

# Donovan Brook Hemlock Grove (146-4)

with Ron Gonzalez, 9/10/12

site	p	Δp	Δe	ecat	emap	time	R
(A) Claryville	29.90	0.00	—	—	1620'	7:33 8:32	$R_1 = 0.913 = \frac{2570' - 1620'}{29.90' - 28.86'} = \frac{950'}{1.04}$ $R_2 = \frac{2570' - 1620'}{29.90' - 28.86'} = \text{same as } R_1$
(B) Trail head	29.35	0.55	502	2122	2140'	9:30 to 9:45	
(C) Trail junction	29.14	0.76	694	2314	2330'	10:15	
(D) bridges	29.23	0.67	612	2232	2230'	10:28	
(E) first firs	29.20	0.70	639	2259	—	—	
(F) beaver meadow	29.15	0.75	685	2305	2330'	11:07	
(G) lunch, 1st <u>e-pH 6.37</u>	29.12	0.78	712	2332	<u>e-pH 6.37</u>	11:28 to ?	
(H) Donovan Brook ledge	29.02	0.88	803	2423	—	—	
(I) wide flood plain	28.92	0.98	895	2515	—	—	
(J) 90° bend	28.89	1.01	922	2542	—	1:07	
(K) Confluence	28.86	1.04	950	2570	2570'	1:21	
(L) hemlocks	28.76	1.14	1041	2661	—	—	
(M) turn around & descend	28.73	1.17	1068	2688	—	1:52	
(N) old delta? <small>varies to east</small>	28.98	0.92	840	2460	—	—	
(O) on "nose"	29.06	0.84	767	2387	—	2:47	
(P) flood plain brook	29.10	0.80	730	2350	—	—	
(E) beaver meadow	29.13	0.77	703	2323	2330'	3:07	
(D) bridges	29.22	0.68	621	2241	2230'	3:47	
(C) Trail junction	29.13	0.77	703	2323	2330'	3:58	
(B) Trail head	29.32	0.58	530	2150	2140'	4:25	
(A) Claryville	29.90	0.00	—	—	1620'	5:00	

R=0.913

R<sub>1</sub> = 0.913

e-pH 6.37

R<sub>2</sub> = same as R<sub>1</sub>

Mileage to Claryville 32.2 miles, road trip 64.4 miles

Measured dbhs	YB
37.1	35.0
35.8	31
34.7	30
34.6	29
32.7	28.7
30	27
29.6	
29.0	
28.9	
28	
28	
25	

DM
27.7
26
13

BEECH
29 down
29 down
18

# Vegetation

146-5

Tree age estimate calculations on p. 146-6

- (A) 1620' OAK at Clayville pulloff near hwy. Junction. IMP, S. GRAM, ANAPHALIS (which Ron once sent MK a photo of for i.d.)
- (D) 2230' ASH at the bridges. 3 EWM PINE visible upstream from north bridge + one PINE reported along trail in 1977 (see p. 146-1). 31" YB. Cross 2 bridges (see p. 146-6) and 1 ford to reach herdpath at base of Table Mtn. trail ascent.
- (E) 2259'. Cross a dead down 6" fir across herdpath + 10" fir dead and several more 6" fir standing dead. 3 live saplings. The scattered fir in this valley may resemble the E Br Del. Valley 10000 y BP.
- (F) 2330' Beaver Meadow. Beaver dam here in 1977. 30" SUB just before meadow. YB, Bc, HEM + fir ca. 20y old, estimate in meadow. Also are: RS, RA, abun. SPIRAEA TOMENTOSA, CXCRIN, DP, SRUG, OSMUNDA CLAYT, GLYC FLZA CAN + NERVATA, limited SPHAGNUM, AGROSTIS sp.
- (G) ca. 2350' - SORB seedling, the only one seen, at 1st lunch stop. HEM dbhs: 30.6", 35.8", 29.0", 34.6". YB 28.7", YB 35.0" RM 27.7" ASH 12" ± VA abundant.
- (H) 2423' Donovan Brook on ledge on W side of ravine, the only outcrop noted. Very few SUB, the largest 21". RM ± 26", 26" (??) 18" dead BEECH down.
- (I) 2515'. The Donovan Brook flood plain becomes wide here + we descend to it. Brook is on E side. On W side is a small rill, more of a LAP seep, which continues upstream to ----
- (J) 2542. Here,
- (K) 2570' Confluence. West fork has far more water than E fork, the latter a trickle under the stones. Conglomerate cobbles common. Few SUB. Some RM + MO. YB + HEM to 30". B + VA abundant. No HEM visible upstream on W fork. We continue up E side of E fork where scattered HEM continue on up to ----
- (L) 2661'. HEM to 25". 13" RM with bark still smooth as a BEECH. \$INT. NO \$CAMP anywhere. HEM 30". YB 27". B-YB dom
- (M) 2688'. Turn around + head down. Only a very few widely-scattered HEM above.

