DEPARTMENT OF NATURAL RESOURCES

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March 1976

STATUS REPORT ON WISCONSIN BOBCATS, 1975

By William A. Creed and James E. Ashbrenner

ABSTRACT

A study of bobcat (Lynx rufus superiorensis) distribution, relative numbers, and habitat conditions in Wisconsin was conducted from 1973 to 1975. Methods included analyses of bounty and registration records, questionnaires, and evaluation of bobcat harvests relative to forest types and snowshoe hare abundance. Fewer bobcats are now being bagged in the more northerly counties, while as many or more are being taken near the edges of the primary range. Bobcat abundance appears related to distribution of cedar, spruce-fir, and alder types. Potential indexes to population levels include numbers of cats run per day by hunters using dogs, and numbers of annual sightings by DNR personnel. Additional protection is not yet necessary, but practical future restrictions might include earlier season closings, and selective closings of marginal bobcat counties. The study concluded that bobcats are currently secure in Wisconsin, but that additional research on numbers and population structure should be encouraged.

CONTENTS

INTRODUCTION

Bobcats (Lynx rufus superiorensis) are now the most abundant and widely dispersed native cats in North America, occurring in all 48 contiguous states and portions of Canada and Mexico (Young 1958). In Wisconsin they are found primarily in heavily forested areas north of Latitude 45° North and rarely over the rest of the state (Jackson 1961). Until 1970, Wisconsin bobcats were completely unprotected, with a $5.00 state bounty in effect through early 1964 (Keener 1971). Local bounties were paid in some counties through 1971. Mounting concern for their apparently decreasing numbers led to tighter restrictions on hunting and trapping. In 1970, a 5 1/2-month open season was established, which was subsequently shortened to 4 1/2-months in 1971. Beginning in 1973, a new rule required Department of Natural Resources registration (inspection and tagging) of all bobcats taken by hunters and trappers.

While the bobcat has not been classified as endangered, its status was considered questionable by the Department's Endangered Species Committee in 1973. Higher fur prices and the growing use of snowmobiles, along with the fact that bobcats are relatively easy to trap and to run with dogs, have raised further questions about their real security. Therefore in 1973, an inventory of distribution, relative numbers, and habitat conditions was undertaken to determine whether further restrictions were needed to secure the continued presence of bobcats among Wisconsin fauna.

METHODS

Our study was conducted in four steps: First, DNR records including state bounty payments, furbuyers reports, and taxidermists reports were examined. Second, bobcat registration forms were gleaned for all useful information. Third, questionnaires were circulated to hunters, trappers, and selected DNR field personnel. Fourth, bobcat harvests were evaluated relative to forest type and other information.

State bounties were paid on bobcats in Wisconsin as early as 1864 and perhaps earlier. From 1923 through early 1964, a $5.00 state bounty was in effect almost continually, except for four years when they were discontinued. These records were analyzed to establish past distribution and relative harvest density. Taxidermist and furbuyers reports for 1970-73 were checked to establish minimum numbers of bobcats taken in these years.

Beginning in 1973, the new bobcat registration requirement permitted the gathering of additional data, including names and addresses of hunters and trappers, kill locations by county and deer management unit, method of kill, date shot or trapped, and sex. These data were tabulated and analyzed.

Following the 1973-74 and 1974-75 seasons, successful hunters and trappers were sent questionnaires requesting further information about their bobcat hunting and trapping experiences (Append. A-D). In July, 1974 an additional questionnaire (Append. E) was circulated to DNR personnel in northern areas encompassing the primary northern bobcat range.

RESULTS AND DISCUSSION

Bounty Records, Taxidermist Reports, Furbuyers Reports

Numbers of wildcats, including 1-4 lynx (Lynx canadensis) taken in some years, bountied by the State of Wisconsin from 1924-63 are shown in Figure 1. During 36 bounty years in this 40-year period, the average number of cats bountied annually was 441, ranging from 180 in 1940-41 to 1,048 in 1945-46. A $5.00 bounty was paid in these years. Lynx have been protected since June, 1957.

Some "stockpiling" of carcasses by hunters and trappers may have occurred in some years; the 1,048 reported for 1945-46 is particularly questionable since it followed two years in which bounties were not paid.

Following the cessation of state bounties in 1963 until the registration requirement in 1973, bobcat harvest records were incomplete. Furbuyers reports showed 148, 147, and 147 bobcats purchased in fiscal years 1971, 1972, and 1973. Checks of taxidermist reports turned up minimal estimates of from 23-46 cats annually, indicating at least 171-193 bobcats were taken annually in Wisconsin during these years. Numbers of bobcats reported by taxidermists must be considered bare minimums because of incomplete or unclear reports. Only cats indicated as killed in Wisconsin were included in these tabulations.

Bobcat Registration, 1973-75

Total bobcats registered during the 1973-74 and 1974-75 seasons, respectively, were 296 and 205. Numbers taken by District and County are shown in Figure 2, and by Deer Management Unit in Figure 3.

Numbers trapped, shot over dogs, or taken by other means (such as killed incidentally by hunting other species, nuisance animals, or highway kills) are presented in Table 1.

TABLE 1. Bobcats Taken by Various Methods.

	Trapped	Shot Over Dogs	Other
1973-74	134	117	45
1974-75	74	109	22
2-year total	208	226	67

Numbers Registered by Individual Hunters and Trappers

Most successful hunters and trappers (93%) took only 1 or 2 bobcats during the 1973-74 season (Table 2). Only 21 percent of the total season harvest was accounted for by those taking more than 2 cats. The implication of these findings is that a season bag limit would have limited impact on the eventual harvest.

Dates of Kill

Numbers of bobcats taken by week for the 1973-74 season are shown in Table 3. Pressure on cats by hunters was essentially nil before December 1, and the trapping take was also light early in the season. About 36 percent of the total season bag occurred during the final 4 weeks. The implication of this is that to materially limit the take, seasons would need to be shortened at the end, rather than at the beginning as many hunters and trappers have suggested.

Sex Ratios

Overall sex ratios (Table 4) favored females (0.7 males per female), differing significantly ($P<.01$) from an expected 1:1 ratio in both years. Most of this difference was due to the high proportion of females taken by trappers.

The 2-year trapping take (0.6 males per female) showed a highly significant ($P<.01$) departure from an expected 1:1 ratio. Possibly the smaller home ranges of female bobcats (Bailey 1974) make them vulnerable to trapping because they remain in one vicinity. Bailey (1974:439) found that "male bobcats moved from one part of their range to another without any apparent pattern and seldom, except during some winter periods, returned to previously used resting places". This unpredictable movement pattern conceivably would make males more difficult to locate and trap.

Hunters using dogs bagged cats near expected ratios. Several hunters reported through interviews they attempted to bag only larger cats (males) simply for trophy value. This selection process applied by even a small portion of the hunters would tend to tilt the ratio toward males.

The recent study in Idaho by Bailey (1974), including the capture and marking of a high proportion of cats residing on his study area, showed a sex ratio of 0.9 males per female. Other studies cited by Bailey reported ratios of from 0.4 to 1.5 males per female. Except for studies such as Bailey's, most sex ratios are likely to be biased in one way or another because of selective removals and differential vulnerability to hunting or trapping.

