

By the end of a wet and mild June, much of the Region was well ahead of normal rainfall totals, and New Orleans was 46 cm over average rainfall. July reversed this trend, with normal or below-normal rainfall, largely because of two cool fronts that penetrated all the way to the Gulf coast, beginning a dry pattern that would continue into August. The absence of tropical cyclones meant there were no real meteorological highlights but also no factors that could negatively affect nesting, including on the barrier islands along the Gulf coast, which are vulnerable to overwash during tropical weather. This would change in September.

Sometimes there seems to be precious little information on actual breeding in these reports, which are often dominated by late spring and early fall migrants, post-breeding wanderers, and pelagic species (in some cases, "wintering" on the waters of the northern Gulf). This season, however, almost exactly half of the records received involved actual or probable nesting, and there were some notable breeding records to report. Contributors are reminded that it is difficult for the Regional editors to be familiar with the status of every species in every corner of the Region and that without contextual notes, an otherwise important record may be passed over or an unimportant one given undue emphasis.

LOONS THROUGH WATERFOWL

There were four reports of late Common Loons: 11 Jun in *Yalobusha*, MS (GK, SK), 21 Jun in *Baldwin*, AL (FF, SF), 5 Jul in St. Clair, AL (PB), and 2 on 10 Jul on L. Pontchartrain at New Orleans (DM, JH). A pelagic trip out of Venice, LA 6 Jun yielded a single Audubon's Shearwater, 2 Wilson's and 3 Leach's Storm-Petrels, and a Masked Booby 37–95 km off South Pass of the Mississippi R. (SWC, DLD, DM, MM, PC). A first-year Northern Gannet 22 Jun in *Mobile*, AL (DD, CD, ph. HEH) was very late. American White Pelicans, rare away from the coast in mid-summer, were seen 30 Jun–31 Jul in *Oktibbeha*, MS (TS), 6 Jul in *Faulkner*, AR (HR; 80+), and 1 & 7 Jul from *Colbert*, AL (TMH, m.ob.) and *Hale*, AL (JS, DS), respectively. A Brown Pelican in *Oktibbeha* 1 Jul (TS, MS) established only the 2nd record for the Starkville, MS area. Double-crested Cormorant, rare anywhere in Louisiana in the breeding season, was a surprise 6 Jun in *Rapides* (JH). Reports of Anhinga included 20 nests in *Noxubee*, MS Apr+ (TS, DR) and Jun sightings in *White* and *Howard*, AR (SB, CM). Approximately 900 Magnificent Frigatebirds were encountered in the vicinity of New Harbor and North Is., LA in the Chandeleur chain 9 Jun (DLD, SWC, MM, CS).

An American Bittern 15 Jun in *Pensacola*, FL (MC) established the first Jun record for

Central Southern



nw. Florida. White Ibis apparently nested in the Starkville, MS area for the 5th year in a row, based on birds of the year seen in *Noxubee* 16 & 27 Jul (TS). The first confirmed nesting of Roseate Spoonbill for Mississippi was documented on 5 Jul when a single nest with 3 chicks was found in *Yazoo* (MSt, DMcK); a single bird had been seen there the week before. There were also the usual post-breeding records of spoonbills away from their coastal breeding grounds. Seven reports of Wood Storks were received from Louisiana and Mississippi, the earliest being 2 each in *Copiah*, MS 6 Jun (MS, KH) and *Noxubee*, MS 7 Jun (TS). Highest numbers were 88 on 8 Jul (JK, SZ) and 265 on 25 Jul (JK, ES), both in *Vermilion*, LA.

The explosive expansion of the breeding range of Black-bellied Whistling-Duck was reflected in nine reports, all but one from Louisiana, including in *Ascension* 3 Jun (DPT; 2 ads., 4 juvs.), at Bayou Sauvage N.W.R. 12 Jun (PW), up to 4 in *St. Martin* in late Jun (DMD), 2 in *St. James* 21 Jun (JH), 2 in *Vermilion* 2 Jul (JH), a pair in *St. Tammany* 7 Jul (DLM,HL), one in *Ascension* 10 Jul (JH), and 2 in *Caddo* 14 Jul (NM, JB). Five in *Holmes*, MS 17 Jul (MSt) were also possibly breeding. A Ross's Goose in a suburban park in *Jefferson*, LA on 2 Jul (JS) had

