

June and July 2004 were characterized by slightly higher-than-normal rainfall and well-below-average temperatures. In fact, July may have been the coolest on record, with multiple frontal passages that reinforced the mild temperatures. The stormy weather of May persisted into the first part of June, but July was nearly devoid of severe weather events. Mississippi and Ohio River levels dropped gradually over the period without major rises, allowing for successful nesting of Least Terns on the former.

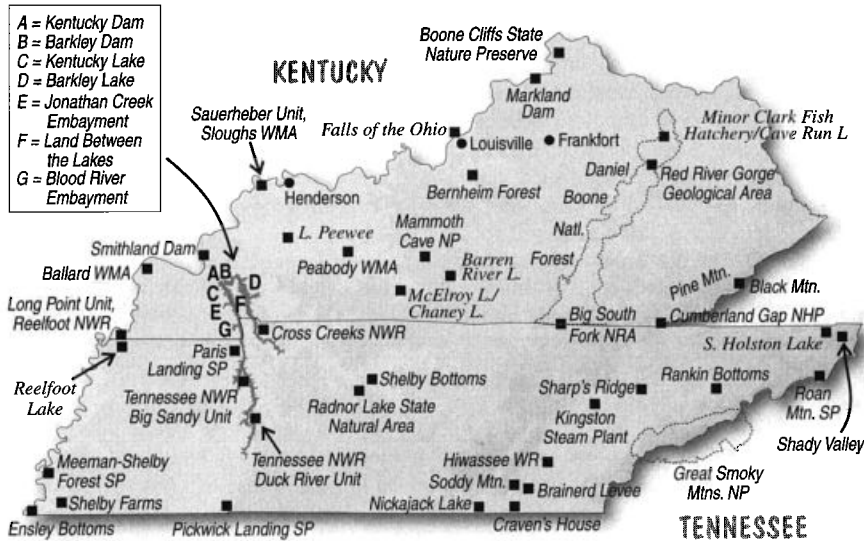
The most unusual rarity from the season was a potential first Kentucky record for Black Skimmer. Other unusual observations included a Neotropical Cormorant, lingering Purple Finches, and a juvenile Red Crossbill. Black-necked Stilt and Scissor-tailed Flycatcher continued their recent trends of nesting in scattered locales, and an Anhinga at a heronry in Kentucky's southwesternmost county may be a promising sign of future nesting. West Nile virus incidence was hardly mentioned by rehabilitators and health officials, boding well for bird populations.

Abbreviations: Ensley (Ensley Bottoms, including the EARTH Complex, in sw. Shelby, TN); Heritage Marsh (Heritage Marsh, White, TN); Kentucky Dam (Kentucky Dam, Livingston/Marshall, KY); White L. (White Lake W.M.A., Dyer, TN).

LOONS THROUGH IBIS

Two to 3 Common Loons lingered above Kentucky Dam into Jun, with 3 there 3 Jun (BP) and one still there 9 Jul (BP); also reported were singles in basic plumage on L. Barkley, Lyon, KY 3 Jun (BP, EC et al.), on Percy Priest L., TN 6 Jun (RC), in Bullitt, KY 7 Jul (ph. E&JH), and in Meade, KY early Jul-Aug (ph. BLw). American White Pelicans lingered through the season, especially along the Mississippi R., as was evidenced by flocks ranging in size from 18 to 193 reported from *Fulton* and *Trigg*, KY and *Lauderdale*, Dyer, and *Lake*, TN. One soaring over the mts. in *Carter*, TN 17 Jul (BS) was rare both for the e. Tennessee location and the date. A Neotropical Cormorant at White L. 7 Jun (†KL, WGC) added to the handful of records for the Region. Again this summer, a few Double-crested Cormorants lingered into or through the season at several localities; nesting colonies at Kentucky L., *Calloway*, KY (at least 20 active nests 21 Jun [HC]), *Rankin Bottoms*, *Cocke*, TN (15 active nests 25 Jul [MSI, LG]), and *Old Hickory L.*, *Davidson/Sumner*, TN (at least five active nests 26 Jun [PC, MZ]) were again active this summer. A female Anhinga at a heronry in *Fulton*, KY 8 Jun (†BP, EC) was a promising indicator that nesting birds may return to Kentucky in the near future. A female at *Eagle Lake W.M.A.*, *Shelby*, TN 13

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& 20 Jun (VH) was possibly nesting in a nearby heronry.

