very broad for this part of the river--  
15    bordered (chiefly on the W) by a dense  
16    row of button bushes--in which some  
17    hibiscus--& did I not see large tupelos  
18    toward the Pond? This is in part a lake  
19    reach (perhaps the 1st on the river?) I should  
20    say that just below Pelham Pond, the river  
21    just acquired the character which, in the  
22    main, it holds to its mouth. My particu-  
23    lar section of it might commence at Pelham Pond  
24    The contrast between the river (especially at this  
25                    for  
26    season) above the pond<sup>166</sup> & ^ a mile & a  
27    quarter below it-- Here suddenly you  
28    have all the peculiarities of Concord River--  
29    the sluggishness--button bush fence--(some 12  
30    or 15 rds had changed sides at one place) pads  
31    &c &c-- This first lake like reach is uniformly  
32    deep & its depth is remarkable--  
33            It was ~~com~~ 9 1/2 & 10 1/2 or commonly 10

---

<sup>165</sup>"to" written over "the"

<sup>166</sup>poss "Pond"

1 as I measured--but at last about a  
2 dozen rods above Heards B. were some  
3 weeds & a shallower place-- Perhaps it  
4 might be considered as reaching further with  
5 several shallow & weedy places (though quite  
6 short ones) This lake like reach, as usual  
7 is more direct--only one important & simple  
8 bend in it. Perhaps it may be called the Pelham  
9 Pond Reach--(or Island Reach?) We used  
10 to land at it to cross to the Pond.

11 Perhaps the Sudbury meadow or Meander-  
12 ing Reach--may be said to begin at the weeds just  
13 above Heards Bridge.

14 It was quite deep for a quarter of a mile  
15 midway bet. Bridle point & Sudbury Causeway--

16 3.  
17 1 At the sharpest bend 16 1/2 feet  
18 2 Some 40 rds lower 11 1/2  
19 3 At the Chestnut house bend 12 1/2  
20 to the last reach  
21 so that these are at least 3 Deep holes

22 above the causeway though I did not  
23 probe very carefully all the way--

24 Below the Lake reach of Pelham P--are  
25 only 3 shallows worth naming--viz  
26 Heards B. (just above it)

27 Bridle point B--just above it 3 1/2 ft pretty long  
28 & Typha shallow 4 1/2

29 We left Heards B. (or just above it) at 3 Pm  
30 & got home at just 7--notwithstanding more  
31 than 1/2 hours stopping 12 miles in 3 1/2 hours

1 Do not the lake-like reaches incline  
2 to run more N & S!

3 The Potamogetons do not abound any  
4 where but in shallows--hence in  
5 the swifter places. The Lake like reaches  
6 are too deep for them.

7 // Cardinal flower X Have seen it formerly  
8 much earlier-- Perhaps the high water  
9 in June kept it back.

10 This 16 miles up added to 11 down makes  
11 about 27 that I have boated on this  
12 River--to which may be added 5 or 6 miles  
13 of the Assabet--

14 Resuming the statement of July 22d  
15 there are 24 + 3 (at least) deep holes  
16 =27 bet Pelham Pond & the Falls & 9 at  
17 least are to be referred to the original form  
18 of the valley--including no 3 of the last p.<sup>167</sup>  
19 NB (& it may be still deeper thereabouts) & 9 at  
20 least were evidently dug out by rivers--

21 There are also some 20 + 3 shallow  
22 places bet. Pelham Pond & the Falls--  
23 No 2 of the last p is pretty long.

24 The water at the Fordway above the Falls  
25 was 2 1/2 feet deep at the deepest point on  
26 July 22d-- And may be now nearer 2 feet.  
27 Could it ever have been much lower-- I  
28 am told that formerly you could sometimes  
29 walk through there without its going over  
30 your boots! & indeed that that was

---

<sup>167</sup>Ap. blotch at end of line







1 That near the SW line of Concord may be  
2 considered the narrowest place in the river between  
3 Pelham Pond & the Falls--  
4 2 1/2 Pm the water has risen 3/4 of an inch  
5 since 6 Am  
6 I try the current above Dodds--  
7 There is a SW breeze--a loose board  
8 moves farther than one with a sunk box  
9 but soon drifts diagonally across & lodges  
10 at 50 feet.  
11 The box sunk 14 inches below the board  
12 floats 100 feet in 9 {minutes}  
13 sunk 2 1/2 feet in 9 1/4 minutes  
14 " 5 1/2 feet it is not half way in 13 minutes  
15 or, allowing for its starting this time a little out of  
16 the wind & current--say it is 20 minutes in  
17 going 100 feet  
18 I should infer from this that the swiftest  
19 & most uninterrupted current under all  
20 conditions was neither at the surface  
21 nor the bottom, but nearer the surface  
22 than the bottom-- If the wind is down  
23 stream it is at the surface--if up  
24 stream it is beneath it, and at a depth  
25 proportionate to the strength of the wind.  
26 I think that there never ceases to be a  
27 downward current--  
28 Rudely calculating the capacity of the  
29 river here--and comparing it with

1 my boat's place-- I find it about  
2 as 2 to one--and such is the slowness  
3 of the current viz--9 minutes to 4 1/2  
4 to 100 feet-- If you are boating far--  
5 it is extremely important to know the direction  
6 of the wind-- If it blows strong upstream, there  
7 will be a surface {f} current flowing upward  
8 --another beneath flowing downward--& a  
9 very feeble one (in the lake like parts) creeping  
10 downward next the bottom. A wind in which  
11 it is not worth the while to raise a sail--  
12 will often blow your sailless boat up stream.

13 The sluggishness of the current, I should say,  
14 must be at different places, as the areas  
15 of cross sections at those places--

16 That fine Zing of locusts in the grass  
17 which I have heard for 3 or 4 days is  
18 methinks an August sound--& is  
19 very inspiriting. It is a certain matu{-}  
20 rity in the year, which it suggests--my  
21 thoughts are the less crude for it--  
22 -- There is a certain moral & physical slug-  
23 gishness & stand still at midsummer--

24 I think that clams are chiefly found at shallow  
25 and slightly muddy places--where there is a  
26 gradually shelving shore. Are not found on  
27 a very hard bottom--nor in deep mud--

28 All of the River from the SW {line} of Wayland<sup>172</sup>  
29 to ~~the~~ off the Height of Hill below Hill's B is  
30 meadowy-- This is the true Musketaquid

---

<sup>172</sup>bleedthrough above word

1 // The button-wood bark strews the streets  
 2 // dry weather &  
 3 curled pieces. Is it not the effect of ^ heat?  
 4 As birds shed their feathers or moult--&  
 5 Neat rolls of bark (like cinnamon  
 6 beasts their hair but larger) light & dark brown

7 Aug 3d

8 // 6 Am River fallen 1 inch since 2 1/2 Pm yesterday  
 9 i.e. it is ~~1/2~~ now 1/4 inch above summer level.

10 // Juncus Greenii grows in River meadow op. Dodds--  
 11 long done

12 I saw (the 31th ult) that the river was narrowed  
 13 to 1/3 its width by a large mass of button bushes  
 14 sunk in the middle of it above the Sudbury Cause-  
 15 way.

16 The low water reveals a mass of meadow  
 17 sunk under the RR. bridge--both this &  
 18 Lees bridge are thus obstructed this year.

19 The Deep holes between Pelham Pond & the Dam			order of depth
20 11 ft or over			
21	1 one at Bend in Pelham Pond Reach	12 1/2	16
22	2 At sharp Bend midway bet B. P. B & Sud Causeway	16 1/2	3
23	3 some 40 rods lower--	11 1/2	
24	4 Arundo Bay	13 1/4	14
25	5 Beyond Scirpus	11 1/2	
26	6 Hardland bend	14 3/4	9
27	7 Above Drifted bushes	13 3/4	12 <sup>173</sup>
28	8 Just above Sherman B.--	15 1/2	5
29	9 Great bend above Weir Hill	14	11
30	10 Weir Hill bend	12	
31	11 Below Hay bridge	13 3/4	13
32	12 Near Farrars meadow	11	
33	13 50 rods above Lees B.	11 3/4	
34	14 Lees High rock	11 3/4	
35	15 Below Lees	11 1/2	

---

<sup>173</sup>"12" written over "11"





1 drainage at that season

2 If by fall you mean a swifter place

3 occasioned by the bottom below for

4 a considerable distance being ~~considerab~~

5 being lower than the bottom above

6 for a considerable distance, I do not know of

7 any such between Pelham Pond & the Falls.<sup>175</sup>

8 {These} swifter places are produced by a contraction

9 of the stream--chiefly by the elevation of the bottom

10 at that point--also by the narrowing of the

11 stream.

12 The depths are very slight--compared with

13 the lengths-- The average depth of this 25 miles

14 is about 1/17000 the length--so that if this

15 portion of the river were laid down on a

16 <sup>4%</sup><sup>176</sup>

17 map 2 feet long the depth would

18 be about equal to the thickness of an<sup>177</sup> ordinary

19 %of which it takes 350 to an inch%

20 %(%sheet of%)%<sup>178</sup> letter paper %^%-- Double the thickness

21 of the letter paper & it will contain the deep

22 holes which are so {unfathomed} & mysterious

23 not to say bottomless to the swimmers & fisher-

24 men.

25 Methinks the Button bushes about F. H. indicate

26 a muddy but not deep pond.

27 The Deepest reach of this 25 miles is

28 from E. Davis Hill to Skelton Bend

29 Methinks I saw some of the {—} fresh water sponge

30 in the river in Framingham.

31 Undoubtedly--in the most stagnant parts of the

32 river--where<sup>179</sup> the wind blows hard up stream, a

---

<sup>175</sup>"F" poss written over "f"

1 <sup>176</sup>"2" is stricken in pencil and "4" is written above.

<sup>177</sup>"an" is stricken in pencil.

1 <sup>178</sup>"Sheet of" is stricken in pencil.

<sup>179</sup>"w" written over text

1 chip will be drifted faster up stream--then even  
2 it floats downward there in a calm.

3 Pm I see 2 or 3 birds which I take to be  
4 // Rose breasted gross beaks of this year-- They  
5 are speckled brown & white (with considerable  
6 white) birds--& no rose on breast that  
7 I see-- I hear them singing a little in a  
8 gross beak-like strain--but a more partial  
9 warble. Heard one July 28 on an oak high  
10 up Assabet--& to-day on an apple tree near  
11 Brister's

12 Warren Mill tells me that in mowing lately  
13 he cut in two a checkered adder--by his  
14 account it was the chicken snake--& there  
15 was in its stomach a green snake dead &  
16 partly digested--& he was surprised to find  
17 that they ate them.

18 Water bugs are collected in dense swarms  
19 about my boat--at its stagnant harbor.  
20 They gyrate in a very {~~sub~~} leisurely manner under  
21 my face--occasionally touching one another  
22 by their edges a moment. When I move or  
23 disturb the water, they at once begin to  
24 gyrate rapidly.

25 After the evening has set in--I perceive  
26 that these water bugs, which all day were  
27 collected in dense swarms in the stagnant water  
28 amid the weeds at the sides--are dispersed  
29 over the river (quite across it here)  
30 & gyrating rapidly in the twilight.



1 from the shore. To day I can walk  
 2 // dry over the greater part of the meadows  
 3 --but not over the lower parts where  
 4 pipes &c grow-- Yet many think it  
 5 has not been so dry for 10 years!  
 6 // Goodwin is there after snipes. I scare  
 7 up one in the wettest part.  
 8 // High blackberries begin to be ripe.  
 9 {Anover} phenomenon of dry weather & a  
 10 low stage of water--is the sight of dense  
 11 still in bloom  
 12 // green beds of Eleocharis acicularis ^ which  
 13 grows at the bottom of muddy pools--but  
 14 now--they being dry--looks like a dense  
 15 fine bed of green moss--denser than  
 16 grass. I recline on such a bed per-  
 17 fectly dry & clean amid the flags & ponte-  
 18 deria--where lately was water & {mud}.  
 19 It covers the mud with a short dense green  
 20 mat of culms fine as a hair--quite  
 21 agreeable to rest on--and a rather  
 22 novel sight.  
 23 Aug 5--  
 24 I have made these observations on  
 25 No rain to be considered since July 26th  
 26 the stage of the water within a week--  
 27 referring it to the top of a stake (which I will  
 28 call X) 3/4 inch above summer level  
 29 July 31st (Sunday) 6 Am {3/4} at X  
 30 average  
 31 Aug 1st (Monday) 6 Am X - 3/4 inch > dif 1 1/2--height X  
 32 5 Pm X + 3/4  
 33 2d 6 Am X - 1/4<sup>180</sup>

---

1 <sup>180</sup>A pencilled sentence runs up the left margin of the page, beginning at the bottom  
 2 up to "mat of culms", which says, "July 25 water was 3 1/2 inch above S L.".

1 Aug 2d 2 1/2 Pm X + 1/2 inch > dif 3/4 average height  
 2 X + 1/8  
 3 Aug. 3d 6 Am X - 1/2 > diff 5/8 av. X - ~~2~~ 3/16  
 4 2 Pm X + 1/8 > a very slight shower in Pm  
 5 8 Pm at X  
 6 4th 6 Am X - 1/16 > dif 11/16 av. X + 4 1/2 /16  
 7 2 Pm X + 5/8  
 8 8 Pm X + 1/16  
 9 -  
 10 5th 8 Am X<sup>+</sup> 1/2 most rain at 5 or 6 Am //  
 11 & still rains  
 12 Here are 6<sup>181</sup> days unaffected by rain, at  
 13 least in this part of the river--at low  
 14 water--& when the river is at a stand-  
 15 still, so far as a season change goes--  
 16 As this morning's rain will interfere with  
 17 my observations-- I sum them up now--  
 18 Each day it has fallen in the night  
 19 & risen in the day--(from the {observations} of the  
 20 last 3 days it has risen in the forenoon, the  
 21 other days not observed so early)  
 22 On Monday morning it was 3/4 inch lower than  
 23 on Sunday morning  
 24 risen  
 25 At 5 Pm Monday it had ~~fallen~~ 1 1/2 inches  
 26 higher than it was at 6 Am--  
 27 Bet 5 Pm Monday & 6 Am Tuesday fell 1 inch  
 28 Then rose 3/4 by 2 1/2 Pm  
 29 Then fell 1 inch by 6 Am the 3d  
 30 " rose 5/8 by 2 Pm "  
 31 " fell 1/8 by 8 Pm<sup>182</sup>  
 32 fell 3/16 by 6 Am 4th  
 33 rose 5/18 by 2 Pm  
 34 fell 1 1/8 by 8 Am 5th

---

<sup>181</sup>"6" written over "5"

1 <sup>182</sup>This line is circled in the manuscript.

