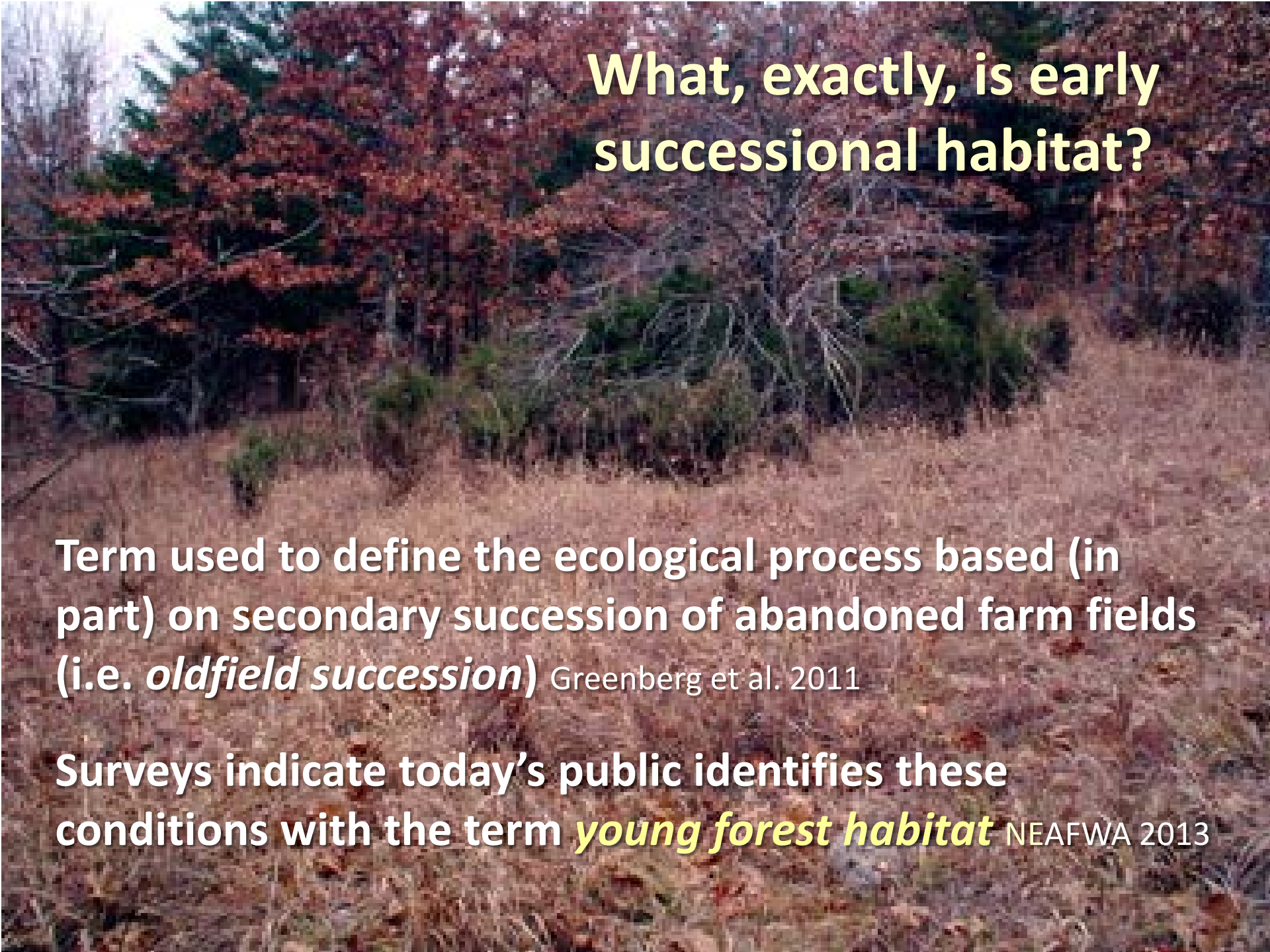


What, exactly, is early successional habitat?

Term used to define the ecological process based (in part) on secondary succession of abandoned farm fields (i.e. *oldfield succession*) Greenberg et al. 2011

Surveys indicate today's public identifies these conditions with the term *young forest habitat* NEAFWA 2013

Early Successional Habitat vs. Young Forest

Early Successional Habitat relates to **species composition** (i.e. dominance by pioneer species).

Young Forest Habitat describes **structure** and not species (i.e. mid to later successional species in smaller sizes and structure).

Lorimer, C. G. 2001. Wildlife Society Bulletin 29(2)425-439

Young Forests Defined

1. **Grassy and herbaceous**: follows vegetation management, intense wildfire, or other **disturbance** where vegetation is dominated by grass or other herbaceous vegetation. Tree saplings are present (0-1 year).

   *Wildlife openings, grassy roads, balds, and other "natural" openings are **maintained** by frequent mowing, prescribed fire, or grazing.*

2. **Scrub-shrub**: …vegetation is dominated by shrubs, brush, and very young trees (1-10 years).

3. **Young trees**: …trees have dominated shrub and mid-story layer but not reached canopy closure (11-20 years).

Grassy and Herbaceous

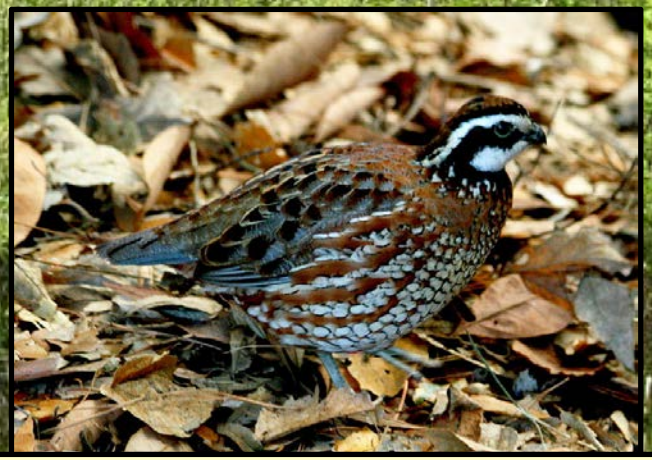
Field Sparrow (*Arphia granulata*)

Narrow-winged Spur-throat Grasshopper (*Melanoplus angustipinnis*)

0-1 year; MAINTAINED

Scrub-Shrub

Appalachian Cottontail (*Sylvilagus obscurus*)

