DECLINE OF ASPEN IN UTAH AND RESTORATION EFFORTS

BY

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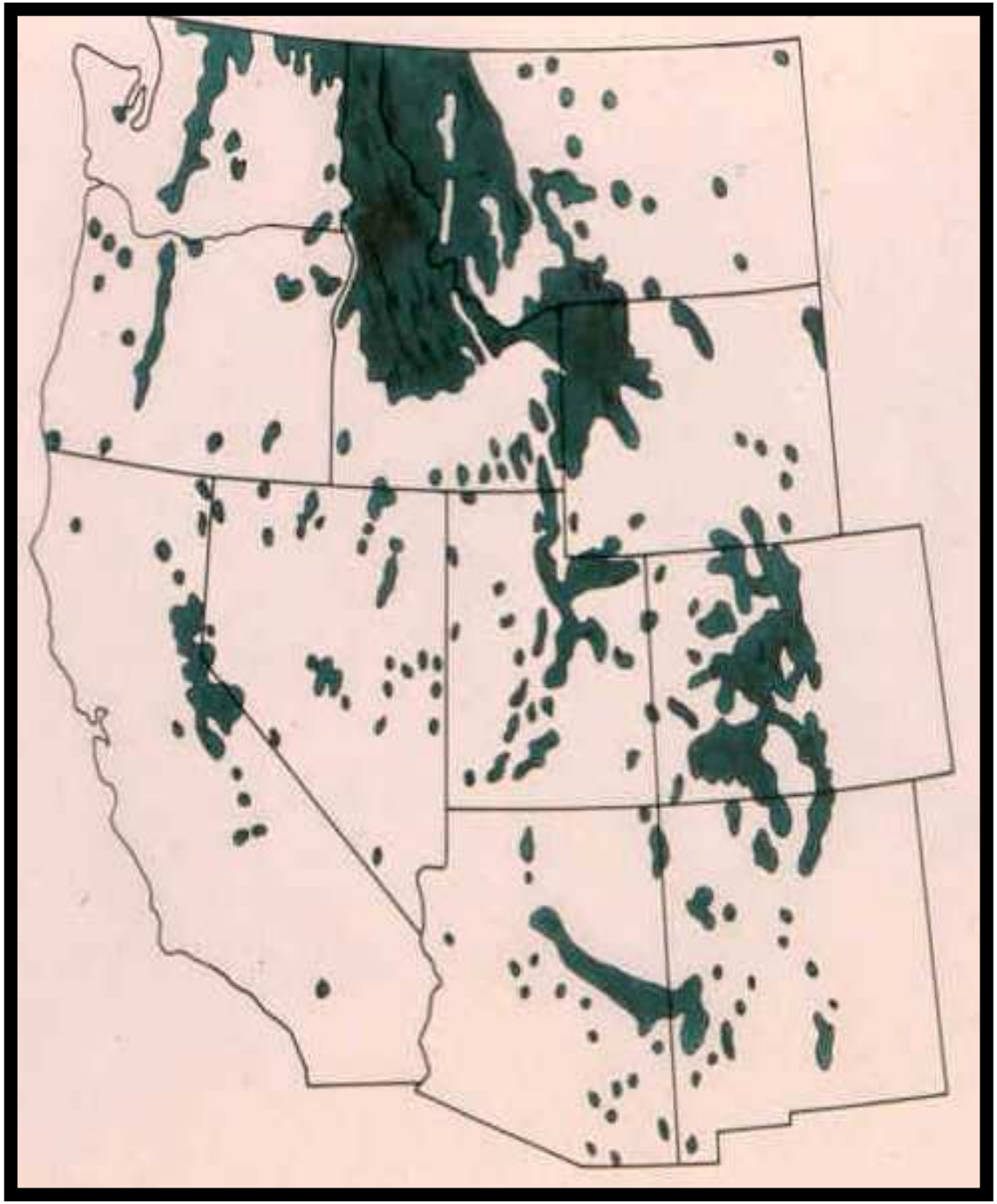
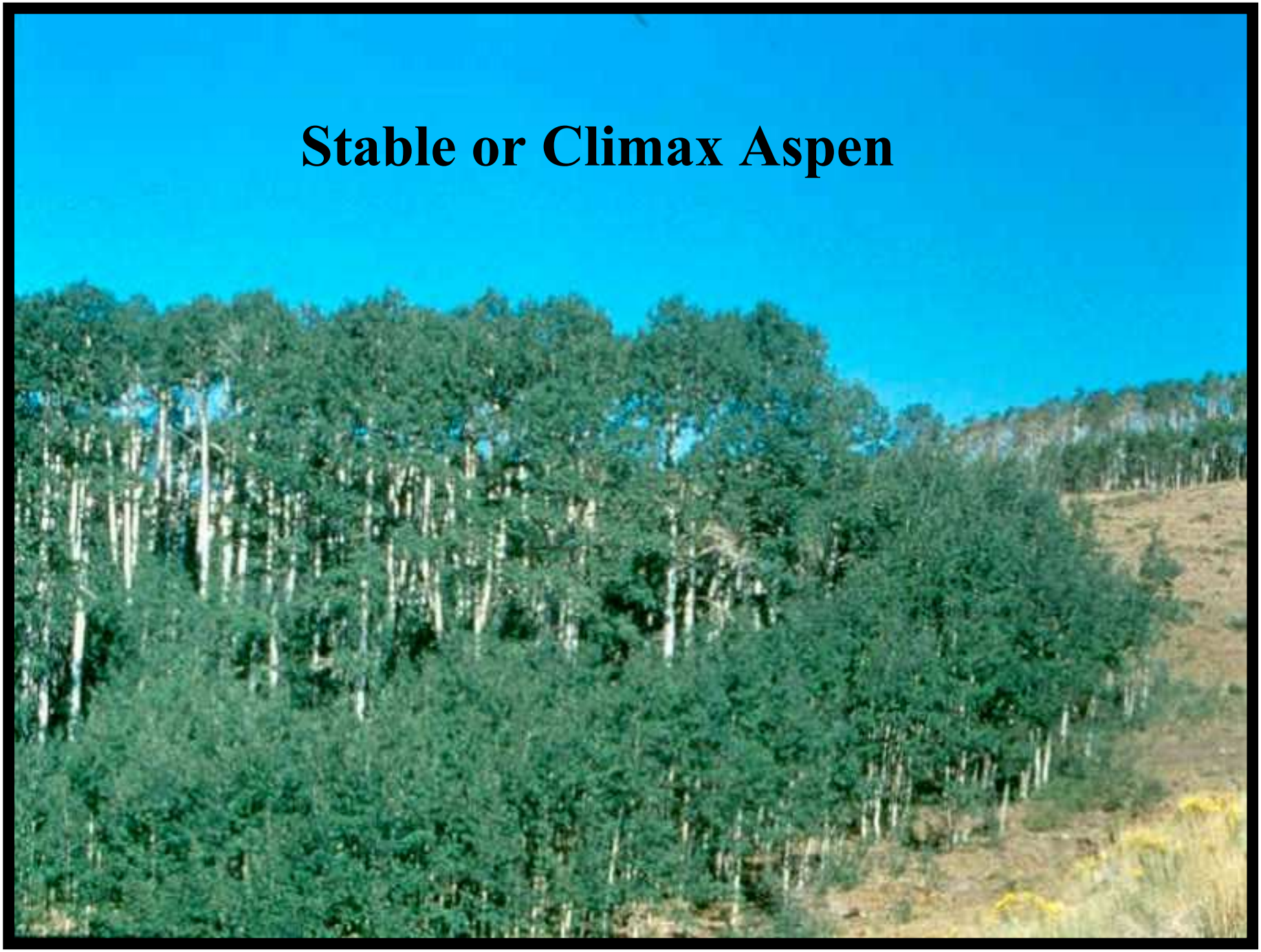
This Talk will:

