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Three Decades of Change in Great Plains Birds:

A 2009 Supplement to

*The Birds of the Great Plains:
Breeding Species and Their Distribution*

Paul A. Johnsgard

Since the 1979 publication of this book much has been learned of breeding bird distributions in North America, largely as a result of the national Breeding Bird Surveys that were initiated in the 1960s and have continued to the present (Sauer, Hines and Fallon, 2008). From these studies long-term regional average densities of breeding birds have been deduced and national maps generated (Patuxent Wildlife Research Center, 2003). There have also been several state-wide studies on breeding birds of the Great Plains, as represented by breeding bird atlases for South Dakota (Peterson, 1995), Nebraska (Mollhoff, 2001), Kansas (Busby and Zimmerman, 2001), Oklahoma (Reinking, 2004) and Texas (Benson and Arnold, 2001). There have also been breeding bird atlases produced for the adjoining states of Iowa (Jackson, Thompson and Dinsmore, 1996), Missouri (Jacobs and Wilson, 1997) and Colorado (Kingery, 1998).

Based largely on these sources of information, I have updated most of the more than 300 original range maps appearing in this book, and whenever space allowed have placed the updated versions below the original ones, to allow for easy comparisons. In most of these, inked-in areas are shown to indicate higher population densities. In the updated maps light shading indicates regions used by migrating species. No species has shown any significant southward shifts in their breeding distributions, but many southern species have moved northwardly. Some such northward range shifts have been attributed to global warming (Hitch and Leeberg, 2007). A few species, such as the Red-bellied Woodpecker and Wood Duck, have continued to advance westwardly across the Plains States since the early 1900's as riparian woodlands have matured into forests, offering new nesting opportunities for these

tree-dependent species in originally relatively treeless regions. In some markedly expanding species, such as the red-bellied woodpecker and house finch, the clustered dots on these species' range maps are not indicative of either the exact number or locations of known nestings.

Many of the Great Plains breeding species, as well as other non-breeders, occur in the Great Plains during winter months. Early-winter bird distribution maps for nearly 200 bird species wintering in the Great Plains are also now available, based on Christmas Bird Counts of the National Audubon Society from 1968 through 2007 (Johnsgard, 2009). Many of these winter distributions have shifted northward over the past half-century, and also seemingly show the influence of global warming.

The text additions provided here follow the book's original pagination and taxonomy of 1979, although there have since been substantial changes in the official American Ornithologists' Union (A.O.U.) sequence of families and species. The book's original bird family designations are used here, but subsequent taxonomic changes (through 2009) in the A.O.U.'s technical nomenclature and vernacular names are provided.

The terms "increasing nationally" or "declining nationally" in the text below refer to statistically significant (>0.9 probability) national population trends in Breeding Bird Survey data for the species between 1966 and 2006. Species designated by Partners in Flight (Rich *et al.*, 2004) as "species of continental importance" as to conservation concerns are identified as "PIF Watch List species."

The list of species that follows includes all the book's included species that have undergone changes in their vernacular English names, their Latin names, have had significant distributional changes, or have shown significant population trends or otherwise warrant individual mention as of 2009. The list also includes seven additional species that have been documented as breeding within the geographic limits of the book since 1979, for an inclusive Great Plains total of about 330 species..

Page 2: Family Gaviidae: Loons

Common Loon. Increasing nationally at a significant rate.

Page 14: Family Podicipedidae: Grebes

Red-necked Grebe. Nesting at Waubay National Wildlife Refuge, Day County, South Dakota, was reported in 1988 and 1990 (Peterson, 1995).

Eared Grebe. Increasing nationally at a significant rate.

Western Grebe. Increasing nationally at a significant rate. After the 1979 publication of this book the Clark's Grebe (*A. clarkii*) was recognized as a separate species. It is much rarer than the Western Grebe, but their breeding ranges overlap in western Nebraska, South Dakota (Day, Brown, Roberts and possibly Butte counties), and much of North Dakota. The two species differ only slightly in appearance, and their breeding biologies are virtually identical, but hybrids are apparently uncommon (Storer and Nuechterlein, 1992). Nebraska's first nests of Clark's Grebe were documented in 2002 (*Nebraska Bird Review* 72:154. 2004). Colorado had at least 12 known Clark's Grebe breeding sites by the 1990's (Andrews & Richter, 1992).

Page 14: Family Pelecanidae: Pelicans

American White Pelican. Increasing nationally at a significant rate. South Dakota has recent well-established colonies in Day, Marshall, Codington, Roberts and Bennett counties, with a record of 8000–10,000 nests in Day County, 1999 (Tallman, Swanson, and Palmer, 2002).

Page 18: Family Phalacrocoracidae: Cormorants

Double-crested Cormorant. Increasing nationally at a significant rate.
Neotropic Cormorant. This southern species has expanded its range northward and now breeds within the geographic limits of this book in Oklahoma (Reinking, 2004; Baughman, 2006). Non-breeding birds have been observed as far north as Kansas, Nebraska and South Dakota.

Page 22: Family Anhingidae: Darters

Anhinga. Recent known nesting in the region was limited to McCurtain County, Oklahoma, during 1991–1993, and also 1997, 1998 and 2001 (Reinking, 2004).

Page 26: Family Ardeidae: Bitterns and Herons

Great Blue Heron. Increasing nationally at a significant rate.

Green Heron (previously named the Green-backed Heron, *Butorides striatus*). Declining nationally at a significant rate.

Little Blue Heron. Declining nationally at a significant rate.

Cattle Egret. This species has become more common in the Great

Plains since the 1970's. First reported nesting in South Dakota occurred in 1977. About 1,200 nests were found at Sand Lake National Wildlife Refuge, Brown County, in 1994 (Tallman, Swanson, and Palmer, 2002).

Great Egret. Increasing nationally at a significant rate. The first confirmed nesting in South Dakota was documented in 1977, and also occurred in Minnesota during 1977. Western Minnesota nestings have since occurred in Lac Qui Parle, Big Stone, Swift, Pope, Grant and Ottertail counties (Jannsen, 1987)

Snowy Egret. Increasing nationally at a significant rate. The first reported Nebraska nesting occurred in 1959, and South Dakota's in 1977. A colony of 150 nests was present at Lake Andes National Wildlife Refuge, Charles Mix County, South Dakota, in 1989 (Peterson, 1995). During six years (1992–1997) of breeding-bird atlas surveys, four confirmed breeding records were obtained for south-central Kansas (Busby and Zimmerman, 2001). The only recent Nebraska record was for Crescent Lake National Wildlife Refuge, in 1989.

American Bittern. Declining nationally at a significant rate.

