HARVARD FOREST
Established 1907 Long Term Ecological Research Site since 1988

HARVARD UNIVERSITY

Harvard LTER Schoolyard Program

Teacher Developed Lessons and Documents that integrate Harvard Forest Schoolyard Ecology Themes into curriculum.

- Lesson Title:
  Tell The Story of Our Tree
- Teacher/Author: Louise Levy
- School: Belchertown High School
- Level: High School
- Date: April 3, 2014

Tell the Story of Your Tree

Students communicating their BLG findings to their (classroom) community

“this is our tree!
just as fabulous as we!!”

Critical Questions

- What can we know about an ecosystem by studying 1 tree?
- How do seasonal changes in trees contribute to our understanding of climate conditions?
- What is the value of collecting data over a period of years in one place?

- 5 minute presentation, a minimum of 5 visuals, all team members contribute

BLG Late Summer landscape study site 5-9

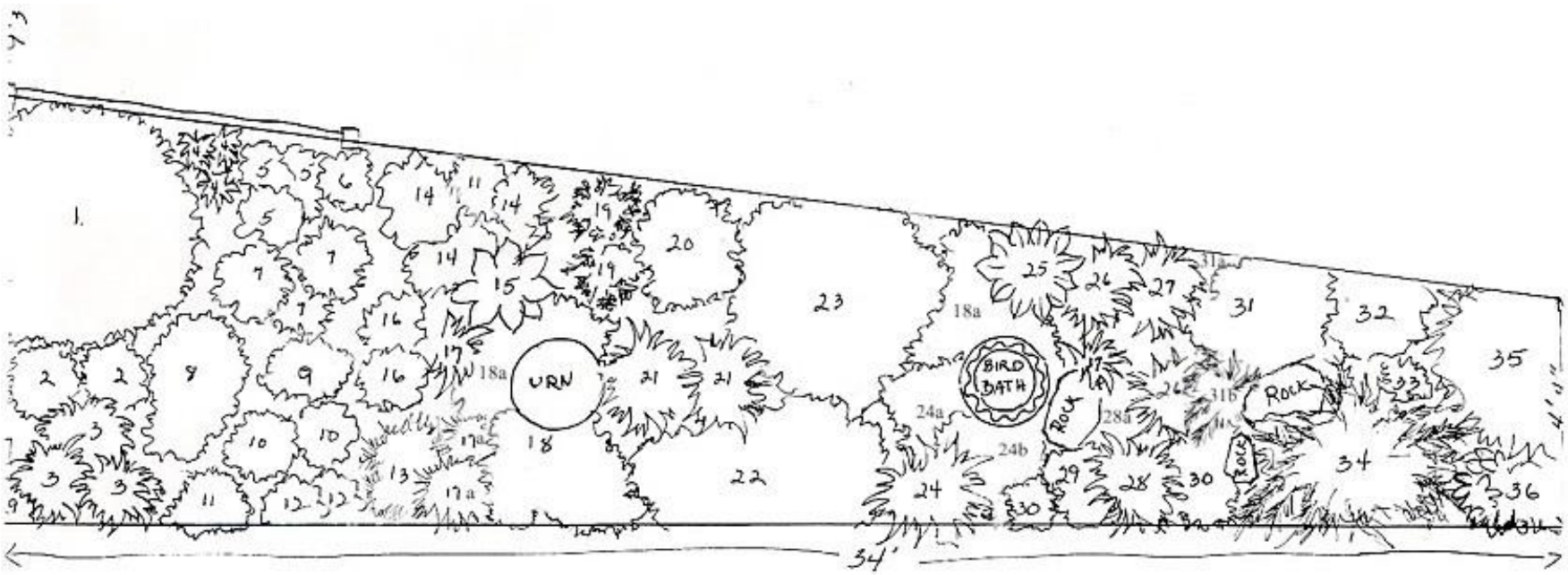
BHS BLG Quadrat Study

Tree # _____ Group Leader _____

Recorder(s) _____

Study Plot duty roster names	Task	Results			Species observed … list
	Measure plot perimeter				
	Overhead sketch				
	Vertical structure sketch				
	Age (dbh) class analysis	sap	pole	saw	
	Air and soil temperatures	air	soil		
	Relative humidity				
	Canopy cover				
	Light intensity				
	Wind speed				
	Ground cover density				
	Sawtimber dbh and height				
Everyone	Observe evidence of wildlife				
Everyone	Observe wildlife directly				

Garden map



Thinking about a photographic record

BLG at BHS **Tell The Story of Tree #____**

What can we know about an ecosystem by studying 1 tree?
How do seasonal changes in trees contribute to our understanding of climate conditions?
What is the value of collecting data over a period of years in one place?

(5 minute presentation, a minimum of 5 visuals, all team members contribute)

	Assigned to
1-intro to tree, portrait, id, dbh, height, calculate C-sequestered	1_____
2-intimate neighbors: other large and/or small trees, shrubs, forbs, vines, grasses, mosses, logs, rocks, fence, clearing, rock wall … list	**2**_____
3-quadrat: 10cmx10cm overhead sketch and vertical structure diagram, age class analysis	**3**_____
4-winter light intensity and canopy cover, groundcover density, difference between soil and air temp	**4**_____
5-natural history of this tree species, flowering, fruit production method and timing and ecological significance, ideal soil conditions, geographic range	**5**_____
6-color change and leaf drop history of this tree; spring budding history; Length of growing season over all years for which there is data … at least one graph	**6**_____
7-predictions for this year, both Spring BudBurst and Fall LeafDrop	**7**_____
8-compare to other species within the class (and same species in other class, if possible), other BLG school in another part of New England … use Harvard Forest BLG archive data Find the link below on bestoflakewallace.blogspot.com http://harvardforest.fas.harvard.edu/schoolyard/phenology-data Under Fall Phenology Data, click BHS. This will access an Excel file for all years. Do the same for Spring Phenology Data.	**8**_____
9-How does BLG fit into the LTER research for Harvard Forest?	**9 all**

Tree 4

Tree 4’s group graph