Status of fishers in Wisconsin, 1975. Report 92 [1977]

Petersen, LeRoy R.; Martin, Mark A.; Pils, Charles M.
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MENT OF NATURAL RESOURCES

RESEARCH

REPORT 92

JAN. 1977

STATUS OF FISHERS IN WISCONSIN, 1975

By LeRoy R. Petersen, Mark A. Martin, and Charles M. Pils

ABSTRACT

A study of the geographic distribution and relative abundance of the fisher (Martes pennanti pennanti) in Wisconsin was conducted in 1975-76. Methods included the use of mailed questionnaires, public appeals for observation locations and opinions on current population status.

The Wisconsin fisher population has successfully re-established itself throughout the northern quarter of the state. Current fisher numbers are estimated at 1,200 to 2,500 animals. An open fisher season is not recommended as an abundance of suitable, unoccupied range presently exists. DNR conservation wardens acknowledge a substantial trafficking of illegally trapped fisher pelts due to their high market value. Winter track counts in lieu of kill records possibly can be used to provide a fisher population index.

CONTENTS

INTRODUCTION

The Wisconsin Endangered Species Law (Chap. 29.415 Wis. Stats.) gives responsibility to the Department of Natural Resources for recommending necessary changes in management for species whose status is not clarified. Management plans cannot be sharpened until basic population trends and distribution information are available.

The population status of the fisher (Martes pennanti pennanti) was listed by Hine et al. (1975:2-3) as "threatened," i.e. "Any species which appears likely, within the foreseeable future to become endangered." This study was designed to provide base data necessary for establishing the status of this species. It is unlikely that a fisher hunting or trapping season will be established in the near future. However, documentation of their present status will allow an appraisal of management needs for their continued well-being.

PROCEDURES

Procedures to determine the present geographic distribution of fishers in Wisconsin involved the collection of observational locations from the following sources:

1. Wisconsin Trappers Association (WTA). Questionnaires requesting observations of fishers seen during the 1974-75 and 1975-76 trapping seasons were enclosed in the 1975 and 1976 WTA spring newsletter, the "Voice". The WTA provided a membership mailing list of 853 different addresses (two or more members with the same last names and addresses were counted as one). The printed questionnaires consisted of a pre-paid, self-addressed return portion, separated by perforations for removal from the explanation portion (App. A, B).

2. County Conservation Congress (CCC) delegates. Mimeographed 1-page questionnaires were mailed to 359 County Conservation Congress delegates and their alternates requesting 1975 sightings and opinions on population status of fishers (App. C).

3. Public observations. Appeals for observational assistance were made in "Wisconsin Sportsman" (A Wisconsin-oriented bimonthly magazine for outdoor enthusiasts) (January-February 1976, Vol. 4, No. 1, p. 51 and March-April 1976, Vol. 4, No. 2, p. 32), and the "Wisconsin Natural Resources Bulletin" (a bimonthly publication by the Wisconsin Department of Natural Resources) (January-February 1976, Vol. 41, No.1, pp. 15-16) (App. D).

4. The Wisconsin DNR's "Endangered and Threatened Animal Observation" records. Compiled observations for 1974 were examined, and additional observations were requested for 1975. Agencies cooperating with DNR personnel in collecting field observations were the U.S. Forest Service, U.S. Soil Conservation Service, U.S. Fish and Wildlife Service, and College and University personnel.

5. Wisconsin DNR Conservation Wardens. Questionnaires were sent to all DNR conservation wardens requesting 1975 field observations and subjective opinions on the status of fishers in their respective areas (App. E). Status opinions were asked only from wardens who had resided at their station for at least 5 years. In addition, 1975 fisher seizure records were obtained from area conservation wardens.

6. Taxidermist reports for 1973-75 were used to examine the extent of fisher take not available from furbuyer records.

Reported observations from all sources were plotted on a state map to the nearest civil town (town and range). Land use and cover maps, as compiled by the U.S. Geological Survey (Hindall and Flint 1970) and the U.S. Forest Service (Spencer and Thorne 1972) were compared with habitat preferences of fishers to determine geographic distribution.

Relative geographic abundance estimates were determined from frequency of collected observations expressed on the basis of county area. Available literature on habitat preferences and food habits was examined in order to establish isolines of abundance.

DISTRIBUTION AND ABUNDANCE

Historic

Historically fishers inhabited most of Wisconsin wherever mature, heavy stands of timber existed (Jackson 1961:334). Authentic fisher records before 1870 were found as far south as Milwaukee, Jefferson, Sauk, Vernon and La Crosse Counties. Jackson (1961:335) did not find any records of fishers existing in the prairie or oak savanna floristic provinces (as described by Curtis 1959).