- Discuss Ecology of Aspen
- Values of Aspen
- Decline of Aspen
- Examples of Restoration efforts

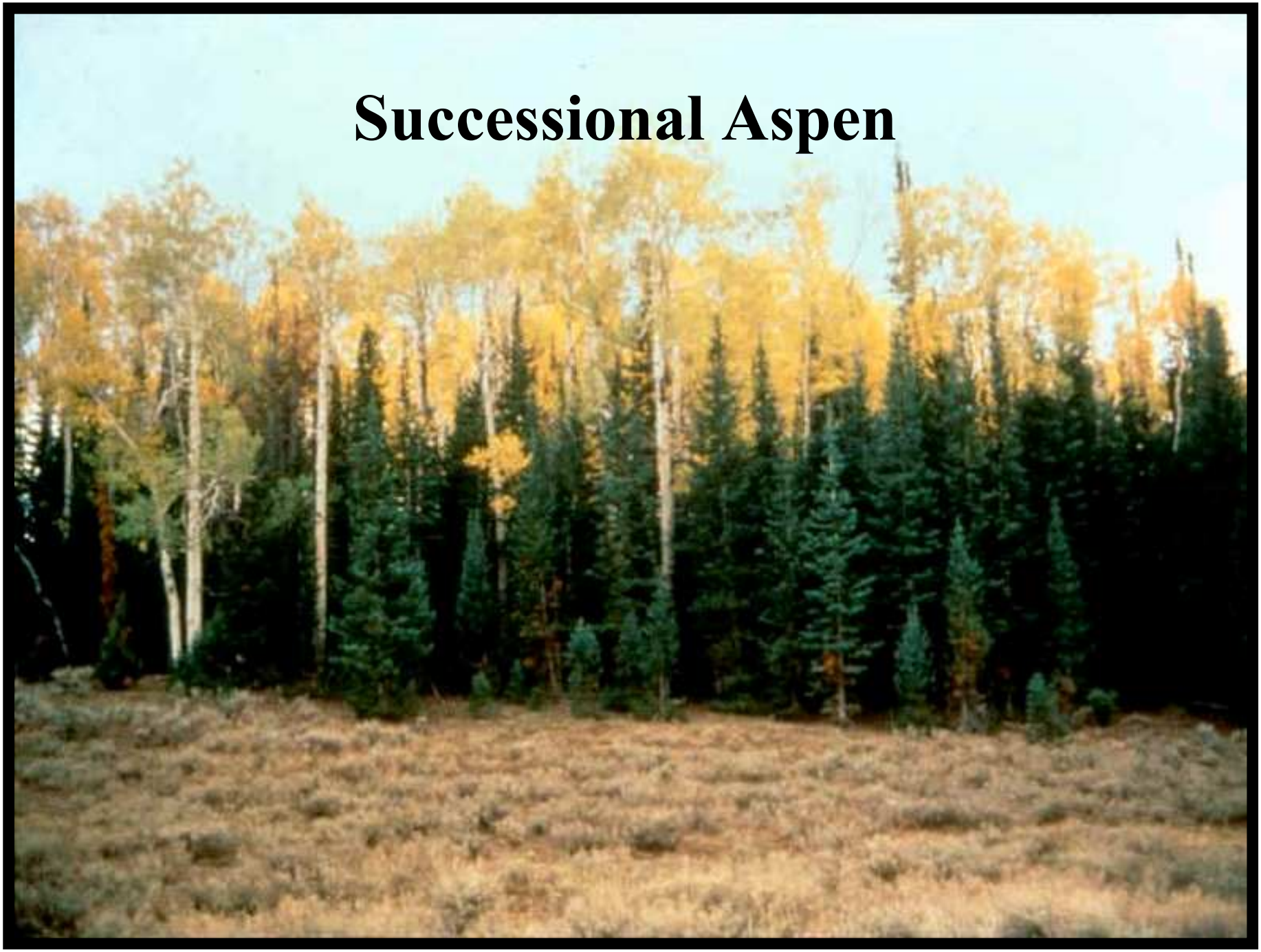
Potential Aspen Distribution