1           The average difference of level between 6 Am  
2   & 2 Pm has been (for 4 days) a little  
3   less than 1 inch (13/16) a little more than 3/4  
4   inch. It has in fact been a regular  
5   tide so far as I have observed--&  
6   I have no doubt much longer--high tide  
7   about  
8   at ^ 2 Pm & lowtide say at 6 Am--

9           I have observed perfectly for 4 days (& part  
10   of 2 more)--for 4 days the water has  
11   regularly fallen on an average 3/8 of an  
12   inch below the top of my stake by 6 Am  
13   & risen about the same above it by 2 Pm  
14   but the diff. bet Monday 6 Am & 5 Pm  
15   was 1 1/2 inches--

16           I have little if any doubt that this regular  
17   rise & fall is occasioned by the retaining the  
18   water at night in so many mill ponds--  
19   & letting it out in the morning--& the  
20   river accordingly being lower on Monday  
21   morning--the rise is proportionately greater  
22   on that day.

23           I notice a fall before 8 Pm!

24 //        See many Yellowed peach leaves  
25   & butternut leaves which have fallen  
26   in the wind yesterday & the rain to-day.

27           The lowest dark colored rocks near the  
28   water at the stone Bridge (i.e. part of the  
29   bridge) are prettily marked with ap.

1 mosses which have adhered to them at higher  
2 water--& now withered & bleached on--  
3 in fact are transferred{.} and by their  
4 whitish color are seen very distinctly on the  
5 dark stone & have a very pretty effect.  
6 They are quite like sea mosses in their  
7 delicacy--though not equally fine with many.

8 {drawing} These are very permanently  
9 This is a phenomenon of low water--  
10 Also see them transferred to wood--as pieces of bridges  
11 & closely fastened to the rock--

12 At Willow bay--with an apt wind--  
13 (18 inch deep)  
14 The floating bottle & the sunk box^  
15 both together--float 100 ft in 5 1/2 minutes--  
16 The water where I try is 100 feet wide between  
17 the pads & as much more beyond ({taking} each side)

18 Dr Reynolds tells me that on July 31st (Sunday)  
19 he saw the water at Billerica Dam, as he judged  
20 by his eye--drawn off 3 feet below the edge of the  
21 Dam & still running out--& the Canal was  
22 ~~ap~~ entirely dry. (He supposes that they may have begun  
23 to draw it off the day before) & returning to Concord  
24 He found Talbot at Flint's B. measuring the  
25 depth of the water there-- If even it was within a week  
26 that he had begun to draw it off-- I must think  
27 that this great fall there, has had an appreciable  
28 effect on the water at Concord. For on the  
29 25 of July in the Pm it was 3 1/2 inches above summer  
30 level here & falling from day to day (as it had been a long time)

1 and this very Sunday morning it was 3/4 inch  
2 above Summer level here--and at no time  
3  
4 Yet (now up to the evening of the 7th of ~~July~~ Aug.)  
5 has it fallen more than 4 1/4 inches below  
6 where it was on the 25th--or more than 1 1/2  
7 inches below where it was on the morning of the  
8 31st.

9 Now I suppose that Talbot has been using<sup>183</sup>  
10 his power since the 31st & if so the water must  
11 have risen there some 4 feet at least, i.e  
12 just  
13 he has in effect ^ erected a dam there 3 feet  
14 high at least-- Yet the water here has  
15 not been more than 1 3/16 inch higher than  
16 it was on the morning of the 31st-- (No nor  
17 so high till the 9th of Aug. when I refer it  
18 to rain)

19 Aug 8th

20 Pm Up Assabett-- I perceive that  
21 rocks on the bottom stretch across from  
22 Mantatuket Point to the island & prob make  
23 the ancient core of the {~~low~~} shoals & islands--  
24 & between  
25 & the river has cut through above ^ them  
26 & made them islands, just as it, at  
27 high water cuts off & make an island of  
28 Mantatuket Rock itself. I.e. The shallows  
29 below the Junction are to be considered as the  
30 point of the hill--at least the rocky  
31 portion of them.

---

<sup>183</sup>stray mark above word crossed out

1 I find the same curious eggs (which I saw  
2 at the Fordway on the 22d) on the rocks  
3 & trees on the Assabett--always on the upright  
4 or steep  
5 ^sides of rocks in the water--or on bare barked  
6 (or perhaps denuded of bark) trees on the edge  
7 of the river & overhanging it-- Are they to  
8 be found up the main stream? They are not  
9 yet hatched. V Aug 11th //

10 Peet-weets take their flight over the  
11 water--several together, apparently  
12 the old with their young now grown-- //  
13 the former? Uttering a peculiarly soft rippling  
14 call. That is, it is not now a sharp ringing  
15 note.

16 The river now that it is so clear & sunny  
17 is better than any aquarium--standing up  
18 & pushing gently up the stream or floating yet  
19 more quietly down it-- I can in some places,  
20 see the secrets of 1/2 the river & its in-  
21 habitants--the common & familiar bream  
22 with the dusty light reflected from its fins--  
23 --the vigorous-looking perch--(tiger like among  
24 fishes)--I notice that many of these {E} perch  
25 are poised head downward peeping under the  
26 rocks-- The<sup>184</sup> motionless pickerel--with re-  
27 ticulated back & sides--as it were the  
28 seed vessel of a water plant--eyes  
29 set far back-- It is an enchanter's wand  
30 ready to surprise you with life.

---

<sup>184</sup>"The" prob. written over "the"

1           The weeds are as indispensable to the  
2 fishes--as<sup>185</sup> woods & shrubbery to us. I saw  
3 a perch conceal himself from my sight  
4 under a tuft--of weeds at the bottom not  
5 much wider than its own length.

6           That Potamogeton (Is it P. Robbinsii?)  
7 growing in dense beds under water--all  
8 immersed in shallow places{--}like a bed  
9 of brown & muddy ostrich feathers--  
10 alternating with darker beds of Bidens  
11 Beckii--which show but a particle of green  
12       (I think of the latter in the South Branch)  
13 above the surface^-- What concealment  
14 these afford to turtles, frogs, fishes &c

15           The potamogetons are so thick in  
16 in the main stream  
17 some places^--that a frog might hop  
18 quite across the river on them without getting  
19 in over his head.

20           Rice has had a little experience once  
21 in pushing a Canal boat up Concord River.  
22 Says this was the way they used to get  
23 the boat off a rock--when by chance it had  
24 got on to one. If it had run quite ~~on~~<sup>186</sup>  
25 so that the rock was partly under the  
26 main bottom of the boat--they let the  
27 boat swing round to one side--& place  
28 a stout stake underneath a little aslant  
29 with one end on the bottom of the river &  
30 the other ready to catch the bows of the boat

---

<sup>185</sup>"as" written over "&"

<sup>186</sup>"on" poss. written over "over"

1 & while one held it perhaps, the other pushed  
2 the boat round again with all his force & so  
3 drove it on to the stake & lifted it up above  
4 the rock--& so it floated off.

5 Aug 9th

6 I see under the RR Bridge a mass of  
7 meadow which lodged there last spring--  
8 not revealed till this low water--& this is  
9 now dense with a thrifty growth of bull rushes.

10 Minott says that some used to  
11 wonder much at the windings of the  
12 Mill brook--& could not succeed in  
13 accounting for them, but his Uncle Ben  
14 Prescott--settled the difficulty by saying  
15 that a great eel came out of  
16 Flint's Pond & rooted its way {through} the  
17 river--& so made the channel of the  
18 Mill Brook.

19 Minott says that he can remember  
20 when (it may be 40 or 50 yrs ago)  
21 the Great meadows were so dry one year--  
22 that they having got off all the grass  
23 & cut it quite smoothly--they talked  
24 seriously of having a regimental muster  
25 there. He assured me it would have been  
26 a good place, for the grass was cut smooth,  
27 & the earth was baked so hard that you  
28 could ride in a carriage right through the  
29 middle from the west end clear to Neck-

1 Cannon could have been dragged about  
2 there perfectly well. I was thinking it  
3 would be rather tussocky ground for  
4 soldiers to wheel & manoeuvre on--&  
5 rather damp to camp on--but he declared  
6 not.

7 This appeared to be good evidence  
8 for the river meadow proprietors-- But  
9 when I asked him if he thought the  
10 meadows were more wet now than 50  
11 years ago--he answered that he did  
12 "not think they were" nor the grass any poorer

13 As he remembered, in one of those  
14 years--not far from the dry one referred  
15 to--there came a rain in August,  
16 when the meadows were partly cut, which  
17 raised the water so that it floated off  
18 what was left cut & went over the  
19 tops of the standing grass--& you could  
20 have gone all over the meadows in a boat  
21 & he saw there on the meadows such  
22 an immense swarm of sea birds of<sup>187</sup>  
23 various kinds--peeps--plover, yellow  
24 legs &c as he never saw before nor since.  
25 He thinks he saw so many in one flock as  
26 could not have been packed into his kitchen.

27 He had never seen anything at all  
28 like it but once since & that  
29 was ~~when~~ the day after he had been to a  
30 muster with his company at Waltham--

---

<sup>187</sup>poss written over "or"

1 (when he was a young man) & had saved  
2 the greater part of his allowance of powder--  
3 {on} the field. The next day<sup>188</sup> after getting home  
4 The yellow legs were so thick on the Mill Brook  
5 meadows that he killed a bushel of them.

6 I saw the tortoises shedding their  
7 scales a week ago. Many of the scales //  
8 2/3 off turned up all around.

9 Aug 11th

10 Am up Assabet to Stone Bridge

11 This river is so shallow that you can  
12 easily push up it with a paddle--but  
13 the other is commonly too deep for this

14 As I paddle up this stream this  
15 {forenoon}--the river gently rising as usual  
16 in the {forenoon}--(in consequence of  
17 raising the gates of the various mill ponds  
18 on & near to it--which had been shut  
19 in the night) I meet with many a  
20 clam which comes floating down in  
21 midstream--nicely poised on the water  
22 with its pearly concave side uppermost--  
23 These have been ~~lef~~ open & left by the musquash  
24 during the night on the shore or often on  
25 rocks in the stream & now the water rising  
26 gently sets them afloat--as with care  
27 you can float an iron pot-- But  
28 soon a stronger wind or eddy--will cause

---

<sup>188</sup>stray mark or punctuation after word

1 the water to break over them & they will at  
2 once sink to the bottom. Last night it  
3 & sand  
4 lay half buried in mud ^ at the bottom.  
5 The musquash has devoured its tenant,  
6 & now it floats seaward a pearly skiff  
7 set afloat by the industrious millers.  
8 I met with as many as a dozen of them  
9 the valves at an angle of 45° {drawing}  
10 coming down the stream this forenoon--{drawing}  
11 sometimes a single valve--but the least  
12 touch of my oar would sink them.  
13 // The musquash are eating clams quite fast  
14 there. Those lately opened & generally quite  
15 small. Is it because of the season or the  
16 stream.  
17 When I raked the river the other day--all  
18 the clams I caught--had closed their shells  
19 on the teeth of the rake which entered them--  
20 just as they catch sea clams with a pointed  
21 stick.  
22 Those singular eggs which I saw at the  
23 V Aug. 8  
24 Falls at Concord River in July^--are far  
25 more numerous at the Assabet Stone Bridge  
26 // & many are hatched-- They are sprinkled  
27 all over the stones of the arch just within  
28 it on the sides & overhead--but extending only  
29 few feet under the bridge on either side--

1 %Aug 9%<sup>189</sup>

2 "Principes D'Hydraulique" &c

3 Par M. Dubuat

4 A Paris 1806

5 vol 1

6 p. 82 "We must conclude that the bed, of the  
7 figure of a trapezium {drawing}  
8 in which the breadth at the bottom is 2/3 the  
9 depth of the water, & the slopes (talus)  
10 are 4/3 of this depth, is of all trapezic  
11 beds of equal section, & possible in practice,  
12 that which secures the greatest swiftness when  
13 the circulation is constant, or which requires  
14 the least inclination of the swiftness is given. Also  
15 one sees in practice that the torrents which  
16 dig {our} earth (creussent un terrain) susceptible  
17 of being attacked by their impetuosity, take  
18 a bed nearly like this; "--

19 86--"If the beds of our rivers have actually  
20 some stability, if the impetuosity of their cours  
21 no longer compounds our possessions, we are  
22 indebted for it to time which has dug deep  
23 valleys to contain them, which has consolidated  
24 & so {has it} fortified their beds, on which has  
25 permitted them to moderate (adoucir) their  
26 descent, (pente) formerly much more rapid."

---

1 <sup>189</sup>This date is written slightly diagonally in the upper left corner of the page.

1 p. 99 "1st argile brune, proper for pottery, though  
 2 specifically<sup>190</sup> heavier than all the other materials,  
 3 (matieres) does {d} not begin to resist the action  
 4 of the current, till the swiftness at the bottom is  
 5 about 3 inches (pouces) per second, or that of the  
 6 surface 8 inches. The facility with which water attacks  
 7 it arises, without doubt, from the great tenuity  
 8 of its particles, which offer more <sup>of</sup> ^ surface in proportion  
 9 ~~to~~ <sup>--of</sup> than ^ man. 2.d Fine sand begins to resist  
 10 {to} than ^ man. 2.d Fine sand begins to resist  
 11 a swiftness of 6 inches at the bottom, or of  
 12 12 inches at the surface. 3d Great sable  
 13 anguleux <sup>dela</sup> has ^ stability, when the swiftness at the  
 14 bottom is less than 8 inches. 4th Le gravier de  
 15 la Seine, separated into 3 classes, fine, medium  
 16 & large, has stability at swiftnesses corresponding  
 17 to 4, 7, & 12 inches. 5th The galets arrondis,  
 18 an inch in diameter, resists a swiftness of 24  
 19 inches; & finally, 6th le {t} silex anguleux,  
 20 of the size of an egg, resists a swiftness of 36 inches."  
 21 100 "When the swiftness at the bottom of the  
 22 bed is sufficiently great to make slide (glisser)  
 23 or roll bodies specifically heavier than the water,  
 24 these bodies are not dragged along ({en traines})<sup>191</sup>  
 25 in a uniform manner, but they travel, so to speak,  
 26 by relays. Let us take sand, for example.<sup>192</sup>  
 27 When the bottom of the bed is of sand rather large  
 28 and quite visible, and the swiftness there is 10 or 12  
 29 inches per second, it offers to the eyes the design  
 30 of those tapestries known under the name de <sup>point</sup> point<sup>193</sup>

<sup>190</sup>prob. extra "I" dot over word

<sup>191</sup>Possible accent mark over the second e?

<sup>192</sup>Possibly a comma turned into a period.

