

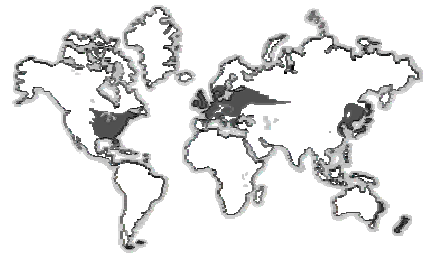
Deciduous Forest Biome



* *The Lorax* - required reading!



World Distribution Of Deciduous Forests



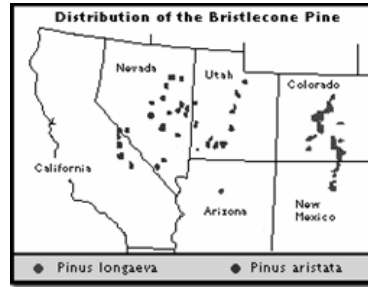
The Largest Living Thing On Earth (above ground)



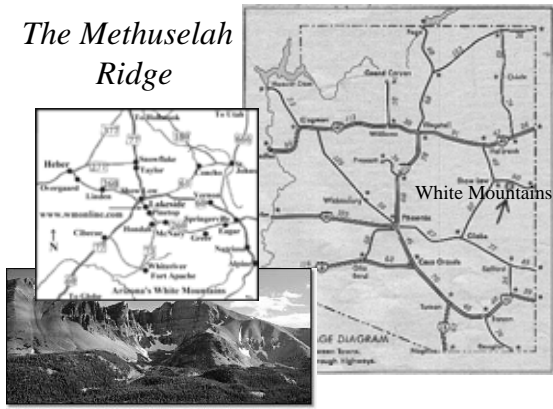
General Sherman Redwood
Sequoia National Park
Kings River Canyon, California

Height above base - 274.9 ft.
Circumference at ground - 102.6 ft.
Weight - 6,000 tons
Age - 2,000 yrs

