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*The Mississippi Kite* publishes original articles that advance the study of birdlife in the state of Mississippi. Submission of articles describing species occurrence and distribution, descriptions of behaviors, notes on the identification of Mississippi birds, as well as scientific studies from all fields of ornithology are encouraged. All manuscripts, in both a hard copy and digital copy format, should be submitted to the editor.

**COPY** – Manuscripts should be *typed, double-spaced* throughout, on high quality paper. Scientific names should be *italicized*. Manuscripts should be prepared using 12 pt. Times New Roman font. If possible, please submit computer files in Microsoft Word although WordPerfect formats will be accepted. Handwritten manuscripts will also be accepted but please contact the editor prior to submission.

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**LITERATURE CITED** – List all references cited in the text alphabetically by the author’s last name in the Literature Cited section. Citations should conform to the style of a recent issue of *The Mississippi Kite*.


**TABLES** – Tables should be formatted with the size of *The Mississippi Kite* in mind and should be interpretable without reference to the text.

**FIGURES** – Figures should be appropriate for photoreproduction without retouching.
THE MISSISSIPPI KITE

The Mississippi Kite is a biannual periodical published by the Mississippi Ornithological Society to record and further the study of Mississippi birdlife.

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COVER IMAGE: Mississippi Kite (Ictinia mississippiensis) pen and ink drawing by David A. Cimprich.
SUMMER WHIP-POOR-WILLS (*Caprimulgus vociferous*)
IN SIMPSON COUNTY, MISSISSIPPI

Jo-Ann Jennier
12245 SW 151 St., #107
Miami, Florida 33186

The Whip-poor-will (*Caprimulgus vociferous*) occurs regularly in southern and central Mississippi during the spring migration (Turcotte and Watts 1999). The southern most counties for summer calling records in Mississippi are Kemper, Winston, Attala and Montgomery Counties (Coffey 1970, 1971; Coffey and Coffey 1971). In 1992, a nest with a downy chick was found in Oktibbeha County (Muth 1992). The range map in Peterson’s Field Guide to Eastern Birds (Peterson 1980) shows the summer range extending to the northern portion of Mississippi.

I surveyed an area of northern Simpson County (R1E, and R2E, T12N) between 24 April and 14 September 2000 for breeding populations of the Common Nighthawk (*Chordeiles minor*). I began evening surveys about 1 hour prior to dark and stayed until 1 hour after dark. My morning surveys started 1 hour before daylight and ended 1 hour after daylight. I drove public access roads along and through Weyerhaeuser timberlands to determine if nighthawks were using cutovers as nesting areas. I visited the survey area 27 times during the summer.

During my surveys, I also recorded the presence of Chuck-will’s-widows (*Caprimulgus carolinensis*) and Whip-poor-wills. On 2 May 2000, I heard a whip-poor-will calling. I often heard the call of Chuck-will’s-widows in my nighthawk study area in Hillsborough County, Florida, and the difference in the whip-poor-will call was obvious. The
Chuck-will’s-widow typically has a 4 syllable call, stressing the third syllable, with the first two receiving about the same stress (Chuck-will’s-wid’ow; bold text indicates emphasis on this syllable). The Whip-poor-will usually has a 3 syllable call, with minor emphasis on the first and stronger emphasis on the third syllable (whip’-p o-willl; bold text indicates emphasis on this syllable) (Sprunt, 1940). I heard a Whip-poor-will call on 2 May 2000 at 19:55H (7:55 pm) at my first survey site on Joe Dear Road. At my next stop (20:05 H; 8:05 pm) I heard another Whip-poor-will call at 20:01H (9:01 pm).

When I visited on 9 May, I heard no Whip-poor-will calls. On 13 May, I drove a different route, traveling CC road on my way to my first stop. At 20:14 H (8:14 pm), I observed 3 Whip-poor-wills circling above the road and was able to obtain a good cassette recording of the call. The size of the three birds was much smaller than typical for a Chuck-will’s-widow. That night I heard a Whip-poor-will at a fourth location along the main road.

On 16 May, I again heard and saw Whip-poor-wills at CC Road. As I surveyed throughout the summer, I heard (and occasionally saw) Whip-poor-wills. After 16 May, the Whip-poor-wills called only at the CC Road location and at least three individuals called there throughout the summer. On my final visit on 14 September 2000, I heard only a single individual calling.

The habitat in the Whip-poor-will area was primarily small, planted pines (Pinus sp.), about 4 – 6 m in height. The trees were spaced irregularly (2 - 4 m apart), and the spaces between the trees were filled with underbrush. The small pines were surrounded by large pine forests and divided by CC road. The most abundant diurnal birds detected during the study period were the Yellow-breasted
Chat (*Icteria virens*) and Indigo Bunting (*Passerina cyanea*). Chuck-will’s-widows occasionally visited the southwest corner of the Whip-poor-will area.