Comparisons with Distribution of Bountied Bobcats

Figure 4 suggests some major differences in distribution of the bobcat harvest during the first two years of registration compared to those bountied from 1951-63. Pressure on cats now seems to be heaviest in counties near the fringe of the primary bobcat range (Burnett, Rusk, Taylor, Langlade, Lincoln). Counties farther north which produced the most cats during the bounty years (Ashland, Iron, Price, Forest, Florence and others) had lower harvests during 1974 and 1975. Since habitat in these more northern counties is generally secure, the obvious conclusion is that pressure on cats has diminished since the bounty days. This conclusion, while tentative, is further supported by 1950-70 human population trends showing the heaviest declines in many of the wilder, northern counties (Wisconsin Dept. Administration, 1970). Iron and Forest Counties, for example, sustained human population losses of 25 and 18 percent, respectively, in this 20-year period. Counties near the fringes of the northern forest zone experienced much smaller losses, and in some cases, had small increases. Along with declines in rural populations have come declines in numbers of trappers (Unpubl., DNR files).

Abundance Related to Forest Types

According to information provided by hunters and trappers, bobcats prefer conifer and alder swamps. This was supported by correlating bobcat harvests with percentages of each county's forest land occupied by cedar, spruce-fir, and lowland brush types (Fig. 5). For this analysis, we used the mean annual bobcat harvest during the last 10 years of bounty payments (1951-63) along with forest type areas determined during the 1956 forest inventory (Wisconsin Conservation Department, 1957).

The resulting correlation coefficient ($r = 0.68$, $P<.01$) showed that these types were important components of good bobcat range in Wisconsin, insofar as one can assume that bobcat kills were influenced by population levels during this period.

The top 10 counties all had from 10.4 to 23.4 percent of their forest occupied by these lowland types. Bayfield County, although it is a heavily forested county, traditionally has been a poor bobcat producer, ranking only 20th among counties from 1951-63. Its low 7.7 percent in the lowland cover types undoubtedly contributes greatly to its low ranking. Shawano County, conversely, ranks among the top 10 counties, even though it is located along the forest-agriculture transition zone. Very likely its rather high 14.7 percent in cedar, spruce-fir, and alder types is a major factor in maintaining a higher-than-average bobcat harvest.

Bobcat Numbers Related to Snowshoe Hares

Snowshoe hares are major prey for bobcats in the northern Lake States Region and New England (Pollack 1951; Rollings 1945; and others). To test whether relative hare abundance was related to recent bobcat harvests, we compared hare indexes obtained in conjunction with deer pellet surveys (Thompson 1975) with numbers of bobcats killed per square mile in the past two seasons (Fig. 6). Deer pellet surveys are run on a 3-year rotation; thus, the individual unit values represent the mean hare index from three surveys run between 1964 and 1974. The correlation coefficient ($r=.51$, $P<.01$) suggests that the number of bobcats killed in deer management units was positively related to relative hare density. To an unknown extent, the result may be attributed to the shared use of similar habitats (alder, conifer swamps) as well as the implied dependence of bobcats on hares.

Although lynx and snowshoe hare populations have been closely linked in Canada (Keith 1963), we could not detect a consistent relationship between statewide indexes for bobcats and hares in Wisconsin. Our peak hare harvests occurred in 1931, 1941, 1949, 1957, and 1964, while numbers of bobcats bountied peaked in 1928, 1937, 1946, 1952, and 1961. Wisconsin bobcats enjoy a rich variety of prey species, so that dependence on snowshoe hares may not be nearly so critical as that shown by lynx in Canada.

Hunter-Trapper Questionnaires

Summaries of the 1974 and 1975 questionnaires are shown in Tables 5-7. Overall response rates for the two years were 75 and 73 percent.

Hunting success and effort were nearly identical for the 1973-74 and 1974-75 seasons. Bobcats-run-per-day averaged 0.45 and 0.47, respectively, while numbers of days hunted averaged 13.0 and 12.8. Considering that days hunted and cats run per day were stable, it was not surprising to find the kill by dog hunters was also quite consistent (117 in 1973-74; 109 in 1974-75, Table 1).

Responses to other questions showed that: Most hunters (75%) hunted with their own dogs; they averaged 13.0 years of bobcat hunting experience; and they bagged an average of 3.0 bobcats per year. The estimated number of cats bagged may be inflated by memory bias, as suggested by the average number of cats (1.4) registered by hunters in 1974.

Hunters in 1974 were evenly split regarding current abundance of cats compared to 5 years ago. In 1975 the majority (67%) replied that the population was about the same as the previous year, with the rest evenly split between "More" and "Less".

Trapper replies showed that: (1) Trapping experience averaged 18 years; (2) individual trappers averaged 1.7 cats trapped per year, or about 43 percent less than the average number reported by hunters; (3) more than half (53%) of the bobcats were trapped incidental to coyote trapping, 39 percent were trapped in sets made specifically for bobcats, and 8 percent were trapped in other types of sets; and (4) of those who had an opinion on population levels in 1974, 67 percent replied cat abundance was "About The Same" as 5 years ago, 17 percent said "More" and 15 percent said "Less".

The 1974 replies of hunters and trappers were combined for analyses by DNR administrative districts. A chi-square test showed that opinions on bobcat abundance differed significantly among districts (Chi-Square=11.45, $P<0.05$). This difference was caused primarily by the higher number of "More" answers in the North Central District, suggesting a differential trend compared to other districts. This was supported to

some degree by voluntary comments from furbuyers and hunters suggesting populations had noticeably increased in the Forest, Langlade, Lincoln and Oneida County area. A similar regional analysis for the 1975 replies was not possible due to inadvertent omission of data-processing codes permitting sorting on a district basis.

We suspect that short-term fluctuations in bobcat numbers may be undetectable by individual hunters and trappers, and thus opinions about abundance may not reflect real population changes. On the other hand, composite values for bobcats-run-per-day and numbers of days hunted by hunters using dogs, when related to numbers of cats bagged, may offer valid indexes to abundance.

Additional comments volunteered by sportsmen are summarized in Table 8. Suggestions on regulations were common, with many relating to season length. The majority of these favored a shortened season with a later opening date, ostensibly to limit the harvest. However, as discussed earlier, a later opening would have a minimal impact on the eventual harvest, while an earlier closing date would definitely reduce the number of cats bagged.

Curiously, only one respondent mentioned snowmobiles as a factor influencing bobcats, although previous concern about the snowmobile's possible effect had been epxressed by several DNR wildlife managers.

Comments relating to food habits and important habitats are generally supported by the scientific literature. Bobcats prey heavily on snowshoe hares and spend a great deal of their time in coniferous swamps and alder thickets where hares are also abundant.

DNR Employees Questionnaire

DNR employees' opinions about bobcat abundance were generally more conservative than those of sportsmen (Table 9). Of the 86 employees who offered an opinion, only 7 percent thought bobcats were more abundant in 1974 than 5 years previously, while 26 percent thought they had declined. But in agreement with hunters and trappers, the majority (67%) thought bobcats were "About the Same" abundance as 5 years ago.

Considering the relative scarcity and secretive behavior of bobcats, a surprising number of employees reported seeing live bobcats (17%) and tracks (30%) during a one-year period, July 1, 1973 to June 30, 1974 (Table 9). Differences in bobcat sightings among the six administrative areas surveyed were significant at the 0.10 level (chi-square with 5 df = 10.78; reference value = 9.24). Inspection of the distribution indicated most of the difference was caused by the high numbers of sightings in the Park Falls Area (Ashland, Price, Iron and Taylor Counties). This result was consistent with historical distribution of bounty payments and also with the generally high quality bobcat range found in the Park Falls Area.

While DNR employees offered fewer comments than sportsmen, they tended to focus on needs for greater restrictions (Table 10). The largest number of comments (10) recommended that bobcats be given total protection. Further analyses showed that the majority of these employees were headquartered in counties where bobcat habitat is limited, and where bobcats have been scarce over the past 40 or more years.

