

THE RESULTS OF THE

1984-85

WINTER RAPTOR

SURVEY

OF

WESTFIELD TOWNSHIP

FAYETTE COUNTY

IOWA

DAVE WEHDE
404 1/2 South Main St.
P.O. 51
Fayette IA.
52142
(319-425-4125)

Participants

Page A.

David D. Wehde

Conservation, Recreation and Management

Biology Department

Upper Iowa University

404 $\frac{1}{2}$ South Main St.

Fayette, Iowa 52142

Mike J. Wehde

Parks and Natural Resources

A.A.S.

Kirkwood Community College

311 East St.

Decorah, Iowa 52101

Cynthia A. Andera

Parks and Natural Resources

A.A.S.

Kirkwood Community College

RT. 2, Lawler, Iowa

52154

Willie Cashin

U.N.I.

Recreation Therapist, Naturalist

1137 Ravenwood

Waterloo, Iowa 50702

Summary of the 1984-85 Winter Raptor Survey
of Westfield Township, Fayette County, Iowa

A road survey of wintering raptors was conducted in Westfield Township, Fayette County, Iowa, from December 27, 1984 to February 23, 1985. There were eight total survey days out of a nine week period. The survey that would have taken place on January 19, 1985 was cancelled due to poor weather conditions, these conditions cause raptorial birds to sit tight in protected places.

A total of 148 raptors, representing 7 species, were observed. Red-tailed Hawks made up 81.75 percent of the total count, followed by Rough-legged Hawks at 8.78 percent of the total count and Sharp-shinned Hawks, Loggerhead Shrikes at 2.03 percent of the winter raptor count.

A wide variety of weather conditions were experienced on the 1984-85 Winter Raptor Survey of Westfield Township, with this mixed variety of conditions came some interesting effects.

Most sections were covered from the road, but some areas were walked to ensure an adequate survey of wintering raptors in this township.

Since the counts were conducted during the daytime, the nocturnal owls were largely under-represented, with the common Great Horned Owl and the Eastern Screech Owl absent from this survey.

Documentation forms were completed for all rare sighting, which made up a substantial number of species in this study period. The Loggerhead Shrike has been classified as a raptor in this study, as shrikes function ecologically as raptorial birds.

The fact that Westfield township, Fayette County, Iowa, has a high percentage of State controlled land, which would support wintering Red-tailed Hawks, may be the reason for there high numbers during this survey.

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Table 1

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Miles Driven

<u>Date</u>	<u>Miles</u>
Dec. 27.84	93
Jan. 4.85	83
Jan. 11.85	95
Jan. 26.85	86
Feb. 2.85	80
Feb. 9.85	86
Feb. 16.85	83
Feb. 23.85	90
<u>Total</u>	<u>696</u>

Table 2

Time Begin and Time End

<u>Date</u>	<u>Begin</u>	<u>End</u>
Dec. 27.84	8:00 A.M.	3:34 P.M.
Jan. 4.85	8:00 A.M.	2:30 P.M.
Jan. 11.85	8:00 A.M.	2:30 P.M.
Jan. 26.85	9:00 A.M.	3:30 P.M.
Feb. 2.85	8:30 A.M.	2:00 P.M.
Feb. 9.85	8:25 A.M.	2:30 P.M.
Feb. 16.85	8:30 A.M.	2:30 P.M.
Feb. 23.85	8:30 A.M.	2:30 P.M.

Temp. (Begin) and Temp. (End)

<u>Date</u>	<u>Temp. (Begin)</u>	<u>Temp. (End)</u>
Dec. 27.84	31+	37+
Jan. 4.85	8+	34+
Jan. 11.85	13+	10+
Jan. 26.85	2+	18+
Feb. 2.85	-15	8+
Feb. 9.85	14+	19+
Feb. 16.85	22+	27+
Feb. 23.85	33+	34+

Cloud Cover, Snow Cover, Precip.