While I heard Whip-poor-wills call until 14 September, I last heard the Chuck-will’s-widows calling on 24 July 2000. By increasing the number of surveys for breeding birds, during the period between dusk and dawn, the chances of locating nesting Whip-poor-wills in south central Mississippi may increase.

**Acknowledgements**

I thank Weyerhaeuser Corporation, Darren Miller, Ph.D., Wildlife Biologist, and Jack Rauenhorst, Area Forester, for providing maps and guided tour of the cutovers and surrounding area.

**Literature Cited**


**Introduction**

Stopover sites are critical habitat for Neotropical migrant songbirds along major migration pathways, such as the Gulf Coast of Mississippi, Texas and Florida (Moore and Simons 1992, Winker et al. 1992). However, a paucity of data exists concerning the role of small coastal stopover sites. Moore and Simons (1992) and their co-workers demonstrated the vital role of barrier islands as stopover sites, but the use and suitability of mainland coastal stopover sites, such as the Davis Bayou Unit at Gulf Islands National Seashore, has been infrequently studied.

The importance of small coastal habitat fragments may be increasing. Intensive economic development of coastal areas (e.g., casinos, suburban sprawl) has resulted in the loss of large areas of suitable habitat for both Neotropical migrant and resident bird species. Thus, within the landscape context of the Gulf Coast, small habitat fragments may provide critical stopover habitat for foraging and resting before songbirds resume migration. Further, barrier islands cannot provide enough suitable foraging habitat alone.
Protected areas, such as Davis Bayou, provide critical habitat for a wide range of migratory songbirds. Our objective was to document use of a small coastal habitat fragment by Neotropical migrant songbirds during spring migration 2000-2001.

Methods

We conducted our research at the Davis Bayou Unit of Gulf Islands National Seashore, Ocean Springs, Mississippi from 18 March to 7 May 2000 (16 sampling days) and from 24 March to 25 April 2001 (21 sampling days). We mist-netted songbirds at 3 sites within the Davis Bayou Unit and one site on Horn Island for comparative purposes. Habitats sampled included scrub-shrub and mixed pine-hardwood forest. Sampling was conducted from approximately 06:00-10:00 and 15:00-19:00 during good weather conditions. All birds, except Ruby-throated Hummingbirds, were marked with a uniquely-numbered U. S. Fish and Wildlife Service band. We recorded age, sex, and morphometric measurements including wing length, tail length, body mass, and fat score for each bird. Further morphometric measurements were taken if warranted (e.g., identification of *Empidonax* flycatchers).

Results

We documented 64 migrant songbird species during spring 2000 at the Davis Bayou Unit of Gulf Islands National Seashore (Table 1). During spring 2000, we mist-netted 200 birds and successfully banded 195 individuals. Five Ruby-throated Hummingbirds were mist-netted in 2000, but not banded. We banded 146 individuals of 27
Neotropical migrant species and 49 individuals of 8 resident species (Table 2). During spring 2001, we documented 67 migrant songbird species at the Davis Bayou and Horn Island Units of Gulf Islands National Seashore (Table 1). We mist-netted 103 birds and successfully banded 100 individuals. Three Ruby-throated Hummingbirds were mist-netted, but not banded. We banded 75 individuals of 23 Neotropical migrant species and 25 individuals of 8 resident species (Table 3).

Discussion

Although this project was limited in scope and logistics, our results demonstrate the valuable role of small coastal habitat fragments on the Mississippi Gulf Coast. Many birds marked in this study occupied or used scrub-shrub habitats including several thrush species, Hooded Warbler, Kentucky Warbler, Ovenbird, Gray Catbird, and White-eyed Vireo. The strong representation of understory birds was a function of habitat present, but also reflects the height of mist-nets used in this study (i.e., low capture probability for bird species using the overstory). The greatest proportion of habitat at Davis Bayou was mixed pine-hardwood forest. This habitat had a sparse understory which limited the number of captures and species marked such as Red-eyed Vireo, Bay-breasted Warbler, Blue-winged Warbler, Prothonotary Warbler, and Magnolia Warbler. However, we documented a wide range of midstory and overstory species through area surveys including tanagers, grosbeaks, flycatchers, and buntings.

Although we did not attempt mist-netting in the overstory, forest canopies at Davis Bayou appeared to provide extensive foraging opportunities for migratory
songbirds. Due to overstory canopy closure, many areas of Davis Bayou have limited understory vegetation and a reduced midstory. These structural factors reduced the utility of these stands for foraging by understory birds (i.e., thrushes) and midstory species (i.e., flycatchers, tanagers). Specifically, many berry producing plants, which provide critical energy sources for migrants, are excluded by extensive shading from overstory canopy closure. Limited thinning and prescribed burning would encourage shrubby understory growth and enhance the foraging habitat available to migrant songbirds.