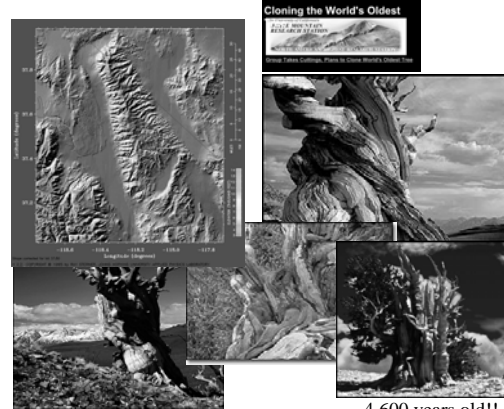
Land Of The Ancient Ones



The Methuselah Ridge



Wheeler, Arizona In the White Mountains



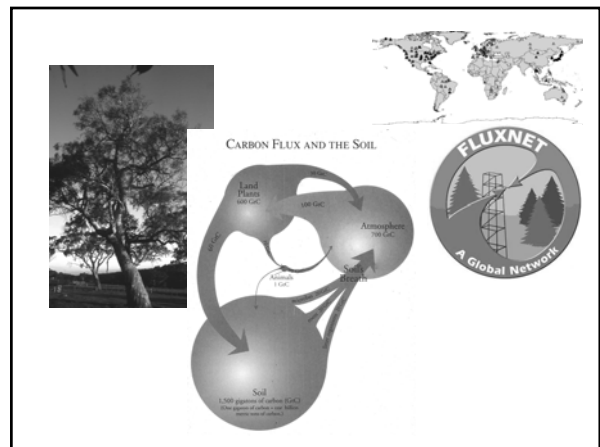
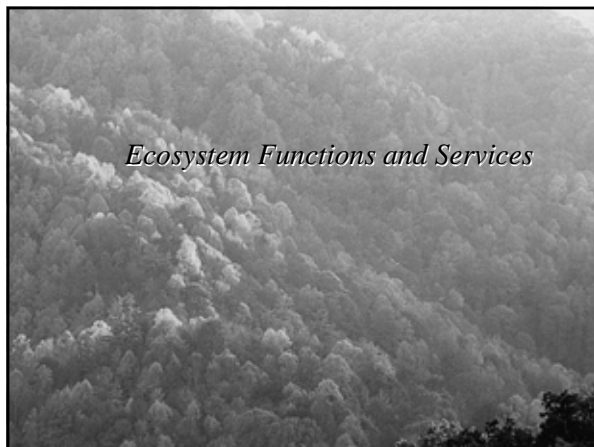
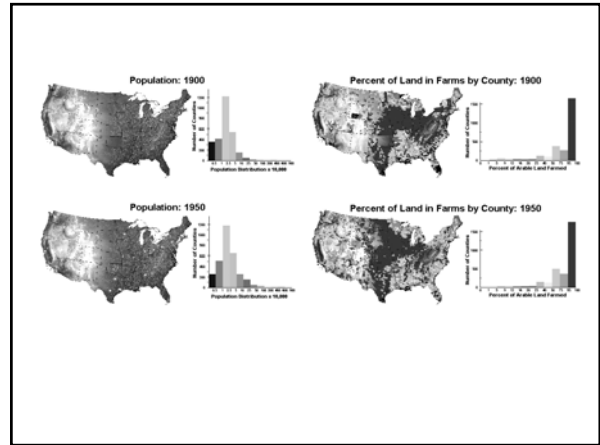
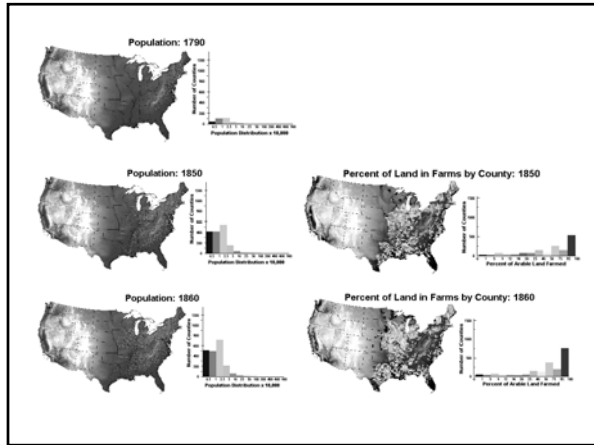
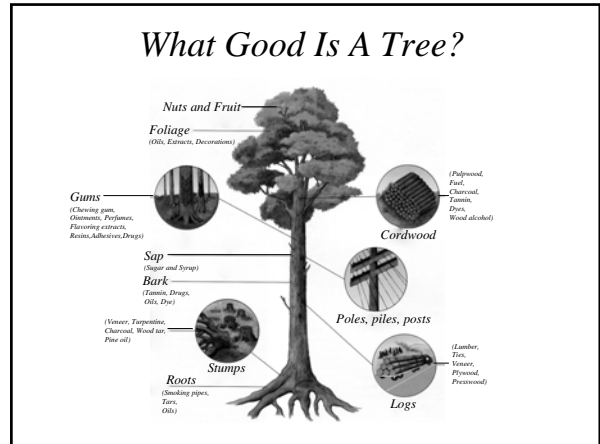
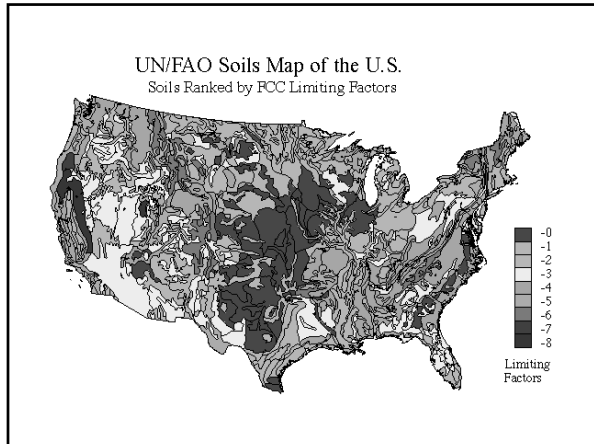
4,600 years old!!

