

American Woodcock Habitat Best Management Practices:

A Quest for Early- Successional Habitat

Focus of Presentation

- ▶ Habitat and Population Trends
- ▶ New Initiative
- ▶ Habitat Best Management Practices

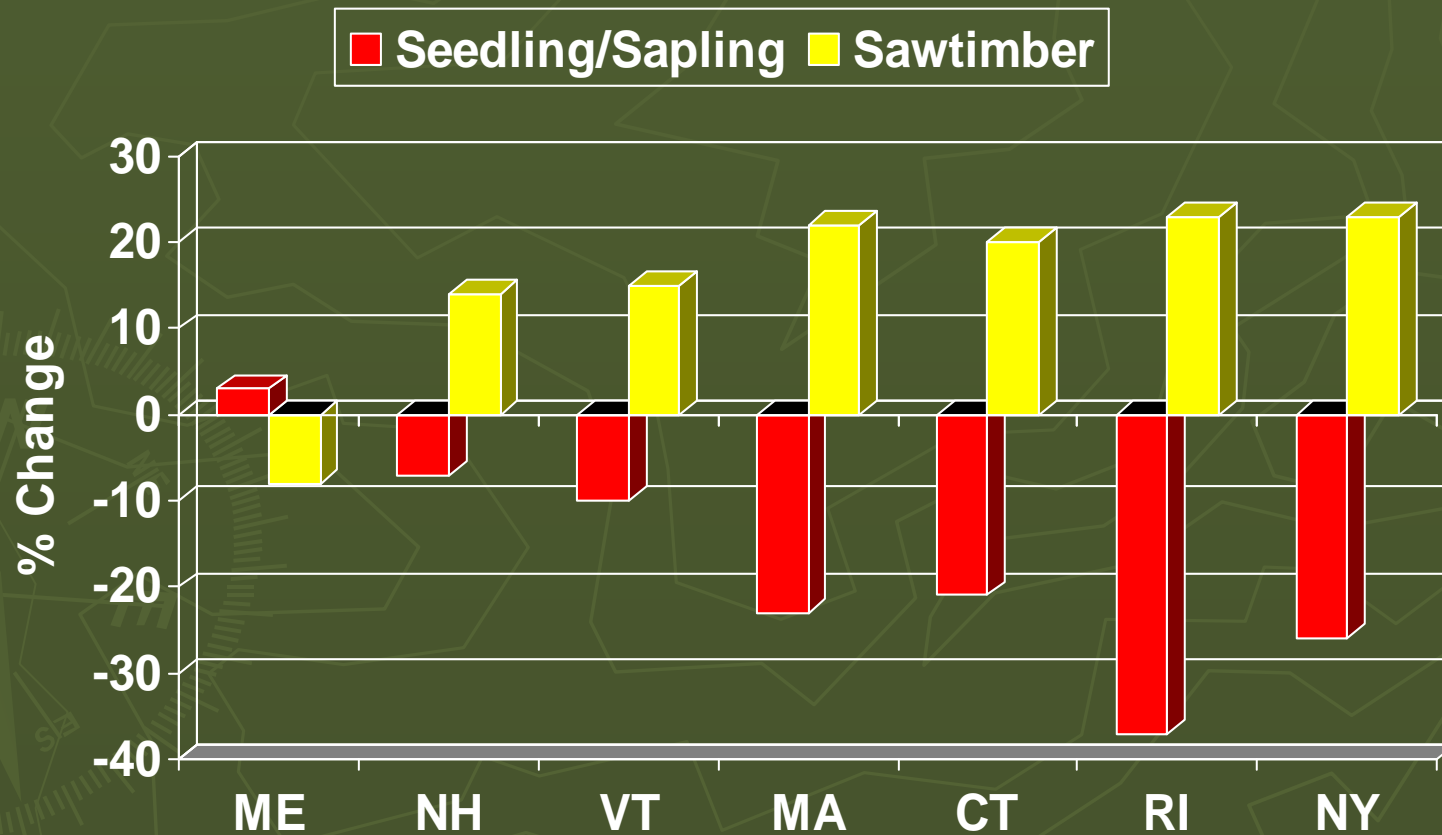


Trends in Forest Structure

US Forest Service Inventory Data:

- ▶ Forest maturing in northeastern US
- ▶ Early-successional habitats becoming uncommon
- ▶ Abandoned agricultural land developed or forested
- ▶ Northern commercially managed forest bucking trend (Maine)

