III

SEPTEMBER, 1858

(ÆT. 41)

Sept. 1. P. M. — To Botrychium Swamp.

Aster miser not long, but the leaves turned red. At the pool by the oaks behind Pratt's, I see the Myriophyllum ambiguum still, and going to seed, greening the surface of the water. The Leersia oryzoides, false rice, or rice cut-grass, is abundant and in prime on the shore there. Also find it on the shore of Merrick's pasture. It has very rough sheaths. Am surprised to see frog(?)-spawn just laid, neither in spherical masses nor in a string, but flatted out thin on the surface, some eight or nine inches wide, — a small black spawn, white one side, as usual. I saw one or two F. [sic] fontinalis on the shore. Was it toad-spawn?

Ranunculus repens in bloom — as if begun again? — at the violet wood-sorrel spring. Chelone glabra well out, how long? In the same meadow, Aster longifolius well out, not long. That meadow is white with the Eriophorum polystachyon, apparently var. angustifolium (?). Vide it pressed. On dry land, common, but apparently getting stale, Panicum clandestinum. Dangle-berries now ready for picking. At Botrychium Swamp, Nabalus altissimus. Of twenty plants (all in shade) only one out, apparently two or three days. Elsewhere, in open land, N. Fraseri, apparently several days, say five; but

not a very rough one. Ledum Telephium, how long? In the evening, by the roadside, near R. W. E.'s gate, find a glow-worm of the common kind. Of two men, Dr. Bartlett and Charles Bowen, neither had ever seen it!

Sept. 2. Up Assabet.

The common light-sheathed Scirpus Eriophorum still. At the Pokelogan, apparently Cinna arundinacea (?) in prime (one stamen); also Elymus Virginicus (?). Lyme grass or wild rye, apparently lately done. That rich, close, erect-panicled grass of the meadows, apparently for a month in bloom, seems to be Glyceria obtusa. Very common in the meadow west of Brooks Clark's.

Sept. 3. P. M. — Up Assabet a-hazelnutting.

I see a small striped snake, some fifteen or eighteen inches long, swallowing a toad, all but the head and one fore leg taken in. It is a singular sight, that of the little head of the snake directly above the great, solemn, granitic head of the toad, whose eyes are open, though I have reason to think that he is not alive, for when I return some hours after I find that the snake has disgorged the toad and departed. The toad had been swallowed with the hind legs stretched out and close together, and its body is compressed and elongated to twice its length, while the head, which had not been taken in, is of the original size and full of blood. The toad is quite dead, apparently killed by being so far crushed; and its eyes are still open. The body of the snake was enlarged regularly from near the middle to its jaws. It appeared to have given up this attempt at the

eleventh hour. Probably the toad is very much more elongated when perfectly swallowed by a small snake. It would seem, then, that snakes undertake to swallow toads which are too big for them.

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I see where the bank by the Pokelogan is whitewashed, *i. e.* the grass, for a yard or two square, by the thin droppings of some bird which has roosted on a dead limb above. It was probably a blue heron, for I find some slate-blue feathers dropped, apparently curving breast-feathers, broadly shafted with white.

I hear a faint warble from time to time from some young or old birds, from my window these days. Is it the purple finch again, — young birds practicing?

Zizania still.

The hazelnut bushes up this way are chiefly confined to the drier river-bank. At least they do not extend into the lower, somewhat meadowy land further inland. They appear to be mostly stripped. The most I get are left hanging over the water at the swimming-ford.

How important the hazelnut to the ground squirrel! They grow along the walls where the squirrels have their homes. They are the oaks that grow before their doors. They have not far to go to their harvesting. These bushes are generally stripped, but isolated ones in the middle of fields, away from the squirrel-walks, are still full of burs. The wall is highway and rampart to these little beasts. They are almost inaccessible in their holes beneath it, and on either side of it spring up, also defended by the wall, the hazel bushes on whose fruit the squirrels in a great measure depend. Notwithstanding

1 Vide Sept. 6th.

the abundance of hazelnuts here, very little account is made of them, and I think it is because pains is not taken to collect them before the squirrels have done so. Many of the burs are perfectly green yet, though others are brightly red-edged. The squirrel lives in a hazel grove. There is not a hazel bush but some squirrel has his eye on its fruit, and he will be pretty sure to anticipate you. As we say, "The tools to those who can use them," so we may say, "The nuts to those who can get them."

That floating grass by the riverside whose lower leaves, so flat and linear, float on the surface of the water, though they are not now, at least, lake-colored, is apparently the *Glyceria fluitans*, floating fescue grass, still blooming and for a good while. I got it yesterday at Merrick's shore.

At the sand-bar by the swimming-ford, I collect two small juncuses, not knowing but I have pressed them before. One appears to be *Juncus scirpoides* (?), small as it is; the other, *Juncus articulatus* (??).

At Prichard's shore I see where they have plowed up and cast into the river a pile of elm roots, which interfered with their laying down the adjacent field. One which I picked up I at first thought was a small lead pipe, partly coiled up and muddy in the water, it being apparently of uniform size. It was just nineteen feet and eight inches long; the biggest end was twenty-one fortieths of an inch in diameter, and the smallest nineteen fortieths. This difference was scarcely obvious to the eye. No doubt it might have been taken up very much longer. It looked as if, when green and flexible, it might answer

the purpose of a rope, — of a cable, for instance, when you wish to anchor in deep water. The wood is very porous.

The narrow brown sheaths from the base of white pine leaves now strew the ground and are washed up on the edge of puddles after the rain.

Sept. 4. Much rain, with thunder and lightning.

Our large-fruited sparganium is evidently S. ramosum, still a little, at least, in flower.

My large grass of the riverside with a narrow or spike-like appressed panicle, long since out, at the end of a long bare culm, leafy below, is apparently *Phalaris arundinacea*.

Piper grass is apparently *Triticum repens*; now done.

What I called *Panicum capillare* (after Hoar, without examining) is *P. sanguinale*, crab grass, finger grass, or purple panic grass. *Panicum capillare* (very different and like *Eragrostis capillaris*, the fine purple grass) is now in prime in garden.

Sept. 5. P. M. — To Walden.

Prinos verticillatus berries reddening.

I hear two or more wood pewees this afternoon, but had not before for a fortnight or more. The *pewee days* are over for some time.

Went down to the pond-hole behind where I used to live. It is quite full of water. The middle or greater part is densely covered with target leaves, crowding one another and curling up on their edges. Then there is a

space or canal of clear water, five to twenty feet wide, quite around them, and the shore is thickly covered with rattlesnake grass, now ripe.

I find many high blueberries, quite fresh, overhanging the south shore of Walden.

I find, all about Walden, close to the edge on the steep bank, and at Brister's Spring, a fine grass now generally past prime, *Agrostis perennans*, thin grass, or hair grass, on moist ground or near water. The branches of the panicle are but slightly purplish.

Sept. 6. 6 A. M. — To Merrick's shore.

Hear a warbling virco, sounding very rare and rather imperfect. I think this is what I have mistaken for the young purple finch note.

Also hear apparently a yellow-throated vireo.

That fine spreading-panicled dark-purple grass, now rising all along the river near the waterside, is *Panicum agrostoides*; in prime. That finer and narrower-panicled, now out of bloom, is red-top, or else white bent; with the former.

River risen still higher, and weeds covered.

P. M. — To Ledum Swamp.

Going over Clamshell Plain, I see a very large flock of a hundred or more cowbirds about some cows. They whirl away on some alarm and alight on a neighboring rail fence, close together on the rails, one above another. Then away they whirl and settle on a white oak top near me. Half of them are evidently quite young birds, hav-

¹ Vide Sept. 7.

ing glossy black breasts with a drab line down middle. The heads of all are light-colored, perhaps a slaty drab, and some apparently wholly of this color.