Some organizations of interest

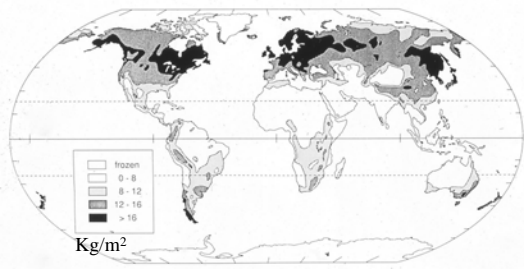


Major Forest Types Of North America





Soil Carbon (undisturbed)

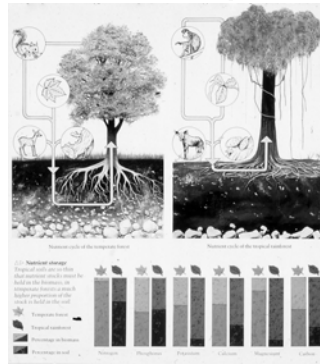


Evapotranspiration

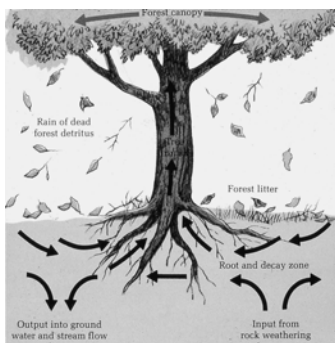


Temperate Zone Tropical Zone

Canopy Relationships
Soil and Root Systems
Nutrients and Soil Types



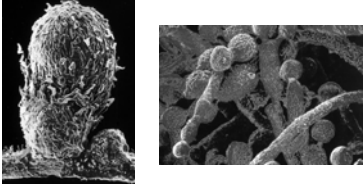
Seasonal Recycling



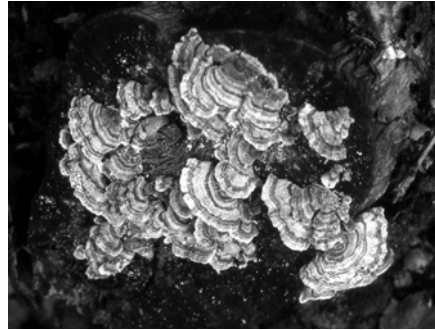
Ants Play A Major Role In Recycling Nutrients