Robert D. Purrington

Department of Physics

Tulane University

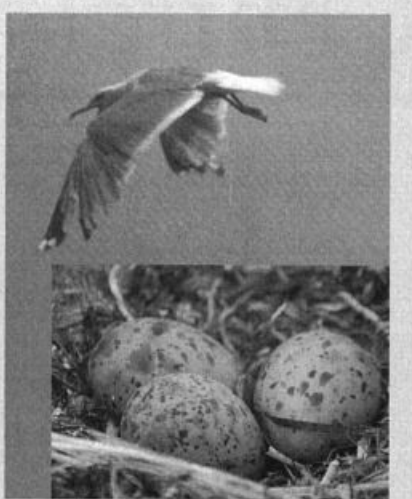
New Orleans, Louisiana 70118

(danny@tulane.edu)

been present since the late winter. Whatever its status, the bird was clearly not crippled, which is always a question to be raised in connection with summering waterfowl (lead-poisoned birds, however, often show no outward signs of distress). Twelve Blue-winged Teal in *Desha*, AR 31 Jul (KN, LDN) clearly were summering. A Redhead in *Jefferson*, LA 2 Jul (JS) was able to fly, but most other reports of summering ducks did not include details of injury or illness. Other records included a Northern Pintail throughout the period in *Hancock* (NB, JB); the first summering record for the Mississippi coast, a Ring-necked Duck in *Red River*, LA 20 Jun (NM, JB), and a Lesser Scaup in *Ascension*, LA 10 Jul (JH). Three records of Ruddy Ducks—20 Jun in *Tunica*, MS (GK, SK; a pair), 25 Jul in *Vermilion*, LA (JK, ES; a

SA The saga of **Herring Gull x Kelp Gull** hybrids—locally called the “Chandeleur Gulls”—continues on Louisiana’s Chandeleur Is. In a two-day census 8–9 Jun covering the entire chain, 38 such hybrids were counted, including 18 pairs and a number of nests (DLD, SWC, MM, CS). A 19 Jun trip to just the s. part of the chain (S. Breton, S. Gosier; Curlew Is.) yielded 33 hybrids there alone (DPM, RDP). No pure Kelp Gulls were seen on either trip. There were also no pure ad. Herring Gulls present and have not been for some time. It is possible that Kelp Gull no longer exists in Louisiana, based on regular visits by Cardiff and Dittmann and the others mentioned above. If that proves to be the case, pure Kelp Gulls will turn out to have been documented in Louisiana for just a little over a decade.

This hybrid or backcross of Kelp Gull and Herring Gull and this hybrid gulls’ nest were photographed 19 June 2004 in the Chandeleur Islands, Louisiana, where summer surveys found no pure adults of either species. Photographs by Dan Purrington.

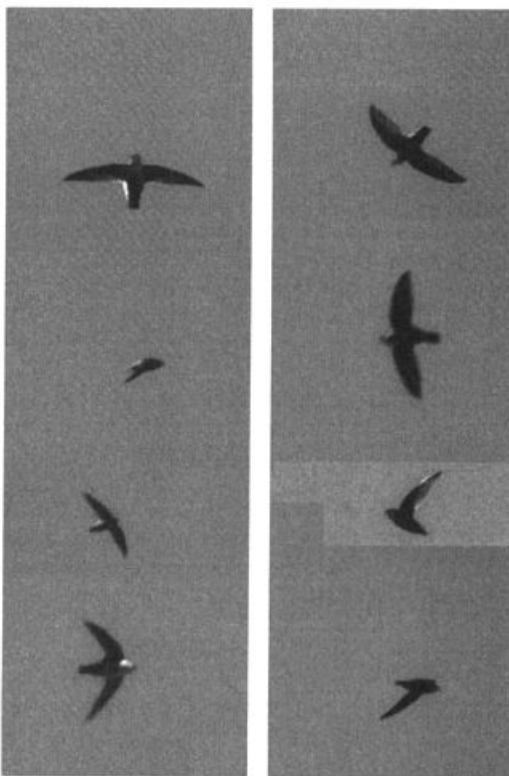


pair), and 10 including 9 males in *Desha*, AR 31 Jul (KN, LDN)—represented rare but regular summering birds.