Current Bobcat Distribution

Recent bobcat sightings and track observations are shown in Figure 7. Our best appraisal of current bobcat distribution, based on harvest records, sightings and track observations, distribution of important habitats, and the personal knowledge of DNR field personnel, is presented in Figure 8.

The area included in the "common" classification (primary range) is characterized as heavily forested, with frequent conifer swamps, alder thickets, and streams. The "less common" category (secondary range) is comprised of forest-agriculture border lands, large tracts of sandy uplands with infrequent streams or swamps, and areas generally devoid of conifer forest types. The "rare" category includes the remainder of Wisconsin, where bobcats are only infrequently seen or killed.

Average bobcat densities in the "common" area are most likely in the range of 1 bobcat per 5-10 square miles, but this rough approximation cannot presently be supported by field census data. A recent survey employing track counts by Wayne Norling (1975) produced an estimate of 1 bobcat per 15 square miles in Burnett County. This estimate for Burnett County, although subject to weak statistical precision, is close to what might be expected considering recent harvest levels.

CONCLUSIONS AND MANAGEMENT IMPLICATIONS

Recent bobcat harvests, although not as high as the average number bountied from 1924-63, suggest the species is holding its own. Compared to the bounty years, fewer bobcats are now being killed in the wilder, less accessible counties, while more are being bagged near the edges of the primary range. Emphasis seems to be shifting from trapping to hunting with dogs, and at least some hunters are hunting selectively for large animals of trophy value.

Bobcat abundance in Wisconsin appears related to distribution of cedar, spruce-fir, and alder types, and also to relative snowshoe hare density. Heavy cutting of aspen since 1950 has likely favored bobcats because of the obvious benefits of such cutting to hares. Because swamp conifer and other important wetland types, except white cedar, are either stable or increasing, the prognosis for bobcat habitat is good.

Additional restrictions to reduce the harvest do not appear necessary at this time. But regulation changes which could add further protection for bobcats, without resorting to total protection, include earlier season closings and selective closings of marginal bobcat counties. In 1974, 36 percent of the cats were taken during the final 4 weeks. Bag limits would have limited impact on total harvest since only 21 percent of the kill was by hunters taking more than 2 bobcats.

The high proportion of female bobcats (0.6 males per female) trapped in the past two years has a potentially undesirable implication, in that the impact on the population might be less if fewer females were cropped. This sex ratio distortion should not be serious unless future population trends (shown by registration or field surveys) are downward. Since a high proportion of trapped bobcats are taken incidental to coyote trapping, it would be difficult to control the number of bobcats taken by trappers.

Although the influence of snowmobiles was not measured by our study, it appears they may have little influence on bobcats, except as they aid travel by hunters and trappers. The better bobcat habitats in dense swamps and brushy stream bottoms are not conducive to recreational snowmobiling. Policies which direct snowmobiles away from deer yards could also insure that some of the best bobcat range would be protected from such disturbance.

Potential bobcat population indexes revealed by our investigation are numbers of bobcats run per day by hunters using dogs, and numbers of bobcat sightings by DNR field personnel and cooperators. Annual questionnaires will be necessary to maintain and evaluate these statistics.

Aspects worthy of additional investigation include mortality patterns shown by trapped and shot bobcats, and relative distribution of cats determined by track counts or other field methods. Crowe (1975) used age samples to construct a population model for bobcats in Wyoming. If enough animals could be aged, perhaps a similar model for Wisconsin bobcats could be assembled.

Although we early ruled out using track counts for census purposes because of their statistical limitations, a recent study by Wayne Norling (1975) in Burnett County produced some encouraging results. Although the frequency of bobcat tracks on transects may be too low to produce highly reliable population estimates, this approach could reveal relative density in different areas.

In summary, we conclude that the bobcat is currently secure in Wisconsin, and that current regulations (including mandatory registration) should be continued until new information indicates further restrictions are needed. Additional investigations emphasizing population structure and numbers should be encouraged.

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Edited by Ruth L. Hine

About the Authors

William A. Creed is the Group Leader, and James E. Ashbrenner, a Natural Resources Technician, in the Forest Wildlife Group, Bureau of Research, Rhinelander.

APPENDIX A

1973-74 Bobcat Hunting Questionnaire

1. How many times (days) did you hunt bobcats during the past season (October 13-February 28)?

   _____ days. (If you can't remember exactly how many days, please make an estimate)

2. Did you hunt primarily with your own dogs or with dogs belonging to a hunting companion? (Check one)

   ( ) Hunted with own dogs.

   ( ) Hunted with friend's dogs.

3. How many bobcats did the dogs run on the days you hunted?

   _____ bobcats.

4. For how many years have you hunted bobcats? _____ years.

5. Approximately how many bobcats do you bag per year on the average?

   _____ cats.

6. In what counties did you do most of your hunting for bobcats? (List below)

   _____

   _____

   _____

7. In your opinion, how does the current bobcat population compare to that of 5 years ago? (Check one)

   ( ) Bobcats now more abundant than 5 years ago.

   ( ) Bobcats now less abundant than 5 years ago.

   ( ) Bobcats about the same as 5 years ago.

   ( ) No opinion.

8. Any additional comments you'd like to offer regarding bobcat populations, regulations, or anything else concerning bobcats:

APPENDIX B

1973-74 Bobcat Trapping Questionnaire

1. In what counties did you do most of your trapping for bobcats? (List below)

   _____

   _____

   _____

2. For how many years have you trapped bobcats? _____ years.

3. Approximately how many bobcats do you average per year?

   _____ bobcats.

4. How did you trap your bobcat(s) this past season? (check one)

   ( ) Incidental to coyote or fox trapping.

   ( ) In trap set specifically for bobcats.

   ( ) Other (describe) _____.

5. In your opinion, how does the current bobcat population compare to that of 5 years ago? (Check one)

   ( ) Bobcats now more abundant than 5 years ago.

   ( ) Bobcats now less abundant than 5 years ago.

   ( ) Bobcats about the same as 5 years ago.

   ( ) No opinion.

6. Any additional comments you'd like to offer regarding bobcat populations, regulations, or anything else concerning bobcats:

Department of Natural Resources
P. O. Box 576
Rhinelander, Wisconsin 54501

APPENDIX C

March 27, 1975

Dear Sportsman:

I am again requesting your help in compiling information on bobcats. Many of you answered a questionnaire last year which provided a wealth of information about your trapping and hunting experiences.

As a followup to last year's survey, I am sending another questionnaire to those who registered cats taken either by trapping or by hunting with dogs. This year's questionnaire has been shortened to provide only the information needed for comparison with last year's results.

Hunters and trappers registered 296 bobcats last year. This year's preliminary tally is 204, but a few more registration cards will likely filter in from department fieldmen.

Please answer the following questions and return to me in the enclosed envelope. Your answers will be held in strictest confidence. Thanks in advance for your helpful cooperation.

Very truly yours,

William A. Creed

William A. Creed, Supervisor
Forest Wildlife Research Group

WAC:ds
encl.

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1974-75 Bobcat Hunting Questionnaire

1. How many times (days) did you hunt bobcats during the past season (Oct. 12, 1974 through February 28, 1975)?

   _____ days. (If you can't remember exactly how many days, please make an estimate.)

2. How many bobcats did your dogs run on the days you hunted?

   _____ bobcats.

3. In your opinion, how does the current bobcat population compare to last year? (Check One)

   ( ) Bobcats now more abundant than last year.
   ( ) Bobcats now less abundant than last year.
   ( ) Bobcats about the same as last year.
   ( ) No opinion.