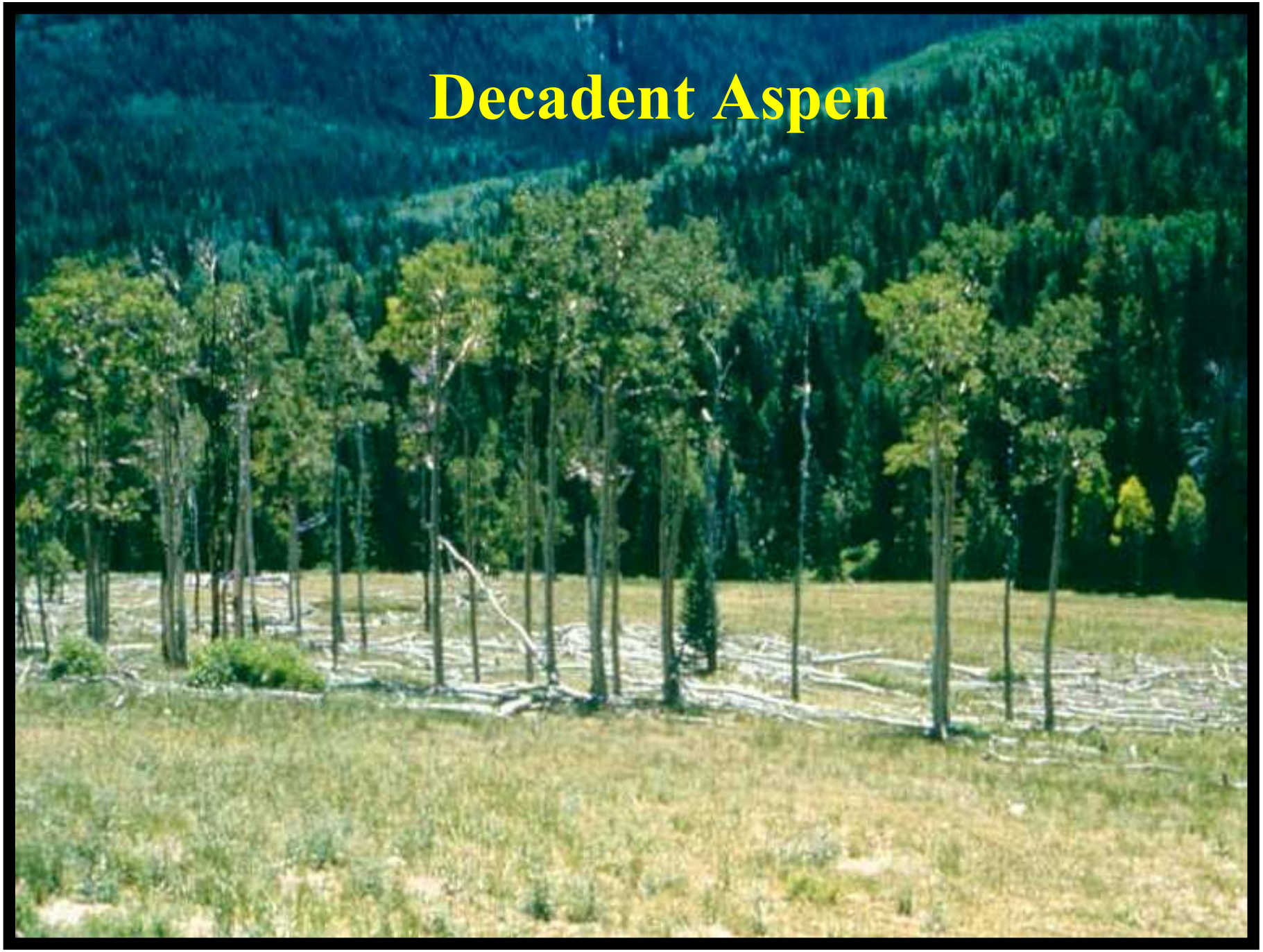


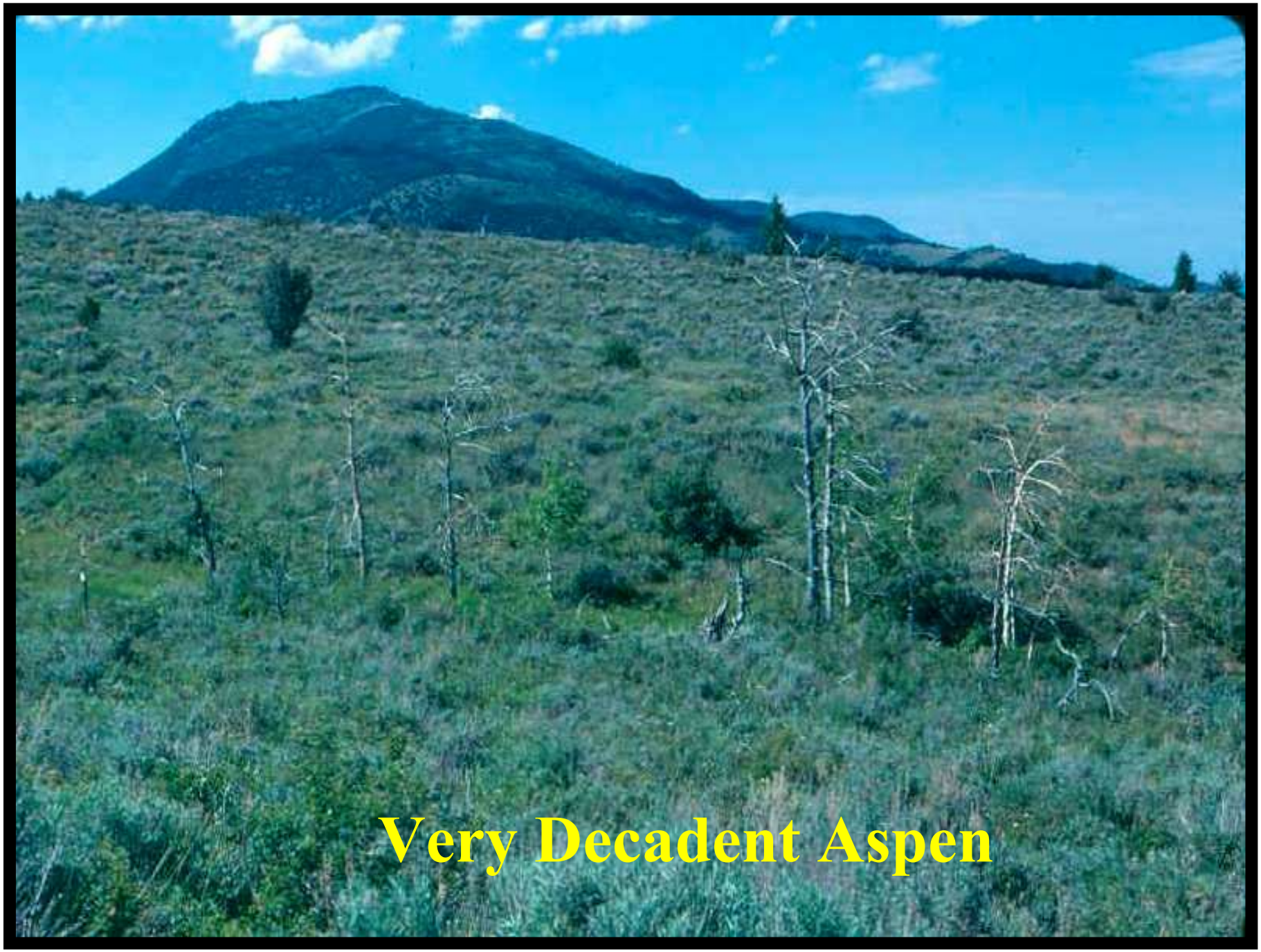
Stable or Climax Aspen



Successional Aspen



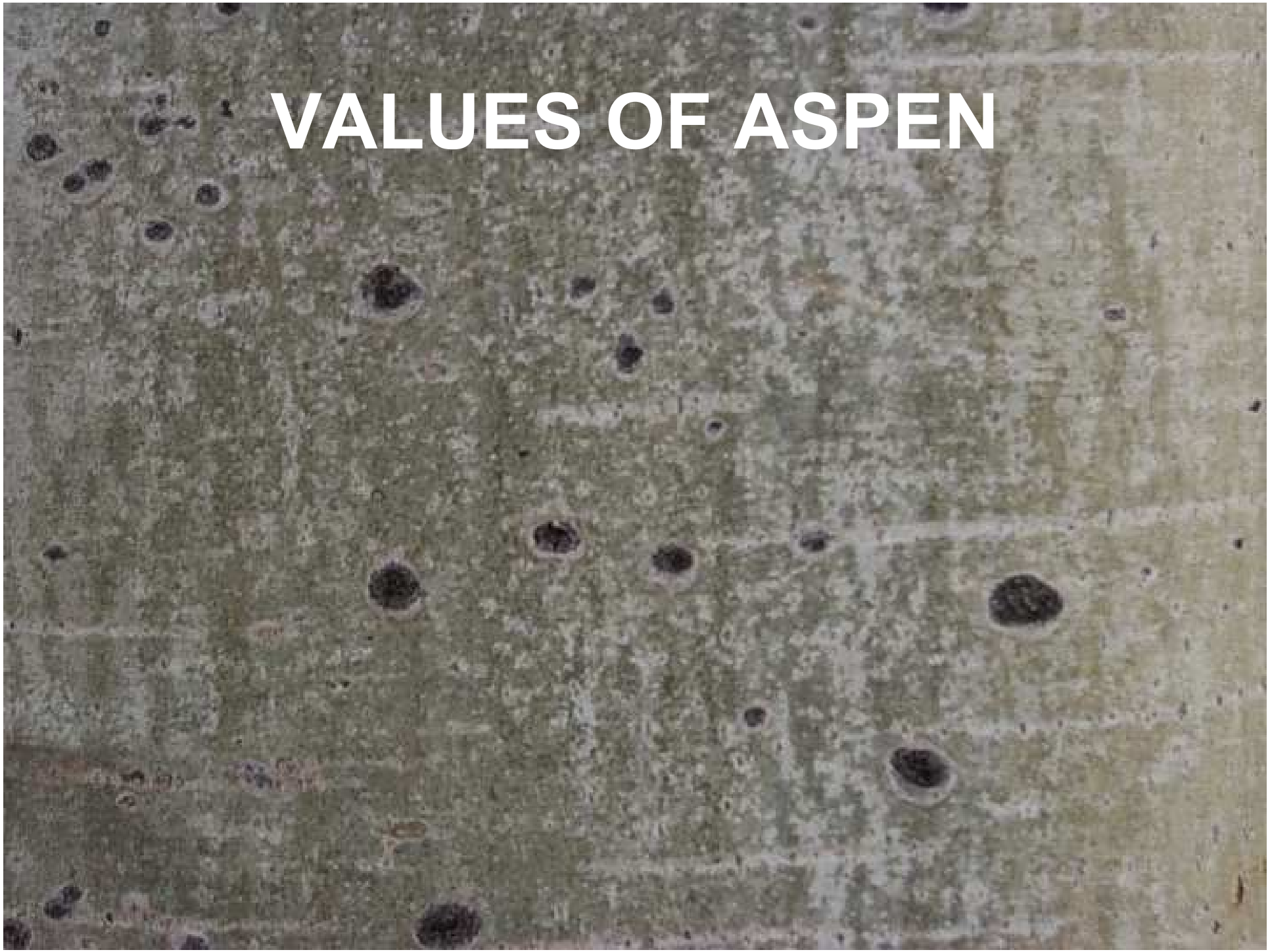

Decadent Aspen