HAWKS THROUGH RAILS

Although Ospreys breed somewhat sparingly in se. Louisiana, one 6 Jun in *Orleans* (PW) and another on the New Orleans lake-front throughout the period (DM) were unusual, and one 13 Jun in *Lincoln*, AR (LA) was in a location where breeding has been attempted the past five years. Jennifer Coulson monitored 47 Swallow-tailed Kite nests during the summer of 2004, including 28 in the lower Pearl R. basin (23 in Louisiana, 5 in Mississippi) and 17 in the Atchafalaya basin. An aerial census 22 Jun in the lower Pearl R. basin yielded 151 individuals (JOC, SAD, PS). Among other records for the season, one 25 Jun in *Attala*, MS (TS, MS) stood out. If it was nesting on the nearby Yockanookany R., as Schiefer suspected might be the case, it would represent a northward range expansion in Mississippi. A count of 27 Mississippi Kites 11 Jun in *Elmore*, AL (TAP, TB) was noteworthy, and one 5 Jul in *Bibb* (GDJ) was unusual for the Mountain region. Of Bald Eagle reports, three were from the s. part of the Region, where summer records are rare: 9 Jun in *Rapides* (JH) and 1 & 15 Jul in *New Orleans* (CB). The others included a bird of the year in early Jun in *Oktibbeha*, MS, which had fledged on 30 Apr (TS), one 28 Jun in *Lincoln*, AR (LA), and sightings in *Lee*, *Bibb*, and *Talladega*, AL (TH, GDJ, DGJ, ECS). A juv. Northern Harrier 31 Jul in *Lowndes*, AL (TAP) was—if one assumes it was a fall migrant—the earliest ever for the state. Cooper’s Hawks continue to be found summering, or even breeding, in new locations, as they reoccupy their former nesting range. There were several records from s. Louisiana and Mississippi, including at least 2 taking birds at feeders in *Hancock* (NB) and *Harrison*, MS (SS)

through the period. One on a *Bossier*, LA B.B.S. route 13 Jun (LRR) was unprecedented. There were six reports of *Swainson’s Hawks*, normally seen in summer only in nw. Arkansas (and rare even there). Arkansas records both came from *Benton*, in the extreme nw. corner of the state, 3 (MMI; 2 ads.) & 11 Jul (JN, MML; one ad.), but



This series of images from 31 March 2004 compares Vaux’s Swifts (left) with very similar Chimney Swifts (right); all were taken between the University Lakes and Highland Road in East Baton Rouge Parish, Louisiana, where at least 24 Vaux’s spent the winter, the last bird being observed 12 April. On the two upper left images, note the relatively straight trailing edge to the wing, the translucence in the secondaries, and the contrastingly pale rump. At right, the Chimney Swifts’ wings appear longer and broader, with a bulge through the trailing edge and no distinct translucence in the secondaries. The Vaux’s at lower left shows the throat and breast a very pale ashen color. Photographs by Daniel Lane.

there were also four reports from sw. Louisiana: one in *Calcasieu* and another in *Cameron* 23 Jun (GG), one 8 Jul in *Acadia* (JK), and 2 more in *Calcasieu* 21 Jul (GG). A Merlin 27 Jun in *Tuscaloosa* (JJ) established only the 3rd Jun record for Alabama.

Purple Gallinules produced several interesting records away from the coast, where most summering occurs, including 6 young in three broods in *Noxubee*, MS (TS), three pairs 20 Jun in *Howard*, AR (CM), one on the same date in *Red River*, LA (NM, JB), and 4 ads. 31 Jul in *Arkansas* (KN, LDN). Common Moorhens nested at Noxubee N.W.R. for the 5th consecutive year (TS), and three nests were found 20 Jun in *Howard*, AR (CM).

SHOREBIRDS THROUGH TERNS

Even though only three species nest regularly in the Region, shorebirds attract attention during Jun and Jul as the last spring migrants hurry north to breed, almost encountering the earliest southbound migrants. Furthermore, a not-insignificant number of non-breeding individuals linger throughout the period, especially on the coast in the interstitial period of about 10 Jun to 5 Jul. An American Golden-Plover 18 Jul (LW, BD) in

Lowndes, presumptively southbound, was the earliest ever in fall for Alabama; one was seen nearby 31 Jul as well (TAP). While 20 Snowy Plovers 22 Jun on *Pelican I.*, *Mobile* (DD, CD, HEH) represented a maximum count in “recent decades,” 2 Piping Plovers with them established the first Jun record for Alabama (DD, CD, HEH). Southbound migrants were noted 30 Jul in *White*, AR (KN, LDN) and the next day in *Prairie*, AR (KN, LDN) and in *Lee*, MS (WP). A total of 520 Black-necked Stilts 25 Jul in and around *Vermilion*, LA (JK, ES) was of note, as were the 80 American Avocets in *Vermilion* the same day (JK, ES). Of several reports of the almost strictly coastal Willet, the most interesting were of singles seen 25 Jun in *Lafayette*, MS (GK), 28 Jun in *Lauderdale*, AL (TMH), 11 Jul in *Caddo*, LA (NM, JB), and 30 Jul in *White*, AR (KN, LDN). Records from *Orleans*, LA (PW, DM) and from *Vermilion* were also of interest. Whimbrels were found lingering in coastal Louisiana throughout Jun, including one on the unprecedented date of 27 Jun in *Lafourche* (ph. RDP). One 27 Jul in the same area (DPM) may have been an early fall migrant or a “summering” individual. While a Western Sandpiper 9 Jun in *Benton*, AR (MMI) was marginally late, 2 White-rumped Sandpipers 22 Jun in the same location (MMI) were quite late but still