An American Bittern was observed on five occasions in Jul at Heritage Marsh (DDo, SJS), suggestive of breeding. At least five and possibly as many as 10 Least Bittern nests were found at Standifer Gap Marsh, *Hamilton*, TN (DPt) during the period. The Kentucky heronry survey found Great Egrets (from one to 115 pairs per site) breeding at six distinct sites in *Carlisle*, *Fulton* (2), *Hickman*, *Lyon*, and *Marshall* (BP, EC et al.); as has been the case in recent years, at least two pairs were on nests at *Old Hickory L.*, *Sumner*, TN 26 Jun (PC, MZ). At least 10 pairs of nesting Little Blue Herons were present on L. Barkley, *Lyon*, KY again this year (BP, EC et al.). A Tricolored Heron, a rare but regular find in the Region, was observed at White L. 1 Jul (CBu, VRe). Nesting Cattle Egrets were again present on three different islands in n. L. Barkley, *Lyon*, KY (BP, EC et al.). The only nesting sites for Black-crowned Night-Herons in Kentucky were again three islands in n. L. Barkley, *Lyon* (BP, EC et al.) and at *Louisville* (BP, MM). Three different White Ibis, an above-average number, were reported: immes. were observed in *Knox*, TN 15-16 Jul (EM) and at *Chickasaw N.W.R.*, *Lauderdale*, TN 18 Jul (JRW), and an ad. was at *White L.* 6 Jul (WGC).

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WATERFOWL THROUGH RAILS

Single Snow Geese at the *Brainerd Levee Hamilton*, TN 12 Jun (HBi) and in *Fayette* KY in early Jul (WS) were strange summer finds. Blue-winged Teal, a relatively rare breeder, was confirmed nesting at five locales across the Region: s. *Warren*, KY (DR, CH), *Standifer Gap Marsh*, *Hamilton*, TN (CS, m.ob.), *White*, TN (DDo), *Ensley* (JRW), and *White L.* (JRW). The four re-

SA A cooperative statewide survey of heronries in Kentucky yielded further evidence of a marked increase of Great Blue Herons in the Region. As of the early 1950s, about 900 pairs of nesting Great Blues were known from eight sites in Kentucky (more were probably present but unknown to ornithologists of the era). During the DDT era of the late 1960s and early 1970s, this species apparently disappeared from the state as a breeding bird and was seldom seen at other times of the year. However, nesting birds returned in the late 1970s in the w. portion of the state, and a gradual increase commenced soon thereafter. A cooperative survey of active heronries conducted in 1994 documented the presence of more than 1750 pairs at 24 sites. In 1999, more than 2500 pairs were found at 48 distinct colony sites. The 2004 survey yielded a remarkable total of more than 5150 pairs now present at more than 70 sites! Banning of organophosphate pesticides like DDT, recent wetland protection regulations and initiatives, and adaptation to reservoirs and other manmade water bodies apparently are all contributing to this remarkable recovery.

ports for Tennessee represent an above-average number. Lingering waterfowl included a male Gadwall, a male Ring-necked Duck, 2 female Greater Scaup, at least 16 Lesser Scaup, and a pair of Bufflehead—most or all likely injured—on L. Barkley, Lyon, KY 3 Jun (BP, EC et al.); a male Ring-necked Duck in Ohio, KY 20–31 Jul (DR, RD, HC); 3 Gadwall and an American Wigeon at White L. 10 Jul (WGC, KL, BLg); one to 2 Northern Pintails at White L. 23 Jun–23 Jul (WGC, KL, BLg); a male Green-winged Teal at White L. 20 Jun–28 Jul (WGC, KL, JRW); one to 2 Northern Shovelers at Ensley 1 May–17 Jul (JRW, CBU, VRe), plus another at White L. 27 Jun–11 Jul (WGC, KL, BLg, JRW).

