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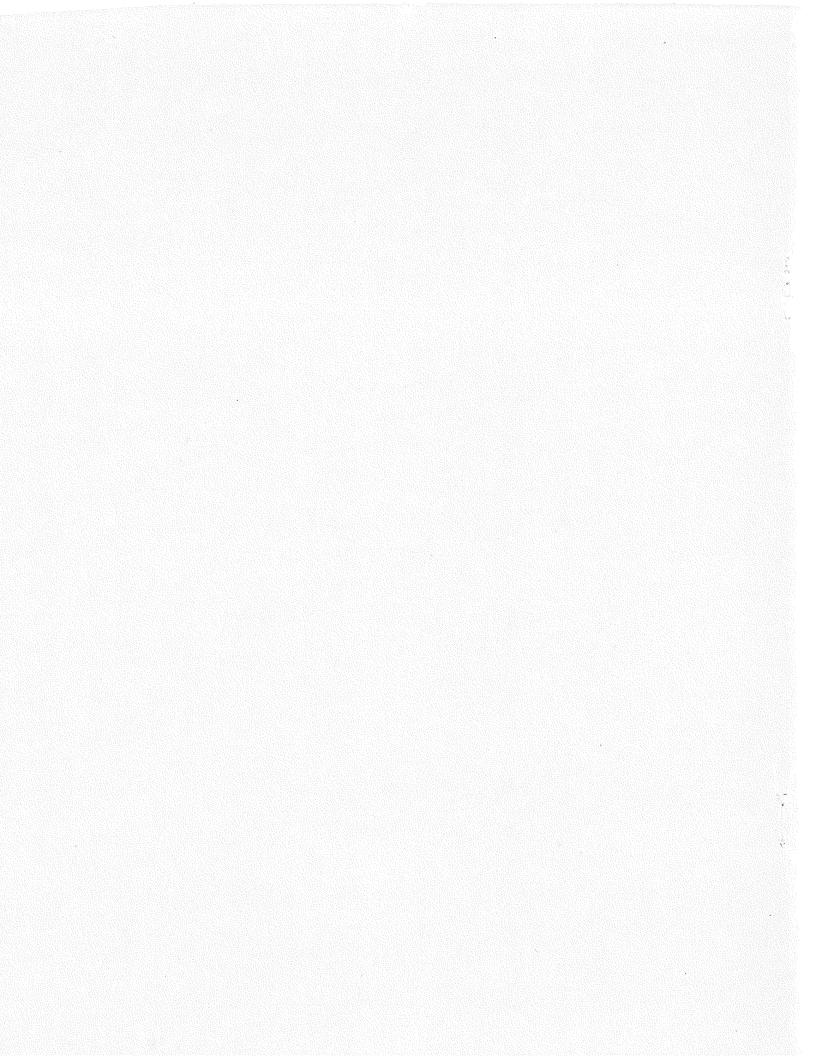
Minnesota Snowmobiling: Telephone Survey of Registered Owners, Winter of 1983-84

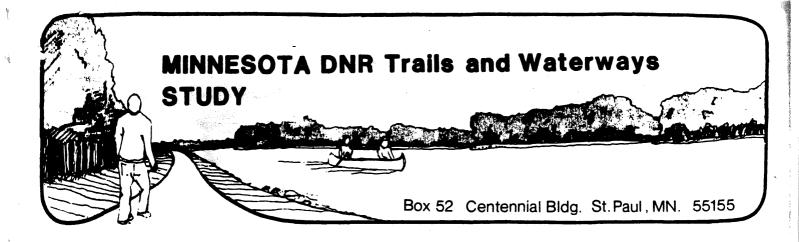
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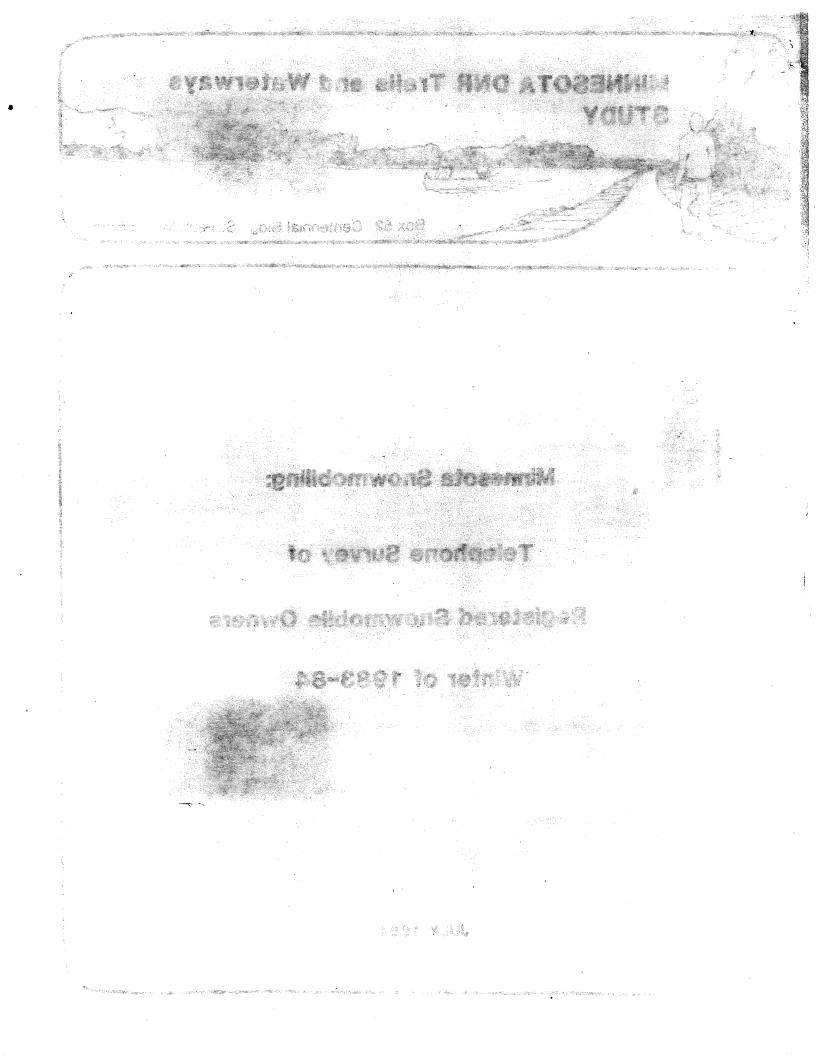
Minnesota Snowmobiling:

Telephone Survey of

Registered Snowmobile Owners

Winter of 1983-84

JULY 1984



MINNESOTA SNOWMOBILING:

TELEPHONE SURVEY OF

REGISTERED SNOWMOBILE OWNERS

WINTER OF 1983-84

PREPARED BY:

MINNESOTA DEPARTMENT OF NATURAL RESOURCES TRAILS & WATERWAYS UNIT TRAIL PLANNING SECTION

Principal Researcher:

Rebecca W. Schomaker Use Monitoring Specialist

July, 1984

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Frincipal Researcher:

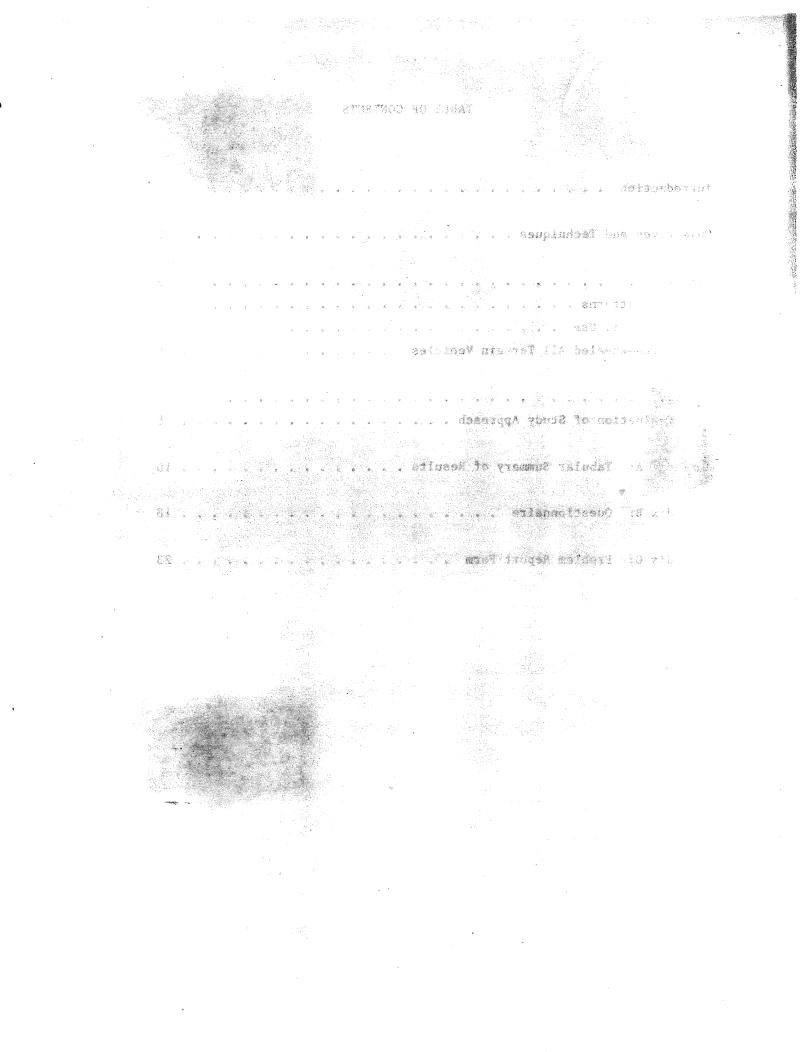
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INTRODUCTION

Minnesota is a snowmobiling state. Since 1961 when the first North American snowmobile club was organized in Minnesota, the sport has grown into a \$300 million a year factor in the state's economy and quality of life.

The Department of Natural Resources' (DNR) official involvement with snowmobiling began in the winter of 1967-68 when the state legislature first required snowmobile registration. This law was the foundation for future joint public and user support of snowmobiling in Minnesota.

At present, there are over 8,400 miles of groomed snowmobile trails administered by the DNR. 6,500 of these are funded through the DNR's Grants-In-Aid (GIA) Trail Program. The remaining 1,900 trail miles are in state parks, state forests, and nine corridor-type state trails. These trails are funded in part by snowmobile registrations and a proportion of the unrefunded gas tax.

Until recently the DNR has concentrated on trail development and maintenance. There has been little follow-up to estimate trail use and little feedback from snowmobilers about their trail experiences. Except for occasional compliments and complaints filed with field personnel, the DNR has little contact with its trail-using public. This is especially true for the GIA trails that rely primarily on private lands. With recent increases in funding and spending (\$2.1 million in 1983) better monitoring of trail use, maintenance and cost effectiveness has become a high priority.

[1]

OBJECTIVES AND TECHNIQUES

A telephone survey of registered snowmobile owners was conducted during

the 1983-84 season.

The study objectives were: and it has have and the statement of the

- to estimate registered snowmobile use in Minnesota; is a continue of

- to compare the relative use by registered snowmobiles of different
- to determine how far snowmobilers are willing to travel to use trails;
- to estimate expenditures and gas use by owners of registered snowmobiles;
- to provide current reporting of trail conditions to the GIA coordinator;
- to determine registered snowmobile owners' opinions on the use of three-wheeled All Terrain Vehicles (ATVs) on snowmobile trails; and,
- to find out more about DNR snowmobile trail experiences.

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A random sample of snowmobile registrants was drawn from the DNR files.

At the rate of 100 per week, the snowmobile owners were called and asked to participate in a ten-minute interview. Of 1,260 owners contacted, 27 (less than 2 percent) refused to complete the interview.

Snowmobilers were asked general questions about their past experience,

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more specific questions about their snowmobiling during the two weeks prior to and insequieved little to beistizations and RMC and gitnesser intethe interview, and to describe in detail their most recent DNR trail in the set little standard of queweiler significant and and standard experience.

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Most snowmobilers were very cooperative and pleased that the "bureaucracy" was listening. In addition, because several members of the trail planning staff participated in the calling, the interviews provided an opportunity for direct, one-to-one, planner-public interaction.

mance and root effectiveness has become a high -

and sociality (\$2.1 million in 1983) better a start of the second

RESULTS

When the sample was drawn there were 209,000 snowmobiles registered in Minnesota. In evaluating the study results, it must be noted that only registered snowmobile owners were surveyed and that the number of unregistered snowmobiles in Minnesota is unknown. The Statewide Comprehensive Outdoor Recreation Plan (SCORP) data, however, indicate that 65 percent of all snowmobiles are registered.

Households contacted averaged almost two registered machines each, and ranged from owning zero to nine machines.

Use Patterns

Despite record snowfall, respondents did about the same amount of snowmobiling this year as during the 82-83 season. At the beginning of the season they were very optimistic -- "Oh, we are going to do a lot more," but near season's end indicated little change from last year. Most households (62 percent) took from 1 to 20 trips during the season, however, almost 25 percent did not snowmobile at all. The explanation given most often for not snowmobiling was broken equipment.

During the 14-week study period between December 19 and March 25, it is estimated that there were 1.9 million outings taken by households with registered snowmobiles. 1.6 registered machines from each household went on each of these trips, thus accounting for over 3 million snowmobiling occasions by <u>registered</u> snowmobiles alone. If 65 percent of Minnesota's snowmobiles are registered, the actual number of occasions during this 14-week period was somewhere near 5 million. The heaviest use occurred during the Christmas holidays (25 percent) and January (44 percent). The early February thaw caused a drop in snowmobiling which tapered off to 34,000 occasions during the last part of March.

Each machine averaged about 5.5 gallons of gas per outing, thus registered snowmobiles used about 17 million gallons of gas during the study period, contributing about \$3 million to tax revenues.