Banfield (1974:319) indicated that the habitat preference of this mustelid was climax coniferous forest near water courses. However, de Vos (1952) found more flexible requirements. Coniferous to mixed conifer-hardwood stands with mature heavy timber were preferred, but fisher also were found in open second-growth stands and occasionally in recently burned areas (de Vos 1952: 26-27). Schorger (1942) reported that fishers were once common in hardwood forests of the Upper Great Lakes Region, and Hagmeier (1956:151) indicated the historic fisher range reached south to the Ohio River. Jackson (1961:334) wrote that fishers in Wisconsin preferred a mature conifer-hardwood habitat, suggesting that the major occupied fisher range probably was found in the conifer-hardwood floristic province north of the tension line described by Curtis (1959) (Fig. 1).

By the turn of the twentieth century, heavy logging along with burning and fur trapping depleted native fisher populations in Wisconsin to near extinction (Hine et al. 1975). Fisher pelts sold for up to $150 from 1900-30 and the animals were known for their ease in trapping (Irvine et al. 1964:38). Legal protection was finally given the fisher in 1921, but its numbers failed to respond, and the last known native was found in 1932 (Hine et al. 1975).

Olson (1966:22) indicated that fishers were restocked in Wisconsin in an effort to control porcupines that were causing extensive damage to timber stands in national forests. The fisher has been considered the classic predator of the porcupine (Seton 1929, Schoonmaker 1938, Hamilton 1943), and recent studies have shown a decline in porcupine abundance with expanding fisher populations in New York (Hamilton and Cook 1955), New Hampshire (Hamilton 1957), Maine (Coulter 1960) and Minnesota (Balser 1960).