On the hillside above Clamshell Ditch, grows that handsome grass of Sept. 1st (vide September 4th), evidently Sorghum nutans (Andropogon of Bigelow), chestnut beard grass, Indian grass, wood grass. It is much larger than what I saw before; is still abundantly in flower; four and a half feet high; leaves, perhaps arundinaceous, eighteen inches long; panicle, nine inches long. It is a very handsome, wild-looking grass, well enough called Indian grass, and I should have named it with the other andropogons, August 26th. With its narrow one-sided panicle of bright purple and yellow (I include the yellow anthers) often waving [?], raised high above the leaves, it looks like a narrow banner. It is of more vivid colors than its congeners, and might well have caught an Indian's eye. These bright banners are now advanced on the distant hillsides, not in large armies, but scattered troops or single file, like the red men themselves. They stand thus fair and bright in our midst, as it were representative of the race which they are named after, but for the most part unobserved. It stands like an Indian chief taking a last look at his beloved huntinggrounds. The expression of this grass haunted me for a week after I first passed and noticed it, like the glance of an eye.1

Aster patens past prime at Money-Diggers' Hill. Polygonum tenue, how long? Solidago nemoralis is apparently in prime on Lupine Hill; some of it past. It

¹ [Excursions, p. 258; Riv. 316.]

is swarming with butterflies, — yellow, small red, and large, — fluttering over it. At Ledum Pool edge, I find the Woodwardia Virginica fern, its fruit mostly turned deep reddish-brown. It appears to grow only close to the pool, part of the fruit forming two lines parallel with the midrib. A third part of the nesæa there is turned scarlet. Kalmia glauca is again in bloom. The hairy huckleberries are rather scarce and soft. They are insipid and leave a hairy skin in the mouth.

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That swamp is a singularly wild place, without any natural outlet. I hear of a marsh hawk's nest there this summer. I see great spiders there of an uncommon kind, whose webs — the main supporting line — stretch six feet in the clear from spruce to spruce, as high as my head, with a dense web of the usual form some fifteen inches in diameter beneath.

Stopped and talked with W—— W—— and ate a watermelon with him on the grass. Once his senseless democracy appeared. He spoke with an ignorant pride of Buchanan's telegraphic message, of which most of us were ashamed; said he supposed he had more learning than Victoria! But the less said about them the better. Seeing a stake-driver flying up the river, he observed that when you saw that bird flying about it was a neverfailing sign of a storm approaching. How many of these sayings like this arise not from a close and frequent observation of the phenomena of nature, but from a distant and casual one!

1 find very common in prime by roadsides, in dry ground, etc., *Vilfa vaginæflora*, rush grass, hidden-flowered vilfa; also by Corner roadside, beyond brooks,

Panicum filiforme with and like P. sanguinale, apparently in prime, and with last fills the old mullein-field in front of Bear Garden Hill.

Is that narrowly-linear-leaved potamogeton, all immersed and now forming dense beds in the Assabet, a distinct species, or only the immersed leaves of one? *Vide* pressed.

A year ago last spring I gave to Edith Emerson and to Sophia some clasping hound's-tongue seeds, it being very rare hereabouts, wishing to spread it. Now and for a long time it has been a pest in the garden (it does not bloom till the second year), by its seeds clinging to our clothes. Mrs. E. has carried it to Boston thus, and I have spent twenty minutes at once in clearing myself of it. So it is in a fair way to be dispersed.

Sept. 7. P. M. — To Assabet Bath.

I turn Anthony's corner. It is an early September afternoon, melting warm and sunny; the thousands of grasshoppers leaping before you reflect gleams of light; a little distance off the field is yellowed with a Xerxean army of Solidago nemoralis between me and the sun; the earth-song of the cricket comes up through all; and ever and anon the hot z-ing of the locust is heard. (Poultry is now fattening on grasshoppers.) The dry deserted fields are one mass of yellow, like a color shoved to one side on Nature's palette. You literally wade in yellow flowers knee-deep, and now the moist banks and low hollows are beginning to be abundantly sugared with Aster Tradescanti.¹

¹ [Channing, pp. 104, 105.]

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J. Farmer calls those *Rubus sempervirens* berries, now abundant, "snake blackberries."

Looking for my Maryland yellow-throat's nest, I find that apparently a snake has made it the portico to his dwelling, there being a hole descending into the earth through it!

In Shad-bush Meadow the prevailing grasses (not sedges) now are the slender *Panicum clandestinum*, whose seeds are generally dropped now, *Panicum virgatum*, in large tufts, and blue-joint, the last, of course, long since done. These are all the grasses that I notice there.

What a contrast to sink your head so as to cover your ears with water, and hear only the confused noise of the rushing river, and then to raise your ears above water and hear the steady creaking of crickets in the aerial universe!

While dressing, I see two small hawks, probably partridge hawks, soaring and circling about one hundred feet above the river. Suddenly one drops down from that height almost perfectly perpendicularly after some prey, till it is lost behind the bushes.

Near the little bridge at the foot of Turtle Bank, Eragrostis capillaris in small but dense patches, apparently in prime (the Poa capillaris of Bigelow). What I have thus called in press is E. pectinacea (P. hirsuta of Bigelow). On the flat hill south of Abel Hosmer, Agrostis scabra, hair grass, flyaway grass, tickle grass, out of bloom; branches purplish. That of September 5th was the A. perennans, in lower ground.

On the railroad between tracks above Red House,

Aristida dichotoma, half a dozen inches high, hardly yet out; forked aristida, or poverty grass.



Storrow Higginson brings from Deerfield this evening some eggs to show me, — among others apparently that of the Virginian rail. It agrees in color, size, etc., according to Wilson, and is like (except, perhaps, in form) to one which E. Bartlett brought me a week or ten days ago, which dropped from a load of hay carried to Stow's barn! So perhaps it breeds here. Also a smaller egg of same form, but dull white with very pale dusky spots, which may be that of the Carolina rail. He had also what I think the egg of the Falco fuscatus, it agreeing with MacGillivray's sparrow hawk's egg.

Sept. 8. 6 A. M. — On river.

It flows with a full tide. When it is thus deep its current is swift, and then its surface (commonly smooth and dark) is freekled with ripples, or rather I should say that swifter currents are here and there bursting up from below and spreading out on every side, as if the river were breaking over a thousand concealed rocks. The surface is broken and dimpled with upswelling currents.

Red oak acorns, yet green, are abundantly cut off by the squirrels.

The yellow-legs is nodding its head along the edge of the meadow. I hear also its creaking te te te.²

 $^{^{1}}$ Yes. Vide Sept. 9th. Vide Sept. 21st and Dec. 7th, and June 1st, 1859.

² Vide 18th.

Gather half my grapes, which for some time have perfumed the house.

P. M. — To Owl Swamp.

I perceive the dark-crimson leaves, quite crisp, of the white maple on the meadows, recently fallen. This is their first fall, *i. e.* of those leaves which changed long ago. They fall, then, with birches and chestnuts, etc. (lower leaves), before red maples generally begin to turn.

It is good policy to be stirring about your affairs, for the reward of activity and energy is that if you do not accomplish the object you had professed to yourself, you do accomplish something else. So, in my botanizing or natural history walks, it commonly turns out that, going for one thing, I get another thing. "Though man proposeth, God disposeth all."

Sept. 9. P. M. — To Waban Cliff.

A very hot day, — 90°, as I hear. Yesterday was hot, too. Now it is about time to gather elder-berries. Many *Viola cucullata* have opened again.

What is that short squeaking note heard from time to time from amid the weeds on the west side the river at Hubbard's Bath? There are broad patches, sometimes of several acres, on the edge of the meadow, where it is wettest and weediest, which the farmers do not mow. There especially stands the brown-headed wool-grass. There are small tracts still, as it were, in their primitive condition, — wild tracts where the bittern rises and where, no doubt, the meadow-hen lurks. (Was it the note of the last I heard?)