A Northern Harrier in Bradley, TN 19 Jun furnished a surprising summer record (BJ). Sharp-shinned Hawks are uncommon summer residents, especially in w. Tennessee, so single individuals in McNairy 2 Jul (MG) and Dyer 21 Jul (CBU, VRe) were noteworthy. An imm. was noted in Hamilton, TN 19 Jul (JSL). Five pairs of Peregrine Falcons again nested along the Ohio R., KY in Jefferson, Trimble (2), Carroll, and Greenup, with successful fledging of one to 4 young from all locations except one of the Trimble sites (TC, SV). In Tennessee, one fledgling was still hanging around the nest site with 2 ads. at Chickamauga Dam, Hamilton 1 Jun (fide KC), and 2 fledglings and 2 ads. were observed near the nest site at Alum Cave Bluff, Great Smoky Mountains N.P. 28 Jun (SH). Three Virginia Rail nests were found at Standifer Gap Marsh, Hamilton, TN 21–29 Jun (DPt); one bird at Heritage Marsh 1 Jul (DDo, SJS) suggested breeding at that location as well. Common Moorhens again nested at the Sauerheber Unit Sloughs W.M.A., Henderson, KY (CC); single individuals were present at Ensley 13–19 Jun (CBU, VRe, JRW) and Shelby Farms, Shelby, TN 21 Jun–2 Jul (CBU, VRe, MW).

SHOREBIRDS THROUGH TERNS

Unprecedented numbers of Black-necked Stilts appeared in w. Fulton, KY in early Jul, with up to 67 counted (49 at one location alone) and four nests observed 5 Jul (JRW, HC); receding water levels likely caused failure of most nests (JRW). What must be con-

sidered the only extralimital observations (now that breeders seem established all along the Mississippi R. floodplain) were a male in s. Warren, KY 2 Jun (DR, NR) and 2 birds in Ballard, KY 1 Jul (CW). An American Golden-Plover was likely an early fall migrant in Dyer, TN 20 Jun (WGC, KL); another was noted to be in basic plumage in w. Fulton, KY 5 Jul (ph. JRW), likewise very early. The shorebird highlights of the season were 2 different Hudsonian Godwits in Tennessee: one at White L. 2–4 Jun (WGC, KL, NM) and an ad. female at Ensley 5–6 Jun (JRW, QBG). Among unusually early “fall” transient shorebirds were a molting ad. Dunlin in Lake, TN 11 Jul (JRW) and a Wilson's Snipe at Ensley 17–18 Jul (JRW et al.). There was a noticeable movement of Willets in late Jun and early Jul along the Mississippi R., with single birds noted in Dyer, TN 22 Jun (WGC, KL), at Ensley 4 Jul (JRW), and at the Shelby Farms, Shelby, TN 8 Jul (WRP), as well as 6 at Ensley 10 Jul (JRW). Noteworthy early-season peak shorebird counts included 1387 Least Sandpipers at Ensley 17 Jul (JRW) and 1060 Pectoral Sandpipers and 52 Stilt Sandpipers at Ensley 27 Jul (JRW). A Semipalmated Plover at White L. 7 Jun (WGC, KL) was a late spring transient.

An ad. Laughing Gull was present at Kentucky Dam Village S.P., Marshall, KY 6 Jun (HC, CP), and one was at Ensley 26 Jun (JRW). Eight Caspian Terns were still in the vicinity of Kentucky Dam 6 Jun (HC, CP). A first-year Forster's Tern lingered in Marshall, KY to 18 Jun (BP). Quite out of place were 7 ad. Common Terns at Barren River L., Allen/Barren, KY 29 Jun (DR); one at Chickasaw N.W.R., Lauderdale, TN 5 Jul (JRW) was also an unusual find. It was a mixed season for Least Terns. Populations on the lower Ohio R. again endured near or complete failure of nesting attempts due to a lack of optimal sites. At least 26 nests were initiated at a Marshall, KY industrial pond site along the lower Tennessee R. as of 18 Jun (BP), but a predator had destroyed all nests by 9 Jul (BP) and the colony was not reestablished (BP, EC). On the Mississippi R., the story was much better: a 22 Jul survey detected nesting at the three traditional sites in Kentucky in Carlisle (125 birds), Hickman