4. Any additional comments you'd like to offer regarding bobcat populations, regulations, etc. (Use back if more space is needed).

APPENDIX D

Department of Natural Resources
P. O. Box 576
Rhinelander, Wisconsin 54501

March 27, 1975

Dear Sportsman:

I am again requesting your help in compiling information on bobcats. Many of you answered a questionnaire last year which provided a wealth of information about your trapping and hunting experiences.

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William A. Creed

William A. Creed, Supervisor
Forest Wildlife Research Group

WAC:ds

encl.

- -

1974-75 Bobcat Trapping Questionnaire

1. How did you trap your bobcat(s) this past season? (Check One)

   ( ) Incidental to coyote or fox trapping.
   ( ) In trap set specifically for bobcats.
   ( ) Other (describe) _____.

2. In your opinion, how does the current (1974-75) bobcat population compare to last year's (1973-74)? (Check One)

   ( ) Bobcats now more abundant than last year.
   ( ) Bobcats now less abundant than last year.
   ( ) Bobcats about the same as last year.
   ( ) No opinion.

3. Any additional comments you'd like to offer regarding bobcat populations, regulations, etc. (Use back if more space is needed).

APPENDIX E
1974 Bobcat Status Questionnaire
(DNR Field Personnel)

1. Have you seen any live bobcats since July 1, 1973? No ___ Yes___

   If Yes, Where? (Be as specific as possible on location)

No. Cats	County	Section	Township	Range

2. Have you seen bobcat tracks since July 1, 1973? No ___ Yes___

   If Yes, Where?

County	Section	Township	Range

3. Have you worked at your present location for at least 5 years? No ___ Yes ___

   If Yes, please answer Question 4.

4. In your opinion, how does the current bobcat population compare to that of 5 years ago? (Check One)

   ___ Bobcats now more abundant than 5 years ago.

   ___ Bobcats now less abundant than 5 years ago.

   ___ Bobcats about the same as 5 years ago.

   ___ No opinion.

5. Any comments you'd like to offer regarding bobcat populations, regulations, or anything else concerning bobcats: (Use back or separate sheet if necessary)

6. Your Name _____

   Working Title _____

   Headquarters _____

TABLE 2. Numbers of Hunters and Trappers Registering One or More Bobcats, 1974-75 Season.

	Northwest		North Central		Lake Michigan		West Central		ALL Hunters and Trappers
No. Cats Registered	Hunters	Trappers	Hunters	Trappers	Hunters	Trappers	Hunters	Trappers	
1	32	43	40	32	15	9	3		174
2	5	10	5	8	1	1			30
3	3				1		1		5
4	2	1	2	1		1			7
5			1						1
6									
7	1		1						2
									219

TABLE 3. Frequency of Bobcats Bagged by Week of Season, 1973-74.

Dates	Harvest Method			Total	Cumulative Bagged		
	Shot Over Dogs	Trapped	Other		1973-74 No.	1973-74 Percent	1974-75** Percent
Oct. 13-Oct. 19		4	1	5	5	2	3
Oct. 20-Oct. 26		5		5	10	3	5
Oct. 27-Nov. 2		4		4	14	5	6
Nov. 3-Nov. 9	1	6	2	9	23	8	9
Nov. 10-Nov. 16		5	1	6	29	10	13
Nov. 17-Nov. 23		1	6	7	36	12	15
Nov. 24-Nov. 30	1	2	1	4	40	14	17
Dec. 1-Dec. 7		10	1	11	51	17	18
Dec. 8-Dec. 14		4	1	5	56	19	21
Dec. 15-Dec. 21	10	5		15	71	24	23
Dec. 22-Dec. 28	16	3	2	21	92	31	26
Dec. 29-Jan. 4	5	10	4	19	111	38	29
Jan. 5-Jan. 11	5	9	2	16	127	43	38
Jan. 12-Jan. 18	5	5	5	15	142	48	46
Jan. 19-Jan. 25	12	10	3	25	167	57	57
Jan. 26-Feb. 1	8	11	2	21	188	64	63
Feb. 2-Feb. 8	11	7	3	21	209	71	74
Feb. 9-Feb. 15	11	9	4	24	233	80	77
Feb. 16-Feb. 22	10	9	3	22	255	87	90
Feb. 23-Feb. 28	20	15	3	38	293	100	100
				293*			

* Information incomplete for 3 cats.
** Weeks comparable, except dates are one calendar day earlier.

TABLE 4. Bobcat Sex Ratios Based on Registration Records, 1973-75.*

	Shot Over Dogs		Trapped		Other**		All Methods		
	Males	Females	Males	Females	Males	Females	Males	Females	Males:Female
1973-74	62	56	48	83	9	34	119	173	0.7:1
1974-75	53	56	27	47	6	16	86	119	0.7:1
Total	115	112	75	130	15	50	205	292	0.7:1

* Excludes 4 cats of undetermined sex.
** "Other" includes cats shot incidental to other hunting, nuisance animals, etc.

TABLE 5. 1974 Questionnaire Summary: Bobcat Hunters Using Dogs.

	Administrative District				
	Northwest	North Central	Lake Michigan	West Central	ALL
No. Hunters	20	19	10	2	51
Hunted with own dogs*	20	14	8	2	44
Hunted with friends' dogs	3	5	3	0	11
Avg. no. days hunted	11.0	16.4	11.5	5.0	13.0
Avg. bobcats run/day	0.46	0.54	0.34	0.07	0.45
Avg. no. years hunted	11.0	16.4	11.5	5.0	13.0
Avg. no. cats bagged/year	3.4	2.6	3.4	3.0	3.0
Opinion on population status vs. 5 years ago:					
More:	6	7	3	0	16
Same:	7	9	1	0	17
Less:	6	3	6	1	16
No Opinion:	1	0	0	1	2

*Some hunters reported hunted with their own dogs and also their friends' dogs.

TABLE 6. 1974 Questionnaire Summary: Bobcat Trappers.

	Administrative District*			
	Northwest	North Central	Lake Michigan	ALL
No. usable questionnaires	45	31	10	86
Avg. no. years trapped	21	11	26	18
Avg. no. cats/year	1.7	1.6	2.0	1.7
Trapping method				
Incidental to coyotes	29	16	4	49
Trap set for bobcat	16	14	6	36
Other	5	2	0	7
Opinion on bobcat population status vs. 5 years ago:				
More:	7	14	2	23
Same:	22	12	7	41
Less:	14	2	1	17
No Opinion:	2	3	0	5

*No cats were trapped in the West Central District.

TABLE 7. 1975 Questionnaire Summary: Bobcat Hunters and Trappers.

HUNTERS USING DOGS	
No. usable questionnaires	50
Avg. no. days hunted	12.8
Avg. no. bobcats run/day	0.47
Opinion on population trend in past year	
More:	8
Same:	31
Less:	7
No. Opinion:	4
TRAPPERS	
No. usable questionnaires	42
Trapping method:	
Incidental to coyotes or fox	18
Trap set for bobcat	21
Other	4
Opinion on population trend in past year	
More:	6
Same:	24
Less:	6
No. Opinion:	6

TABLE 8. Comments by Bobcat Hunters and Trappers, 1974-75.

