

Forest Service (6) MC

Date:

JUN 1988

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Harriswite, Mi

May 21 or 2 p. 22 7 7 1

Reply to: 4200

Subject: Wildlife Management of Jack pine Forest Type

To: Timber-Wildlife Staff Officer
Huron-Manistee National Forest

I have had several conversations with Huron-Manistee biologists about managing jack pine for wildlife species other than Kirtland's Warbler. As you know, Kirtland's Warbler (KW) management is a very expensive program. I understand that the costs of regenerating jack pine for KWs or other resource benefits are about twice the current receipts from timber sales. Thus, it is highly desirable to emphasize, publicize, and maximize other wildlife benefits that are derived from jack pine management.

For your information, the enclosed list of species that have habitat potential in jack pine include about three dozen species that should be recognized because of their status as ETS or game species. Some of these species could be considered for special management. Of course, many of these species are more abundant in other forest types, and it may be difficult to establish or increase populations of some wildlife species in Lower Michigan. The qualitative importance classes as listed in the Table can be modified by the land manager according to local or temporal conditions. At present, I am using this predicted wildlife list as an example for integrating the expected wildlife response to forest maturation and silvicultural treatment in one or more forest types.

Wildlife species preferring early successional stages should benefit from the large management blocks in the KWMAs--especially as these areas approach balanced rotation. Difficult or ambitious projects, (such as sharp-tailed grouse re-introduction) should be delayed until most management units provide minimum habitat and scheduling for future needs. Regular timber harvest in the KWMAs need not conflict with any current or future proposals to set aside large areas of uncut forest in the Forest as a whole. Preservation of large mature forest blocks would still be possible at other locations because management of KWMAs is concentrated into large, contiguous areas separated from one another.

It is unlikely that we will do any field research on jack pine wildlife per saw for ESTER-Country to the same of t

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to help justify the current program. You also may wish to incorporate some jack pine wildlife management into your existing plans and make additions to the LMP at the appropriate time. We can discuss this further at the planned Huron-Manistee and NCFES interchange.

JOHN R. PROBST Wildlife Biologist

Enclosures

cc: Tawas RD Mio RD

Harrisville RD

D. Elsing, Hiawatha N.F.

RO - Radtke

T. Crow, NCFES

S. Taylor, MI DNR

J. Weinrich, MI DNR

T. Weise, MI DNR

R. Baker, MN DNR

L. Gregg, WI DNR (Park Falls)

C. Adams, WI DNR (Spooner)



DRAFT - SUBJECT TO REVISION

<u>Study Series</u>: Integrate multi-species habitat needs across ownerships for large areas of young habitat.

<u>Problem</u>: Traditional wildlife habitat modelling and management deals with single species at local levels such as a stand or compartment. Stand designation and scheduling must accommodate cumulative effects of forest type and age on different species with contrasting requirements. This study will emphasize habitat quality and biogeography of species that require large blocks of habitat. Minimum habitat requirements of wide-ranging species often cannot be met without cooperative land management among government agencies.

Objectives: (1) Devise a management strategy to provide habitat for viable populations of a variety of key wildlife species in jack pine and oak forest types. Species that are Endangered, Threatened, game, furbearer, or special interest include Kirtland's Warbler, Clay-colored Sparrow, Eastern Bluebird, Upland Sandpiper, Lincoln's Sparrow, Sharp-tailed Grouse, Spruce Grouse, White-tailed Deer, Badger, Short-tailed Weasel, Red Fox, Coyote, and several raptors. (2) Plan for adjacent and disjunct habitat in federal, state, county, and private ownership to provide adequate quantity and spatial arrangement of habitat for as many key species as possible. (3) Devise stand scheduling scheme that develops large blocks of mature habitat from staggered regeneration of early succession habitat.

Methods: (1) Assemble maps of habitat and potential management areas from Michigan GIS (MIRIS), State and USFS aerial photos and compartment records. (2) Devise integrated management strategy for species using forest regeneration as well as those requiring large permanent openings utilizing juxtaposition of adjacent forest types and ownerships to provide minimum area requirements of most species. (3) Design monitoring for viable populations if plan is implemented.