Page 40: Family Threskiornithidae: Ibises, Spoonbills

White-faced Ibis. Increasing nationally at a significant rate. The first reported nesting in South Dakota occurred in 1978. In 1989 there were three nesting pairs at Sand Lake National Wildlife Refuge, Brown County (Peterson, 1995). Regular nesting in Nebraska began during the 1980's, and has become regular since then (Sharpe, Silcock and Jorgensen, 2001), especially in the western Sandhills of Garden County. Breeding is also regular in Wyoming and eastern Colorado. There have been several recent confirmed or probable records from the Texas panhandle from 1987 to 1992 (Benson and Arnold, 2001), and a probable breeding in the Oklahoma panhandle (Reiking, 2004).

Page 44: Family Anatidae: Swans, Geese, and Ducks

Trumpeter Swan. Recently most of South Dakota's original breeding Lacreek population has moved into western South Dakota, the Nebraska Sandhills, and eastern Wyoming (Tallman, Swanson, and Palmer, 2002). Nebraska's breeding birds occupy larger Sandhills marshes, many in Cherry and Grant counties. By 1995 the Nebraska population totaled about 150 birds, and there were seven confirmed nestings during the 1984–1989 atlas period (Molhoff, 2001).

Canada Goose. Increasing nationally at a significant rate. The annual rate of national population increase (8.5 percent) in this species is one of the highest reported for any Great Plains bird, and breeding now occurs virtually throughout the entire Great Plains. Most of the breeding birds are probably of the “giant” race. Many more breeding sites are known than those shown on the map.

Mallard. Increasing nationally at a significant rate. The clustered dots shown for Oklahoma and Kansas are not indicative to either the exact number or locations of breedings.

Northern Pintail. Declining nationally at a significant rate.

Cinnamon Teal. Declining nationally at a significant rate.

Northern Shoveler. Increasing nationally at a significant rate.

Wood Duck. Increasing nationally at a significant rate. This species has continued to expand west along larger rivers of the Great Plains, reaching eastern Colorado in the 1970’s, as well as colonizing eastern Wyoming and much of the Yellowstone Valley of eastern Montana. By the 1990’s Colorado had at least 11 known breeding sites (Andrews & Richter, 1992). Breeding now occurs along all of the wooded rivers and streams of Nebraska, and is believed to nest in every South Dakota county (Peterson, 1995). It also breeds though all but the westernmost parts of Kansas and Oklahoma, and there are four confirmed breedings for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).

Bufflehead. South Dakota’s first confirmed nesting occurred in Brookings County, in 1991 (Peterson, 1995). Nebraska’s first record, in Brown County, occurred during 2000 (*Nebraska Bird Review* 69:92, 2001).

Common Merganser. Several breeding records for the Black Hills were documented in the 1980’s. (Peterson, 1995). Nebraska second known nesting (on the Niobrara River) occurred in 2007.

Page 72: Family Cathartidae: American Vultures

Turkey Vulture. Increasing nationally at a significant rate. In recent decades this species has locally adapted to suburban living. For example, in recent decades up to 50 Turkey Vultures have been summering in Lincoln, Nebraska, scavenging on road-kills outside the city, and nesting in abandoned farm buildings. The distribution map is somewhat misleading, as this species isn’t limited to river valleys at the northern part of its range, but is most common in areas of steep topography, where crevices or cave-like nesting sites are available and opportunities for soaring using declivity winds are common.

Page 76: Family Accipitridae: Kites, Hawks, Eagles

Swallow-tailed Kite. Increasing nationally at a significant rate. A PIF Watch List species.

Mississippi Kite. Nebraska's first nesting occurred in Ogallala, Keith County, during the early 1990s, and nesting has continued there annually. More recently nesting in Red Cloud, Webster County, has also been documented. These locations are the species' northernmost known nesting sites. It has been seen, but not yet found to be nesting, in South Dakota.

Northern Goshawk (previously named the Goshawk). Several Black Hills nestings were documented during South Dakota's 1988–1993 atlas project (Peterson, 1995).

Sharp-shinned Hawk. Several Black Hills nestings were documented during South Dakota's atlas project (Peterson, 1995).

Cooper's Hawk. Increasing nationally at a significant rate. City-nesting seems to be increasing in the Great Plains, at least in Nebraska.

Red-tailed Hawk. Increasing nationally at a significant rate.

Red-shouldered Hawk. Increasing nationally at a significant rate.

Broad-winged Hawk. Increasing nationally at a significant rate. Several Black Hills nestings were documented during South Dakota's six-year (1988–1993) atlas project (Peterson, 1995). This small disjunct population in the Black Hills is well separated from other known nesting areas. In 2008 a pair nested in North Platte, Nebraska, well to the west of any previously known breeding in the state, and perhaps resulting from an offshoot of the Black Hills population.

Swainson's Hawk. A PIF Watch List species. Identified as a grassland endemic (Johnsgard, 2001).

Ferruginous Hawk. Increasing nationally at a significant rate. Identified as a grassland endemic (Johnsgard, 2001). Breeding birds are usually associated with the presence of grassland rodents, especially prairie dogs (Johnsgard, 2005).

Harris's Hawk. Declining nationally at a significant rate.

Bald Eagle. Increasing nationally, at an average annual rate of 5.6 percent. The Bald Eagle has increased remarkably in the Great Plains since the early 1970's, when DDT was finally banned. In South Dakota eagles began nesting in 1992, and by 2000 12–16 nests were present (Tallman, Swanson, and Palmer, 2002). Nesting efforts in Nebraska began in 1973, but were not successful until 1991. As of 2009 there were over 50 active nests in Nebraska. Three confirmed nestings were documented in Iowa during their 1983–1990

atlasing project, but by 1995 there were over 30 active nests (Jackson, Thompson & Dinsmore, 1996). By 1991 Colorado had at least 13 known breeding pairs (Andrews & Richter, 1992). In Kansas, eight pairs were nesting by 1997 (Busby and Zimmerman, 2001). In Oklahoma more than 30 pairs were nesting by the 1990s, with a high of 33 nests by 2002 (Reinking, 2004).

Northern Harrier (previously named the Marsh Hawk). Declining nationally at a significant rate. Identified as a grassland endemic (Johnsgard, 2001).

Page 96: Family Pandionidae: Ospreys. Currently (2009) considered part of the hawk family Accipitridae)

Osprey. Increasing nationally at a significant rate. Nesting has occurred in South Dakota since 1990, with records from Pennington, Custer, and Lawrence counties (Tallman, Swanson, and Palmer, 2002). Reintroduction efforts are continuing along the Missouri River of South Dakota. Nesting attempts in western Nebraska near Scottsbluff during 2008 and 2009 were the first reported in modern times.

Page 100: Family Falconidae: Falcons

Prairie Falcon. Identified as a grassland endemic (Johnsgard, 2001).

