



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

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

Problem: 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.

Location: Northern Lower Michigan, Michigan's Eastern Upper Peninsula, or Northwestern Wisconsin.

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

Duration: 2-4 years.

1970-1971

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

BIRDS

Importance Class	SPECIES	Stand Age (Yrs)				Snags	Residuals	Slash	Tree Densities	Hard wood	Ground Cover
		0-5	6-16	17-30	>30						
C	Turkey Vulture	2	2	2	2	0	0	0	0	0	0
B	Sharp-shinned Hawk	0	1	2	2	0	+	0	0	0	0
A	Cooper's Hawk	0	1	1	1	0	+	0	-	0	0
B	Red tailed Hawk	3	3	3	3	+	+	0	-	+	0
B	Broad winged Hawk	0	1	2	2	+	+	0	-	+	0
B	Harrier, Northern	1	1	0	0	-	-	0	-	0	+
A	American Kestrel	3	3	0	0	+	+	0	-	0	0
A	Spruce Grouse	0	1	1	1	0	0	0	+	-	0
B	Ruffed Grouse	0	0	2	2	0	0	+	-	+	+
A	Sharp-tailed Grouse	1	1	0	0	0	0	0	-	+	+
B	Turkey, Wild	1	1	2	2	0	+	0	-	+	0
C	Killdeer	1	0	0	0	-	0	-	-	0	-
B	Woodcock, American	2	0	1	1	0	0	0	0	+	0
B	Upland Sandpiper	3	1	0	0	+	+	-	-	0	0
D	Mourning Dove	3	3	2	2	+	+	0	-	0	+
C	Yellow-billed Cuckoo	0	0	0	1	0	0	0	+	+	0
C	Black-billed Cuckoo	0	1	0	0	0	0	0	+	+	0
B	Short-eared Owl	1	0	0	0	0	0	+	-	0	0
B	Screech-Owl, Eastern	0	0	2	2	+	+	0	-	0	0
B	Great-Horned Owl	2	2	2	2	+	+	0	-	0	0
B	Barred Owl	0	0	2	2	0	0	0	-	+	0
B	Long-eared Owl	1	1	1	1	0	0	0	+	-	0
B	N. Saw-whet Owl	0	0	1	1	+	0	0	+	0	0
C	Whippoor-will	1	2	2	1	0	0	0	-	+	0
C	Com. Nighthawk	3	2	1	1	+	+	0	-	0	-
C	Com. Flicker	3	3	2	3	+	+	0	-	+	0
B	Red-headed Woodpecker	2	2	0	0	+	+	+	-	+	0
B	Pileated Woodpecker	1	1	1	1	+	0	0	-	+	0
C	Hairy Woodpecker	1	1	1	2	+	+	0	-	+	0
C	Downy Woodpecker	1	1	1	1	+	+	+	-	+	0
A	Black-backed Woodpecker	1	1	0	0	+	+	+	-	-	0
C	Yellow-bellied Sapsucker	0	0	0	1	+	+	0	-	+	0
C	E. Kingbird	3	3	0	0	+	+	+	-	0	0
C	G. C. Flycatcher	1	1	2	3	+	+	0	-	0	0
C	Least Flycatcher	0	0	0	1	0	0	0	-	+	0

A = ETS or Rare
 B = Game, Fur, or Special Status
 C = Common
 D = Ubiquitous or Abundant

