

Les communautés de plantes du Sud des Appalaches







APPALACHIAN TRAIL

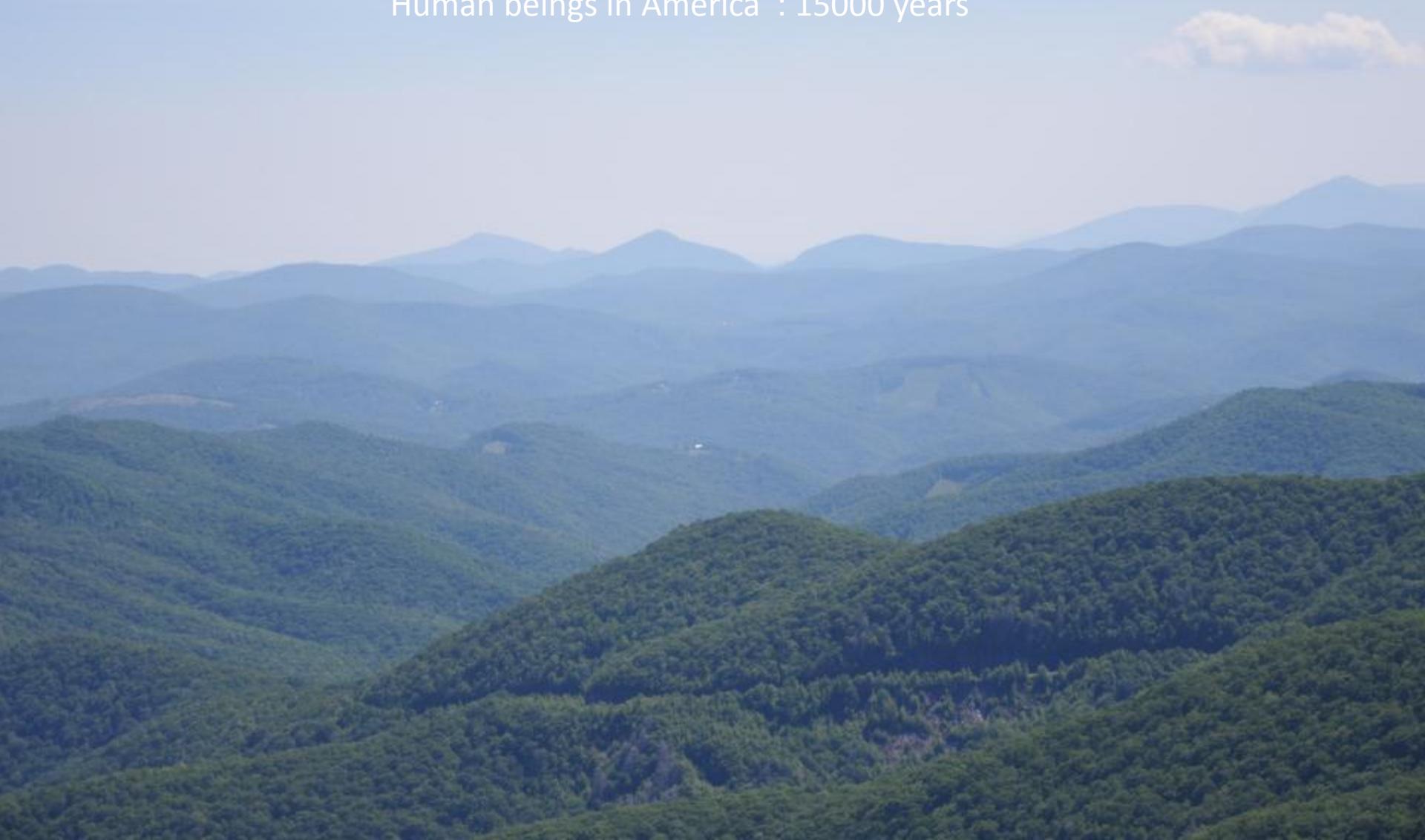
Sweat Heifer Creek Trail 1.7
Boulevard Trail 2.7
Katahdin Maine 1972.0



Old Mountains 480 million years

Human beings in Africa : 2.9 million years

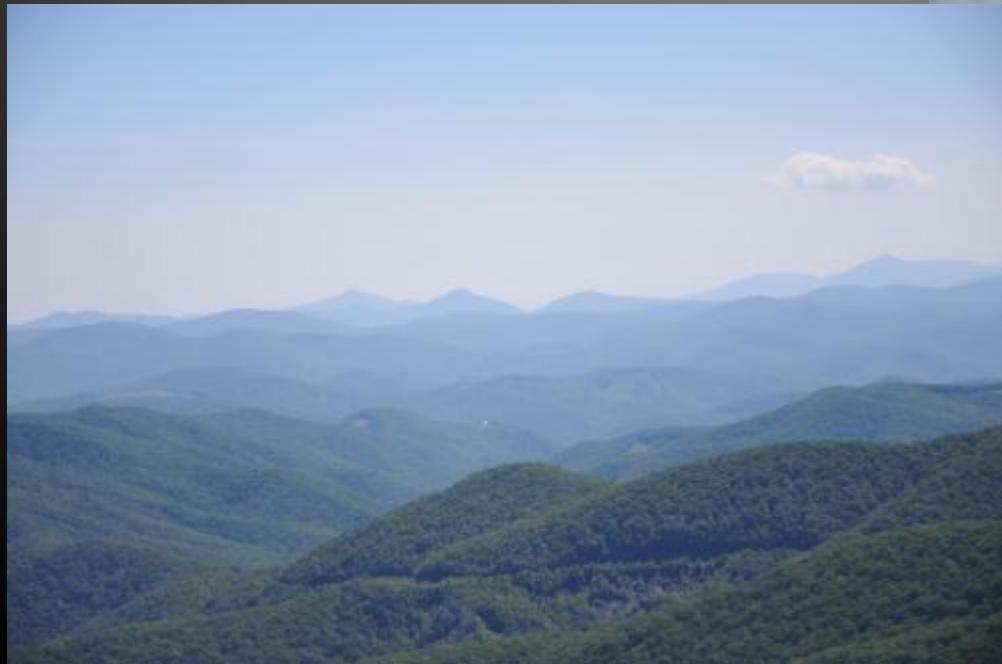
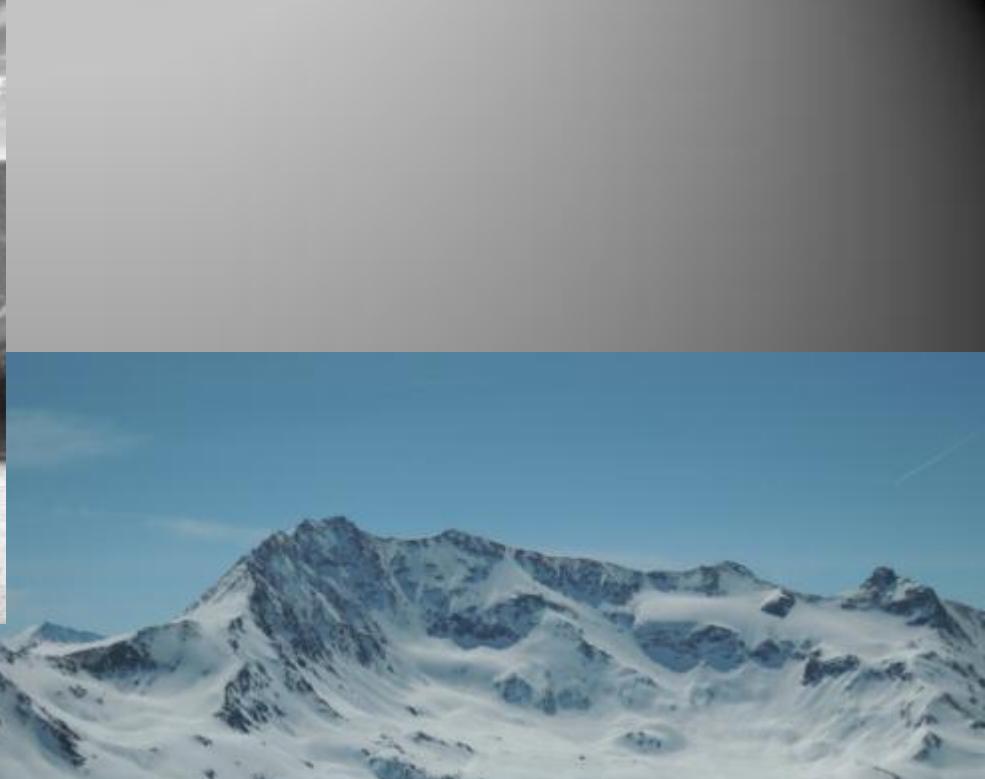
Human beings in America : 15000 years



A black and white photograph capturing the majestic Rocky Mountains. In the foreground, a dark, rocky shoreline slopes down to a calm lake. A single, tall evergreen tree stands prominently on the right side. The middle ground is filled with deep, shadowed mountain valleys. The background features towering, rugged peaks, some with patches of snow or ice clinging to their ledges. The sky above is filled with wispy, light clouds.