Peregrine Falcon. Increasing nationally at a significant rate. Nesting in Nebraska has occurred regularly in Omaha (since 1992) and Lincoln (since the early 2000's, as a result of reintroduction efforts. Because of such efforts, there were 58 active nest sites in Colorado by 1991, with the number of nesting sites and young produced increasing annually (Andrews and Richter, 1992).

Merlin. Increasing nationally at a significant rate.

American Kestrel. Declining nationally at a significant rate.

Page 108: Family Tetraonidae: Grouse. Currently 2009 considered a subfamily of the Phasianidae.)

Dusky Grouse (previously named the Blue Grouse). Declining nationally at a significant rate. A PIF Watch List species.

Spruce Grouse, *Falcapennis canadensis* (previously classified as *Dendragapus canadensis*).

Ruffed Grouse. Declining nationally at a significant rate.

Greater Prairie-chicken. The Greater Prairie-chicken has seemingly been declining in range and numbers over most of its range in recent years, although the estimated national rate is not statistically

significant. Only those populations in Nebraska, northeastern Colorado and western Minnesota appear to be stable. There were seven confirmed nestings of Greater Prairie-chickens during Kansas' breeding-bird atlas project (Busby and Zimmerman, 2001). Conversion of the Flint Hills tallgrass prairies of Kansas to wind-farms and the increased use of early-season burning have adversely impacted Greater Prairie-chickens. In Oklahoma there were only two confirmed nestings during that state's breeding-bird atlas project (Reinking, 2004). The Lesser and Greater Prairie-chickens (which are very closely related and were collectively referred to as Pinnated Grouse in this book) are both PIF Watch List species. The Greater Prairie-chicken has been identified as a tallgrass prairie endemic; the Lesser is more adapted to shinnery oak scrub and sand-sage grasslands (Johnsgard, 2001).

Lesser Prairie-chicken. National population surveys of the Lesser Prairie-chicken are too limited to test statistically, but it has been similarly declining in most states within its small range (Johnsgard, 2002). In Oklahoma the Lesser Prairie-chicken declined 80 percent in two decades, while the Greater declined 80–90 percent (Reinking, 2004). The loss of arid sand-sage grasslands to irrigated agriculture has also caused serious declines of the Lesser Prairie-chicken in Kansas, where there was only a single confirmed nesting during its breeding-bird atlas project (Busby and Zimmerman, 2001). There were no confirmed Lesser Prairie-chicken nestings in Oklahoma during that state's breeding bird atlas project, but several nests were later located (Reinking, 2004). There was only one confirmed nesting record of the Lesser Prairie-chicken from the Texas panhandle during that state's breeding-bird atlas study (Benson and Arnold, 2001).

Sharp-tailed Grouse. Identified as a grassland endemic (Johnsgard, 2001).

Greater Sage-grouse (previously named the Sage Grouse). A PIF Watch List species that appears to be in serious decline everywhere across its range, mostly owing to destruction of its sage habitat (Johnsgard, 2002). The region covered by this book is at the eastern edge of the species' range, and South Dakota's small population is now limited to Harding, Butte and Fall River counties (Tallman, Swanson, and Palmer, 2002).

Page 119: Family Phasianidae: Pheasants etc.

Northern Bobwhite (previously named the Bobwhite, currently classified along with the Scaled Quail within a separate family of New

World quails (Odontophoridae). The Bobwhite is declining nationally at a significant rate, and its national population has diminished by about 75 percent over the past 40 years. In Oklahoma the Bobwhite population has been declining 0,9 percent annually (Reinking, 2004). In the high plains of Texas, including the panhandle, the population may be stable but appears to be irruptive, depending on fall and winter precipitation (Brennan, 2007).

Scaled Quail. A PIF Watch List species. Within this book's regional coverage the Scaled Quail is most common in the Texas panhandle, but it has been slowly declining there (Brennan, 2007).

Ring-necked Pheasant. Declining nationally at a significant rate.

Page 124: Family Meleagrididae: Turkeys. (Currently classified as a subfamily of the Phasianidae).

Wild Turkey. Increasing nationally, at an estimated 13.2 percent annually, an almost incredible rate that would produce a population doubling time of less than three years! The Wild Turkey has occupied virtually all of the Great Plains during the past half-century, to the degree that in some areas it has become a nuisance bird in many smaller towns. Turkeys are most abundance along wooded watercourses, as was mapped, but are also common around farms and other local sources of food. Matings with domesticated birds have confused range limits.

Page 128: Family Gruidae: Cranes

Greater Sandhill Crane. Increasing nationally at a significant rate. This race of the sandhill crane is gradually expanding its breeding range west into eastern and central Iowa, and now extends across most of Minnesota. It as bred locally several times in central and western Nebraska in recent years, and possibly also has bred in both North and South Dakota (Johnsgard, in prep).

Page 132: Family Rallidae: Rails, Gallinules & Coots

King Rail. Declining nationally at a significant rate. During six years (1992–1997) of breeding-bird atlas surveys, one confirmed and four breeding records were obtained for Kansas (Busby and Zimmerman, 2001). There were no recent records for Oklahoma during its 1997–2001 breeding-bird atlas project, but there is a possible and a probable breeding record from the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).

Virginia Rail. Increasing nationally at a significant rate.

Black Rail. During six years (1992–1997) of breeding-bird atlas surveys, five possible or probable breeding records were obtained for south-central Kansas (Busby and Zimmerman, 2001). There is an old (1971) breeding record for Oklahoma, but no more recent records.

Page 144: Family Charadriidae: Plovers

Piping Plover. This nationally threatened population bred in Oklahoma in 1987 and 1988, that state's first reported nestings (Reinking, 2004). It also bred for the first time in Kansas in 1996 (Busby and Zimmerman, 2001). Nesting occurs regularly from Nebraska north to North Dakota; Nebraska and North Dakota both currently support large populations. Lake McConaughy is Nebraska's largest nesting center, often having more than 100 nests (*Nebraska Bird Review* 72:148–153, 2004).

Snowy Plover. This rare species bred at Cheyenne Bottoms, Barton County, Kansas, in 1993 and 1997, and at Quivera National Wildlife Refuge, Stafford County, in 1997 (Busby and Zimmerman, 2001). Snowy plovers were first found nesting in Nebraska in 1998 along the Missouri River, followed by further nestings in 1999 and 2000 (*Nebraska Bird Review* 69:93, 2001), but several later nestings have been documented at Lake McConaughy (*Nebraska Bird Review* 73:154–156, 2005). One confirmed nesting was reported along the Missouri River in Iowa during their 1983–1990 atlas project (Jackson, Thompson & Dinsmore, 1996).

Killdeer. Declining nationally at a significant rate.