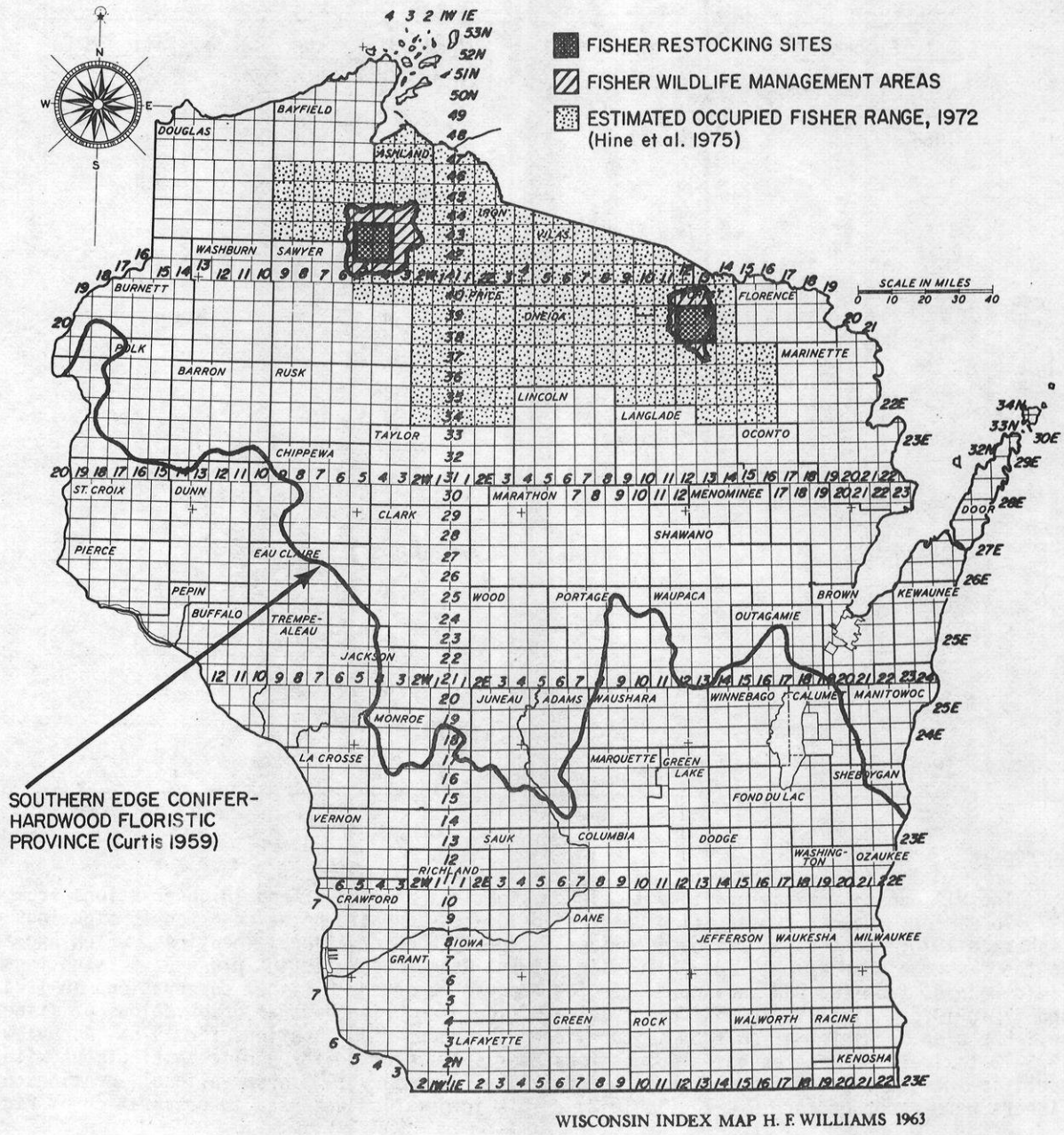

FIGURE 1. Background summary of fisher activities in Wisconsin.

During 1956-67, the U.S. Forest Service and the Wisconsin Conservation Department (now the Department of Natural Resources) cooperated to reestablish fisher populations in Wisconsin on the Nicolet and Chequamegon National Forests. From 1956 to 1963, 60 animals from New York (Adirondack Mountain Region) and Minnesota (Superior National Forest) were restocked in the Nicolet National Forest (Forest County), while 60 fishers were transplanted from Minnesota to the Chequamegon National Forest (Bayfield and Ashland Counties) in 1966-67 (Table 1). To reduce trapping losses during reestablishment of a self-sustaining population, "Fisher Wildlife Management Areas" of 120,000 acres (Nicolet site) and 220,000 acres (Chequamegon site) were established around the stocking sites (Fig. 1). In these areas, all trapping except wet sets for otter, mink, muskrat, and beaver was prohibited.

The subjective opinions of DNR personnel were used to determine occupied fisher range in 1972. A sizable area of conifer-hardwood forests in extreme north central Wisconsin was believed occupied at that time (Hine et al. 1975) (Fig. 1).

TABLE 1. Fisher restocking summary for Wisconsin, 1956-67.

Date Stocked	Fisher Source		Number of Fishers	Sex Ratio (M:F)
NICOLET NATIONAL FOREST (FOREST CO.)				
1956	New York		7	
1957	New York		7	6:12
1958	New York		4	
1958	Minnesota		3	9:3
1959	Minnesota		9	
1962	Minnesota		26	17:9
1963	Minnesota		4	4:0
		Sub-total	60	36:24
CHEQUAMEGON NATIONAL FOREST (BAYFIELD & ASHLAND COS.)				
1966			31	18:13
1967			29	12:17
		Sub-Total	60	30:30
Total			120	66:54

Current

The WTA questionnaires provided 11 fisher sightings in 1974-75 and 18 observations from the 1975-76 winter. County Conservation Congress delegates and alternates reported 15 sightings of fisher in 1975. Letters in response to appeals for 1975 observational locations, which appeared in the "Wisconsin Sportsman" and "Wisconsin Natural Resources Bulletin" produced 50 sightings. Field records from the DNR Endangered Species Program reported 18 fisher observations in 1974 and 37 in 1975. Finally, 44 DNR Conservation Officers reporting actual observations of fisher, reliable sign, or information from seizure records, produced 24 locations for 1975. A review of 1973-75 taxidermist records revealed confiscated fishers mounted for public institutions with no specific locations indicated (recorded by county). In summary, 173 observational locations of fishers were recorded for 1974-76 (Table 2). This information was used in preparation of Figure 2.

A number of unusual fisher observations were reported from the southern half of Wisconsin in regions where agriculture was the predominant land use. Two sightings deserve special emphasis as they involved substantial evidence by reliable observers. An observation of fisher tracks and kill sites of porcupines in Portage County was made by Herman Olson (retired USFS employe who participated in the restocking efforts) over two consecutive winters (1970, 1971). A second observation by Dr. Stanley Nichols and his students along the Wisconsin River in Iowa County in 1974 was substantiated by photographs. Other unsubstantiated fisher sightings in 1974-75 were made in Washington, Manitowoc, Brown and Adams Counties. While fisher have been known to have foraging movements that reach up to 20 miles in diameter (de Vos 1952:7), little is known of long-range movements. The reported habitat preference towards heavy timber stands in low areas (Hagmeier 1956:150-51) suggests possible fisher movements along major river basins where large, continuous stands of lowland hardwoods parallel the water course. The rare occurrence of captive fisher would discount the possibility of escaped animals.