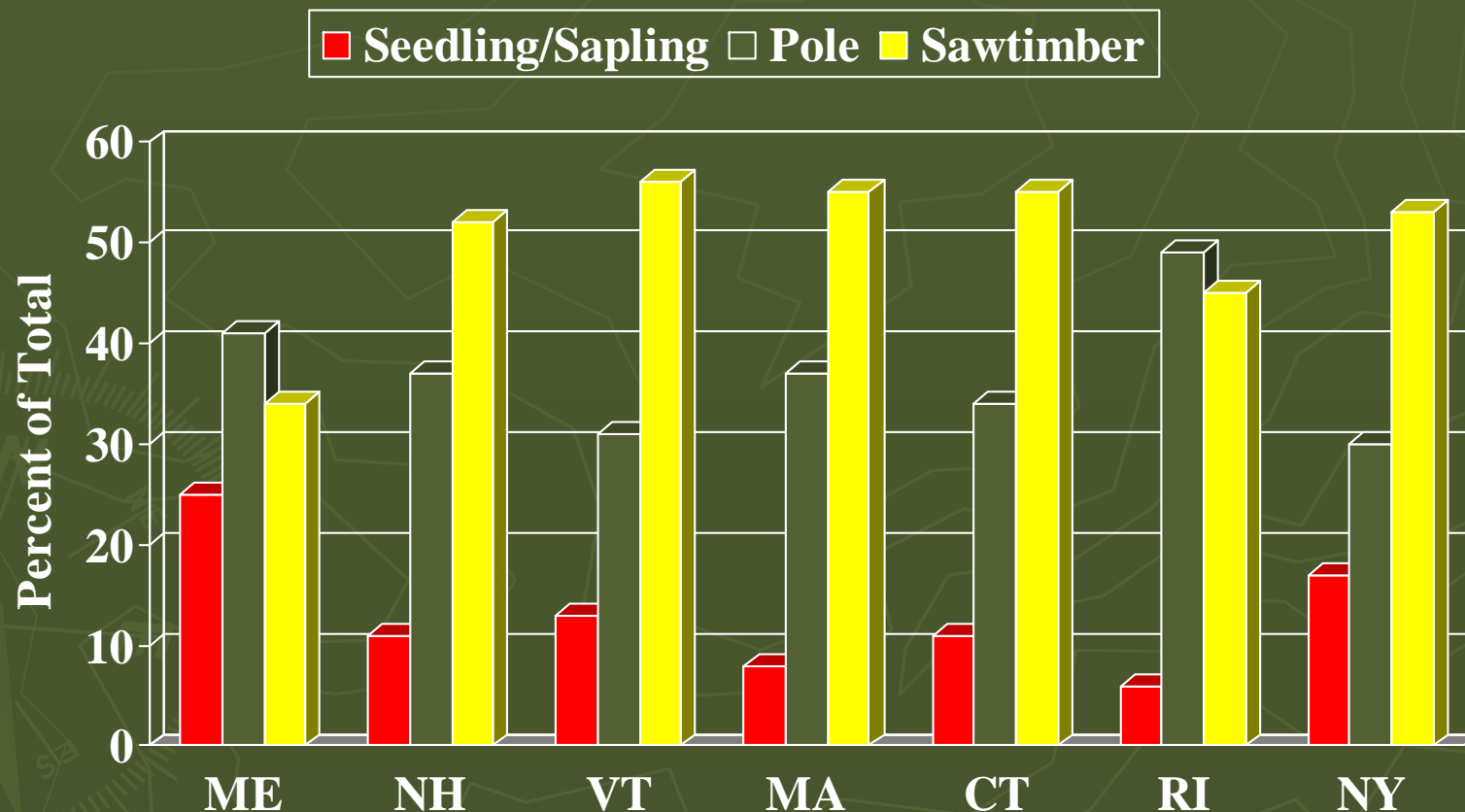
Trends in Seedling/Sapling and Sawtimber Acreage in the NE ~1966-1990



Data from: USDA, Forest Service. 1999. Early successional Habitat and Open Lands Assessment for the Eastern and Southern Regions.



Stand Class Distribution in the Northeast



Data from: USDA, Forest Service. 1999. Early successional Habitat and Open Lands Assessment for the Eastern and Southern Regions.

New England Vertebrate Diversity Goals

(New England Wildlife: Management of Forested Habitats. DeGraaf et al, 1992)

Size class distribution:

- ▶ Regeneration 5-15%
- ▶ Sapling-pole 30- 40%
- ▶ Sawtimber 40-50%
- ▶ Large sawtimber <10%

Cover-type distribution:

- ▶ Coniferous 35-60%
- ▶ Hard Mast (beech, oak) 1-5%
- ▶ Deciduous (not hard mast)
 - Short rotation 10-25%
 - Long rotation 15-30%

- 338 inland vertebrate wildlife species are known to occur in New England.
 - 257 species have a primary or secondary dependence on woody vegetation
 - 233 (90 percent) have a primary or secondary dependence on regenerating or young age classes among all forest types.
 - ..The remaining 24 species have primary or secondary dependence on mature or over-mature stands.