[3]

Snowmobiling was distributed throughout the state but was heaviest in four areas: the northeast (heaviest snow), the southeast (well-developed trail system and good terrain), the Brainerd/lake area (heavily resort-oriented), and around the Minneapolis-Saint Paul metro area (greatest number of registered snowmobiles). SHITED \$150

DNR Trail Use

The DNR administers over 90 percent of the groomed snowmobile trails in Minnesota. However, only 40 percent of registered snowmobile use took place on trails. Furthermore, 25 percent of the respondents had <u>never</u> used a groomed and marked trail. This indicates that despite the availability of groomed trails, much use is still occurring "close-to-home" and along roads and ditches.

Receiving the most use (64 percent) were GIA snowmobile trails which account for 77 percent of all DNR-administered trail mileage. State trails, while comprising only five percent of DNR trail mileage received 20 percent of reported use. State forests and parks (13 and 4 percent of mileage, respectively) each received 8 percent of total use.

The North Shore state trail was the most used state trail, receiving 26 percent (estimated 60,000 occasions) of all use reported on state trails.

For those trips by registered snowmobiles occurring on trails administered by the DNR, several generalizations can be made.

- 79 percent of all trips are made on weekends only, illigorous and

- 44 percent of all trips are taken "with friends only," with the

baragely remaining trips divided between "family only" (27 percent), "family barred and friends" (23 percent) and "alone" (6 percent).

[4]

- The most frequently given reason for choosing a particular trail is "close-to-home" (44 percent of respondents).

Snowmobilers travelled an average of 33 miles to get to the trail. However, the most frequently reported distance was one mile or less (31 percent). Sixty-five percent of respondents travelled 10 miles or less to the trail and 15 percent of respondents reported travelling more than 95 miles.

- The second most common reason for choosing a trail was "known and liked trail" (29 percent). Verbally this is often stated as "we know the trail and always have a good time on it."

Other reasons given for choosing trails are "to try a new trail" (5 percent), "the trail goes somewhere I want to go" (17 percent), and "snow conditions" (5 percent). It was suggested that snowmobilers from different parts of the state might differ in their reasons for choosing specific trails. However, survey results indicate that this is not the case.

- The average length of DNR trail trips was 53 miles although one respondent snowmobiled 530 miles.
- Owners of registered snowmobiles spent an average of \$27.50 per person per trip, totalling about \$20 million for the 14-week study period.
- 73 percent of respondents used no maps on their DNR trail trips. This is not surprising since snowmobilers tend to choose trails they are already familiar with.
- 46 percent of the respondents wanted more information or interpretation on their DNR trail trips. This was especially apparent on state

[5]

trails (59 percent agree) and somewhat less so on GIA and unit trails

(42 and 41 percent agree, respectively).

When asked about other activities participated in while on their

trail trips, many respondents reported "nature watching" (35

percent), and "visiting" (13 percent). But the most often reported

other activity was "travelling to restaurants or bars," participated

in by 60 percent of respondents on all trails, and 66 percent of

respondents on GIA trails.

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In general, evaluations of trail conditions were very positive, with 99

percent of respondents having "thoroughly enjoyed the trip." Respondents

thought the trails were in good condition (83 percent agree), safe (93 percent

agree) and easy to locate and follow (90 percent agree).

Any complaints or trail problems reported by respondents were recorded and

submitted to the GIA coordinator for resolution.

Three-Wheeled All Terrain Vehicles

ATVs are presently unregistered in Minnesota and are not permitted on

state-administered trails. However, ATV use on snowmobile trails is increasing

and is seen as a problem by many managers and other trail users.

Snowmobilers were asked three ATV-related questions:

1. Whether they thought ATVs were hazardous on snowmobile trails;

percent of respondents used no maps on their is the

2. Whether ATVs pose any problems to snowmobilers; and,

3. Whether, if registered, ATVs should be allowed on snowmobile trails.

Responses to these questions depended on two factors: first, on whether the respondent had ever owned an ATV (23 percent of the respondents had); and second, on whether the respondent was a trail user (54 percent of respondents had used a DNR trail during the study period). Non-owners felt ATVs are hazardous on snowmobile trails (58 percent), and pose problems to snowmobilers (55 percent). Respondents who had owned ATVs viewed their use on snowmobile trails somewhat more favorably with 51 percent finding them hazardous and 44 percent believing ATVs pose problems to snowmobilers.

ATV owners and non-owners responded similarly when asked whether <u>registered</u> ATVs should be allowed on DNR snowmobile trails, answering "yes" in a majority of cases (58 percent and 51 percent, respectively). A frequent response to this question was, "Well, I guess if they are registered they have a right to use the trails."

Independent of previous ATV ownership, respondents' opinions on ATVs were correlated with past trail use. Trail users felt that ATVs <u>are</u> hazardous on snowmobile trails (61 percent) and that they <u>do</u> pose problems to snowmobilers (58 percent). A slight majority of non-trail users felt ATVs are hazardous on snowmobile trails (51 percent) and less than half (46 percent) felt they pose problems to snowmobilers.

Although a majority of both trail users and non-users felt that <u>registered</u> ATV use should be permitted on snowmobile trails (50 and 57 percent, respectively), the responses of these two groups were statistically different at the .05 significance level.

SUMMARY

Minnesota snowmobilers contribute enormously to the state's economy, through licensing fees, gas taxes and snowmobiling-related expenditures. Although they use the trails they help support more than half of all registered snowmobile use takes place off marked and groomed trails.

[7]

Despite predicted declines, it appears that registered snowmobile use levels were about the same this year as last.

Snowmobiling activity is distributed throughout the state, and although snowmobilers show a willingness to travel to snowmobile, most trail trips start ten miles or less from home. Snowmobilers choose trails primarily because they are are; first, close-to-home; second, familiar and well-liked; and third, because they go to a desired destination. It was also found that a primary attraction of the GIA system was the network provided between "desired destinations," specifically "restaurants and bars". In general, Minnesota snowmobilers are yery satisfied with the trails provided by the DNR.

Minnesota snowmobilers see three-wheeled ATVs as a potential problem but, in general, feel that registered ATVs should be allowed on DNR snowmobile trails.

