

**AVIAN MORTALITY AT BUILDINGS ALONG THE MISSISSIPPI GULF
COAST DURING FALL MIGRATION**

Harry E. Slack, III

2219 Switzer Road
Gulfport, Mississippi 39507

While bird mortality resulting from collisions with man-made structures is well documented, apparently only one occurrence in Mississippi has been reported in the literature (Davis, 1978, *Miss. Kite* 17:5-7). During October 1988, a cursory check of a shopping mall complex located near Mississippi Sound at Biloxi, Mississippi, yielded 15 specimens of 6 bird species. To better assess the incidence of avian mortality caused by birds colliding with buildings in coastal Mississippi during fall migration, I made an expanded search from 16 September to 22 December 1989. The survey route, about 16 km long, extended from the western boundary of Keesler Air Force Base at Biloxi, west along Pass Road, a major east-west artery, to and including the downtown area of Gulfport, Mississippi. Commercial property (office buildings, mall complexes), dominates the route. I made searches between 05:30 and 07:30 on 84 days of the 98-day period. Each search covered at least one-half of the survey route. I recorded both dead birds and birds found stunned or injured, presumably due to collision with buildings.

Birds were found on 42 of the 84 days searches were made. Days on which dead/injured birds were found per survey effort included: 8 of 18 days in September, 18 of 30 days in October, 11 of 24 days in November, and 5 of 12 days in December. Peak numbers of birds found occurred on 4 October (14), 8 October (14), 1 November (19), and 3 November (23). These four days accounted for 45.2% of all recoveries and each followed the passage of a cold front within the previous 24- to 48-hour period.

Twenty-five species (155 individuals) were recovered during the search period (Table 1). Of the 106 recoveries aged on the basis of skull pneumatization, 99 (93.4%) were determined to be hatching-year birds. Common Yellowthroats and Swamp Sparrows accounted for 53.5% of all recoveries. Hand caught birds, subsequently released alive, accounted for 33.5% of recoveries. An additional number of injured/stunned birds evaded capture. While some hand-caught

birds were apparently stunned due to collision, many were resting on the lower ledges or at the bases of the buildings. Most birds were recovered on the south side of well-lighted one-story buildings and shopping mall complexes. This suggests that these birds reversed their direction of flight upon reaching the Gulf of Mexico and may have been attracted by the lights.

Specimens collected were deposited with the Department of Biological Sciences, University of Southern Mississippi, Hattiesburg.

Table 1. Dead, injured, or stunned birds found during fall migration at buildings on the Mississippi Gulf Coast.

Species	Total	First Recovery	Last Recovery	Peak No./Date
King Rail (<i>Rallus elegans</i>)	3	24 Sep	29 Sep	2/24 Sep
Sora (<i>Porzana carolina</i>)	1	16 Nov		
Am. Woodcock (<i>Scolopax minor</i>)	5	29 Nov	13 Dec	3/13 Dec
Chuck-will's-widow (<i>Caprimulgus carolinensis</i>)	1	21 Oct		
House Wren (<i>Troglodytes aedon</i>)	2	5 Oct	24 Oct	
Marsh Wren (<i>Cistothorus palustris</i>)	7	27 Sep	25 Oct	2/2 Oct

Table 1. (Continued)

Species	Total	First Recovery	Last Recovery	Peak No./Date
Swainson's Thrush (<i>Catharus ustulatus</i>)	1	24 Nov		
Hermit Thrush (<i>C. guttatus</i>)	6	22 Oct	25 Nov	2/29 Oct
Wood Thrush (<i>Hylocichla mustelina</i>)	1	8 Oct		
Am. Robin (<i>Turdus migratorius</i>)	3	4 Nov	3 Dec	
Gray Catbird (<i>Dumetella carolinensis</i>)	4	1 Oct	8 Oct	3/8 Oct
Black-and-White Warbler (<i>Mniotilta varia</i>)	1	19 Oct		
Common Yellowthroat (<i>Geothlypis trichas</i>)	44	16 Sep	1 Nov	13/4 Oct
Yellow-breasted Chat (<i>Icteria virens</i>)	1	1 Oct		
Indigo Bunting (<i>Passerina cyanea</i>)	6	8 Oct	3 Nov	3/3 Nov
Chipping Sparrow (<i>Spizella passerina</i>)	1	1 Nov		
Savannah Sparrow (<i>Passerculus sandwichensis</i>)	5	1 Nov	9 Nov	3/1 Nov

Table 1. (Continued)

Species	Total	First Recovery	Last Recovery	Peak No./Date
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)	2	30 Oct	1 Nov	
Fox Sparrow (<i>Passerella iliaca</i>)	1	22 Dec		
Song Sparrow (<i>Melospiza melodia</i>)	5	3 Nov	3 Dec	2/3 Nov
Lincoln's Sparrow (<i>M. lincolnii</i>)	1	31 Oct		
Swamp Sparrow (<i>M. georgiana</i>)	39	8 Oct	10 Nov	14/3 Nov
White-throated Sparrow (<i>Zonotrichia albicollis</i>)	12	1 Nov	14 Dec	4/3 Nov
White-crowned Sparrow (<i>Z. leucophrys</i>)	1	8 Oct		
Dark-eyed Junco (<i>Junco hyemalis</i>)	2	10 Nov	17 Nov	