Very Decadent Aspen

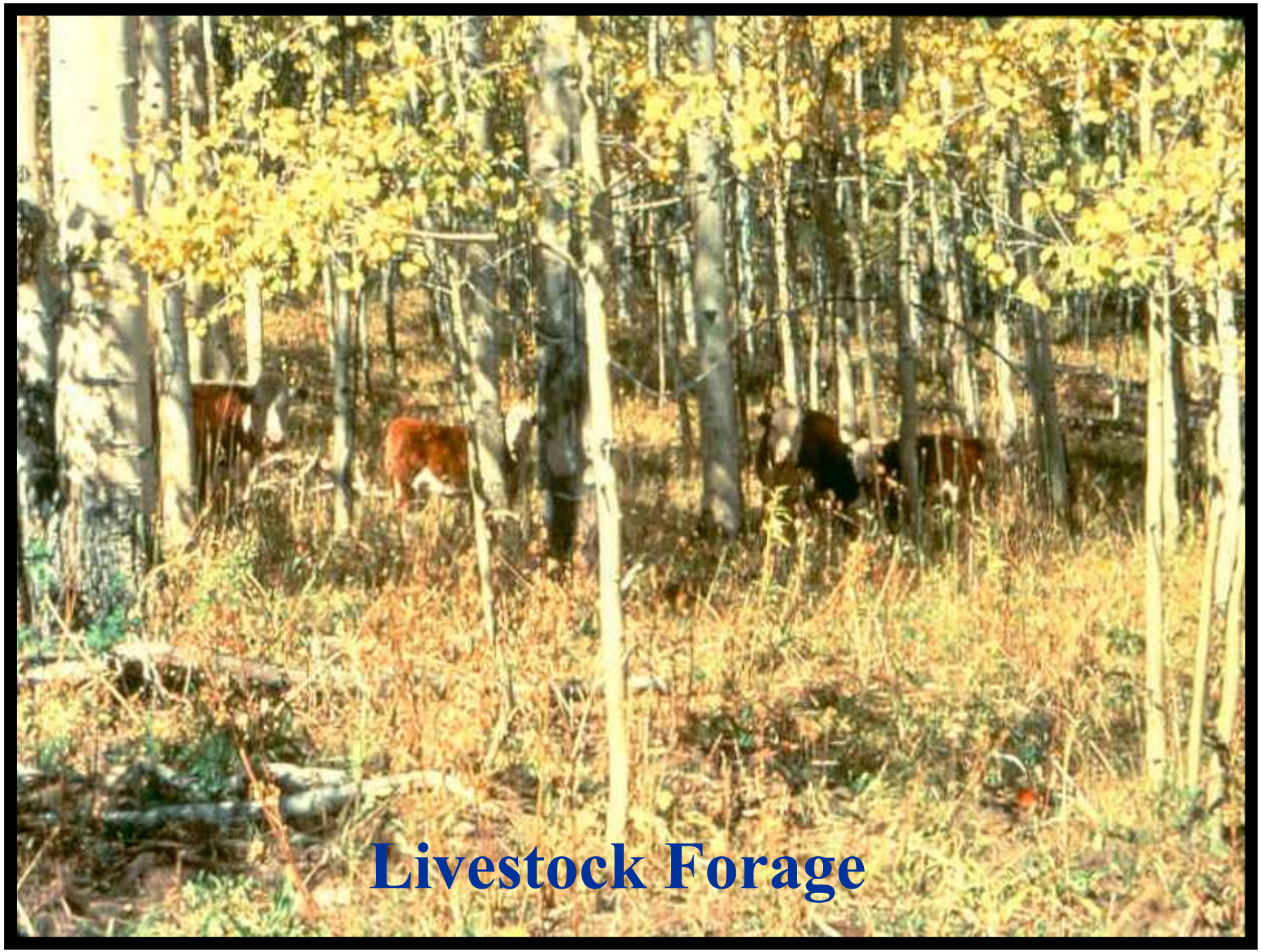
Asexual Regeneration

Sexual Regeneration

VALUES OF ASPEN



Aesthetics


Livestock Forage

Wildlife Habitat