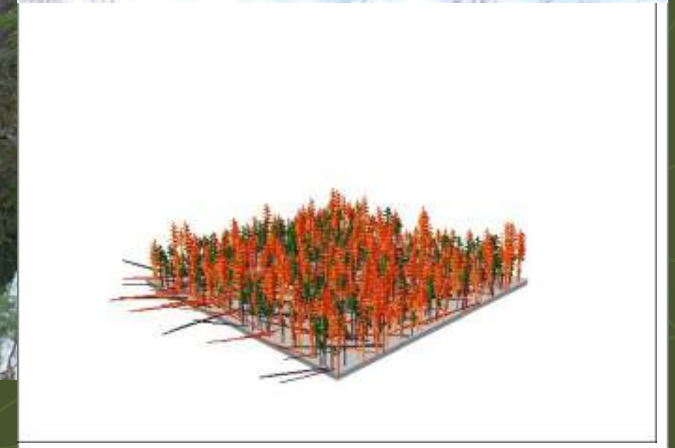
NH Forest Trend Updates

USFS, Forest Inventory - 2005

New Hampshire forests continue to mature with saw timber size class increasing 17% since 1983.

- NH = 84% forested (4.77 mm acres)
 - ▶ Saw timber size class - 59%
 - ▶ Pole size class - 32%
 - ▶ Sapling/seedling size class - 9%

Shelterwood Systems Increasing



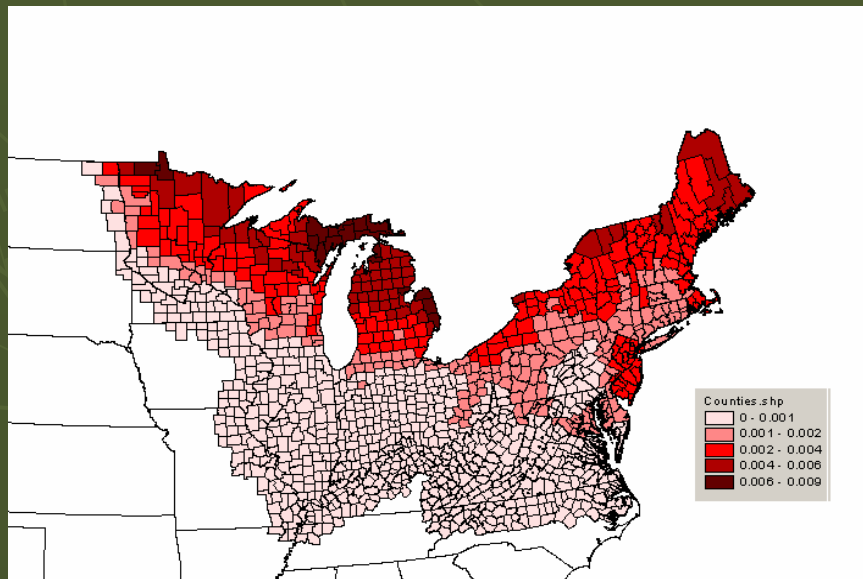
Early Successional Structure via Clearcutting (declining)