Mountain Plover. Declining nationally at a significant rate. Because of intensive surveys by the Colorado Bird Observatory, local breeding of this species in southwestern Nebraska is now very well documented, with over 100 nests located in 2007 (*Nebraska Bird Review* 76:120–128, 2008). During their breeding-bird atlas surveys, Kansas had three confirmed nestings. Oklahoma had one possible nesting and there was also a possible nesting in the Texas panhandle. There are no recent indications of nesting in South Dakota. Between 1966 and 1991 the species' population declined over 60 percent. Colorado's Pawnee National Grassland supports a significant portion of the species entire breeding population (Andrews & Richter, 1992; Kingery, 1998). Identified as a grassland endemic (Johnsgard, 2001).

Page 152: Family Scolopacidae: Sandpipers

American Woodcock. During six years of breeding-bird atlas surveys in Kansas (1992–1997), three confirmed, eight probable and four possible breedings of this elusive species were documented (and Zimmerman, 2001), but none were obtained during Oklahoma’s atlas-ing project.

Wilson’s Snipe, *Gallinago delicata* (previously named the Common Snipe, *Gallinago gallinago*).

Long-billed Curlew. Identified as a grassland endemic (Johnsgard, 2001).

Upland Sandpiper. Identified as a grassland endemic (Johnsgard, 2001).

Willet, *Tringa semipalmatus* (previously classified as *Catoptrophorus semipalmatus*). Declining nationally at a significant rate.

Marbled Godwit. Identified as a grassland endemic (Johnsgard, 2001). Nebraska’s first proven nesting occurred in Sheridan County, during 2005 (*Nebraska Bird Review* 73:120, 2005)

Page 162: Family Recurvirostridae: Stilts and Avocets

Black-necked Stilt. This species have been expanding its breeding range in Nebraska and the southern Great Plains. There are several recent confirmed and probable nestings from the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).

American Avocet. This species is especially typical of saline playa lakes in the southern Plains, which are often quite alkaline and may contain toxic levels of selenium.

Page 168: Family Phalaropodidae: Phalaropes. (Currently classified as a subfamily of the sandpiper family Scolopacidae.)

Wilson’s Phalarope. Identified as a grassland endemic (Johnsgard, 2001). Nesting rarely occurs south of Nebraska.

Page 172: Family Laridae: Gulls and Terns

California Gull. Nesting occurred twice in Day County, South Dakota, during that state’s atlas-ing project (Peterson, 1995).

Ring-billed Gull. Increasing nationally at a significant rate. There were four nesting colonies in South Dakota during that state’s atlas-ing project (Peterson, 1995).

Franklin’s Gull, *Leucophaeus pipixcan* (previously classified as *Larus pipixcan*). Identified as a grassland endemic (Johnsgard, 2001). In

1995 South Dakota's Sand Lake National Wildlife Refuge, Brown County, had 127,140 nests, the largest known colony in North America (Tallman, Swanson, and Palmer, 2002). That refuge typically supports 15,000–25,000 pairs (Peterson, 1995).

Forster's Tern. Breeding in the Nebraska Sandhills is more widespread than originally mapped (Molhoff, 2001),

Common Tern. Declining nationally at a significant rate. Nesting was documented at one site in Day County, South Dakota, during that state's atlas project (Peterson, 1995).

Least Tern. A nationally endangered population. Breeding by this species in Nebraska is more widespread than originally mapped, extending farther west in the Niobrara Valley and including the lower Platte (Molhoff, 2001). One confirmed nesting was reported along the Missouri River in Iowa during their 1983–1990 atlas project (Jackson, Thompson & Dinsmore, 1996). Its Oklahoma breeding range is more limited than suggested by the range map, with only four confirmed and four probable nestings observed during that state's breeding-bird atlas project (Reinking, 2004).

There are several confirmed nestings from the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).

Caspian Tern. Increasing nationally at a significant rate.

Page 184: Family Columbidae: Pigeons and Doves

Rock Pigeon (previously named the Rock Dove).

Mourning Dove. This is the most widespread breeding species in Oklahoma, Kansas, Nebraska, and South Dakota, based on breeding bird surveys.

White-winged Dove, *Zenaida asiatica*. This southern species has expanded its range northward and now possibly breeds within the geographic limits of this book (Schwertner *et al.*, 2003; Baughman, 2006). There is one recent record of a possible nesting in the Texas panhandle (Benson and Arnold, 2001), and the species has been observed in Oklahoma, Kansas, Nebraska and South Dakota. A newly fledged bird was found in Boone County, Nebraska, in 2005 (*Nebraska Bird Review* 73:120, 2005).

Eurasian Collared-Dove, *Streptopelia decaocto*. Increasing nationally at a significant rate. This introduced Old World species has expanded its range greatly and now breeds within the geographic limits of this book (Romagosa, 2002; Baughman, 2006). It first found nesting in Oklahoma during 1996, and in Nebraska was found nesting during 1997 (*Nebraska Bird Review* 72:18–23, 2004). First seen in South

Dakota during 1996, by 2009 this rapidly expanding species had been reported from all of Nebraska's 93 counties. By 2009 pioneering individuals had been observed north to North Dakota, northern Montana and southern Saskatchewan.

Inca Dove, *Columbina inca*. Increasing nationally at a significant rate.

This southern species has expanded its range northward (Mueller, 1992; Baughman, 2006). There is one confirmed and three probable nesting records for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001). It nested in Kansas during 1993, and in both Colorado and Oklahoma during 2000 (Reinking, 2004).

Page 188: Family Cuculidae: Cuckoos & Roadrunners

Yellow-billed Cuckoo. Declining nationally at a significant rate.

Black-billed Cuckoo. Declining nationally at a significant rate.

Greater Roadrunner (previously named the Roadrunner).

Page 194: Family Tytonidae: Barn Owls

Barn Owl. Most recent nesting records are from western Kansas and western Oklahoma.

Page 198: Family Strigidae: Typical Owls

Eastern Screech-Owl (previously named the Screech Owl, *Otus asio*).

Western Screech-owl (*Megascops kennicottii*). A possible breeding record for the Western Screech-owl was obtained in Cimarron County, Oklahoma, during 1997–2001 breeding-bird atlas surveys (Reinking, 2004). This would be the first evidence of this species breeding within the Great Plains states as defined in this book. Western Screech-owls have been seen on the Cimarron River in extreme southwestern Kansas, and they regularly breed not far south of the Texas panhandle (Benson and Arnold, 2001). The ranges of Eastern and Western screech-owls appear to come into limited contact in western Texas and the Oklahoma panhandle. Hybrids are evidently rare.

Burrowing Owl. Identified as a grassland endemic (Johnsgard, 2001).