<u>Location</u>: Northern Lower Michigan, Michigan's Eastern Upper Peninsula, or Northwestern Wisconsin.

<u>Cooperation</u>: Huron-Manistee, Hiawatha, or Chequamegon National Forest, Michigan DNR, or Wisconsin DNR, Burnett and Douglas Counties, Wisconsin.

Duration: 2-4 years.

MAR SEE CARLOL

IMPORTANCE CLASS AND PREDICTED ABUNDANCE CLASS OF JACK PINE VERTEBRATES IN FOUR STAND AGES CLASSES

BIRDS

Imp Cla	ortance SPECIES	Sta	nd Ag	e (Yrs) 30	5====	l Dané dua 1	61	Tree	Hard-	Ground
010	JFECTES	0-3	0-10	17-30	/34	Snags	Residuals	Stash	Densities	wood	Cover
C B A B B A A B C B B B	Turkey Vulture Sharp-shinned Hawk Cooper's Hawk Red tailed Hawk Broad winged Hawk Harrier, Northern American Kestrel Spruce Grouse Ruffed Grouse Sharp-tailed Grouse Turkey, Wild Killdeer Woodcock, American Upland Sandpiper	2 0 0 3 0 1 3 0 0 1 1 1 2 3	2 1 3 1 3 1 0 1 0 0 1	2 2 1 3 2 0 0 1 2 0 2 0	2 2 1 3 2 0 0 1 2 0 2 0 1 0	0 0 0 + + - + 0 0 0 0 - 0 +	0 + + + + + + + 0 0 0 + 0 0 + + + + + +	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 -	0 0 0 + + + 0 0 - + + 0 + 0	0 0 0 0 0 0 + + 0 0 +
D	Mourning Dove Yellow-billed	3	3	2	2	+	+	0	-	0	0
C B B	Cuckoo Black-billed Cuckoo Short-eared Owl Screech-Owl, Eastern		0 1 0 0	0 0 0 2	1 0 0 2	0 0 0 +	0 0 0 +	0 0 . + 0	+ + - -	+ + 0 0	0 0 0
B B B C C	Great-Horned Owl Barred Owl Long-eared Owl N. Saw-whet Owl Whippoor-will Com. Nighthawk	2 0 1 0 1 3	2 0 1 0 2 2	2 1 1 2 1	2 1 1 1 1 1 1	+ 0 0 + 0 +	+ 0 0 0 0	0 0 0 0 0 0	- + +	0 + - 0 + 0	0 0 0 0
C B	Com. Flicker Red-headed	3	3	2	3	+	+	0	-	+	0
B C C A	Woodpecker Pileated Woodpecker Hairy Woodpecker Downy Woodpecker Black-backed	2 1 1 1	2 1 1 1	0 1 1 1	0 1 2 1	+ + + + + +	+ 0 + +	+ 0 0 +	- - -	+ + + +	0 0 0
- 1	Woodpecker	1	1	0	0	+	+	+	-	-	0
CCC	Yellow-bellied Sapsucker E. Kingbird G. C. Flycatcher Least Flycatcher	0 3 1 0	0 3 1 0	0 0 2 0	1 0 3 1	+ + + 0	+ + + 0	0 + 0 0	- - -	+ 0 0 +	0 0 0