<sup>193</sup>word blotched and corrected above

1 de Hongrie, presenting ~~to the~~ irregular  
2 furrows (sillons) whose direction is perpendicular  
3 to the course of the water. Each of these furrows  
4 is composed of 2 glacises (glacis) with slopes  
5 opposed (a fente opposee) that one which  
6 faces (regarde) the side whence the water comes  
7 is a slope very much lengthened, whose  
8 summit is common to the other steeper slope,  
9 which faces down stream. The profile of a  
10 <sup>assez</sup>  
11 furrow (is very much) like that of the glacis  
12 of the covered way of a fortress (place de  
13 guerre) At a little distance from the foot of  
14 the steepest slope (talus) begins the gentle  
15 slope (rampe or ascent) of another furrow, and so  
16 on as you descend. A grain of sand, pushed  
17 by the current mounts the gentle slope of the  
18 1st talus, and having arrived at the summit,  
19 it rolls by its own weight from the top to the  
20 bottom of the opposite talus; there it re-  
21 mains at rest, sheltered from the action  
22 of the fluid, and is covered by other grains  
23 which come in their turn. This work resembles  
24 considerably (assez) that of the terrace makers  
25 who trundle the barrow, mounting with their  
26 load the slope (rampe) of the heap (remblai)  
27 in order to upset it at the top & make  
28 the earth slide down from top to bottom:  
29 these grains of sand thus buried, remain  
30 at rest, loaded (chargés) and covered by the<sup>194</sup>

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<sup>194</sup>words from following page show through at bottom of page

1 last come, till all the mass of the furrow,  
2 which they had left behind, has passed in de-  
3 tail over them. It is thus that the entire  
4 furrow is displaced in detail, advancing by little  
5 & little (or degrees?) a space equal to its breadth:  
6 then the grain of which I speak is found at  
7 the foot of the new glaciis which is formed  
8 before it; and as it is found anew exposed to  
9 the action of the water, it mounts this glaciis,  
10 and precipitates itself anew, as the first time,  
11 to the bottom of the heap (ramblai) While  
12 one furrow travels thus very slowly, all the others  
13 do the same, and if the swiftness of the water  
14 is moderate, it needs not less than half  
15 an hour for each to make this progressive  
16 step, which is 4 or 5 inches. If the swiftness  
17 of the water augments, the work is done  
18 with more diligence, & it slackens on the con-  
19 trary, when it diminishes. Thus, in an ordinary  
20 work (un travail moyen)--or working at an ordinary rate)  
21 it takes about 2 years for a grain of sand  
22 to travel over a league of 2 thousand 400  
23 fathoms (toises)."

24 102 "It is almost always from this principle, i.e. from the  
25 collection of gravel or stones in the bottom of the bed,  
26 that arise its displacements{.}"--

27 118 "The bed of the river formed by nature is a curve (courbe)  
28 which, on departing from the middle of the current, rises  
29 {invariably} & more & more toward the shores, in proportion  
30 to the steepness of its slope (pentes) & the diminution of  
31 velocities  
32 the swiftnesses of the threads of water, & to the energy of  
33 the molecules of the bed which are to resist it."

1 Aug. 14th '59

2 Pm To Barrett's Bar--

3 The Zizania now makes quite a a  
4 show along the river over topping the withered  
5 heads of the early canary grass.

6 When I reached the upper end of this  
7 weedy bar--at about 3 Pm this warm day  
8 I noticed some light colored object in mid-  
9 river near the other end of the bar-- At first  
10 I thought of some large stake or board standing  
11 amid the weeds there--then of a fisherman  
12 referring him to  
13 in a brown Holland<sup>195</sup> sack, ~~on~~ ^ the shore beyond--  
14 --supposing it the last I floated nearer  
15 & nearer--till I saw plainly enough the  
16 motions of the person, whoever it was--&  
17 that it was no stake. Looking thro'  
18 my glass 30 or 40 rods off I thought certainly  
19 that I saw C'--who had just bathed making  
20 signals to me with his towel--for I referred the  
21 object to the shore ~~15~~ or 20 rds further  
22 I saw his motions as he wiped himself  
23 --the movements of his elbows & his towel.  
24 Then I saw that the person was nearer  
25 & therefore smaller that it stood on  
26 the sand bar in mid-stream in shallow  
27 water--& must be some maiden in  
28 bathing dress--for it was the color of  
29 brown Holland web--& a very peculiar  
30 kind of dressed it seemed-- But about

---

<sup>195</sup>"H" written over "h"

1                   with my naked eye  
2 this time I discovered ^ that it was a blue-  
3 heron standing in very shallow water amid the  
4 weeds of the bar--& pluming itself. I had  
5 not noticed its legs at all--& its head  
6 neck & wings being constantly moving, I  
7 had mistaken for arms elbows & towel of  
8 a bather--& when it stood stiller its  
9 shapely body looked like a peculiar bathing  
10 dress-- I floated to within 25 rds &  
11 & watched it at my leisure.

12               Standing on the shallowest part of the bar  
13 at that end--it was busily dressing its feathers--  
14   down its feathers  
15 passing its bill like a comb ^ from base to tip  
16 ~~of its feathers~~. From its form & color--  
17 as well as size, it was<sup>196</sup> singularly distinct.  
18 Its great spear shaped head--& bill was  
19 very conspicuous, though least so when turned  
20 toward me (whom it was eyeing from time to  
21 time) It coils its neck away upon its  
22 back or breast as a sailor might a  
23 rope--but occasionally stretches itself  
24 to its full height as tall as a man &  
25 looks around--& at me-- Growing shy  
26 it begins to wade off--until its body  
27   Potamogeton  
28 is partly immersed amid the weeds^--&  
29 then it looks more like a goose-- The  
30 neck is continually varying in length as it  
31 is doubled up or stretched out & the legs  
32 also, as it wades in deeper or shallower  
33 water.

---

1 <sup>196</sup>Blotch after word



1     There they stand in the midst of the  
2     open river--on this shallow & weedy  
3     bar in the sun. The leisurely sentries--  
4     lazily pluming themselves--as if the day  
5     were too long for them.

6             They gave a new character to the stream--  
7     Adjutant they were to any idea of the  
8     river--these 2 winged men--

9             You have not seen our weedy river--  
10    --you do not know the significance of its  
11    weedy bars--until you have seen the  
12    blue heron wading & pluming itself on  
13    it. I see that it was made for these  
14    shallows & they for it. Now the heron  
15    is gone from the weedy shoal the scene  
16    appears incomplete. Of course the  
17    heron has sounded the depth of the water on  
18    every bar of the river that is fordable to it.  
19    The water there is not so many feet deep--  
20    but so many Heron's tibia-<sup>197</sup> Instead of  
21    a foot rule you should use a heron's leg  
22    for a measure-- If you would know the  
23    depth of the water on these few {shoalest}  
24    places of Musketaquid--ask the  
25    blue heron that wades & fishes there.  
26    In some places a heron can wade across.

---

1     <sup>197</sup>Ink blot.





1 I have observed the level of the water  
 2 July 31 to Aug 15 inclusive  
 3 for 16 days^--at my Boat's place behind C's (& elsewhere)  
 4 Tuesday  
 5 It was highest at 5 Pm on ^ the 9th when it  
 6 was 1 3/16 inches higher than 6 Am July 31st or X  
 7 Monday  
 8 It was lowest ^ Aug 15th 6 Am when it was X - 2 1/4 inch  
 9 The difference bet. the highest & lowest water  
 10 in these 16 days was 3 7/16 inches--  
 11 Highest average level for the day the 9th at X + 5/8  
 12 Lowest-- " the 14th at X - 1 5/8  
 13 Dif. bet. highest & lowest average for the day 2 1/4 inches  
 14 The last may be considered the amount of fluctuation  
 15 for 16 days to be referred to the causes those those which produce  
 16 the daily fluctuation  
 17 Monday  
 18 Aug 1st ^ Bet 6 Am & 5 Pm ~~fell~~ Rose 1 1/2 inch  
 19 2? 6 Am & 2 1/2 Pm " 3/4 not obs later  
 20 3? 6 Am 2 Pm " 5/8 at 8 Pm fallen 1/8  
 21 4 " " " 11/16 at 8 Pm fallen 9/16  
 22 rain 5 8 Am " " 1 1/2 & rising no obs. later  
 23 6 9 Am 5 Pm " 15/16  
 24 7 6 Am " 6 Pm falls 5/16 falls all day  
 25 Monday 8th 7 Am & 7 Pm Rose 1 7/16 rises all day  
 26 9 6 Am & 5 Pm " 1 1/8 rises all day  
 27 10 6 Am & 6 Pm " 1 rises all day  
 28 11th 9-20 Am & 5 Pm " 1 1/8 (falls bet 6 & 9 Am then rises all day  
 29 12 7 Am & 6 Pm " 9/16 rises all day  
 30 Rain 13 8 1/2 & 3 Pm " 1 9/16 no obs. later  
 31 (14 6 3/4 Am & 2 Pm fell 4/8) no lower at 5 Pm  
 32 Monday 15 6 Am & 6 Pm Rose 1 1/2  
 33 13 | 14 5/16  
 34 1 1/13+  
 35  
 36  
 37





1 it rained--(It rose so much between 8 1/2 am  
2 of the 8 days  
3 & 3 Pm)--taking out the average rise ^ or 7/8  
4 it leaves 11/16 as due to the rain.  
5 The least rise (or fluctuation) in the 8 days  
6 was on the 12th 9/16  
7 By a gauge set in the river I can  
8 tell about what time the millers  
9 on the stream & its tributaries go to work in  
10 & leave off at night  
11 the the morning--^ & also can distinguish the  
12 sundays--since it is the days on which the  
13 but falls  
14 river does not rise^. If I had lost the day  
15 of the week I could recover it by a careful  
16 examination of the river. It lies by in the  
17 various mill-ponds on Sunday & keeps  
18 the Sabbath. What its persuasion is, is a-  
19 nother question.  
20 NB (Sam Barrett tells me on the 19th that  
21 he has so little water that he has raised his  
22 gate only 3 or 4 times for a fortnight. So  
23 ap. it is Damon & Warner's whose gates  
24 affect the river most here.)  
25 As for the Rapidity of the Current--  
26 At the Poke Logan on the Assabett  
27 The bottle & the sunk box both floated 100 feet  
28 with consid. {aft} wind--in 4 1/2 minutes  
29 above the willowy island--in 3 minutes  
30 & on S side island the stream was much more rapid.



1 It is much drier than it was 3 weeks  
2 ago there-- It is like the summer of '54.  
3 Almost all the grass has been cut &  
4 carried off-- It is quite dry crossing the  
5 neck of the Holt-- In many holes in the  
6 meadow--made by the ice--the water  
7 having dried up I see many <sup>small</sup> ^ fishes-<sup>207</sup>pouts  
8 & pickerel & bream left dead & dying--  
9 In one place there were 50--or 100 pouts  
10 from 4 to 5 inches long with a few breams,<sup>208</sup> all  
11 dead--& dry. It is remarkable that  
12 these fishes have not all been devoured  
13 by birds or quadrupeds. The blue herons  
14 must find it easy to {get} its living now.  
15 Are they not more common on our river  
16 such years as this?  
17  
18 In holes where the water has just evaporated  
19 leaving the mud moist I see a hundred  
20 little holes near to-gether--with occasion-  
21 ally an indistinct track of a bird between--  
22 measuring these holes I find them to be some  
23 2 inches deep--or about the length of  
24 a snipe's bill & doubtless they were  
25 made by them. I start one snipe.  
26 People now (at this low stage of  
27 water) {~~buil~~} dig mud for their compost  
28 heaps--deeper wells--build bank walls

---

<sup>207</sup>stray mark above dash

<sup>208</sup>or "breams" followed by blotch

1 perchance along the river--and in  
2 some places make bathing places by raking  
3 away the weeds-- Many are ditching.

4 The water is so low that in a little  
5 flat, now laid bare, where Pritchard's brook  
6 empties in I see what took at first for my  
7 (supposed) small {crypta} (Elatine) but I  
8 believe it is the Callitriche verna var terrestris //  
9 gone to seed. %{}% It is quite flat & creeping with  
10 very small leaves--v. press. This then is re-  
11 vealed by the low water--

12 Aug 22d. 59 Monday

13 6 Am water is X - 3 1/8-- This //  
14 %{}Richard Heard makes it now bet. May 21st--Oct 14}%  
15 is lower than the river has been this year--

16 (at 5 Pm it is X - 1 5/8

17 The circles of the blue vervain flowers  
18 now risen near to the top, show how far  
19 advanced the season is.

20 The savory leaved aster (Dip linariifolius) out) //  
21 how long-- Saw the A. Corymbosus on the 19th //

22 Have seen where squirrels have eaten i.e  
23 stripped many white-pine-cones for a week past //  
24 --though quite green.

25 That young pitch-pine whose buds the  
26 crossbills (?) plucked--has put out shoots  
27 close by them--but they are rather feeble &  
28 late.

29 Riding to the factory I see the  
30 leaves of corn planted thick for  
31 fodder--so rolled by the drought

1 that I mistook one row in grass  
2 for some kind of rush or else reed  
3 --small & terete--  
4  
5 At the factory where they were at work on  
6 the dam--they showed large & peculiar  
7 insects which they were digging up amid  
8 the gravel & water of the dam--~~some~~ nearly  
9 2 inches long & 1/2 inch wide--with  
10 6 legs--2 large shield like plates on the  
11 forward part of the body--under which  
12 they ap. worked their way through wet sand--  
13 & 2 large claws somewhat lobster like forward--  
14 The abdomen long--of many rings--& fringed  
15 with a kind of bristle{s} on each side.  
16  
17 The other day, as I was going by Messer's,  
18 I was struck with the pure whiteness  
19 of a tall & slender butternut<sup>209</sup> before his  
20 house. The SW side of it for some 50  
21 or more feet upward--as far as the  
22 outer bark had recently scaled off--was  
23 as white, as distinct & bright a white,  
24 as if it had been painted--& when I put  
25 my finger on it a white matter like  
26 paint not quite dry came off copiously  
27 --so that I even suspected it was paint.  
28 When I scaled off a piece of bark the freshly  
29 exposed surface was brown-- This white

---

1 <sup>209</sup>"Butternut" corrected to "Buttonwood" in pencil









1 as I have not seen for a long time-- At any  
2 rate, they surprise me-- There may be  
3 cool rains in the air--now-any day--  
4 Now for dangle berries. also vib. nudum fruit //  
5 has begun. //

6 I saw a cherry-bird peck from the middle of  
7 its upright (vertical) web on a bush one  
8 of those large (I think yellow marked) spiders  
9 within a rod of me. It dropt to the ground  
10 & then the bird picked it up-- It left a  
11 a hole a rent in the middle of the web.  
12 The spider cunningly spreads his net for  
13 feebler insects--& then takes up his post in the  
14 center--but perchance a passing bird picks  
15 him from his conspicuous station.

16 I perceived for the first time this pm  
17 in one place a slight mouldy scent--  
18 There are very few fungi in a dry sum-  
19 mer like this.

20 The uvularia sessilifolia is for the most //  
21 with large green fruit  
22 part turned yellow ^ or even withered & brown  
23 Some medeola is quite withered--perhaps  
24 they are somewhat frost bitten<sup>215</sup>

25 I see a goldfinch eating the seeds of the  
26 coarse barn-yard grass--perched on it-- It  
27 then goes off with a cool twitter.

28 Notice arrowhead leaves very curiously eaten by  
29 some insect-- They are dotted all over in lines with  
30 small roundish white scales which your nail  
31 will remove--& then a scar is seen beneath--as if

---

<sup>215</sup>poss "bitten--"

1 some juice had exuded from each puncture &  
2 then hardened.