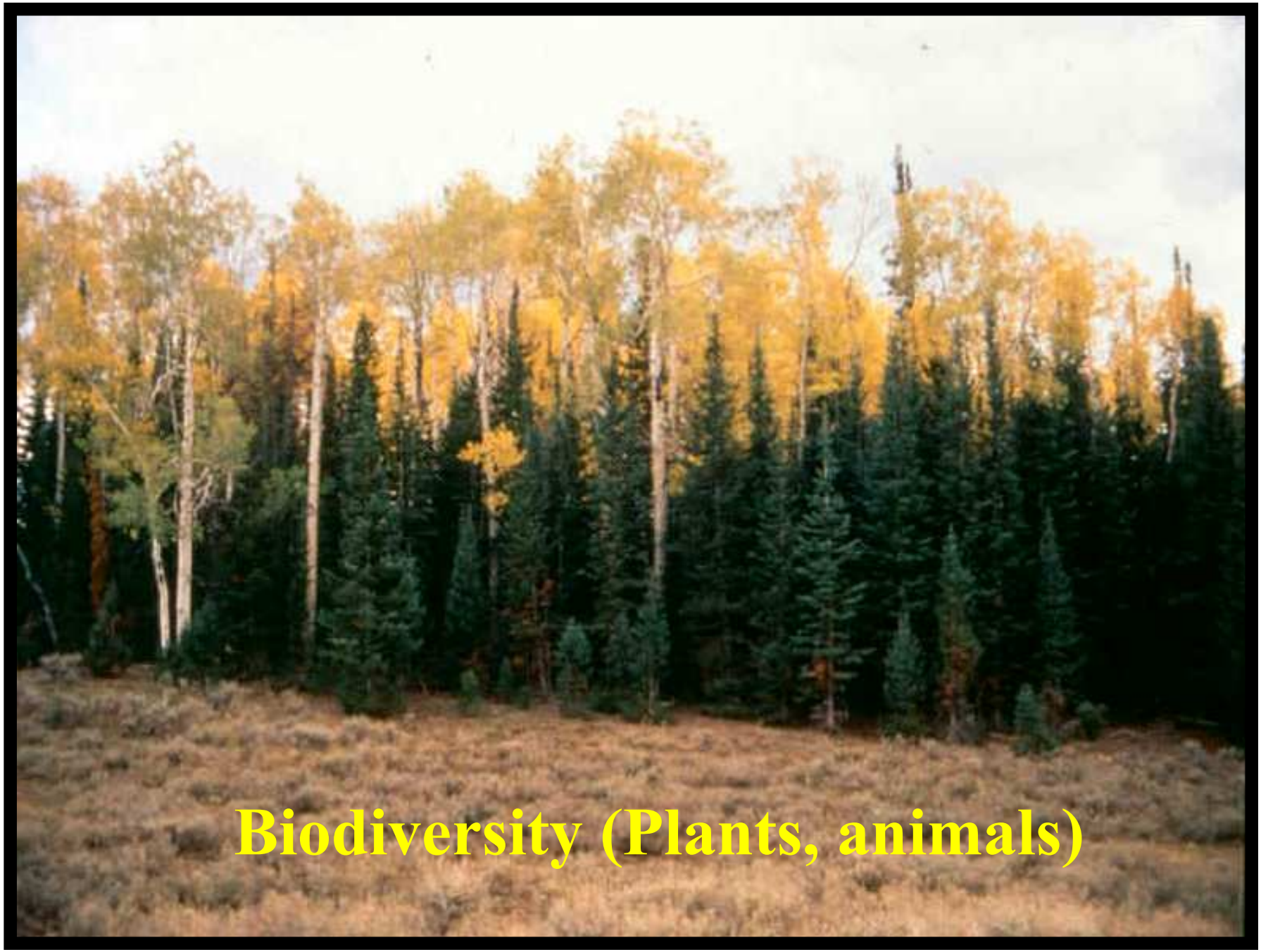
Small Wildlife

Beaver Activity

Water for numerous uses

Recreational Opportunities

Wood Products


Biodiversity (Plants, animals)