(420), and Fulton (141) (KJ et al.). The same survey continued downriver 22–23 Jul and documented confirmed nesting at 11 Tennessee sites in Dyer (3 sites), Lake (2), Lauderdale (3), Shelby (one), and Tipton (2) involving just over 2100 birds (19–649 birds per site) (KJ et al.); also, over 600 birds were noted in Tipton, TN 12 Jun (JRW). A noticeable early-season movement of Black Terns occurred 30–31 Jul, with 4–20 reported at four locales in Kentucky (RD, ER, TB, fide HBr, HC) and 3 at Ensley 31 Jul (JRW). What will become a first state record if accepted by the Kentucky B.R.C. was an ad. Black Skimmer observed loafing and flying around a sandbar along the w. margin of Kentucky Bend, Fulton 22 Jul (†JR, KJ).

CUCKOOS THROUGH STARLING

The only Black-billed Cuckoo reported was one heard in n. Livingston, KY 18 Jun (BP). It was a banner season for Barn Owls in Kentucky, with nine broods reported, some of which were disrupted by a variety of natural events and human activities; broods were reported in Carlisle (DB), Jefferson (DPt), Hart (E&SG), Henry (FM, fide EW), Madison (MSc, fide EW), Marion (DJ), McCracken (SL, fide EW), Shelby (JH, fide EW), and Simpson (RB, fide EW). A calling Yellow-bellied Sapsucker in Monroe, TN 11 Jun (DV) and two pairs with young in Carter, TN in late Jun (DHT et al.) furnished first county breeding records for this uncommon Southern Appalachian breeder.

A relatively late Olive-sided Flycatcher was heard at Mammoth Cave N.P., Edmonson, KY 5 Jun (J&PB et al.). A Willow Flycatcher nest discovered 4 Jun at Standifer Gap Marsh, Hamilton, TN (DHo, BC) furnished the first confirmed breeding of this species in se. Tennessee in at least 10 years. Two Least Flycatchers in the Cumberland Mts.—one on Bootjack Mt., Campbell, TN early to mid-Jun (LB) and one on Fork Mt., Anderson, TN in mid-Jun (LB)—were remarkable in that this species has historically been limited as a breeder to extreme upper e. Tennessee. Continuing the trend of recent years, five Western Kingbird nests were found at Ensley 10 Jul (JRW). Similarly, Scissor-tailed Flycatchers bred widely across the Region, with nests in s. Livingston, KY (m.ob.), Bledsoe, TN 12 Jun (RS), Maury, TN 29 Jun (TE), Rutherford, TN 3 Jul (TW et al.), S. Pittsburgh, Marion, TN 15 Jul (JL), and President's I., Shelby, TN 24 Jul (JRW). Apparently unpaired birds were seen in Lyon, KY (a former nesting site) 3 Jun (BP, EC), at the Brainerd Levee, Hamilton, TN 24 Jul (J&VL), and at Ft. Loudoun Dam, Loudoun, TN 12 Jun (KDE).

A Bell's Vireo singing at Mayfield, Graves, KY 21 Jul (GL) represented a new county summer record. For the 2nd consecutive

year, one was found at Black Bayou W.M.A., Lake, TN 5 Jun (NM, WRP). Two Red-breasted Nuthatches were observed at the traditional nesting area in Wolfe, KY 26 Jun (FR). At least 17 Sedge Wrens were on territory at Ft. Campbell, Montgomery, TN 29 Jul (DM); this is a remarkable concentration for the Region, and especially for Tennessee, from which only a handful of confirmed breeding records are known. One at Heritage Marsh 20 Jul (SJS, DDo) was also suggestive of breeding. Single Swainson's and Gray-cheeked Thrushes at Land Between the Lakes, Lyon, KY 3 Jun (BP) were relatively late. A potential first report for Kentucky was a non-cavity, globe-shaped nest of European Starling situated in the dense interior cover of a red cedar tree in Shelby in Jun (ph. HBr).

