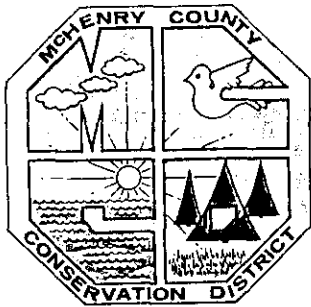
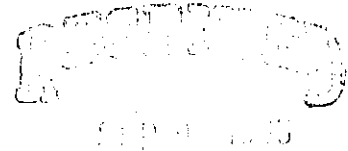


86-5



MCHENRY COUNTY CONSERVATION DISTRICT

6512 Harts Road
Ringwood, Illinois 60072
Telephone 815-338-1405
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September 5, 1986

Mr. James D. Garner, Mammal Ecologist
Division of Natural Heritage
ILLINOIS DEPARTMENT OF CONSERVATION
Lincoln Tower Plaza
524 S. Second Street
Springfield, IL 62701-1787

DIV. OF FOREST RESOURCES

Dear Jim,

Enclosed is the progress report on the Nongame Wildlife Conservation fund Franklin's ground squirrel survey in McHenry County. This should enable you to process our contract.

We intend to continue and expand the project geographically, since our results were completely negative in the first year. Therefore, we would like to keep the traps purchased via the contract. Please contact me if you have any questions on the project.

Thank you again for your assistance.

Sincerely,

MCHENRY COUNTY CONSERVATION DISTRICT

Wayne E. Schennum
Wayne E. Schennum
Natural Resource Manager

WES/jb

Enclosures

MCHEMRY COUNTY FRANKLIN'S GROUND SQUIRREL SURVEY

PROGRESS REPORT 1986

Introduction

McHenry County Conservation District undertook a survey for remnant population of Franklin's ground squirrel (Spermophilus franklinii) under a 1986 Nongame Wildlife Conservation Fund contract with the Illinois Department of Conservation. The purposes of the project were to obtain baseline information on the distribution of this uncommon prairie mammal in McHenry County and to discover local populations which could be used as sources of reintroduction into future District prairie restorations.

Current comprehensive information on the distribution of Franklin's ground squirrel in northeast Illinois is lacking. The most recent documented sitings in McHenry County, one each for the northeast corner and extreme south central regions, were made in the period from 1931 to 1942. Available literature on the animal's biology indicate that, at least in this part of the Midwest, it is colonial, mobile and generally restricted to native tallgrass prairie remnants or man-made grasslands of similar structure. In the long-term, MCCD's study should add much-needed updated information on this subject.

Methods

Field work was intitiated on April 2, 1986, and completed on July 4, 1985. Seven areas throughout the county were surveyed during the first phase of this project. Areas trapped included six prairie remnants occurring along railroad right-of-ways and one private prairie restoration.

After three areas were examined to determine locations of suitable habitat, Tomahawk live traps (7.5 x 2.4 x 2.4 cm) were placed along transects of varying length, every 15 meters. Traps were prebaited with sunflower seeds for one day before trapping began. At location 7, the bait was changed to peanut butter and oats to determine the effectiveness of bait. Traps were set by 7:30 a.m. and checked by 3:00 p.m. When checked in the afternoon, all species caught were recorded and traps were closed until the next trap date.

A vegetation profile board was used to measure percent of horizontal density at each trap site. At 0.5-m intervals on the board, the percent of board covered by vegetation was assigned a value from 1 to 5 (e.g. 1 corresponds to a range of 0 to 20%, 2 to a range of 21 to 40%, etc.)

Results

Results of the trapping and vegetation structure measurements are given in Tables 1 and 2, respectively. No Franklin's ground squirrels were trapped in the entire study. Despite pre-selection of sites with relativeley tall vegetation with a high density at the .5 m level, only the congeneric 13-lined ground squirrel was trapped, and then only sporadically.

TABLE 1

DATES AND SPECIES CAUGHT IN AREAS SURVEYED

<u>AREAS</u>	<u>DATES TRAPPED</u>	<u>SPECIES TRAPPED</u>
HEMMINGSON ROAD	April 2-4	0
THORN ROAD	April 2-4 April 23-26	0 8--13 Lined Ground Squirrel
SEEMAN ROAD	April 23-25 May 5-7	0 6--13 Lined Ground Squirrel
IRISH ROAD	May 14-16 May 20-27 June 2-4	1--13 Lined Ground Squirrel 1--Woodchuck 0
N. NIPPERSINK	June 9-17	1--13 Lined Ground Squirrel
S. NIPPERSINK	June 18-25	1--13 Lined Ground Squirrel
PRAIRIE RECREATION	July 2-4	3--striped skunks