Evaluation of Study Approach and most prof box (snaprog 13) alters aller

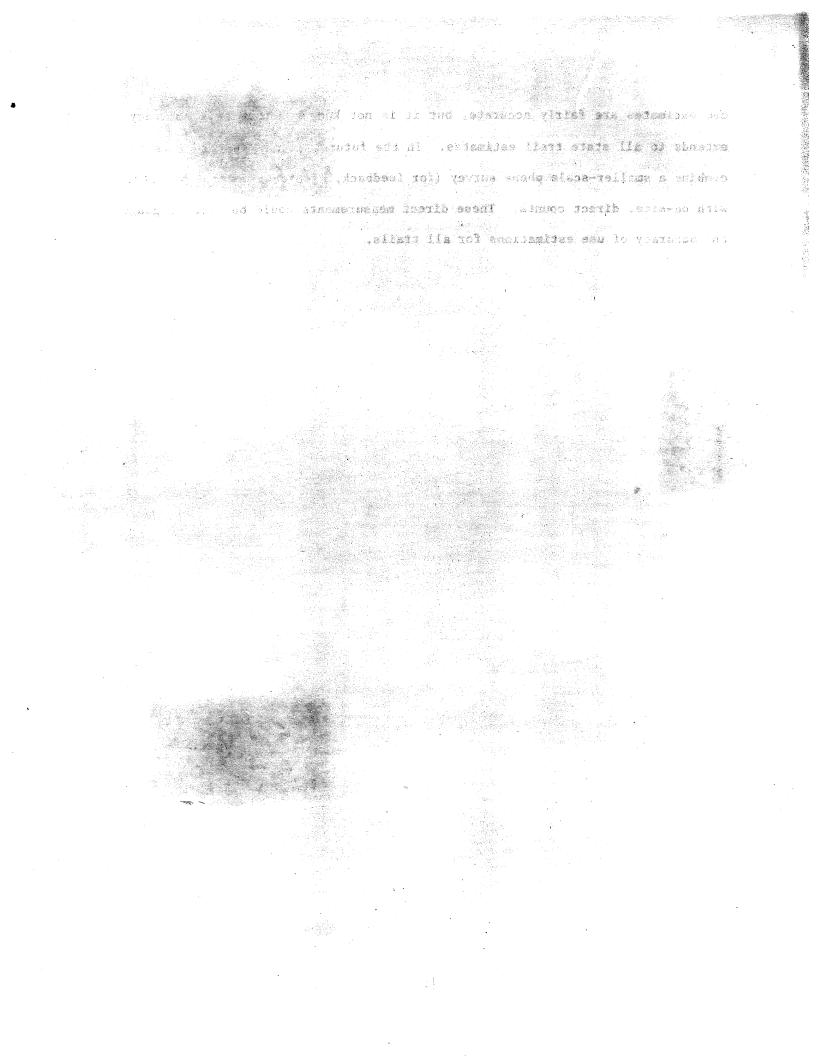
There was also minimal non-response with the telephone survey, and the computerized answer sheets used by the interviewers required little follow-up coding.

The most valuable aspect of the telephone survey was the direct, one-to-one contact with the trail-using public and the establishment of a communications-feedback loop.

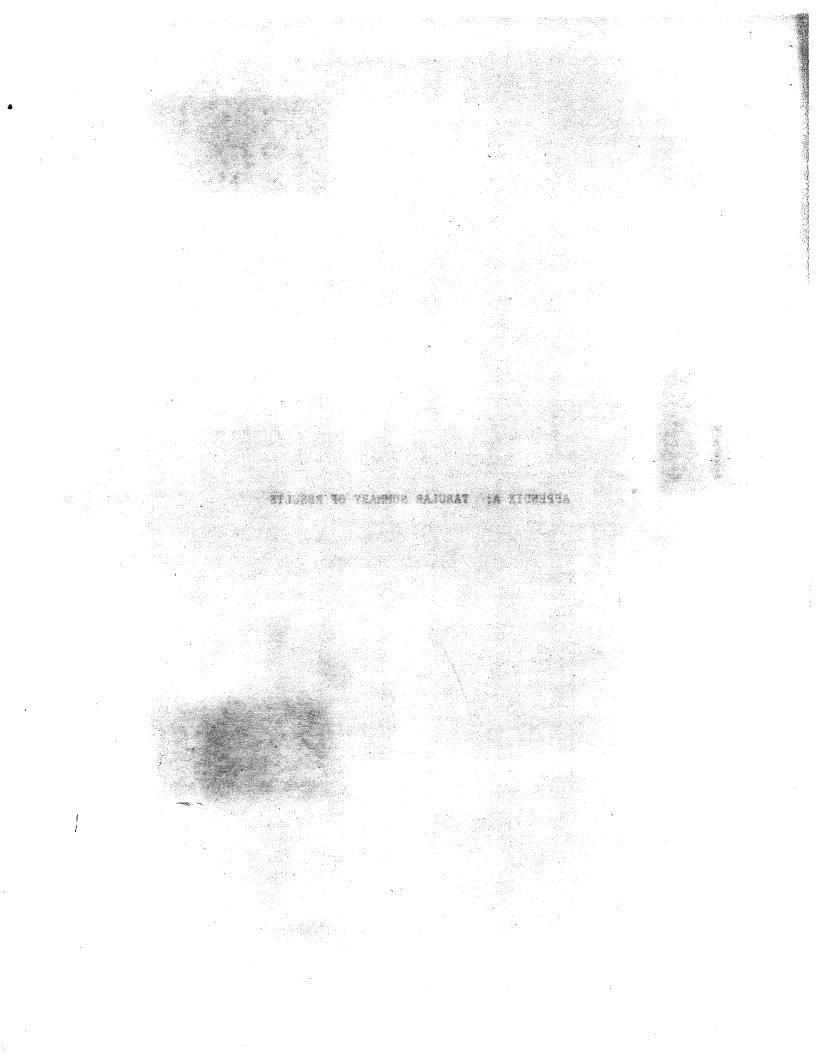
One limitation of the statewide survey was the sample size. A much larger sample would be necessary to accurately estimate use figures for all trails. Mechanical counters on the Heartland state trail indicate that the Heartland

[8]

use estimates are fairly accurate, but it is not known whether this accuracy extends to all state trail estimates. In the future, it may be effective to combine a smaller-scale phone survey (for feedback, use-level monitoring, etc.) with on-site, direct counts. These direct measurements could be used to gauge the accuracy of use estimations for all trails.



APPENDIX A: TABULAR SUMMARY OF RESULTS



	TABULAR SUMMARY OF RESULTS	
I. Summ	ary Statistics for Survey	
1	Registered snowmobiles in Minnesota: Households contacted by phone: Refusals: Households with 0 snowmobiles: Total completed interviews:	208,648 1,260 27 106 1,127
	Average number snowmobiles/household: Standard error: Range: Estimated number of households owning registered snowmobiles: Patterns for Respondents Who Snowmobiled for Recret	1.885 .03 1-9 111,000 ation During Winter
	-84 (N = 803)	
1.	Average number registered anowmobiles/outing: Standard error:	1.6 .027
2.	Average gas use/snowmobile: Standard error:	5.6 gallons .226
3.	Estimated gas use by registered snowmobiles (December 19, 1984-March 25, 1984): Error of estimation:	l7 million gallons ± 2 million
4.	Use 83-84 vs. Use 82-83	

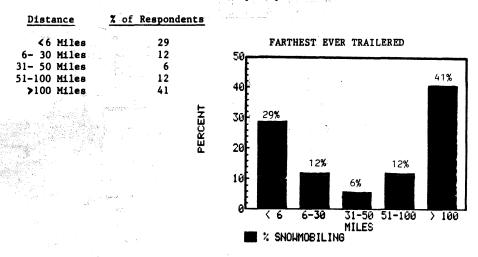
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Use 83-84 Number of Use 82-83 Trips Taken (% of Respondents) (% of Respondents) VS. 0 Trips 20 24 1- 7 Trips 37 22 19 8-20 Trips 25 4.2%