3 The first fall rain--is a memorable occasion--  
4 when the river is raised & cooled--& the first  
5 crop of sere & yellow leaves falls-- The air  
6 is cleared--the dog days are over--sun sparkles  
7 are seen on water--crickets sound more dis-  
8 tinct--saw grass reveals its spikes in the  
9 shorn fields--sparrows & bobolinks fly in  
10 flocks more & more. Farmers feel en-  
11 couraged about their late potatoes & corn--  
12 Mill-wheels that have rested for want of water  
13 begin to revolve again. Meadow haying  
14 is over.

15 The first significant event (for a long time) was  
16 the frost of the 17th-- That was the beginning  
17 of winter. The first summons to summer--  
18 Some of her forces succumbed to it. The  
19 2d event was the rain of yesterday.

20 My neighbor told me yesterday that  
21 about 4 inches of rain had fallen, for  
22 ^he sent his man for a pail that was  
23 left in the garden during the rain--  
24 and there was about 4 inches depth of water  
25 in it. I inquired if the pail had upright  
26 // sides. No he said, it was flaring!!  
27 However ac. to another there was full 4 inches in a tub.  
28 // The river at 2 Pm was X + 8 5/8 inches & boats half  
29 full of water  
30 // Leersia or cutgrass in prime at Potter's hole  
31 That first frost on the 17 was the first  
32 stroke of Winter aiming at the scalp of sum-  
33 mer. Like a stealthy<sup>216</sup> & insidious aborigi-

---

<sup>216</sup>poss written over "stealthily"

1     nal enemy it made its assault just  
2                                 deep &  
3     before day-light in some ^ far away hollow & then  
4     silently withdrew. Few have seen the drooping plants,  
5     but the news of this stroke circulates rapidly  
6     through the village-- Men communicate it  
7     with a tone of warning. The foe is gone by  
8     sunrise--but some fearful neighbors who have  
9     visited their potato & cranberry patches report  
10    the stroke.

11            The implacable & irresistible foe to all this  
12    tender greenness is not far off, nor can we be sure,  
13    any month in the year, that some scout from  
14    his low camp may not strike down the tenderest  
15    of the children of Summer-- The earliest & latest  
16    frosts are not distinguishable-- This foe will  
17    go on steadily increasing in strength & boldness  
18    till his white camps will be pitched over all the  
19    fields & we shall be compelled to take refuge in  
20    our strong holds{--}with some of Summers withered spoils  
21    stored up in barns.--maintaining ourselves & our  
22    herds on the seeds & roots & withered grass which  
23    we have em-barned. Men in anticipation  
24    of this time have been busily collecting & curing  
25    the green blades all the country over--while  
26    they have still some nutriment in them. Cattle  
27    & horses have been dragging homeward their winter's  
28    food.

29            A new plant ap. Lycopodium inundatum  
30    Hubbards meadow side Drosera Flat. not out--

//



1 is a simpler & truer relation to nature  
2 --gives a peculiar relish to life--just as  
3 to be {kept} short gives us an appetite  
4 for food--  
5       Vilfa vaginaeflora (?) well out //

6       The first notice I have that grapes are ripening  
7 is by the rich scent at evening--from my own //  
8 native vine--against the house, when I go to the  
9 pump--though I thought there were none on it

10       The children have done bringing huckleberries //  
11 to sell for nearly a week-- They are suspected to have  
12 berries in them.

13       On the 23rd I gathered perfectly fresh & large low  
14       peculiarly sweet & soft  
15       blackberries ^ in the shade of the pines at  
16 Thrush alley--long after they are done in open  
17 fields. They seem like a different variety from  
18 the common--they are so are so much sweeter  
19 tenderer & larger. They do not grow densely but  
20 sparingly--now resting on the ground in the  
21 shade of their leaves--perfectly ripe. These  
22 that have ripened slowly & perfectly in the shade  
23 are the sweetest & tenderest--have the  
24 least of the bramble berry about them.

25       Elder berry clusters swell & become  
26 heavy & therefore droop--bending the bushes  
27 down--just in proportion as they ripen. Hence  
28 you see the green cymes perfectly erect--the  
29 half ripe drooping--& the perfectly ripe hanging  
30 straight down on the same bush.

1 I think that some summer squashes had  
 2 turned yellow in our yard a fortnight or more  
 3 ago.  
 4 %There are%  
 5 Consider the<sup>218</sup> various ways in which you can tell  
 6 %is%  
 7 if a water-melon be<sup>219</sup> ripe-- If you have had your  
 8 %patch% %from the first%  
 9 eye on them<sup>220</sup> much from this first formation<sup>221</sup>  
 10 & so know which formed first, you may pre-  
 11 %else%  
 12 sume that these will ripen soonest--%{+}%Or %(%if you  
 13 have not observed so much<sup>222</sup>%)%--you may incline  
 14 to those which lie nearest the center of the hill  
 15 or root as the oldest--%{+}% Next the dull  
 16 dead color & want of bloom are as good  
 17 signs as any-- Some look green & livid--and  
 18 have a very {fog} %^% of bloom on them like a  
 19 fungus--or mildew<sup>223</sup>-- These are as green as  
 20 a leek through & through--& you'll find your-  
 21 self in a pickle if you open one-- Others  
 22 have a dead dark greenness,--the circulations  
 23 being less rapid in their cuticles--their blooming  
 24 period is<sup>224</sup> paused--& these you may safely bet on.  
 25 %becomes% %is quite {green &}%  
 26 <sup>225</sup>If the vine be<sup>226</sup> ^ lively--the death of the quir<sup>227</sup>  
 27 at the root of the stem is almost a sure sign<sup>228</sup>  
 28 For fear we should but discover it before. This  
 29 is placed for a sign that there is redness &  
 30 ripeness (if not mealliness%{ })% within.  
 31 Of 2 otherwise similar--take that which  
 32 yields the lowest tone when struck with  
 33 your knuckles--i.e.--which is hollowest  
 34 The old or ripe ones sing base--the young  
 35 tenor or falsetto<sup>229</sup>-- Some use the violent  
 36 method of pressing to hear if they crack  
 37 within--but this is not to be allowed--<sup>230</sup>  
 38 Above all no tapping on the vine is to be  
 39 tolerated-- Suggestive of a greediness

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<sup>218</sup>"Consider the" is cancelled in pencil.

<sup>219</sup>"be" cancelled in pencil.

<sup>220</sup>"m" cancelled in pencil.

<sup>221</sup>"from this first formation" cancelled in pencil.

<sup>222</sup>"if you...so much" cancelled in pencil

<sup>223</sup>"Or mildew" is circled in pencil, and indicated to follow "very fog"

<sup>224</sup>"is" cancelled in pencil.

<sup>225</sup>diagonal pencil line before "If"

<sup>226</sup>"be" cancelled in pencil.

<sup>227</sup>poss "querl"

<sup>228</sup>diagonal pencil line after "sign"

<sup>229</sup>poss pencil line after "falsetto"

<sup>230</sup>diagonal pencil line after "allowed--"

1 which defeats its own purpose-- It is very childish  
2 One man told me that he {could'nt} raise melons  
3 because his children would eat them all up-- I thought  
4 that he convicted himself out of his own mouth--  
5 %{that at any rate he could not raise children in the way they should go}%<sup>231</sup>  
6 & was not fit to be the ruler of a country {ac}--  
7 to Confucius' standard-- I once saw one of his  
8 which grew near a broken paling  
9 &  
10 boys astride of my earliest watermelon ^ brandishing  
11 %over it%  
12 a case-knife%^--but I instantly blew him off  
13 %{neighboring}% 6--  
14 with my voice %(%above%)% from a window %(%~~10~~ rods off--%)%  
15 %{before serious damage was done}%<sup>232</sup>  
16 %^%& made such an ado about as convinced him  
17 that he was not in his fathers dominions at  
18 any rate-- This melon though it lost some  
19 of its bloom then--grew to be a remarkably  
20 large & sweet one--though it bore to the  
21 last a triangular scar of the tap which the  
22 thief had %(%already%)% designed on it.  
23 I served my apprenticeship &  
24 have since done considerable journey-  
25 work in the huckle berry field--though  
26 I never paid for my schooling & clothing  
27 %{some of}%  
28 in that way-- It was itself ^ the best schooling  
29 I got--& paid for itself--  
30 Occasionally in still summer forenoons  
31 %perhaps%  
32 when %^% a mantuamaker was to be dined  
33 {--}& a huckle berry pudding had been decided  
34 %a lad of 10%  
35 on--was I<sup>233</sup> %^% dispatched to the huckle berry  
36 hills--all<sup>234</sup> alone-- My scholastic educa-  
37 tion could be thus far tampered with &

---

1 <sup>231</sup>According to 1906 edition.

1 <sup>232</sup>According to 1906 edition.

1 <sup>233</sup>Marked in pencil for transposition.

<sup>234</sup>"all" crossed out in pencil

1 an excuse might be found. No matter how  
2 few & scarce the berries on the near hills--  
3 the exact number necessary for a huckle-  
4 berry pudding could surely be collected by  
5 %o'clock%  
6 11 Am<sup>235</sup>-- My rule in such cases was never  
7 to eat one till my dish was full--  
8 %At other times when I had%  
9 %^%My<sup>236</sup> companions %some%<sup>237</sup> used to bring such curiously  
10 %often%  
11 shaped dishes that I was sometimes ~~curious~~  
12 to see how the berries disposed of themselves  
13 in them-- Some brought a coffee pot to the  
14 huckleberry field--& such a vessel possessed  
15 this advantage at least--that if a  
16 greedy boy had skimmed off a handful  
17 or 2 on his way home--we had only  
18 to close the lid & give his vessel a shake  
19 to have it full again. This was done  
20 all round when we got as far home-  
21 ward as the Dutch House. This ~~is~~ {it} can  
22 prob. be done with any vessel that has  
23 much side to it-  
24 <sup>238</sup>I once met with a whole family--father &  
25 mother & children--ravaging a huckle berry  
26 field in this wise-- They cut up the bushes  
27 as they went  
28 & beat them over the edge of a bushel  
29 basket-- Till they had it full of berries ripe  
30 & green--leaves--sticks &c--& so they passed  
31 along out of my sight like wild men  
32 of Borneo.<sup>239</sup>  
33 // See Veratrum viride completely withered & brown  
34 from top to bottom--prob. as early as skunk-  
35 cabbage--

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1 <sup>235</sup>'Am' crossed out in pencil and 'o'clock' written in pencil above.

1 <sup>236</sup>Appears to be lightly crossed out in pencil.

<sup>237</sup>"%some%" inserted

<sup>238</sup>horizontal pencil lines frame paragraph from "I once met" through "of Borneo."

<sup>239</sup>"of Borneo." crossed out in pencil

1 Aug 28th 59

2 Pm to Walden--

3 A cool day, wind NW--need a half- //  
4 thick coat-- Thus gradually we withdraw  
5 into winter quarters. It is a clear flashing air--  
6 & the shorn fields now look bright & yellow-  
7 ish--& cool. {tinkled} & twittered over by bobolinks  
8 --goldfinches--sparrows &c-- You feel the less  
9 inclined to bathing this weather--& bathe from  
10 principle, when boys, who bathe for fun,  
11 omit it.

12 Thick fog these mornings-- We have had //  
13 little or no dog days this year-- It has been  
14 so dry

15 Pumpkins begin to be yellow-- White cornel //  
16 berries mostly fallen--

17 The arrow head {~~white~~} is still a common flower  
18 & an important one-- I see some very  
19 handsome over in Cardinal ditch whose  
20 corollas are 1 1/2 inches in diameter--  
21 The greater part however have gone to  
22 seed. The flowers I see at present are  
23 Autumn flowers--such as have risen above  
24 the stubble in shorn fields since it was cut--  
25 --whose tops have commonly been clipt by  
26 the scythe or the cow--or the late flowers  
27 as asters, {&} g rods which grow in  
28 neglected fields & along ditches & hedge-  
29 rows.

30 The rhexia in Ebby Hubbards field is //

1 considerably past prime--& it is  
2 its reddish chalices which show most  
3 at a distance now-- I should have looked  
4 10 days ago-- Still It is handsome with  
5 its large yellow anthers against clear  
6 purple petals. It grows there in large  
7 patches with hardhack--

8 I hear that some of the villagers  
9 were aroused from their sleep before  
10 light by the groans or bellowings of  
11 a bullock which an unskilful butcher  
12 was slaughtering at the slaughter house.  
13 What morning or mennonian music  
14 was that to ring through the quiet  
15 village-- What did that clarion sing  
16 of-- What a comment on our village  
17 life-- Song of the dying bullock-- But  
18 no doubt those who heard it--in-  
19 quired as usual of the butcher the next  
20 day-- What have you got today{?}  
21 --Sirloin--good beef stake--rattle-  
22 ran--&c

23 I saw a month or more ago--where  
24 pine needles which had fallen (old ones)  
25 stood erect on low leaves of the forest floor  
26 having stuck in or passed through them  
27 They stuck up as a fork which falls from  
28 the table--yet you would not think that  
29 they fell with sufficient force--

1 The fruit of the sweet gale is yellowing--

2 Aug 29--59

3 I hear in the street this Am a goldfinch //  
4 sing part of a sweet strain

5 It is so cool a morning--that for the  
6 first time--I move into the entry to sit in the  
7 sun. But in this cooler weather I feel  
8 as if the fruit of my summer were hardening  
9 & maturing a little acquiring color & flavor  
10 like the corn & other fruits in this field.  
11 When the very earliest ripe grapes begin to be scented  
12 in the cool nights--then too the first cooler  
13 airs of autumn begin to waft my sweetness  
14 on the desert airs of Summer--

15 Now too poets nib their pens afresh-- I scent  
16 their first fruits in the cool evening air of the  
17 year-- By the coolness the experience of the  
18 summer is condensed & matured--whether  
19 our fruits be pumpkins or grapes-- Man too  
20 ripens with the grapes & apples

21 I find that the water bugs ({gyrinus})  
22 keep amid the pads in open spaces--along  
23 the sides of the river all day--and at dark  
24 only--spread thence all over the river--  
25 & gyrate rapidly-- For food I {see}  
26 eating or sucking at the wings & bodies  
27 of dead devil's needles which fall on the  
28 water--making them too gyrate in a singular  
29 manner-- If one gets any such food--the others  
30 pursue him{--}for it.