Comment	No. Persons Making Comment
Regulations	
Shorten season	17
Current regulations o.k.	16
Later opening	11
Set season bag limit	11
Close season later	7
Prohibit trapping	5
Prohibit hunting with dogs	5
Close season completely	5
Alternate open and closed seasons	5
Set size limit (protect small cats)	5
Lengthen season	3
Restrict CB radios	2
Prohibit snowmobiles in swamps	1
Close during deer season	1
Shotguns only (for safety)	1
Bobcat Reproduction	
Kittens scarce	4
Kittens abundant	3
Factors Influencing Abundance	
Easy to kill and trap	10
Snowshoe hares	8
Higher fur prices	4
Hunting and trapping have increased	3
Porcupine quills kill cats	2
Clearcut logging good	1
Swamplands should be preserved	1
Food Habits	
Snowshoe hares	9
Deer	7
Ruffed grouse	4
Small game	2
Birds	1
Poultry	1
Porcupines	1
Habitat Preferences	
Alder and cedar swamps	8
Remote areas	5
Ridges along creeks	1
Other Comments	
Bobcats bother young cattle	1
Bounty needed	1
Need season to control cats	1
Have seen more lynx signs in Washburn, Douglas, Bayfield and Sawyer Counties	1

TABLE 9. 1974 Bobcat Questionnaire Summary: DNR Employees.

	Administrative Area						
	Brule	Hayward	Park Falls	Woodruff	Antigo	Marinette	Total
Total replies	28	36	31	31	31	44	200
No. seeing live cats	7	4	11	2	3	7	34 (17%)
No. seeing tracks	11	9	14	8	12	7	61 (30%)
No. working in area 5 or more years	20	17	23	27	21	28	132
Opinion of bobcat pop. trend (answered only by employees at station 5 or more years).							
More:	2	0	1	2	1	0	6
Same:	10	9	17	6	5	11	58
Less:	1	5	2	2	5	7	22
No Opinion:	7	3	3	13	10	10	46

TABLE 10. Comments by DNR Employees, 1974.

Comment	Number Employees Making Comment
Regulations	
Bobcats should be on protected list	10
Continue present season and registration	4
Establish season bag limit	3
Prohibit hunting with dogs	1
Open season later	1
Open season during deer season only	1
Make bobcats big game	1
Restrict trapping	1
Shorten season	1
Other Comments	
Bobcats rare or declining	5
Bobcats never abundant	5
Hunting with dogs has hurt cats	4
Hunting and trapping have increased	3
Local hunters report increased populations	3
Snowshoe hare abundance an influence	2
Deep snows harmful to young cats	1
"Wild" habitat decreasing	1
Prefer rock bluffs along rivers	1

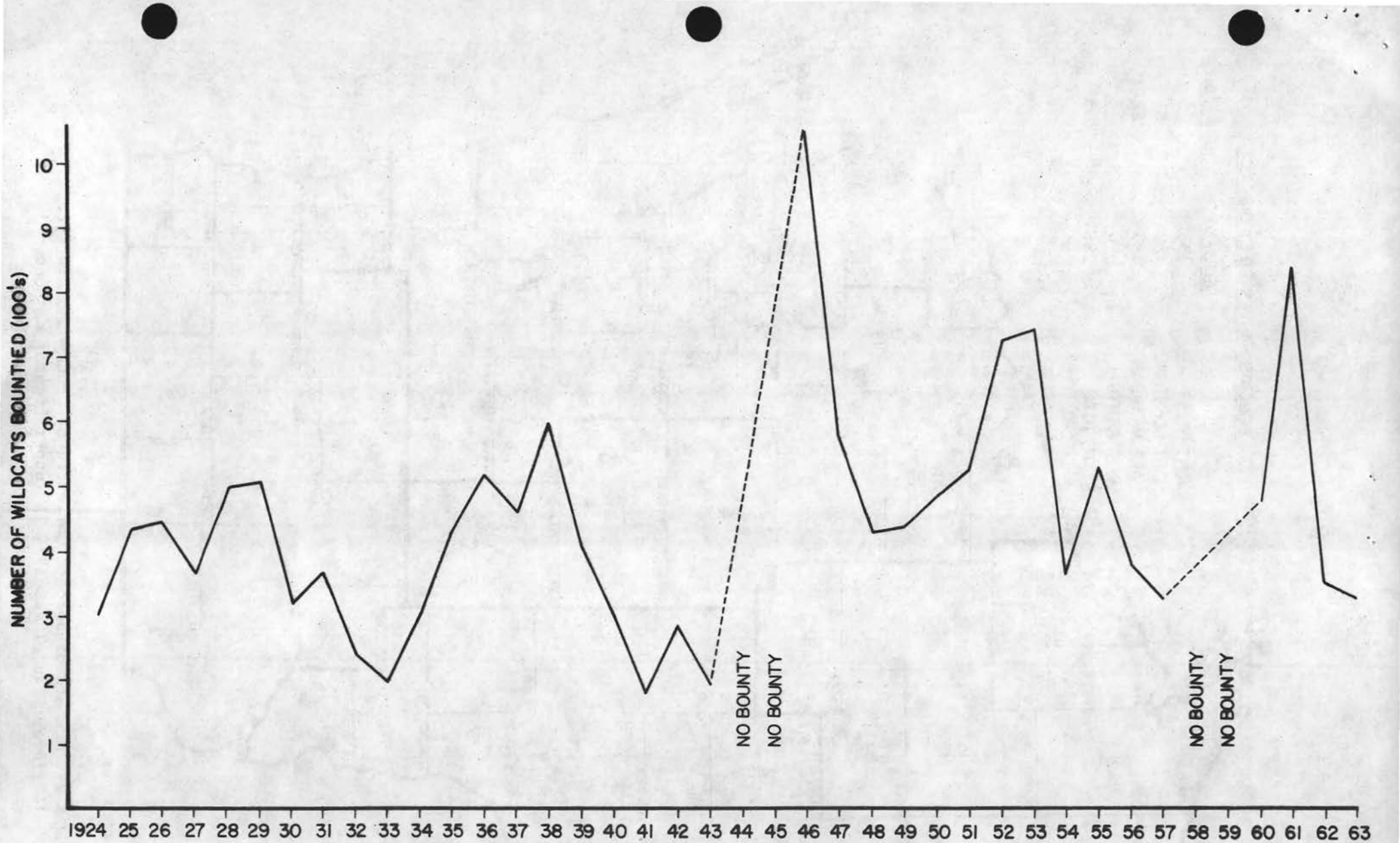

FIGURE 1. Numbers of wildcats bountied by the State of Wisconsin, 1924-63.