Opinions regarding the current population status of Wisconsin fishers were also requested from County Conservation Congress delegates and alternates, WTA members and DNR Conservation Wardens. The latter 2 sources were considered the more reliable and they strongly indicated an increasing or stable population of fishers (16 reported increases, 0 decreases, 7 same). Explanations in letters closely associated fisher with endangered species and mentioned a great concern as to their present population status. This may have influenced County Conservation Congress delegates and alternates who seemed to be biased by a desire to provide the "right" answer. Consequently, nearly half of

these respondents indicated fisher abundance had decreased over the last 5 years (18 reported increases, 38 decreases, 22 same). When considering only "fisher counties" (counties where fishers were observed), a stable status was evident from this source (13 reported increases, 13 decreases, 11 same).

Twenty years have passed since fishers were first restocked in Wisconsin. Irvine et al. (1964:311) stated fisher sign "generally" increased annually during the early 1960's. During the fall of 1974, Wiita (pers. comm.) reported that 11 fishers lacking ear-tags of the stocked animals were accidently trapped in coyote sets in Bayfield and Ashland Counties. The annual number of fisher observations from the Endangered Species Program has shown a consistent increase from 1973 (13 sightings) to 1974 (18) to 1975 (37) (Hine et al. 1975, Hine 1976, pers. comm.). The increase in yearly observations, an increase in individuals without ear-tags, and the favorable status opinions would suggest an increasing fisher population in Wisconsin. Wiita (1976, pers. comm.) feels the current fisher population is more abundant than at any period since the restocking efforts.