5. Greatest Distance Ever Trailered by Respondent

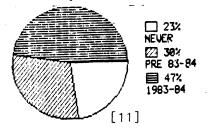
>20 Trips

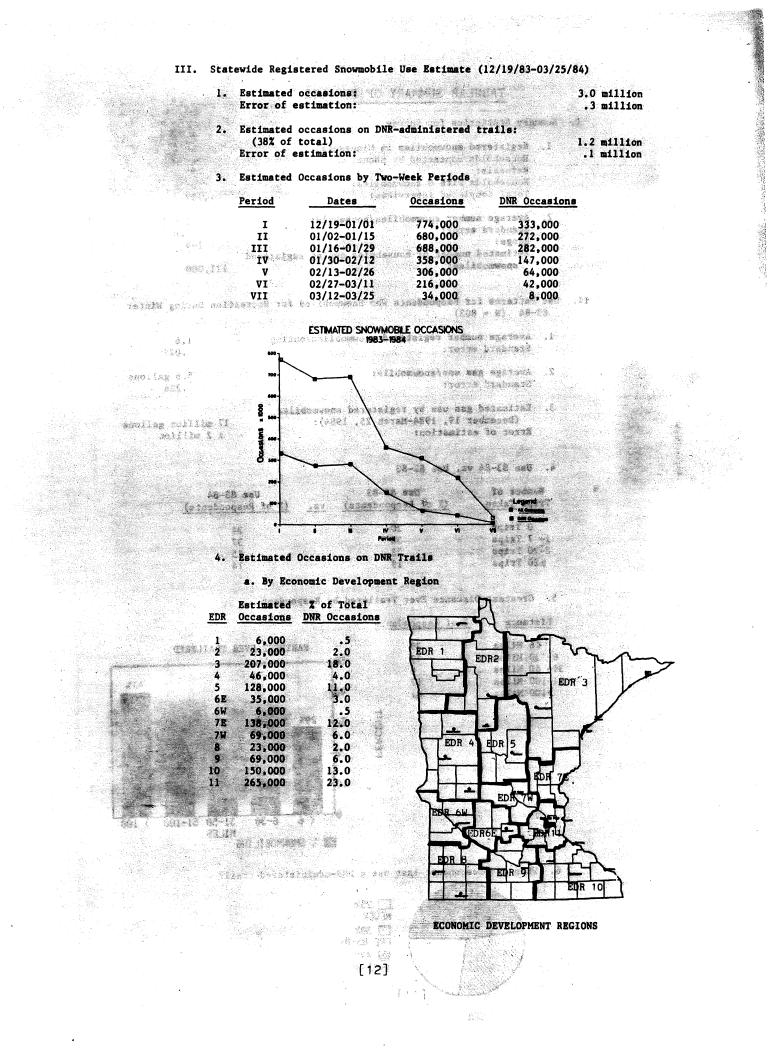
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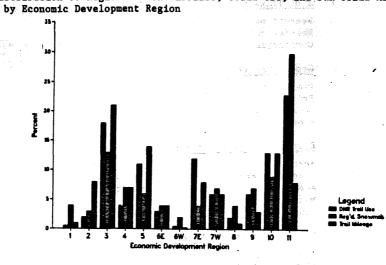
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6. When did Respondent last use a DNR-administered trail?

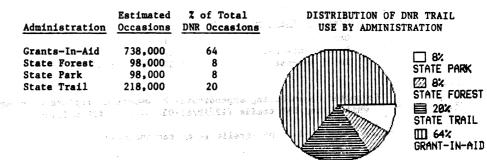




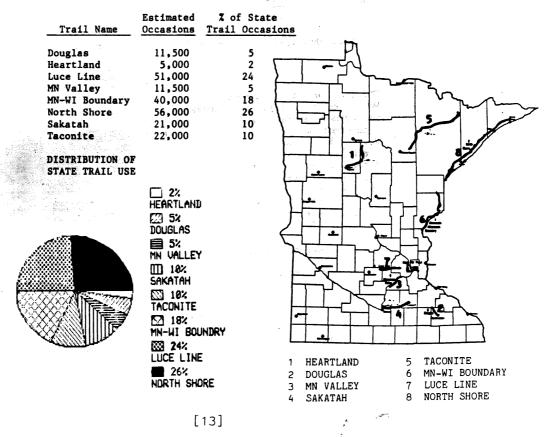
Distribution of Registered Snowmobiles, Trail Use, and DNR Trail Mileage



b. By trail administration:



c. By specific state trails:



Week Week Comb 2. <u>Grou</u> Fami Frie	Trips on end only day only ination o Type (%)		<u>Trails</u> 79 17 3	<u>Treils</u> 77 15	<u>Trails</u> 79 18	Trails 82
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Comb 2. <u>Grou</u> Fami Frie	Ination			· · · · · · · · · · · · · · · · · · ·	All (March 1997) and a state of the state of the	
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	nds only	· ·	44	46	45	38
Comb	Ination	A State	23	20	20	33
Alon	38-	1.	.6	0	9	2
3. <u>Dist</u>	nce to Trail	ls (Miles)		÷.,		
Mean		and the second s	33	44***	23*	55
Stand	lard Error		2.8	7.6	3.1	7.0
Medi	in j		4.7	6.9	2.4	30
Mode			1	3.1 ¹	1	3
Range			300	300	250	200
4. <u>Dista</u> Mean	nce on Trail	(M1168)	-canoaă 53	78*	44*	55
	lard Error		3.1	7.6	2.6	7.1
Range		構造する	550	550**	250	200
Total	urants/bars Expenses snowmobiling	expenditur	\$ 6.25 \$ 12.85 \$ 27.48 \$ 27.48 \$ 000.84 \$ 000.84 \$ 000.84	Lint	\$ 11.31 \$ 21.11*	\$ 6.17 \$ 13.38 \$ 28.85
and the second	ing DNR trai			-		
6. Maps	used on DNR	trails (% o	f responden	ts)	a ngalan ngalar. Ngalar ngalar	
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記録の問題にある

[14]

"*" indicates responses are different at the .05 significance level:

(*) GIA and State Trail trips were compared using Chi-square test.

(**) This trip actually used a combination of all three trail types.

The trail needed grooming

The toilet facilities were

The trail was easy to find

Thoroughly enjoyed trail trip

Difficulty in finding

support services

The trail was dangerous

adequate

and follow

There was not enough parking

12/41

34/63

7/94

74/13*

94/ 4

2/88

99/ 1 98/ 1

8/44

5/93

63/20

90/6

3/87

99/ 1

25/71

6/41

25/72

59/22*

88/8

3/87

4/94

11/59

16/84

60/27

92/ 5

2/89

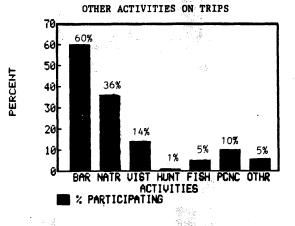
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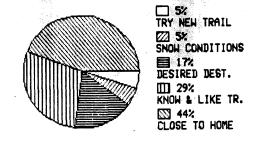
and the second second

Other activities participated in while on DNR trail trip (% of cases): (multiple responses allowed)

	All Trails	State Trails	GIA Trails	Unit Trails
Nature watching	36	44	35	28
Hunting	1	2	1	0 ⁱ
Visiting	14	12	15	10
Fishing	5	4	4	10
Travelling to eating/drinking	a de la companya de l La companya de la comp			
establishments	60	56	66	38
Picnicking	10	14	4	31
Other	5	4	5	10