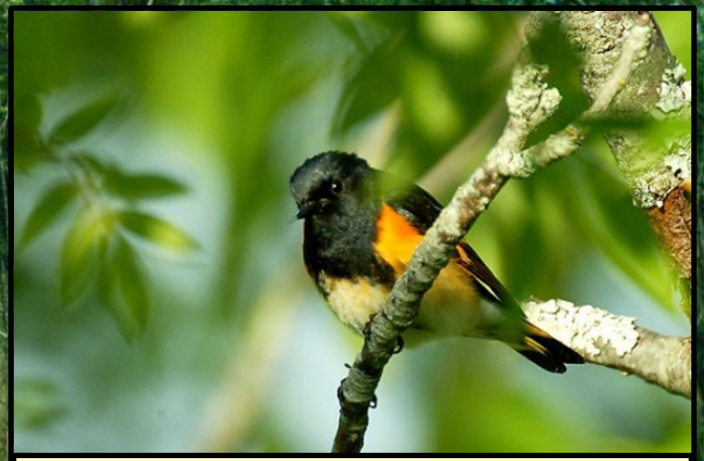


Northern Bobwhite (*Colinus virginianus*)

1-10 years

Young Trees

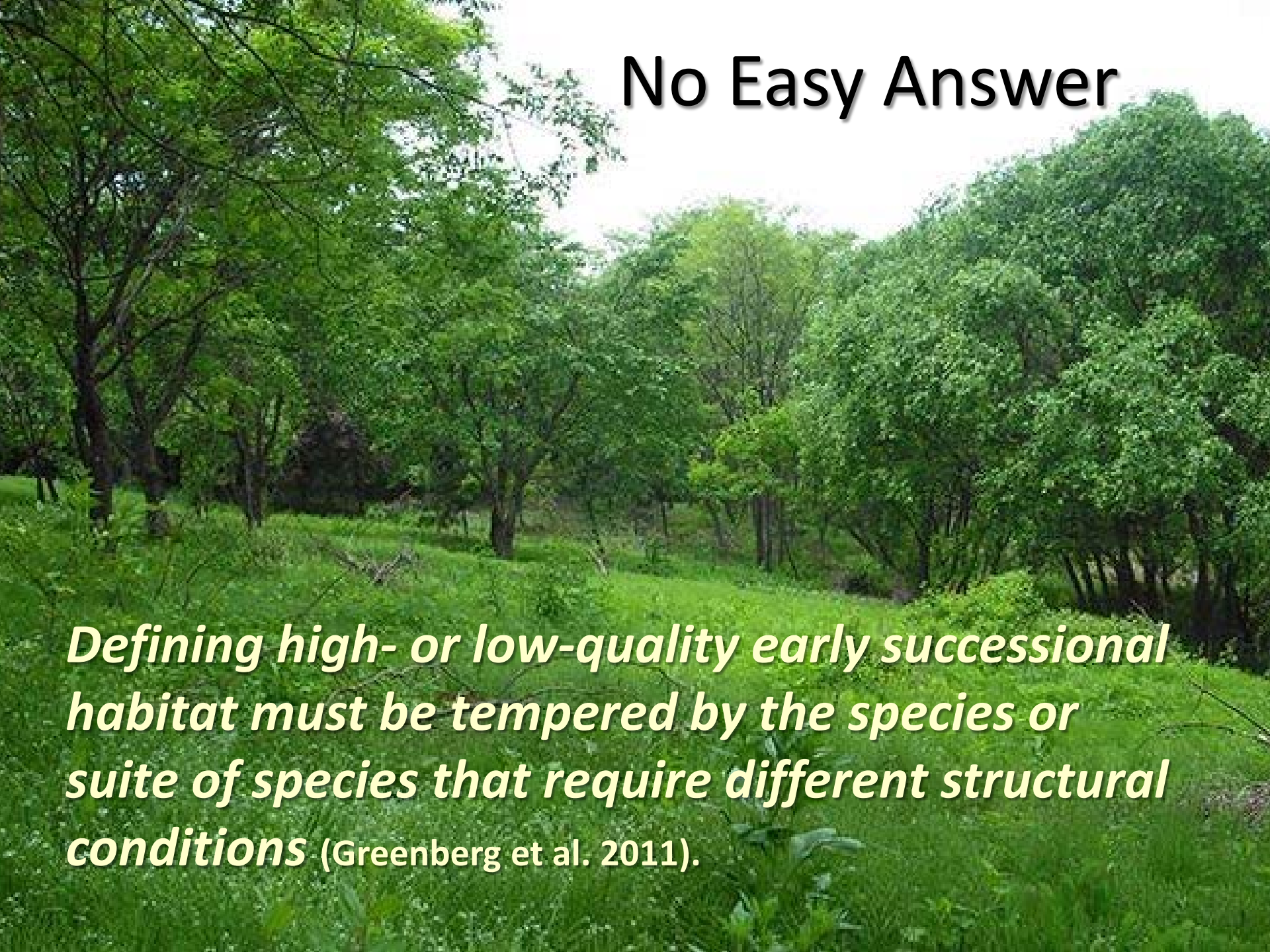
Ruffed Grouse (*Bonasa umbellus*)



American Redstart (*Setophaga rutillica*)