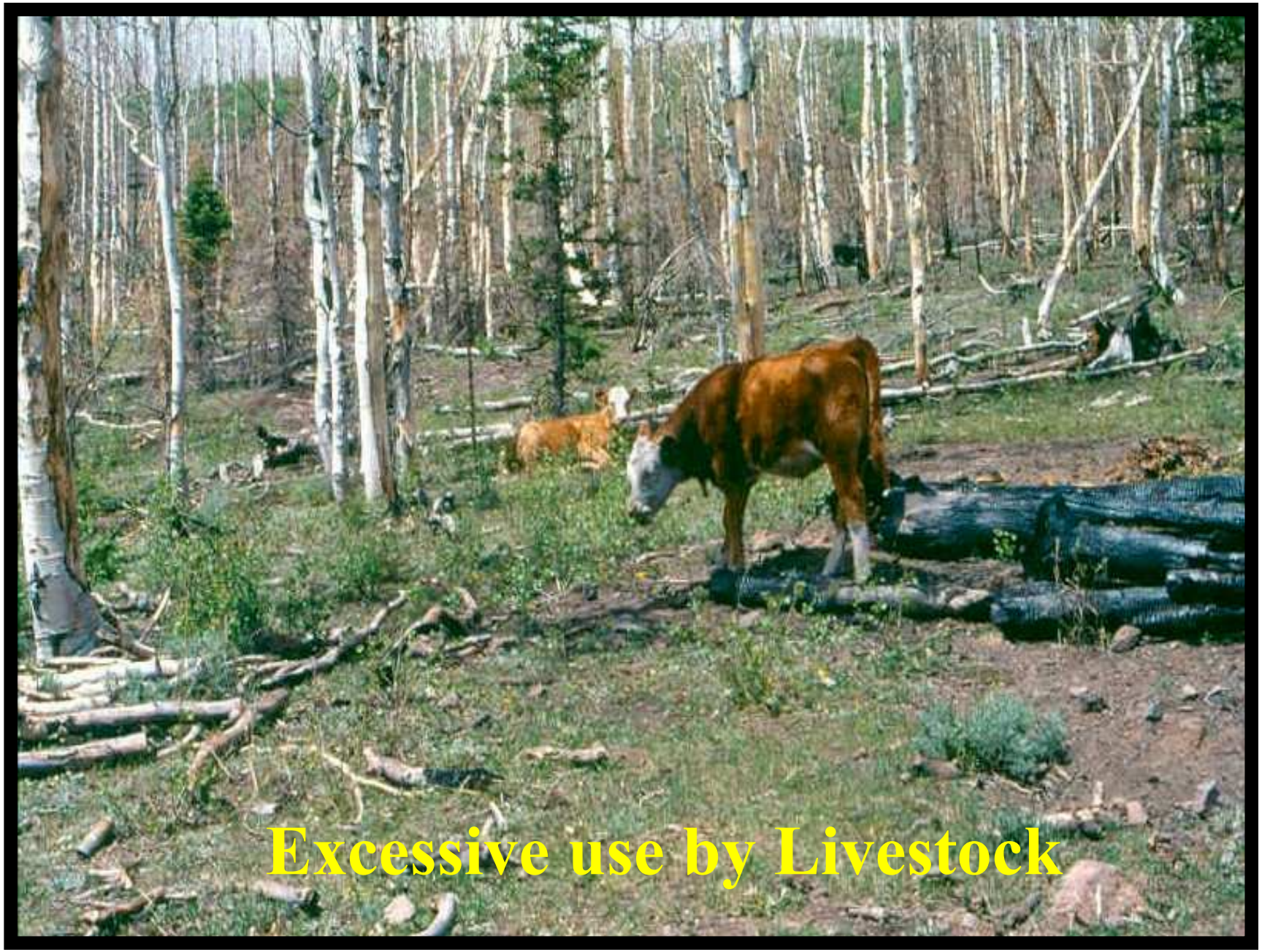
Decline of Aspen

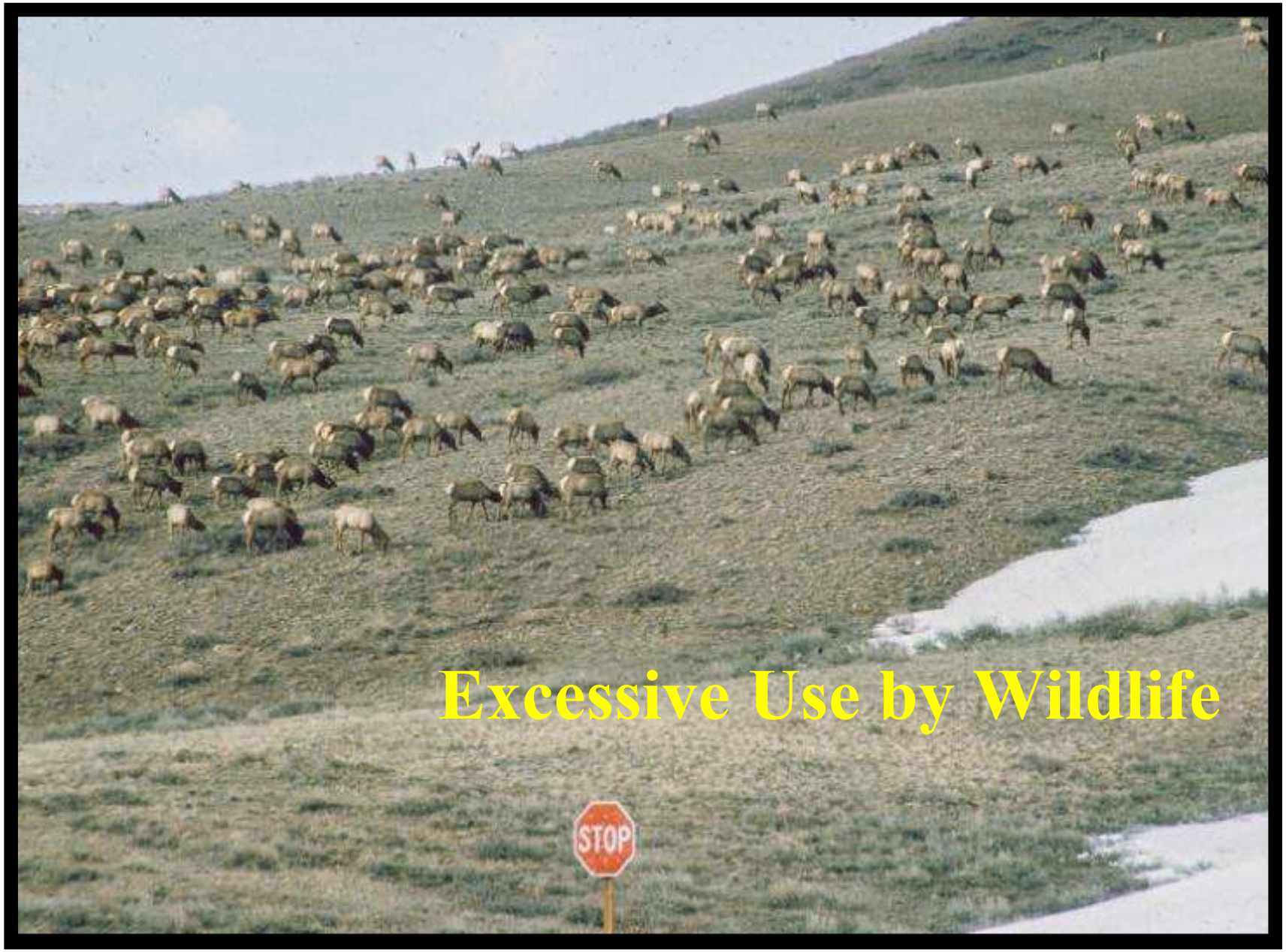
State	Historical Aspen Acres	Current Aspen Acres	Acres Lost	Decline %
Arizona	720,880	29,009	691,871	96
Colorado	2,188,003	1,110,764	1,077,239	49
Idaho	1,609,547	621,520	988,027	61
Montana	590,674	211,046	379,628	64
Nevada	--------	118,768	-------	------
New Mexico	1,141,677	140,227	1,001,450	88
Utah	**2,930,684**	**1,427,973**	**1,502,711**	**51**
Wyoming	436,460	203,965	232,495	53
Total	9,617,925	3,863,272	5,754,653	60

Current and Historical acres of Aspen for various states and % decline

Why we have this loss

Lack of Burning


Excessive use by Livestock



Excessive Use by Wildlife

“I think browsing of suckers is the most detrimental influence on the Maintenance of the so-called ‘stable’ aspen stands as well as upon Stands that have been burned or otherwise treated to stimulate Reproduction.

Unfortunately, this appears to be one of the most socially difficult Things for the manager to come to grips with.

Fencing is expensive; curtailing allotment use for several years is ‘unpopular’; temporarily reducing elk or deer populations is equally unpopular. We know what is needed, but are unwilling to act”!