1           There was a remarkable red aurora  
2 all over the sky last night--  
3           What was that tall slender juncus  
4 ? of shadbush meadow--(long since done v press)  
5 like a tall var. of tenuis?  
6           Pm to Easterbrooks Country--  
7           The vernonia is one of the most con-  
8 spicuous flowers now where it grows--  
9 a very rich color-- It is somewhat past its  
10 prime--perhaps about with the red {Eupatoreum}.  
11 //        Botrichium lunariodes now shows its  
12 fertile frond above the shorn stubble in  
13 {lowish} low grounds--but not shedding pollen.  
14 // See the 2 leaved Sol. seal berries--many of them ripe  
15 // Also some ripe Mitchella berries ~~on the~~ contrasting  
16 with their very fresh green leaves  
17 //        White cohush berries ap in prime--& the  
18 // Arum fruit  
19                                %purplish brown%  
20        The now drier & browner %^% looking rabbits  
21 clover--whose heads collected would make  
22 a soft bed--are an important feature  
23 in the landscape--pussies some call them  
24 --more puffed up than before--  
25        The thorn bushes are most sere & yellowish  
26 // brown bushes now  
27 //        I see more snakes of late methinks--both  
28 striped & the small green.  
29        The slate-col spots or eyes fungi--on several  
30 // kinds of golden rods are common now.  
31                                knife  
32 //        The {~~key~~}-shaped fruit of the ash has strewn  
33 the paths of late

1 Aug 30th--59

2 Pm up Assabet

3 The river began to fall perhaps yesterday--  
4 after rising perhaps 14 or 15 inches It is //  
5 now about 1 foot higher than before the  
6 rain of the 25th A rise of one foot ^ from only  
7 low water gives an appearance of fulness to the  
8 stream--& though the meadows were dry before  
9 it would now be difficult to work on them--  
10 The potamogetons &c are drowned--  
11 & you see a full rippling tide where  
12 was a sluggish & weedy stream but a ~~week~~  
13 4 or 5 days ago. Now perhaps will be  
14 the end of quite a number of plants which  
15 culminate in dry weather when the river is //  
16 low--as some Potamogetons--limnanthemum  
17 (in the river) &c sparganium & heartleaf  
18 are washed up & the first drift wood //  
19 comes down esp. portions of bridges that have  
20 {~~hav~~} been repaired take their way slowly to  
21 the sea if they are not saved by some  
22 thrifty boatman. The river is fuller, with more  
23 current--a cooler wind blows--the reddish  
24 panicum agrostoides stands cool along  
25 the banks--the great yellow flowers  
26 of the B. chrysanthemoides are drowned  
27 & now I do not see to the bottom as I  
28 paddle along.

30 The pasture thistle though past its prime  
31 {—————}  
32 is quite common--& almost every flower

1 i.e. thistle) wherever you meet with it--  
2 has one or more bumble bees on it  
3 clambering over its mass of florets-- One such  
4 bee which I disturb--has much ado before  
5 he can rise from the grass & get under weigh<sup>240</sup>  
6 --as if he were too heavily laden--& at {lies} he  
7 flies but low. Now that flowers are rarer--  
8 almost every one of whatever species has bees or  
9 butterflies upon it  
10 Now is the season of rank weeds--as  
11 Polyg. careyi--tall rough Golden rod--Ambrosia  
12 elatior--Primrose--& Erechites (some of  
13 this 7 feet high) bidens frondosa, also 5 feet  
14 high  
15 // The erecthites down has begun to fly  
16 We<sup>241</sup> start when we think we are handling a  
17 worm, & open our hands quickly--and this  
18 I think is designed rather for the protection  
19 of the worm than of ourselves.  
20 // Acorns are not fallen yet.  
21 // Some haws are ripe  
22 // The plants now decayed & decaying & withering  
23 are those early ones which grow in wet  
24 or shady places--as--Hellebore--skunk cabbage  
25 --the 2 (& perhaps 3) smilacinas--uvularias  
26 %many sarsaparillas & brakes%<sup>242</sup>  
27 Polygonatum--medeola %^%--Senecio aureus (except  
28 %many fallen Aug 19--52%<sup>243</sup>  
29 rad. leaves) & How is it with trilliums %^% & arums?  
30 Trientalis & arums are decayed & decaying  
31 The prevailing flowers--considering  
32 both conspicuousness & numbers--at present  
33 are-- As I can think now  
34 %Imperfect list%

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<sup>240</sup>poss "underweigh"

<sup>241</sup>"W" written over "w"

1 <sup>242</sup>"Sarsaparillas" and "brakes" probably marked for transposition.

<sup>243</sup>Checked against 1906 edition

1           Solidagos esp--large 3 ribbed--nemoralis--  
2           tall rough &c  
3           Asters--esp. Tradescanti--puniceus--corym-  
4           bosus--dumosus--(dip. {umbellatus})  
5           Tansy  
6           Helianthuses as Helianthus decapetalus--divaricatus--  
7                 Annuus &c  
8           Eupatoriums as perfoliatum--purpureum  
9           Mikania  
10          Polygonums as--P. careyi--dumetorum--front-  
11          rank--persicaria--sagittatum &c  
12          Gnaphalium--as polycephalum & Pearly--  
13          Bidens--as frondosa & chrysanthemoides  
14          Gerardias as purpurea %& pediculata%  
15          %Hieraciums--as Canadense--scabra--& paniculatum%  
16          Vernonia  
17          Polygala sanguinea &c  
18          %Liatris%  
19          Nabalus alba  
20          Mints as--Lycopuses--White mint--Pycnanthemums  
21                 the  
22          Hypericums--small ones %of all kinds%  
23          Leontodon autumnale (prevailing<sup>244</sup> open in forenoon)  
24          Pontederia  
25          Sagittaria variabilis  
26          Desmodiums  
27          Spiranthes cernua  
28          Lespedeza violacea  
29          Cuscuta  
30          Rhexia  
31          Lobelia cardinalis  
32          Cirsium pumilum  
33          Chenopodiums  
34          Scutellaria lateriflora  
35          Impatiens  
36          Apios  
37          Linaria vulgaris  
38          Gratiola aureus

---

<sup>244</sup>bleedthrough under "prevailing"

1 Aug 31

2 Pm to F. H. Hill Was caught in  
3 5 successive showers--& took refuge in  
4 Haydens Barn-- Under the Cliffs & under  
5 a tree-- A thunder cloud, seen from a hill top,  
6 as it is advancing rapidly across the sky  
7 on one side--whose rear at least will  
8 soon strike us-- The dark blue mass (seen edge-  
9 wise) with its lighter upper surface--& its  
10 copious curving rain beneath & behind--like  
11 an immense steamer holding its steady  
12 way to its port--with tremendous mutterings  
13 from time to time--a rush of cooler air--  
14 & hurried flight of birds--

15 These later weeds--chenopodiums--Roman  
16 wormwood ~~&c~~--Amaranth &c now so  
17 rank & prevalent in the cultivated fields  
18 which were long since deserted by the  
19 hoers--now that the potatoes are for  
20 the most part ripened are preparing  
21 a crop for the small birds of the  
22 fall & winter those pensioners on  
23 civilization-- These weeds require cultivated  
24 ground & nature perseveres each year  
25 till she succeeds in producing a bountiful  
26 harvest<sup>245</sup> by their seeds & in spite of our  
27 early assiduity-- {Now} {they} the potatoes  
28 are cared for--nature is preparing a  
29 crop of Chenopodium & Roman wormwood for

---

<sup>245</sup>"h" poss corrected to "H"

1 the birds.

2 Now especially--the crickets are seen & //  
3 heard on dry & sandy banks & fields--near  
4 their burrows & some hanging back down to the  
5 stems of grass feeding-- I entered a dry grassy  
6 hollow--~~wh~~ where the cricket alone seemed  
7 to reign--open like a bowl to the sky.

8 While I stand under a pine for shelter during the  
9 rain on F. H. hill side--I see many sarsaparilla  
10 plants fallen & withering green--i.e. before changing.  
11 It is as if they had a weak hold on the earth in  
12 the subterranean stocks--

13 The night shade berries are handsome not  
14 only for their clear red--but the beautifully  
15 regular form of the drooping clusters--suggesting  
16 a hexagonal arrangement for economy of room

17 There was another shower in the night (at 9 pm)  
18 making the 6th after 1 1/2<sup>246</sup> pm. It was evidently  
19 one cloud thus broken into six parts--  
20 with some broad intervals of clear sky &  
21 fair weather. It would have been con-  
22 venient for us, if it had been printed on  
23 the first cloud "5--more--to come!"

24 Such a shower has a history which has  
25 never been written-- One would like to know how  
26 & where the cloud first gathered--what  
27 lands & water it passed over--& watered  
28 & where & when it ceased to rain & was  
29 finally dissipated.

---

<sup>246</sup>poss "7 1/2"

1                               Sep 1st--59

2               Pm to Saw Mill Brook & Flints Pond.

3               That reach in the road this side

4 Britton's Camp--might be called

5 Nabalus Road--they are so abundant

6 there-- Some of them are fully 6 feet

7 high--a singularly tall & slender plant--

8               See, I think--my first tobacco pipe this pm--

9 now that they are about done{--}& Have seen

10 no pine sap this year--abundant as both

11 the above were last year-- Like fungi

12 these plants are apparently scarce in

13 a dry year--so that you might at

14 first think them rare plants-- This is

15 a phenomenon of Drought

16 //            I see in different places small grubs splitting

17 leaves now & so marking them curiously--with

18 light brown or whitish on the green. Here are

19 2 at work in a Rhus Toxicodendron leaf--

20 they appear to have been hatched within the leaf

21 at

22 ~~near~~ the apex--& each has eaten upward

23 on its own side of the midrib--& equally

24               light colored

25 fast--making a ^ figure shaped like a column

26 of smoke in the midst of the green.

27               They perfectly split the leaf making {a} visible

28 puncture in it--even at the ribs or veins--

29 Some creatures are so minute that they find

30 food enough for them bet. the 2 sides of

31 a thin leaf without injuring the cuticle.

32 The ox requires the meadows to be shorne for

33 him & crunches--both blade & stalk

34 even of the coarsest grass--as corn



1 & when a mile or 2 from this I was plucking  
2 a basket full of elder berries--(for which  
3 it was rather early yet) there too, to my  
4 surprise I came on a flock of golden  
5 robins & of blue birds--apparently feeding  
6 on them. Excepting the Vacciniums--  
7 now past prime & drying up--the cherries  
8 & elderberries--are the 2 prevailing fruits now--  
9 We had remarked on the general scarcity  
10 & silence of the birds--but when we came  
11 to the localities of these fruits--there  
12 again we found the berry-eating birds  
13 assembled--(young (?) orioles & blue birds  
14 at the elder berries--  
15 // Green white pine cones are thrown down--  
16 An unusual quantity of them have been  
17 {stipt} for some time past--& I see the  
18 ground about the bases of the trees strewn  
19 with them.  
20 tall  
21 Is that ^ grass in Saw Mill brook--slender  
22 tuft {drawing} & rather pendulous branches--now  
23 hardly out there-- the cinna arundinacea{.}  
24 // var pendula? v press.  
25 The spikenard berries in the shade at Saw Mill  
26 // have but just begun to turn.  
27 The Polygonatum biflorum with its row  
28 of bluish green berries (the blue a bloom) pendulus  
29 // from the axis of the secured stem--ap now in  
30 its prime--  
31 // Red-choke berry ripe-- Smooth sumac  
32 prob. hardly ripe yet generally  
33 The fruit of the arum is the most remarkable  
34 that I see this Pm-- Such {its} brilliancy

1 color & form--perhaps in prime now-- It is among //  
2 the most easily detected now on the floor  
3 of the swamp--its bright scarlet cone <sup>above</sup> ~~and~~  
4  
5 the fallen & withered leaves--& amid its own brown  
6 or whitish & withering leaves-- Its own leaves &  
7 stem perhaps soft & decaying--while it is {perfectly}  
8 fresh & dazzling-- It has the brightest gloss  
9 of any fruit I remember--and this makes the  
10 green ones about as remarkable as the  
11 scarlet. With perchance the part of the withered  
12 spathe still investing & veiling it-- The scarlet  
13 fruit of the arum spots the swamp floor--

14 Now also bright colored fungi of various  
15 colors--on the swamp floor begin to compete  
16 with these fruits. I see a green one.

17 The elder-berry cymes held erect is of very  
18 regular form 4 principal divisions drooping  
19 toward each quarter around an upright  
20 central one-- Are said to make a good dye.  
21 They fill your basket quickly the cymes are  
22 so large & lie up so light--

23 The autumnal dandelion is a prevailing flower //  
24 now--but since it shuts up in the afternoon--it  
25 might not be known as common unless you  
26 were out in the morning or in a dark Pm

27 Now at 11 Am it makes quite a show--  
28 yet at 2 pm I do not notice it.

29 Bought a pair of shoes the other day  
30 & observing that, as usual, they were only wooden  
31 pegged at the toes. I required the seller to

1 put in an extra row of iron pegs there  
2 while I waited for them. So he called to his  
3 boy to bring those ~~zing~~ zinc pegs--but I  
4 insisted on iron pegs & no zinc ones-- He  
5 gave me considerable advice on the subject  
6 of shoes--but I suggested that even the  
7 wearer of shoes, of whom I was one--had  
8 an opportunity to learn some of their qualities.  
9  
10 I have learned to respect my own {~~own~~} opinion  
11 in this matter.

12 As I do not use blacking--& the seller often  
13 throws in a ~~black~~ box of blacking when I buy  
14 a pair of shoes-- They accumulate on my  
15 hands--

16 Saw Mill<sup>248</sup>  
17 // Saw this Pm on a leaf in the ^ wood path a  
18 very brilliant beetle 1/4 or 1/3 inch in length--  
19 %v June 28--60%  
20 with brilliant green & copper reflections.%^^ The  
21 same surface--or any part of the upper surface  
22 of the bug was green from one point of view &  
23 burnished copper from another. Yet there  
24 was nothing in its form to recommend this bug.

25 You must be careful not to eat  
26 winter  
27 too many nuts. I once ^ met a young  
28 man--whose face was broken out into large  
29 pimples & sores--& when I inquired what  
30 was the matter--he answered that he  
31 & his wife were fond of shagbarks--&  
32 therefore he had bought a bushel of  
33 them--& they spent their winter evenings  
34 eating them & this was the consequence--

---

<sup>248</sup>poss "saw mill"

1 Sep 2d

2 Pm to Ledum Swamp--

3 The pontederia leaves are now decidedly brown //  
4 or brownish--& this may be the effect of frost  
5 since we have had some considerable in low places--  
6 perhaps they occupy a particularly cold places--

7 The farmer is obliged to hide his melon patch  
8 in the midst of his corn or potatoes far  
9 away--I sometimes stumble on it as I am  
10 going across lots. I see one today--where  
11 the watermelons are intermixed with carrots  
12 --in a carrot bed & so concealed by their  
13 general resemblance of leaf &c at a little distance.

14 Going along Clamshell Hill I look  
15 over the meadows-- Now after the 1st rain  
16 raising the river--(the first assault on the  
17 summer's sluggishness) the air is of late cooler  
18 & cleaner--autumnal--& the meadows  
19 & low grounds, which, of course, have  
20 been shorn, acquire a fresh yellowish green  
21 as in the spring-- This is another phase<sup>249</sup> of  
22 the 2d spring--of which the peeping of hylas  
23 by & by, is another <sup>%one reason for this in some even dry fields is%</sup>  
24 <sup>%owing to the cypruses--which are yellow & low & late being%</sup>  
25 <sup>%revealed by cutting the grass & still growing%</sup><sup>250</sup>  
26 I once did some surveying for a man  
27 but not till  
28 who remarked, ^ when the job was done, that  
29 he did not know when he should pay me--  
30 though it was unusual  
31 I did not pay much heed to this--^ ~~Thinking~~  
32 Supposing that he meant to pay me sometime  
33 or other. But after a while he sent to me

---

<sup>249</sup>"ph" written over "wh"

<sup>250</sup>According to 1906 edition

1 a quart of red huckle berries--& this I thought  
2 & he distinguished me altogether--too much by this gift--since I was not his  
3 particular friend  
4 was ominous^--~~for~~ I saw it was the first  
5 installment which would go<sup>251</sup> a great way  
6 toward being the last-- In course of years  
7 he paid a part of the debt in money & that  
8 is the last I have heard of it.