HEMLOCK AGE PROJECTIONS:

At G: Broken stump 15" diameter. One radius after 6" intact 85y, another after radius intact 7", 134y. Heartrot.

Projections with full 7.5" radius:

6" / 85y = 7.5" / ?y ? = 106y

7" / 134y = 7.5" / ?y ? = 144y

between G & H: 18" diameter broken stump 7" radius = full 9" radius 88y ? = 113y

between M & N Undercut: Broken stump 18" diameter 2 1/2" radius = full 9" radius 50y ? = 180y heart rot

Mean age of 4 cants: 543 / 4 = 136y for mean diam. of 17"

If 17" tree is 136y, then a 34" tree may be 272y. NO. NOT THIS OLD! Recalculate using the actual growth rate of a gradual

not a square root, slow down. Maybe 136 + 136 / 2 = 136 + 68 = 204

\* See over

steeply down on 3 sides. The W side drops down to Donovan Brook. The E side drops down into an amphitheater-like cove. The N drops down into the E Branch flood plain. The USGS contours do show a narrowing of the delta here. 29" NEM, 28" NEM. Small SUB + big RMS. A wildlife camera was passed attached to a tree several feet above the ground.

E area 2259'. Another dead dunned 6" fir. Largest NEM on flood plain 29" but few reach this size. Most trees of all spp on flood plain are smaller.

A Looking south from Clayville to a west spur of Denman Mtn (?), trees look gray-brown as if the SUBS had been defoliated & died.

See p. 142-144 for the hike of 6/10/72 which descended from Lone Mtn to the E Branch on a route about 1/2 mile E of, but parallel to, Donovan Brook.

Vegetation, continued

M to N 2688' to 2460' = BEECH to 24". YB 29"t, several of similar size suggesting a disturbance here maybe 150 to 200y ago, probably natural.