<u>Date</u>	<u>Cloud Cover</u>	<u>Snow Cover</u>	<u>Precip.</u>
Dec. 27.84	Over 3/4 overcast	4 inches	Trace (rain)
Jan. 4.85	Clear	2 inches	None
Jan. 11.85	$\frac{1}{2}$ - $\frac{1}{2}$ overcast	4 inches	Trace (snow)
Jan. 26.85	Over 3/4 overcast	5 inches	None
Feb. 2.85	Clear	7 inches	None
Feb. 9.85	Over 3/4 overcast	7 inches	Trace (snow)
Feb. 16.85	$\frac{1}{2}$ - 3/4 overcast	7 inches	None
Feb. 23.85	Over 3/4 overcast	Trace	1/3 inch rain

Wind Dir. and Vel.

<u>Date</u>	<u>Wind Dir.</u>	<u>Vel.</u>
Dec. 27.84	S.W.	5 mph.
Jan. 4.85	N.W.	10-15 mph.
Jan. 11.85	N.W.	10-15 mph.
Jan. 26.85	S.W.	5-10 mph.
Feb. 2.85	N.W.	10-15 mph.
Feb. 9.85	S.E.	17 mph.
Feb. 16.85	N.W.	15-30 mph.
Feb. 23.85	N.	13-21 mph.

Species, Number, and Percent of Composition

<u>Species</u>	<u>Number</u>	<u>Percent of Total</u>
Northern Goshawk	2	1.35%
Cooper's Hawk	1	.68%
Sharp-shinned Hawk	3	2.03%
Red-tailed Hawk	121	81.75%
Rough-legged Hawk	13	8.78%
Hawk, sp.	2	1.35%
Barred Owl	2	1.35%
Loggerhead Shrike	3	2.03%
Shrike, sp.	1	.68%
Total	148	100.00%
Total number of species 7		

Table 5

Sex and Age of Selected Species

<u>Species</u>	<u>Age</u>		<u>Sex</u>	
	<u>Ad</u>	<u>Imm</u>	<u>M</u>	<u>F</u>
Northern Goshawk		2		2
Cooper's Hawk	1			1
Sharp-shinned Hawk	2	1	1	2
Red-tailed Hawk	116	5	66	55
Rough-legged Hawk	13		6	7
Barred Owl	2		2	

Table 6

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 Dark and Light Phase Hawks

<u>Species</u>	<u>Dark Phase</u>	<u>Light Phase</u>
Rough-legged Hawk	4	9

Table 7

 Activity of Species

<u>Species</u>	<u>Perched</u>	<u>Flying/Soaring</u>	<u>Hunting</u>
Northern Goshawk	1	1	
Cooper's Hawk		1	
Sharp-shinned Hawk	1	1	1
Red-tailed Hawk	90	30	1
Rough-legged Hawk	9	4	
Hawk, sp.		2	
Barred Owl	1	1	
Loggerhead Shrike	3		
Shrike, sp.		1	
Totals	105	41	2

Table 8
Results of Species by Section.

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Sec.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
<u>Species</u>																					
Northern Goshawk																					1
Cooper's Hawk																1					
Sharp-shinned Hawk												2									
Red-tailed Hawk	9				2				2	3		10	16	2	6	1	2	1	3		8
Rough-legged Hawk	4							1							1		1				
Hawk, sp.																	1	1			
Barred Owl									1												
Loggerhead Shrike									1									1			
Shrike, sp.															1						
<u>Total for Sec.</u>	<u>13</u>				<u>2</u>			<u>1</u>	<u>4</u>	<u>3</u>		<u>10</u>	<u>18</u>	<u>2</u>	<u>8</u>	<u>2</u>	<u>4</u>	<u>3</u>	<u>3</u>		<u>9</u>

Sec.	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
<u>Species</u>															
Northern Goshawk							1								
Cooper's Hawk															
Sharp-shinned Hawk						1									
Red-tailed Hawk	6	5	5	9		9	1		1	4	4	1	2	2	7
Rough-legged Hawk		2	1	1	1	1									
Hawk, sp.															
Barred Owl			1												
Loggerhead Shrike										1					
Shrike, sp.															
<u>Total for Sec.</u>	<u>6</u>	<u>7</u>	<u>7</u>	<u>10</u>	<u>1</u>	<u>12</u>	<u>1</u>		<u>1</u>	<u>4</u>	<u>5</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>7</u>