In most parts of the Great Plains this species' range and abundance have declined, in parallel with those of prairie dogs (Johnsgard, 2005).

Barred Owl. Increasing nationally at a significant rate. This species has expanded its range westward since the 1970's, moving slowly along the riparian forests of the Great Plains. At the same time it has rap-

idly moved west across the forests of southern Canada, expanding into the Pacific Northwest forests from British Columbia south to California.

Short-eared Owl. Declining nationally at a significant rate. A PIF Watch List species. Identified as a grassland endemic (Johnsgard, 2001).

Northern Saw-whet Owl (previously named the Saw-whet Owl). There were three confirmed and several probable or possible nestings in the Black Hills during South Dakota's 1988–1993 atlas project (Peterson, 1995). There was a probable nesting in Cherry County, Nebraska, during 1978 (*Nebraska Bird Review* 73:121, 2005).

Page 210: Family Caprimulgidae: Goatsuckers

Chuck-will's-widow. Declining nationally at a significant rate.

Whip-poor-will. Declining nationally at a significant rate.

Common Poorwill (previously named the Poorwill).

Common Nighthawk. Declining nationally at a significant rate.

Page 216: Family Apodidae: Swifts

Chimney Swift. Declining nationally at a significant rate.

White-throated Swift. A PIF Watch List species.

Page 220: Family Trochilidae: Hummingbirds

Ruby-throated Hummingbird. Increasing nationally at a significant rate.

Black-chinned Hummingbird, *Archilochus alexandri*. Not included in this book, this species has since had two confirmed, one probable and seven possible nesting records during Oklahoma's breeding-bird atlas project (Reinking, 2004). A probable nesting was also observed in western Kansas during that state's 1992–1997 breeding-bird atlas project (Busby and Zimmerman, 2001). There was also one confirmed and one probable breeding record for the Texas panhandle during that state's atlas project from 1987–1992 (Benson and Arnold, 2001).

Broad-tailed Hummingbird. There is one recent possible nesting in the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).

Page 226: Family Alcedinidae: Kingfishers

Belted Kingfisher, *Ceryle alcyon* (previously classified as *Megaceryle alcyon*). Declining nationally at a significant rate.

Page 230: Family Picidae: Woodpeckers

Northern Flicker (previously named the Common Flicker). Declining nationally at a significant rate.

Pileated Woodpecker. Increasing nationally at a significant rate.

Red-bellied Woodpecker. Increasing nationally, and expanding westwardly across the Plains states (Busby and Zimmerman, 2001; Reinking, 2004; Baughman, 2006). The clustered dots shown for Kansas are not indicative to either the exact number or locations of breedings

Red-headed Woodpecker. Declining nationally at a significant rate. A PIF Watch List species.

Lewis's Woodpecker. A PIF Watch List species. In South Dakota this species was found nesting in Pennington County during 1990 and 1991 (Tallman, Swanson, and Palmer, 2002). In Nebraska it has been a regular but very localized nester in the Pine Ridge region of Sioux and Dawes counties (Sharpe, Silcock and Jorgensen, 2001; *Nebraska Bird Review* 68:50–55, 2000).

Yellow-bellied Sapsucker. The Black Hills records mapped for this species probably refer to the western variant Red-naped Sapsucker, *Sphyrapicus nuchalis*, now recognized as a separate species.

Hairy Woodpecker. Increasing nationally at a significant rate.

Ladder-backed Woodpecker. Declining nationally at a significant rate.

Red-cockaded Woodpecker. A nationally endangered and PIF Watch List species. Nesting in the defined region is confined to McCurtain County, Oklahoma, where 9–11 nests were monitored from 1997–2001 (Reinking, 2004).

Black-backed Woodpecker (previously named the Black-backed Three-toed Woodpecker).

American Three-toed Woodpecker, *Picoides dorsalis*. This species was previously named the Northern Three-toed Woodpecker, and had been classified as *Picoides tridactylus*, a name now restrictively applied to a Eurasian near-relative. Increasing nationally at a significant rate.

Page 246: Family Tyrannidae: Tyrant Flycatchers

Eastern Kingbird. Declining nationally at a significant rate.

Cassin's Kingbird. This species is now known to be a rare and local nester in Nebraska's Wildcat Hills and Pine Ridge regions (Molhoff, 2001), and also in Bennett, Jackson and Shannon counties of South Dakota (Tallman, Swanson, and Palmer, 2002).

Ash-throated Flycatcher. Nebraska's second known breeding of this species occurred in Kimball County, 2007 (*Nebraska Bird Review* 76:161, 2008).

Eastern Phoebe. Increasing nationally at a significant rate.

Say's Phoebe. Increasing nationally at a significant rate.

Willow Flycatcher. Declining nationally at a significant rate. A PIF Watch List species.

Least Flycatcher. Declining nationally at a significant rate.

Cordilleran Flycatcher. This species was previously considered part of the Western Flycatcher, *Empidonax difficilis*. The Latin name *Empidonax difficilis* now refers only to the more western-oriented Pacific-slope Flycatcher, which breeds in the Sierra and Cascade ranges. South Dakota nesting records for the Cordilleran Flycatcher exist for Meade, Custer and Pennington counties, but breeding probably also occurs in Lawrence and Fall River counties (Peterson, 1995). Nebraska breeding is apparently limited to one or two canyons in Sioux County.

Eastern Wood-Pewee. Declining nationally at a significant rate.

Western Wood-Pewee. Declining nationally at a significant rate.

Page 266: Family Alaudidae: Larks

Horned Lark. Declining nationally at a significant rate. Identified as a grassland endemic (Johnsgard, 2001).

Page 270: Family Hirundinidae: Swallows

Northern Rough-winged Swallow (previously named the Rough-winged Swallow).

Cave Swallow, *Petrochelidon fulva*. A confirmed nesting of the Cave Swallow slightly south of the Texas panhandle (probably in Motley County) suggests that this close relative of the Cliff Swallow may be spreading into the southern Great Plains, as it has been expanding its Texas range dramatically in recent years (Busby and Zimmerman, 2001).

Page 280: Family Corvidae: Jays, Magpies, and Crows

Blue Jay. Declining nationally at a significant rate.

Western Scrub-Jay (previously named the Scrub Jay). There are three recent confirmed and three probable nesting records for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).

Black-billed Magpie. This species, like other scavengers such as jays

and crows, underwent a major population decline and range retraction starting about 2003 with the appearance of the West Nile virus. At least in Nebraska the Magpie's population and range has still not recovered.

Chihuahuan Raven (previously named the White-necked Raven). This species has had a range retraction to the southern parts of its Great Plains range since the mid-1900's, and an associated population decline.

Common Raven. Increasing nationally at a significant rate.

American Crow. Increasing nationally at a significant rate.