9 The sarothra{e} grows thickly, & is now abundantly  
10 in bloom--on denuded places, i.e where  
11 the sod {&c} more or less soil has been re-  
12 moved by sandy road sides--

13 // At Ledum swamp the frosts have now  
14 touched the polygonum Careyi pretty extensively  
15 the leaves & stem leaving the red spikes--  
16 also some erechthites--& poke & the tenderest  
17 their tips  
18 high blue berry shoots ^ (from where the bushes were  
19 cut down)-- But the woodwardia virginica  
20 (V back Aug 23d)  
21 is not touched.

22 Poke berries begin at Corner spring.

23 Sep 3d

24 A strong wind which blows down much  
25 // fruit-- R. W. E. sits surrounded by choice  
26 windfall pears.

27 Sep 4th

28 Pm to Well meadow & Walden

29 The purple culms & spikes of the crab grass  
30 or finger<sup>252</sup> grass--spreading & often almost  
31 prostrate under our feet in sandy paths  
32 and causeways--is where the purple

---

<sup>251</sup>"go" written over "grow"

<sup>252</sup>"finger" poss corrected to "Finger"

1 cuticle of the earth again shows itself--&  
2 we seem to be treading in our vintage whether  
3 we will or not-- Earth has donned the  
4 purple-- When walking over some dry field  
5 (some time since) I looked down & saw the yellowish  
6 tuft of the *Fimbristylis capillaris*--with its spreading  
7 inverted cone of capillary culms--like the upper  
8 half of an hour glass--but still more  
9 when pacing<sup>253</sup> {over} the sandy railroad causeway  
10 I look down & find my {soft} treading in the purple  
11 culms of the crab grass-- I am reminded  
12 of the maturity of the year-- We have now ex-  
13 perienceed the full effects of heat such as we  
14 have in this latitude. The earth itself appears  
15 to me as a ripe purple fruit--though somewhat  
16 dusty here, & I may have rubbed the bloom off  
17 with my feet-- But if Bacchus can ever stand  
18 our climate this must be his season--  
19 corn  
20 <sup>254</sup>Topping the {grass}, which has been going on //  
21 some days, now reveals the yellow & yellowing  
22 pumpkins. This is a genuine New England  
23 scene. The Earth<sup>255</sup> blazes not only with sun-  
24 flowers but with sun-fruits.  
25 The 4-leaved loose strife--which is pretty generally  
26 withering & withered--seems to have dried up--  
27 to suffer peculiarly from the annual drought--  
28 perhaps both on ac of its tenuity & the sandi-  
29 ness or dryness of its locality--  
30 The *Lycopodium complanatum* sheds pollen //

---

1 <sup>253</sup>Perhaps 'tracing'.

<sup>254</sup>horizontal pencil lines frame the paragraph from "Topping the" through "but with sun-fruits."

<sup>255</sup>poss "earth"

1 //           Where are the robins & redwing b. birds  
2     of late? I see no flocks of them--not one  
3     of the latter & only a few solitary robins about  
4     wild cherry trees &c

5 //           A few yew berries--but they appear (?) to be drying  
6     up. The most wax-like & artificial & surprising  
7     of our wild berries-- As surprising as to find  
8     currants on hemlocks

9               In the Well meadow swamp--many ap--  
10    A. misers yet never inclining to red there (in the leaf)  
11    & sometimes with larger flowers (5/8 inch diam)  
12    & slenderer cauline leaves than common--  
13       ap  
14    Out ^ almost as long as miser elsewhere.

15              The swamp thistle (C. muticum) is ap in  
16    it prime 1 or 2 on each has faded but  
17    many more are to come-- Some are 6 feet  
18    high & have radical leaves nearly 2 feet long.  
19    Even these in the shade have humblebees on  
20    them.

21              You see small flocks of ducks--prob--  
22    wood ducks in the smaller woodland ponds  
23    now & for a week-- As I {at} Andromeda  
24    ponds--& can get nearer to them than in  
25    the spring.

26              The cornus sericea & C. paniculata  
27    are rather peculiar for turning to a dull  
28    purple on the advent of cooler weather  
29    & frosts in the latter part of Aug. & first  
30    part of Sep. The latter which grows  
31    at the bottom of our frostiest hollows

1 turns a particularly clear dark purple--an  
2 effect plainly attributable to frost-- I see it  
3 this Pm in the dry deep hollow just {w.} of the  
4 middle andromeda pond.  
5 I think I see 2 kinds {of} 3 ribbed G. rod (beside  
6 (Canadensis)--both being commonly smooth stemmed  
7 below & downy above--but one has very fine or small  
8 rays as compared with the other-- They appear to //  
9 be both about equally common now-- The fine rayed  
10 at Sedge path.  
11 %18 inches long%  
12 See a very large mass {drawing} of Spikenard  
13 berries fairly ripening //  
14 3 kinds of thistles are commonly out  
15 now--the pasture--lanceolate--& swamp--  
16 & on them all you are pretty sure to see  
17 one or 2 humblebees-- They become more  
18 prominent & interesting in the scarcity of  
19 purple flowers. (On many you see also the  
20 splendid goldfinch--yellow & black (?) like  
21 the humble bee--) The thistle beloved of  
22 humble bees & goldfinches.  
23 %3 or 4%<sup>256</sup> plants are peculiar now for bearing  
24 plentifully their fruit in drooping cymes  
25 & the vib. lentago  
26 viz the elder berry & the silky cornel--^  
27 The %& Solanum dulcamara%  
28 ~~Most~~ other cornels do not generally come  
29 to droop before they {lose} their fruit Nor  
30 do the viburnums droop much-- The fruit  
31 of the c. sericea is particularly interesting  
32 to me--& not too profuse--small cymes of  
33 various tints half concealed amid the leaves

---

1 <sup>256</sup>"2" crossed out in pencil and replaced with "%3 or 4%"

1                   Sep. 5th

2           Spent a part of the forenoon in the woods  
3   in the NW part of Acton searching for  
4   a stone suitable for a mill-stone  
5   for my lead mill.

6                   Sep 6th

7 //       Hear the sounds now a days (the lowing  
8   tramp--& calls of the drivers) of cows coming  
9   down from up country. Staghorn sumach berries  
10 // prob. some time--but ours are injured by worms.  
11   The fever bush leaves are remarkably round &  
12   entire yet--as if by their odor defended from  
13   insects--   %It is eaten or cut by them--v sep 4. 56%

14 //       The fever wort berries are ap. nearly in their  
15   prime--of a clear "corn yellow" and as large  
16   as a small cranberry in whorls at the axils  
17   of the leaves of the half prostrate plants--

18       I hear occasionally a half-warbled strain  
19   from a warbling vireo--in the elm tops as I go  
20   down the street now a days. There is about as  
21   much life in their notes now as in the enfeebled  
22   & yellowing elm tree leaves at present--

23 //       The Liatris is perhaps a little past p. It is  
24   a very rich purple in favorable light{s}--&  
25   makes a great show where it grows-- Any  
26   one to whom it is new will be surprised to learn  
27   that it is a wild plant-- For prevalence &  
28   effect it may be put with the vernonia--  
29   & it has a general resemblance to thistles &  
30   knap weed--but is a handsomer plant  
31   than any of them.

1 Sep 8th 59

2 The 7th 8th & 9th--the State muster is held here.

3 The only observation I have to make is that

4 is fuller of dust & more uninhabitable than I

5 ever knew it to be before. Not only the walls

6 fences & houses are thickly covered with dust--

7 & bushes  
8 --but the fields & meadows^{.} & the pads

9 in the river for half a mile from the village

10 are white with it. From a mile or 2 distant

11 you see a cloud of dust over the town

12 & extending thence to the muster field. I went

13 to the store the other day to buy a bolt

14 for our front door--for as I told the

15 store keeper--the Governor was coming {here}--

16 Aye--said he & the Legislature too--

17 Then I will take 2 bolts said I-- He said

18 that there had been a steady demand for

19 bolts--& locks of late--for our protectors

20 were coming. The surface of the roads for

21 3 to 6 inches in depth is a light & dry powder

22 like ashes

23 Pm to F. H. Pond-- Grapes are turning

24 purple--but are not ripe

//

25 I see the black head & neck of a little dipper

//

26 %Ducks more common%

%//%

27 in midstream a few rods before my foot--

28 It disappears & though I search carefully I

29 cannot detect it again-- It is undoubtedly hidden

30 amid the weeds (pads flags & pontederia &c) along

31 the shore.

1                   Sep 9th

2 //            I start many pigeons now in

3    a sproutland.

4            I have noticed for a week or more--some

5 // swarms of light colored & very small fuzzy gnats

6    in the air yet not in such concentrated ~~storms~~

7    swarms as I shall see by & by.

8 //            Now for hazel nuts--where the squirrels

9    have not got them.

10 //           Within a week I think I have heard screech

11   owls at evening from over the river once or

12   2ce.

13            Sep 10-- See wasps collected in

14 // the sun on a wall--at 9 Am--

15                   Sep 11th

16            Pm to Conantum End--

17 //            The prinos berries are now seen red (or scarlet)

18    clustered along the stems--amid the as

19    yet green leaves. A cool red.

20            By the pool in Hubbards grove--I see

21    tall tupelos all dotted with the now

22    ap. in p.

23 // ripe ^--small oval purple berries 2 or 3

24    together on the end of slender peduncles--amid

25    the reddening leaves. This fruit is very acid

26    & has a large stone--but I see several robins

27 // on the trees which appear to have been attracted

28    by it. ~~Both~~ Neither tree nor fruit is generally

29    known & many liken the former when small to

30            The trees are quite full of fruit.

31    a pear.

32            The wax-like fruit of {.} *Cornus paniculata* still

33 // holds on abundantly.

34            This being a cloudy & some what rainy day the

35    autumnal dandelion is open in the Pm.

1           The Rhus toxicodendron berries are now ripe //  
2   & greenish yellow--& some already shrivelled over  
3   bare rocks.  
4           Sep. is the month when various small, & commonly  
5   inedible, berries--in cymes & clusters hang over the  
6   road sides--and along the walls & fences--or spot  
7   the forest floor. The clusters of the vib lentago  
8   berries now in their prime are exceedingly & //  
9   peculiarly handsome--& edible withal. These  
10   are drooping, like the S. sericea cymes-- Each<sup>257</sup> berry in  
11   the cyme is now a fine clear red on the exposed side  
12   & a distinct & clear green on the opposite side--  
13   --~~The become~~ Many are already purple--& they  
14   turn in your hat--but they are handsomest when  
15   this red & green.  
16           The large clusters of the Sm. racemosa berries  
17   --4 or 5 inches long--of whitish berries a{,} little smaller  
18   than a pea--finely marked & dotted with vermillion  
19   or bright red--are very conspicuous, I do not chance  
20   to see any ripe. //  
21           No fruit is handsomer than the acorn-- I  
22   see but few fallen yet & they are all wormy  
23   Very pretty esp. are the white o. acorns--3 raying  
24   from one center--  
25           I see Dill & saffron still--commonly out at R. W. E's //  
26           See now in moist sandy paths--as beyond Hubbards  
27   grove--the ap. Cyperus diandrus 3 to 5 inches high with  
28   or brown purple,  
29   ^purplish brown spikelets--very pretty--& ap. in prime-- //

---

<sup>257</sup>"Each" written over "The"

Sep 12th 59

Pm to Moores Swamp & great fields--

// Elder berries are ap. in prime--generally black  
though many have been plucked by birds.

The 4 kinds of Bidens (frondosa, connata,  
cernua--& chrysanthemoides) abound now--  
(but much of the Beckii was drowned by the rise of the  
river--) omitting this) ~~only~~ the first 2 are in-  
cheap & ineffectual  
conspicuous flowers ^ commonly without petals--

(like the erechthites--) but the 3d & 4th are conspicuous  
& interesting--expressing by their brilliant yellow  
the ripeness of the low grounds--

already  
Most of the late flowers are ^ associated  
cooler  
in my mind with ~~cooler~~ & clearer flashing  
weather--as the witch-hazel--the gentians  
the bidens cernua--spirantes cernua--Polyg.  
amphibium & hydropiperoides in its prime--& the  
polygala sanguinea still prevalent.

I stand in Moores' swamp & look at  
Garfields dry bank--now before the woods  
generally are changed at all. How ruddy ripe  
that dry hill-side by the swamp--covered with  
golden rods & clumps of hazel bushes here  
& there--now more or less scarlet-- The g. rods  
on the top & the slope of the hill are the S.  
nemoralis--at the base the taller S.  
altissima-- The whole hill side is perfectly  
dry & ripe--

dying  
Many a ^ field now, (like that of Sted.  
Buttricks on the Great fields) is one dense  
recurved  
mass of the bright golden ^ wands of the  
(a little past p.)  
S. nemoralis ^ waving in the wind--& turning

1 upward to the light hundreds if not a thousand  
2 flowerets each-- It is the greatest mass of  
3 conspicuous flowers in the year--& uniformly  
4 just rising above the withered grass  
5 from 1 to 2 feet high ^ all over the largest  
6 fields--now when pumpkins & other yellow  
7 fruits begin to gleam--now before the  
8 woods are noticeably changed.-- Some field  
9 where the grass was too thin & wiry to pay  
10 for cutting-- With great purplish tufts of  
11 *Andropogon furcatus*, going to seed, interspersed.  
12 Such a mass of yellow for this fields<sup>258</sup> last  
13 crop-- What<sup>259</sup> that had {botanised} here in  
14 the previous month,--could have foretold  
15 this more profuse & teeming crop-- All ringing  
16 --as do the low grounds, with the shrilling of  
17 crickets & locusts--& frequented by honey bees (i.e the  
18 g. rod nemoralis) The whole field turns to yellow  
19 --as the cuticle of a ripe fruit<sup>260</sup>.

20 This is the season when the prevalence of the g. rods  
21 gives such a ripe & teeming look to the dry fields & to  
22 the swamps. They are now (the *arguta* being about  
23 done) the *nemoralis* & *altissima*--both a  
24 little past p.

25 The *S nemoralis*--spreads its legions over the  
26 dry plains now--as soldiers muster in the  
27 fall. It is a muster of all its forces which I  
28 review--eclipsing all of the similar shows of the year.  
29 Fruit of August & September--sprung from the sun  
30 dust. The fields & hills appear in their yellow  
31 uniform.

---

<sup>258</sup>poss "field's"

1 <sup>259</sup>Looks like Thoreau first wrote the word "what" then altered the "a" to an "o" and  
2 crossed out the "t".