Walter F. Mueggler

Water Loss as Succession proceeds

Old Beaver Dam
on Previously
Flowing Stream

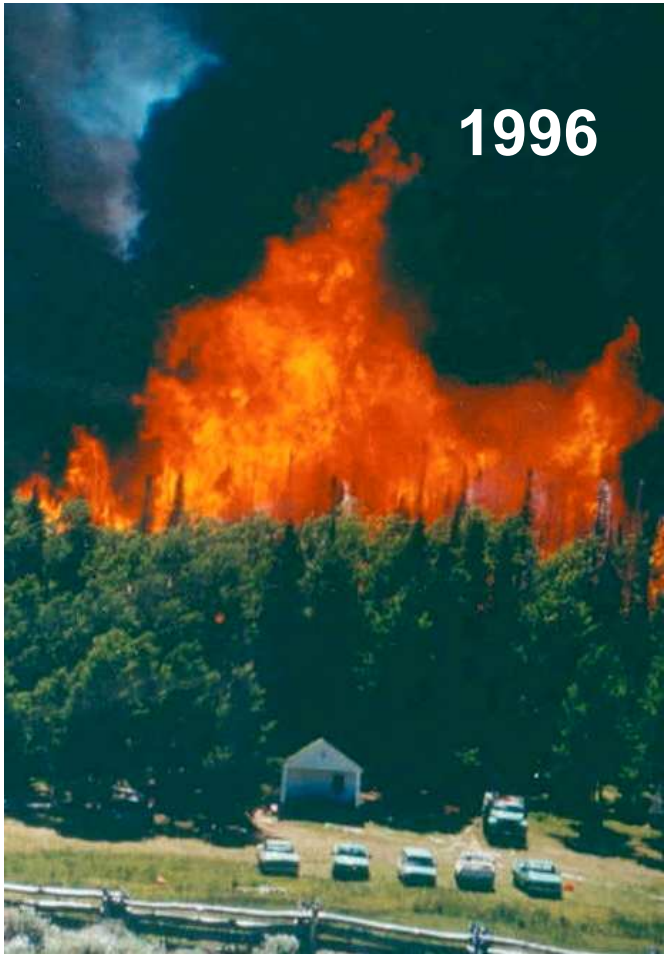
Loss of Biodiversity---
Forage

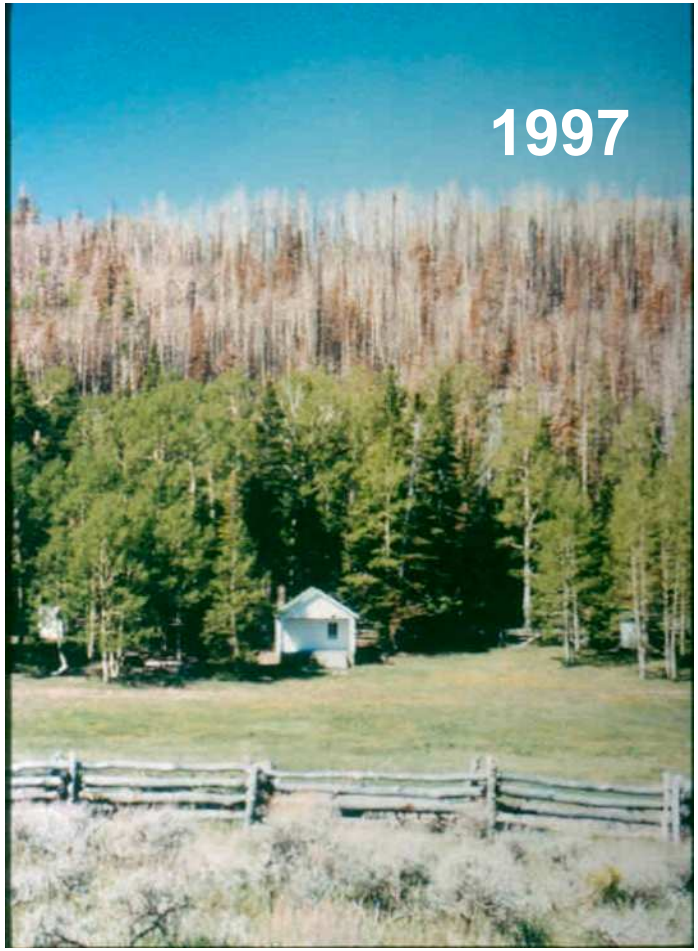
Lush Undergrowth under
Pure Aspen >3,000 lbs/ac

Late successional Aspen

Little Undergrowth
under Late
Successional Aspen

DIXIE HEAT



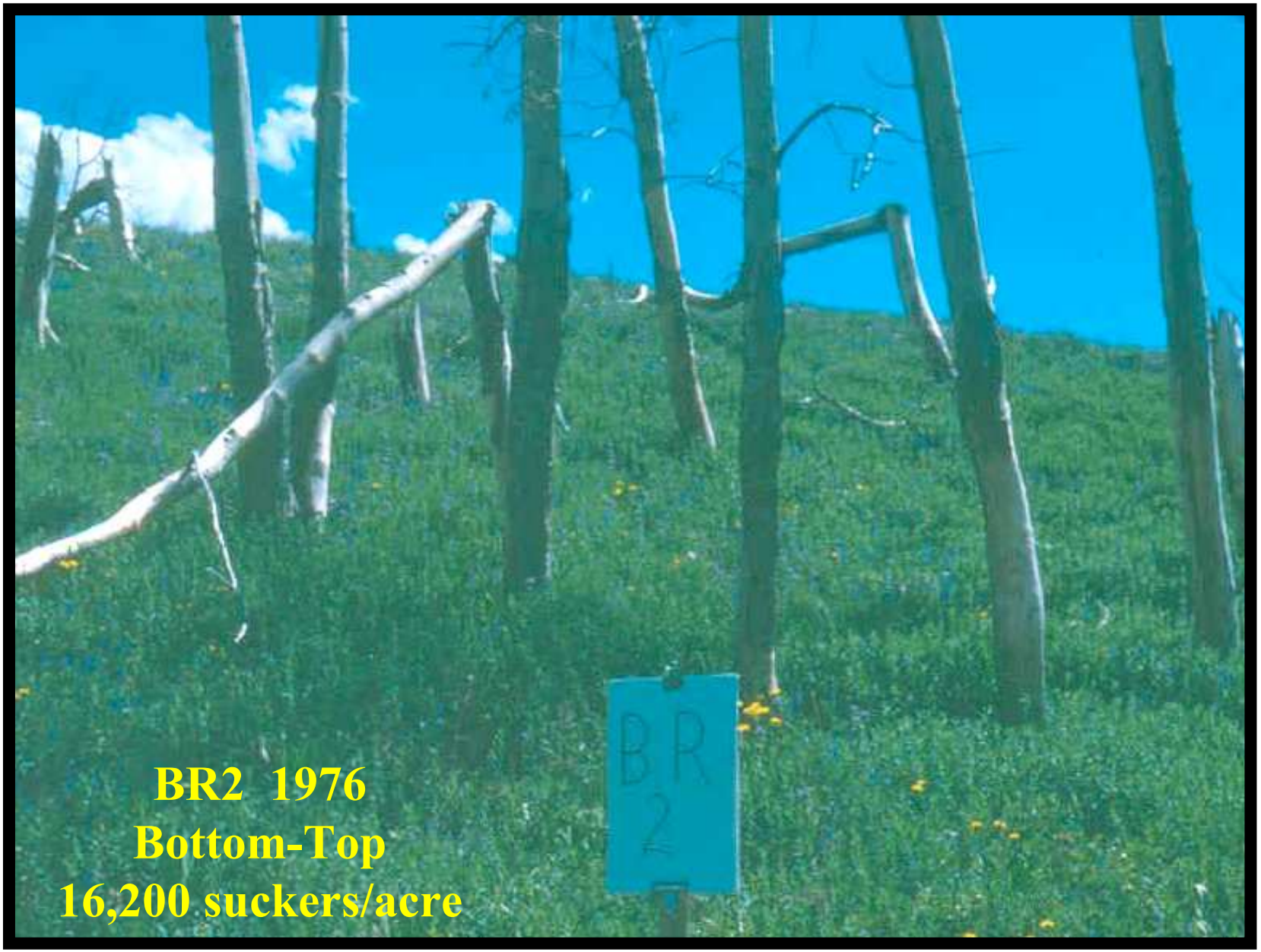


Jones Corral (Dixie N.F.) burned 6/15/96 (high soil moisture to protect aspen roots in upper 20 cm).

