BANDING OF PURPLE MARTINS DURING THE SUMMER OF 1941

by

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INTRODUCTION

Bird banding is one of the most important methods available for developing accurate information relating to birds, especially concerning bird migration. The scientific banding of birds was started in 1899 by Mortensen, a Danish schoolmaster, who banded Storks, Teals, Starlings, and two or three species of birds of prey. The "ringing" of birds had been attempted as early as 1710. In America, Audubon, in 1803, tied silver threads around the legs of a brood of phoebes, two of which returned the following year.

In the United States active bird banding work was begun in 1901. On December 8, 1909, the American Bird Banding Association was organized in New York City. At present United States bird banding is under the general direction of the Bureau of Biological Survey, United States Department of Agriculture. Bands of aluminum are used, ranging in size from "0," .083 inch, for warblers, kinglets, and other very small birds to size 8, almost one inch across, for eagles, swans, geese, and other large birds.

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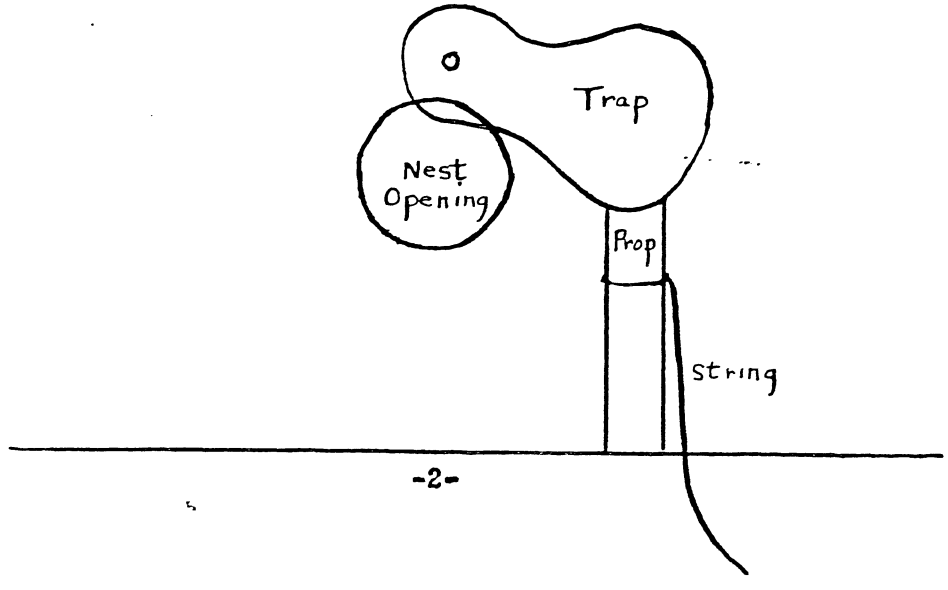
At the University of Michigan Biological Station ~~two~~ one martin houses were erected in 1934. That summer ~~one of these~~ this house was occupied. The following summer (1935) a second house was also ~~both of the houses were~~ occupied.

Last summer (1940) T. Wayne Porter and I banded the young purple martins found in these two houses. This summer we attempted to band not only the young but the adults. Banding the immature birds was a simple matter as we did so by removing them from the nests before they were able to fly.

Banding the adults proved much less simple and much less successful. A trap made of sheet metal was attached above the opening to a nest and propped up by means of a piece of wood to which a long string was tied. I then sat below the house and watched for the adults to enter the nest. When this occurred, I pulled the string, thus releasing the trap, and confining the adult to the nest.



I was able to trap only a few of the adult males and females as I found they seldom entered the nest when feeding the young. As soon as the young were old enough to do so, they would come to the nest opening thus enabling the adult to feed them merely by putting its head into the house. During feeding time the adults made trips approximately every five minutes (I did not time this exactly) bringing a dragon fly and carrying away a fecal sac. Dragon flies seemed to form the main item of diet, perfectly huge ones being brought on numerous occasions.

The nesting material found consisted of small sticks, leaf stems, and pieces of green leaves.

The houses were infested with fleas although not heavily. Numerous large larvae, probably of the blow fly, were found attached to the young martins.