<sup>260</sup>"fruit" written over text



1 Wild thought it must be his or "Miss Thoreau"  
2 She had tried to jump over a fence with the trap  
3 on her leg--but had lodged one side while the trap  
4 hung the other. The man could not stand to open the  
5 trap the cat scratched so--but at length he  
6 threw the trap over--& so the cat went home  
7 dragging it to Wild's (for it was his cat)--&  
8 the man advised him to keep the trap to pay the  
9 one who set it for his inhumanity-- I suspect,  
10 however, that the cat had wandered off to  
11 swamp bridge brook & then trod in a trap  
12 set for mink--or the like-- It is a wonder it  
13 does not happen oftener--

14 I saw a star-nosed mole dead in the path on //  
15 Conantum yesterday--with no obvious wound.

16 Sep 13

17 Pm Up Assabet- <sup>264</sup>The Bidens chrysan-  
18 themoides--now ap in its prime by the river  
19 --now almost dazzles you with its great  
20 sunny disk-- I feast my eyes on it annually--  
21 It grows but sparingly near the village--but  
22 those few never fail to make their appearance  
23 at last. The yellow lily's is a cool yellow in  
24 comparison--but in this is seen the concentrated  
25 heat of autumn.

26 Now--while other fruits are ripe or ripening--  
27 I see the great peduncle of the peltandra  
28 18 or 24 inches long curving forward, with  
29 <sup>green</sup>  
30 its globular mass of ^ fruit often 2 inches in diameter  
31 %looking like slung shot%

---

<sup>264</sup>1/3 of the length of the line space here

1 at the end. This mass of viscid seeds or roots  
2 must be the food of many creatures--

3 Also the pontederia spike is now generally  
4 & increased in size  
5 turned downward beneath the water^--though  
6 some have flowers still at their tips.

7 So too prob. (for I do not see them)

8 the yellow & white lilies<sup>265</sup> are ripening their  
9 water &  
10 seeds in the ^ mud beneath the surface--  
11 Yes I see them--The former urn shaped--v 14th--  
12 The bloom & freshness of the river was gone as soon  
13 as the pickerel weed began to be imbrowned, in  
14 the latter part of August. It is fall & harvest  
15 there now--

16 I remember my earliest going a-graping.  
17 (It was a wonder that we even hit upon the  
18 ripe season.) There was more fun in finding  
19 & eyeing the big purple clusters high on the  
20 trees & climbing to them, than in eating them.  
21 We used to take care not to chew the skins  
22 long lest they should make our mouths sore.

23 Some haws of the scarlet thorn are  
24 really a splendid fruit to look at now--&  
25 far from inedible.-- They are not only large--  
26 but their beauty is enhanced by the persistent  
27 calyx relieving the clear scarlet of the fruit.

28 There are varies degrees of living out of  
29 doors-- You must be out doors long  
30 early & late & travel far & earnestly--  
31 in order to perceive the phenomena of the  
32 day-- Even then much will escape you.

33 Few live so far out doors as to hear the  
34 first geese go over--

---

<sup>265</sup>"lilies" written over "lily"

1           I see some shrub o. {--} acorns turned dark  
2 on the bushes--& showing their meridian lines  
3 but generally acorns of all kinds are green yet.  
4 The great red o. acorns have not fallen--  
5 It is a wonder how pigeons can swallow acorns  
6 whole, but they do.

7           Many hemlock leaves which had prematurely  
8 ripened & withered in the dry weather have fallen in  
9 the late winds & washed up along the side of the  
10 river--already red there //

11                   Sep 14th 59  
12                   %gusty%  
13           High winds with dust & a little rain-- //  
14           (more or less for 2 or 3 days)  
15           These powerful gusts fill all the air with  
16 dust concealing the earth & sky.

17           Pm to Cliffs via Hub. Bath--  
18 The spiranthes cernua--has a sweet scent like  
19 the clethra's.

20           The mt sumac appears to bear quite sparingly.  
21 Its berries are a hoary crimson & not bright like  
22 those of the smooth-- Also they are in looser masses. //  
23 They are, perhaps, a little later, but I think ripe now--

24           I see in the swamp under the Cliffs--the  
25 dark decaying leaves of the skunk cabbage  
26 4 or 5 spreading every way--& so flat & decayed  
27 as to look like a fungus or mildew--making  
28 it doubtful at first what plant it is-- But  
29 there is the sharp green bud already revealed  
30 in the center bet. the leaf stalks--ready  
31 to expand in the spring.

1 //           This wind--has strewn the Fair Haven  
2 Hill side with apples-- I think that fully  
3 3/4 of all are on the ground. Many trees  
4 are almost entirely stript--the whole crop  
5 lying in a circular form beneath--yet hard  
6 & green-- Others on the hill side have rolled  
7 far down-- The farmers will be busy for  
8 some time gathering these wind falls--  
9 The winds have come to shake the apple-  
10   making fruit (for pies) cheap--  
11 trees prematurely.           I trust against Thanksgiving or Cattle show  
12           Not only apples & other fruit--but a  
13   as well as withered  
14 great many green ^ leaves ^ strew the ground  
15 under almost all kinds of trees--  
16 //           I notice of late the green or ripe pods of  
17 the Orchidaceae--(some for a long time)--  
18 including Gymnadenia--Ladies slipper &c--  
19 pods full of a fine dust-like seed-- The  
20 dusty seeded Orchidaceae  
21           The yel. lily (N. advena) fruit now green & purplish  
22 is ripening under water of this form & size {drawing}  
23 // full of yellow seeds {drawing}  
24           The white lily (when stript of the blackened  
25 & decaying petals &c) is of this form {drawing}  
26 {even} The tough twigged mockernut--yet green  
27 is blown off in some places-- I bring home  
28 a twig with 3 of its great nuts together, as  
29 big as small apples & children follow & eye  
30 them not knowing what kind of fruit it is.  
31           Like the fruit--when cooler weather &  
32   %{&}%  
33 frosts arrive--we too are braced & ripened--  
34 when we shift from the shady to the sunny

1 side of the house for warmth--& sit there in  
2 an extra coat for warmth--our green &  
3 leafy & pulpy thoughts--acquire color & flavor  
4 and perchance a sweet nuttiness at last--  
5 worth your cracking. Now all things suggest  
6 fruit & the harvest--& flowers look late--&  
7 for some time the sound of the flail has been  
8 heard in the barns  
9         They are catching pigeons now a days-- //  
10 Coombs has a stand W. of Nut meadow--& he  
11 says that he has just shot 14 hawks there  
12 which were after the pigeons-- I have one which  
13 he has shot within a day or 2--& calls a //  
14 pigeon hawk-- It is about 20 inches in alar  
15 extent-- Above dark slate or brownish with the  
16         ie tips  
17 edges ^ of the feathers (esp of wing coverts) {~~topt~~} {rufus}--  
18         The primaries & 2ndaries dark or blackish brown barred  
19 with black--and only a {some} white concealed on  
20 the inner vanes near the base. Wings beneath  
21 white or whitish thickly barred with dark-- Scapulars  
22 with white spots-- Head much mutilated but no  
23 "black spots" visible--but ap. {~~bro~~} the dark  
24 brown mixed or edged with rufus--were {&c} said  
25 to have been green. Beneath brownish white  
26 centered with brown {drawing} {~~wh~~} with a darker line through  
27 that-- Femorals still more rustyish brown with  
28 central dashes-- Legs yellowish-- Tail slate with  
29 4 black bars 1/2 inch or more wide--the edge  
30 slate with a very narrow edging of white.--beneath  
31 the slate is almost white.

1 What kind of hawk is this. I can learn nothing  
2 from Wilson & Nuttall. The latter things  
3 that neither the Pig. nor Spar. hawk is  
4 found here!! %Dr. Kneeland to whom I showed the bill & wings%  
5 %thought it a pig. hawk%  
6 Sep 15

7 Yesterday was very cold with NW wind--  
8 // & this morning the first frost in the garden  
9 killing some of our vines.

10 W. Ricketson says that when looking for  
11 insects this morning under the loose bark  
12 of an apple tree on Nawshawtuct--he  
13 found a bat hanging there. which measured  
14 11 feet, alar extent.

15 Pm to Annursnack--

16 Dense flocks of pigeons fly hurry ~~they~~ skurry over  
17 the hill. Pass near Brook's pigeon stands--  
18 there was a flock perched on his poles--  
19 & they sat so still & in such regular order  
20 there, being also the color of the wood, that I  
21 thought they were wooden figures at first--  
22 They were perched not only in horizontal  
23 straight lines one above the other--which their  
24 cross bars required--but at equal distances  
25 apart on these perches, which must be their  
26 own habit--& it struck me that they  
27 made just such a figure seen against  
28 the sky--as pigeon holes cut in a doves  
29 house do--(i.e a more or less triangular figure  
30 thus {drawing}) & possibly the seeing

1 them thus perched might have originally sug-  
2 gested this arrangement--of the holes--  
3 Pigeons dart by on every side--a dry slate  
4 color, like weather stained wood--(the weather  
5 stained birds) fit color for this aerial traveller--  
6 a more subdued & earthy blue than the sky--  
7 on its field (or path) is between the sky &  
8 the earth-- Not black or brown as is the  
9 earth--but a terrene or slaty blue suggesting  
10 their aerial resorts & habits.

11 The Emersons tell me that their Irish-  
12 man James held his thumb for the calf to  
13 suck after dipping it in a pitcher of milk--  
14 but the milk not coming fast enough butted  
15 ~~the~~ (or bunted) the pitcher to make the milk  
16 come down--& broke it.

17 The grain of the wild rice is all green yet //

18 I find that Temple raises his own tobacco  
19 The great leaves were spread over the bottom  
20 & sides of a hay rigging in his barn by the open  
21 door today. He smokes them. He says that the  
22 season is rather short for it here--but I  
23 saw some still growing & in bloom abundantly. //  
24 What kind is it? "Cuby-- They called it."  
25 He smokes it & thinks it better than any he  
26 can buy.

27 Sep 16th 59

28 Another & severer frost which cut off all our vines--&c--Lespedeza corn &c //  
29 Pm by the road side 40 or 50 rds E

30 of the S. Acton station I find the Aster-

31 ~~Punicus~~ Novae Angliae--ap. past prime //

1 I must call it a plant of this vicinity  
2 then. I thought it "in prime or a little  
3 past" at Salem Sep. 21st 58. I will venture  
4 to put it with the A. puniceus.

5 Young Nealy says that there are blue-  
6 // winged teal about now-- Others are out  
7 after ducks. Nealy says he shot the first  
8 // Golden plover he has seen, this morning.  
9 %Does he know it??%  
10 How unpromising are promising men--  
11 Hardly any disgust me so much. I have  
12 no faith in them. They make gratuitous promises  
13 & they break them gratuitously.

14 When an Irish woman tells me that she  
15 could not tell a lie for her life (because  
16 I appear to doubt her) It seems to me  
17 that she has already told a lie-- She  
18 holds herself & the truth very cheap to say  
19 that so easily.

20 What troubles men lay up for want of a  
21 little energy & precision. A man who steps  
22 quickly to his mark leaves a great deal of  
23 filth behind. There's many a well meaning  
24 fellow--who thinks he has a hard time of  
25 it--who will not put his shoulder to the  
26 wheel--being spell-bound--who sits  
27 about as if he were hatching his good  
28 intentions & every now & then his friends  
29 get up a subscription for him--& he is  
30 cursed with the praise of being "a  
31 clever fellow--". It would really be  
32 worth his while to go straight to his

1 master the devil--if he would only shake  
2 him up when he got there. Men who  
3 have not learned the value of time--or  
4 of anything else. for whom an infant school  
5 & a birchen rod is still & forever necessary.

6 A man who is not prompt affects me as  
7 a creature covered with slime--crawling  
8 through mud--& lying dormant a great  
9 part of the year. Think of the numbers--  
10 (men & women) who want & will have &  
11 do have (how do they get it?!) what  
12 they will not earn! The more producers--  
13 How many of these blood-suckers there are  
14 fastened to every helpful man or woman  
15 in this world! They constitute this world.  
16 It is a world full of snivelling prayers--  
17 whose very religion is a prayer!-- As if  
18 beggars were admirable, were respectable,  
19 to any body.

20 Again and again I am surprised to observe  
21 what an interval there is, in what is  
22 called Civilized Life--between the shell  
23 & the inhabitant of the shell-- What a  
24 disproportion there is between the life  
25 of man & his conveniences & luxuries--  
26 The house is neatly painted has many apartments,  
27 You are shown into the sitting room  
28 where is a carpet & couch & mirror &  
29 splendidly bound bible--Daguerreotypes--

1 ambrotypes--photographs were on the  
2 mantel piece-- One could live here  
3 more deliciously & improve his divine  
4 gifts better than in a cave surely--  
5 In these ~~se~~ bright & costly saloon man  
6 will not be starving or freezing or contending  
7 with vermin surely--but he will be meditating  
8 a divine song--or a heroic deed  
9 or perfuming the atmosphere by the very  
10 breath of his natural & healthy existence--  
11 As the parlor is preferable to the cave  
12 so will the life of its occupant be more  
13 god like--than that of the dweller in the  
14 cave. I called at such a house  
15 this afternoon--the house of one who  
16 in Europe would be called an operative--  
17 The woman was not in the 3d heavens,  
18 the wood shed or  
19 but in the 3d kitchen, as near ^ to outdoors  
20 & to the cave as she could instinctively  
21 get--for ~~they~~ there she belonged--  
22 a coarse scullion<sup>266</sup> or wench--but one  
23 %but in fact inferior%  
24 whit superior %^% to the squaw in a wigwam,  
25 & the master of the house where was he?  
26 He was drunk some where ~~both~~ on some  
27 mow or behind some stack & I could  
28 not see him-- He had been having a  
29 spree. If he had been as sober as he  
30 may be to-morrow, it would have been essentially  
31 the same--for refinement is not in

---

<sup>266</sup>"scullion" written over text

1 him--it is only in his house--in the appliances  
2 which he did not invent-- So is it in the 5th  
3 civilized  
4 Avenue & all over the ^ world. There is  
5 nothing but confusion in our New England  
6 life. The hogs are in the parlor-- This  
7 man & his wife (& how many like them!)  
8 should have ~~lived in~~ sucked their claws in  
9 some hole in a rock--or ~~lived~~ lurked  
10 the  
11 like gypsies in ^ outbuildings of some diviner  
12 race-- They've got in to the wrong boxes--  
13 they rained down at these houses by mistake  
14 , as it is said to rain toads sometimes-- They  
15 wear these advantages--helter skelter & without  
16 appreciating them--or to satisfy a vulgar taste--  
17 just as savages--wear the dress of civilized  
18 men--just as that Indian chief walked  
19 the streets of N. Orleans clad in nothing  
20 but a gaudy military coat--which his great  
21 Father<sup>267</sup> had given him. Some philanthropists{ts}  
22 trust that the the houses will civilize  
23 the inhabitants at last. The mass of  
24 strive always after  
25 men--just like savages--^{{}contend always  
26 for{}} the outside--the clothes & finery of  
27 civilized life--the blue beads--& tinsel & center-  
28 tables-- It is a wonder that any load  
29 ever gets moved over men are so prone to  
30 put the cart before the horse--  
31 We do everything according to the fashion  
32 just as the Flatheads--flatten the heads

---

<sup>267</sup> "F" written over "f"

1 of their children--we conform ourselves  
2 in a myriad ways & with infinite pains  
3 to the fashions of our time. We mourn  
4 for our lost relatives according to fashion  
5 and as some nations {~~hire~~} hire professed  
6 mourners to howl--so we hire stone-  
7 masons to hammer & blast by the month  
8 & so express our grief--for if a public  
9 character dies we get up a regular wake  
10 with eating & drinking--till mid night.