Acknowledgments

We are extremely grateful to A. Arrington, S. Baillie, A. Casale, D. Hengstenberg, W. Nimitz, J. and J. Thompson, L. Welch., D. Wilkins, and N. Winstead for volunteering their time and efforts as field assistants. Special thanks to H. Schramm and the Mississippi Cooperative Fish and Wildlife Research Unit for logistical and administrative support. We thank J. Eubanks, G. Hopkins, R. Hoggard, and the Davis Bayou Unit staff for administrative support.

Literature Cited


1 Present Address: Southeastern Oklahoma State University, 1405 N. 4th Avenue, PMB 4068, Durant, OK 74701-0609
Table 1. Bird species documented at the Davis Bayou Unit of the Gulf Islands National Seashore, Ocean Springs, Mississippi during spring 2000-2001. The four-letter alpha codes are defined at bottom of this table. Migratory status is defined as (M) = migrant and (R) = resident species. An “X” indicates species was observed on the study site but not banded and an “#” indicates the number of individuals captured and banded.

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ACFL = Acadian Flycatcher; AMRE = American Redstart; AMRO = American Robin; Baltimore Oriole; BARS = Barn Swallow; BBWA = Bay-breasted Warbler; BBCU = Black-billed Cuckoo; BAWW = Black-and-white Warbler; BTNW = Black-throated Green Warbler; BGGN = Blue-gray Gnatcatcher; BLGR = Blue Grosbeak; BLJA = Blue Jay; BWWA = Blue-winged Warbler; BWHA = Broad-winged Hawk; BRTH = Brown Thrasher; BHCO = Brown-headed Cowbird; CMWA = Cape May Warbler; CACH = Carolina Chickadee; CARW = Carolina Wren; CEDW = Cedar Waxwing; CSWA = Chestnut-sided Warbler; CHSW = Chimney Swift; CWWI = Chuck-will’s-widow; CONI = Common Nighthawk; COYE = Common Yellowthroat; COHA = Cooper’s Hawk; DOWO = Downy Woodpecker; EAKI = Eastern Kingbird; EAPH = Eastern Phoebe; EATO = Eastern Towhee; EAWP = Eastern Wood-Pewee; GCKI = Golden-crowned Kinglet; GWWA = Golden-winged Warbler; GRCA = Gray Catbird; GCTH = Gray-cheeked Thrush; BITH = Bicknell’s Thrush; GCFL = Great Crested Flycatcher; HETH = Hermit Thrush; HOWA = Hooded Warbler; HOWR = House Wren; INBU = Indigo Bunting; KEWA = Kentucky Warbler; LEFL = Least Flycatcher; MAWA = Magnolia Warbler; NOCA = Northern Cardinal; NOFL = Northern Flicker; NOMO = Northern Mockingbird; NOPA = Northern Parula; NRWS = Northern Rough-winged Swallow; NOWA = Northern Waterthrush; OCWA = Orange-crowned Warbler; OROR = Orchard Oriole; OSPR = Osprey; OVEN = Ovenbird; PABU = Painted Bunting; PAWA = Palm Warbler; PRAW = Prairie Warbler; PIWO = Pileated Woodpecker; PROW = Prothonotary Warbler; PUMA = Purple Martin; RBWO = Red-bellied Woodpecker; REVI = Red-eyed Vireo; RWBL = Red-winged Blackbird; RBGR = Rose-breasted Grosbeak; RCKI =
Ruby-crowned Kinglet; RTHU = Ruby-throated Hummingbird; SAVS = Savannah Sparrow; SCTA = Scarlet Tanager; SSHA = Sharp-shinned Hawk; SUTA = Summer Tanager; SWTH = Swainson’s Thrush; SWWA = Swainson’s Warbler; STKI = Swallow-tailed Kite; SWSP = Swamp Sparrow; TEWA = Tennessee Warbler; TRES = Tree Swallow; TUTI = Tufted Titmouse; VEER = Veery; WPWI = Whip-poor-will; WEVI = White-eyed Vireo; WTSP = White-throated Sparrow; WOTH = Wood Thrush; WEWA = Worm-eating Warbler; YBSA = Yellow-bellied Sapsucker; YBCU = Yellow-billed Cuckoo; YBCH = Yellow-breasted Chat; YRWA = Yellow-rumped Warbler; YTVI = Yellow-throated Vireo; YEWA = Yellow Warbler