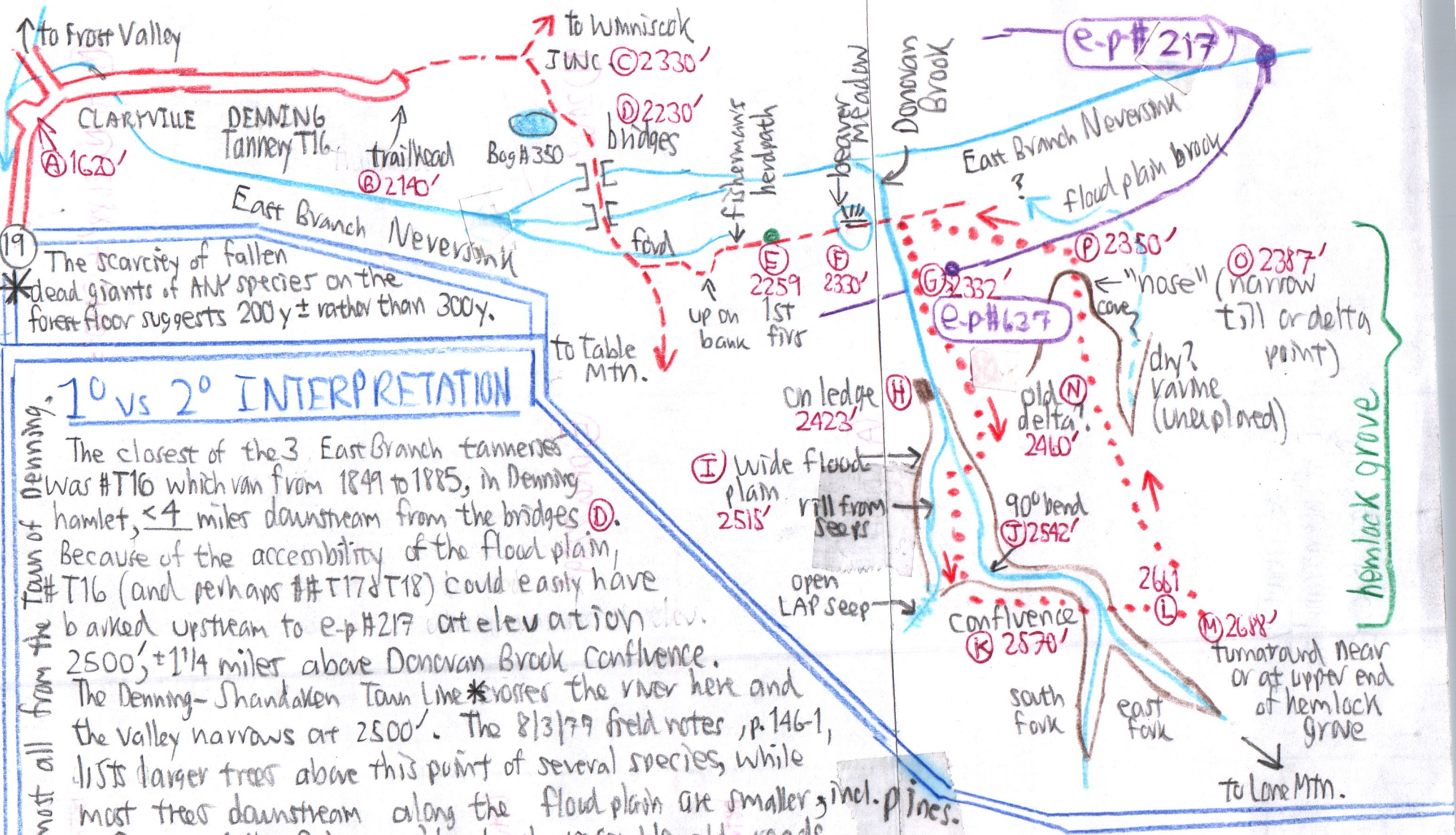
HEM 32.7" BEECH 24" down.

The slope is very bouldery, almost throughout, explaining why SUB is so uncommon. Even on nearly flat terrain

N 2460'. Here, the upland E of Donovan Brook appears to be a delta, with another, but smaller, ravine on the east.

Could Donovan Brook once have flowed through the east ravine & abandoned it? Look closely at the Peekamoose Mtn. Quad at the 2460' & 2480' contours. It shows. HEM 28"

O 2387'. Here the delta narrows down to a "nose", or point, more



19 The scarcity of fallen dead giants of ANK species on the forest floor suggests 200y ± rather than 300y.

**1<sup>o</sup> vs 2<sup>o</sup> INTERPRETATION**

The closest of the 3 East Branch tanneries was #T16 which ran from 1849 to 1885, in Denning hamlet, <4 miles downstream from the bridges (D). Because of the accessibility of the flood plain, #T16 (and perhaps #T17 & T18) could easily have backed upstream to e-p #217 at elevation elev. 2500', ± 1/4 mile above Donovan Brook confluence. The Denning-Shandaken Town Line crosses the river here and the valley narrows at 2500'. The 8/3/79 field notes, p. 146-1, lists larger trees above this point of several species, while most trees downstream along the flood plain are smaller, incl. pines. Portions of the fisherman's herdrath resemble old roads, but repeated floods & beaver activity must have removed most of them. The Donovan Brook hemlock grove is probably 1<sup>o</sup>. Although it is very bouldery and there is no sign of boulders being moved far are all between 25" & 37" dbh, of similar age, likely felled about 200y ago. Tray Mill #F 422, was at the Tray Mill Brook and prob did not cut hardwoods far upstream on the E Branch.

One of the bridges at (D) was built in the summer of 2006 (see p. 146-3), washed out on 8/28/11, and not quite rebuilt by 9/10/12.

\* T18's bank came almost all from the town of Denning.

hemlock grove