11-20 years

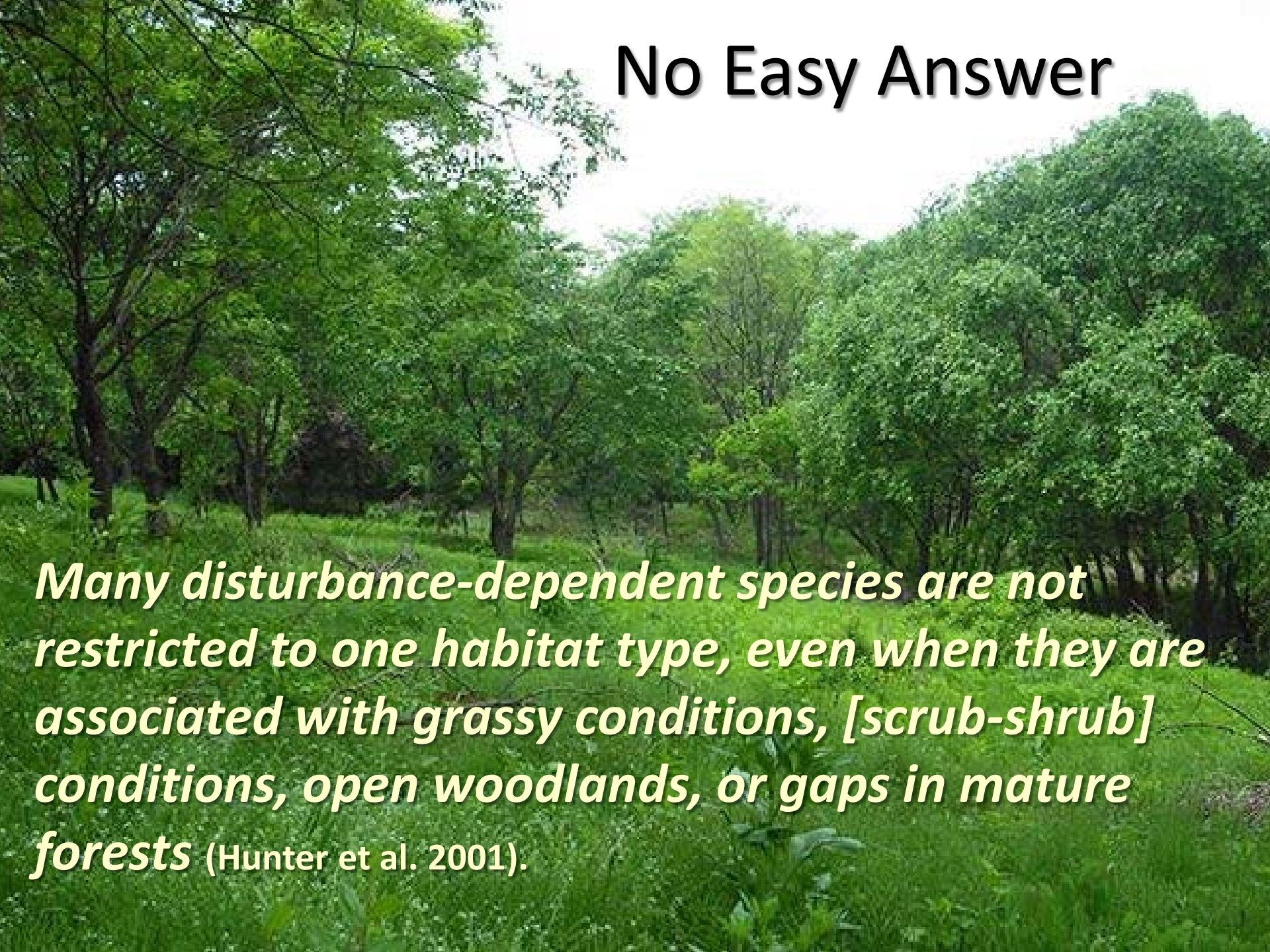
UGA11181



No Easy Answer

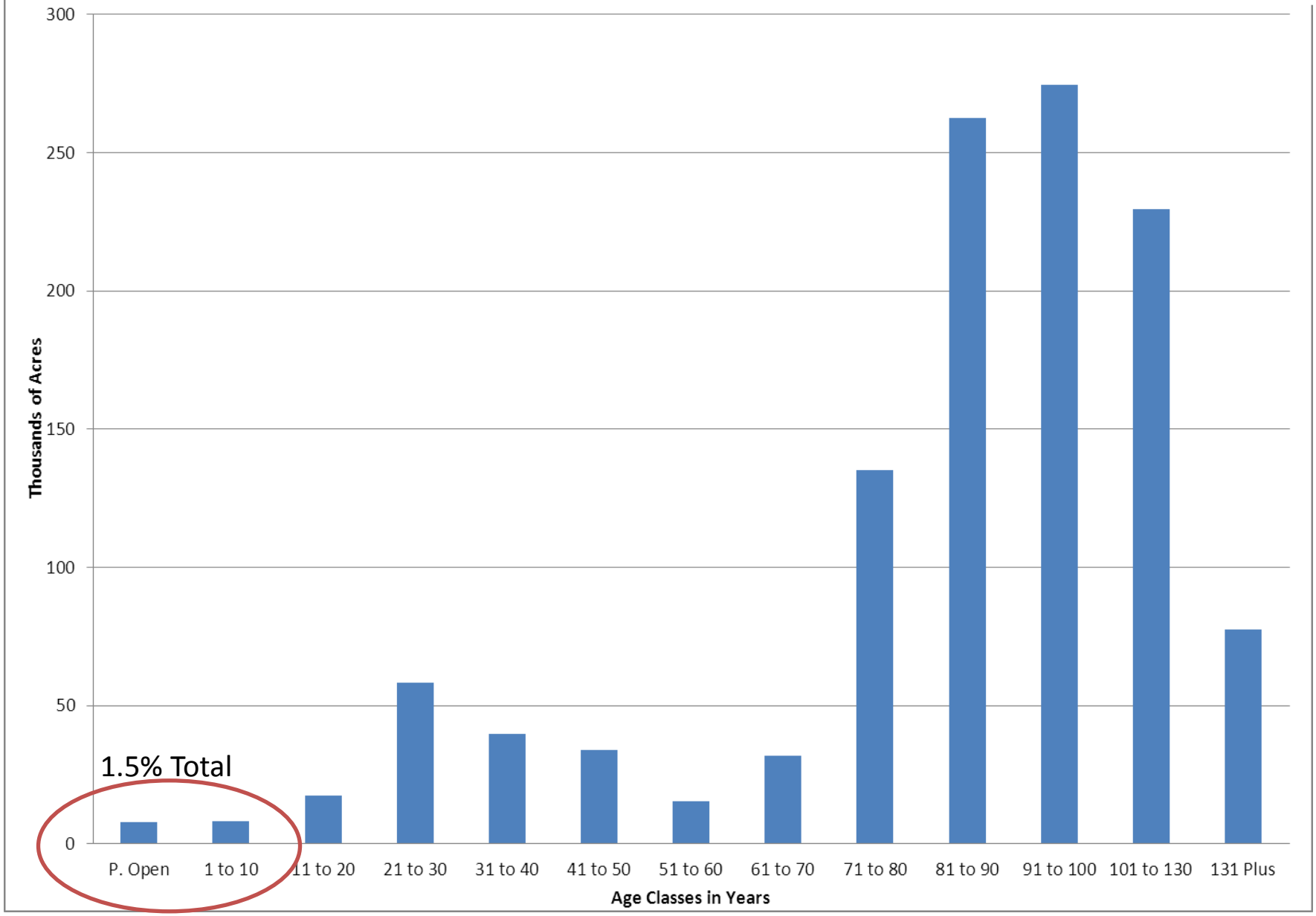
Defining high- or low-quality early successional habitat must be tempered by the species or suite of species that require different structural conditions **(Greenberg et al. 2011).**