Micorrhiza Connect Trees To
Each other Creating Forest Communes



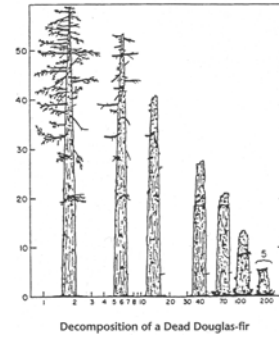
Nutrient Recycling



Nutrient Recycling



Trees Represent Long-Term Carbon Sequestration



Sometimes Things Do Get Better

17th Century Pastoral Painting



The Way It Looks Today

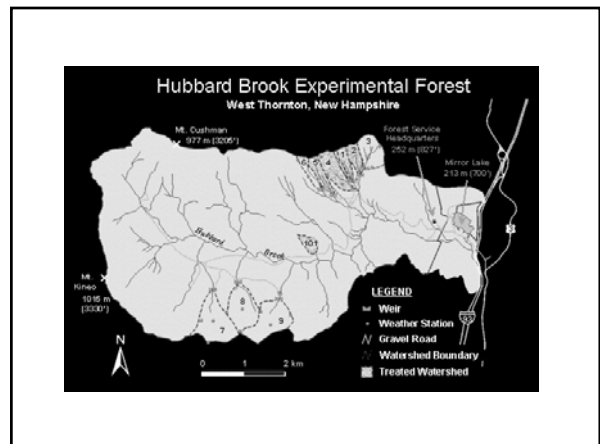
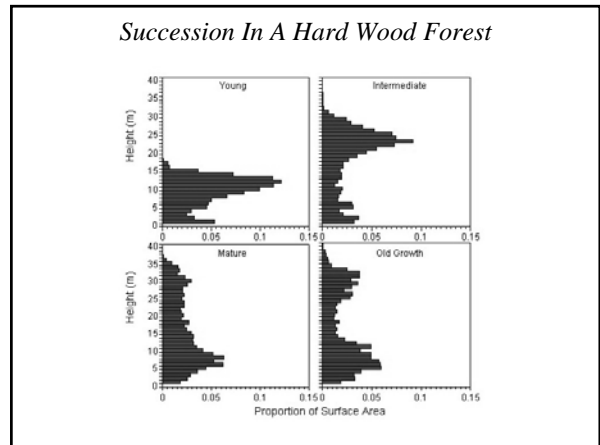
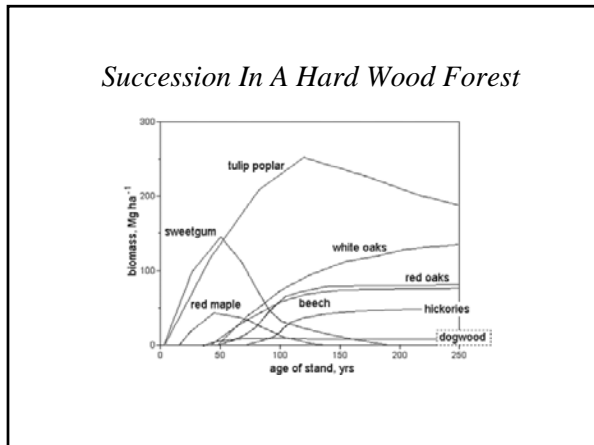
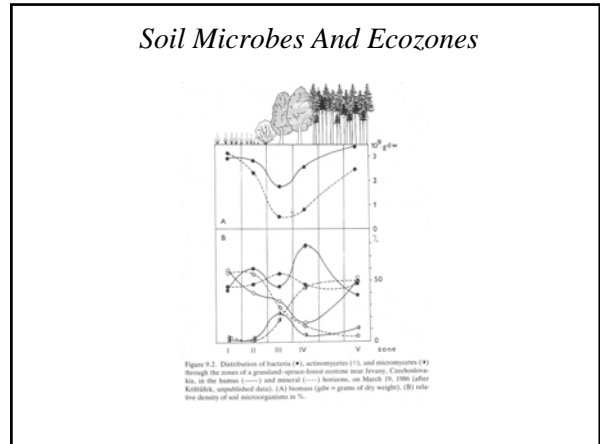
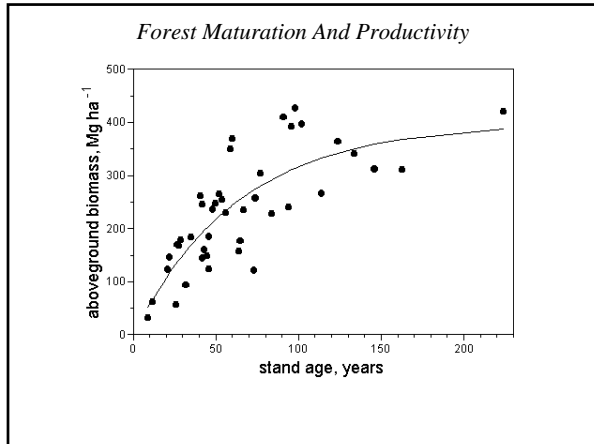