Rocky mountains 45 million years

Daniel Mosquin UBC



Southern Appalachian Mountains



Biological richness and biodiversity

- 2500 species of flowering plants
- 130 species of trees

Mais aussi

- 2300 species of mushrooms
- 30 species of salamanders
- 500 species of mosses
- 400-800 species of arachnids
- 100 species of mollusks
- 230 species of millipedes
- 30 espèces de Trillium



Animals communities







Human beings communities



Our American colleagues





DONALD
JENKINS
1934 - 1976

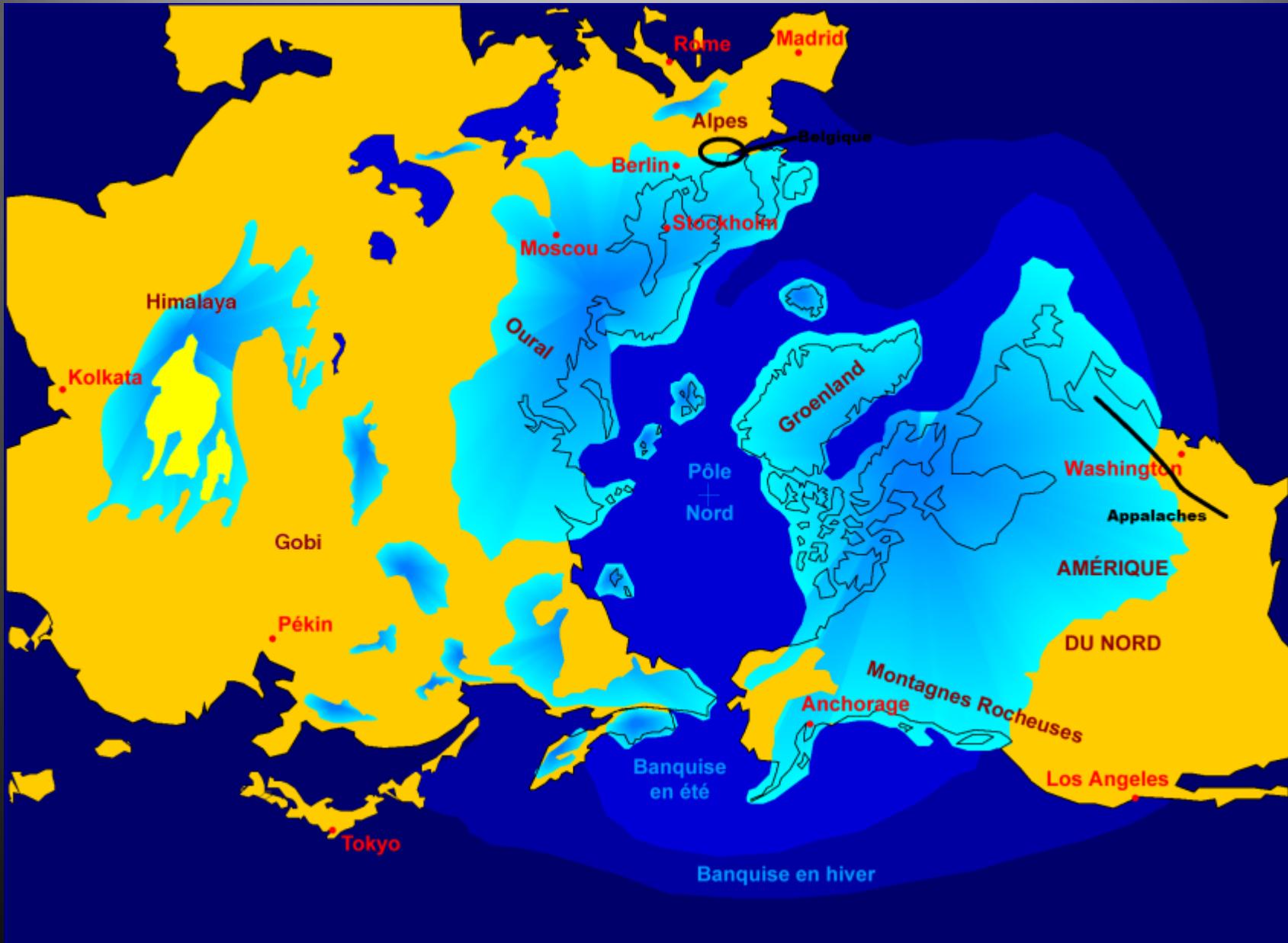
ESTIMATED 1981

Why is the flora so rich and so diverse

- **Favorable geographical and glacial history**
- Topography
- Varied geology and pedology
- Good climate: Temperate rain forest (Water and Heat seasonal variation)



Last Ice Age : 15000 years ago







**WELCOME
TO**

DISNEYLAND

Why is the flora so rich and so diverse

- Favorable glacial and geographical history
- Topography
- Varied geology and pedology variées
- Good climate: Temperate rain forest (Water and Heat)

Topography : 50 mountains higher than 1800m of altitude





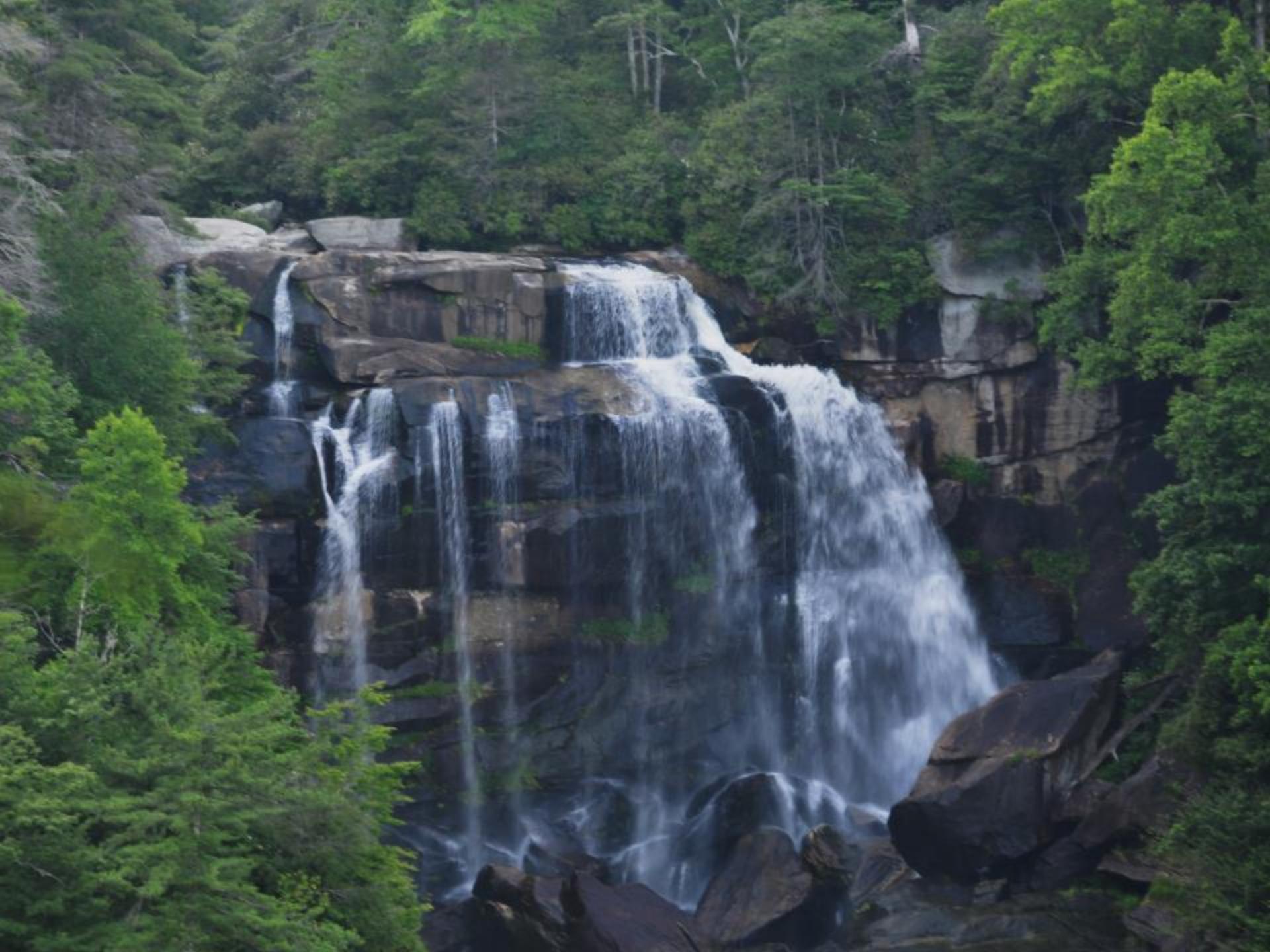
Please **TOUCH**
this map.

You can feel the
difference in elevation
from Ingmans Dome
to Condit Creek.
Terry, where
are we?

Dome
elevation
It is
mountain
cookies.