Pinyon Jay. Declining nationally at a significant rate. A PIF Watch List species. One of very few documented nestings in Nebraska was reported in 1999 (*Nebraska Bird Review* 68:126–131, 2000; 69:97, 2001).

Clark's Nutcracker, *Nucifraga columbiana*. This is a rare and local breeder in the Black Hills, with one definite nesting record from 1987, as well as eight probable records during South Dakota's atlas-ing program (Peterson, 1995).

Page 292: Family Paridae: Titmice

Black-capped Chickadee, *Poecile atricapillus* (previously classified as *Parus atricapillus*). Increasing nationally at a significant rate.

Carolina Chickadee, *Poecile carolinensis* (previously classified as *Parus carolinensis*). Declining nationally at a significant rate.

Boreal Chickadee, *Poecile hudsonica* (previously classified as *Parus hudsonicus*). Declining nationally at a significant rate.

Tufted Titmouse, *Baeolophus bicolor* (previously classified as *Parus bicolor*). Increasing nationally at a significant rate. Some of the breeding locations shown in the Texas panhandle probably refer to the next species.

Black-crested) Titmouse, *Baeolophus atricristatus*. There are several confirmed and probable nesting records for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001) that presumably refer to this recently recognized (since 2002) species, previously considered conspecific with the Tufted Titmouse. Hybrids between the Black-crested and Tufted Titmouse have been reported from seven southwestern Oklahoma counties (Reinking, 2004).

Juniper Titmouse, *Baeolophus ridgwayi* (previously part of the Plain Titmouse, *Parus inornata*). Twelve nests were found near Kenton, Cimarron County, Oklahoma, from 1998 to 2001 (Reinking, 2004), which is this inconspicuous species' only known nesting area in the Great Plains.

Verdin (currently placed taxonomically in the penduline tit family Remizidae). Declining nationally at a significant rate.

Bushtit (currently placed taxonomically in the long-tailed tit family Aegithalidae). There is one confirmed and several probable nesting records for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).

Page 304: Family Sittidae: Nuthatches

White-breasted Nuthatch. Increasing nationally at a significant rate.

Red-breasted Nuthatch. Increasing nationally at a significant rate.

Page 312: Family Certhiidae: Creepers

Brown Creeper. The only recent regional nesting records are from Custer, Meade and Pennington counties, in South Dakota's Black Hills (Tallman, Swanson, and Palmer, 2002).

Page 316: Family Cinclidae: Dippers

American Dipper (previously named the Dipper). This species is almost entirely limited within the Great Plains region to Spearfish Creek, in South Dakota's northern Black Hills, There is also limited use of Little Elk Creek, Rapid Creek and Whitewood Creek (Tallman, Swanson, and Palmer, 2002).

Page 320: Family Troglodytidae: Wrens

House Wren. Increasing nationally at a significant rate.

Bewick's Wren. The range of this species has apparently been retracting somewhat; it no longer is known to nest in Nebraska, and in the eastern states its populations have declined markedly.

Winter Wren. Increasing nationally at a significant rate.

Carolina Wren. Increasing nationally at a significant rate.

Marsh Wren (previously named the Long-billed Marsh Wren). Increasing nationally at a significant rate.

Sedge Wren,(previously named the Short-billed Marsh Wren). Increasing nationally at a significant rate.

Rock Wren. Declining nationally at a significant rate.

Page 332: Family Mimidae: Mockingbirds & Allies

Northern Mockingbird (previously named the Mockingbird). Declining nationally, but extending its range northwardly (Baughman, 2006).

Brown Thrasher. Declining nationally at a significant rate.

Page 340: Family Turdidae: Thrushes & Allies

American Robin. Increasing nationally at a significant rate.

Wood Thrush. Declining nationally at a significant rate. A PIF Watch List species.

Hermit Thrush. Increasing nationally at a significant rate.

Swainson's Thrush. Declining nationally at a significant rate.

Veery, *Catharus fuscescens*. Declining nationally at a significant rate.

Eastern Bluebird. Increasing nationally at a significant rate.

Mountain Bluebird. Increasing nationally at a significant rate.

Page 352: Family Sylviidae: Gnatcatchers

Blue-gray Gnatcatcher. This species has expanded its breeding range from eastern Colorado east into the Wildcat Hills and Pine Ridge of western Nebraska, and it may have also expanded from southeastern Wyoming into South Dakota's Black Hills (Tallman, Swanson, and Palmer, 2002).

Family Regulidae Kinglets. Previously considered part of the gnatcatcher family Sylviidae.

Ruby-crowned Kinglet. Recent South Dakota nesting records are from Pennington, Lawrence and Custer counties (Tallman, Swanson, and Palmer, 2002). It has not otherwise been reported nesting in the Great Plains states.

Page 358: Family Motacillidae: Pipits

Sprague's Pipit. Declining nationally at a substantial rate (3.9 percent annually). A PIF Watch List species. Identified as a grassland endemic (Johnsgard, 2001).

Page 360: Family Bombycillidae: Waxwings

Cedar Waxwing. Increasing nationally at a significant rate.

Page 368: Family Laniidae: Shrikes

Loggerhead Shrike. Declining nationally at a significant rate. Loggerhead Shrike populations have declined greatly in the Great Plains since the 1970's; for example in Oklahoma they have declined at an estimated 5.4 percent annually in recent decades (Reinking, 2004).

Page 370: Family Sturnidae: Starlings

European Starling (previously named the Starling). Declining nationally at a significant rate.

Page 374: Family Vireonidae: Vireos

Black-capped Vireo. A nationally endangered and PIF Watch List species. During Oklahoma's breeding-bird atlas project one possible and three confirmed nestings were observed (Reinking, 2004).

Bell's Vireo. Declining nationally at a significant rate. A PIF Watch List species. Populations have declined greatly in the Great Plains since the 1970's, at least partly owing to high parasitism rates by Brown-headed Cowbirds.

Yellow-throated Vireo. Increasing nationally at a significant rate.

Blue-headed Vireo, *Vireo solitarius*, Cassin's Vireo, *V. cassinii*, and Plumbeous Vireo, *V. plumbeus* (previously named the Solitary Vireo). After the publication of this book, the Solitary Vireo was split taxonomically into three species. Within the Great Plains region, the Blue-headed Vireo nests east of the mapped dashed line in western Minnesota (James, 1998), while the more western-oriented Plumbeous Vireo nests in the Black Hills and Nebraska's Pine Ridge (Curson & Goguen, 1998). The Cassin's Vireo is a far-western species that is not known to nest within the Great Plains, but migrates through the westernmost parts of it. The Blue-headed Vireo is increasing nationally at a significant rate.

Red-eyed Vireo. Increasing nationally at a significant rate.