BIRDS

Importance Class	SPECIES	Stand Age (Yrs)				Snags	Residuals	Slash	Tree Densities	Hard wood	Ground Cover
		0-5	6-16	17-30	>30						
B	Olive-sided Flycatcher	2	2	1	1	+	+	0	-	-	0
C	E. Wood Peewee	0	0	2	3	+	0	0	-	0	0
C	Horned Lark	2	0	0	0	0	0	-	-	0	-
C	Tree Swallow	2	2	0	0	+	+	0	-	+	0
C	Purple Martin	2	2	0	0	+	0	0	-	0	0
D	Blue Jay	2		3	3	+	+	0	+	+	0
B	Com. Raven	2	2	2	2	+	+	0	-	-	0
D	American Crow	2	2	2	2	+	+	0	0	0	0
C	Bl.-capped Chickadee	0	3	3	3	+	+	0	+	0	0
C	White-br. Nuthatch	0	0	2	2	+	+	0	-	+	0
C	Red-br. Nuthatch	0	0	2	2	+		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
C	Brown Thrasher	2	4	2	0	+	+	+	0	+	0
B	N. Mockingbird	0	1	0	0	+	+	0	-	+	0
D	Am. Robin	3	3	3	3	0	+	0	-	0	+
C	Wood Thrush	0	0	1	2	0	0	0	-	+	0
C	Hermit Thrush	0	3	3	3	0	+	0	0	-	0
B	E. Bluebird	3	3	0	0	+	+	0	-	+	0
C	Cedar Waxwing	2	2	3	3	+	+	0	-	0	0
A	Loggerhead Shrike	1	1	0	0	+	+	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 Warbler	0	0	0	1	0	+	0	-	+	0
C	Nashville Warbler	0	4	4	3	0	+	0	0	0	+
C	Yellow-rumped Warbler	0	1	2	2	0	0	0	+	+	0
C	Black-throated Green Warbler	0	0	1	1	0	0	0	+	+	0
C	Chestnut-sided Warbler	0	1	0	0	0	+	0	-	+	0
C	Pine Warbler	0	0	2	3	0	0	0	0	-	0
A	Kirtland's Warbler	0	3	1	0	+	+	0	+	-	+
B	Prairie Warbler	0	2	0	0	0	+	0	-	+	0
C	Mourning Warbler	0	1	0	0	0	0	+	-	+	+
D	Ovenbird	0	!	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
B	Brewers Blackbird	2	1	0	0	0	0	0	-	0	0
D	Brown-headed Cowbird	3	4	3	3	+	+	0	0	0	+
C	Scarlet Tanager	0	1	2	2	0	+	0	-	+	0
C	Rose-breasted Grosbeak	0	1	2	2	0	+	0	-	+	0
C	Indigo Bunting	0	1	0	0	+	+	0	-	+	0
C	Purple Finch	0	1	1	1	0	+	0	0	0	0
C	Am. Goldfinch	1	1	0	0	0	+	0	0	0	0

BIRDS

Importance Class	SPECIES	Stand Age (Yrs)				Snags	Residuals	Slash	Tree Densities	Hard- wood	Ground Cover
		0-5	6-16	17-30	>30						
C	Rufous-sided Towhee	0	2	1	1	0	0	+	-	0	+
D	Vesper Sparrow	4	4	2	0	0	0	0	-	0	+
D	Dark-eyed Junco	0	2	3	3	0	0	0	-	0	+
D	Chipping Sparrow	2	3	3	3	0	0	0	-	0	0
B	Clay-colored Sparrow	0	2	0	0	0	0	0	-	0	0
D	Field Sparrow	3	3	0	0	0	0	0	-	0	+
B	Lincoln's Sparrow	0	2	2	2	0	0	0	+	0	+
D	Song Sparrow	1	1	0	0	0	0	+	-	0	+