WYOMING CORDILLER

















Why is the flora so rich and so diverse

- Favorable glacial and geographical history
- Topography
- **Varieted geology and pedology**
- Good climate: Temperate rain forest (Water and Heat)













Why is the flora so rich and so diverse

- Favorable glacial and geographical history
- Topography
- Varied geology and pedology variées
- **Good climate: Temperate rain forest (Water and Heat)**

Climat

- Lakemont Georgia
 - 172cm water a year (wespelaar +- 100 cm)
 - Average temperature in July 30°C
 - Average temperature in january 10°C

Phoenix in Arizona
20cm water a year



HEAT and WATER



HEAT but NO WATER



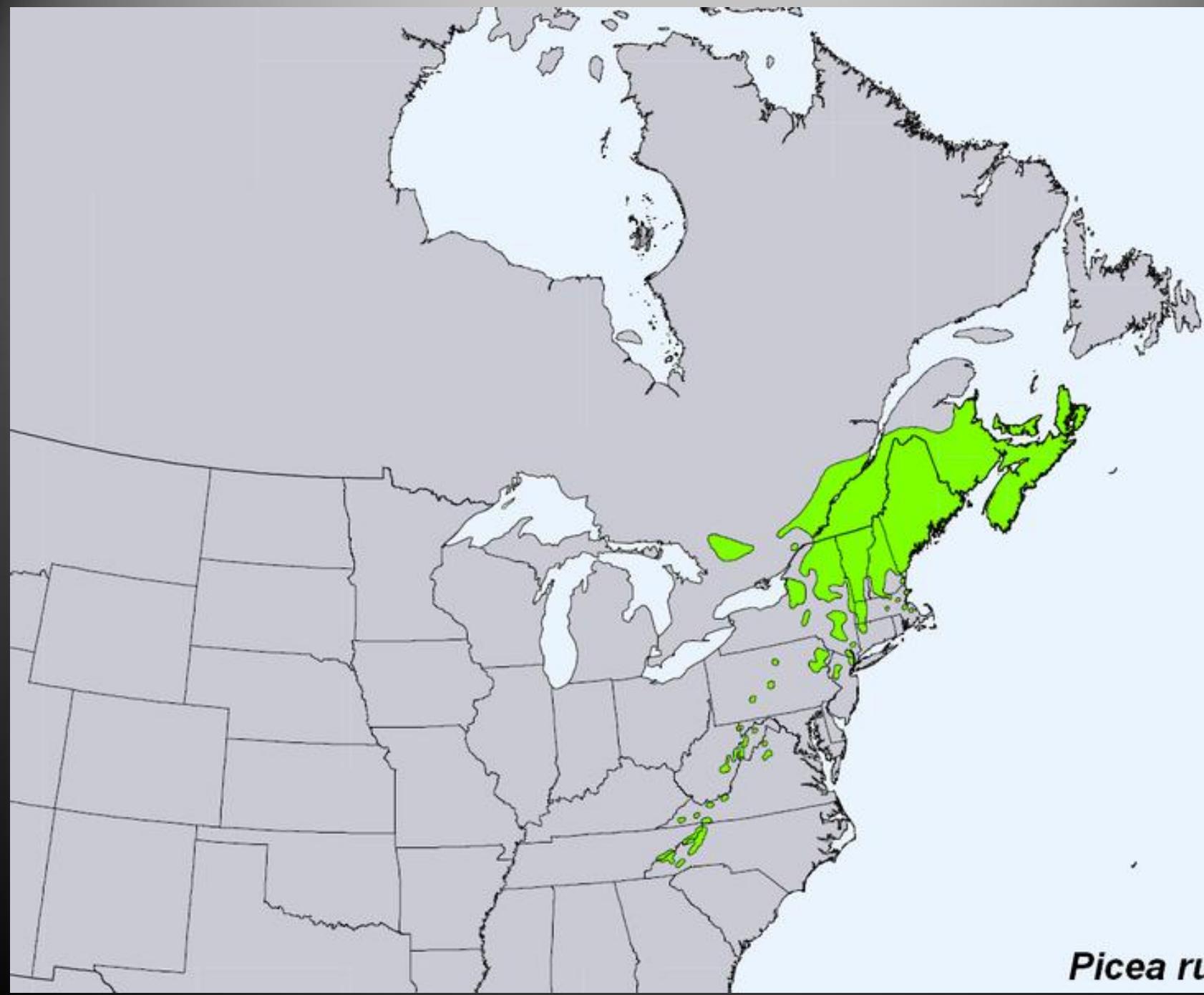
Plant communities

- Spruce Fir forest : Foret à Picea et Abies
- Grassy Bald : Bald à graminées
- Heath Bald : Bald à plantes de bruyères
- High elevation rock outcrop : Les enrochements de haute altitude
- High elevation red oak forest :La foret de haute altitude à Quercus rubra
- Rich Cove forest : La ‘cove forest’ à sol légèrement acide
- Acidic cove : La ‘cove forest’ à sol très acide
- Spray cliff zone : La zone de falaise humide
- Rocky streamside and river side : Les bords de torrents et rivières
- Mountain bog : Les marais de montagne
- Chestnut Oak forest : La forêt à châtaigner et chêne
- Pine Oak Heath community : La forêt à Pin chêne et bruyère
- Canopy gap community : Les communautés de clairière

Spruce-fir forest
Minimum 5000 ft (1500m)