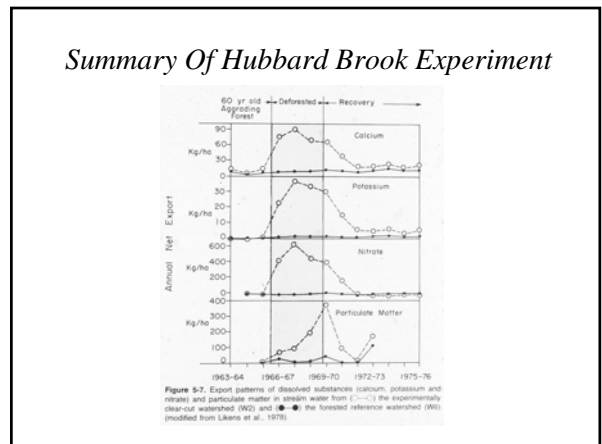
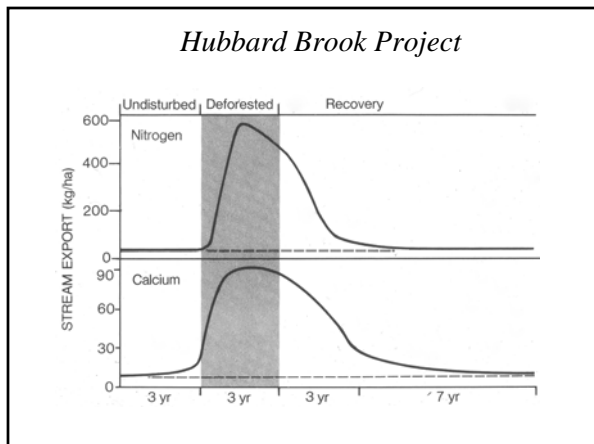
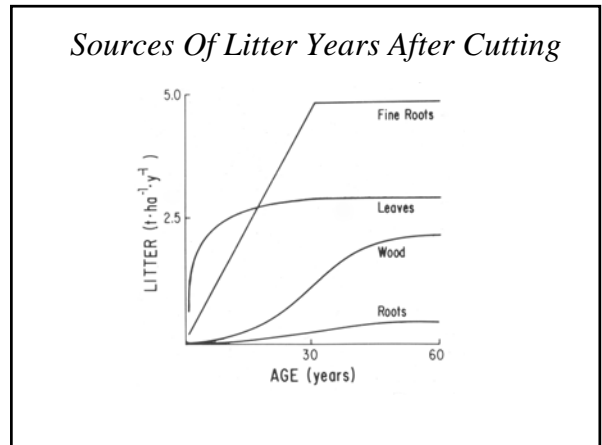
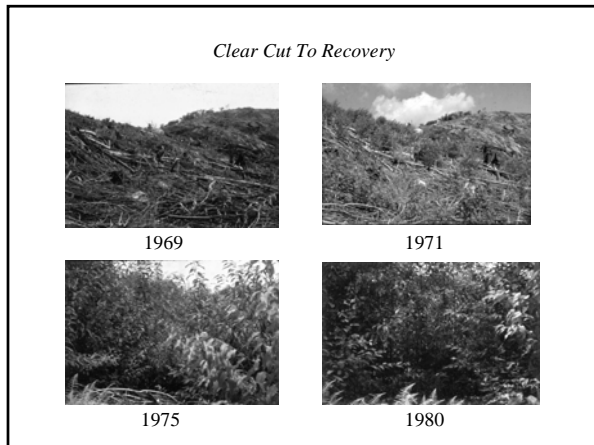
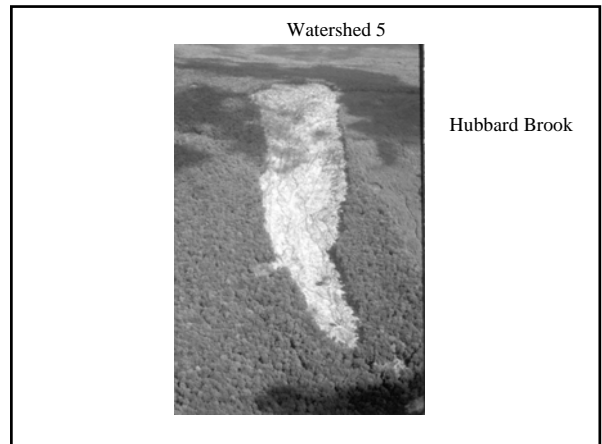
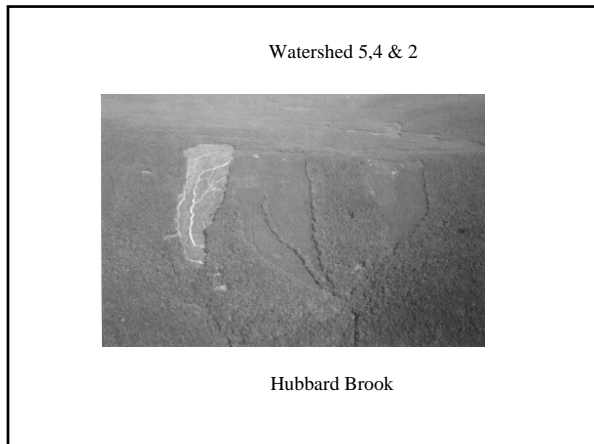
Plant Succession In An Old Field