A = ETS or Rare

B = Game, Fur, or Special Status

C = Common

D = Ubiquitous or Abundant

BIRDS

BIRDS											
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	portance	Sta	ind Ag	ge (Yrs)	1		B 8000 d 4	Tree	Hard-	Ground
<u>Cla</u>	ass SPECIES	0-5	6-16	17-30	>30	Snags	Residuals	Slash	Densities	wood	Cover
В	Olive-sided										12 1 7
	Flycatcher	2	2	1	1	+					
С	E. Wood Peewee	0	0	2	3	+	0	0	- 1	-	0
Č	Horned Lark	2	l o	0	0	0	0	U	-	0	0
Č	Tree Swallow	2	2	0	0	+	+	0	_	0	
C	Purple Martin	2	2	0	0	1 + 1	0	0		0	0
D	Blue Jay	2	-	3	3	+	+	0	+ 1	+	0
В	Com. Raven	2	2	2	2	+	+	0	1 - 1		0
D	American Crow	2	2	2	2	+	+	0	0	0	0
C	Blcapped Chickadee		3	3	3	+	+	0	+	0	0
C	White-br. Nuthatch	0	0	2	2	+	+	0 .	- 1	+	ő
С	Red-br. Nuthatch	0	0	2	2	+	1	0.	0	-	0
C	Brown Creeper	0	0	0	1	+	0	0		0	0
C	House Wren	0	2	0	0	+	0	+	-	+	0
C	Gray Catbird	0	0	1	1	0	0	+	-	+	0
В	Brown Thrasher	2	4	2 0	0	+	+	+	0	+	0
D	N. Mockingbird	0	1 3	. 3	0 3	+	+	0	-	+	0
C	Wood Thrush	0	0	1	2	0 0	+	0 .	-	0	+
C	Hermit Thrush	0	3	3	3	0	0	0	-	+	0
В	E. Bluebird	3	3	0	0	+	+	0	0	-	-
C	Cedar Waxwing	2	2	3	3	+	+	0	-	+	0
A	Loggerhead Shrike	ī	1	0	l o l	+	+	0	-	0	0
D	Starling, European	2	2	0	0	+	+	0	_	0	0
D	Red-eyed Vireo	0	0	1	1	0	+	0.	0	+	0
C	Black and White			1			1				
	Warbler	. 0	0	0	1	0	+	0	- 1	+	0
C	Nashville Warbler	0	4	4	3	0	+	0	0	0	+
C	Yellow-rumped			-			1	.	1		
	Warbler	0	1	2	2	0	0	0	+	+	0
C	Black-throated Green		0		1	1 1	_	_			
c	Warbler Chestnut-sided	0	0	1	1	0	0	0	+	+	0
-	Warbler	0	1	0	0	0	. 1				·
c	Pine Warbler	0	0	2	3	0	0	0	-	+	0
A	Kirtland's Warbler	0	3	1	ő	+	+	0	0 +	-	0
В	Prairie Warbler	0	2	ō	0	0	+	0	_	+	0
C	Mourning Warbler	0	1	0	0	0	0	+ 1	_	+	+
D	Ovenbird	0	1	2	3	0	+	0	0	+	0
C	E. Meadowlark	2	0	0	0	0	0	0	-	0	+
C	N. Oriole	1	1	0	0	+	+	0.	-	+	0
В	Brewers Blackbird	2	1	0	0	0	0	0	-	0	+
D	Brown-headed Cowbird	3	4	3	3	+	+	0	0	0	0
C	Scarlet Tanager Rose-breasted	0	1	2	2	0	+	0	-	+	0
-	Grosbeak	0	1	2	2	0	. 1	_			_
c	Indigo Bunting	0	1	0	0	+	+	0	-	+	0
c	Purple Finch	0	1	1	1	0	+	0.	0	+	0
C	Am. Goldfinch	1	1	ō	ō	o l	+	0	-	0	. 0
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BIRDS

Impo Clas	ortance ss SPECIES	Sta 0-5	nd Ag 6-16	e (Yrs) >30	Snags	Residuals	Slash	Tree Densities	Hard-	Ground Cover
D D D B D	Rufous-sided Towhee Vesper Sparrow Dark-eyed Junco Chipping Sparrow Clay-colored Sparrow Field Sparrow Lincoln's Sparrow Song Sparrow	0 4 0 2	2 4 2 3 2 3 2 1	1 2 3 3 0 0 2	1 0 3 3 0 0 0 2	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0	+ 0 0 0 0 0 0 0 +		0 0 0 0 0	+ + + 0 0 + + +