11 // Grass hoppers have been very abundant  
12 in dry fields for 2 or 3 weeks-- Sophia  
13 walked thro the Depot Field a fortnight  
14 ago & when she got home picked 50 or 60  
15 from her skirts--for she wore hoops & crinoline.  
16 Would not this be a good way to clear a  
17 field of them.-- To send a bevy of fashionably  
18 dressed ladies across a field--& leave them  
19 to clear their skirts when they got home. It  
20 would supplant anything at the patent office--  
21 & the motive power is cheap.

22 I am invited to take some party of  
23 ladies or gentlemen on an excursion--  
24 to walk or sail--or the like--but by all  
25 kinds of evasions I omit it--& am  
26 thought to be rude & unaccommodating  
27 therefore-- They do not consider that  
28 the wood path & the boat are my  
29 studio--where I maintain a

1 sacred solitude--& cannot admit promis-  
2 cuous company-- I will see them occasionally  
3 in an evening or at the table--however.  
4 They do not think of taking a child away  
5 from its school to go a huckleberrying with  
6 them--why should not I, then, have my  
7 school & school-hours to be respected?  
8 Ask me for a certain number of dollars  
9 if you will--but do not ask me for my  
10 afternoons.

11 Sep 18th

12 Considerable rain yesterday--raising the //  
13 streams at last--somewhat--

14 The frost of the 16th was very severe for the  
15 season--killing all our vines--& today I  
16 see the corn (much of which was not yet topped, //  
17 all withered & white--& the lespedeza withered  
18 vines generally  
19 in the paths & c & c grape ^ very ~~commonly~~--& the ground nut

20 Pm to Grape Cliff-

21 <sup>268</sup>There is an abundant crop of cones on the  
22 %not only here but as far off as Worcester, I observe%<sup>269</sup>  
23 white pines this year--%^& they are now for the  
24 most part brown & open-- They make //  
25 a great show even from<sup>270</sup> 60 rods off--  
26 The tops of the high trees for 6 or 10 feet  
27 %2% downward are quite browned with them  
28 hanging straight downward. It is worth the  
29 while to observe their evidence of fertility even  
30 in the white pine--which commonly we do not  
31 %It is worth a long walk% %from some%  
32 regard as a fruit bearing tree-- To look%^% %hight {favorable}%  
33 %point%<sup>271</sup>  
34

---

<sup>268</sup>T writes a vertical pencil line down the length of the paragraph through the rest of the page

<sup>269</sup>ac to 1906 edition

1 <sup>270</sup>Looks like T might have crossed this out in pencil.

<sup>271</sup>ac to 1906 edition

1       <sup>272</sup>over a pine forest whose tops are thus  
2       covered with the brown cones just opened--(from  
3 %2% which the winged seeds have fallen or are ready  
4       to fall--~~is a very {real} if you~~) from a favorable  
5                                {is a really}  
6       point of view--! It ~~affords~~ a rich &  
7       interesting sight. How little observed are  
8       <sup>273</sup>the fruits which we do not use--! How few  
9 %1% attending to the ripening & dispersion of the pine  
10      seed!  
11                From the observation of this year I should  
12 // say that the fringed gentian opened before the  
13      witch hazel--for though I know many more  
14      localities of the last than the first-- I do not  
15      find the last out till today--& it cannot have  
16      been out but a day or 2--  
17                Grape vines are cut--i.e the leaves before they  
18      have generally turned this year--  
19 //            The witch hazel first appears to be now opening  
20      The double-fruited stone splits & reveals the 2  
21                        oblong  
22      shining black ^ seeds--  
23                It has a peculiarly formed nut--in pretty clusters  
24      clothed as it were in close-fitting {buck}-skin.  
25      Amid the now yellowing leaves  
26                I hear the "chewink" note now--more than  
27      a month ago--& it sounds cool & solitary.  
28                Rice, who walks with me, thinks that  
29      that fine early sedge grass would be a  
30      capital {think} to stuff cushions & beds  
31      with--it is so tough. (In hollows in woods)  
32 //            See checker berries not yet fully grown nor  
33      ripe--some what pear shaped (& whitish at the  
34      blossom end. %A bear-berry ripe%

---

<sup>272</sup>vertical pencil line begins here and goes through "interesting sight"

<sup>273</sup>vertical pencil line begins here and goes through "seed!"

1           One might at first expect that the  
2 earth would bear its best men within the  
3 tropics--where vegetation is most luxuriant  
4 & there is the most heat-- But the temperate  
5 zone is found to be most favorable to the  
6   This fruit  
7 growth & ripening of men--~~They~~ ^ attains to the  
8 finest flavor there. So methinks--it is  
9 neither the stem nor blossom end of a fruit  
10 that is sweetest & maturest--but its  
11 blossom cheek or temperate zone-- The portion  
12 that lies under its temperate zone-- I suspect that  
13 the south pole is the stem end of the globe  
14 & that Europe & America are on its rosy  
15 cheek--& fortunate are we who live in America  
16 where the bloom is not yet rubbed off.

17           I have seen no vib. nudum berries for some   //  
18 time. They are considerably earlier than the v. lentago

19           Dr Bartlett handed me a paper  
20 to day--desiring me to subscribe for a statue  
21 to Horace Mann-- I declined & said that  
22 I thought a man ought not ~~to~~ any more to take  
23 up room in the world after he was dead-- We  
24 shall lose one advantage of a man's dying  
25 if we are to have a statue of him forthwith  
26 This is prob. meant to be an opposition statue  
27 to that of Webster-- At this rate they will  
28 crowd the streets with them. A man<sup>274</sup> will  
29 have to add a clause to his will, "No statue  
30 to be made of me." It is very offensive to my

---

<sup>274</sup>T draws a vertical line to separate "Aman" into 2 words

1 imagination to see the dying stiffen into  
2 statues at this rate. We should wait till  
3 their houses begin to crumble--& then avoid  
4 to near a likeness to the living.  
5 %& Sep 6%  
6 // See large flocks ap. of Chip birds ^ rise  
7 from the weeds in the garden--now after  
8 it clears up-- Has the storm driven them from  
9 the north? Robins are eating the mt ash  
10 berries very fast. These {berries} are more seen than  
11 a fortnight ago.  
12 // Cistus some gone to seed & open several days<sup>275</sup>  
13 Sep 19th  
14 Am to Stow--  
15 // Hear the note of the Goldfinch on all  
16 sides this fine day--after the storm.  
17 Butter-nuts have been falling for 2 or 3  
18 // weeks--now mostly fallen--but {most} dry &  
19 lose their outer shells before cracking them.  
20 They say that kittens tails are brittle--& perhaps  
21 the tip of that one's was broken off--  
22 The young gentleman who travels abroad  
23 learns to pronounce & makes acquaintance  
24 with foreign lords & ladies, among the  
25 rest perchance with Lord Ward--the {inventer}  
26 & prob. consumer of the celebrated "Worcestershire  
27 Sauce  
28 yel  
29 // See many ^ butterflies in the road this very  
30 pleasant day after the rain of yesterday. One  
31 flutters across between the horse and the wagon  
32 safely enough though it looks as if it would  
33 be run down.  
34 Sep 20th  
35 Pm to White Pond--

---

<sup>275</sup>T prob writes line in ink, but seems to run out of ink by end of line

1 The button bushes by the river are generally  
2 overrun with the mikania. This is married to  
3 the button bush as much as the vine to the elm  
4 & more-- I suspect that the button bushes & black  
5 willows have been as ripe as ever they get to be.

6 I get quite near to a blackbird--on an //  
7 apple-tree {singhing} with the grackle-note  
8 very earnestly & not minding me--he is all alone.  
9 Has a %(%rustyish%)% brown head & shoulders & the rest  
10 black-- I think it is a grackle-- Where  
11 nor heard  
12 are the red wings now? I have not seen ^ one //  
13 for a long time. Is this a grackle come from  
14 its northern breeding place.?

15 Sep 21

16 Heard in the night a snapping sound & the  
17 fall of Some small body on the floor--from  
18 time to time. In the morning I found that it was  
19 produced by the witch hazel nuts on my desk  
20 springing open & casting their seeds quite across  
21 the chamber hard & stony as these nuts are.

22 For several days they are shooting their shining black seeds about my chamber.

23 It is over-cast, like yesterday, & yet more  
24 rain promising. %Rain in Pm & night--%

(v 2 pgs  
forward)  
//

%//%

25 Methinks the 19th was such a day (the 2nd after rain)  
26 as the 18th in 58--a peculiarly fine September day  
27 looking toward the fall--warm & light with  
28 yellow butterflies in the washed road--& early  
29 changed maples--& shrubs adorning the low grounds.  
30 The red nesaea blazing along the Assabet above the  
31 powder mills-- The apple crop--red & yellow  
32 more conspicuous than ever amid the washed leaves--

1 The farmers on all sides are digging their  
2 potatoes--so prone to their work that they  
3 do not see me going across lots--  
4 I sat near Coombs-Pigeon place by  
5 White-Pond. The pigeons sat motionless on his  
6 bare perches--from time to time dropping down into  
7 the bed--& uttering a quivet or 2-- Some  
8 stood on the perch--others squatted flat-- I  
9 could see their dove-colored breasts-- Then  
10 all at once, being alarmed, would take to flight<sup>276</sup>  
11 but ere long return in straggling parties--

12 He tells me that he has 15 dozen baited--  
13 but does not intend to catch any more at present  
14 or for 2 or 3 weeks--hoping to attract others.  
15 Rice says that white o. acorns pounded up  
16 shells & all make the best bait for them--

17 I see now in the woodpaths were small  
18 // birds--& partridges &c have been destroyed  
19 only their feathers left--prob. by hawks-- Do  
20 they not take their prey often to a smooth path  
21 in the woods?

22 White Pond<sup>277</sup> is being dimpled here & there  
23 all over--perhaps by fishes{.} & so is the river--  
24 It is an over cast day. Has that anything to do with  
25 it? I see some of the rainbow girdle reflected  
26 around its edge-- Looking with the proper  
27 intention of the eye, I see it is ribbed with  
28 the dark prolonged reflections of the pines almost  
29 {across}-- But why are they bent one side?--  
30 {drawing} Is it the effect of the wind?

---

<sup>276</sup>blotch after word

<sup>277</sup>"p" corrected to "P"

1 We are having our dog-days now & of late methinks--  
2 having had none to speak of in August--& now  
3 at last I see a few toad stools The Election //  
4 cake (the yellowish glazed over) & the taller  
5 brighter yellow above {drawing} Those shell less slugs  
6 which eat apples, eat these also--  
7 Jays are more frequently heard of late--may be  
8 because other birds are more silent.  
9 Considerable many acorns are fallen (black o  
10 chiefly) in the path under the S edge of Conants  
11 wood this side of White Pond. Acorns have been  
12 falling very sparingly ever since Sep. 1--but are  
13 mostly wormy-- They are as interesting now on  
14 the shrub o. (green) as ever  
15 I suspect that it is not when the witch hazel  
16 nut first gapes open that the seeds fly out--for  
17 I see many (if not most of them) open first with  
18 the seeds in them--but when I release a seed  
19 (it being still held by its base) it flies as I have  
20 said. I think that its slippery base is com-  
21 pressed by the the unyielding shell which at  
22 length expels it{.}--just as I can make one  
23 fly by pressing it & letting it slip from between  
24 thumb &  
25 my ^ fingers-- It appears to fit close to the shell  
26 at its base--even after the shell gapes.  
27 %{Arum berries }%<sup>278</sup>  
28 with complacency  
29 The ex-plenipotentiary refers in after speeches ^ to the  
30 time he spent a broad & the various Lords & distinguished  
31 men he met--as to a deed done! & an ever memorable  
32 occasion Of what account are titles & offices--& oppor-  
33 tunities if you do no memorable deed.  
34 I perceive that a spike of arum berries which  
35 I gathered quite green Sep 1--is now turned

---

<sup>278</sup>a vertical pencil line in the right margin links this interlineation to earlier lines in the paragraph--very faint

1 completely scarlet--& though it has lain  
2 on my desk in a dry & warm chamber  
3 all the while--the berries are still perfectly  
4 plump & fresh (as<sup>279</sup> well as glossy) to look at  
5 as much so as any.

6 The greater part--almost all the mikania  
7 // was killed by the frost of the 15 & 16th ult--  
8 little  
9 only that which was protected by its position escaped  
10 & is still in bloom--  
11 // and the button bush too is generally browned  
12 above--by the same cause-- This has given a  
13 considerably brown look to the side of the river--  
14 // Saw beomyces (lately opened--prob with the rain  
15 of the 17th) by roadside--  
16 Yesterday was a still over cast rain promising  
17 day--& I saw this morning (perhaps it was yesterday)  
18 the ground about the back door all marked with  
19 // worm piles-- Had they not come out for  
20 water--? after the dry weather?  
21 // See a St. Domingo Cuckoo (black billed) still.  
22 {one page blank}

---

<sup>279</sup>"as" appears to be altered from "&."

1 %v willow of Ap. 8  
2 mark yellow maples  
3 mark sedge v {same} edge of Assabet some 3 ft S of {bath} oak  
4 v willow by stump of ap 23d  
5 v sedge of ap. 24 in Howards meadow. C. stricta chiefly  
6 v crows nest  
7 v {pontederia}  
8 v. {P} rotundifolia var asarifolia  
9 ~~Get index & title to vol VI of Nat Hist proceedings~~  
10 v. maples of Ap. 25  
11 v. willow of Ap. 30  
12 v. rush at 2d {Division say} June 1st '60  
13 v. willow of may 4th at Conant {bars}  
14 ~~July 1st v. seeds of Thaspium~~  
15 v swamp thistle (?) of June 6 at Well meadow  
16 ~~Maryland yel throat nest at Gowing's swamp~~  
17 Wood thrush nest by Laurel {Swamp} brook  
18 ~~flying squirrels nest of June 19th~~  
19 ~~Darbys birches~~  
20 v. Juncaceae  
21  
22 Get Bartletts Dic. Americanisms Ed. 59  
23 {Little & Browns}  
24 ~~v Coolidge's Hist & Description of~~  
25 ~~NE 1st vol. {out} by Austin J. Coolidge~~  
26 ~~{Court St} Boston~~  
27 Breadth of river on ice  
28 ~~v {Rood E Coast in R. C Hist CH vo 1}~~  
29 ~~Bay leaves {——}~~  
30 Does the white lily sink under water at night? no  
31 {Mrs} Lincoln says  
32 Get Pliny%