No Easy Answer

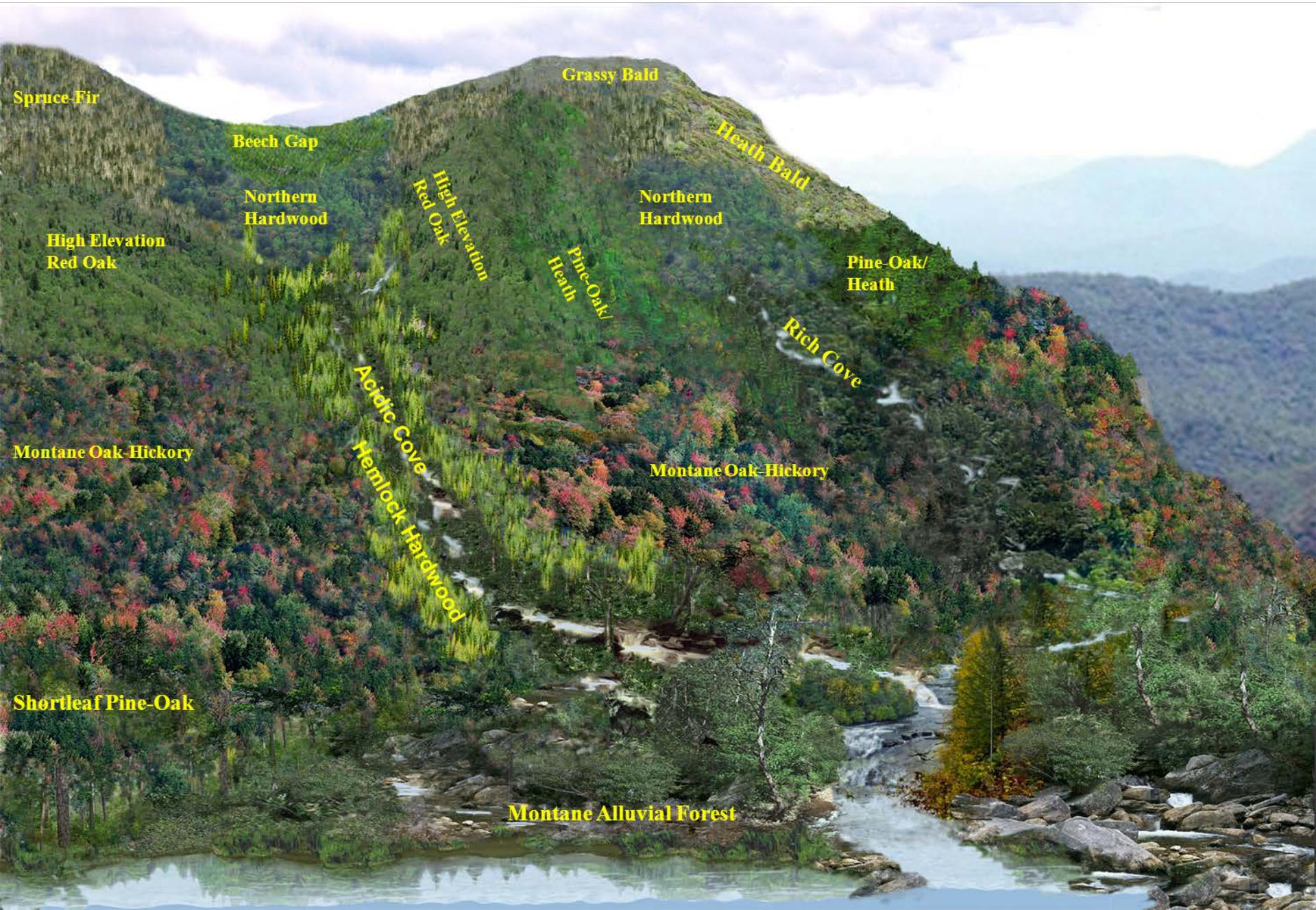


Many disturbance-dependent species are not restricted to one habitat type, even when they are associated with grassy conditions, [scrub-shrub] conditions, open woodlands, or gaps in mature forests **(Hunter et al. 2001).**

