

SOME SAW-WHET OWLS IN CENTRAL IOWA¹BY THOS. G. SCOTT²

In Iowa the Saw-whet Owl (*Cryptoglaux acadica acadica*) is considered "An uncommon and irregular winter visitor. Unrecorded by a number of observers." (DuMont, 1934). This status encourages the submission of data concerning the habits of some Saw-whet Owls in central Iowa during the winter of 1936-37.

Two of these owls were observed in a hawthorn (*Crataegus* sp.) thicket along Beaver Creek near Camp Dodge, Polk County, Iowa, on December 28, 1936. The thicket was about two acres in area, having a density of from eight to twenty trees per square rod. The thorny, interlocked branches provided an extensive barrier of mechanical protection. In relation to the surrounding country, the thicket was bordered on the north and east by wooded pasture and on the south and west by reasonably open fields. On January 4, 1937, another of this species appeared and the population grew to three. At least one owl remained in the thicket until the last observation on February 28. Another report of the Saw-whet Owl in Iowa (made at Des Moines on December 31, 1930) likewise made reference to the use of the hawthorn tree as a daytime refuge (Palas, 1931).

Incidental to these observations, it may be fitting to report a Saw-whet Owl picked up in Ames on February 17, 1937. The owl, having been injured in some manner, died the following day. The specimen is preserved in the Iowa State College Collection.

The owls that remained in the thicket near Camp Dodge were subjected to brief observation at intervals of several days. Although this procedure did not permit the collection of detailed information relative to daily movements of the birds, it was considered advisable as a measure against attracting undue attention to them.

The owls appeared content to remain deep within the thicket during the daylight hours, exhibiting a tendency to use a chosen perch with much regularity. White excrement distributed over the branches, after the habit of raptors, served to indicate the location of each perch. Five perches appeared to be in frequent use, but no more than three owls were observed in the thicket at any one time. The accompanying photograph (Fig. 34) illustrates a preferred perching place and the

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position of the owl. Most of the perches were from six to seven feet above the ground and on a limb to the southeast side of the tree trunk. The writer knew of only one perch which was not well within the thicket. This was located at the thicket margin in a hawthorn tree grown over with a thick tangle of grape (*Vitis* sp.) vines. Random dropping of pellets and excrement throughout the thicket indicated a slight inconsistency in the owls' use of preferred perches.

While on the perch the owls proved to be excellent subjects for close scrutiny, and it was not difficult to approach within arm's length of them. They sat quietly, unafraid and not too concerned about the presence of other animals in the vicinity. Flocks of Black-capped Chickadees (*Penthestes atricapillus*) working over the outer branches and twigs of an owl's perching tree merely caused it to turn its head and watch them as they passed. There was little activity at the perch other than the usual head turning and movements in regurgitation.

The food habits determination for these owls was made by pellet analyses. The fur, feather, and osteological remains found in the pellets proved easily subject to recognition. Skulls were available for identification of all the mice and shrews except for a part of the white-footed mouse (*Peromyscus* sp.) and meadow mouse (*Microtus* sp.) representation. In consideration of the material at hand, it was thought reasonably accurate to make reference to the genus of mammalian prey not represented by skulls. However, such recognition is treated as questionable. Table I presents an enumeration of the total number of representatives for each prey species. The part of these totals which may be recognized as questionable is entered below the affected total and is indicated by a negative sign. Identification beyond the family group was not attempted for the bird remains.

A list of the potential prey species found within one quarter-mile radius of the thicket center proved helpful in making an evaluation of these food habits. Such forms as white-footed mice, meadow mice, small short-tailed shrews (*Cryptotis parva*), large short-tailed shrews (*Blarina brevicauda*), house mice (*Mus musculus*), Black-capped Chickadees, Tree Sparrows (*Spizella arborea*), Slate-colored Juncos (*Junco h. hyemalis*), Goldfinches (*Spinus t. tristis*), White-breasted Nuthatches (*Sitta c. carolinensis*), Downy Woodpeckers (*Dryobates pubescens medianus*), and Hairy Woodpeckers (*Dryobates v. villosus*) were present in varying numbers dependent upon the plant communities.



FIG. 34. Saw-whet Owl in typical crataegus perching site. January 10, 1937. Johnson Station, Polk County, Iowa. Photograph by Dr. H. R. Peasley.

TABLE 1. Prey Representation.

PREY	Dec. 24	Jan. 4	Jan. 10	Jan. 23	Jan. 24	Feb. 14	Total per Prey Appearance	Percent per Total Prey Appearance	
								Uncorrected	Corrected
<i>Fringillidae</i>		1			1		2	3.0	3.0
<i>Cyrtotis parva</i>		4					4	6.1	6.1
<i>Blarina brevicauda</i>		1					1	1.5	1.5
<i>Peromyscus</i> sp.	2	13	1	2	8	13	39	60.0	44.6
		-2			-3	-5	-10		? 15.3
<i>Microtus</i> sp.		1		4	9	4	18	27.6	15.3
		-1		-4		-3	-8		? 12.3
<i>Mus musculus</i>		1					1	1.5	1.5
Number of Pellets	1	17	1	5	16	16			

About 97 per cent of the food was procured from among mouse and shrew populations; the remaining three per cent was of birds (probably Slate-colored Juncos). The brunt of the predation was borne by white-footed mice and meadow mice. Sixty per cent of the total prey appearance was by white-footed mice. About one-fourth of this showing, however, must be treated as being reasonably accurate but subject to question. Similarly, about one-half of the 27.6 per cent of meadow mice must be considered questionable. These findings leave no doubt as to the value of the food habits of the owls investigated. They also conform with the results of Errington (1932) in southern Wisconsin.

The prey species represented would indicate that most of the hunting was done in the adjacent open fields spotted with a low shrubby growth. This is certainly true for the mammalian prey, and quite possibly the birds represented were captured at roost in the lesser ragweed (*Ambrosia artemisiifolia*) patches found in these same fields. This is also reflective of an availability of prey peculiar to predation of all types.

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