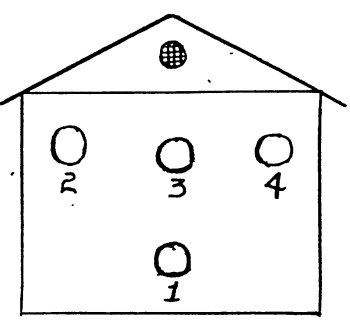
I was quite interested to note that the young martins frequently changed nests. When I first banded them, I was somewhat puzzled to find on several occasions a fully feathered young almost ready to fly in the nest with several others that were either completely bare of feathers or just beginning to feather. Later, by checking the band numbers, I found that several young ones had changed from one nest to the other. This apparently caused no distrubance to the adults as they fed the intruder along with their own brood.

Another item of interest to me was the fact that the adults seldom stay in the nest over night. Thinking we could band a large number of adults, we went up the tower about 10:00 P.M. on three occasions. We were greatly disappointed however, to find only about five females in the house. The males apparently stayed out all night, probably roosting in the big pine trees along the shore as they were seen there many times

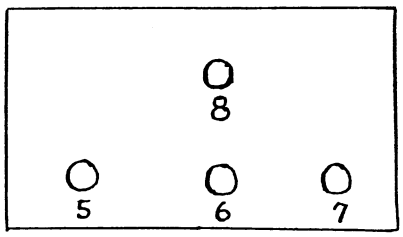
in the early morning. After the young left the nest, they were observed roosting in the same trees.

The two Purple Martin Houses of the Biological Station are located on the State Street beach between Blissville and Ladyville. There are sixteen nests in each house. The following drawings show the four sides of each house with the numbers used in referring to each nest.

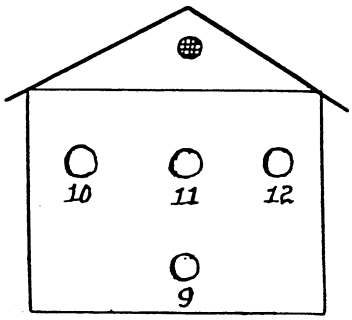
EAST HOUSE



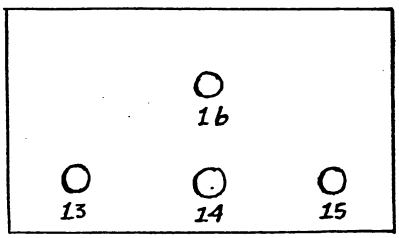
South Side



East Side

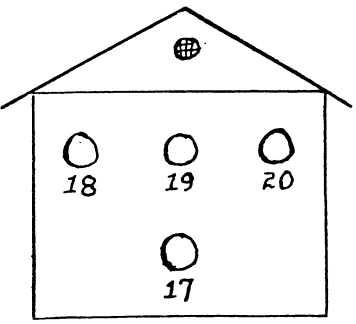


North Side

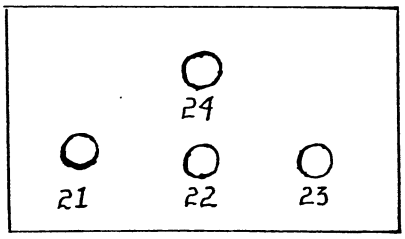


West Side

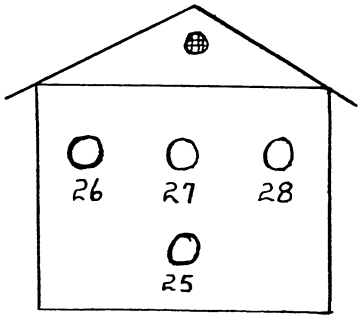
WEST HOUSE



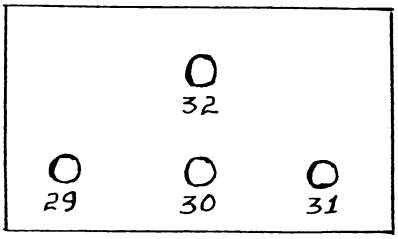
South Side



East Side



North Side



West Side

Table I, found on the following pages, gives the numbers of birds banded, the numbers of the bands, and the dates on which each bird was banded.