Heard a short plover-like note from a bird flying high across the river.

Watched a little dipper 1 some ten rods off with my glass, but I could see no white on the breast. It was all black and brownish, and head not enlarged. Who knows how many little dippers are sailing and sedulously diving now along the edge of the pickerel-weed and the button-bushes on our river, unsuspected by most? This hot September afternoon all may be quiet amid the weeds, but the dipper, and the bittern, and the yellow-legs, and the blue heron, and the rail are silently feeding there. At length the walker who sits meditating on a distant bank sees the little dipper sail out from amid the weeds and busily dive for its food along their edge. Yet ordinary eyes might range up and down the river all day and never detect its small black head above the water.

It requires a different intention of the eye in the same locality to see different plants, as, for example, Juncaceæ and Gramineæ even; i. e., I find that when I am looking for the former, I do not see the latter in their midst. How much more, then, it requires different intentions of the eye and of the mind to attend to different departments of knowledge! How differently the poet and the naturalist look at objects! A man sees only what concerns him. A botanist absorbed in the pursuit of grasses does not distinguish the grandest pasture oaks. He as it were tramples down oaks unwittingly in his walk.

Bidens cernua, how long?

1 ?? Vide 30th.

The river is about at its height to-day or yesterday. Much bur-reed and heart-leaf is floating and washed up, apparently the first important contribution to the river wrack.

The sportsman will paddle a boat now five or six miles, and wade in water up to his knees, being out all day without his dinner, and think himself amply compensated if he bags two or three yellow-legs. The most persistent and sacrificing endeavors are necessary to success in any direction.

Woodbine scarlet, like a brilliant scarf on high, wrapped around the stem of a green tree. By a blush betrays where it hangs upon an elm.

I find an abundance of beaked hazelnuts at Blackberry Steep, one to three burs together, but, gathering them, I get my fingers full of fine shining bristles, while the common hazel burs are either smooth or covered with a softer glandular down; i. e., its horns are brazentipped.

Under the rocks near the slippery elm, the *Gymnosti*chum *Hystrix*, bottle-brush grass, hedgehog grass, long done.

Rice says he saw two meadow-hens when getting his hay in Sudbury some two months ago, and that they breed there. They kept up a peculiar note. My egg (named Sept. 7th) was undoubtedly a meadow-hen's Rallus Virginiana. R. says that he has caught pigeons which had ripe grapes in their crops long before any were ripe here, and that they came from the southwest.

We live in the same world with the Orientals, far off

as they may seem. Nature is the same here to a chemist's tests. The weeping willow (Salix Babylonica) will grow here. The peach, too, has been transplanted, and is agreeable to our palates. So are their poetry and philosophy near and agreeable to us.

Sept. 10. Tower-mustard in bloom again. A musquash-house begun.

Sept. 12. Sunday. P. M. — To Cliffs.

The handsome crimson-tipped hazelnut burs now and for some time have reminded us that it was time to gather these nuts. They are worth gathering, if only to see the rich color of the fruit brought together in a quantity.

Lycopodium complanatum, how long? Have seen the pigeon's-egg fungus in pastures some time. Yew berries still hold on. The cinnamon fern has begun to yellow and wither. How rich in its decay! Sic transit gloria mundi! Die like the leaves, which are most beautiful in their decay. Thus gradually and successively each plant lends its richest color to the general effect, and in the fittest place, and passes away. Amid the October woods we hear no funereal bell, but the scream of the jay. Coming to some shady meadow's edge, you find that the cinnamon fern has suddenly turned this rich yellow. Thus each plant surely acts its part, and lends its effect to the general impression. See petty morel berries ripe.

Woodsia Ilvensis under the cave at Cliffs in fruit.

Very heavy rain all yesterday afternoon, and to-day it is somewhat cooler and clearer and the wind more northwesterly, and I see the unusual sight of ripples

or waves curving up-stream off
Cardinal Shore, so that the river
might seem to be flowing that
way. The mountains are of a
darker blue.

The spring on the west side of Fair Haven Hill is nearly dry; there is no stream flowing from it. What a disappointment to a herd of cows to find their accustomed spring dry! Even in that little hollow on the hill-side, commonly moistened by the spring, grow the soft rush, rhyncospora, etc. What an effect a little moisture on a hillside produces, though only a rod square! The Juncaceæ and Cyperaceæ soon find it out and establish themselves there.

The *Panicum filiforme* is very abundant in that old mullein-field of Potter's, by the Corner road. Its slender culms are purple, and, seen in the right light, where they stand thick, they give a purple gleam to the field. More purple far than the *P. sanguinale*. Some small red maples by water begun to redden.

In Hubbard's ditched meadow, this side his grove, I see a great many large spider's webs stretched across the ditches, about two feet from bank to bank, though the thick woven part is ten or twelve inches. They are parallel, a few inches or a foot or more apart, and more or less vertical, and attached to a main cable stretched from bank to bank. They are the yellow-backed spider, commonly large and stout but of various sizes. I count sixty-four such webs there, and in each case the spider occupies the centre, head downward. This is enough,

methinks, to establish the rule. They are not afraid of turning their brains then. Many insects must be winging their way over this small river. It reminds me of the Indians catching ducks at Green Bay with nets in old times.

Sept. 13. P. M. — To Annursnack.

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Solidago puberula, apparently in prime and handsome, roadside, Colburn's Hill.

I noticed the black willows quite imbrowned on the 10th, and the button-bushes beginning to look yellowish.

A. Hosmer is pleased because from the cupola of his new barn he can see a new round-topped mountain in the northwest. Is curious to know what one it is. Says that if he lived as near Annursnack as Heywood does, he should go up it once a week, but he supposes that Heywood does not go up it more than once a year. What is that grass still in bloom a foot or more in height in Heywood's potato-field, some fifty rods west of house-leek? It is somewhat like what I have wrongly called Danthonia spicata, but with a longer and a round spike, etc., etc. Vide press. There is a man there mowing the Panicum Crus-galli, which is exceedingly rank and dense, completely concealing the potatoes, which have never been hoed, it was so wet. He saves this grass and says the cattle like it well.

I notice that the large ant-hills, though they prevent bushes and ferns from growing where they are built, keeping open a space four to seven feet wide in their midst, do not keep out grass, but they are commonly little grassy mounds with bare tops. Looking from the top of Annursnack, the aspect of the earth generally is still a fresh green, especially the woods, but many dry fields, where apparently the June-grass has withered uncut, are a very pale tawny or lighter still. It is fit that some animals should be nearly of this color. The cougar would hardly be observed stealing across these plains. In one place I still detect the ruddiness of sorrel.

 $Euphorbia\ hypericifolia\ still,$ and gone to seed, on the top of Annursnack.

From many a barn these days I hear the sound of the flail. For how many generations this sound will continue to be heard here! At least until they discover a new way of separating the chaff from the wheat.

Saw one raking cranberries on the 10th; rather early.

A small dense flock of wild pigeons dashes by over the side of the hill, from west to east, — perhaps from Wetherbee's to Brooks's, for I see the latter's pigeonplace. They make a dark slate-gray impression.

Fringed gentian out well, on easternmost edge of the Painted-Cup Meadows, by wall.¹

Saw a striped snake run into the wall, and just before it disappeared heard a loud sound like a hiss! I think it could hardly have been made by its tail among leaves.

The squirrels know better than to open unsound hazelnuts. At most they only peep into them. I see some on the walls with a little hole gnawed in them, enough to show that they are empty.

Muskmelons and squashes are turning yellow in the

gardens, and ferns in the swamps. Hear many warbling vireos these mornings. Many yellow butterflies in road and fields all the country over.