WARBLERS THROUGH FINCHES

An Eastern Kentucky University graduate study following up a 2003 Golden-winged Warbler atlas project in se. Kentucky resulted in the recording of 36 territorial males (23 in Bell, 2 in Harlan, 11 in Whitley) and the discovery of seven active nests (one each in Bell and Whitley, five in Bell) (LP et al.); the nests are the first ever reported from Kentucky. The same graduate study located 8 territorial male Brewster's Warblers (4 in Bell, 4 in Whitley) (LP et al.). Quite unusual was a basic-plumaged Chestnut-sided Warbler at Mammoth Cave N.P., Edmonson, KY 21 Jul (SK). Surveys for Cerulean Warblers in the Land Between the Lakes N.R.A., KY/TN during May and early Jun resulted in the documentation of only 13 territorial males (MB, BP, VRo). The most remarkable aspect about this total is that despite several weeks of field work, only that many were found on a large public parcel containing more than 60,000 hectares of potentially suitable forest land habitat! A relatively late Connecticut Warbler was seen and heard in Jefferson, KY 1 Jun (BP); likewise, a relatively late female Mourning Warbler was band-

ed at Edwin Warner Park, Nashville, TN 2 Jun (SB).

A very impressive total of 17 territorial male Bachman's Sparrows and three confirmed breeding pairs was tallied at Fort Campbell (Trigg, KY and Stewart/Montgomery, TN) during Jun (DM). Also impressive was the tally of 6 territorial male Lark Sparrows, plus three probable breeding pairs and one non-singing bird found on Fort Campbell (Trigg, KY and Stewart, TN) in Jun (DM). Two Lark Sparrows were also reported from a somewhat traditional nesting area in w. Boyle, KY 11 Jul (*vide* BK). Henslow's Sparrows continue to expand; a small colony in McCracken, KY in early Jun (AW, HC) represented a new county summer record. Likewise, small colonies in Coffee, TN (DDa) and at Heritage Marsh 11 Jul (SJS, EL, DDo) established new breeding locations for Tennessee. A singing male White-throated Sparrow lingered in a yard in Jefferson, KY to 8 Jun (v.r., ph. BW).

Two small colonies of nesting Bobolinks were followed through the season in Boyle and Mercer, KY (DW, DPe). A male Yellow-headed Blackbird at the Mercer, KY Bobolink nesting locale 3 Jun (†DW, DPe) was certainly out of place. Unprecedented for Kentucky was the presence of one to 2 Purple Finches (what appeared to be a female and a first-year male) that lingered through Jun at a feeding station in se. Jefferson (E&JH), with one last observed there 3 Jul (ph. E&JH). Early in the summer, at least one of the birds had conjunctivitis, which may have been in large part responsible for their presence so late in the season. Also unprecedented for Kentucky was a juv. Red Crossbill that was picked up dead in a yard in Fort Mitchell, Kenton 14 Jul (CBr, *vide* MVi). It is unknown if the bird was of local origin, but suitable breeding habitat is present in the form of several groves of large conifers in at least one nearby cemetery (*vide* FR). Pine Siskins are rare in summer in Tennessee, and

even rarer breeders, so up to 18 at two locations in Carter, TN (BS, TM) in Jun and Jul were noteworthy.

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State of the Region

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Bird conservation in Tennessee and Kentucky faces a number of challenges in a continuing environment of fiscal conservatism and an economy largely based in utilization of natural resources. This largely rural, forested Region is of below-average economy, with a landscape heavily utilized for agricultural purposes, especially in the flatter portions, which have been largely cleared of native prairie and woodland. Resource extraction—for forest products, coal, oil, and natural gas—also remains a mainstay of the economies in both states. With the dearth of significant non-consumptive economic activities, jobs involving natural resources remain the primary source of personal income, which places immense strains on the quality of the natural landscape.

With such stake placed in the extraction of natural resources, environmental regulations remain too weak to protect the landscape from significant changes in the foreseeable future. For example, a continued lack of a state endangered species list in Kentucky hampers efforts by state regulatory agencies to protect a host of species from a variety of threats. Also a problem is the fact

that state and federal natural-resource and wildlife-management agencies in the two-state region remain inadequately funded and staffed, limiting their abilities to fully implement initiatives that might help conserve habitats on scales large enough to bring about positive trends in bird populations. In most cases, only federally threatened and endangered species (of which there are only a handful in the Region) have traditionally received substantive funding for conservation projects.