Picea rubens

Picea rubens







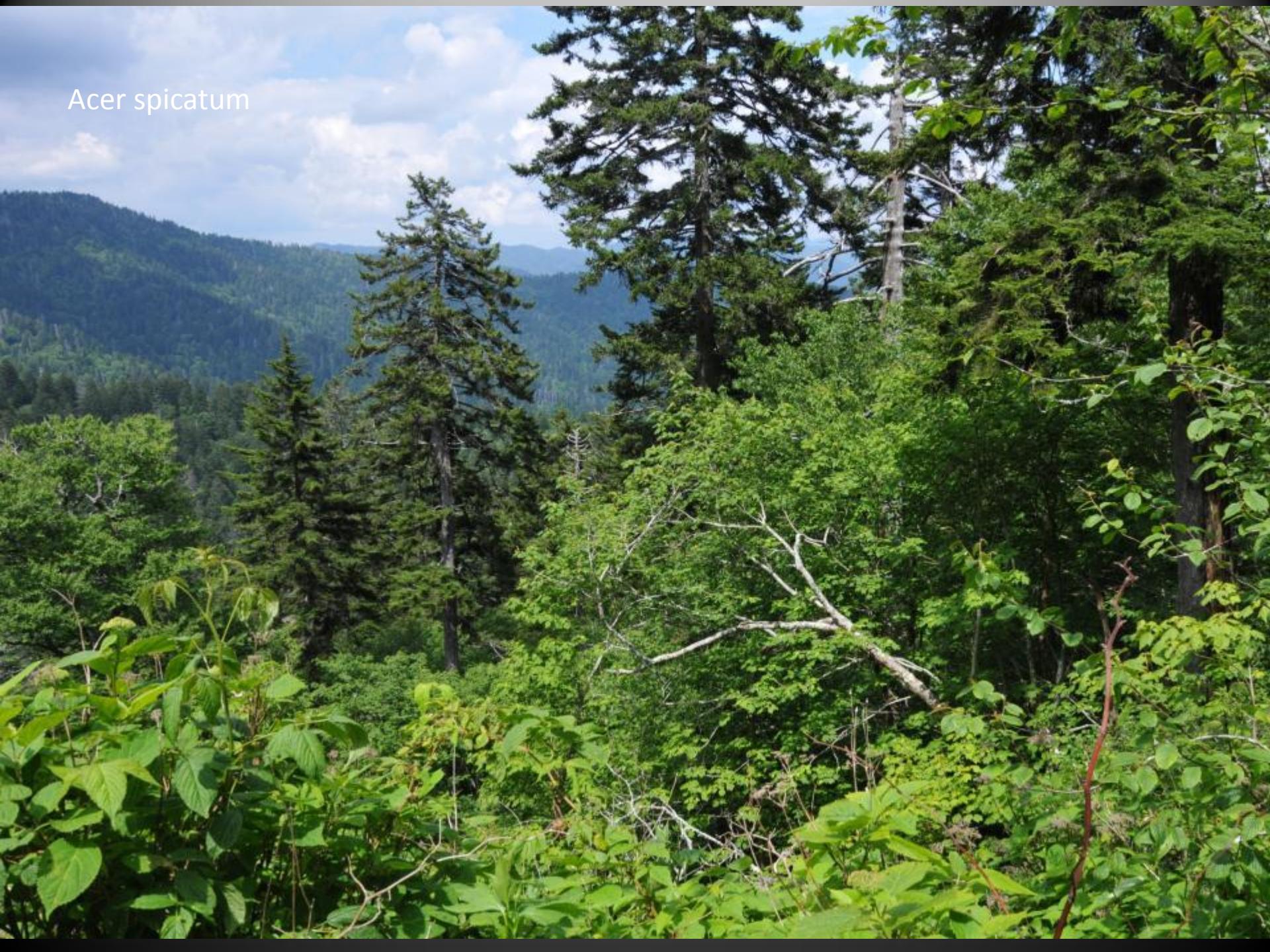
Abies fraseri



Abies fraseri



Acer spicatum





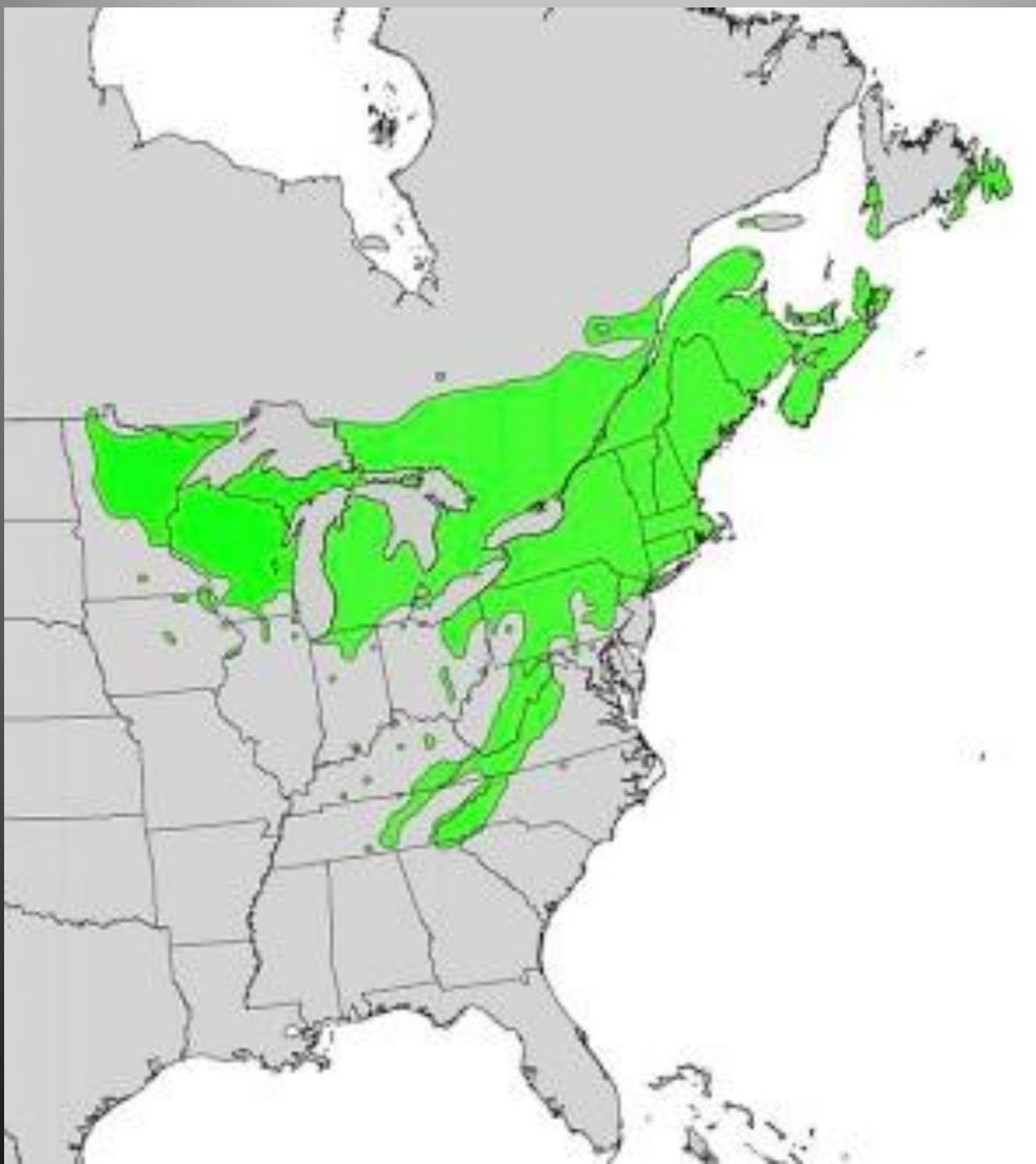








Betula alleghaniensis







Sorbus americana







Prunus pensylvanica





Aesculus flava

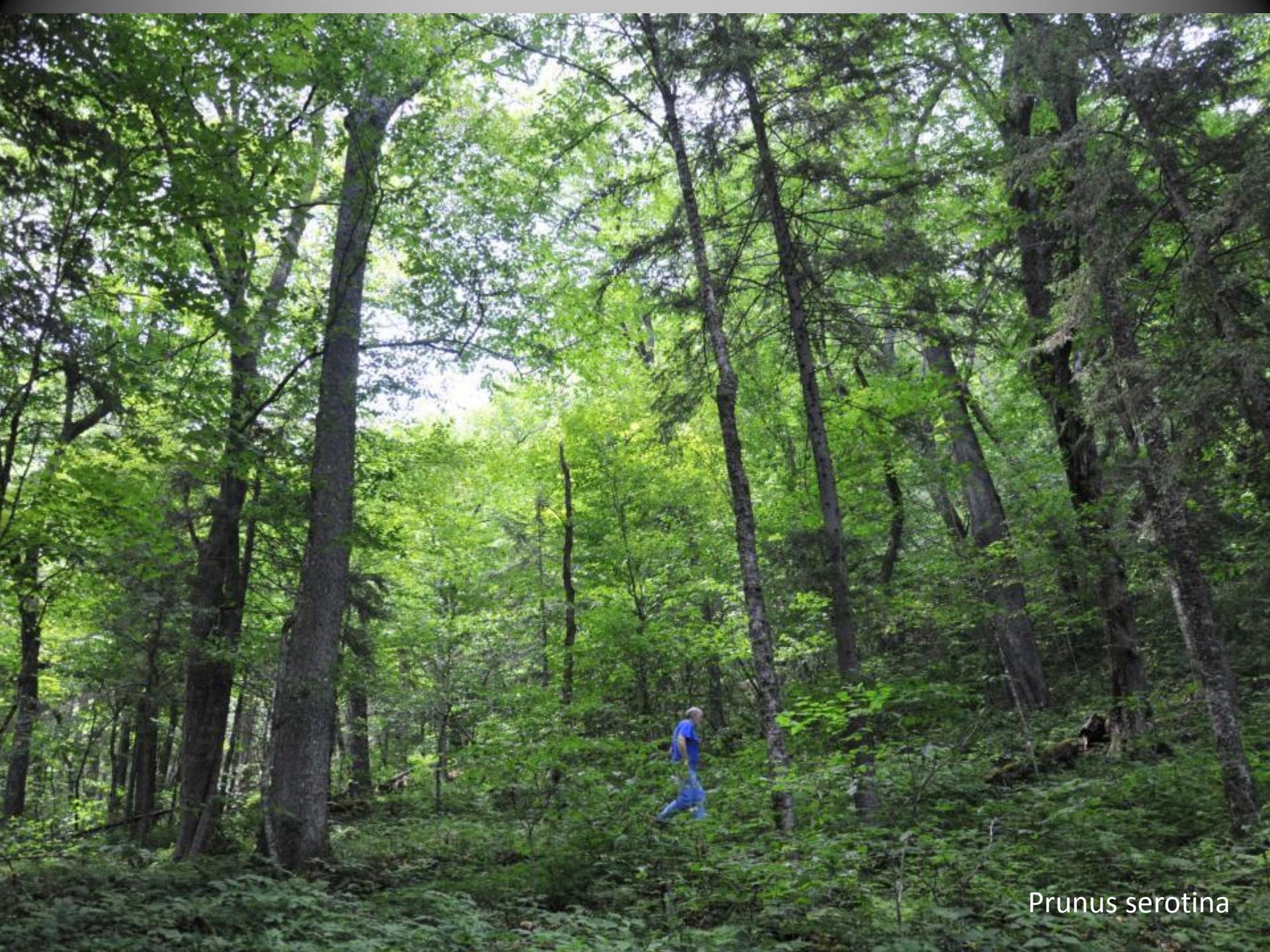




Archilocus colubris







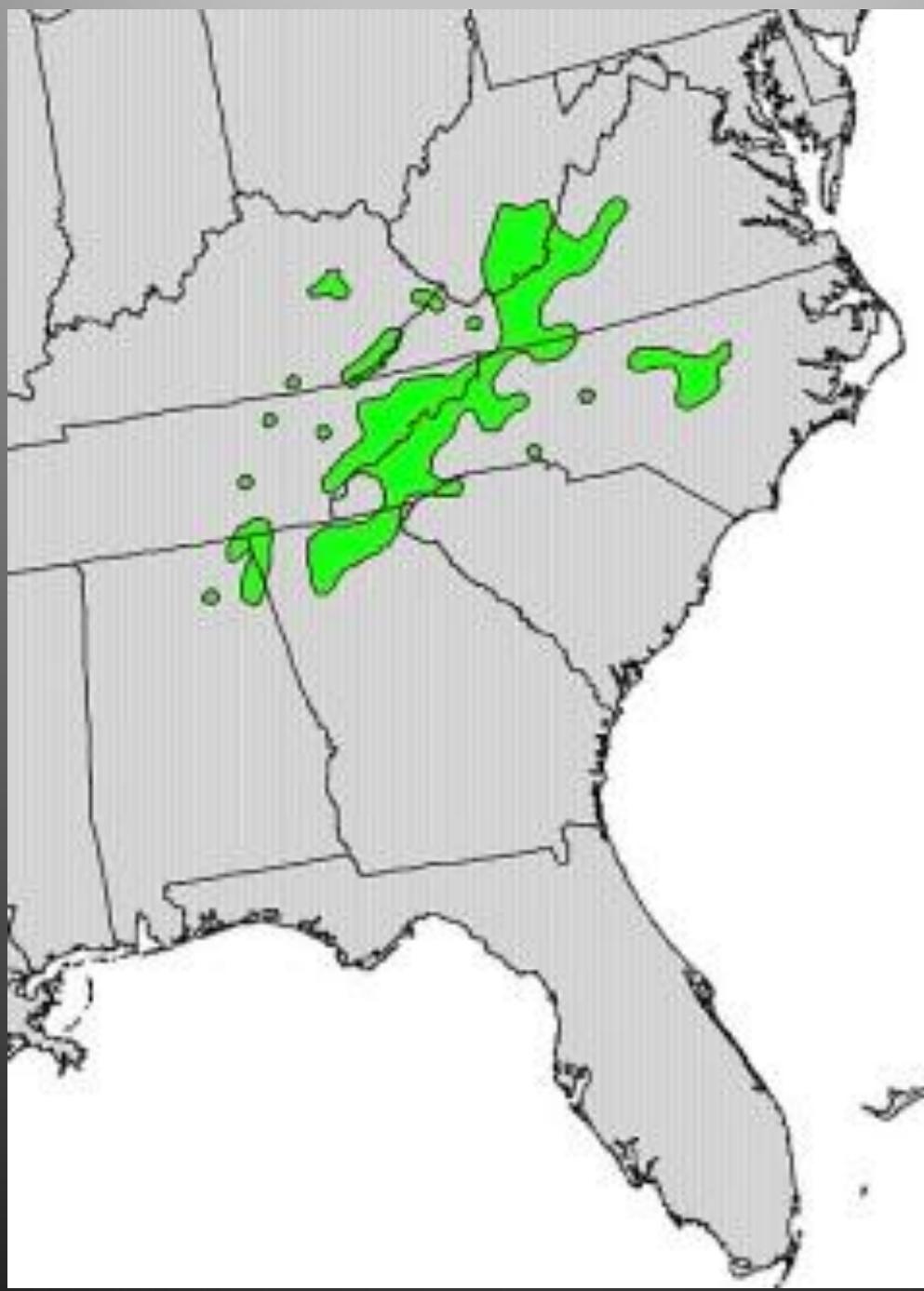
Prunus serotina

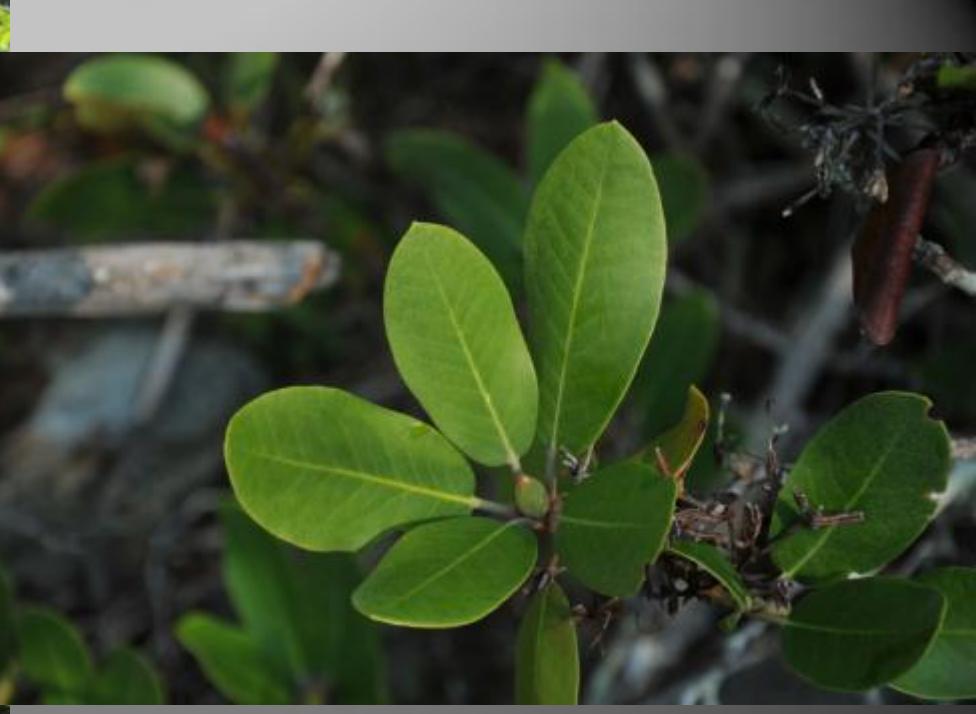




Rhododendron catawbiense



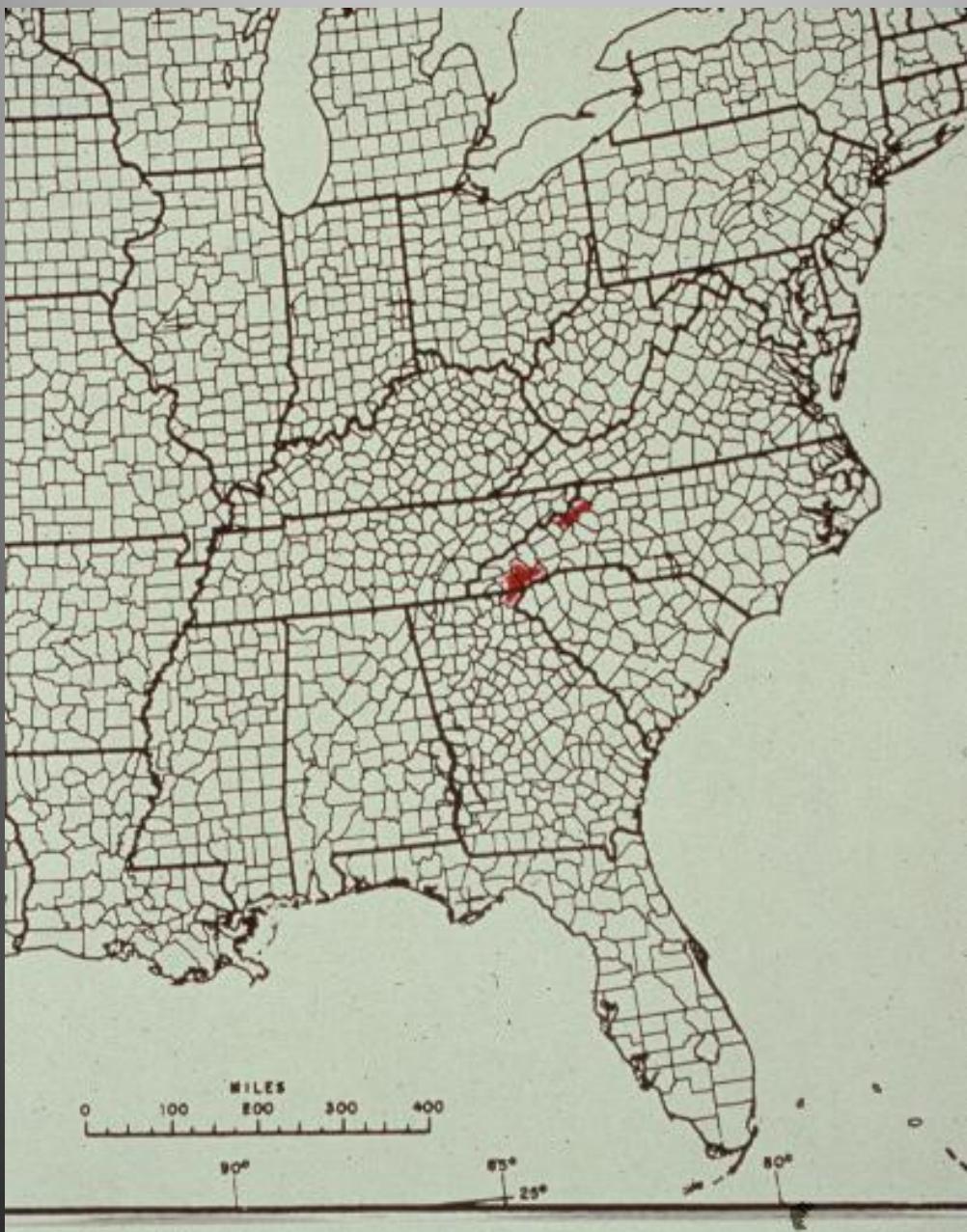




Rhododendron vaseyi







R. vaseyi



Viburnum lantanoides







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SCENIC ↑
VIEW 500 ft

ANDREW'S BALD





Rhododendron calendulaceum













Rhododendron catawbiense

A photograph of a Viburnum cassinoides shrub in bloom. The shrub has numerous small, white, star-shaped flowers clustered in groups. Its leaves are dark green with some reddish-purple coloration on the new growth. The shrub is set against a background of tall evergreen trees and a grassy field.