^{0 -} absent 1 - rare 2 - uncommon 3 - common 4 - abundant

I mp	portance ASS SPECIES	Sta 0-5	nd Ag	e (Yrs	3)	Snag	d Danidus I	51	Tree	Hard-	Ground
		0-3	0-10	17-30	>34	Snags	Residuals	Slash	Densities	wood	Cover
CCCCCCGCCBBC	Masked Shrew Pygmy Shrew Short-tailed Shrew E. Mole Little Brown Myotis Keens Myotis Silver-haired Bat Big Brown Bat Red Bat Hoary Bat E. Cottontail Snowshoe Hare E. Chipmunk	1 1 2 3 3 1 0 2 2 1 2 1	2 1 2 3 1 0 2 2 1 2 3 1	3 1 3 3 1 1 2 2 1 2 3	3 1 3 2 3 1 1 2 2 1 2 3 2 3	0 0 0 + + + + + 0 0 + +	0 0 0 0 + + + + + + 0 0 0 + +	+ + + 0 0 0 0 0 0 0 0 0 + +	0 - 0 0 +	0 0 0 + + + + + + + + + + + + + + + + +	+ + + 0 0 0 0 0 0 + + +
C	Least Chipmunk	2	2	2	2	+	+	+ +	0	+	+ 0
C	Woodchuck 13-lined Grd	1	2	1	1	0	0	+	-	+	+
B B C B B D D D C C C C C	Squirrel Gray Squirrel Fox Squirrel Red Squirrel N. Flying Squirrel S. Flying Squirrel White-footed Mouse Deer Mouse Red-backed Vole Meadow Vole Pine Vole Lemming, S. Bog Meadow Jumping Mouse Woodland Jumping	3 0 0 0 0 0 2 3 1 2 0 0	2 0 0 2 0 0 2 3 1 2 1 0 2	0 1 1 3 1 1 3 2 2 0 2 1 1	0 2 2 3 2 2 3 2 2 0 2 1	0 0 0 0 0 0 0 0 0 0 0	0 + + 0 0 0 0 0 0	0 0 0 0 0 0 + + + 0 + + + + 1	+ + + + 0 - 0 - +	0 + + + + + + + + + + + + + + + + + + +	+ 0 0 0 0 0 + + + + + + + + + + + + + +
В	Mouse Porcupine Coyote Red Fox Gray Fox Black Bear Raccoon Least Weasel Ermine Weasel Long-tailed Weasel Badger Striped Skunk Bobcat White-tailed Deer	0 0 3 2 0 1 2 1 0 2 2 2 1 4	0 0 3 2 1 1 2 1 0 2 2 2 1 4	1 3 3 1 1 1 2 0 1 1 0 1 1 3	1 3 3 1 1 1 2 0 1 1 0 1 1 3	0 0 0 0 0 0 0 0 0 0 0 0 0	0 + 0 0 0 0 0 0 0	+ 0 0 0 0 + 0 + + + + 0 + +		+ - 0 0 0 + + + + 0 0 0 0 + 0 + .	+ 0 - + + 0 0 0 + + 0 + 0 +

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^{0 =} Absent 1 = Rare 2 = Uncommon 3 = Common 4 = Abundant

HERPTS

Imp Cla	ortance SPECIES	Sta	nd Ag	e (Yrs) 34		Residuals		Tree	Hard-	Ground
	3, 20,123	0-3	0-10	17-30	734	Snags	Residuals	Slash	Densities	wood	Cover
C C A B C C C C	Wood Turtle E. Box Turtle Blanding's Turtle 5-lined Skink N. Red-bellied Snake E. Garter Snake E. Hognose Snake N. Ringneck Snake	1 1 1	1 1 1 0 2 2	1 1 0 1 1 2 2	1 1 0 1 1 1 2 2	0 0 0 + 0 0 0 0	0 0 0 0 0	+ + 0 + + + + + +	+ - 0	0 + 0 0 0 0 0	+ + + + + + +
CCCB	E. Smooth Green Snake E. Milk Snake Red-backed Salamander Am. Toad Fowler's Toad Wood Frog	2 1 0 3 1	2 2 0 3 1	3 3 1 3 1	3 3 1 3 0	0 0 0 0 0	0 0 0 0	+ + + + +	0 0 + 0 0	0 0 0	

^{0 -} absent 1 - rare 2 - uncommon 3 - common 4 - abundant