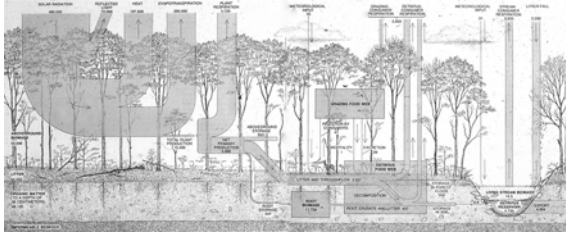
1st Year Herbward dominant, Cudgrass, pigweed	2nd Year Asters dominant, Cudgrass	3rd to 15th Year Grass scrub community; Bromus-like grass; Pines coming in abundant stage	15th to 35th Year Young pine forest	35th to 70th Year Mature pine forest; Understorey of young hardwoods	70th to 100th Year Pine to hardwood transition	100th Year Climate and-history forest
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Duke University School Of Forestry





Summary Of Hubbard Brook 1976



Scientific American 1976

Resiliency



Threats To The Forest

Fire

Climate Change

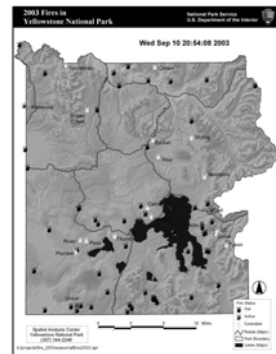
Over-harvesting

Acid Deposition

Fragmentation And Encroachment



Fire!!



Yellowstone Park Fire Of 1988

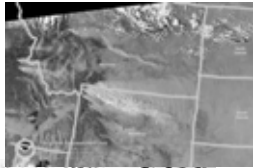
30% Of The Park Burned To The Ground



Extinguish Or Let It Burn?



Burn Baby, Burn!



What Is It Like Today?

Awesome!



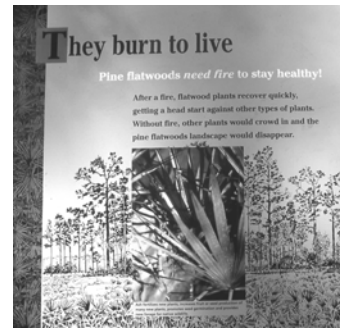
Really Awesome!