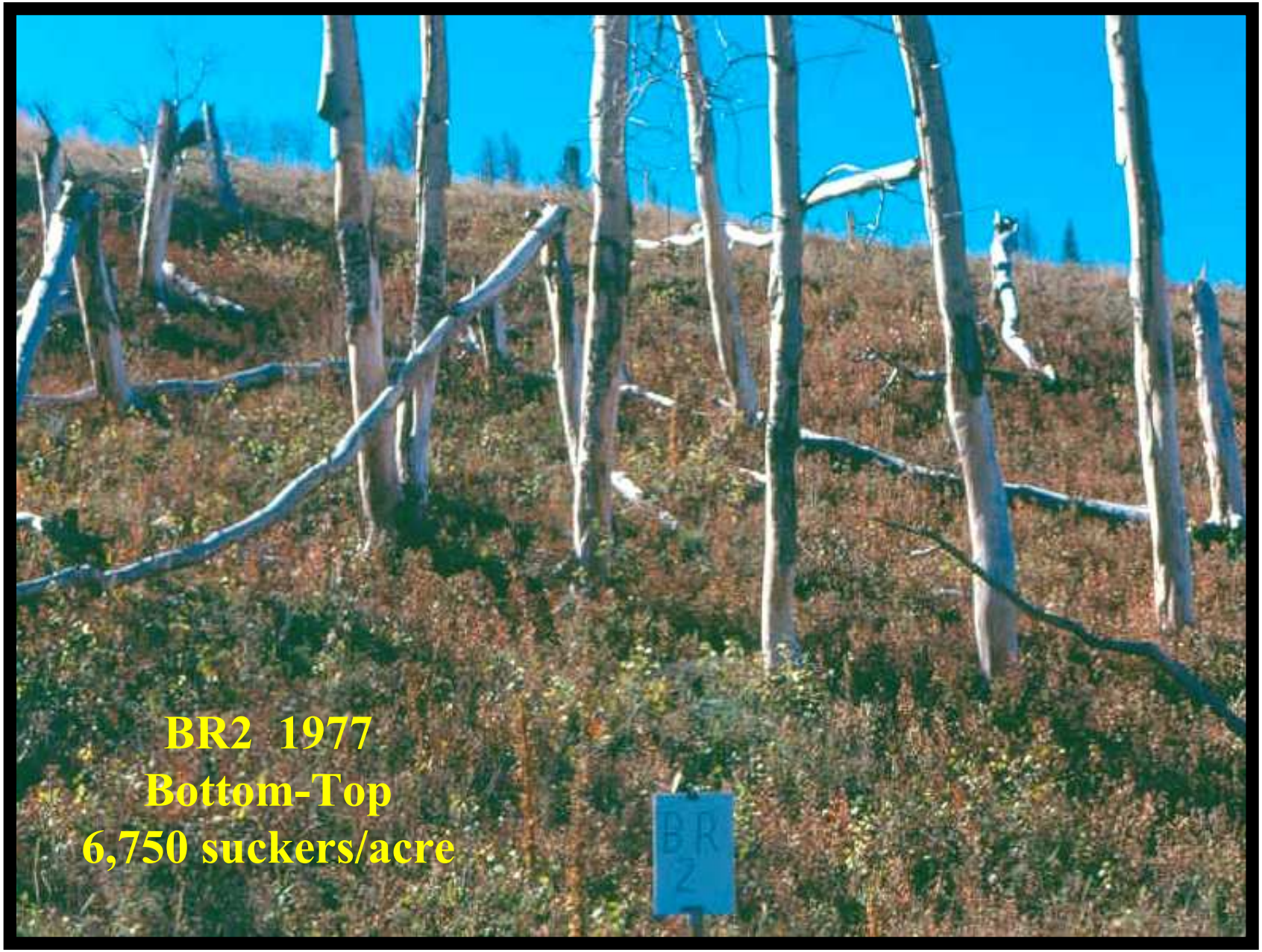
Restoration Efforts

- Breakneck Ridge burned 8/24/74
- Burro Hill burned 8/27/74

Breakneck Ridge Transects



BR2 1976
Bottom-Top
16,200 suckers/acre


BR2 1977
Bottom-Top
6,750 suckers/acre
BR
2

BR2 1978
Bottom-Top
3,578 suckers/acre
BR
2

BR
2
BR2 1979
Bottom-Top
2,025 suckers/acre

BR2 1980
Bottom-Top
1,620 suckers/acre
BR
2

BR2 1981
Bottom-Top
1,148 suckers/acre
BR
2

BN 2
10-02-02
BR2 2002
Bottom-Top
0 suckers/acre
10 01 2001

1-3
BR 1-3
10-02-02
UTM 560839
4824738
BR2 2002
Bottom-Top
0 suckers/acre
10 01 2001

Burro Hill Transects

BH4 1976
Bottom-Top
9,045 suckers/acre

BH
4
BH4 1977
Bottom-Top
7,290 sucker/acre

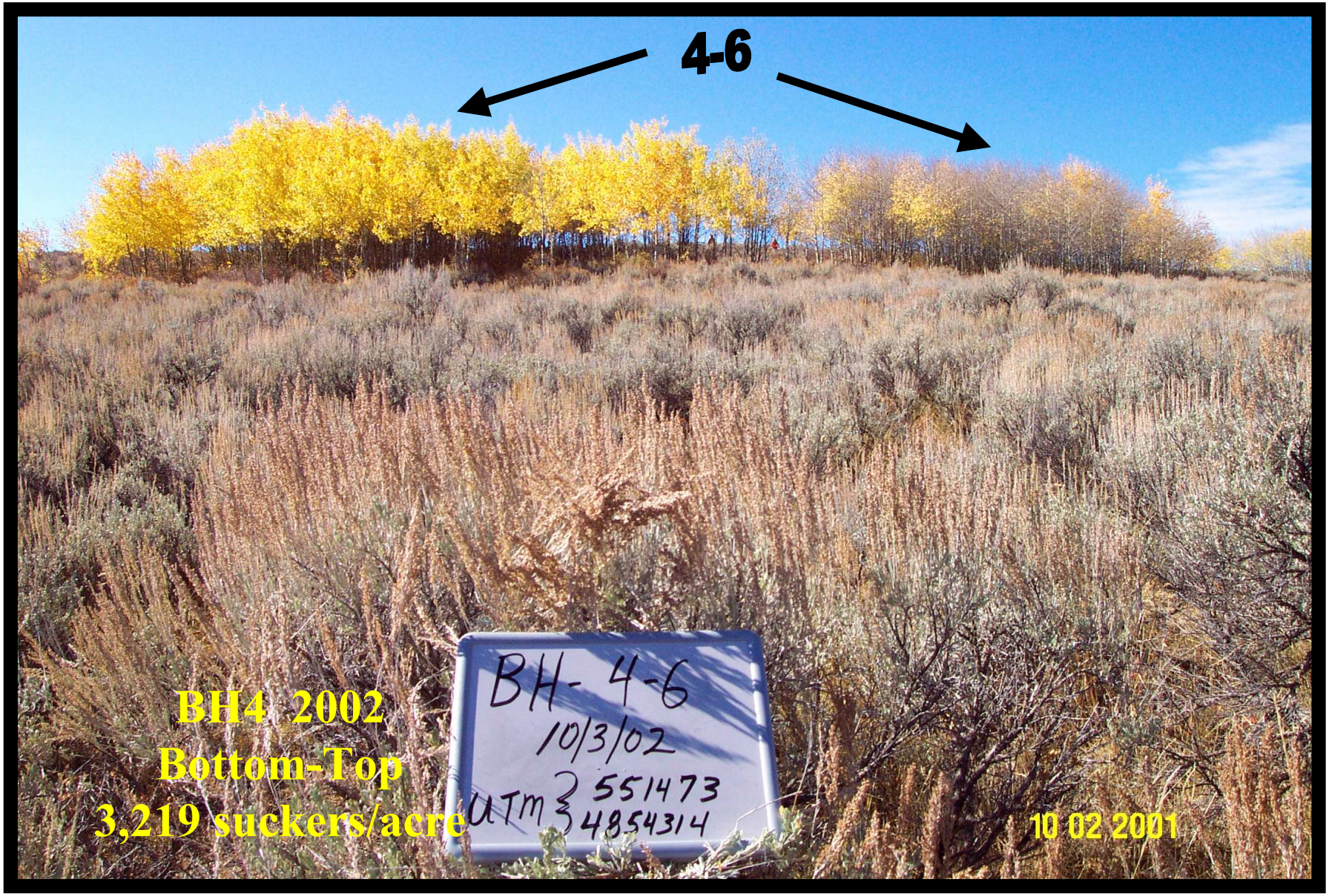
BH4 1978
Bottom-Top
7,492 suckers/acre

BH4 1979
Bottom-Top
7,020 suckers/acre

BH4 1980
Bottom-Top
4,995 suckers/acre
BH
4

BH4 1981
Bottom-Top
5,400 suckers/acre

BH4 2002
Bottom-Top
3.219 suckers/acre


4-6
BH- 4-6
10/3/02
UTM 551473
4854314
BH4 2002
Bottom-Top
3,219 suckers/acre
10 02 2001

Aspen as a fire break