presumably moving north. Less easy to categorize was one seen nine days later on the coast at Grand Isle, LA (LR, JP), adequately described. Although the species is a very rare fall migrant, there are three previous "summer" records for se. Louisiana. Pectoral Sandpipers on 13 & 16 Jun in Benton, AR (MML) were late northbound migrants.

A light-morph imm. Parasitic Jaeger was seen 14 Jun flying along the beach at Ft. Pickens, FL, and another in the same plumage was seen in similar circumstances 23 Jun (RAD). A Laughing Gull 1 Jul in Colbert, AL (TMH, m.ob.), almost on the Tennessee line, was very far inland. A first-summer Franklin's Gull 13 Jun in Benton, AR (MML) was exceptionally late for a species whose migration here is usually over by mid-May; a first-summer Ring-billed Gull 14 Jul in Caddo (NM, JB) was similarly unusual in nw. Louisiana.

Roof-nesting Gull-billed Terns in New Orleans attracted considerable attention this season, in part because of the total abandonment of what had been the largest colony, numbering 150 pairs or more, at a Metairie shopping center (RDP). On the other hand, they nested on other rooftops, including the University of New Orleans campus, and were generally widespread during the breeding season (DPM, RDP). A total of 247 was counted on the 8–9 Jun census of the Chandeleur Is. (SWC, DLD et al.), along with 585 Caspian Terns, mostly paired. The Royal Tern and Sandwich Tern colonies at the lower end of the Chandeleur Is. 19 Jun had an estimated 30,000 individuals, with Sandwich present in twice the numbers of Royal (DPM, RDP). Although 6 Common Terns were found on S. Gosier and Curlew Is. (where they have twice nested) 8–9 Jun (SWC, DLD, MM, CS), none seemed territorial. A total of 150 in Cameron 8 Jul (JK, SZ) represented a high number for midsummer. A Forster's Tern 24 Jun in Noxubee, MS (TS) was the latest ever for that area by a week. Possibly breeding Least Terns were seen inland 20 Jun in Tunica and Tallahatchie, MS as well as 5 Jul in Concordia (JH) and 28 Jul in Pointe Coupee, LA (CB); another was seen 10 Jun inland in Lauderdale, AL (TMH). A Sooty and 11 Bridled Terns were seen 6 Jun off South Pass (DLD, SWC, MM, DPM, PC). The 8–9 & 19 Jun trips to the Chandeleur Is. yielded 10 and 4 Sooty Terns, respectively, from S. Breton to Curlew Is. Some were clearly on nests. Past totals here have reached as high as 30 pairs. Three separate reports of migrating Black Terns in n. Mississippi 31 Jul (GK, WP, TS) all noted large numbers, ranging from 30 to 148.

DOVES THROUGH MIMIDS

Reports of Eurasian Collared-Doves by Marion Schiefer 12–13 Jul from Perry, Greene, Jones, and Newton documented the continuing expansion in this part of Mississippi. Single White-winged Doves, which are expanding as breeders on the Alabama coast, were noted 17 Jun in Mobile and 20 Jun in Baldwin (TS, JS, HEH). At least two Inca Dove nests were carefully watched in opposite corners of Louisiana, at Grand Isle mid-Apr+ (m.ob.) and 29 Apr–5 Jun in Shreveport. A pair of Common Ground-Doves, probably nesting, was seen 12 Jun in Greene, MS (MS). The first Buff-bellied Hummingbird for the season in Louisiana was a very early one 5–7 Jul in Baton Rouge (MMA, CMA), and the first



This Gray Kingbird at New Orleans 17 May 2004 was found very near the site of the second nesting record for Louisiana from 2003. Photograph by Phillip Wallace.

Calliope and Rufous Hummingbirds arrived in the last few days of Jul: an ad. male Calliope 30 Jul in Covington (LK, LB) and an imm. male Rufous 28–29 Jul in Slidell (PS, JS, LB). At a previously unknown location were 4 Red-cockaded Woodpeckers near Mandeville, LA 22 Jun (CB).