Table 9

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Number of Raptors occurring in each Habitat Type

Habitat-type*	1	2	3	4	5	6	7	8	
<u>Species</u>									
Northern Goshawk							2		
Cooper's Hawk							1		
Sharp-shinned Hawk						1	2		
Red-tailed Hawk	4	22	8		13	14	58	2	
Rough-legged Hawk		8	1			1	3		
Hawk, sp.			1				1		
Barred Owl						1	1		
Loggerhead Shrike			2		1				
Shrike, sp.			1						
<u>Totals</u>	4	30	13		14	17	68	2	148

Habitat-Type Key*

- 1 Plowed crop ground.
- 2 Unplowed crop ground.
- 3 Grassy meadow (pasture).
- 4 Marsh or wetland.
- 5 Windbreak or farmstead (less than 20 acres).
- 6 Riverbottom woods.
- 7 Upland woods.
- 8 Miscellaneous (e.g. urban).

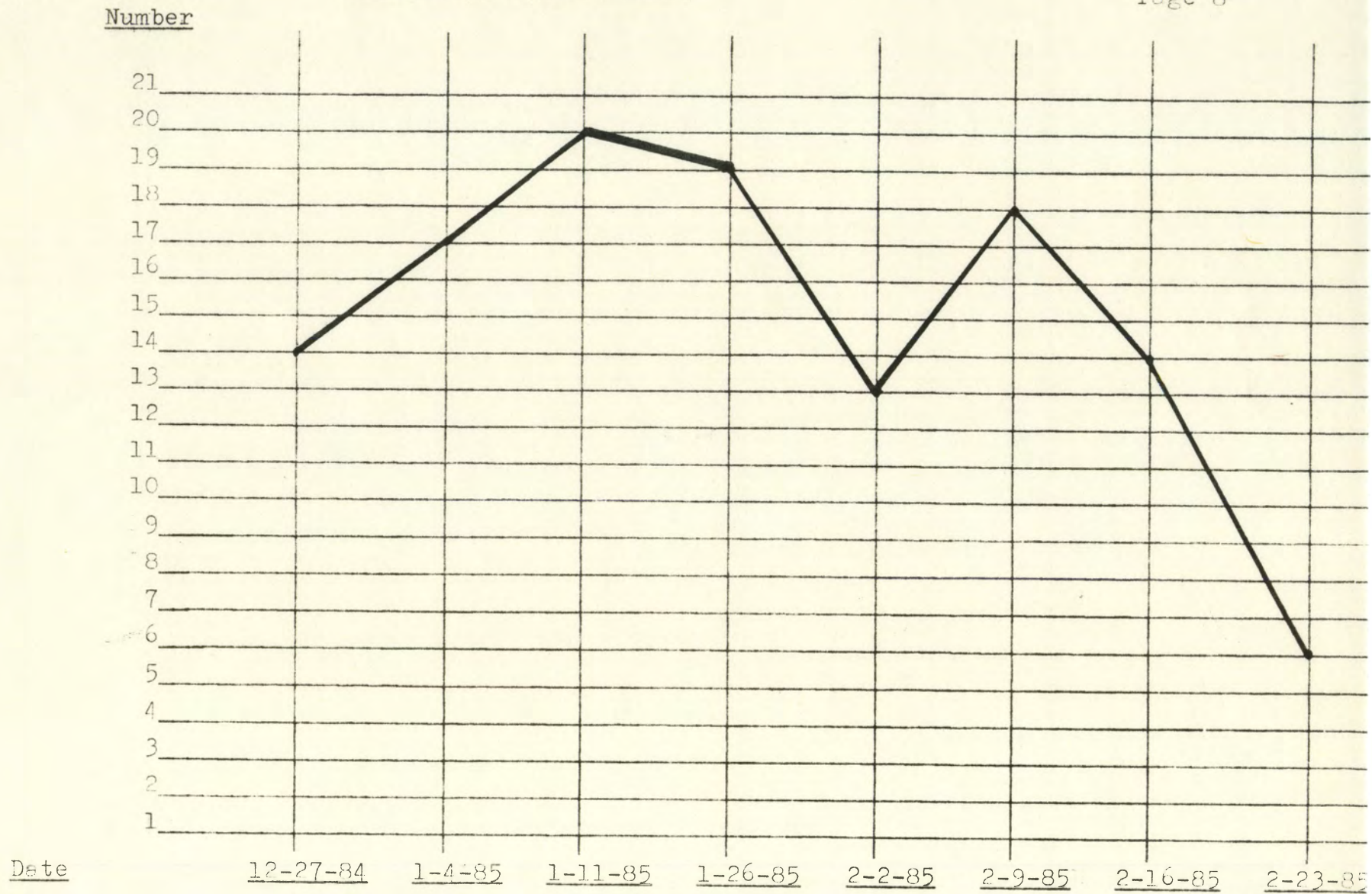
Table 10

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Number of Raptors observed by Date.

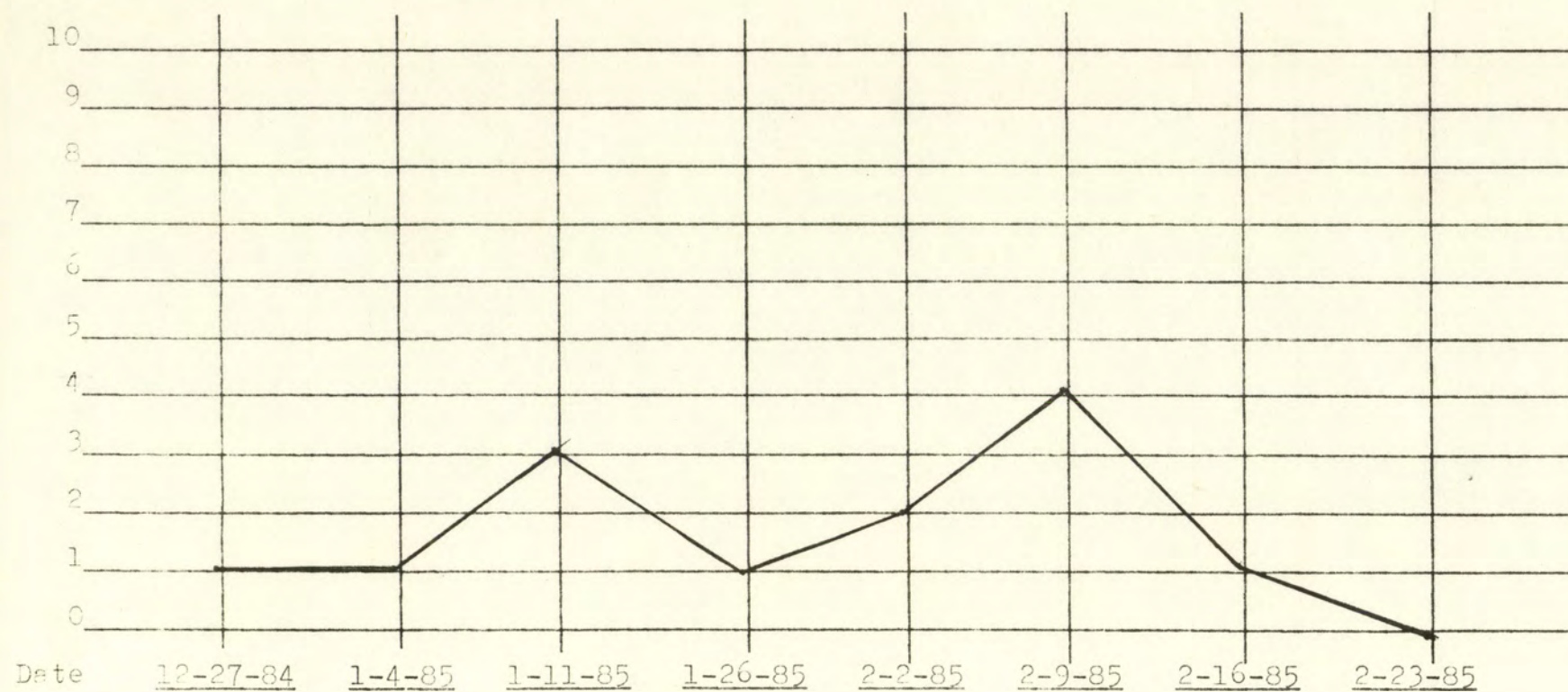
<u>Species</u>	<u>12-27-84</u>	<u>1-4-85</u>	<u>1-11-85</u>	<u>1-26-85</u>	<u>2-2-85</u>	<u>2-9-85</u>	<u>2-16-85</u>	<u>2-23-85</u>
Northern Goshawk				1*			1*	
Cooper's Hawk						1*		
Sharp-shinned Hawk					1*	1*		1*
Red-tailed Hawk	14	17	20	19	13	18	14	6
Rough-legged Hawk	1	1	3	1	2	4	1	
Hawk, sp.			1	1				
Barred Owl			1				1	
Loggerhead Shrike	1*		2*					
Shrike, sp.						1		
Totals	16	18	27	22	16	25	17	7