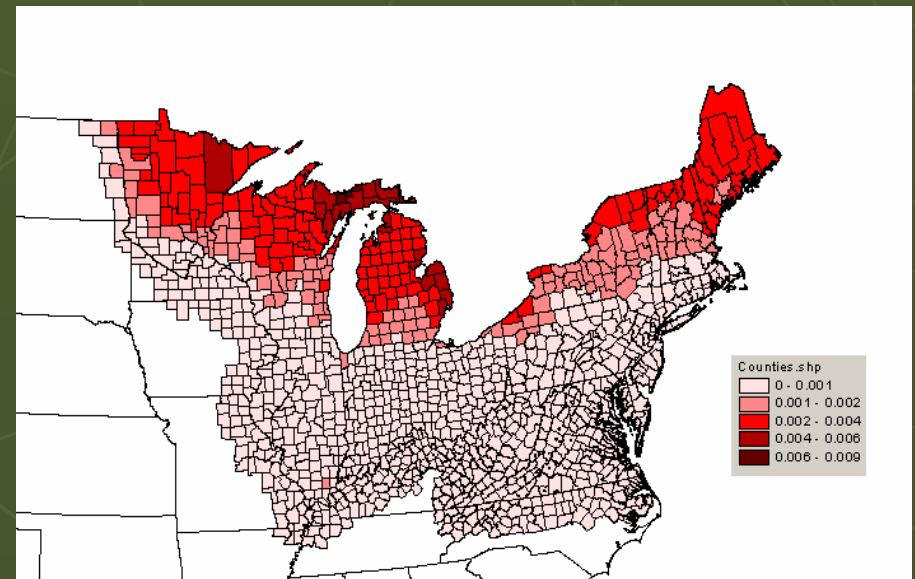


Changes in American Woodcock Abundance

1970's



2000's

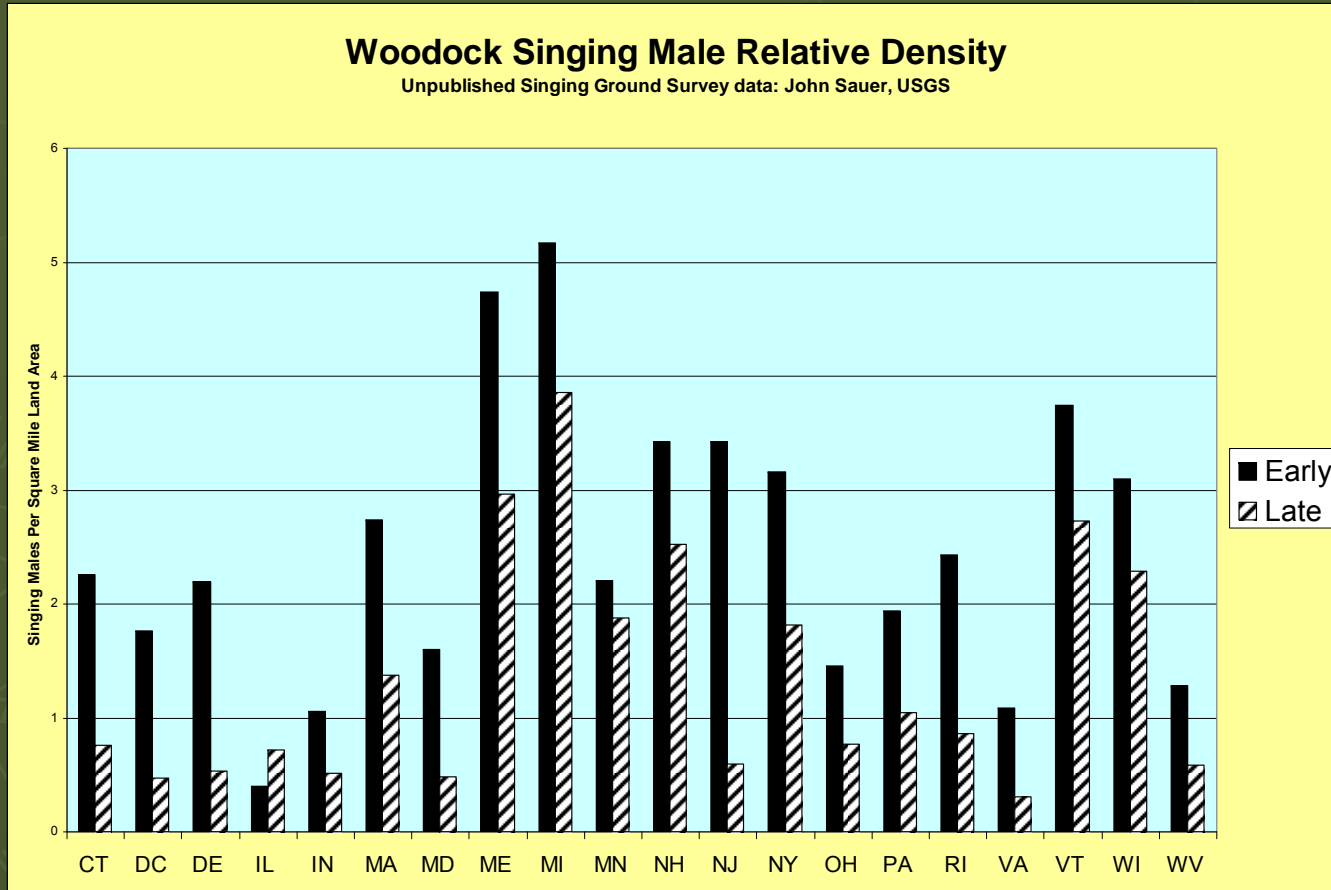


Unpublished Singing Ground
Survey Data

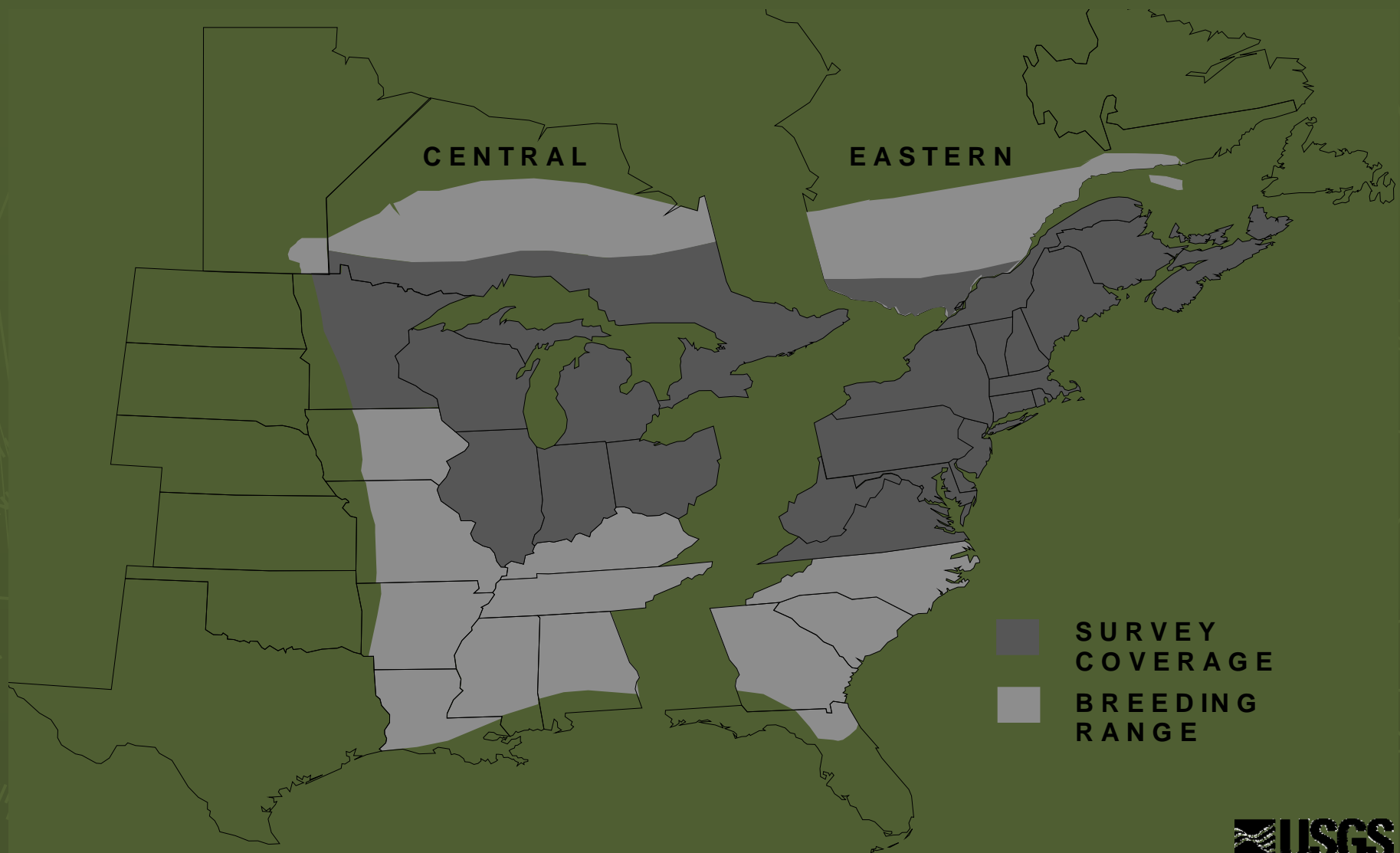
John Sauer, USGS

Singing Males / Square Mile by State

Early = \leq 1970's; Late = \geq 1980's



Woodcock Management Regions

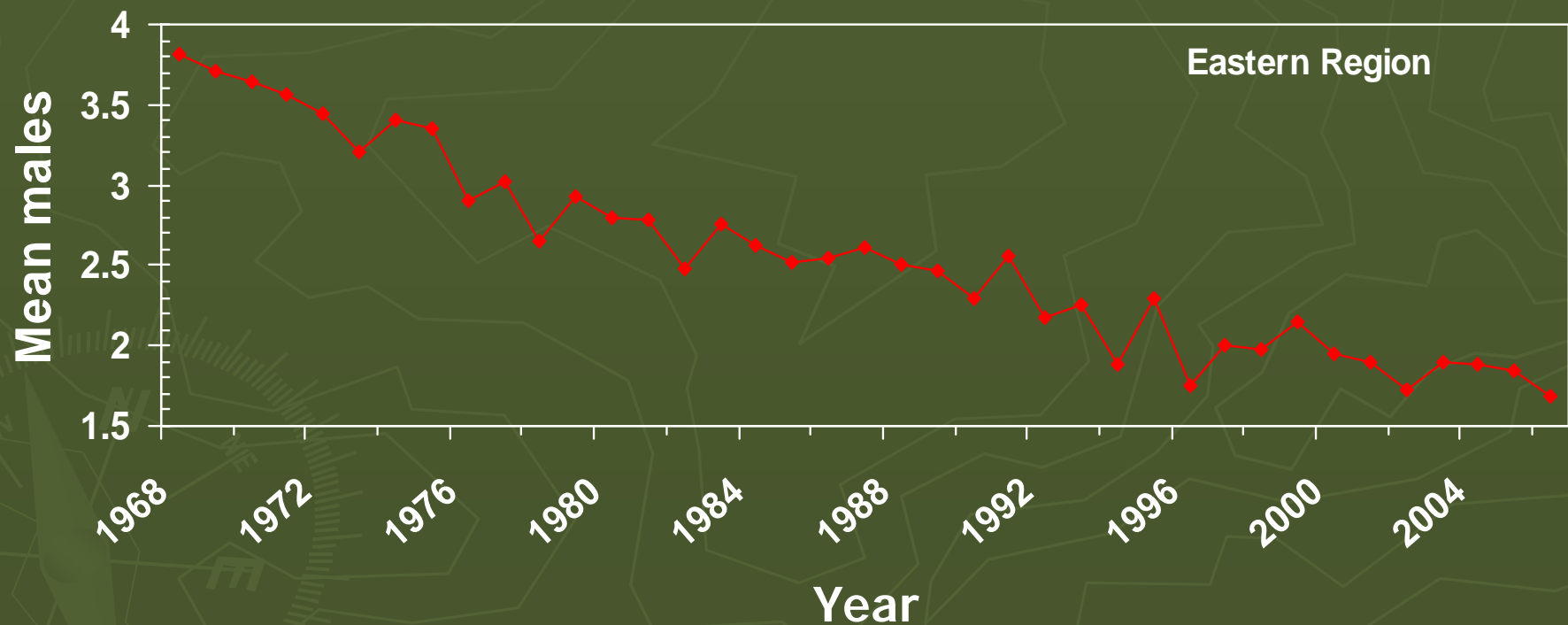


**SURVEY
COVERAGE**

**BREEDING
RANGE**

Number of Woodcock Heard on the Singing Ground Survey 1968-2006

(56% decline)



Data from: Kelley, J.R., Jr., and R.D. Rau. 2006. American woodcock population status 2006. USFWS



NH Woodcock Trends

Estimated Number of Singing Males:

1970 – 17,800

2005 – 13,255

Loss = - 4,545 or 26% decline

Draft American Woodcock Conservation Plan, 2006



How do we put the brakes on?

▶ American Woodcock Conservation Plan (draft)

▪ BCR 14

- ▶ Additional 316,000 US acres of early successional habitat / yr. needed to stop decline of population
- ▶ Additional 3.2 million additional acres (US) needed to bring populations to 1970 levels

State	Tot. Habitat Acres needed	Habitat acres Per year (10 yrs.)
MA	74,827	7,483
ME	1,912,514	191,251
NH	286,986	28,699
VT	394,122	39,412

Federal / State Agencies Recognize Need for Young Forest Structure

Increase in Early-Successional Habitat Warranted:

USFWS has named the Am. Woodcock as one of eight national focus species.

Partners In Flight and North American Bird Conservation Initiative ranked woodcock as a highest (global) priority species in need of conservation action.

5 New England State Wildlife Action Plans list **59 species** that **require young forest and shrubland habitats** as species with "Greatest Conservation Need" (39 birds, 7 reptiles/amphibians, and 13 mammals).



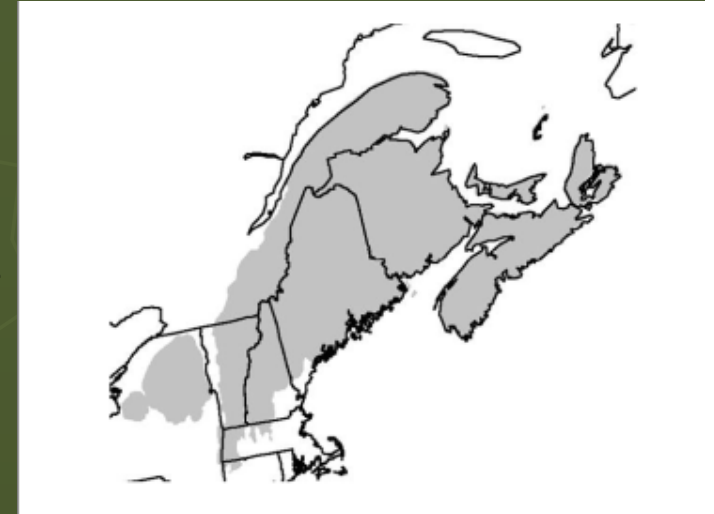
Northern Forest Woodcock Initiative

Bird Conservation Region 14

Wildlife Management Institute Has Assembled Twenty-four Cooperators under the auspices of the NFWI.