Three Willow Flycatchers, including 2 singing, at Wheeler N.W.R. 9 Jun+ (CDC) apparently represented the first confirmed nesting for Alabama. Another in song 10 Jun in Boone, AR (JS, PS) was in an area where they have nested; a silent Willow/Alder Flycatcher 25 Jul in Washington, AR (MML) was presumably a transient. A singing/calling Least Flycatcher 5 Jul in Morgan, AL (DJS) established the 2nd summer record for the state. Of an Eastern Phoebe 17 Jul in Baldwin, AL (CK), Jackson commented that summering might be becoming more frequent in the species, and another was seen 30 Jul in St. Bernard, LA (RS); there were no previous se. Louisiana records between early May and late Sep. A very "late" ad. male Vermilion Flycatcher 8 Jun in Pope, AR (MF) was hardly less unusual. The first known

nesting of Western Kingbird in Mississippi was established on 6 Jun in DeSoto (ph. JRW); 4 nestlings were noted on 18 & 20 Jun. For the 2nd year in a row, Gray Kingbirds nested along the New Orleans lake-front. As reported in the spring, ads. were found 16 May (EW) and a nest five days later (NN). That nest was abandoned, perhaps because of heavy rains, but a new nest was found 3 Jul, with 3 or 4 nestlings (DPM). An ad. and 2 fledged juvs. were seen as late as 29 Jul (ph. DPM). There are no other nesting records for Louisiana. Scissor-tailed Flycatchers were found during Jun, probably breeding, in Grant, Vernon, and Caldwell, LA (RS, JH). Breeding had not been confirmed in any of those parishes for the Louisiana Breeding Bird Atlas.

Although the species is an uncommon but regular breeder in Arkansas in open-country thickets, a total of 8 singing male Bell's Vireos 21 & 24 Jun in Prairie (LY, WS) was noteworthy. Apparently territorial Black-whiskered Vireos were noted in nw. Florida 4–7 Jun at Gulf Breeze (RAD, LD, BT) and 10 & 22 Jun at Ft. Pickens (JL). Two Tree Swallow nests 10 Jun in Talladega, AL (ECS) were at a new breeding site, and a pair 4 Jul in Shelby, AL (GJH, JG) was probably nesting. Cliff Swallows continued to nest in new localities in Grant and Vernon, LA (JH), and 2 Cave Swallows in Jun among Cliffs at the Chef Menteur Pass bridge in e. New Orleans (MP, PW, RDP) established only the 2nd record for se. Louisiana. Gray Catbirds, which breed erratically in the s. part of the Region, were noted in Hancock, MS, where six pairs were noted throughout the period (NB, JB, JoP, JaP), and 9 Jun in Tangipahoa, LA (RM, DM; 2 ads., 3 juvs.). A single catbird was seen 27 Jun in Benton, MS (RP, CB, SV).

WARBLERS THROUGH ICTERIDS

Two Blue-winged Warblers 24 Jul in St. Tammany, LA (CB) were the earliest ever for se. Louisiana by about a week, and a Nashville Warbler 22 Jun in Macon (TH) was the first ever in summer in Alabama. In e.-cen. Mississippi, Schiefer had the latest-ever Yellow Warbler by five days, on 1 Jun in Oktibbeha, and an arrival on 22 Jul that missed being earliest ever by two days. Single birds 12 Jun in Chicot and the next day in Lincoln, AR (LA) were well away from the Ozark Mts., where they breed sparingly. A singing male Chestnut-sided Warbler 3–4 Jun in Macon (TH) was likely a late migrant, but a territorial male 29 Jun in Newton (MML) was at what would be a new breeding location for the species in nw. Arkansas. The same was true of a male Black-throated Green Warbler 19 Jun in Franklin, AR (MML, RAB), and an

ad. male 29 Jun in *Bibb*, AL was very far s. for a possible breeder. While it was unclear whether a Cerulean Warbler 11 Jul in *Talladega*, AL (GJH, JG) was an early migrant or a local breeder, one 23 Jul in *Lee*, AL (LW) was surely a migrant. Probably nesting was a pair of Worm-eating Warblers 22 Jun in *Macon*, AL (TH), well se. of normal breeding range. The "high priority" Swainson's Warbler, which is uncommon in e.-cen. Mississippi, was recorded in three separate localities (5 birds) during the period in *Okibbeha*, MS (TS). Six were counted on a B.B.S. route 10 Jun in *Talladega* (ECS), in Alabama's Mountain region. A singing male Wilson's Warbler 3 Jun in *Washington*, AR was a very late migrant.