ERIOCAULON

Sept. 14. Half a dozen Bidens chrysanthemoides in river, not long. Picked eleven of those great potatoworms, caterpillars of the sphinx moth, off our privet. The Glyceria obtusa, about eighteen inches high, quite common, in the meadow west of Brooks Clark's, has turned a dull purple, probably on account of frosts.

Sept. 15. I have not seen nor heard a bobolink for some days at least, numerous as they were three weeks ago, and even fifteen days. They depart early. I hear a nuthatch occasionally, but it reminds me of winter.

P. M. — To Walden.

I paddle about the pond, for a rarity. The eriocaulon, still in bloom there, standing thinly about the edge, where it is stillest and shallowest, in the color of its stem and radical leaves is quite in harmony with the glaucous water. Its radical leaves and fine root-fibres form a peculiar loose but thick and continuous carpet or rug on the sandy bottom, which you can lift up in great flakes, exposing the fine white beaded root-fibres. This evidently affords retreats for the fishes, musquash, etc., etc., and you can see where it has been lifted up into galleries by them. I see one or two pickerel poised over it. They, too, are singularly greenish and transparent, so as not to be easily detected, only a little more yellowish than the water and the eriocaulon; ethereal fishes, not far from

 $^{^1}$ Caroline Pratt tells me the 20th that her father found it out full a fortnight before that date!

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the general color of heart-leaf and target-weed, unlike the same fish out of water.

I notice, as I push round the pond close to the shore, with a stick, that the weeds are eriocaulon, two or three kinds of potamogeton, — one with a leaf an inch or two long, one with a very small, floating leaf, a third all immersed, four or five inches high and yellowish-green (this (vide press) is apparently an immersed form of P. hybridus), — target-weed, heart-leaf, and a little callitriche. There is but little of any of them, however, in the pond itself. It is truly an ascetic pond, and lives very sparingly on vegetables at any rate.

I gather quite a lot of perfectly fresh high blueberries overhanging the south side, and there are many green ones among them still. They are all shrivelled now in swamps commonly.

The target-weed still blooms a little in the Pout's Nest, though half the leaves have turned a reddish orange, are sadly eaten, and have lost nearly all their gelatinous coating. But perfect fresh green leaves have expanded and are still expanding in their midst. The whole pool is covered, as it were, with one vast shield of reddish and green scales. As these leaves change and decay, the firmer parts along the veins retain their life and color longest, as with the heart-leaf. The leaves are eaten in winding lines about a tenth of an inch wide, scoring them all over in a curious manner, and also in spots. These look dark or black because they rest on the dark water.

Looking closely, I am surprised to find how many frogs, mostly small, are resting amid these target leaves,

with their green noses out. Their backs and noses are exactly the color of this weed. They retreat, when disturbed, under this close shield. It is a frog's paradise.

I see, in the paths, pitch pine twigs gnawed off, where no cones are left on the ground. Are they gnawed off in order to come at the cones better?

I find, just rising above the target-weed at Pout's Nest, *Scirpus subterminalis*, apparently recently out of bloom. The culms two to three feet along, *appearing* to rise half an inch above the spikes. The long, linear immersed leaves coming off and left below

At entrance of the path (on Brister's Path) near Staples and Jarvis bound, apparently the true *Danthonia spicata*, still green. It is generally long out of bloom and turned straw-color. I will call the other (which I had so named), of Hosmer's meadow, *for the present*, meadow oat grass, as, indeed, I did at first.

A hummingbird in the garden.

There is a southeast wind, with clouds, and I suspect a storm brewing. It is very rare that the wind blows from this quarter.

Sept. 16. When I awake I hear the sound of steady heavy rain. A southeast storm. Our peach tree limbs are broken off by it. It lasts all day, rains a great deal, and scatters many elm boughs and leaves over the street. This wind does damage out of proportion to its strength. The fact is, the trees are unprepared to resist a wind from this quarter and, being loaded with foliage and fruit, suffer so much the more. There will be many windfalls, and fruit [will] be cheap for awhile.

It rained as hard as I remember to have seen it for about five minutes at six o'clock P. M., when I was out, and then suddenly, as it were in an instant, the wind whirled round to the westward, and clear sky appeared there and the storm ended, — which had lasted all day and part of the previous night. All this occurred while I was coming from the post-office. The street is strewn with a great many perfectly green leaves, especially of elms, and branches, large and small, also for the most part quite sound. It is remarkable that these tough and slender limbs can be thus twisted off.

Sept. 17. P. M. — Ride to Beaver Pond and beyond. I see several apple trees that were blown down yesterday and some pretty large elm limbs. The orchards are strewn with windfalls, mostly quite green.

Paddle round Beaver Pond in a boat, which I calked with newspaper. It has a very boggy and generally inaccessible shore, now more inaccessible than usual on account of the rain and high water. A singularly muddy hole.

See elecampane, quite out of bloom. Also the Solidago odora, which I see has just done.

River rising fast, from yesterday's rain. Cooler weather now for two or three days, so that I am glad to sit in the sun on the east side of the house mornings. Methinks, too, that there are more sparrows in flocks now about in garden, etc.

Sept. 18. P. M. — Sail to Fair Haven Pond.It is a fine September day. The river is still rising on

account of the rain of the 16th and is getting pretty well over the meadows. As we paddle westward, toward College Meadow, I perceive that a new season has come. The air is incredibly clear. The surface of both land and water is bright, as if washed by the recent rain and then seen through a much finer, clearer, and cooler air. The surface of the river sparkles. I am struck by the soft yellow-brown or brown-yellow of the black willows, stretching in cloud-shaped wreaths far away along the edges of the stream, of a so much mellower and maturer tint than the elms and oaks and most other trees seen above and beyond them. It is remarkable that the button-bushes beneath and mingling with them are of exactly the same tint and in perfect harmony with them. They are like two interrupted long brown-yellow masses of verdure resting on the water, a peculiarly soft and warm yellow. This is, perhaps, the most interesting autumnal tint as yet.

Above the railroad bridge, with our sail set, wind north-northwest, we see two small ducks, dusky, — perhaps dippers, or summer ducks, — and sail within four rods before they fly. They are so tame that for a while we take them for tame ducks.

The pads are drowned by the flood, but I see one pontederia spike rising blue above the surface. Elsewhere the dark withered pontederia leaves show themselves, and at a distance look like ducks, and so help conceal them. For the ducks are now back again in numbers, since the storm and freshet.

We can just go over the ammannia meadow.

¹ Too large. Vide 30th.

It is a wonderful day. As I look westward, this fine air — "gassy," C. calls it — brings out the grain of the hills. I look into the distant sod. This air and sun, too, bring out all the yellow that is in the herbage. The very grass or sedge of the meadow is the same soft yellow with the willows, and the button-bush harmonizes with them. It is as if the earth were one ripe fruit, like a muskmelon yellowed in the September sun; i. e., the sedges, being brought between me and the sun, are seen to be ripe like the cucumbers and muskmelons in the garden. The earth is yellowing in the September sun. It occurs to me to put my knee on it, press it gently, and hear if it does not crack within as if ripe. Has it not, too, a musty fragrance, as a melon?

At Clamshell we take the wind again, and away we glide. I notice, along the edge of the eastern meadow wood, some very light-colored and crisped-looking leaves, apparently on small maples, or else swamp white oaks, as if some vine ran over the trees, for the leaves are of a different color from the rest. This must be the effect of frost, I think.

The sedge and wool-grass all slant strongly southward or up the stream now, which makes a strange impression on the sailor, but of late the wind has been north and stronger than the sluggish current of the river.

The small white pines on the side of Fair Haven Hill now look remarkably green, by contrast with the surrounding shrubbery, which is recently imbrowned. You are struck by their distinct liquid green, as if they had but just sprung up there. All bright colors seem brighter now for the same reason, *i. e.* from contrast with the

duller browns and russets. The very cows on the hill-side are a brighter red amid the pines and the brown hazels. The perfectly fresh spike of the *Polygonum amphibium* attracts every eye now. It is not past its prime. C. thinks it is exactly the color of some candy. Also the *Polygala sanguinea* on the bank looks redder than usual.