* Documentation Form Extraordinary Bird Sighting in Iowa



Rough-legged Hawk by Date

Number



- Habitat:
1. plowed crop ground
 2. unplowed crop ground
 3. grassy meadow/pasture
 4. marsh or wetland
 5. windbreak or farmstead
(less than 20 acres)
 6. riverbottom woods
 7. upland woods
 8. miscellaneous
(e.g. urban)

COUNTY Payette

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TOWNSHIP Westfield

OBSERVER(S) Table 13

Dave Wehde

Mike Wehde

Estimate habitat-type and percent on a section-by-section basis.

6 1-70% 2-20% 5-10%	5 1-70% 2-20% 5-10%	4 1-30% 2-10% 3-10% 5-10% 7-40%	3 3-40% 7-20% 8-40%	2 2-20% 3-40% 7-40%	1 1-30% 2-30% 3-20% 5-10% 7-10%
7 1-40% 2-40% 3-20%	8 1-70% 2-20% 5-10%	9 1-10% 2-30% 3-30% 5-10% 7-20%	10 3-50% 6-10% 7-40%	11 3-40% 6-10% 7-50%	12 1-30% 2-10% 3-40% 7-20%
18 1-70% 2-20% 5-10%	17 1-40% 2-50% 5-10%	16 1-20% 2-40% 3-10% 5-10% 7-20%	15 2-10% 3-40% 5-10% 7-40%	14 3-50% 6-10% 7-40%	13 1-10% 2-20% 3-30% 5-5% 6-5% 7-30%
19 1-40% 2-40% 3-10% 7-10%	20 1-40% 2-50% 5-10%	21 1-20% 2-20% 3-20% 5-10% 7-30%	22 1-10% 2-10% 3-30% 7-50%	23 2-20% 3-40% 7-40%	24 2-20% 3-30% 5-10% 7-40%
30 1-30% 2-30% 5-10% 6-10% 7-20%	29 1-10% 2-20% 6-30% 7-10% 8-30%	28 3-30% 6-10% 7-20% 8-40%	27 1-20% 2-20% 3-10% 6-30% 7-20%	26 1-10% 2-40% 3-30% 5-10% 7-10%	25 2-20% 3-30% 5-10% 7-40%
31 1-40% 2-30% 5-10% 6-10% 7-10%	32 1-40% 2-30% 5-10% 6-10% 7-10%	33 1-30% 2-40% 3-20% 5-10%	34 1-10% 2-50% 3-20% 5-10% 7-10%	35 1-10% 2-50% 3-20% 5-10% 7-10%	36 2-35% 3-40% 5-5% 7-20%