Viburnum cassinoides





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Forêt de haute altitude à *Quercus rubra*





A photograph of a dense forest. In the foreground, a large tree with dark, twisted branches and green leaves dominates the right side. The ground is covered in a thick layer of green vegetation and fallen leaves. In the background, many other trees stand tall, their trunks and branches creating a complex network against a bright sky.

Hamamelis virginiana



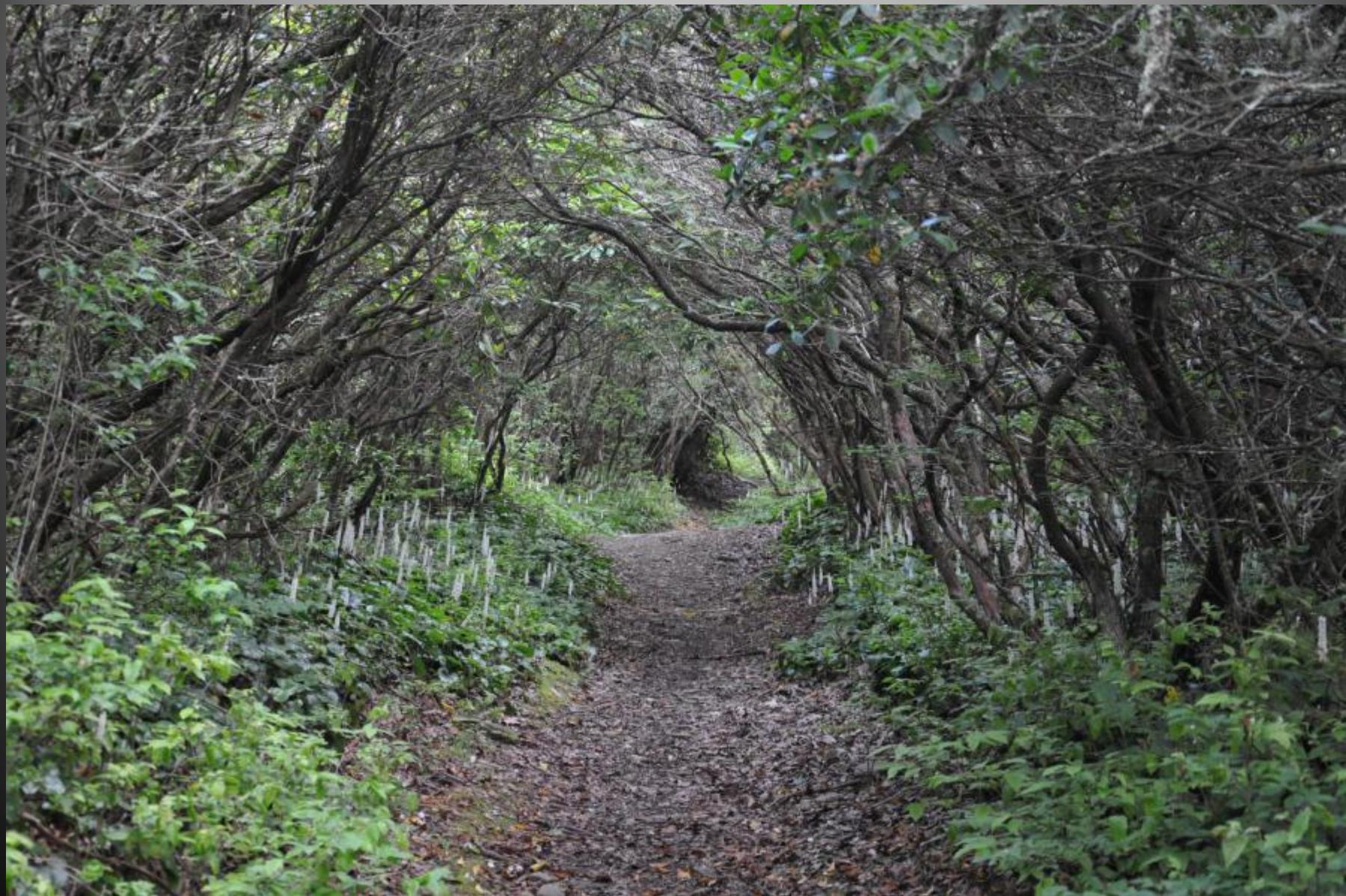


Kalmia latifolia













Menziesia pilosa









Ilex montana



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ACIDIC COVE FOREST



Tsuga canadensis



A photograph taken from a low angle looking up at a tall, slender tree trunk. The trunk is dark brown with visible vertical grain and some lichen or moss. Numerous thin, dark branches extend radially from the trunk, creating a complex web against a bright blue sky. Some green foliage is visible in the upper right corner.

Tsuga canadensis











Liriodendron tulipifera



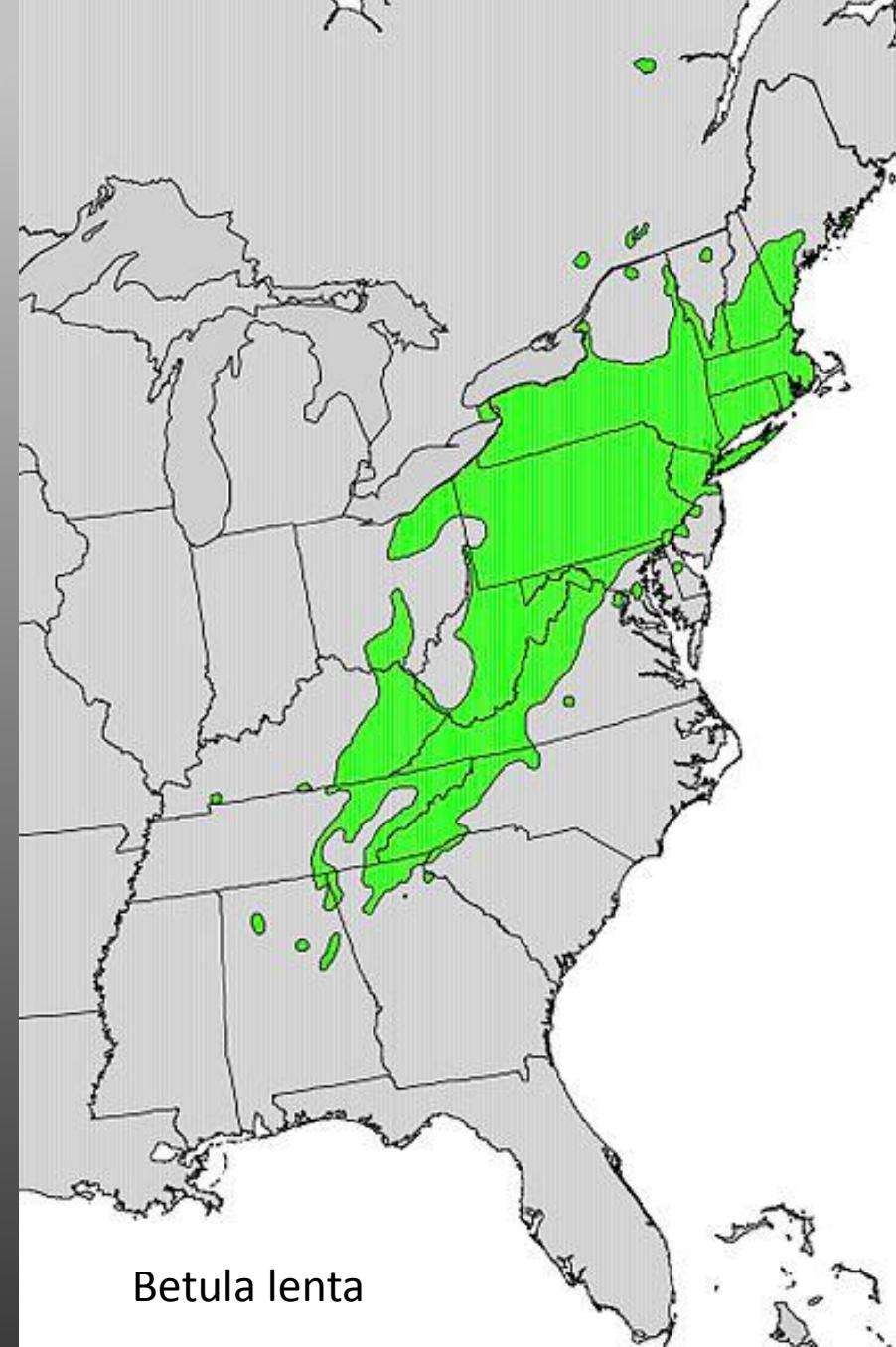
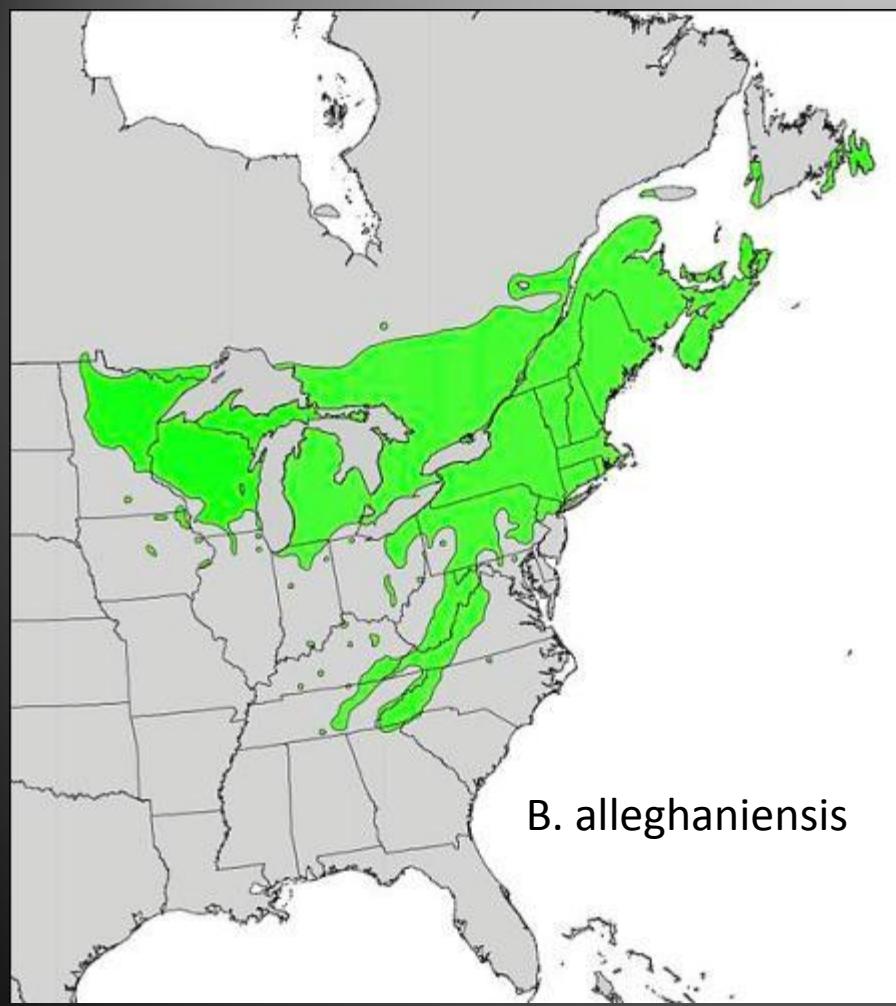