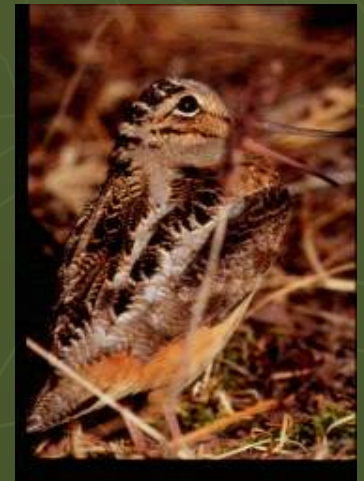
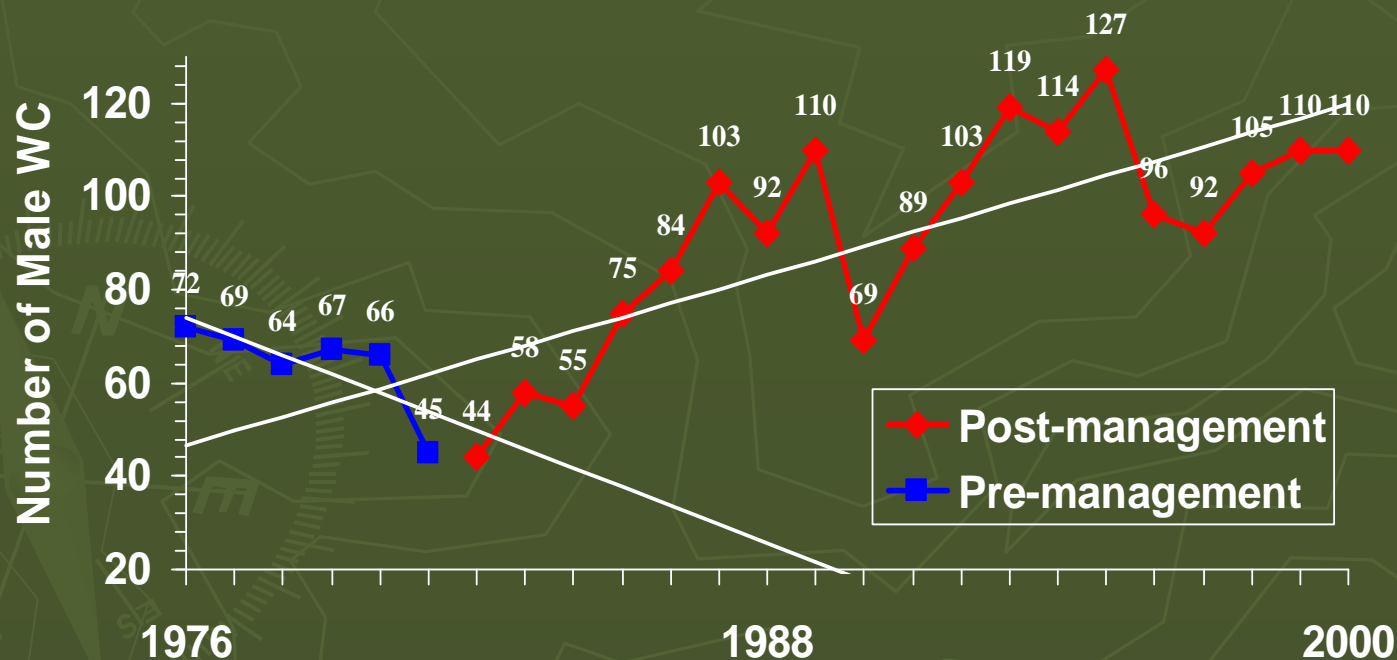
Approach:

- Showcase Best Mgt Practices on Public Land Demonstration Areas
- Monitor Response of Woodcock to Management
- Outreach to Private Landowners (particularly certified)
- Provide Technical Assistance & Funding Support (through favorable match programs like WHIP)