Two pairs of Scarlet Tanagers 25 Jun in *Macon* (TH), presumably breeding, would be the southernmost for Alabama, while 6 were seen 29 Jun in *Bibb*, AL. A singing male heard 27 Jun in *Benton* (WRP) was near the s. limit of its breeding range in Mississippi. Bachman's Sparrows were reported from Noxubbe N.W.R., MS in Jun-Jul (TS), and 2 were heard 18 Jun in *Franklin*, AL (DJS). A Lark Sparrow 6 Jun in *Noxubee*, MS (TS, MS) was near the s. limit of breeding range; 6-8 in *Autauga*, AL 2 Jun (TAP) were of interest; and 8 seen 18 & 25 Jul in *Benton* and *Washington* (MMI, JN) evidently provided evidence of the timing of southward migration in nw. Arkansas. Three reports of Grasshopper Sparrow were received from *Tunica*, *Clay*, and *Monroe* in n. Mississippi, at the edge of breeding range, in late Jun-Jul+ (WRP, GK, SK, TS). Well w. of

normal breeding range were singles at three places 6 Jun in *Noxubbe*, MS (TS, MS) and 2 on the Dundee B.B.S. route 20 Jun in *Tunica*, MS (WRP). A singing and calling Western Meadowlark 12 Jun in *Drew*, AR (LA) was



This nesting Willow Flycatcher at Wheeler National Wildlife Refuge, Alabama 9 June 2004 furnished the first confirmed nesting record for the state. Photograph by C. Dwight Cooley.

320 km w. of normal breeding range. An ad. male Shiny Cowbird was present 2-25 Jun at Ft. Pickens, FL (RAD, LD, LC), and a female was at Gulf Breeze 23 Jun (JF).

Contributors (subregional editors in bold-face): Leif Anderson, Peggy Baker, Rose Ann Barnhill, F. Bassett, Linda Beall, Sandy Berg-

er, Jerry Bertrand, Jerry Bird, Ned Boyajian, Chris Brantley, Carolyn Bullock, Steve Cardiff, Laura Catterton, Morris Clark, Paul Conover, C. Dwight Cooley, Jennifer Coulson, Sheri A. DeFrancesch, Donna Dittmann, Danny M. Dobbs, David Dortch, Carrie Dortch, Robert A. Duncan (nw. Florida), Lucy Duncan (nw. Florida), Frank Farrell, Shirley Farrell, Jere French, Mel Fry, Jessica Germany, Gay Gomez, Thomas M. Haggerty, G. J. Harber, Kallum Herrington, T. Hicks, Howard E. Horne, Jay Huner, Greg D. Jackson (Alabama), Debra G. Jackson, Jud Johnston, Linda Keefer, Joe Kleiman (Louisiana), Gene Knight, Shannon Knight, Claire Krusko, Jan Lloyd, Heidi Lopes, Mike Macolini, Cindy Macolini (CMA), Rusty Mahoney (RMA), Dionne Mahoney, Don McKee, Nancy Menasco, Charles Mills, Mike Mlodinow, Damela Morgan, David P. Muth, Mac Myers, Joe Neal, Nancy Newfield, Kenny Nichols, LaDonna Nichols, Max Parker (Arkansas), Wayne Patterson, W. Robert Peeples, Joe Pettigrew (JoP), Jake Pettigrew (JaP), Jed Pitre, Matt Pontiff, T.A. Pratt, Robert D. Purrington, Herschel Raney, Larry R. Raymond, Dave Richardson, Lisa Robichaux, Perry Samrow, Marion Schiefer, Terence Schiefer (Mississippi), Suzanne Schneidau, Rosemary Seidler, Judy Self, Don Self, John Sevenair, William Shepherd, Edna Silverman, Damien J. Simbeck, E.C. Soehren, Pat Solomon, Jerry Solonom, Mary Stevens (MSt), Jack Stewart, Pam Stewart, Betsy Tetlow, Donald P. Toups, Steve Veltman, Phillip Wallace, Ed Wallace, Jeff R. Wilson, Lyndal York. 🐦

State of the Region

C. Dwight Cooley • Wheeler National Wildlife Refuge
2700 Refuge Headquarters Road • Decatur, Alabama 35603 • (sabrewing@earthlink.net)

Robert A. Duncan
Lucy R. Duncan
614 Fairpoint Drive • Gulf Breeze, Florida 32561 • (Town.Point@att.net)

Robert D. Purrington • Department of Physics • Tulane University
New Orleans, Louisiana 70118 • (danny@tulane.edu)

Phillip A. Wallace • 4515 South Prieur Street • New Orleans, Louisiana 70125
(pwallace@newmanschool.org)

In the face of increased development and human demands for food, housing, jobs, and recreation, bird populations in the Central Southern Region are being forced into smaller areas of habitat and into marginal or degraded habitats, where they are subjected to increased competition for food resources, higher predation and incidence of disease, and increased risk from phenomena such as drought and hurricanes. While we may have little influence on natural events and their impacts on bird populations and habitats, we can reverse or lessen the impacts of what is called "development." The following phenomena are of tremendous conservation concern.