Many red maples are now partly turned dark crimson along the meadow-edge.

Near the pond we scare up twenty or thirty ducks, and at the pond three blue herons. They are of a hoary blue. One flies afar and alights on a limb of a large white pine near Well Meadow Head, bending it down. I see him standing there with outstretched neck.

Finding grapes, we proceeded to pluck them, tempted more by their fragrance and color than their flavor, though some were very palatable. We gathered many without getting out of the boat, as we paddled back, and more on shore close to the water's edge, piling them up in the prow of the boat till they reached to the top of the boat, — a long sloping heap of them and very handsome to behold, being of various colors and sizes, for we even added green ones for variety. Some, however, were mainly green when ripe. You cannot touch some vines without bringing down more single grapes in a shower around you than you pluck in bunches, and such as strike the water are lost, for they do not float. But it is a pity to break the handsome clusters.

Thus laden, the evening air wafting the fragrance of the cargo back to us, we paddled homeward. The cooler air is so clear that we see Venus plainly some time before sundown. The wind had all gone down, and the water

was perfectly smooth. The sunset was uncommonly fair. Some long amber clouds in the horizon, all on fire with gold, were more glittering than any jewelry. An Orient city to adorn the plates of an annual could not be contrived or imagined more gorgeous. And when you looked with head inverted the effect was increased tenfold. till it seemed a world of enchantment. We only regretted that it had not a due moral effect on us scapegraces.

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Nevertheless, when, turning my head, I looked at the willowy edge of Cyancan Meadow and onward to the sober-colored but fine-grained Clamshell Hills, about which there was no glitter, I was inclined to think that the truest beauty was that which surrounded us but which we failed to discern, that the forms and colors which adorn our daily life, not seen afar in the horizon, are our fairest jewelry. The beauty of Clamshell Hill, near at hand, with its sandy ravines, in which the cricket chirps. This is an Occidental city, not less glorious than that we dream of in the sunset sky.

It chanced that all the front-rank polygonum, with its rosaceous spikes, was drowned by the flood, but now, the sun having for some time set, with our backs to the west we saw the light reflected from the slender clear white spikes of the *P. hydropiperoides* (now in its prime), which in large patches or masses rise about a foot above the surface of the water and the other polygonum. Under these circumstances this polygonum was very pretty and interesting, only its more presentable part rising above the water.

Mr. Warren brings to me three kinds of birds which he has shot on the Great Meadows this afternoon, viz.

two Totanus flavipes, such as I saw the 8th (there were eight in the flock, and he shot seven), one Rallus Carolinus, and one peetweet. I doubt if I have seen any but the T. flavipes here, since I have measured this. Wilson says that this does not penetrate far inland, though he sees them near Philadelphia after a northeast storm.

The above rail corresponds to the land rail or corncrake of Europe in form and habits. In Virginia is called the sora; in South Carolina, the coot. It is the game rail of the South, and the only species of the genus Crex in America. Note kuk kuk kuk. Go to Hudson's Bay and thereabouts to breed. This was a male, having a black throat and black about base of bill. Peabody says that they are seen here only in the autumn on their return from the north, though Brewer thinks their nest may be found here. In the genus Crex, the bill is stout and shorter than the head. In Rallus (as in R. Virginianus), it is longer than the head and slender. In the latter, too, the crown and whole upper parts are black, streaked with brown; the throat, breast, and belly, orange-brown; sides and vent, black tipped with white; legs and feet, dark red-brown; none of which is true of the R. Carolinus.

I notice that the wing of the peetweet, which is about two inches wide, has a conspicuous and straight-edged white bar along its middle on the under side for half its length. It is seven eighths of an inch wide and, being quite parallel with the darker parts of the wing, it produces that singular effect in its flying which I have noticed. This line, by the way, is not mentioned by Wil-

¹ Or very likely I have. Vide 25th.

son, yet it is, perhaps, the most noticeable mark of the bird when flying! The under side of the wings is commonly slighted in the description, though it is at least as often seen by us as the upper. Wilson says that "the whole lower parts are beautifully marked with roundish spots of black, . . . but the young are pure white below." May I not have made the young the *T. solitarius*? But the young are white-spotted on wings.

I think that I see a white-throated sparrow this afternoon.

Sept. 19. Sunday. P. M. — To Cassandra Ponds.

We go through Sedge Hollow. See a small hole, perhaps a skunk's, in that hollow, and, about the mouth, fragments of a hornets' or wasps' nest. I knew that foxes were said to tear in pieces these nests for the sake of the grubs or old hornets left in them. Perhaps the skunk does.

These dry, sedgy hollows are peculiar and interesting to me. The fine, thick sedge makes a soft bed to recline on, and is recurved and lodging like a curly head. These dry hollows, side by side with the deeper and wet ones, are surrounded by hazel bushes and panicled andromeda instead of alders and willows. There is this sort of analogy to the wet ones, or ponds. In the lowest part, even here, I perceive that a different and coarser kind of sedge grows. Along the middle and bottom of the hollows is the indistinct trail of wild animals — foxes, etc. — and sportsmen. C. thinks this might be called Fox Path.

As I stand on the shore of the most westerly Cassandra Pond but one, I see in the air between me and the sun those interesting swarms of minute light-colored gnats,1 looking like motes in the sun. These may be allied to the winter gnat of Kirby and Spence. Do they not first appear with cooler and frosty weather, when we have had a slight foretaste of winter? Then in the clear, cool air they are seen to dance. These are about an eighth of an inch long, with a greenish body and two light-colored plumes in front; the wings not so long as the body. So I think they are different from those over the river in the spring. I see a dozen of these choirs within two or three rods, their centres about six feet above the surface of the water andromeda. These separate communities are narrow horizontally and long vertically, about eighteen inches wide and densest in the middle, regularly thinning to nothing at the edges. These individuals are constantly gyrating up and down, cutting figures of 8 like the water-bug, but

keeping nearly about the same place.

It is to me a very agreeable reminder of cooler weather.

Hear a chewink's chewink. But how ineffectual is the note of a bird now! We hear it as if we heard it not, and forget it immediately. In spring it makes its due impression, and for a long time will not have done echoing, as it were, through our minds. It is even as if the atmosphere were in an unfavorable condition for this kind of music. Every musician knows how much depends on this. Going through low woods I see a white, dusty or mealy-looking mildew on the leaves, — oaks, etc., — the effects of the dog-days or mould season.

¹ Apparently male *Tipulidæ* or crane-flies. *Vide Library of Enter-taining Knowledge*, "Insect Transformations," p. 363.

Sept. 20. The river probably reaches its highest since June to-day. The Maryland yellow-throat is here. Hear warbling vireos still, in the elms.

Miss Pratt shows me a small luminous bug found on the earth floor of their shed (I think a month ago). Had two bright points in its tail, as bright or brighter than the glow-worm. *Vide* it in paper. It is now dried, three eighths of an inch long by somewhat more than one eighth wide, ovate-oblong with a broad and blunt head, dull straw-color, clear rose-red on the sides, composed of many segments, which give it a dentate appearance on the edges. A broad flattish kind of shield in front, also red and straw-color.

Sept. 21. Go to Cape Λ nn.

 Λ very warm day.

(On the 24th, at the East India Marine Hall, saw a circular stone mortar about six inches in diameter, and a stone exactly like the above in it, described as pestle and mortar found in making Salem Turnpike. Were they

together? Also, at the last place, what was called the blade of an Indian knife found on Governor Endicott's farm, broken, three or four inches long, of a light-colored kind of slate, quite thin, with a back. It might have been for skinning.)