Nantahala & Pisgah National Forests Combined Age Class Distribution



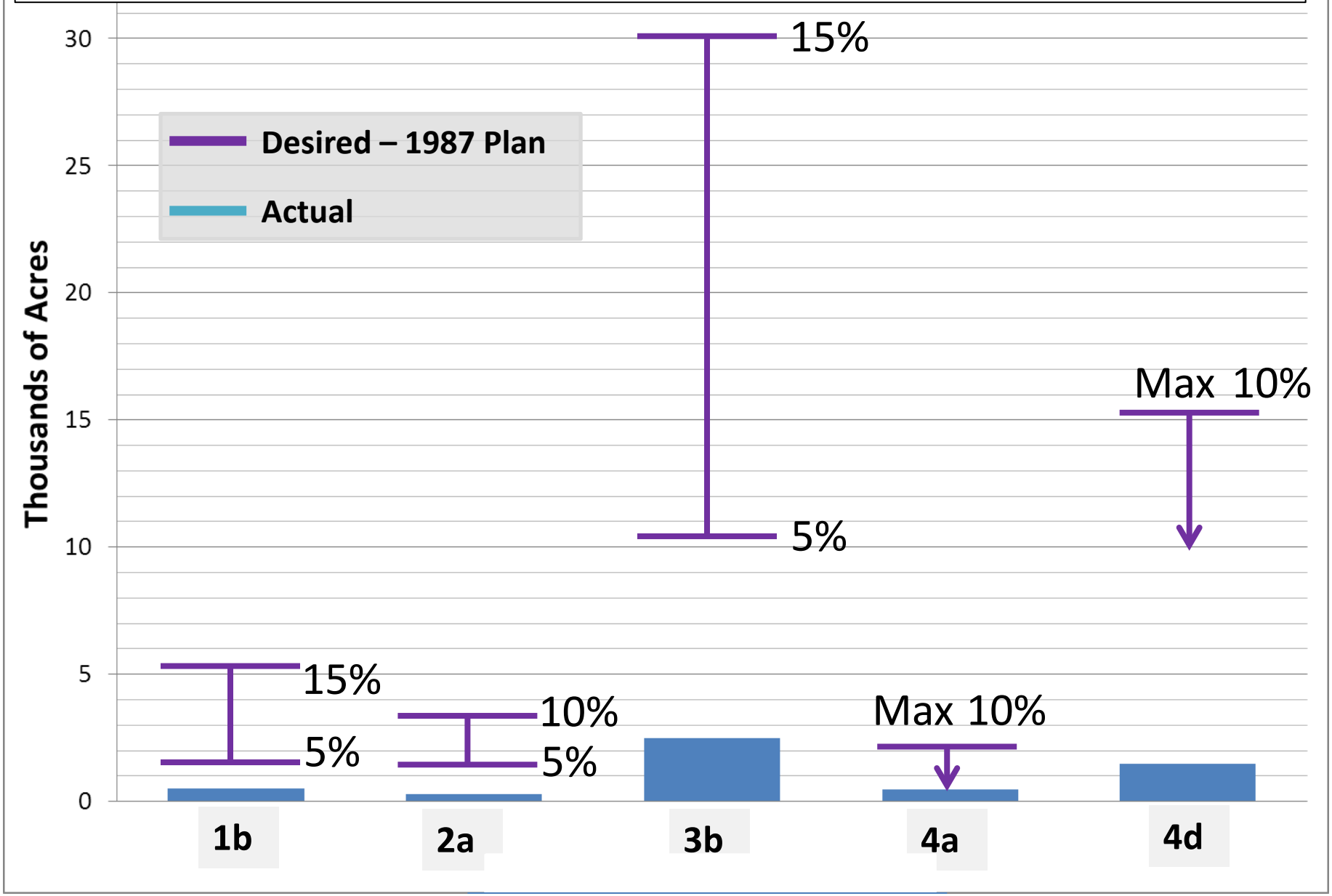
Plant Communities in Landscape

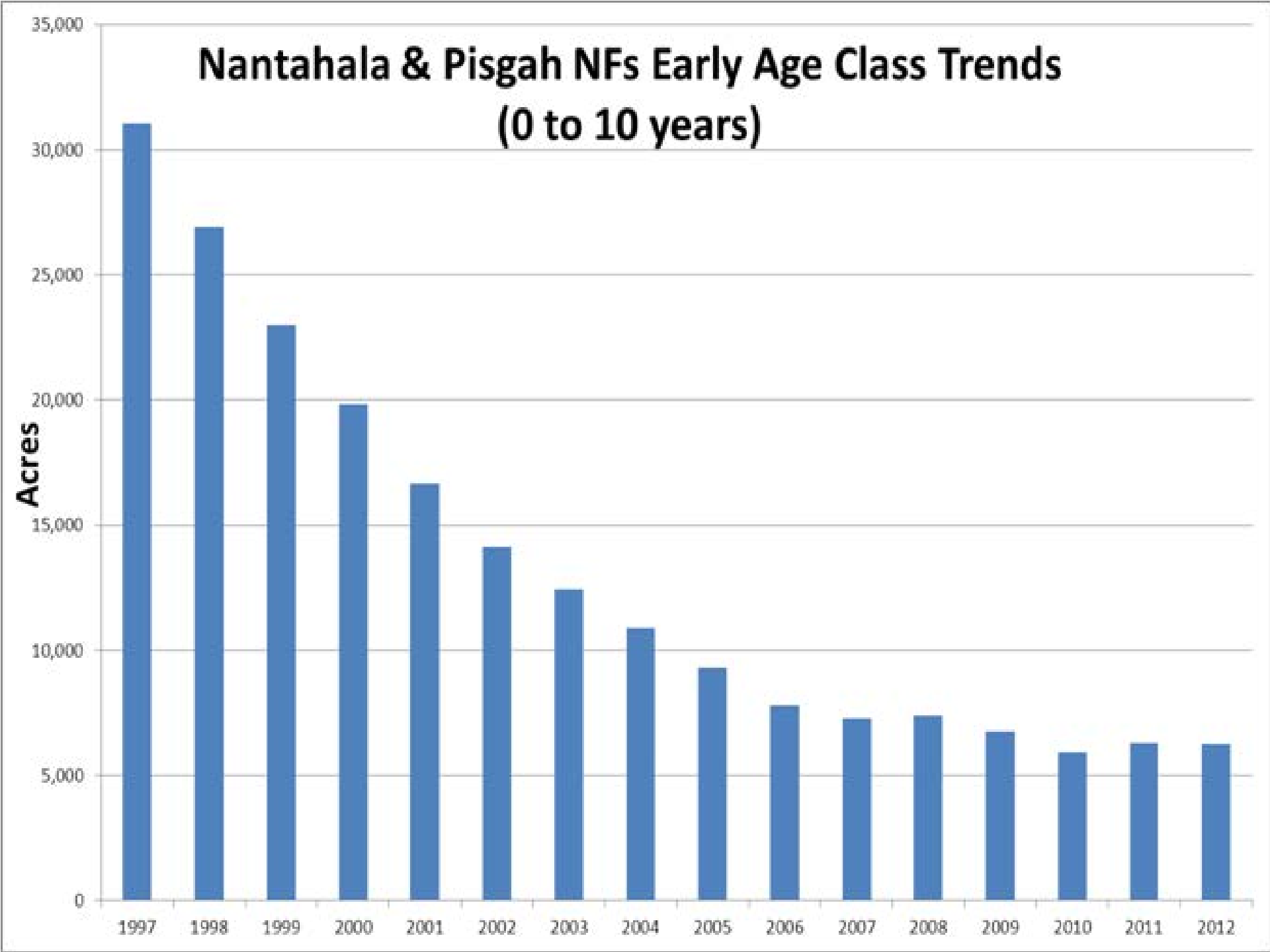


Young Forest by Ecozone

Ecozone	Young Forest	Middle - C	Middle - O
---------- Acres (%) ----------			
Spruce/Fir	195 (1)	682 (4)	805 (5)
Northern Hardwood	844 (2)	6,987 (13)	1,682 (3)
High Elevation Red Oak	193 (1)	2,832 (7)	759 (2)
Acidic Cove	802 (0)	166,410 (69)	----
Rich Cove	1,911 (1)	132,030 (73)	----
Dry Oak Forest	937 (2)	7,540 (13)	316 (1)
Dry/Mesic Oak	2,409 (2)	17,570 (17)	355 (0)
Mesic Oak	1,562 (1)	46,737 (25)	4,021 (2)
Pine/Oak Heath	1,381 (1)	12,595 (12)	628 (1)
Shortleaf Pine/ Oak	651 (1)	6,225 (14)	31 (0)
Alluvial & Riparian	151 (3)	546 (10)	51 (1)

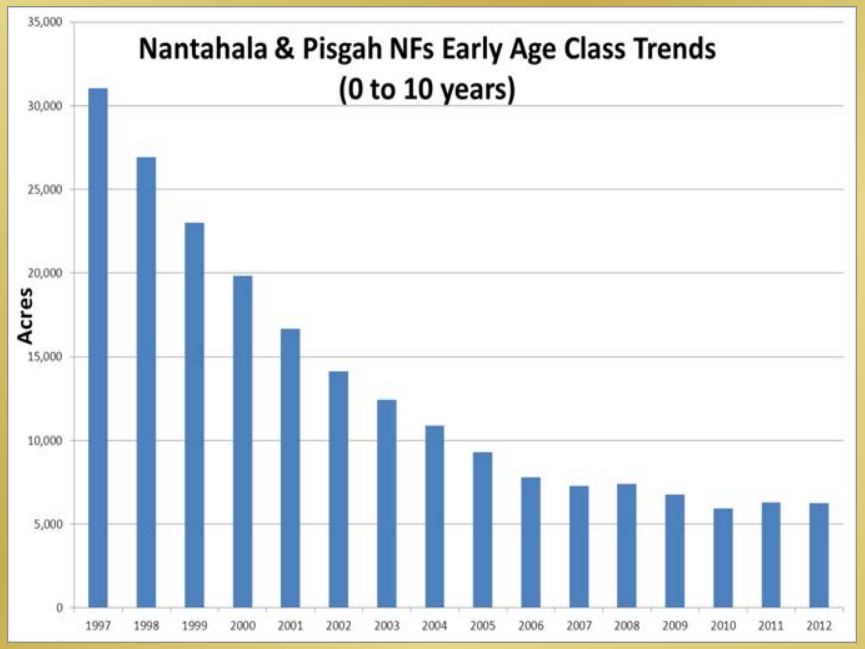
Current Acres vs Forest Plan Desired Acres by Management Area (0-10-year age class)




Nantahala & Pisgah NFs Early Age Class Trends
(0 to 10 years)
Acres
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012

Why the decline?