Forested Wetland Loss and Fragmentation Before the arrival of European settlers, there were more than 390 million wetland acres in what is now the United States of America. Since the 1700s, approximately 53% of U. S. wetlands have been drained, dredged, filled, or altered, and over the past 200 years, approximately 89% of all wetland losses have occurred in the area that is now the southeastern United States (Tiner 1984). Wetland losses in the Mississippi Alluvial Valley (Bird Conservation Region [BCR] 26) have been particularly insidious and have impacted many bird species. The valley stretches for 700 miles through seven states, from Cairo, Illinois to the Gulf of Mexico. Approximately 80% of the predominately forested wetland floodplain has been dramatically altered for navigation, flood control, and agricultural production. Nowhere has habitat loss and degradation been more noticeable than in the Lower Mississippi Valley (LMV). Wetland losses have averaged 165,000+ acres annually (Tiner 1984). Habitat loss reached its zenith between 1950 and 1970, when over 30% of remaining wetlands were converted to other uses (Mitsch and Gosselink 1986), primarily agricultural production. Riparian habitats rich in passerine diversity at all seasons, broad floodplains used by shorebirds, and vast wooded swamplands have all been casualties of the taming of the Mississippi River. The Central Southern Region's more upland forests—in the Ouachitas and plains of western Louisiana and southwestern Arkansas (BCR 25), in the southern terminus of Appalachia in northeastern Alabama (BCR 28), and in the hardwood forests of northern Alabama and Arkansas (BCR 24)—have all been subject to fragmentation, resource extraction, and other types of degradation, which bring with them problems of invasive, exotic flora, increased cowbird parasitism, and greater exposure to mammalian and other predators.

Coastal Wetlands Loss and Marine Environmental Degradation Coastal wetlands and beaches are being destroyed or altered at an alarming rate. Historically, marshes, coastal

prairies, pitcher plant bogs, and barrier islands of the northern Gulf of Mexico provided habitat for large concentrations of marsh-, beach-, and colonial-nesting waterbirds. In Louisiana alone, coastal marshes have declined at an average rate of almost 25,000 acres annually (Tiner 1984). Depending on the authority consulted, it is estimated that the state loses an area of coastal marsh equivalent to a football field every 15 minutes (Davis-Wheeler 2004) to every 38 minutes (LDNR 2004), a product of altered siltation patterns and sea-level rise. Authorities agree that Louisiana lost about 2000 mi² of land in the twentieth century and expect that the state will lose another 500 mi² in the next 50 years. To put this in continental context, Louisiana currently has 30% of the total coastal marsh and accounts for 90% of the coastal marsh loss in the lower 48 states. Almost \$40 billion is predicted to be lost in the seafood industry alone by 2050, not to mention staggering losses of foraging habitat for wading species and breeding habitat for marsh birds (Davis-Wheeler 2004). With the warming of oceans, too, hurricanes are predicted to become more frequent and more powerful; *Ivan* of September 2004 devastated habitats in western Florida and Alabama, both at the coast and inland. In addition, with the increase in human population along coastal areas, many traditional shorebird and wading bird staging and nesting areas are being disturbed by human recreational activities. Marine waters of the Gulf of Mexico have suffered tremendously from over-harvest of marine resources and especially from pollution and excess sediment from the Mississippi River, from industrial and residential build-up—both on the coast and offshore (oil-drilling platforms)—and from ship traffic.