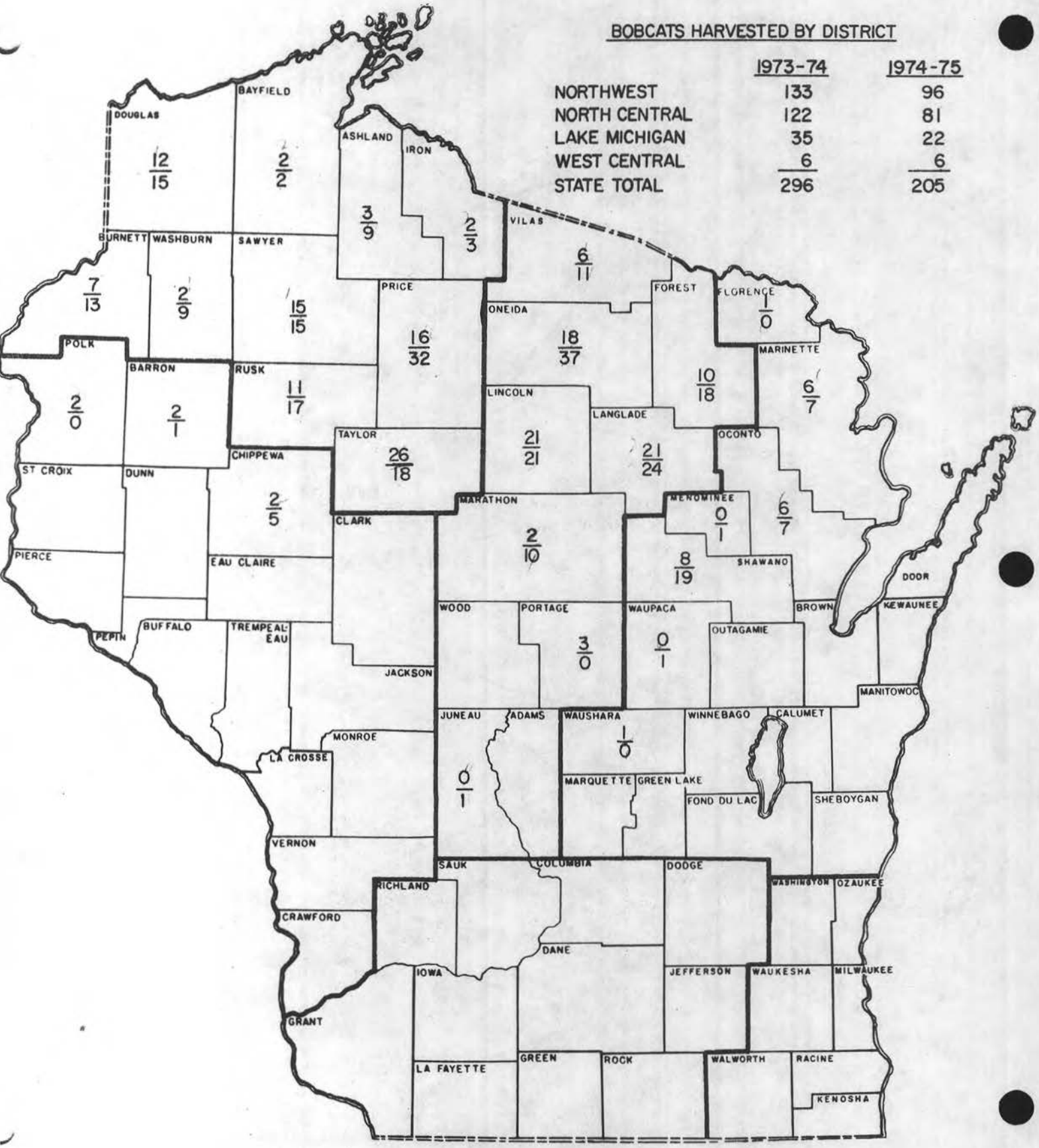

FIGURE 2. Numbers of bobcats harvested by county and district, 1973-74 (lower figure) and 1974-75 (upper figure) seasons.

FIGURE 3. Numbers of bobcats harvested in deer management units, 1973-74 (lower figure) and 1974-75 (upper figure) seasons.

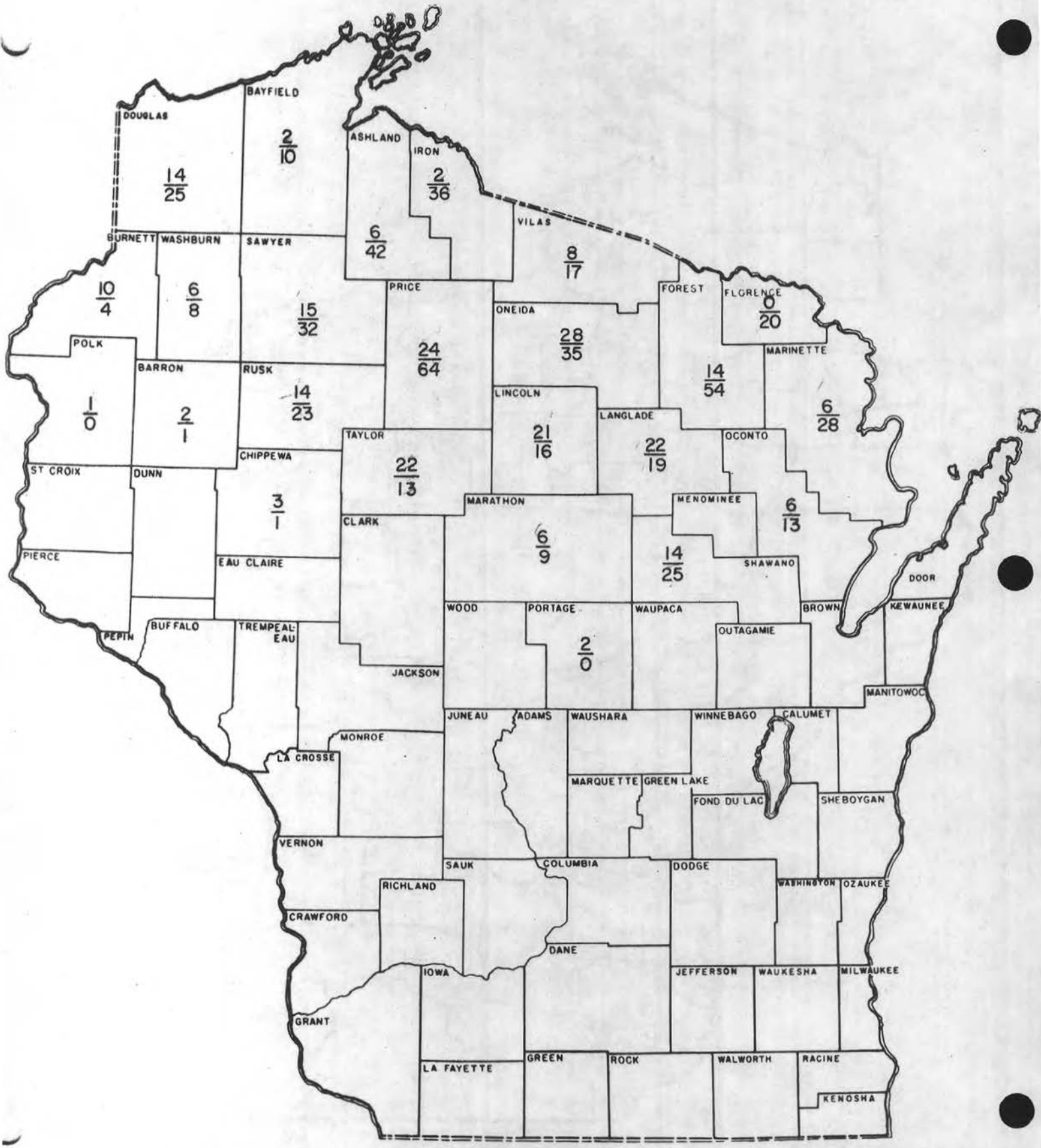

FIGURE 4. Mean annual bobcat harvest by county 1973-74 (upper figure) vs. 1951-63 (lower figure). (Excludes nonbounty years 1957-58 and 1958-59, and counties averaging less than one cat bagged per year.)