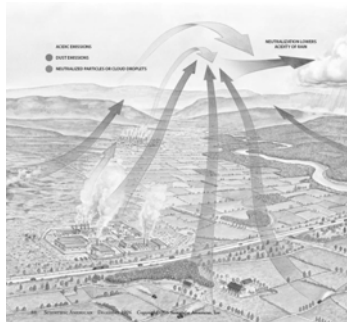
Plant Succession



The Role Of Fire In Ecological Process



Acid Rain And Deposition



Deforestation-Reforestation

The George Washington National Forest, now a national treasure, was once "the land nobody wanted". It was formed as a result of the Weeks Law of 1911, which authorized the purchase or exchange of private lands, primarily in the east. Its original intent was to protect water and water supplies that had been damaged by abuse during the earlier settlement and industrial period.

SHENANDOAH NATIONAL PARK



Forest Damage Due To Acid Rain

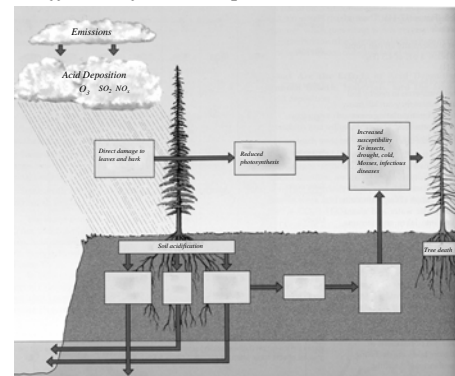


Germany



New York

Effects Of Acid Deposition On Trees

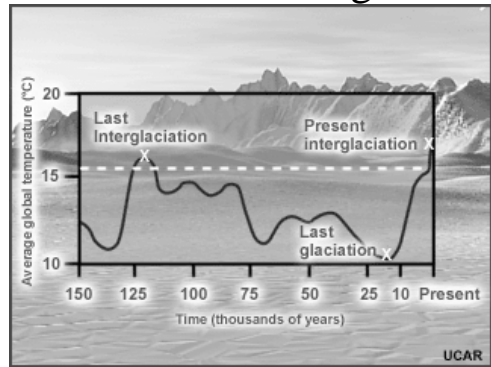


From: G.T. Miller. *Living In The Environment*. 2004

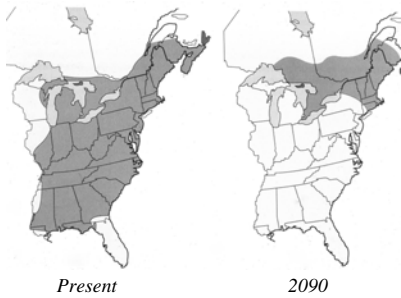
Clearcut Forest



Climate Change



Climate Change And Distribution of Forests



Fragmentation Creates Ecotones



Leave It To Beaver



Kudzu Takeover



*If We Leave It Alone, The Forest
Will Regenerate All By Itself*



Trees Please



Project Lorax

Roscoe Central School

1994-2003

Donna and her kids!



Everybody had fun!



Lisa and John



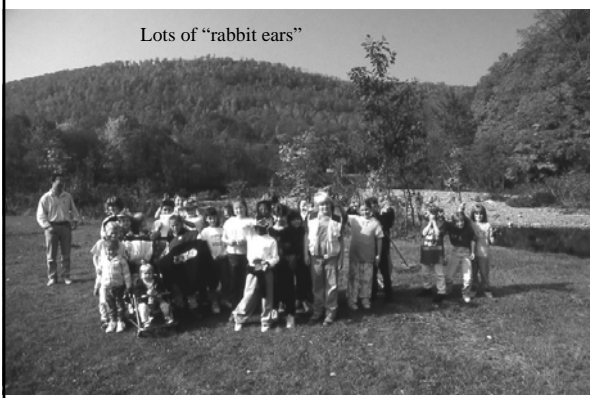
The Whole Gang
Was there!



In go the trees!



Lots of "rabbit ears"



More Smiles!



Combined 6th grade, Roscoe Central School



He's "The Man"



Darby Ditch



Change is coming!



Rehabilitating Darby Brook



Thank you East Jersey TU and Haledon Nursery!!!



Its hard to see at first



But later that spring...





