

An Introduction to ID Trees of New Mexico Mountains

by Mark Kalin

Mushrooms & Trees, They often go together like a Horse & Carriage.

But - Do trees always grow on the south of moss?

Mushroom / Tree associations

- 1 Boletus barrowsii & Suillus Spp. / Ponderosa Pine
- 2 Boletus edulis & Amanita muscaria / Spruce
- 3 Hawk Wing / Spruce & Fir
- 4 Chanterelle / Spruce
- 5 Pholiota squarossa / Aspen
- 6 Cauliflower / Spruce & Fir
- 7 Lobster / Ponderosa Pine
- 8 Morel / Where you find it (spruce, White fir, Gambel oak, Oregon-grape, Rocky Mountain juniper, ??)
- 9 Others?

Lifezones of the Southwest

- 1 Merriam ~ 1890, Bottom of Grand Canyon (<3K') – SF Peaks (12.6K')
In SW US, high relief, relatively close distance
 - 2 Plant communities related to temperature & moisture
Rough Rules of Thumb:
 - 3 Temp ~ -1°F. for each +1° latitude (northward)
 - 4 Temp ~ -1°F. for each ~ 300' altitude increase
 - 5 Moisture – ann. precipitation on mountain slopes increase ~ 4" per 1000' elevation gain
- AND ==> **ASPECT (north or south facing slope)** is VERY important.

Approximate life zones - from the east side of Sandia Mountains to Wheeler Peak , 13160', near Taos

Latitude: Albuquerque ~ 35°N.

Taos ~ 36.5°N.

Pagosa Springs ~ 37.25°N.

Altitude: Albuquerque 5300'

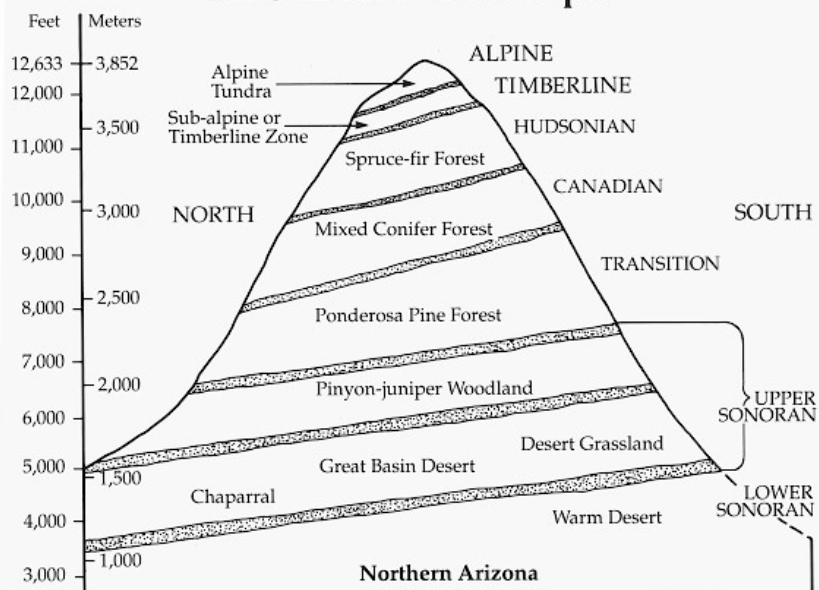
Taos ~ 7100'

Pagosa Springs ~ 7100'

ILLUSTRATIVE TREE SPECIES ASSOCIATIONS

- 1 Piñon – Juniper (Upper Sonoran) ~5k – 7k'
Piñon (pinyon) pine, Utah juniper
- 2 Ponderosa pine Forest (Transition)
Ponderosa pine (blackjack thru yellow, many doghair thickets), Douglas-fir, Gambel oak
- 3 Mixed Conifer Forest (Canadian)
White fir, Englemann / Blue spruce, Limber pine, aspen
- 4 Sub-alpine Coniferous Forest (Hudsonian)
Bristlecone pine
- 5 Alpine tundra – frequent strong winds, heavy snowfall, and short growing season sometimes as short as 30 days.
Scrubby woody plants, e.g., groundsel

The San Francisco Peaks and the Life Zone Concept



Diagrammatic cross-section of Peaks, showing Merriam's life zone terminology (right) and modern vegetation zone names (left). Zones slope downward on the cooler, moister north slope and upward on the hotter, drier south slope. Drawing by D.M. Zahnle

SOME COMMON TREES OF TAOS-AREA MOUNTAINS

Common Name	Scientific name	Q&D Latin/Greek	BRF – foliage, fruit, bark, buds – Clues differ according to season
Alligator Juniper	Juniperus deppeana		Bark
Piñon Pine	Pinus edulis	Edible	Short needles in 2's
Ponderosa Pine	Pinus ponderosa	Ponderous	4-6" needles in 3's
Gambel Oak	Quercus gambelli		*Leaf lobes are rounded (white oak) *From knee height to tree height
Douglas-fir	Pseudotsuga menziesii	False hemlock	*Cones have three bracts protruding above scales; soft, flat, 2-sided needles. Branch doesn't scar when needle pulled off
Englemann Spruce	Picea englemannii		*Spruce-type omnidirectional (3-sided) needles, leave pegged twigs. *Needles are sharp, sharper than Douglas-fir but not stiff; not as sharp as Blue Spruce. *Spruce-type cones (papery scales)
Blue Spruce	Picea pungens	Sharp, penetrating	*Spruce-type needles *Needles are sharp and stiff (shake hands) *Spruce-type cones ~ 2 X Englemann cone
Quaking Aspen	Populus tremuloides	Trembling, quivering	*White bark *Deciduous
White Fir	Abies concolor		*Needles are soft, blunt, and curve upwards, flat, 2-sided *Needles leave circular scars on twigs. Cones at top of tree only and don't fall off--can't find healthy cones on the ground. Cones stand upright; scales come off one by one
Limber Pine	Pinus flexilis	Flexible	*2-3" needles in 5's *Large cone w/coarse scales and smooth terminal umbo
Bristlecone Pine	Pinus aristata	Small bristle	Cones are tipped with a "bristle" Branches look like a "foxtail" Needles in 5's
Scrub Oak	Quercus turbinella		*Ground hugging *Leaf lobes are pointed (red oak)
New Mexican Locust	Robinia neomexicana		*Leaves – alternate, pinnately compound *Fruit – hairy pods *Paired spines
Chokecherry	Prunus spp.		*Leaves – alternate, simple *Flower clusters – white,sausage-shaped *Fruit – deep red cherry
Oregon-grape	Berberis repens	Creeping Barberry	*Prostrate growth *Holly-like leaflets *One of few broad-leafed evergreens