Philadelphia Vireo. Increasing nationally at a significant rate.

Warbling Vireo. Increasing nationally at a significant rate.

Page 386: Family Parulidae: Wood Warblers

Black-and-white Warbler. Declining nationally at a significant rate.

Prothonotary Warbler. Declining nationally at a significant rate. A PIF Watch List species.

Swainson's Warbler. Increasing nationally at a significant rate.

Golden-winged Warbler. Declining nationally at a significant rate.

Blue-winged Warbler. Declining nationally at a significant rate. A PIF Watch List species.

Northern Parula. Increasing nationally at a significant rate.

Magnolia Warbler. Increasing nationally at a significant rate.

Yellow-rumped Warbler. Increasing nationally at a significant rate.

Cerulean Warbler. Declining nationally at a substantial rate (3.8 per-

cent annually). A PIF Watch List species. It is extremely rare in Nebraska (*Nebraska Bird Review* 73:124–130, 2005), and only three confirmed nestings were found in Iowa during their 1983–1990 atlas project (Jackson, Thompson & Dinsmore, 1996). In Kansas and Oklahoma there were also no confirmed nestings during their breeding-bird atlas projects (Busby and Zimmerman, 2001; Reinking, 2004).

Yellow-throated Warbler. Increasing nationally at a significant rate.

Chestnut-sided Warbler. Declining nationally at a significant rate.

Bay-breasted Warbler. A PIF Watch List species.

Pine Warbler. Increasing nationally at a significant rate.

Prairie Warbler. Declining nationally at a significant rate.

Palm Warbler. Increasing nationally at a significant rate.

Ovenbird. Increasing nationally at a significant rate.

Louisiana Waterthrush. Increasing nationally at a significant rate.

Kentucky Warbler. Declining nationally at a significant rate. A PIF Watch List species.

Mourning Warbler. Declining nationally at a significant rate.

MacGillivray's Warbler. Declining nationally at a significant rate.

Common Yellowthroat. Declining nationally at a significant rate. A PIF Watch List species.

Yellow-breasted Chat. Although the range map has not been altered, this species has almost entirely disappeared as a breeder from eastern Nebraska. It also becoming rare in eastern South Dakota (Tallman, Swanson, and Palmer, 2002), and in Kansas it is apparently nearly absent from the central part of that state. These population changes are typical of the entire eastern population of this species. Its Oklahoma distribution appears to be stable (Reinking, 2004).

Canada Warbler. Declining nationally at a significant rate.

American Redstart. Declining nationally at a significant rate.

Page 420: Family Ploceidae: Sparrows. (The two introduced U.S. species are currently classified within the Old World sparrow family Passeridae.)

House Sparrow. Declining nationally at a significant rate.

Page 424: Family Icteridae: Blackbirds & Allies

Bobolink. Declining nationally at a significant rate.

Eastern Meadowlark. Declining nationally at a significant rate.

Western Meadowlark. Declining nationally at a significant rate.

Red-winged Blackbird. Declining nationally at a significant rate.

Baltimore (Northern) Oriole, *Icterus galbula*. Previously (from the late 1960's to 1995) considered with the Bullock's Oriole to comprise the Northern Oriole (*I. galbula*). After the publication of this book the Baltimore and Bullock's orioles were again recognized as separate species, as they historically had been. The Baltimore breeds east of the Great Plains in eastern North America. Occasional hybridization between it and the Bullock's Oriole occurs along their Great Plains zone of contact, but at a low and apparently declining rate (Rising, 1983; Rising and Flood, 1998). Both species are declining nationally at a significant rate.

Bullock's (Northern) Oriole, *Icterus bullockii*. Considered part of the Northern Oriole from the 1960's to the 1980's. In the mid-1980's the Bullock's Oriole regained recognition as a distinct species, breeding in western North America but locally hybridizing with the Baltimore Oriole where the two are in contact (Rising and Williams, 1999; Brown *et al.*, 1996, Scharf *et al.*, 2008).

Brewer's Blackbird. Declining nationally at a significant rate.

Great-tailed Grackle. Increasing nationally at a significant rate. This southern species has expanded its range greatly since the publication of this book (Johnson and Peer, 2001; Baughman, 2006). Breeding now commonly occurs as far north as central Nebraska, and six confirmed nestings were reported in Iowa during their 1983–1990 atlas project (Jackson, Thompson & Dinsmore, 1996). By the late 1990's it was breeding in Clay, Minnehaha and Charles Mix counties, South Dakota (Tallman, Swanson, and Palmer, 2002). Many more breedings are known for the region of recent range expansion than are shown on the map.

Common Grackle. Declining nationally at a significant rate. There are numerous confirmed, probable and possible nesting records for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001)

Brown-headed Cowbird. Declining nationally at a significant rate.

Page 440: Family Thraupidae: Tanagers. (The genus *Piranga* is currently considered part of the cardinal family Cardinalidae; thus no members of the Thraupidae as now constituted breed north of Mexico.)

Western Tanager. Increasing nationally at a significant rate.

Summer Tanager. There is one confirmed nesting record for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001). The clustered dots shown for Kansas are not indicative to either the exact number or locations of known breedings

Page 446: Family Fringillidae: Sparrow-like Birds. This large and confusing assemblage is currently (2009) divided into three families: **Cardinalidae** (cardinal-like species, pp. 447-454), **Fringillidae** (finches, pp. 455-462), and **Emberizidae** (typical sparrows, pp. 462-387).

Northern Cardinal *Cardinalis cardinalis* (previously classified as *Richmondia cardinalis*). This species is slowly extending its range northwardly and westwardly (Baughman, 2006). Colorado had at least four confirmed breeding records by the 1990's (Andrews & Richter, 1992).

Rose-breasted Grosbeak. Declining nationally at a significant rate. Hybridization with the western-oriented Black-headed Grosbeak occurs in a central Great Plains contact zone (Rising, 1983; Brown *et al.*, 1996; Scharf *et al.*, 2008).

Blue Grosbeak, *Passerina caerulea* (previously classified as *Guiraca caerulea*). Increasing nationally at a significant rate.

Indigo Bunting. Declining nationally at a significant rate. Hybridization with the Lazuli Bunting is widespread in the Great Plains (Rising, 1983; Brown *et al.*, 1996; Scharf *et al.*, 2008). Colorado had at least 12 known breeding sites by the 1990's, and several hybrid records (Andrews & Richter, 1992).

Painted Bunting. There are several confirmed, probable and possible nesting records for the Texas panhandle from 1987-1992 (Benson and Arnold, 2001)

Dickcissel. A PIF Watch List species. Identified as a grassland endemic (Johnsgard, 2001). Populations have declined greatly in the Great Plains since the 1970's, at least partly owing to very high nest parasitism rates by Brown-headed Cowbirds.