At the Essex Institute (?), —if that's the name, the eggs of the Rallus Virginianus, labelled by Brewer, but much smaller than those I have seen, and nearly white, with dull-brown spots! Can mine be the egg of the R. crepitans, though larger than mine? Their eggs of the Sterna hirundo look like mine which I have so called; also do those of the black-headed gull, which I do not perceive in Peabody. Looked over the asters, goldenrods, and willows in their herbarium, collected and named by Oakes, Lapham, Russell, and Cassisomething. Oakes's Salix sericea, also Marshall's, and what O. calls grisea of Willdenow, is the same I so call, by the white maple at Assabet. What O. calls S. phyllicifolia from White Mountains, having only sterile catkins, — his specimen, — is apparently the one I have from there together with the repens.

P. M. — Walked with Russell to Marblehead above railroad.

Saw, in Salem, Solidago Canadensis, considerably past prime; our three-ribbed one done; Spartina cynosuroides; (was that the S. juncea, seven feet high, with a broad leaf, which I mistook for the above? Very common on edge of marshes); apparently Scirpus pungens, two to four feet high; Polygonum aviculare, appar-

ently peculiar; swamp thistle, still abundant; Trifolium procumbens, still abundant; Aster Novæ-Angliæ, darkviolet or lilac-purple, in prime or a little past, three quarters of a mile down railroad; also by shore in Manchester, the 22d; Ruppia maritima, in a ditch. In Marblehead, Aster cordifolius, abundant, railroad; Woodsia Ilvensis. R. pointed out Juncus bufonius (??) (but did not know it); it was tenuis-like and probably that. Juneus Greenii (?) (tenuis-like), dense-flowered, on high sea-bank, sea side of Marblehead. Herbrobert, near shore, done. Datura Stramonium var. Tatula, done there, but out at Rockport; got seeds. Also various lichens. Got Parmelia parietina, elegans, and rubina on the rocks. Saw, but did not get, P. murorum. Cetraria Islandica. R. said that I saw at the White Mountains was bitter. Endocarpon miniatum (which we have) on rocks. Peltigera polydactyla. Umbilicaria Muhlenbergii, rocks by sea. That common crustaceous lichen on rocks, — black fruit prettily scattered on a white ground, - which reminds me of maps, is Lecidea atroalba. R. thought that my small umbilicaria on Monadnock and Lafayette was U. erosa or hyperborea.

He knew a Carex lupulina because the beaks were recurved.

Called Marblehead coast greenstone generally with dykes in signite.

Saw artichokes out in several places, at some time. Have a sort of Spouting Horn by shore. Returned by some very deep hollows in Salem (like the Truro ones) called the Dungeons!! as our Dunge Hole.

R. gave me from his garden corns of the true [?]

squirrel-corn corydalis, which I plant, and what Tracy gave him for *Utricularia intermedia* from ——, not in flower, though he says that T. has examined the flowers. It looks like mine. What I have called the clustered blackberry he has raised from the seed he got here, and this second year (or third) it has run as long as the common, but, perhaps because in rich soil and the shade, no flowers or fruit.

Saw no Aster Tradescanti in this walk, but an abundance of A. multiflorus in its prime, in Salem and Marblehead.

Sept. 22. A clear cold day, wind northwest. Leave Salem for the Cape on foot.

Near Beverly Bridge, crossed over that low and flat part of Salem where the first settlement was made and Arabella Stewart [sic] is supposed to have been buried.

Soon struck off to the shore in Beverly. See the discolor thistle on a sandy beach, and Phaseolus diversifolius (three-lobed bean vine), with pretty terete long pods, some ripe, but a few flowers still. Aster linifolius, perhaps still in prime, — though it has a flexuous stem, — in a marsh, and lyme-grass, apparently like ours, along edge of marsh. Dined on the edge of a high rocky cliff, quite perpendicular, on the west side of entrance of Manchester Harbor.

One mile southeast of the village of Manchester, struck the beach of "musical sand," just this side of a large, high, rocky point called Eagle Head. This is a curving sandy beach, maybe a third of a mile long by

1 [The Lady Arbella Johnson?]

[Sept. 22

some twelve rods wide. (We also found it on a similar but shorter beach on the east side of Eagle Head.) $\ensuremath{\mathrm{We}}$ first perceived the sound when we scratched with our umbrella or finger swiftly and forcibly through the sand; also still louder when we struck forcibly with our heels "scuffing" along. The wet or damp sand yielded no peculiar sound, nor did that which lay loose and deep next the bank, but only the more compact and dry. The sound was not at all musical, nor was it loud. Fishermen might walk over it all their lives, as indeed they have done, without noticing it. R., who had not heard it, was about right when he said it was like that made by rubbing on wet glass with your fingers. I thought it as much like the sound made in waxing a table as anything. It was a squeaking sound, as of one particle rubbing on another. I should say it was merely the result of the friction of peculiarly formed and constituted particles. The surf was high and made a great noise, yet I could hear the sound made by my companion's heels two or three rods distant, and if it had been still, probably could have heard it five or six rods.

We kept thence along the rocky shore to Kettle Cove, where, however, I did not find any rocks like Lewis's.

Somewhere thereabouts Scirpus maritimus, with its great spikes now withered. In the marsh at Kettle Cove, Gerardia maritima, apparently in prime, four or five inches high; Euphorbia polygonifolia, six inches in diameter. Spartina glabra in the salt water of the cove.

The shore, thus far, from Beverly Bridge had been a succession of bold rocky points half a mile apart, with sometimes curving sandy beaches between, or else rocks.

We now kept the road to Gloucester, leaving the shore a mile or more to the right, wishing to see the magnolia swamp. This was perhaps about a mile and a half bevond Kettle Cove. After passing over a sort of height of land in the woods, we took a path to the left, which within a few rods became a corduroy road in the swamp. Within three or four rods on the west side of this, and perhaps ten or fifteen from the highroad, was the magnolia. It was two to seven or eight feet high, but distinguished by its large and still fresh green leaves, which had not begun to fall. I saw last year's shoots which had died down several feet, and probably this will be the fate of most which has grown this year. The swamp was an ordinary one, not so wet but we got about very well. The bushes of this swamp were not generally more than six feet high. There was another locality the other side of the road.

Cooked our supper in a salt marsh some two miles this side of Gloucester, in view of the town. We had cooked our tea for dinner with dead bayberry bushes; now we used the chips and bark which the tide had deposited in little parcels on the marsh, having carried water in our dippers from a brook, a quarter of a mile. There was a large patch of samphire turned a bright crimson, very conspicuous, near by on the flat marsh, the more conspicuous because large and in the midst of the liquid green of the marsh. We sat on some stones which we obtained flat in the marsh till starlight.

I had seen in this day's walk an abundance of Aster cordifolius (but no A. undulatus); also saw A. corymbosus, which is a handsome white wood aster; and, very

common, what I called Λ . longifolius, with shorter thick, clasping leaves and growing in drier ground than ours, methinks; also, all along the road, the up-country hard, small, mulberry-shaped high blackberry, and many still holding on. This may be due to the cool air of the Cape. They were quite sweet and good. Vide a specimen. The foliage had but just fairly begun to change.

Put up in Gloucester.

Sept. 23. Another fair day and wind northwest, but rather warmer. We kept along the road to Rockport, some two miles or more, to a "thundering big ledge" by the road, as a man called it; then turned off toward the south shore, at a house with two very large and old pear trees before it. Part of the house was built by a Witham, one of the first settlers, and the place or neighborhood used to be called "the Farms." Saw the F. hyemalis flitting along the walls, and it was cool enough for them on this cape. In a marsh by the shore, where was a very broad curving sandy beach, the shore of a cove, found the Ranunculus Cymbalaria, still in bloom, but mostly in fruit. Glaux maritima (?), nearly prostrate, with oblong leaves. Triglochin palustris in fruit.