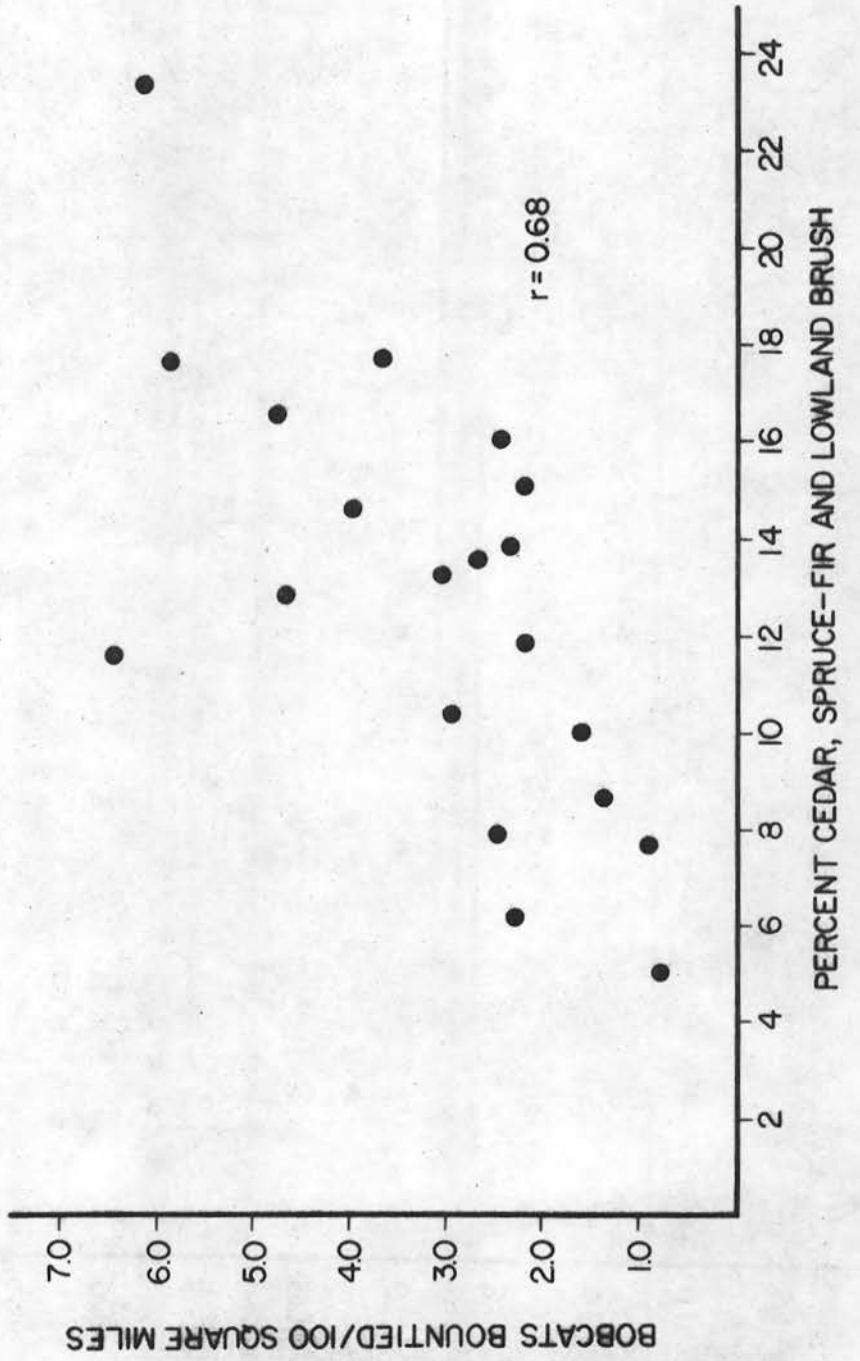

FIGURE 5. Correlation of the average number of bobcats bountied per square mile of forest land (1951-63) with the percentage of each county's forest in cedar, spruce-fir, and lowland brush types.

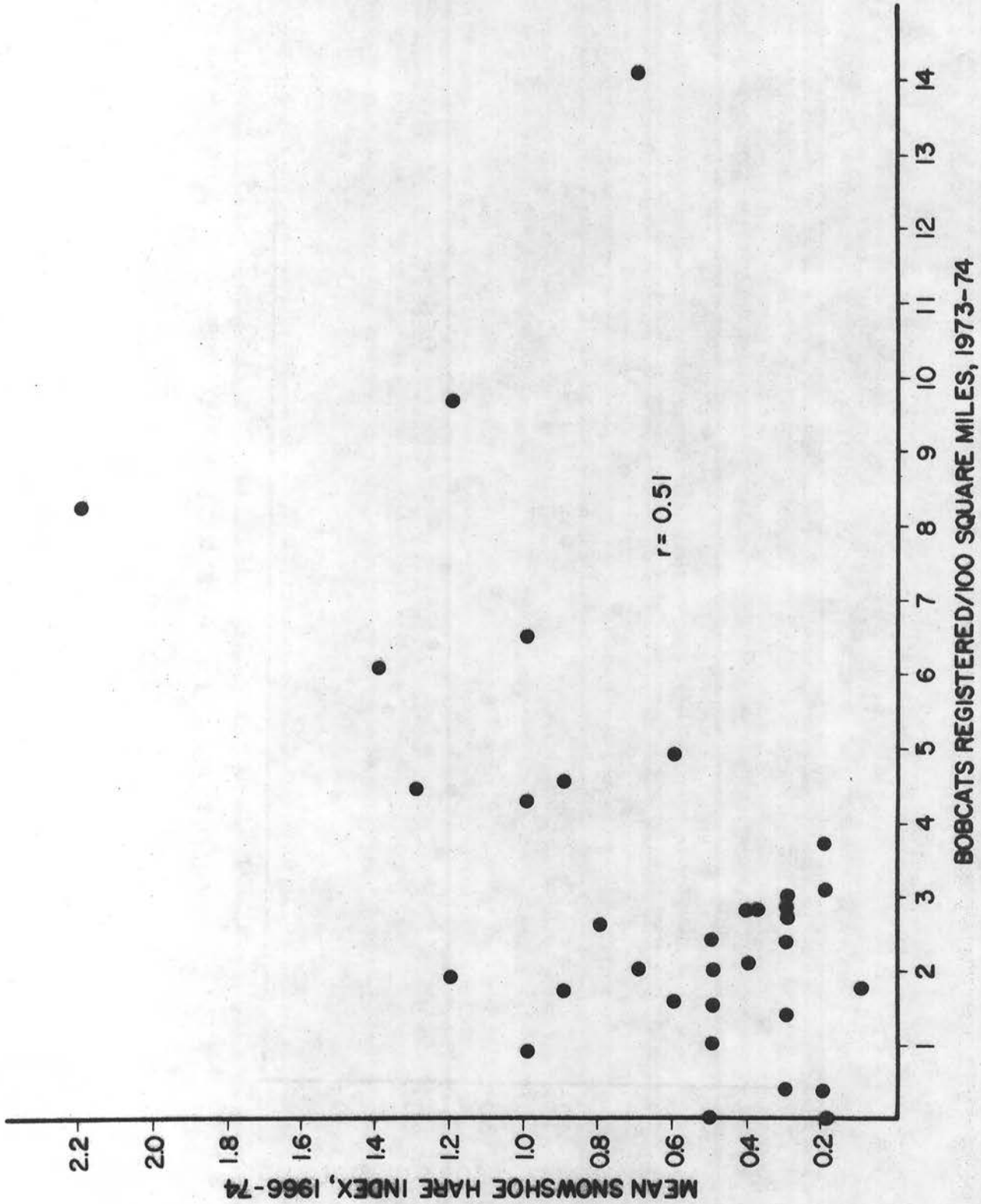

FIGURE 6. Correlation of snowshoe hare indexes with numbers of bobcats bagged in deer management units.