- 0 - absent
- 1 - rare
- 2 - uncommon
- 3 - common
- 4 - abundant

MAMMALS

Importance Class	SPECIES	Stand Age (Yrs)				Snags	Residuals	Slash	Tree Densities	Hard-wood	Ground Cover
		0-5	6-16	17-30	>30						
C	Masked Shrew	1	2	3	3	0	0	+	0	0	+
C	Pygmy Shrew	1	1	1	1	0	0	+	-	0	+
C	Short-tailed Shrew	2	2	3	3	0	0	+	0	0	+
C	E. Mole	3	3	3	2	0	0	0	-	0	+
C	Little Brown Myotis	3	3	3	3	+	+	0	-	+	0
C	Keens Myotis	1	1	1	1	+	+	0	-	+	0
C	Silver-haired Bat	0	0	1	1	+	+	0	-	+	0
G	Big Brown Bat	2	2	2	2	+	+	0	-	+	0
C	Red Bat	2	2	2	2	+	+	0	-	+	0
C	Hoary Bat	1	1	1	1	+	+	0	-	+	0
B	E. Cottontail	2	2	2	2	0	0	+	0	+	0
B	Snowshoe Hare	2	3	3	3	0	0	+	+	+	+
C	E. Chipmunk	1	1	2	2	+	+	+	-	+	+
C	Least Chipmunk	2	2	2	2	+	+	+	0	+	+
C	Woodchuck	1	2	1	1	0	0	+	-	+	0
C	13-lined Grd Squirrel	3	2	0	0	0	0	0	-	+	+
B	Gray Squirrel	0	0	1	2	0	+	0	+	+	0
B	Fox Squirrel	0	0	1	2	0	+	0	+	+	0
C	Red Squirrel	0	2	3	3	0	+	0	+	+	0
B	N. Flying Squirrel	0	0	1	2	0	0	0	+	+	0
B	S. Flying Squirrel	0	0	1	2	0	0	0	+	+	0
D	White-footed Mouse	2	2	3	3	0	0	+	0	+	+
D	Deer Mouse	3	3	2	2	0	0	+	-	+	+
D	Red-backed Vole	1	1	2	2	0	0	+	0	0	+
D	Meadow Vole	2	2	0	0	0	0	0	-	0	+
C	Pine Vole	0	1	2	2	0	0	+	+	+	+
C	Lemming, S. Bog	0	0	1	1	0	0	+	-	0	+
C	Meadow Jumping Mouse	2	2	1	1	0	0	+	-	0	+
C	Woodland Jumping Mouse	0	0	1	1	0	0	+	-	+	+
B	Porcupine	0	0	3	3	0	+	0	+	-	0
B	Coyote	3	3	3	3	0	0	0	-	0	-
B	Red Fox	2	2	1	1	0	0	0	-	0	+
B	Gray Fox	0	1	1	1	0	0	0	-	0	+
B	Black Bear	1	1	1	1	+	0	0	0	+	+
B	Raccoon	2	2	2	2	+	0	0	0	+	0
B	Least Weasel	1	1	0	0	0	0	0	0	+	0
B	Ermine Weasel	0	0	1	1	0	0	0	0	0	0
B	Long-tailed Weasel	2	2	1	1	0	0	0	0	0	+
B	Badger	2	2	0	0	0	0	0	-	0	+
C	Striped Skunk	2	2	1	1	0	0	0	-	0	0
B	Bobcat	1	1	1	1	0	0	0	-	+	0
B	White-tailed Deer	4	4	3	3	0	0	0	-	+	0

0 = Absent
 1 = Rare
 2 = Uncommon
 3 = Common
 4 = Abundant

HERPTS

Importance Class	SPECIES	Stand Age (Yrs)				Snags	Residuals	Slash	Tree Densities	Hard wood	Ground Cover
		0-5	6-16	17-30	>30						
C	Wood Turtle	1	1	1	1	0	0	+	-	0	+
C	E. Box Turtle	1	1	1	1	0	0	+	-	+	+
A	Blanding's Turtle	1	1	0	0	0	0	0	-	0	+
B	5-lined Skink	1	1	1	1	+	0	+	-	0	+
C	N. Red-bellied Snake	0	0	1	1	0	0	+	+	0	+
C	E. Garter Snake	2	2	2	1	0	0	+	-	0	+
C	E. Hognose Snake	2	2	2	2	0	0	+	-	0	+
C	N. Ringneck Snake	0	1	2	2	0	0	+	0	0	+
C	E. Smooth Green Snake	2	2	3	3	0	0	+	0	0	+
C	E. Milk Snake	1	2	3	3	0	0	+	0	0	+
C	Red-backed Salamander	0	0	1	1	0	0	+	+	0	+
C	Am. Toad	3	3	3	3	0	0	+	0	0	+
C	Fowler's Toad	1	1	1	0	0	0	+	0	0	+
B	Wood Frog										

- 0 - absent
- 1 - rare
- 2 - uncommon
- 3 - common
- 4 - abundant