Forests

First and foremost among conservation concerns in the Region is the need to halt or at least slow the pace of habitat loss, primarily mature forest types. Once mature and diverse in composition, the Region's forests have been greatly diminished in quality and extent by more than two centuries of harvest and conversion to farmland and settlement. About 90% of what remains is privately owned and especially subject to overuse and neglectful management. Profound events such as the appearance of chestnut blight and Dutch elm disease have removed dominant canopy trees in some regions. Logging and other disruptions of forest structure have brought about an increase in Brown-headed Cowbird brood parasitism that likely has been at least partly responsible for a decline in songbirds such as Cerulean Warblers in parts of the Region. Where natural communities are disrupted, exotic plant species have also become a problem, if not to the extent seen in other parts of the continent.

One recent phenomenon that affected the Region's forests greatly was a devastating outbreak

of the Southern Pine Bark Beetle in the early 2000s. This infestation occurred across the Cumberland Plateau and Ridge and Valley subregions and spread out into the Highland Rim and Blue Ridge. The result was the near total loss of a "short-leaf" pine component to upland forests throughout a wide area, which will affect the landscape for many decades to come. Upland forest habitats with a significant pine component had been whittled away and mismanaged over the course of decades, and the beetle infestation was a final blow. The most specific loss from this event was the extirpation of the Region's last remaining Red-cockaded Woodpeckers, which were trapped and translocated to suitable habitat in other states. The U. S. Forest Service has pledged to restore the mixed pine-oak habitat type used by the woodpeckers, but it will be nearly a century before that can be accomplished.

Despite diminishing reserves, coal remains a primary product of the Region, and its extraction will bring considerable loss of additional forested land for some time to come. The most significant threat from mining continues to be the removal of forests at higher elevations, including vast mountaintop areas, in the Appalachian Mountains region, in the eastern third of both states (Bird Conservation Region [BCR] 28). And whenever a new marketable wood product arises, the Region's forests are touted as a source of revenue for local economies.



Once mature and diverse in composition, the forests of Kentucky and Tennessee have been greatly diminished in quality and extent by over two centuries of harvest and conversion for farmland and settlement. Diseases such as chestnut blight and Dutch elm disease, invasions of exotic flora, and extreme mining practices have wrought further changes. The declines of many Neotropical migrant passerines such as Cerulean Warbler (here at Rockport, Texas) are probably tied to the overall decline in forest quality and to increases in brood parasitism by Brown-headed Cowbird. Plans for mountain-top removal (for coal extraction) are projected to eliminate forests used by almost 140,000 Ceruleans in the next ten years; the world population is estimated at under one-half million.

Photograph by Barth Schorre/VIREO.

The cumulative effect of all of these impacts has left the Region's forests lacking in heterogeneous structure (primarily because of the lack of mature trees and canopy gaps) and diminished in species diversity, which has caused a decline in some species that require complex forest structures, such as Cerulean Warbler. The future holds promise of additional plant pathogens (such as the fungal blight *Phytophthora ramorum*) and insect infestations (e.g., Hemlock Woolly Adelgid) that will further alter the forest composition. Such threats will endanger sensitive forest types such as those in the higher elevations of the southern Appalachians that already have been devastated by a host of human impacts including logging, blights, and acid rain. As the Region's forest blocks have become more fragmented and isolated, the need to restore corridors for dispersal and genetic connectivity has increased. Fragmentation does not always occur by conversion of native forest to open lands; the establishment of permanent monocultures of commercial pine is also a problem in the more southern and western portions of the Region.

Wetlands

Prior to European settlement, wetland habitats were prevalent primarily only along the larger river floodplains and were composed mostly of bottomland forests, swamps, and sloughs, with a lesser amount of marshland and open, shallow water pools and mudflats. The loss and degradation of what amounted to several million acres of these natural wetlands through conversion for agricultural use and settlement has had a profound effect on the abundance of waterbirds and many wetland-associated species in the Region. The creation of reservoirs and waterfowl-management units have mitigated a certain amount of this loss, but some wetland species—e.g., marsh birds such as Least Bittern, American Bittern, King Rail—remain greatly diminished in number as breeders in both states.