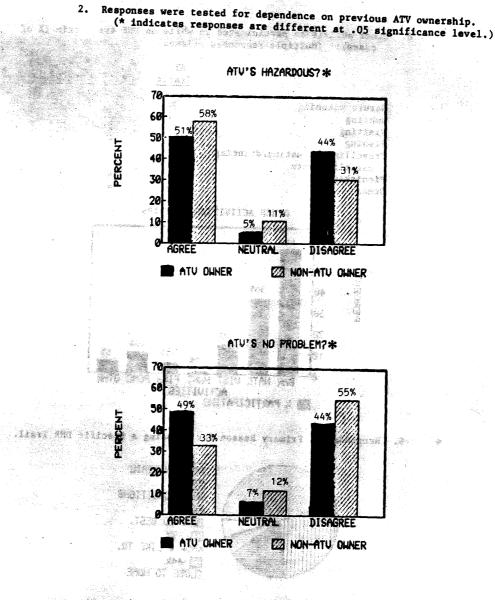
9. Respondent's Primary Reason for Choosing a Specific DNR Trail.



V. Analysis of Responses to Three-Wheel ATV Questions (N = 740)

1. Responses for all users:

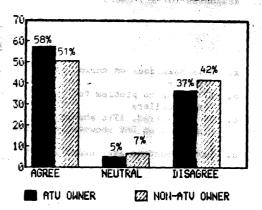
	en e	% of Respondents				
	and a second	Agree	<u>Neutral</u>	Disagree		
8.	ATVs hazardous on snowmobile trails	56	10	34		
ь.	ATVs pose no problem to snowmobilers	37	11	52		
с.	If registered, ATVs should be allowed on DNR snowmobile trails	53	7	40		
d.	Has respondent ever owned an ATV	YES 2	3 % NO	77%		

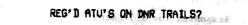




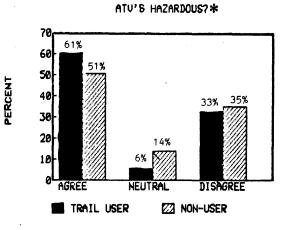
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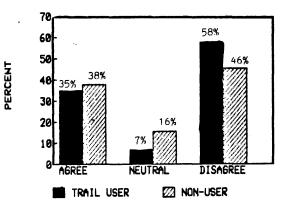


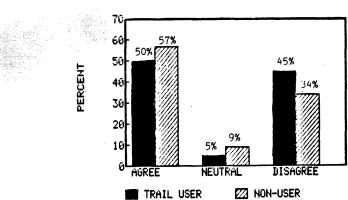


3. Responses were tested for dependence on previous DNR trail use. (* indicates responses are different at .05 significance level.)



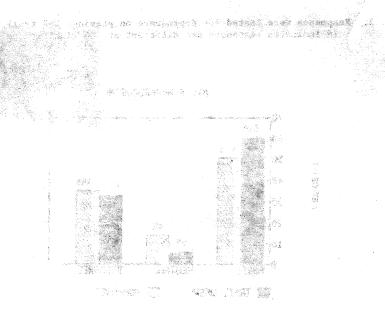
ATU'S NO PROBLEM? *



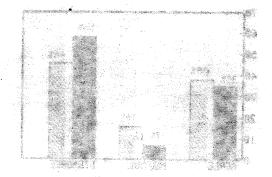


REG'D ATU'S ON DNR TRAILS?*

[17]



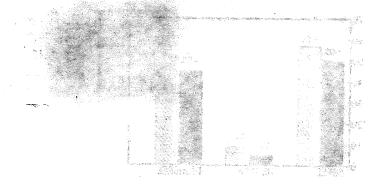
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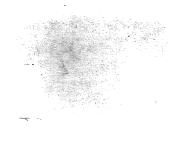
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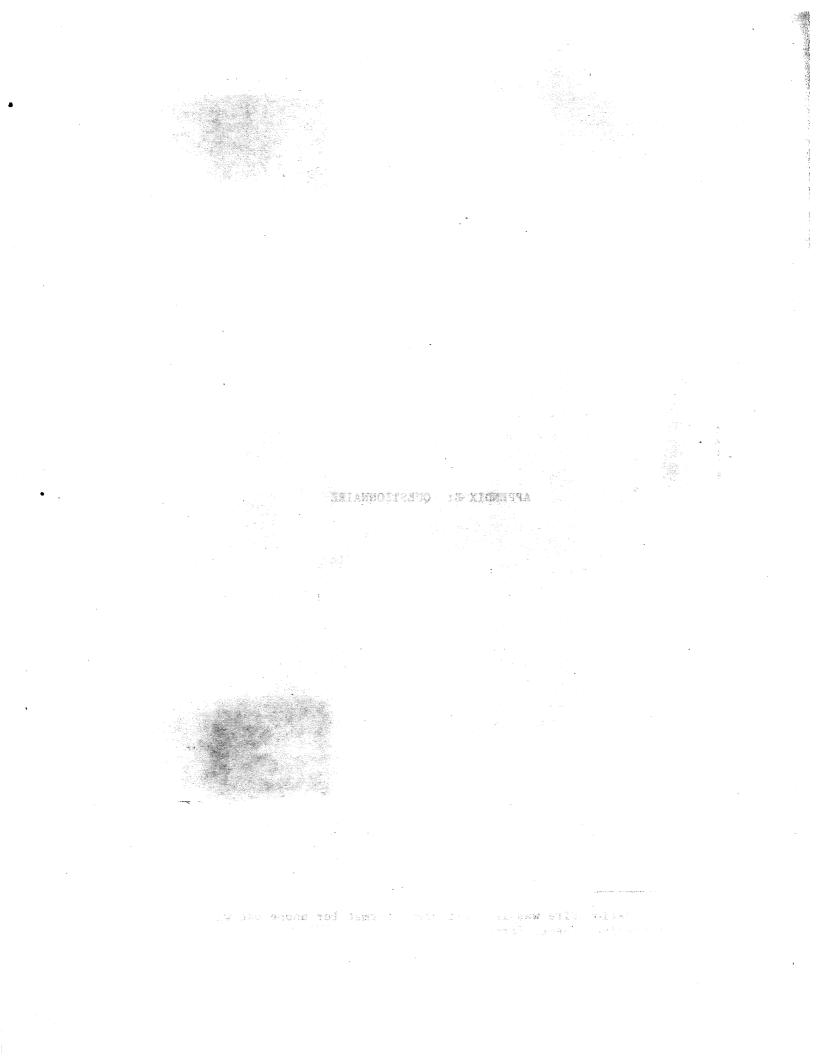




APPENDIX B: QUESTIONNAIRE



NOTE: The questionnaire was in a different format for phone use with computerized answer forms.