An eleocharis, apparently marine, with lenticular fruit and a wrinkled mitre-shaped beak. Spergularia rubra, etc., samphire, etc.

The narrow road — where we followed it — wound about big boulders, past small, often bevel-roofed cottages where sometimes was a small flag flying for a vane. The number and variety of bevelled roofs on the

Cape is surprising. Some are so nearly flat that they reminded me of the low brows of monkeys.

We had already seen a sort of bare rocky ridge, a bare boulder-covered back of the Cape, running northeasterly from Gloucester toward Rockport and for some three miles quite bare, the eastern extremity of the Cape being wooded. That would be a good place to walk.

In this marsh, saw what I thought the solitary tattler, quite tame.

Having reached the shore, we sat under the lee of the rocks on the beach, opposite Salt Island. A man was carting seaweed along the shore between us and the water, the leather-apron kind, which trailed from his cart like the tails of oxen, and, when it came between us and the sun, was of a warm purple-brown glow. Half a mile further, beyond a rocky head, we came to another curving sandy beach, with a marsh between it and the Cape on the north. Saw there, in the soft sand, with beach-grass, apparently Juncus Balticus (?), very like but not so stout (!) as Juncus effusus.

Met a gunner from Lynn on the beach, who had several pigeons which he had killed in the woods by the shore. Said that they had been blown off the mainland. Second, also a kingfisher. Third, what he called the "oxeye," about size of peetweet but with a short bill and a blackish-brown crescent on breast, and wing above like peetweet's, but no broad white mark below. Could it be Charadrius semipalmatus? Fourth, what he called a sandpiper, very white with a long bill. Was this Tringa arenaria? Fifth, what I took to be a solitary tattler, but

possibly it was the pectoral sandpiper, which I have seen since.

On the edge of the beach you see small dunes, with white or fawn-colored sandy sides, crowned with now yellowish smilax and with bayberry bushes. Just before reaching Loblolly Cove, near Thatcher's Island, sat on a beach composed entirely of small paving-stones lying very loose and deep.

We boiled our tea for dinner on the mainland opposite Straitsmouth Island, just this side the middle of Rockport, under the lee of a boulder, using, as usual, dead bayberry bushes for fuel. This was, indeed, all we could get. They make a very quick fire, and I noticed that their smoke covered our dippers with a kind of japan which did not crock or come off nearly so much as ordinary soot.

We could see the Salvages very plainly, apparently extending north and south, the Main Rock some fifteen or twenty rods long and east-northeast of Straitsmouth Island, apparently one and a half or two miles distant, with half-sunken ledges north and south of it, over which the sea was breaking in white foam. The ledges all together half a mile long. We could see from our dining-place Agamenticus, some forty miles distant in the north. Its two sides loomed thus:

so that about a lifted up, while a small elevation close to it on the east, which afterward was seen to be a part of it, was wholly lifted up.

Rockport well deserves its name, — several little rocky harbors protected by a breakwater, the houses at Rockport Village backing directly on the beach. At Folly Cove, a wild rocky point running north, covered with

beach-grass. See now a mountain on the east of Agamenticus. Isles of Shoals too low to be seen. Probably land at Boar's Head, seen on the west of Agamenticus, and then the coast all the way from New Hampshire to Cape Ann plainly, Newburyport included and Plum Island. Hog Island looks like a high hill on the mainland.

It is evident that a discoverer, having got as far west as Agamenticus, off the coast of Maine, would in clear weather discern the coast trending southerly beyond him as far round as Cape Ann, and if he did not wish to be embayed would stand across to Cape Ann, where the Salvages would be the outmost point.

At Annisquam we found ourselves in the midst of boulders scattered over bare hills and fields, such as we had seen on the ridge northerly in the morning, i. e., they abound chiefly in the central and northwesterly part of the Cape. This was the most peculiar scenery of the Cape. We struck inland southerly, just before sundown, and boiled our tea with bayberry bushes by a swamp on the hills, in the midst of these great boulders, about halfway to Gloucester, having carried our water a quarter of a mile, from a swamp, spilling a part in threading swamps and getting over rough places. Two oxen feeding in the swamp came up to reconnoitre our fire. We could see no house, but hills strewn with boulders, as if they had rained down, on every side, we sitting under a shelving one. When the moon rose, what had appeared like immense boulders half a mile off in the horizon now looked by contrast no larger than nutshells or buri-nut against the moon's disk, and she was the biggest boulder of all. When we had put out our bayberry fire, we heard

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a squawk, and, looking up, saw five geese fly low in the twilight over our heads. We then set out to find our way to Gloucester over the hills, and saw the comet very bright in the northwest. After going astray a little in the moonlight, we fell into a road which at length conducted us to the town.

As we bought our lodging and breakfast, a pound of good ship-bread, which cost seven cents, and six herring, which cost three cents, with sugar and tea, supplied us amply the rest of the two days. The selection of suitable spots to get our dinner or supper led us into interesting scenery, and it was amusing to watch the boiling of our water for tea. There is a scarcity of fresh water on the Cape, so that you must carry your water a good way in a dipper.

Sept. 24. What that singular spiny plant, otherwise like chenopodium, which I found on a wharf in Salem?

Saw at the East India Marine Hall a bay lynx killed in Danvers July 21st (I think in 1827); another killed in Lynnfield in March, 1832. These skins were, now at any rate, quite light dirty-whitish or white wolfish color, with small pale-brown spots. The animals much larger than I expected. Saw a large fossil turtle, some twenty inches in diameter, with the plates distinct, in a slate-colored stone from western New York; also a sword in its scabbard, found in the road near Concord April 19, 1775, and supposed to have belonged to a British officer.

Cape Ann, from Beverly round to Squam, is bristling with little capes, projecting from the main one and similar to it.

Sept. 25. A smart white frost last night, which has killed the sweet potato vines and melons.

P. M. — Go a-graping up Assabet with some young ladies.

The zizania fruit is green yet, but mostly dropped or plucked. Does it fall, or do birds pluck it? The Gentiana Andrewsii are now in prime at Gentian Shore. Some are turned dark or reddish-purple with age. There is a very red osier-like cornel on the shore by the stone-heaps.

Edward Hoar says he found last year *Datura Stra-monium* in their garden. Add it, then, to our plants.

In the evening Mr. Warren brings me a snipe and a pectoral sandpiper. This last, which is a little less than the snipe but with a longer wing, must be much like *T. solitarius*, and I may have confounded them. The shaft of the first primary is conspicuously white above. The catbird still mews occasionally, and the chewink is heard faintly.

Melvin says he has found the pigeon hawk's nest here (distinct from partridge hawk's); also that he sometimes sees the larger yellow-legs here. Goodwin also says the last.

Sept. 26. Another smart frost, making dry walking amid the stiffened grass in the morning. The purple grass (Eragrostis pectinacea) done. Perhaps the first smart frost finished its purple.

I observe that the seeds of the *Panicum sanguinale* and *filiforme* are perhaps half fallen, evidently affected by the late frosts, as chestnuts, etc., will be by later ones;

and now is the time, too, when flocks of sparrows begin to scour over the weedy fields, especially in the morning. Methinks they are attracted to some extent by this their harvest of panic seed. The spikes of P. Crus-galli also are partially bare. Evidently the small granivorous birds abound more after these seeds are ripe. The seeds of pigweed are yet apparently quite green. Maybe they are somewhat peculiar for hanging on all winter.

Sept. 27. P. M. — By boat to Fair Haven Pond.

