

accounted for by the increased danger of being without protective coloration. Those white birds that survive might of necessity have been more wild and alert.

Albinism in both sexes of the eastern wild Turkey (*Meleagris gallopavo sylvestris*) has been previously noted (Bailey, R. W., 1955. *J. Wildl. Mgmt.*, 19:408). "Smoke gray" aberrancies in *M. g. osceola*, similar to those described here, have been noted (Williams, L. E., Jr., 1964. *J. Wildl. Mgmt.*, 28:148-152).

This note is a contribution of the Texas Parks and Wildlife Department, Pittman-Robertson Project W-62-R.—JACK WARD THOMAS, Llano, Texas; CALVIN VAN HOOZER, Sonora, Texas; AND RODNEY C. MARBURGER, Kerrville, Texas, 28 January 1964.

**Roosting habits of Red-bellied Woodpeckers.**—During 1962, I observed the roosting habits of 15 Red-bellied Woodpeckers (*Centurus carolinus*) in the vicinity of Carbondale, Illinois and these are the results.

1. Although adult birds roosted singly in cavities, juveniles for at least the first few nights after fledging roosted in the open. As in other members of the genus *Centurus* on which information is available (Skutch, 1943. *Sci. Mon.*, 56:358-364), newly fledged birds must learn to seek roosting cavities by themselves.

2. Individual birds generally spent several minutes looking out of their roost cavities before leaving in the morning and frequently did the same in the evening before dropping from sight.

3. Generally upon leaving an excavation, and for several minutes before going to roost in the evening, individual birds uttered the location call (the *cha* note; Kilham, 1961. *Wilson Bull.*, 73:237-254).

4. Both sexes changed their roost cavities frequently, but it was not uncommon for a given bird to return at a later date and roost in a previously abandoned excavation.

5. With one exception, males roosted in cavities being excavated for nesting purposes; and in all cases roosted in such cavities throughout the incubation and most of the nestling periods. A given male abandoned the nest cavity for roosting purposes one or two nights prior to fledging of the young.

6. Although a surplus of excavations was dug during the breeding season, both sexes excavated cavities outside this period. These latter cavities were shallower than the excavations used for nesting purposes.

7. As would be expected, the times of leaving the roost hole and going to roost were coordinated with sunrise and sunset. The maximum, minimum, and mean roosting times, using as reference points civil sunrise and sunset times (Hansen, 1962. "The World Almanac." New York World Telegram and The Sun, N. Y., pp. 456-470), are given in Table 1. Only three periods of the year were chosen for comparison; winter (22 December to 21 March), spring (22 March to 21 June), and fall (24 September to 21 December). The roosting behavior of this woodpecker was not observed during the summer months. These periods were selected because they corresponded to changes in sun time; if Red-bellied Woodpeckers responded to factors other than the sun, these responses would be reflected in the changes of roosting time in relation to sunrise and sunset. Although females tended to arise earlier than males, there were no statistically significant differences between means of the times the males and females left their roost holes on winter, spring, and fall mornings. However, an analysis of variance

TABLE 1  
RELATIONSHIPS BETWEEN SUNRISE, SUNSET, AND ROOSTING TIME OF RED-BELLIED  
WOODPECKERS

a. Leaving Roost AM										
	Males					Females				
	No. of observations	Extremes	Mean	sd		No. of observations	Extremes	Mean	sd	
Winter	19	+30 -23	+1.9 ± 3.1	12.9		10	+20 -11	+2.7 ± 4.3	12.9	
Spring	22	+39 -11	+5.0 ± 2.7	12.4		16	+19 -15	-0.1 ± 2.6	10.1	
Fall	27	+23 -22	-5.7 ± 2.0	10.0		22	+39 -24	-7.0 ± 3.1	14.3	

  

b. Going to Roost PM										
	Males					Females				
	No. of observations	Extremes	Mean	sd		No. of observations	Extremes	Mean	sd	
Winter	28	-115 -21	-65.3 ± 4.4	22.8		12	-91 -29	-54.0 ± 2.5	8.1	
Spring	29	- 52 + 7	-19.4 ± 3.6	19.2		11	-40 +12	-14.8 ± 3.6	11.5	
Fall	15	- 66 +14	-28.8 ± 6.5	23.7		6	-29 + 9	- 6.2 ± 5.1	12.4	

  

c. Comparison of Means of PM Roosting Times						
	Winter		Spring		Fall	
	M	F	M	F	M	F
M; winter		0	X	X	X	X
F; winter			X	X	0	X
M; spring				0	0	0
F; spring					0	0
M; fall						0

M = male; F = female.  
 sd = Standard deviation.  
 + = No. of min after sunrise or sunset.  
 - = No. of min before sunrise or sunset.  
 0 = No statistical difference between means of the birds in periods compared.  
 X = Statistically significant difference;  $P < 0.01$ .

demonstrated a number of significant differences in the means of times of going to roost in the evening (Table 1). These differences in roosting times of particularly the winter versus the spring periods were very likely due to the increased demands of nesting activity during the latter period. As Red-bellied Woodpeckers spend a disproportionate amount of time during the fall months storing mast and other vegetable matter (Kilham, 1963. *Wilson Bull.*, 75:227-234; personal observations), perhaps this habit was responsible for their going to roost later in the day during this period of the year. This, then, would account for the numerous statistically significant differences between the means of the fall and the winter periods.—DAVID W. STICKEL, *Zoology Department, Holyoke Junior College, Holyoke, Massachusetts, 27 January 1964.*