Given what must have been the overall lack of migratory shorebird habitat in the region prior to European settlement, it is likely that this group of birds is actually now more prevalent in the

Region than it was 200 years ago. Suitable human-created habitats such as agricultural land and impoundment margins are utilized by migratory shorebirds; however, the Region's currently relatively minor contribution to shorebird conservation could be increased if additional habitat was created and managed more efficiently. Unfortunately, in large part due to traditionally scarce funding for non-game species, management schemes on most public land remain focused primarily on game species. Until long-term funding for non-game species is secured, many real opportunities to affect significant non-game conservation goals (such as migratory shorebird management) will remain underutilized. To this end, it is hoped that recently established funding opportunities (e.g. State and Tribal Wildlife Grants program) will help resource management agencies undertake more comprehensive wildlife management in the future.

Early successional and other naturally open habitats

Savannah (open canopy woodland), early successional (scrub/shrub), and grassland habitats once covered large portions of the central and western areas of the Region (primarily BCR 24, Central Hardwoods, and BCR 27, Southeastern Coastal Plain). Most of these open and transitional (between grassland and woodland) areas have been converted to agricultural use and settlement, while the suppression of fire has resulted in the loss of much of the remainder. Currently, recent human activity actually may have resulted in an increase in early successional habitat in the traditionally more heavily forested eastern portions of the two states, where timber harvest and mining have dissected and diminished the woodlands. Restoration of developed areas to open natural habitats in the flatter central and western portions of the Region would seem unlikely on a large scale, as the land here has been heavily developed and carries relatively high value.

Mining in the Region, especially surface and contour mining for coal, presents a double-edged sword. The loss of natural habitat, primarily woodlands, and the pervasive impacts to aquatic systems downstream from the mining activities is profound and probably irreversible in some cases. However, reclaimed mine land now provides one of the largest and most significant components of grassland and shrub-scrub habitats present in the Region, beneficial for Henslow's Sparrows and other species of non-forested habitats.

Growth and development

Urban and suburban growth continues in the Region at an alarming rate. Population growth and associated development consume tens of thousands of acres of land each year. Much of this development is focused around cities and towns, where the natural landscape was converted to farmland many decades ago, but the loss of farmland, a valuable bird habitat in and of itself in many cases, is also progressing at an alarming pace, especially near urban centers. Government programs such as the USDA's Conservation Reserve Program that compensate farmers for taking acreage out of row-crop production (predominantly for corn, soybeans, and wheat in this Region) have benefited some species tied to grassland and early successional habitats by creating habitats that are otherwise diminishing due to development. In the short term, the availability of these open habitats appears to have resulted in an increase in some species, such as Northern Bobwhite and Henslow's Sparrow. Also of concern to migratory birds is the recent proliferation of communication towers: mountain ridges in the eastern portion of the Region are now

being investigated for wind-powered energy potential.

The Future

Despite the poor prospects for major shifts in land-use trends in the Region, there is reason for some degree of optimism. For example, among the Region's most threatened bird species, there have been a number of notable successes. Numbers of nesting wading birds (especially Great Blue Herons and Great Egrets) and raptors (most notably Bald Eagles, Ospreys, and Peregrine Falcons) are increasing. BBS data indicate that while some birds continue to decline at alarming rates, others that were showing significant declines for more than a decade may now not be declining at such significant rates. This may be at least in part a response to resource agencies' efforts to implement regional wildlife conservation. A variety of habitat preservation efforts are under way in the Region, most undertaken by state government resource-conservation and wildlife agencies. Many of these efforts are funded primarily through a relatively recently designated series of federal government programs (State and Tribal Wildlife Grant, Landowner Incentive Program, various Farm Bill programs). These programs hold some promise to provide a relatively stable or increasing funding source in the near term, especially for increased monitoring and small-scale management and habitat protection projects. Federal agencies and private entities in the Region are also participating in projects that involve continued inventory of wildlife populations to identify high-priority areas, conservation of remaining natural areas, and restoration of declining habitats. The hunting community also remains supportive of a diverse array of wildlife (including bird) conservation activities and partnerships continue to widen in scope as national bird conservation plans and coordinated efforts provide momentum.

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