IN LAST CONDER ANTA AT 25 MIL	MINNESOTA SNOWMOBILE SURVEY	
An On-Going Tele	phone Survey of Registered Snowmobile Owners	
	Winter 1983-84	are Note de
	15. Burting the two-week partod from	
a fod	1. Interviewer:	
2. Respondent number:		
3. Date:		
4. County:	BR: TEARL INACTION	
5. Economic Development Rep	gion:	
6. ZIP CODE:	er nier stand and states allong allong allong	
7. SEX OF RESPONDENT:	MALE STATE STATE STATE	
	an and the subject addition when the first states and the	
Hello, Mr/s	. I wo	ork
snowmobilers throughout the a	Natural Resources, and we're conducting a survey of state. We obtained your name from the DNR License a million dollars a year to develop and maintain	
	ike to find out if the money has been well spent so) £i
and whether it could be bette	er spent in the future.	
		i taka
Do you have about ten minutes	s now to answer some questions about your snowmobil	ing
Do you have about ten minutes activities? Your answers wil	s now to answer some questions about your snowmobil	ing
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- _____ 8-20 TIMES _____ 20+ TIMES
- _____ 20+ TIMES ______ REALING ON ADDRESS OF AND THE CONTRACT OF A CONTR
- 12. What is the farthest you have ever trailered your snowmobile to go snowmobiling?

的过去式和过去分词 计算法

- _____ **≤**5 MILES
- _____ ≤30 MILES
- _____ ≤50 MILES
- ≤100 MILES
- ____ ≻100 MILES

•	13. On your last snowmobile trip, how many of the registered snowmobiles owned by
	your household were used?
	14. About how many gallons of gas did your snowmobile use on this trip?
	GALLONS
	15. During the two-week period from to
	how many times did someone from your household go snowmobiling? (IF ZERO, READ
	DNR INTRODUCTION THEN SKIP TO #18.)
	rithmatelyses into a first with the first metalessistic descent and the first increase and the second s
	DNR TRAIL INTRODUCTION
	The DNR administers several types of snowmobile trails. These include County
	Grants-In-Aid trails which may be run by your county or local club, trails in State
	Parks and State Forests and State trails.
	16. Were any of the snowmobile trips during those two weeks on DNR Trails?
· 小花的 ·	YES NO (IF NO, ask respondent to describe trails used to be sure
×1	they were not DNR, then SKIP TO #18.)
- 7	17. Do you know the names of the DNR trails you used?
	LIJAT WANTE SETTING OF THE STREET WAS AND THAT ALL AND THE STREET STREET AND THE STREET STREET
90. Sat.	Trade COUNTY/TOWN ad the dat is the call and allost effected
	TIMES USED
	DURING PERIOD
- 爱国之主之:	18. When was the last time you snowmobiled on a DNR trail?
	I'm now going to ask you a series of questions about this last trip on a DNR trail.
	19. Do you know the name(s) of the trail(s)? NAME
	IF NAME UNKNOWN -
	TOWN (BETWEEN)
	CLUB AFFILIATION
	OWNERSHIP
	20. About how far from your home was the start of the trail? MILES
*	21. Did you go during the week or on a weekend? MIDWEEK WEEKEND COMBINATION
	22. Who did you go with?
	FAMILY FAMILY & FRIENDS FRIENDS ALONE OTHER
	23. How far did you ride your snowmobile on this trip? MILES
	24. Why did you pick this particular trail for your trip? (DO NOT READ THESE CHOICES
1. 1. a 0.	1 IT WAS CLOSE TO HOME
	2 I'VE ALREADY BEEN ON OTHER TRAILS
- and the	3 IT GOES SOMEWHERE I WANT TO GO
	4 I'VE BEEN ON IT BEFORE AND LIKED IT
	5 SNOU CONDITIONS
vali i k	second a COTHER one last last town and the Andreas at 1864
	第5日,近日 月

2 No. 4 South States and States

[20]

25. Dia	you	do anything else, such a	s camp, race, fish, stop to eat or drink, etc?
(REC	ORD	MULTIPLE RESPONSES)	
	1	CAMPING	5 FISHING
	2	NATURE OBSERVATION	6 RACING
	3	HUNTING	7 TRAVELING TO RESTAURANTS OR BARS
	4	VISITING PEOPLE	8. PICNICKING
			9 OTHER
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26. I'm	eoi		ements relating to your last trip on a DNR
	-		you agree or disagree with each statement.
			her disagree nor agree, and disagree.
			AGREE NEUTRAL DISAGRE
< particle interview	()	a ta anta da manana ana ana ana ana ana ana ana ana	
	a.	I thought the trail was	in good condition
	b.	-	
	с.		
	•••	the natural surroundin	
		the area	
TER	d.	I would like to use more	a traile like this
MPLETING	ч.	one	c claild like cuid
	_		
26 IF A	e.	I think the scenery adde	EC & TOE CO MY
RIOUS	~	experience	
OBLEM	f.	I thought there was a lo	ot of litter on and
ISTS,		around the trail	
T	8+	I didn't think there was	s enough parking at
IRTHER		the trailhead	
PLANATION	5	I thought the trail need	
ID	1.	I felt the trail was dan	
CORD ON	j .	I think the toilet facil	lities along the
OBLEM		trail were adequate	
PORT FORM	k.	I thought the trail was	easy to find and
		follow	
	1.	I had trouble finding ou	ut where gas, food
		and lodging facilities	B WERE
	m.	I thoroughly enjoyed the	e trip
	n.		with the trail you'd like to mention?

\$	new equipment	(559)
	repairs	(559)
	gas and oil	(554)
	lodging	(701)
	food stores	(541)
	restaurants and bars	(581)
	clothing	(569)
	sporting goods store	(594)
· · · · · · · · · · · · · · · · · · ·	other	
→ \$	TOTAL	

28. What trail maps, if any, did you use on this DNR trail?

29. Waa

Was the map adequate for your trip?

YES NO

I would like to get your opinions now on an issue the DNR is presently looking at:

	1		r you agree with, disagree with or a	UNITED.	and in the second	
foll	owing sta	atements:		04(0945)		
i F			iev The second s	AGREE	NEUTRAL	DISAGRI
	vehicl	les on th	rdous to allow three-wheel drive e same trails as snowmobiles			
31.		neel driv obilers	e vehicles pose no problems to	10 10 A 4 1 A 12		
32.	they a	should be	rive vehicles were registered, allowed on state administered	<u></u>		
1.1.	snowno	bile tra	118 C. Substanting and the set of the state of the state of the set of the se	he standard and a second s		4
33.	Have you	I ever ow	ned a three-wheel drive vehicle?	YES	NO	
		the force of	· · · · · · · · · · · · · · · · · · ·	Albar weaks		
1 ha	ve no mor	e questi	ons Mr/s.		, thank yo	u very
much	for your	: time and	d cooperation.	•		
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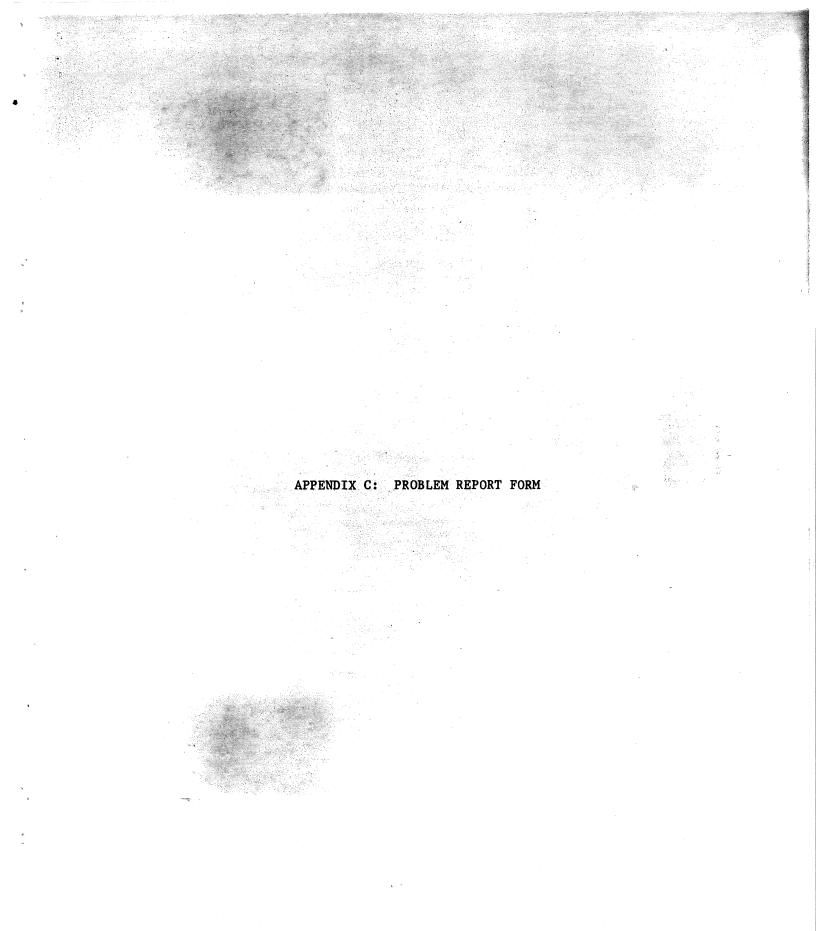
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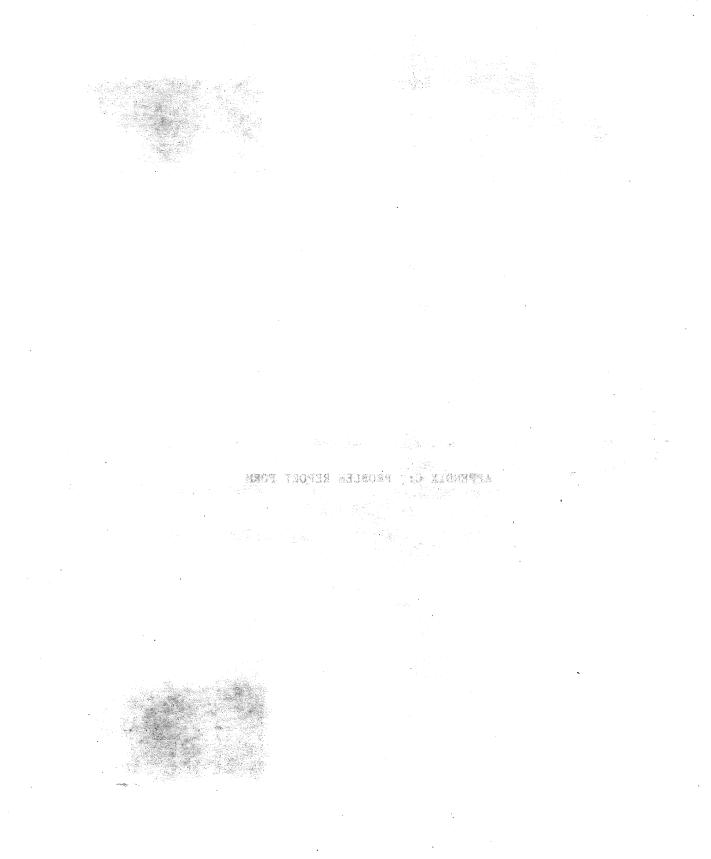
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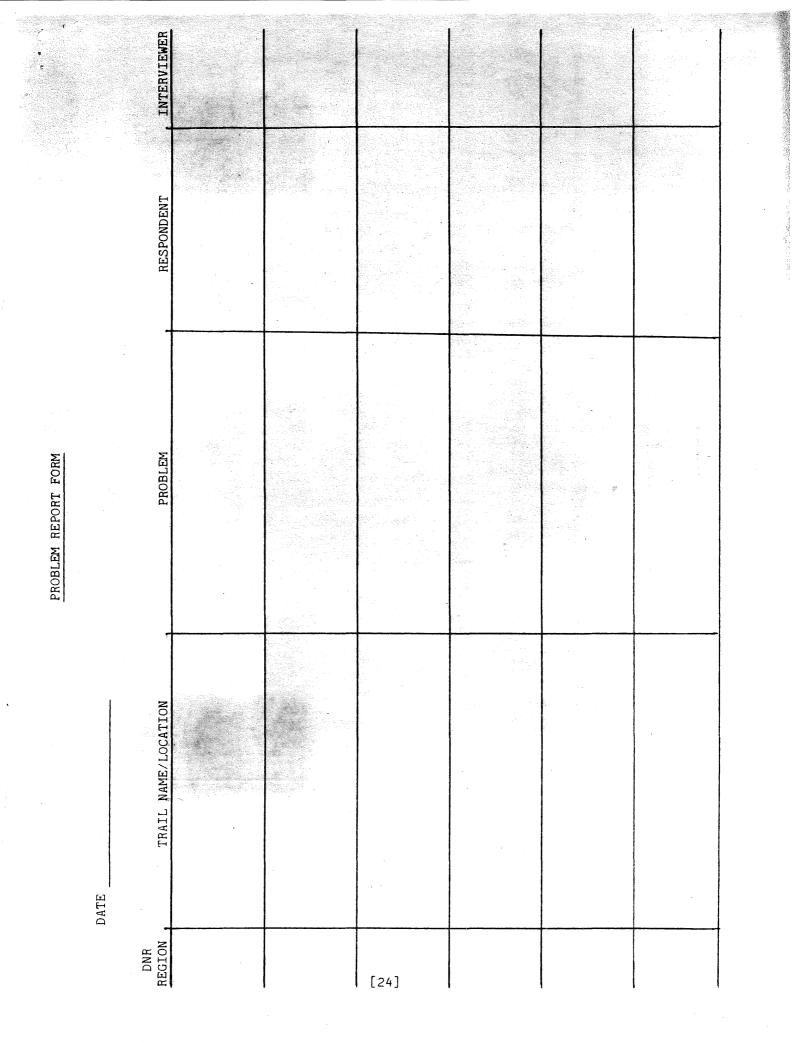
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INVESTIGATIONS INTO REARING AND RESTORATION OF BREEDING CANADA GEESE (Branta canadensis) IN SOUTH DAKOTA, 1975

by Thomas L. Kuck

Pittman-Robertson ProjectW-	75-R-18
Study No. W-12.3-18Job NoI-II-I	II-IV-V
DateMa	y, 1976

John Popowski, Secretary Department of Game, Fish and Parks

Jerry Lounsberry Grants Coordinator

Carl Trautman Research Supervisor Warren Jackson, Director Division of Game and Fish