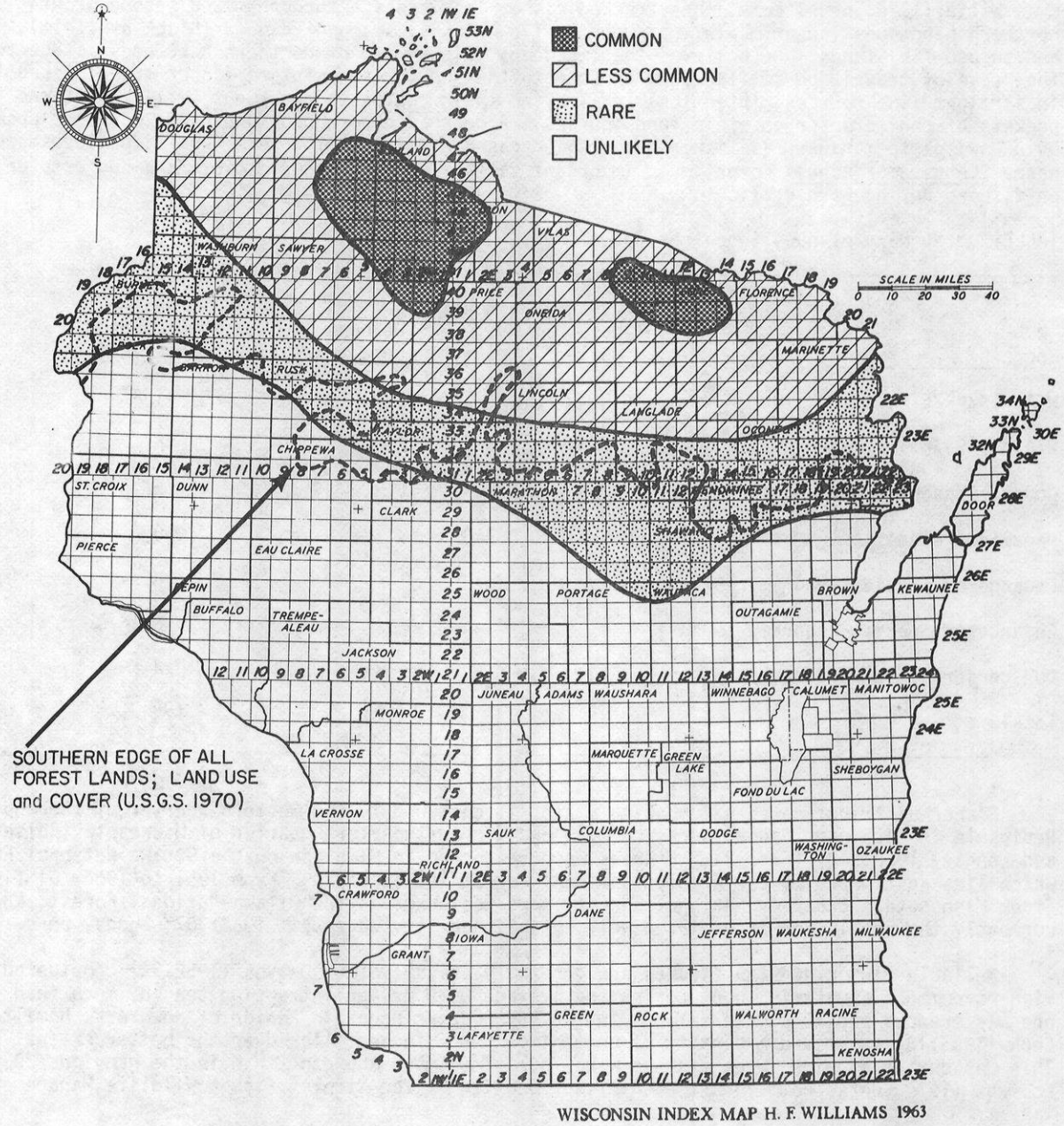

FIGURE 2. Distribution and relative abundance of fisher in Wisconsin, 1975.

Plotted observations indicate fisher are currently distributed throughout the northern third of Wisconsin (Fig. 2). The present southern edge of fisher range closely corresponds with the southern edge of heavily forested lands in Wisconsin (lands with greater than 50 percent of the surface forested; from Hindall and Flint 1970). As fishers prefer heavily forested habitat, it is unlikely to anticipate any significant further southern expansion of fishers.

Relative geographic abundance of fishers indicates that their greatest densities still remain near the restocking sites in the Chequamegon and Nicolet National Forests. Fishers are found less commonly throughout the remainder of northern Wisconsin and are rarely observed still farther south (Fig. 2).

The Chequamegon fisher stock is expanding at a greater rate than the Nicolet released animals. Both sites received the same number of fishers; however, the Chequamegon animals were all stocked in an 11-month period (15 February 1966 to 4 January 1967) while the Nicolet site received piecemeal releases over a 7-year period (Table 1). In addition, a more balanced sex ratio was maintained at the western release site. The restocking techniques at the Chequamegon site were believed to be more conducive to fisher reestablishment in spite of the seemingly more preferable major forest type existing at the Nicolet site. Spencer and Thorne (1972:81) showed the major Nicolet forest types to be spruce-fir and aspen-birch, while the Chequamegon had maple-beech-birch and aspen-birch. De Vos (1952:27) determined that fishers were rare to absent in even-aged, fire-caused stands of aspen-birch.

Witta (1976, pers. comm.) has tracked fisher in Wisconsin through mixed second-growth northern hardwoods (sugar maple, basswood, yellow birch), swamp hardwoods (black ash, elm), and spruce-fir stands. He believes the "frequent" fisher use of northern hardwoods is due to the "ease of travel" on settled snow exposed to the sun in late winter; fisher travel essentially in straight-line courses, intentionally altering their routes to check out small, scattered pockets of conifers for possible food sources. A decreased porcupine abundance has been observed by DNR wildlife managers as fisher numbers increased. Witta (1976, pers. comm.) believes snowshoe hares (Lepus americanus) comprise an important segment of the fishers' diet, and suggests an impact on fishers during hare cyclic lows.

TABLE 2. Summary of questionnaires for fisher.

Sources	Questionnaires (or Letters) No. Mailed	No. Received	Percent Received	Number Reported Fisher Observations
WTA, 1974-75	853	73	8.5	11
WTA, 1975-76	853	182	21.3	18
County Conservation Congress	359	200	61.3	15
Magazine requests	Unknown	340	-	50
Endangered Species Program, 1974	-	-	-	18
Endangered Species Program, 1975	-	-	-	37
DNR conservation wardens	139	83	59.7	24
Total				173

Fisher distribution in neighboring states is confined to the western quarter of the Upper Peninsula in Michigan (Dodge, pers. comm.), and the northeastern quarter of Minnesota (Balser and Longley 1966:548) (Fig. 3). Fishers were restocked in Michigan on the Ottawa National Forest which lies just north of the Nicolet National Forest in Wisconsin. From 1961 to 1963, 61 fishers (from Minnesota's Superior National Forest) were restocked in the Ottawa National Forest, and currently the population is believed well established (Irvine et al. 1964:307; Dodge, pers. comm.).