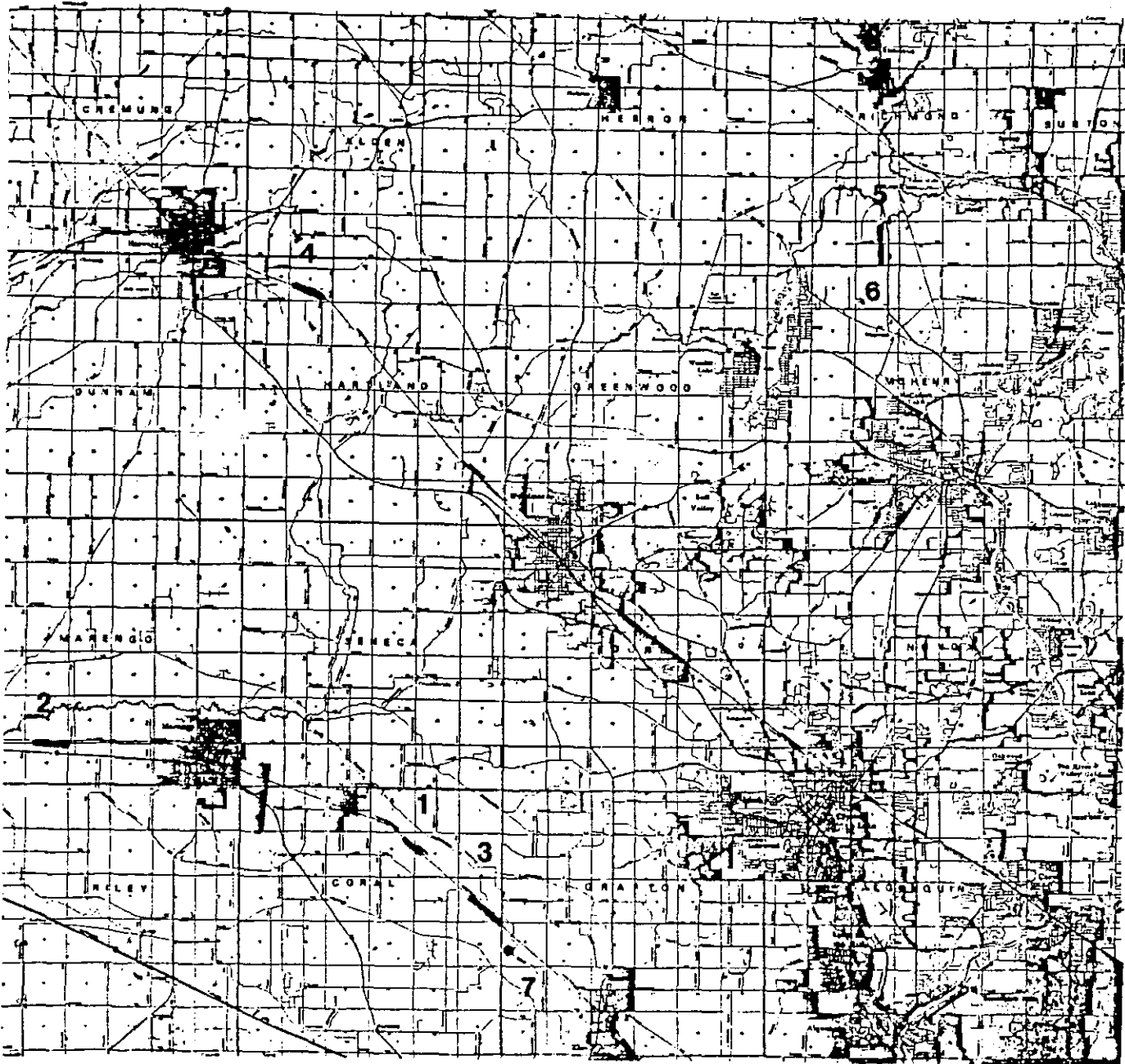
TABLE 2

MEAN DENSITY OF VEGETATION IN AREAS SURVEYED

	0.5m	1.0m	1.5m	2.0m	2.5m
1. HEMMINGSON ROAD	4.1	1.0	0.5	0.0	0.0
2. THORN ROAD	3.5	1.1	0.3	0.0	0.0
3. SEEMAN ROAD	3.8	1.3	0.4	0.0	0.0
4. IRISH ROAD	4.7	2.6	0.9	0.2	0.0
5. N. NIPPERSINK	4.3	1.1	0.6	0.2	0.0
6. S. NIPPERSINK	3.5	0.7	0.1	0.6	0.0
7. PRAIRIE RECREATION	5.0	3.0	1.1	0.6	0.3

VEGETATION DESCRIPTION

1. HEMMINGSON ROAD - MESIC BLACKSOIL TALL GRASS PRAIRIE
2. THORN ROAD - DRY MESIC SANDY LOAM PRAIRIE
3. SEEMAN ROAD - MESIC BLACKSOIL TALLGRASS PRAIRIE
4. IRISH ROAD - MESIC TALLGRASS SAVANNA AND WET PRAIRIE
5. N. NIPPERSINK - MESIC TO WET TALLGRASS PRAIRIE
6. S. NIPPERSINK - BROME FIELD
7. PRAIRIE RECREATION - RESTORED MESIC TALLGRASS PRAIRIE



McHENRY COUNTY ILLINOIS

BASE MAP

Fig. 1



APPROXIMATE SCALE: 1" = 12,700'
McHENRY COUNTY DEPT. OF PLANNING

Discussion

The failure to trap Franklin's ground squirrels at any of the 7 test sites would indicate that this rare mammal may have been extirpated from McHenry County. Railroad right-of-ways, some of the best potential sites for this animal in agricultural areas based on recent research, were emphasized in the MCCD study. Two of these are in or near historically documented colonies. Because the most recent, and as yet unpublished, information indicated that this mammal does not break hibernation until May, it is possible that the surveys near one of the historical colonies, sites 1-3, were too early.

The Conservation District intends to continue the study over the next 3 to 4 years, with some modifications to increase the probability of locating ground squirrel colonies. Sites 1-3 will be resurveyed, with trapping delayed until after May 1. Additional tracts of prairie along the same railroad right-of-way between Huntley and the Boone County line will be surveyed. Where possible, trap lines will be set in areas where burrow entrances are revealed by controlled burning. The project also will be expanded to include both other prairie remnants and non-native grasslands with similar habitat structure in McHenry County.

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