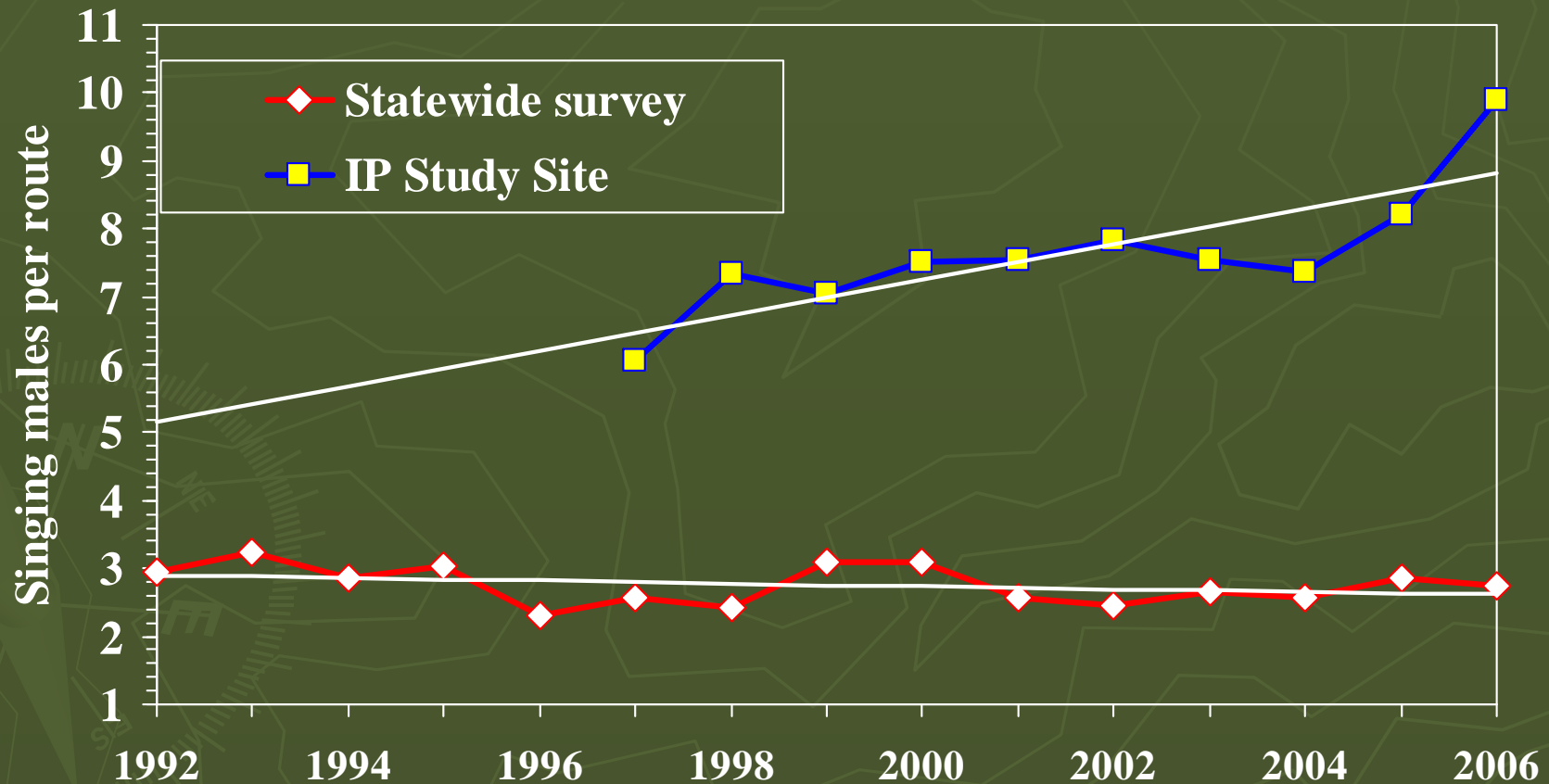
Importance of Habitat Management

Woodcock Singing Ground Survey
(Moosehorn National Wildlife Refuge)



Maine Singing Ground Survey

Statewide vs IP Study Site



Statewide Data from Kelley, J.R., Jr. 2005. American woodcock population status. USFWS.



1978-81 Early Successional Management Study

Birds that Increased

- ▶ Yellow-bellied Sapsucker
- ▶ Northern Flicker
- ▶ Eastern Wood Peewee
- ▶ Common Raven
- ▶ American Robin
- ▶ Northern Parula
- ▶ Nashville Warbler
- ▶ Black-throated Blue Warbler
- ▶ Chestnut-sided Warbler
- ▶ Black and White Warbler
- ▶ American Redstart
- ▶ Mourning Warbler
- ▶ Common yellowthroat
- ▶ White-throated Sparrow
- ▶ Dark-eyed Junco

Birds that Decreased

- ▶ Red-breasted Nuthatch
- ▶ Cape May Warbler

“Create the structure the rest will follow.”

Woodcock Habitat Requirements:

(Woodcock habitat must have all of the elements listed below.)

- ▶ ***Fertile, moist soils***, history of settlement preferred but not required

- ▶ ***Openings*** for courtship and roosting
 - Singing grounds, night roosting fields

- ▶ ***Early-successional intolerant hardwood/alder*** types for feeding, nesting, and brood-rearing

Woodcock Habitat Requirements

(Female woodcock nest in dense regenerating/shrubby areas)

Nesting and Brood Rearing: create young, dense regen./sapling hardwoods manage in \pm 5 acre blocks



Woodcock Habitat Requirements

(Moist, rich soils; structure for overhead protection; bare ground and access to earthworms)

Diurnal Feeding Cover: cut strips in alders or dense aspen 60'-80' wide. Leave 280 feet uncut and manage on 5 year cutting cycle. Slash removal is desired. (should be w/in 0.5 miles of brood/nesting hab.)

Abandoned ag. land ideal



Diurnal Feeding Cover: continued

Indicators of need to regenerate-

- ▶ Horizontal stems
- ▶ Dense grasses and forbs in understory



Woodcock Habitat Requirements

Crepuscular behavior of flying to roosting fields after sunset and returning to diurnal cover before dawn.

Night Roosting Fields: 3 to 5 acres in size; 1 per 100 acres of habitat; mow every 2-5 years; typically 60-70% shrub/early regen. covered; and bare patches preferred (clearcuts work short term).



Woodcock Habitat Requirements

(Males arrive in early spring and use fields and forest openings for courtship displays at dawn and dusk)

Singing Grounds: rectangular, south facing, complete slash removal (one site per 20-25 acres of habitat)

- ▶ Forested- trees $>25'$ maintain clearing of 0.5 acres; trees $<25'$ maintain clearing of 0.25 acres
- ▶ Mow on a 2 to 4 year cycle



Northern Forest Woodcock Initiative

"A quest for early-successional habitats."

Final Observations:

- ▶ *Data exists-* Wildlife research and surveys make a compelling case for increasing early-successional habitats over current levels.
- ▶ *Context of NFWI-* Compatible with concepts of sustainability and biodiversity on a landscape scale. Many declining species will benefit from this initiative.
- ▶ *Technology available-* Management techniques have become more efficient and cost effective.
- ▶ *Incentives needed-* To attain habitat goals for the American woodcock, cost sharing programs and grants will be needed to defray out of pocket costs to landowners to encourage them to manage non-commercial habitats (e.g., alders).

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