Reliable fisher density figures are generally unavailable. De Vos (1952:32) considered fishers common in Ontario when, during the average October-April trapping season, more than one was trapped per 10 square miles. In the Adirondacks Mountain Region of New York, Hamilton and Cook (1955:18) estimated a density of one animal per 4 square miles over the better extensive range. This was during a "high" when fishers were four times more abundant than in the previous 20 years. Loomans (1974, pers. comm.) estimated fisher density in the Nicolet Fisher Wildlife Management Area

of Wisconsin as one animal per 3 square miles. Wiita (1976, pers. comm.), after consulting with other regional wildlife managers and trappers, estimated fisher density in the "common" range as an animal per 5 square miles. Using one animal per 5 square miles in the "common" range, one per 12-18 square miles in the "less common" area, and one per 36 to 72 square miles in the "rare" range, current fisher numbers in Wisconsin are estimated at 1000 to 1500 animals. The density estimates per square mile in the "less common" and "rare" range are based on the relative proportion of sightings in those areas compared to the "common" range.

FIGURE 3. Fisher distribution in the Upper Great Lakes Region, 1966-1975.

CONCLUSIONS AND MANAGEMENT IMPLICATIONS

The fisher restocking efforts of the U.S. Forest Service and the Wisconsin Department of Natural Resources have successfully resulted in the reestablishment of a formerly extirpated furbearer. Geographically, the fisher is well distributed in Wisconsin, although there does exist an extensive region of suitable range containing a relatively low density of fisher ("less common" range). An additional 10 years or more will probably be required before biological capacity would potentially be reached.

From the management standpoint, habitat manipulations or additional restocking efforts do not appear realistic or desirable. Fisher management in the foreseeable future will involve administrative decisions alone. An open season at that time could conceivably halt any further range expansion or bring about a reduction of the overall occupied range, and is, therefore, not recommended. De Vos (1951:507) did not feel that " . . . the northern section of Wisconsin would be large enough to give a high degree of population for harvesting by trappers."

A telephone survey of DNR Conservation Wardens from the northern portion of the state revealed a general belief that the current high pelt prices (up to $198 at Fur Auction in Montreal, Canada, March 1976) has created a "significant" underground market for fisher pelts in Wisconsin. Conservation Wardens have noted that fur prices are inversely related to the number of accidentally trapped fisher. During the relatively low fisher pelt prices in the early 1970's, Conservation Wardens annually received up to 25 accidentally trapped fishers. During 1975-76, not more than 10 fisher were voluntarily turned in by trappers throughout the entire fisher range.

Efforts to reduce the substantial underground fisher market in Wisconsin are needed. In Minnesota, confiscated fishers are sold at auction with the trapper receiving one-half the price of the fur as a pelting fee (Balser and Longley 1966:548). It is feared such a system in Wisconsin could encourage rather than discourage fisher trapping as even one-half of $193 represents a sizable monetary return. A token fee of $10 payable to the trapper for each seized fisher coupled with an intensified information-education program (on safe-release techniques, high esthetic value of fishers, trapping tips, etc.) has been suggested by one area conservation warden as management possibilities (Scovel 1976, pers. comm.). Stiffened penalties with a portion of any collected fine going to the informant could also lead to better control of illegal trapping or trafficking of fishers. The $500 reward for information leading to the conviction of wildlife violators has worked well for bald eagles (Haliaeetus leucocephalus) according to the National Wildlife Federation (1976:11). It is interesting to note that fisher populations in Wisconsin are increasing or are at least stable in spite of the acknowledged substantial illegal trafficking of fisher pelts.

A possible index to fisher populations, in lieu of an open season in Wisconsin, could be based on track counts during snow-covered periods. The characteristic straight line movements of fisher lend themselves to track surveys (de Vos 1952:37-8). A series of transects radiating through the "common" range areas of Figure 2 like spokes of a wheel would provide a suitable index to range expansion and density. In addition, greater use should be made of the seized specimens. Data which should be collected are: (1) aging by cementum layers for age-related parameters (life tables); (2) corpora lutea counts for reproductive parameters; and (3) food remains and overall condition (possible diseases, parasites, injuries) of the animal. A central clearinghouse for this information should be established within DNR for the proper organization, collection, and analysis of fisher data.