It's not any ONE thing!



1992: Chief of Forest Service orders a reduction in clearcutting in the national forest

1994: Nantahala & Pisgah Amendment 5 reduces suitable acres and calls for two-age and group selection along with lower harvest levels

Mid-1990's: First of a series of reductions in personnel

ONGOING: (1) Additional analysis requirements and complexity associated with changing policies (for example- Transportation Analysis added in 2003) (2) Reductions in budget

Food for Thought

1. What does it look like to you?

2. Why do we need this? Where do we need this?

3. How much do we need?

Mature Forests

Develops when younger habitats are not perpetuated

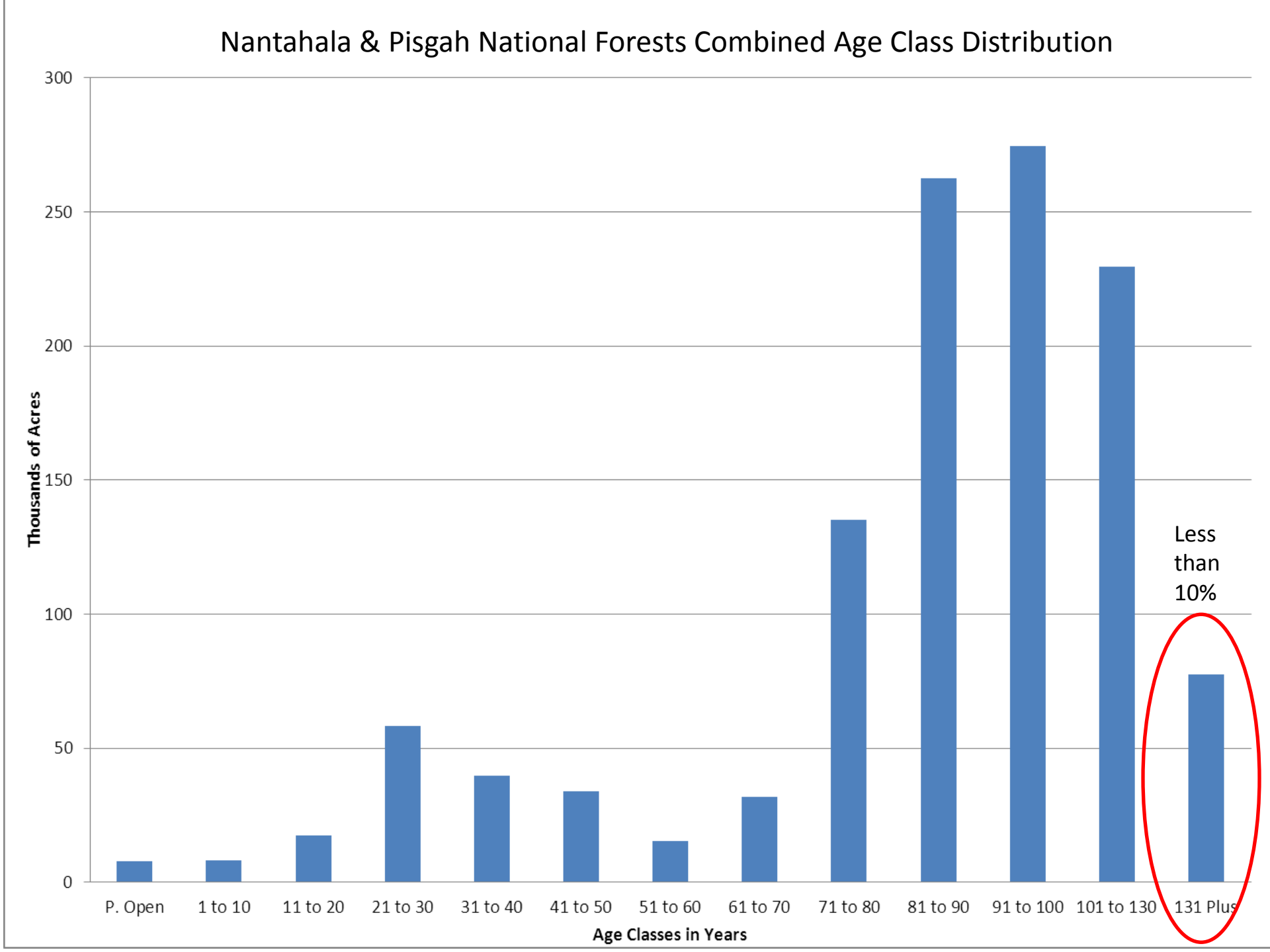
Can be less species rich than younger forests, but critical to landscape diversity

Designated areas that will be managed for mature forest conditions

Wood Thrush (*Hylocichla mustelina*)

Pileated Woodpecker (*Dryocopus pileatus*)

UGA27140


Nantahala & Pisgah National Forests Combined Age Class Distribution
300
250
200
150
100
50
0
Thousands of Acres
Less than 10%
P. Open
1 to 10
11 to 20
21 to 30
31 to 40
41 to 50
51 to 60
61 to 70
71 to 80
81 to 90
91 to 100
101 to 130
131 Plus
Age Classes in Years

Old Growth Forest by Ecozone

Ecozone	Late - C	Late - O	Old Growth – C	Old Growth - O	No data
---------- Acres (%) ----------					
Spruce/Fir	4,825 (30)	5,023 (31)	2,901 (18)	831 (5)	999 (6)
Northern Hardwood	18,249 (34)	13,163 (25)	3,714 (6)	2,787 (5)	6,587 (12)
High Elevation Red Oak	13,015 (34)	12,015 (31)	3,409 (9)	3,065 (8)	3,063 (8)
Acidic Cove	32,188 (13)	19,458 (8)	2,643 (1)	4,079 (2)	15,150 (6)
Rich Cove	27,475 (15)	8,799 (5)	736 (0)	4,049 (2)	6,476 (4)
Dry Oak Forest	14,556 (24)	28,549 (48)	1,700 (3)	1,899 (3)	4,102 (7)
Dry/Mesic Oak	20,358 (19)	55,613 (52)	2,349 (2)	982 (1)	6,433 (6)
Mesic Oak	78,075 (42)	30,321 (16)	6,564 (4)	8,538 (5)	9,971 (5)
Pine/Oak Heath	33,775 (33)	16,095 (16)	17,705 (18)	14,331 (14)	4,416 (4)
Shortleaf Pine/ Oak	23,571 (53)	4,470 (10)	5,078 (11)	2,334 (5)	1,834 (4)
Alluvial & Riparian	1,889 (36)	385 (7)	497 (9)	124 (2)	1614 (31)

Nantahala & Pisgah Forest Plan Guidance
Old Growth

Network of patches that are connected across the landscape.