Coastal Maritime Forest and Chenier Loss

Development of coastal areas and loss of habitat has been rampant over the past 50 years. In addition to forested and coastal wetland loss alluded to above, loss of important staging and stopover habitat along the northern Gulf of Mexico is significantly impacting landbird migrants during spring and fall (Barrow et al. 2002). Research has demonstrated that forested habitats in the Gulf Coastal Prairie (BCR 37) and cheniers of southwestern Louisiana, as well as the shrub-scrub habitats to the east, are extremely important to landbird migrants. Radar studies conducted by Gauthreaux (1971) demonstrated that on any given trans-Gulf event during periods of good weather, approximately 10% of spring migrants land in near-coast wooded habitats in coastal Louisiana. However, during periods of inclement weather, up to 80% of migrants land in these same habitats. When one considers that more than 50% of the U.S. population now resides and works within 50 miles of the coast and that recently, 40% of all new commercial development and 46% of all new residential development has occurred near the coast (NOAA 2004), the implications for migrants and for coastal nesters are apparent. The endangered *pulla* race of Sandhill Crane endemic to the pine savannas of coastal southeastern Mississippi has been reduced to a just over 100 individuals, most of these captive-reared.

Longleaf Pine Ecosystem Decline One of the most biologically diverse of all forest systems in North America, Longleaf Pine was once the dominant forest-cover type over much of the southeastern U. S. coastal plain (BCR 27), an ecosystem that extended in an estimated 90 million-acre unbroken swath from Virginia to east Texas (Crocker 1987). Landscape-level fires that raged through most sites every three to five years maintained not only the Longleaf Pine but also diverse fire-dependent plant and animal communities (Gjerstad and Johnson 2004). Today, fewer than three million acres remain, a decline of almost 97%. In these and similar lowland habitats, Fire Ants have been a plague on ground-nesting species over the past 25 years, and the suppression of fires has meant a decline in forest health and overall species diversity.

Data-deficient Issues ~ Water Use • Though not yet recognized as a significant conservation concern in the southeastern United States, the danger signals are out there. Regulatory and conservation agencies have noted an upswing in reservoir projects aimed at providing water for a number of uses. The inevitable siting issues, particularly in floodplain areas, are of consequence to nesting, migrant, and wintering birds. **Communication Towers** • The impact of towers on bird mortality during migration is well documented. In 1999, the Federal

Communication Commission estimated there were more than 75,000 towers in the United States tall enough to interfere with aviation (Wiedensaul 1999) and countless more that were short enough not to interfere with aviation. With the advent of cellular telephone and digital television technologies, the number of communication towers dotting the landscape has increased dramatically. More importantly, digital television technology will require the construction of thousands of additional lighted towers, most of them taller than 1000 feet. In light of the U.S. Fish & Wildlife Service's estimate in the 1970s that towers taller than 200 feet killed minimally 1.2 million birds annually, there is great cause for concern. **Wind Turbines** • Wind turbines have been constructed in numerous environments to provide an alternative source of energy; in the Central Southern Region, there has been a proposal to retrofit unused oil rigs off Louisiana with "wind farms"—the turbines and towers would be in the path of millions of trans-Gulf migrants. Some studies indicate mortality in migrating birds can be significant around wind farms, particularly in traditional migration corridors influenced by weather and terrain, but much more study is needed, ideally conducted by entities not connected financially to the wind industry.

The projected increase in the human population virtually ensures a future of continued habitat destruction. Fortunately, more and more agencies and citizens seem more cognizant now of the impact habitat destruction is having on natural resources. Several landscape-level habitat initiatives that address past habitat losses are currently underway in the southeastern United States. The LMV Joint Venture has been successful in protecting 280,000+ acres of remaining wetlands and restoring or enhancing another 115,000+ acres (Loesch et al. 1994). Recent partnerships under the U.S. Fish & Wildlife Service's Terrestrial Carbon Sequestration program are making headway in reforesting large acreages. In 1999, Illinova Corporation donated \$13.7 million to the National Fish and Wildlife Foundation, allowing the Foundation to work with Environmental Synergy, Inc. to reforest 100,000+ acres in the LMV over five years. In addition, landowner incentives contained within several USDA programs will result in the restoration or enhancement of large acreages in the LMV. The non-profit Longleaf Alliance has been successful in demonstrating the importance of both the economic and ecological values of the Longleaf Pine ecosystem, and has facilitated the management and restoration of Longleaf Pine not only on public lands but also on private lands. Broad-based collaborative efforts such as these hold the key to bird conservation and are, at present, our best hope for the future.

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Historically, a 90 million-acre swath of Longleaf Pine forests extended unbroken in the Coastal Plain from southern Virginia to eastern Texas. Today, fewer than three million acres remain, a loss of almost 97%. One of the most biologically diverse of temperate forest systems, the health of this habitat depends upon a regime of regular fires. Species such as Bachman's Sparrow and Red-cockaded Woodpecker, along with a host of other organisms, rely upon the remnant patches of Longleaf Pine woods for their continued survival.

Photograph by Elaine Ryan.