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The authors are in the Farm Wildlife Research Group, Bureau of Research, Madison.

Edited by Ruth L. Hine

APPENDIX A. Wisconsin Trappers Association Questionnaire, 1974-75 Season.

INSTRUCTIONS: Please complete the following questions in this section at your earliest convenience; detach from the lower portion and mail. No postage required.

1. If you have observed badger, fisher or gray fox during the 1974-75 trapping season, please complete this chart:

	MONTH & YEAR	LOCATION OF OBSERVATION		COMMENTS
		COUNTY	CIVIL TOWN OR NEAREST ROAD INTERSECTION	
BADGER				
FISHER				
GRAY FOX				

DETACH HERE

2. If you have regularly or occasionally observed badger, fisher, or gray fox in Wisconsin during the past 5 years, please complete the following chart:

Badger Populations Are:			AREA IN WISCONSIN	
DECLINING	RELATIVELY STABLE	INCREASING	COUNTY OR SECTOR	COMMENTS

Fisher Populations Are:			AREA IN WISCONSIN	
DECLINING	RELATIVELY STABLE	INCREASING	COUNTY OR SECTOR	COMMENTS

Gray Fox Populations Are:			AREA IN WISCONSIN	
DECLINING	RELATIVELY STABLE	INCREASING	COUNTY OR SECTOR	COMMENTS

DETACH HERE

BADGER, FISHER AND GRAY FOX QUESTIONNAIRE

MAY 1, 1975

DEAR WISCONSIN TRAPPER:

YOUR COOPERATION IS NEEDED FOR A SURVEY OF BADGER, FISHER AND GRAY FOX DISTRIBUTION AND ABUNDANCE IN WISCONSIN. BADGER AND GRAY FOX HAVE BEEN REPORTED DECLINING WHILE THE FISHER IS APPARENTLY ON THE INCREASE IN THE NORTH DURING THE LAST DECADE. THIS SURVEY WILL ASSIST THE DNR BUREAU OF RESEARCH IN PREPARING A CURRENT RANGE MAP FOR THESE SPECIES.

PLEASE COMPLETE THE UPPER PORTION OF THIS QUESTIONNAIRE AT YOUR EARLIEST CONVENIENCE; DETACH AND MAIL. WE NEED YOUR RESPONSE EVEN IF YOUR REPORT IS NEGATIVE. YOUR ANSWERS TO THE QUESTIONNAIRE WILL BE KEPT IN STRICTEST CONFIDENCE.

VERY TRULY YOURS,
BUREAU OF RESEARCH

Cy Kabat

CY KABAT
DIRECTOR

APPENDIX B. Wisconsin Trappers Association Questionnaire, 1975-76 Season.

BADGER, FISHER AND GRAY FOX QUESTIONNAIRE

February 1, 1976

Dear Wisconsin Trapper:

Last year a BADGER, FISHER, AND GRAY FOX questionnaire was mailed to many Wisconsin trappers. We wanted to find out more about where these species are found. We hope that many more of you will answer this year to help us fill out our results.

Did you see any BADGER, FISHER, OR GRAY FOX during the 1975-76 trapping season? Yes or no, please fill out and send back the bottom part of this card. Write in "none" for counties you trapped where animals were not seen.

Sincerely,
BUREAU OF RESEARCH
Cy Kabat
Cy Kabat
Director

DETACH HERE

Postage Will Be Paid by Addressee

No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO 448 MADISON, WIS.
Business Reply

DEPARTMENT OF NATURAL RESOURCES
BOX 450
MADISON, WISCONSIN 53701

ATT. LEROY PETERSEN

DETACH HERE

INSTRUCTIONS – Please complete the following questions in this section at your earliest convenience; detach from the upper portion and mail. No postage required.

1. IF YOU HAVE OBSERVED BADGER, FISHER OR GRAY FOX DURING THE 1975-76 TRAPPING SEASON, PLEASE COMPLETE THIS CHART:

SPECIE	MONTH & YEAR	WHERE WAS ANIMAL SEEN		COMMENTS
		COUNTY	CIVIL TOWN OR NEAREST ROAD INTERSECT.	
BADGER				
FISHER				
GRAY FOX				

APPENDIX C. County Conservation Congress Questionnaire.

Farm Wildlife Research
Dept. of Natural Resources
3911 Fish Hatchery Road
Madison, Wisconsin 53711

Dear Conservation Congress Delegate:

Your assistance is needed to help determine the present population status of badger, fisher, and gray fox in Wisconsin. We want to know the current geographic distribution and relative abundance of the 3 species of furbearers so that solid future management plans can be formulated.