30 were identified for evaluation in the 1994 amendment

Three sizes/scales:

Large: >= 2,500 ac
Medium: >= 5%
Small: 5% or > 50 ac

Walker Cove

More Food for Thought

1. What does it look like to you?

2. Why do we need this? Where do we need this?

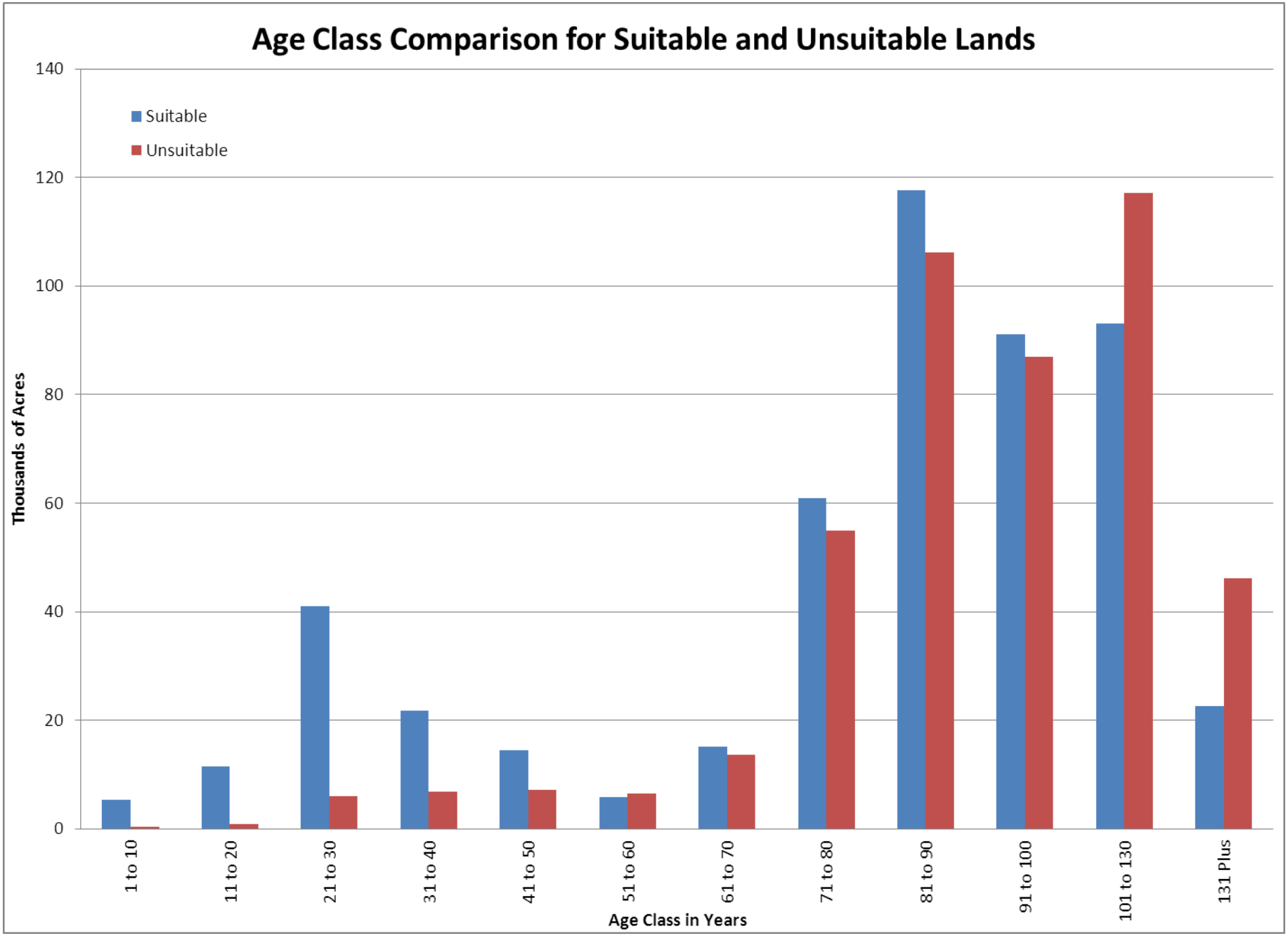
3. How much do we need?