Table I

	No. of Nest	No. of Young	Condition of young when banded	Adult	Nos. of bands	Date banded
EAST HOUSE	1	3	Almost ready to fly.		40-254625 to 40-254627 inc.	7/5/41
SOUTH SIDE	1			Purple male	41-219740 & Yellow band	7/7/41
	1			Female	41-219741 & green band	7/7/41
	2	5			41-219749 41-219750 41-221801 to 41-221803 inc.	7/12/41
	2			Purple male	41-219747 & yellow band	7/10/41
	2			Female	41-219748 & green band	7/12/41
	3	3	Not quite fully feathered		40-254628 to 40-254630 inc.	7/5/41
	3			Female	41-219742 & green band	7/7/41
	4	Empty--no nesting material in box.				
EAST SIDE	5	4	Just beginning to feather		41-219701 to 41-219704 inc.	7/5/41
	5			Female	41-219746 & green band	7/8/41
	6	1	Ready to fly (1 egg, unfertile)		41-219705	7/5/41
	7	all dead				
	8	6	Almost fully feathered		41-219706 to 41-219711 inc.	7/5/41
	8			Female	41-219744 & green band	7/8/41

Table I (cont'd.)

	No. of Nest	No. of Young	Condition of young when banded	Adult	Nos. of bands	Date banded
	9	1 live (3 dead)			41-219712	7/5/41
NORTH SIDE	10	5	1 larger than others.		41-219713 to 41-219717 inc.	7/5/41
	10			Female	41-219745 & green band	7/8/41
	11	4	Almost ready to fly		41-219718 to 41-219721 inc.	7/5/41
	12	7	6 beginning to feather 1 older		41-219722 to 41-219728 inc.	7/5/41
WEST SIDE	13	Empty--no nesting material				
	14	5	Partially feathered		41-219729 to 41-219732 inc.	7/5/41
	14			Female	41-219743-green	7/8/41
	15	Empty--no nesting material				
	16	6			41-219734 to 41-219739 inc.	7/5/41
	17	Empty--no nesting material				
WEST HOUSE	18	4	Partially feathered		41-221816 to 41-221819 inc.	7/13/41
	19	Empty--no nesting material				
SOUTH SIDE	20	Empty--no nesting material				
EAST	21	1	Ready to fly		41-221804	7/13/41
SIDE	22	5	1 ready to fly Others younger, not feathered.		41-221805 41-221806 to 41-221809 inc.	7/13/41
	23	1 unhatched egg				
	24	6	Not quite fully feathered		41-221810 to 41-221815 inc.	7/13/41
NORTH SIDE	25	4	Starting to feather		41-221826 to 41-221829 inc.	7/13/41
	25			Purple male	41-221843 & red band	7/18/41
	25			Female	41-221847 & blue band	7/25/41

Table I (cont'd.)

	No. of Nest	No. of Young	Condition of young when banded	Adult	Nos. of bands	Date banded
	26	4	Bare		41-221830 to 41-221833 inc.	7/13/41
	27	Empty but containing nesting material				7/13/41
	27	1 young found in nest			41-221846	7/20/41
	28	6	Not feathered		41-221834 to 41-221838 inc.	7/13/41
		2	Ready to fly--only one banded		41-221841 41-221840	
	28			Purple male	41-221839 & red band	7/17/41
WEST	29	4--dead--1 unfertile egg				
SIDE	30	4	Just beginning to feather		41-221820 to 41-221823 inc.	7/13/41
	30			Female	41-221844	7/20/41
	31	4 eggs				
	31			Female	41-221846	7/20/41
	32	2	Almost ready to fly		41-221824 41-221825	

Two banded young birds were found dead either in the nest or on the beach near the houses: namely, 41-219714, 41-221838 (in Nest 20).

The following table gives a summary of the number of occupied nests and the number of birds banded during the summer.

Table II

	No. of Occupied nests	No. of Males Banded	No. of Females banded	No. of young banded	Total no. of birds banded
East House	12	2	7	50	59
West House	9	2	4	36	42
Totals	21	4	11	86	101

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Bird Banding, Wildlife Research and Management Leaflet, Biological Survey, 53, April, 1936.

Lincoln, Frederick C., Instructions for Banding Birds, U.S. Dept. of Agr., Miscellaneous Circular, No. 18