As it stands now:

1. The badger, entirely protected since 1955 and offering little potential value as a furbearer, may not be holding their own in Wisconsin.

2. Fishers, also entirely protected, have been restocked in the Nicolet and Chequamegon National Forests during 1956-66. These stockings in 3 counties have possibly increased fisher numbers and range.

3. A sharp increase in estimated purchases of gray fox during the past 4 years, as compared to years prior to 1971, has caused DNR field personnel to be concerned over a possible reduction in state-wide populations. If the abundance of gray fox is declining in Wisconsin, changes must be made in the current hunting and trapping regulations, and in the status classification.

We encourage you to fill out and return the enclosed questionnaire. The population status of badger, fisher, and gray fox cannot be clarified without your help. Thank you.

Sincerely,

LeRoy R. Petersen

LeRoy R. Petersen

Charles M. Pils

Charles M. Pils

Project Leaders

P:P:jh

1976 BADGER, FISHER, AND GRAY FOX STATUS QUESTIONNAIRE
Wisconsin Conservation Congress Delegates

1. Have you seen any live badger, fisher, or gray fox since January 1, 1975?

No_____ Yes_____

If yes, where? (Be as specific as possible on locations)

Animal Seen	County	Section	Township	Range

2. Have you seen badger, fisher or gray fox "sign" (tracks, scat, diggings) since January 1, 1975? No_____ Yes_____ If yes, where?

Animal Seen	County	Section	Township	Range

3. In your opinion, how does the current badger, fisher and gray fox population compare to that of 5 years ago? (check one)

_____Badger _____Fisher _____Gray Fox now more abundant than 5 years ago.

_____Badger _____Fisher _____Gray Fox now less abundant than 5 years ago.

_____Badger _____Fisher _____Gray Fox about the same as 5 years ago.

_____No Opinion

4. Any comments you would like to offer regarding badger, fisher or gray fox populations, regulations, or anything else concerning these 3 fur bearers: (Use back or separate sheet if necessary).

APPENDIX D. Magazine Appeal for Public Observations.

WANTED

BADGER GRAY FOX FISHER

HAVE YOU OBSERVED ANY BADGER, GRAY FOX, OR FISHER IN WISCONSIN DURING 1975?

IF SO, THEN WE NEED YOUR HELP! THE DNR IS CURRENTLY UPDATING DISTRIBUTION AND ABUNDANCE DATA FOR THESE THREE FURBEARERS.

YOUR OBSERVATIONS SHOULD INCLUDE INFORMATION ON:

1. **SPECIES OF FURBEARER SEEN**
2. **DATE SEEN (month in 1975)**
3. **COUNTY and CIVIL TOWNSHIP OF OBSERVATION**

SEND YOUR OBSERVATIONS BY 6/1/76 TO: LEROY R. PETERSON, WISCONSIN DEPARTMENT OF NATURAL RESOURCES, 3911 FISH HATCHERY RD., MADISON WI 53711.

THE WELFARE OF WISCONSIN'S WILDLIFE IS EVERYONE'S RESPONSIBILITY.

JANUARY-FEBRUARY, 1976

APPENDIX E. DNR Conservation Warden Questionnaire.

1976 Badger, Fisher, and Gray Fox Status Questionnaire

Department of Natural Resources Personnel

1. Name_____ Station_____

2. Have you seen any live badger, fisher, or gray fox since January 1, 1975?

No_____ Yes_____ If yes, where?

Animal Seen	County	Township	Town and Range

3. Have you seen badger, fisher, or gray fox "sign" (tracks, scat, diggings) since January 1, 1975? No_____ Yes_____ If yes, where?

Animal Seen	County	Township	Town and Range

4. Answer this question only if you have been at your present area for the last 5 years. Over the past 5 years:

Badger numbers are: more____, less____, about the same____, nonexistent in area_____

Fisher numbers are: more____, less____, about the same____, nonexistent in area_____

Gray Fox numbers are: more____, less____, about the same____, nonexistent in area_____

5. Any comments you would like to offer regarding badger, fisher, or gray fox populations, regulations, or anything else concerning these 3 fur bearers: (Use back or separate sheet if necessary)

Return to: LeRoy R. Petersen, Southern District Headquarters by March 15, 1976

Dist.: List 2 + Opt., Fed. Aid Office-20
Bur. of Research (All), Park Nats.
Field Stas., Wild. Mgrs.
LeRoy Peterson-25, Res. Advisory Council