Betula lenta

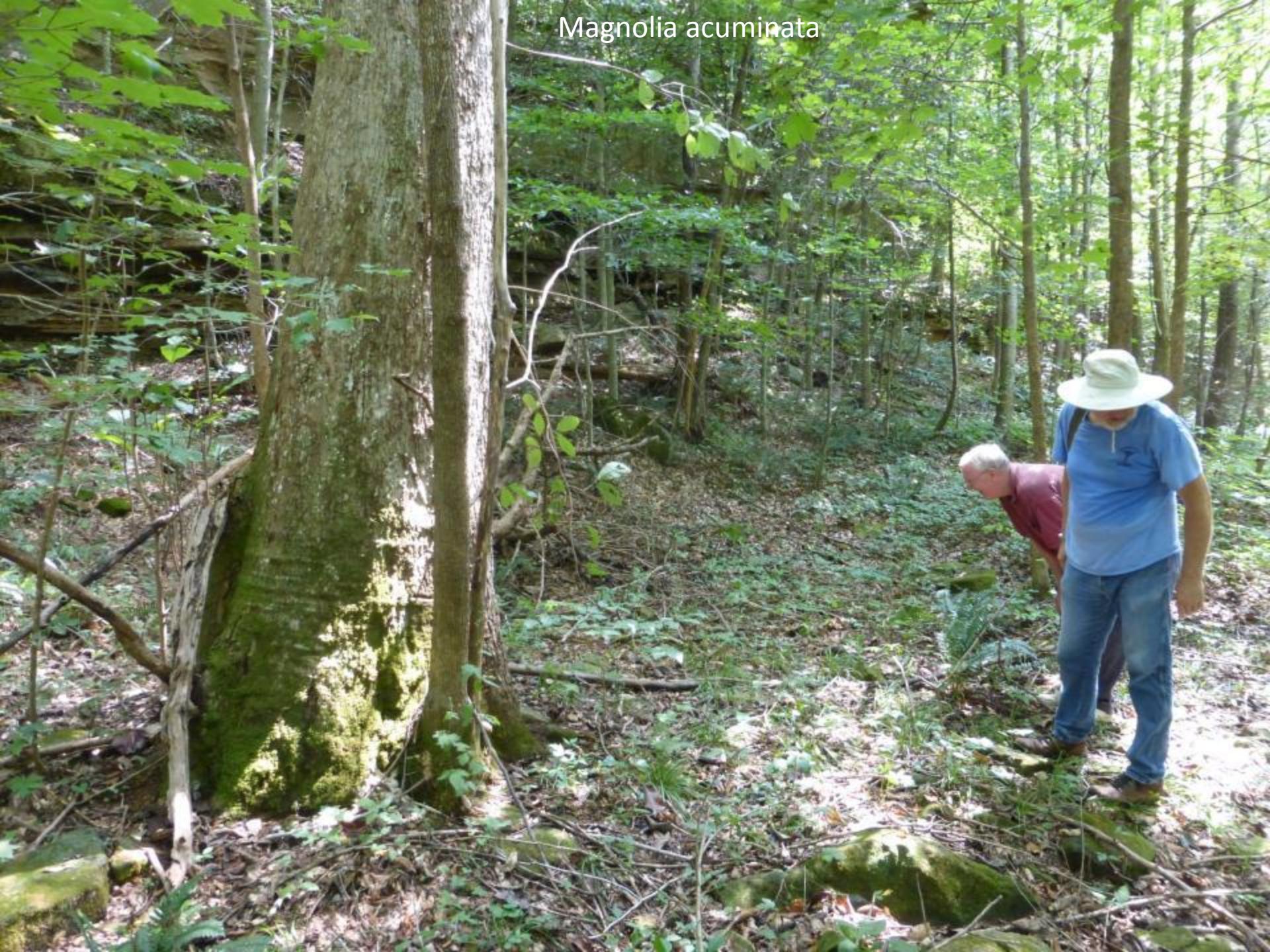




Halesia tetrapeta



Magnolia acuminata









Magnolia fraseri











Ilex opaca









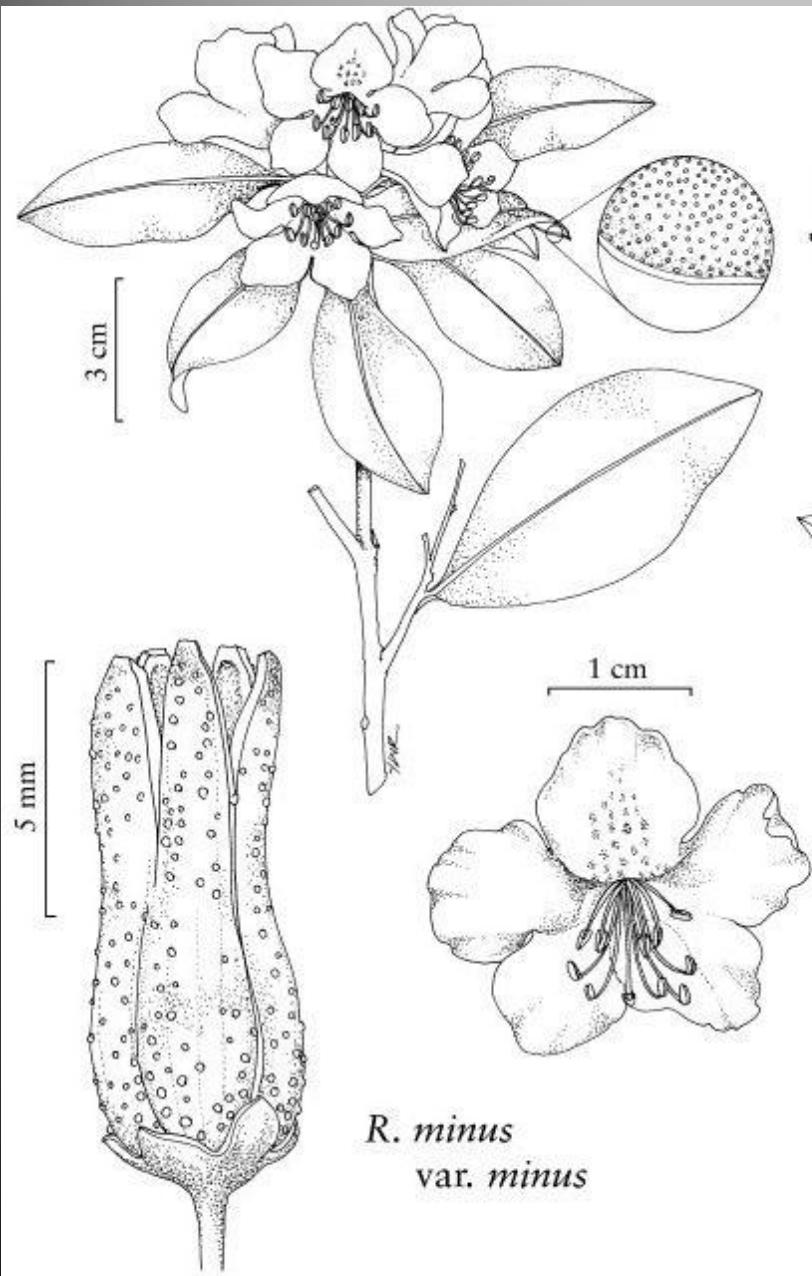




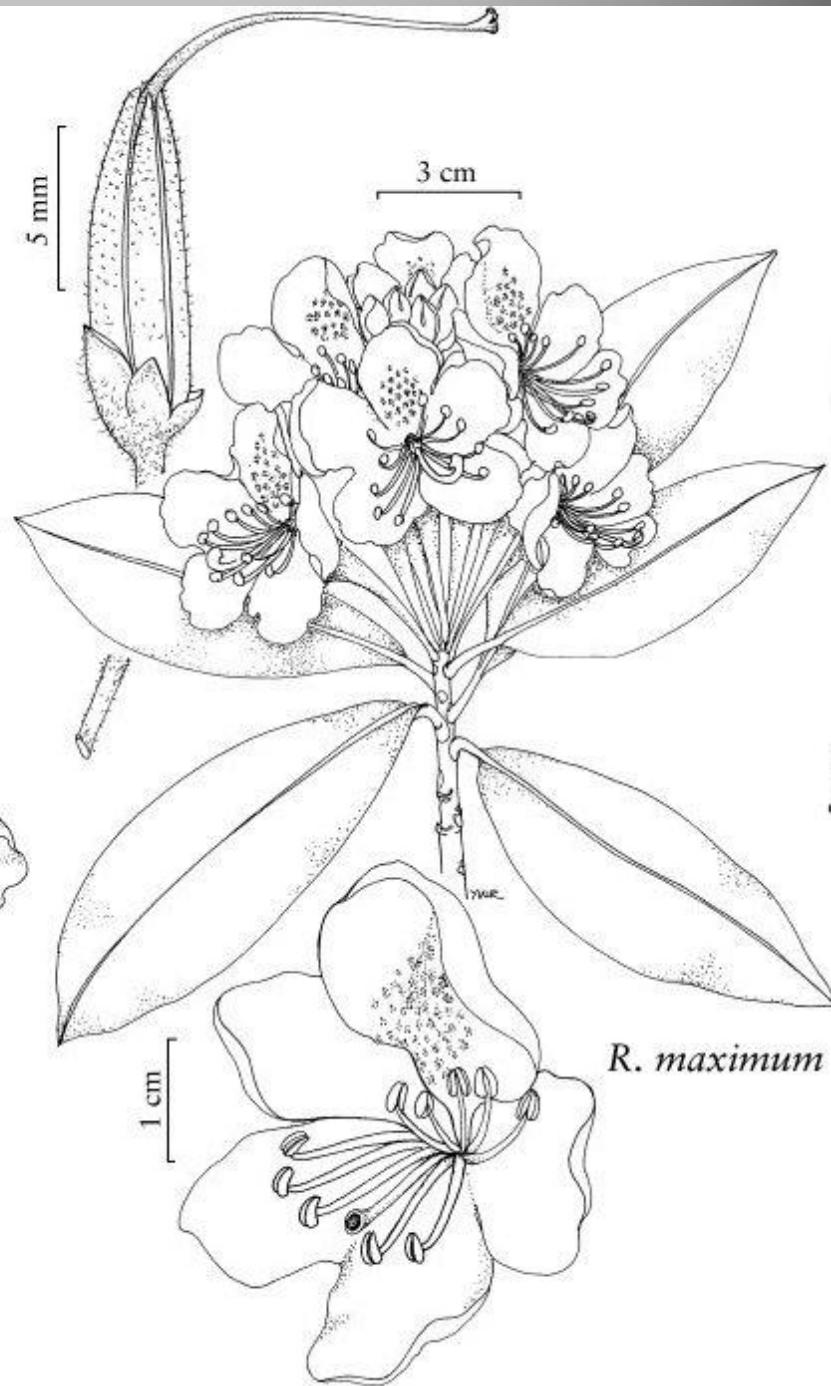








R. minus
var. *minus*































































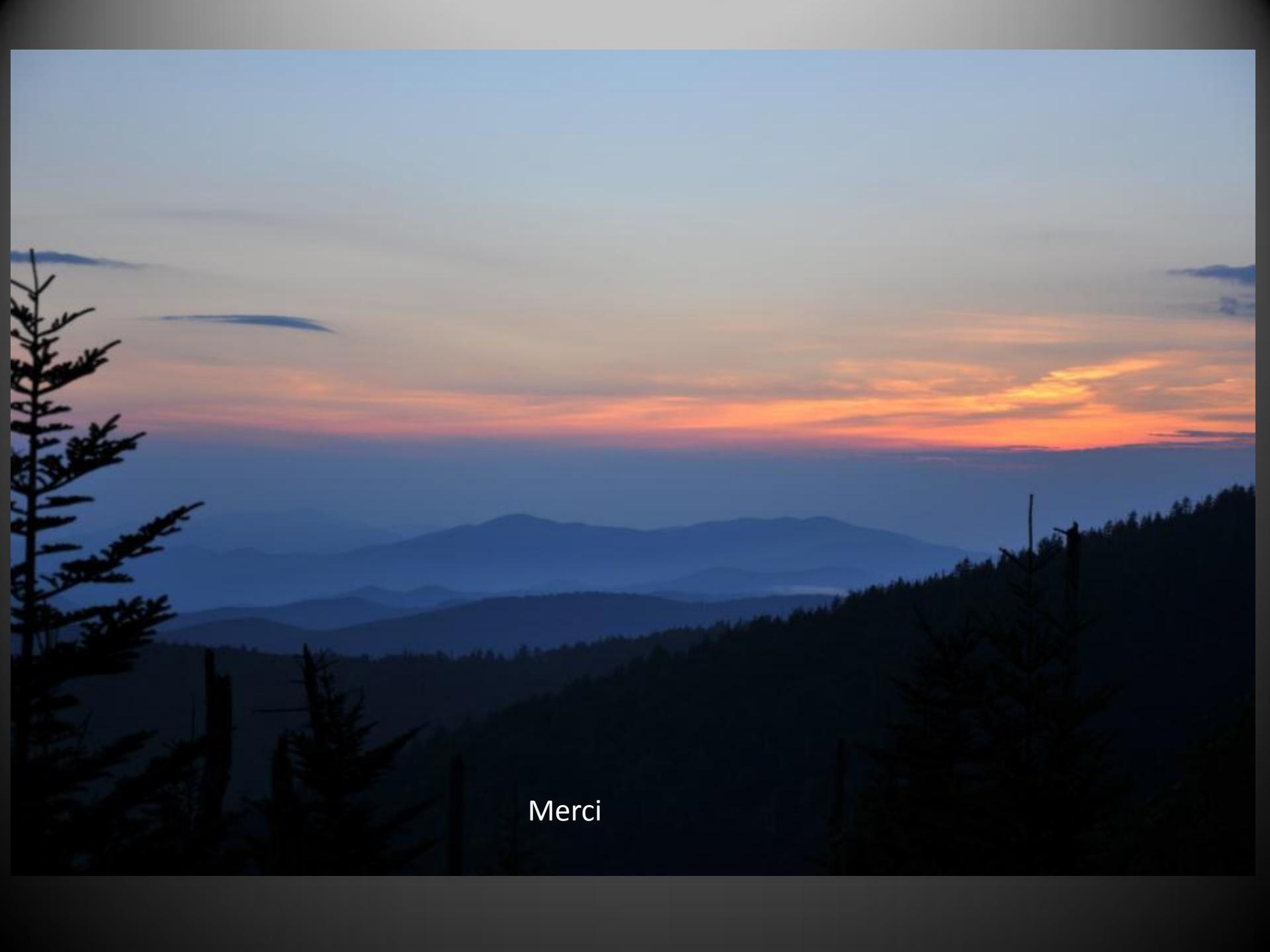










A wide-angle photograph of a mountainous landscape at sunset. The sky is a vibrant gradient from deep blue at the top to warm orange and yellow near the horizon. Several layers of mountains are visible in the background, their peaks obscured by the low light. In the foreground, dark silhouettes of evergreen trees frame the scene. A single word is overlaid on the bottom left.

Merci