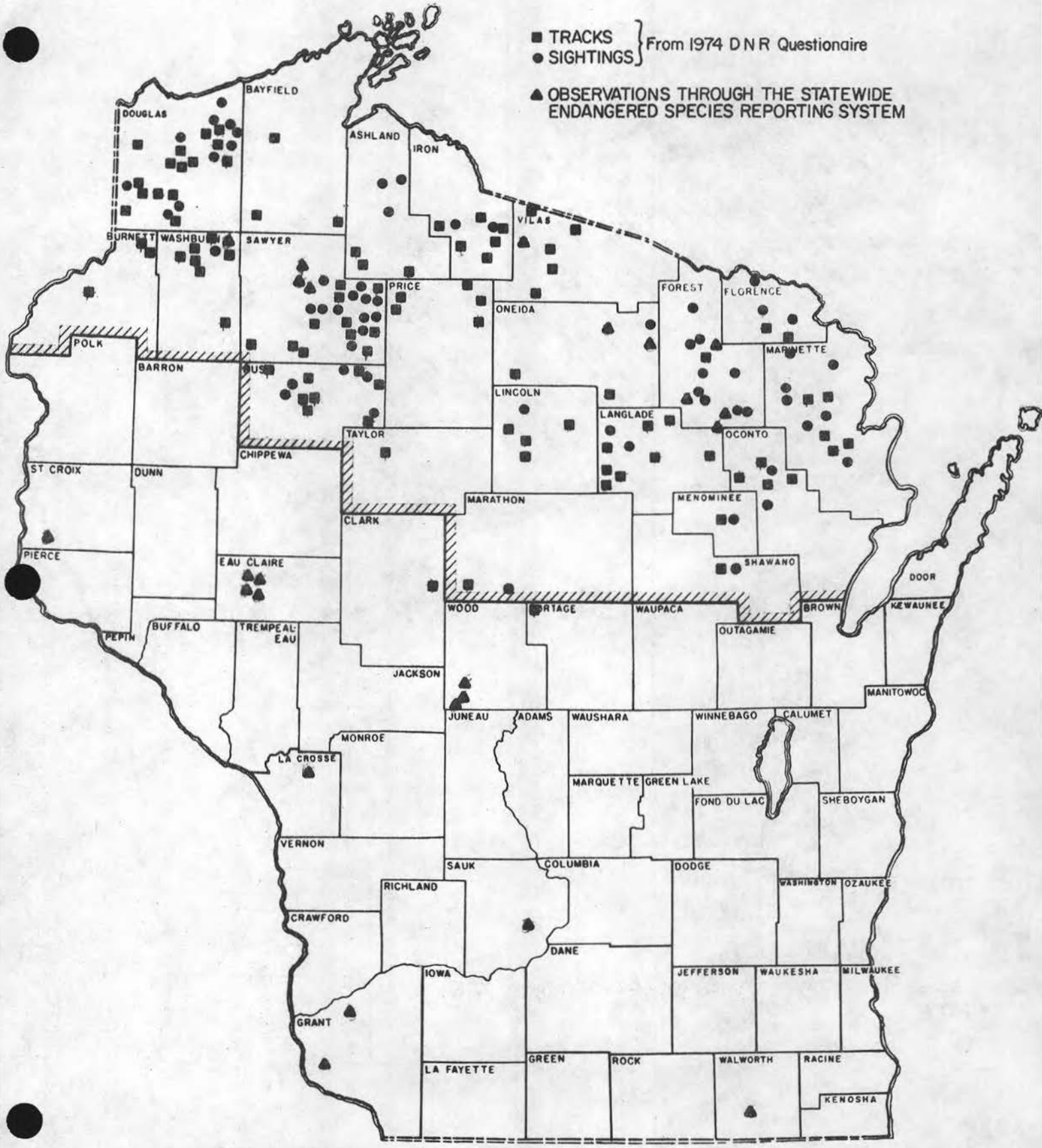

FIGURE 7. Recent bobcat sightings and track observations.

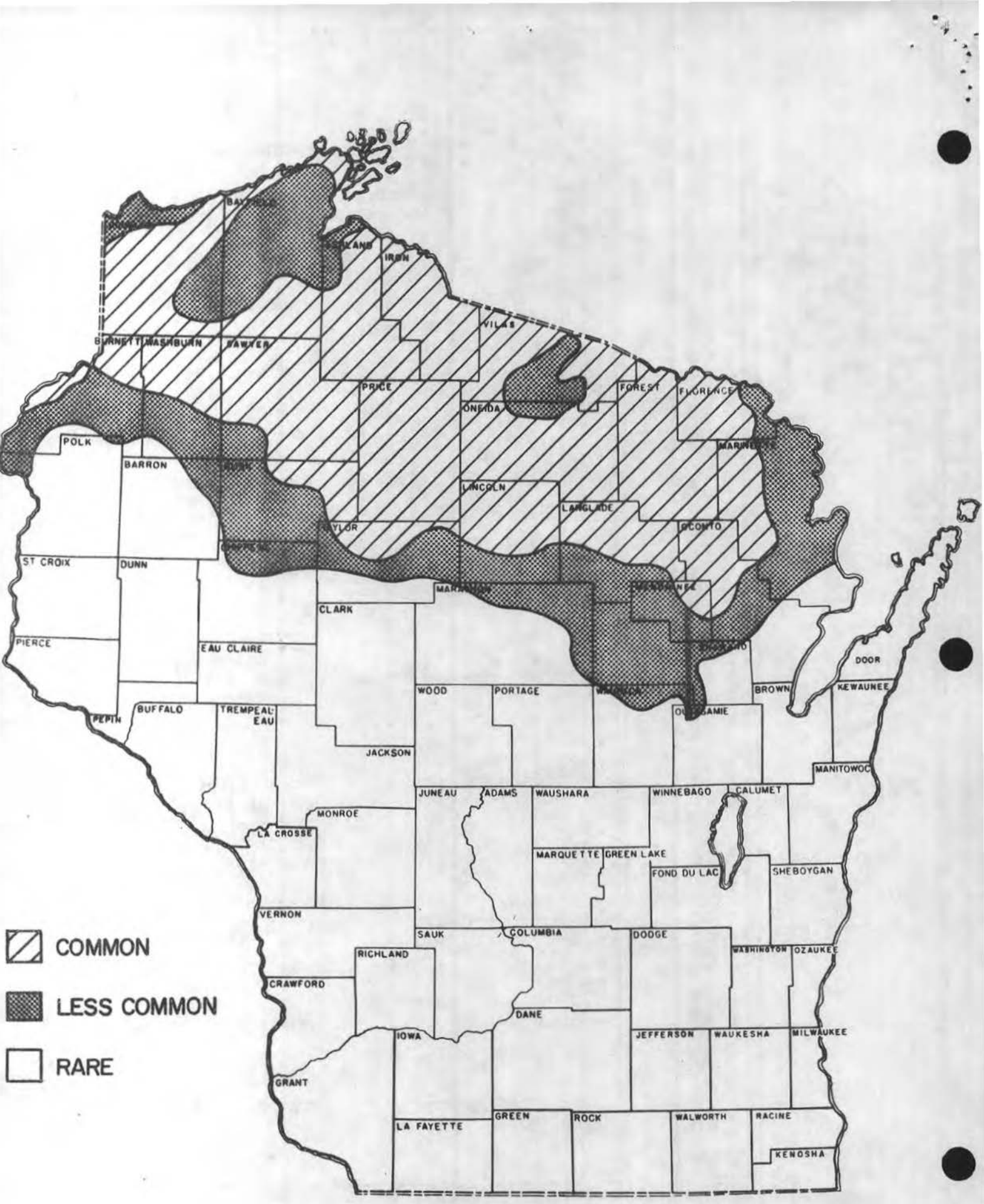

FIGURE 8. Bobcat distribution in Wisconsin, 1975.

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