Wind northeast. Sail most of the way. The river has gone down from its height on the 20th, and is now some eighteen inches lower, or within its banks. The frontrank polygonum is uncovered and in bloom still, but its leaves generally turned a dull red. The P. hydropiperoides is apparently past prime. The P. amphibium spikes still in prime.1

When close to the bushes you do not notice any mark of the recent high water, but at a little distance you see a perfectly level line on the button-bushes and willows, about eighteen inches above the present surface, it being all dark below and warm sunny yellow above. The leaves that have been immersed are generally fallen or withered. Though the bushes may be loose and open, this waterline is so perfectly level that it appears continuous.

The farmers digging potatoes on shore pause a moment to watch my sail and bending mast. It is pleasant to see your mast bend in these safe waters. It is rare that the wind is so northeast that I can sail well from the railroad bridge to Clamshell Hill, as to-day.

Red maples now fairly glow along the shore. They vary from yellow to a peculiar crimson which is more red than common crimson.¹ But these particular trees soon fade. It is the first blush which is the purest. See men raking cranberries now, or far away squatting in the meadows, where they are picking them. Grapes have begun to shrivel on their stems. They drop off on the slightest touch, and if they fall into the water are lost, going to the bottom. You see the grape leaves touched with frost curled up and looking crisp on their edges.

The fisherman Haynes thinks that the large flock of pectweet-like birds which I saw on the meadow one fall were what he calls "black-backs."

What are those little birds in flocks in the garden and on the peach trees these mornings, about size of chipbirds, without distinct chestnut crowns?2

Sept. 28. Tuesday. P. M. — To Great Fields via Gentian Lane.

The gentian (Andrewsii), now generally in prime, loves moist, shady banks, and its transcendent blue shows best in the shade and suggests coolness; contrasts there with the fresh green; — a splendid blue, light in the shade, turning to purple with age. They are particularly abundant under the north side of the willow-row in Merrick's pasture. I count fifteen in a single cluster there, and afterward twenty at Gentian Lane near Flint's Bridge, and there were other clusters below. Bluer than the bluest sky, they lurk in the moist and shady recesses of the banks.

¹ [Two interrogation-points in pencil here.]

 [[]Excursions, p. 261; Riv. 320.]
 Probably are chip-birds. Vide Oct. 5.

Acalypha is killed by frost, and rhexia.

Liatris done, apparently some time. When Gosnold and Pring and Champlain coasted along our shores, even then the small shrub oak grew on the mainland, with its pretty acorns striped dark and light alternately.¹

Sept. 29. Fine weather.

P. M. — To White Pond.

One or two myrtle-birds in their fall dress, with brown head and shoulders, two whitish bars on wings, and bright-yellow rump. Sit on Clamshell, looking up the smooth stream. Two blue herons, or "herns," as Goodwin calls them, fly sluggishly up the stream. Interesting even is a stake, with its reflection, left standing in the still river by some fisherman.

Again we have smooth waters, yellow foliage, and faint warbling birds, etc., as in spring. The year thus repeats itself. Catch some of those little fuzzy gnats dancing in the air there over the shelly bank, and these are black, with black plumes, unlike those last seen over the Cassandra Pond.

Brushed a spectrum, ghost-horse, off my face in a birch wood, by the J. P. Brown cold Heart-Leaf Pond. Head somewhat like a striped snake.

That pond is drier than I ever saw it, perhaps,²—all but a couple of square rods in the middle, — and now covered with cyperus, etc. The mud is cracked into large polygonal figures of four to six sides and six to twelve inches across, with cracks a half to three quarters of an inch wide.

See what must be a solitary tattler feeding by the water's edge, and it has tracked the mud all about. It cannot be the *Tringa pectoralis*, for it has no conspicuous white chin, nor black dashes on the throat, nor brown on the back and wings, and I think I see the round white spots on its wings. It has not the white on wing of the pectweet, yet utters the *pectweet* note!—short and faint, not protracted, and not the "sharp whistle" that Wilson speaks of.

The lespedeza leaves are all withered and ready to fall in the frosty hollows near Nut Meadow, and [in] the swamps the ground is already strewn with the first maple leaves, concealing the springiness of the soil, and many plants are prostrate there, November-like. High up in Nut Meadow, the very brook — push aside the half-withered grass which (the farmer disdaining to cut it) conceals it — is as cool as a spring, being near its sources.

Take perhaps our last bath in White Pond for the year. Half a dozen *F. hyemalis* about. Looking toward the sun, some fields reflect a light sheen from low webs of gossamer which thickly cover the stubble and grass.

On our way, near the Hosmer moraine, let off some pasture thistle-down. One steadily rose from my hand, freighted with its seed, till it was several hundred feet high, and then passed out of sight eastward. Its down was particularly spreading or open. Is not here a hint to balloonists? Astronomers can calculate the orbit of that thistle-down called the comet, now in the northwest sky, conveying its nucleus, which may not be so solid as a thistle's seed, somewhither, but what astronomer

⁴ The black oak acorns also slightly marked thus.

² No, have seen it so before.

can calculate the orbit of my thistle-down and tell where it will deposit its precious freight at last? It may still be travelling when I am sleeping.

Some Lobelia inflata leaves peculiar hoary-white.

Sept. 30. A large flock of grackles amid the willows by the riverside, or chiefly concealed low in the button-bushes beneath them, though quite near me. There they keep up their spluttering notes, though somewhat less loud, methinks, than in spring. These are the first I have seen, and now for some time, I think, the redwings have been gone. These are the first arrivers from the north where they breed.

I observe the peculiar steel-bluish purple of the night-



shade, *i. e.* the tips of the twigs, while all beneath is green, dotted with bright berries, over the water. Perhaps this is the most singular color of any autumnal tint. It is almost black in some lights, distinctly steel-blue in the shade and contrasting with the green beneath, but, seen against the sun, it is a rich purple, its veins full of fire. The form of the leaf, too, is peculiar.

The pearly everlasting is an interesting white at present.

Though the stem and leaves are still green, it is dry and unwithering like an artificial flower. Its white flexuous

stem and branches, too, like wire wound with cotton. Its amaranthine quality is instead of high color. Neither is there any scent to betray it. Its very brown centre now affects us as a fresh and original color. It monopolizes a small circle, in the midst of sweet-fern perchance, on a dry hillside.

I see undoubtedly the little dipper by the edge of the pads this afternoon, and I think I have not seen it before this season. It is much smaller than I have seen this season, and is hard to detect even within four or five rods. It warily dives and comes up a rod or two further off amid the pads, scarcely disturbing the surface.

The wind is northerly these afternoons, blowing pretty strong early in the afternoon, so that I can sail up the stream; but later it goes down, leaving the river glassy smooth, and only a leaping fish or an insect dimples it or makes a sparkle on it.

Some young black cherry leaves are completely changed some time to their deep cherry-red. Also they are rather dull, but beneath quite lively, like the juice of a freshly crushed cherry.

In our late walk on the Cape, we entered Gloucester each time in the dark at mid-evening, travelling partly across lots till we fell into a road, and as we were simply seeking a bed, inquiring the way of villagers whom we could not see, the town seemed far more homelike to us than when we made our way out of it in the morning. It was comparatively still, and the inhabitants were sensibly or poetically employed, too, and then we went straight to our chamber and saw the moonlight reflected

from the smooth harbor and lighting up the fishing vessels, as if it had been the harbor of Venice. By day we went remarking on the peculiar angles of the bevelled roofs, of which there is a remarkable variety there. There are also many large, square, three-story houses with short windows in the upper story, as if the third story were as good as a gig for respectability. When entering the town in the moonlight we could not always tell whether the road skirted the back yards or the front yards of the houses, and the houses did not so impertinently stare after the traveller and watch his coming as by day.

Walking early in the day and approaching the rocky shore from the north, the shadows of the cliffs were very distinct and grateful and our spirits were buoyant. Though we walked all day, it seemed the days were not long enough to get tired in. Some villages we went through or by without communicating with any inhabitant, but saw them as quietly and distantly as in a picture.