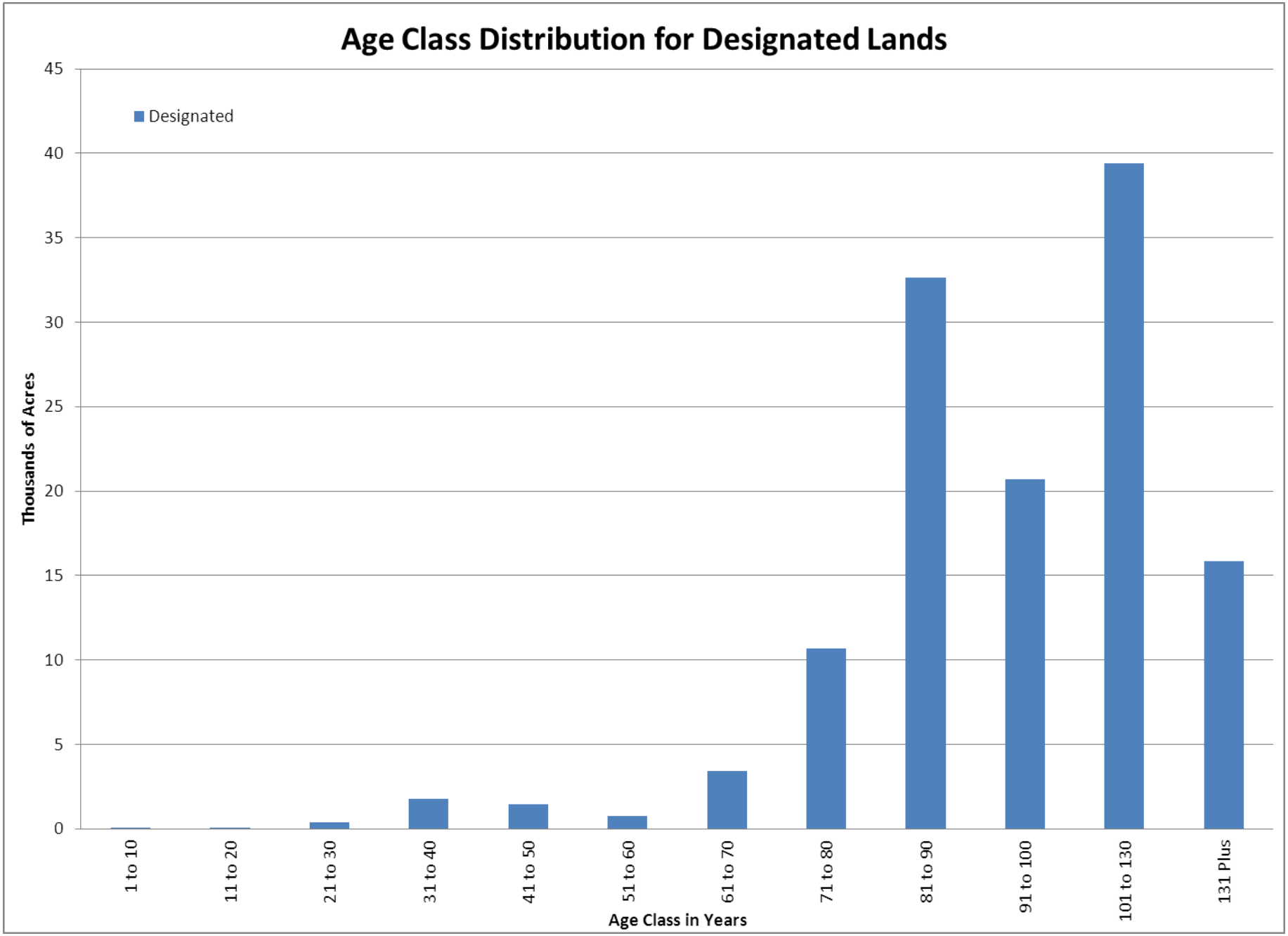
Interior Forests

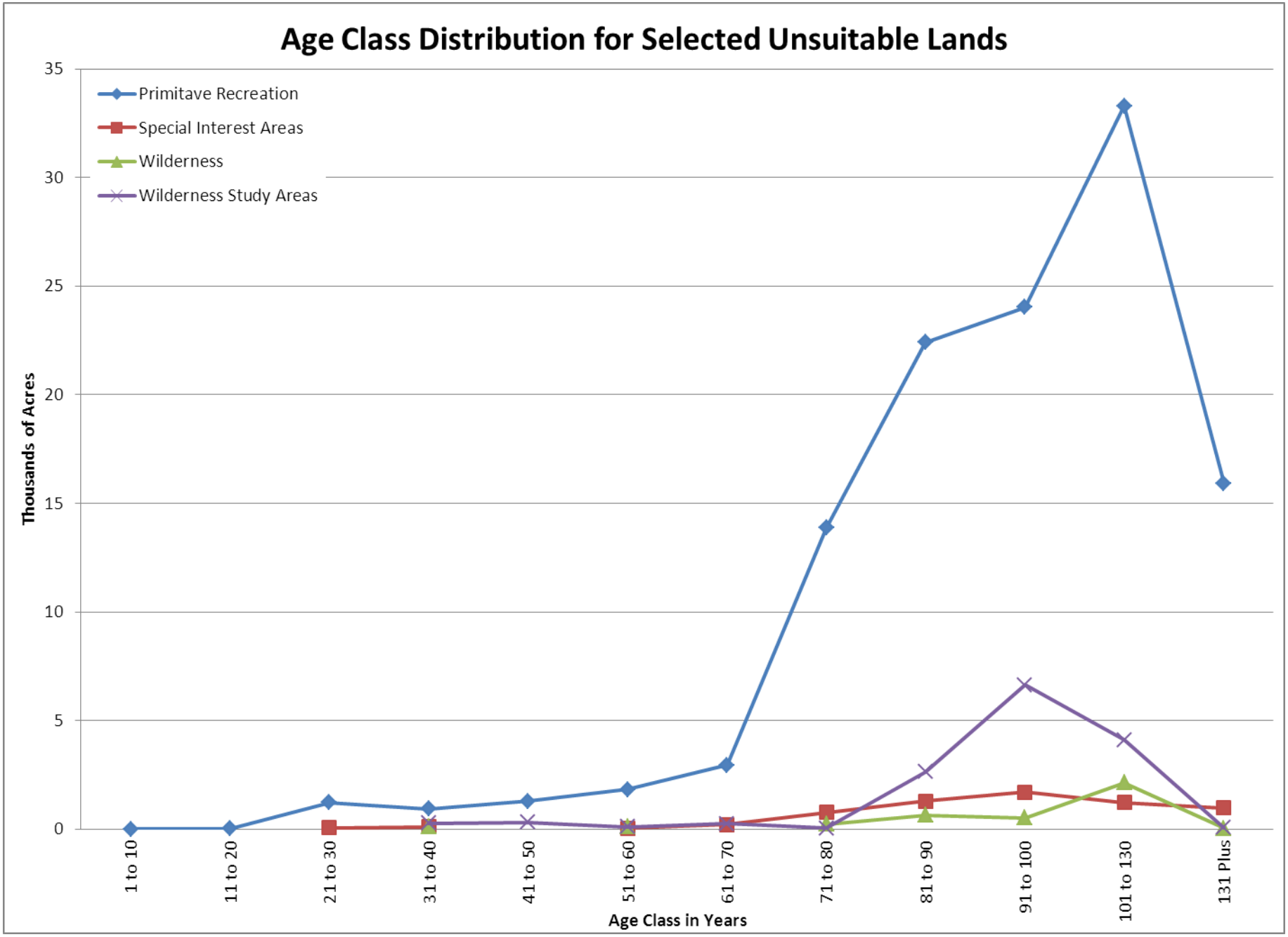
Ovenbird (*Seirus aurocapilla*)

- All forest types and ages
- Important for species less tolerant of disturbance
- Amount relatively stable; condition is dynamic
- Critical to landscape diversity
- Fragmentation effects

Black Bear (*Ursus americanus)*


Age Class Comparison for Suitable and Unsuitable Lands
Suitable
Unsuitable
Thousands of Acres
140
120
100
80
60
40
20
0
1 to 10
11 to 20
21 to 30
31 to 40
41 to 50
51 to 60
61 to 70
71 to 80
81 to 90
91 to 100
101 to 130
131 Plus
Age Class in Years


Age Class Distribution for Designated Lands
Designated
Thousands of Acres
45
40
35
30
25
20
15
10
5
0
1 to 10
11 to 20
21 to 30
31 to 40
41 to 50
51 to 60
61 to 70
71 to 80
81 to 90
91 to 100
101 to 130
131 Plus
Age Class in Years


Age Class Distribution for Selected Unsuitable Lands
Primitave Recreation
Special Interest Areas
Wilderness
Wilderness Study Areas
Thousands of Acres
35
30
25
20
15
10
5
0
1 to 10
11 to 20
21 to 30
31 to 40
41 to 50
51 to 60
61 to 70
71 to 80
81 to 90
91 to 100
101 to 130
131 Plus
Age Class in Years


Age Class Distribution for Selected Suitable Lands
1b
3b
60
50
40
30
20
10
0
Thousands of Acres
1 to 10
11 to 20
21 to 30
31 to 40
41 to 50
51 to 60
61 to 70
71 to 80
81 to 90
91 to 100
101 to 130
131 Plus
Age Class in Years