Evening Grosbeak. Declining nationally at a significant rate.

Cassin's Finch, *Carpodacus cassinii*. Breeding by this species is limited to the Black Hills of South Dakota, where it is uncommon (Tallman, Swanson, and Palmer, 2002). It was inadvertently omitted from the first edition of this book.

Purple Finch. Declining nationally at a significant rate.

House Finch. This species has expanded its Great Plains range greatly since the publication of this book (Hill, 1993), and will soon have occupied the entire Great Plains region northward to southern Canada. There have been far too many recent breeding sites to map them individually—the mapped dots are not specific as to location or number.

Pine Siskin, *Acanthus pinus* (previously classified as *Carduelis pinus*). Declining nationally at a significant rate.

- American Goldfinch, *Spinus tristis* (previously classified as *Carduelis tristis*).
- Lesser Goldfinch, *Spinus psaltria* (previously classified as *Carduelis psaltria*). There are two confirmed and one probable nesting records for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).
- Red Crossbill. Declining nationally at a significant rate.
- Eastern Towhee and Spotted Towhee. Previously (from 1957) considered, together with the Spotted Towhee, to comprise the Rufous-sided Towhee. After the 1979 publication of this book the Eastern Towhee was again recognized as a separate species, which is declining nationally at a significant rate. It breeds in eastern North America west to the central Great Plains (Greenlaw, 1996b), where it meets the Spotted Towhee. Extensive hybridization between these two dubiously distinct species occurs along their Great Plains zone of contact (centered on the mapped dashed line), blurring their geographic limits (Rising, 1983). Intergrades occur in Platte Valley of Nebraska (Brown *et al.*, 1996. Scharf *et al.*, 2008), and in northeastern Colorado (Andrews & Richter, 1992).
- Canyon Towhee (previously named the Brown Towhee). Declining nationally at a significant rate. There one confirmed and several possible nesting records for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).
- Lark Bunting. Declining nationally at a significant rate. Identified as a grassland endemic (Johnsgard, 2001).
- Savannah Sparrow. Declining nationally at a significant rate.
- Grasshopper Sparrow. Declining nationally at a significant rate. Identified as a grassland endemic (Johnsgard, 2001).
- Baird's Sparrow. Declining nationally at a significant rate. A PIF Watch List species. Identified as a grassland endemic (Johnsgard, 2001).
- Henslow's Sparrow. Declining nationally at a very rapid rate (over six percent annually). A PIF Watch List species. Identified as a grassland endemic (Johnsgard, 2001). Nebraska's first proven nesting occurred in Hall County during 2004 and 2005 (*Nebraska Bird Review* 73:122, 2005).
- Nelson's Sparrow (previously named the Nelson's Sharp-tailed Sparrow). A PIF Watch List species.
- Vesper Sparrow. Declining nationally at a significant rate. Identified as a grassland endemic (Johnsgard, 2001).
- Lark Sparrow. Declining nationally at a significant rate. Identified as a grassland endemic (Johnsgard, 2001).

Rufous-crowned Sparrow. Declining nationally at a significant rate. There are several confirmed, probable and possible nesting records for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).

Cassin's Sparrow. Identified as a grassland endemic (Johnsgard, 2001).

Black-throated Sparrow. Declining nationally at a significant rate.

Dark-eyed Junco. Declining nationally at a significant rate.

Clay-colored Sparrow. Declining nationally at a significant rate. Identified as a grassland endemic (Johnsgard, 2001).

Brewer's Sparrow. Declining nationally at a significant rate. A PIF Watch List species. Identified as a grassland endemic (Johnsgard, 2001).

Field Sparrow. Declining nationally at a significant rate. There are several confirmed, probable and possible nesting records for the Texas panhandle from 1987–1992 (Benson and Arnold, 2001).

White-throated Sparrow. Declining nationally at a significant rate.

Swamp Sparrow. Increasing nationally at a significant rate. Breeding in Nebraska's Sandhills is probably more widespread than suggested by the map (Molhoff, 2001).

McCown's Longspur. A PIF Watch List species. Identified as a grassland endemic (Johnsgard, 2001).

Chestnut-collared Longspur. Declining nationally at a significant rate. Identified as a grassland endemic (Johnsgard, 2001).

Page 489: Appendix A.

More recent checklists for many of the parks and refuges listed can be found at the web site of the Northern Prairie Wildlife Research Center: URL: http://www.npwrc.usgs.gov/resource/type_c.htm.

Page 513. References.

State Breeding Bird Surveys

Benson, K. L. P., and K. A. Arnold (eds.). 2001. *The Texas Breeding Bird Atlas*. College Station & Corpus Christi, TX: Texas A. & M. University System. URL: <http://txtbba.tamu.edu>.

Busby, W. H. and J. L. Zimmerman (eds.). 2001. *Kansas Breeding Bird Atlas*. Lawrence, KS: University Press of Kansas.

Jackson, L. S., C. A. Thompson and J. J. Dinsmore. 1996. *The Iowa Breeding Bird Atlas*. Iowa City, IA: University of Iowa Press.

Jacobs, B., and J. D. Wilson. 1997. *Missouri Breeding Bird Atlas: 1986–1992*. Jefferson City, MO: Missouri Dept. of Conservation.

Kingery, H. (ed.). 1998. *Colorado Breeding Bird Atlas*. Denver, CO: Colorado Division of Wildlife. 600 pp.

- Mollhoff, W. J. 2001. *The Nebraska Breeding Bird Atlas*. Lincoln, NE: Nebraska Game & Parks Commission.
- Peterson, R. A. 1995. *The South Dakota Breeding Bird Atlas*. Aberdeen, SD: South Dakota Ornithologists' Union.
- Reinking, D. L. (ed.). 2004. *Oklahoma Breeding Bird Atlas*. Norman, OK: University of Oklahoma Press.

State, Regional & National References

National Studies

- Alderfer, J. (ed.) 2006. *National Geographic Complete Birds of North America*. Washington, D.C.: National Geographic Society.
- Baughman, M. (ed.) 2006. *Reference Atlas to the Birds of North America*. Washington, D.C.: National Geographic Society.
- Hitch, A. T., and P. L. Leeberg. 2007. Breeding distribution of North American bird species moving north as a result of climate change. *Conservation Biology* 21:54–59.
- Jones, J. O. 1990. *Where the Birds Are: A Guide to all 50 States and Canada*. New York, NY: Wm. Morrow.
- Patuxent Wildlife Research Center. 2003. The North American Breeding Bird Survey, Results and Analysis, 1966–2003. Relative Abundance Maps. Laurel, MD: USGS Patuxent Wildlife Research Center. See associated URL: http://www.mbr-pwrc.usgs.gov/bbs/htm03/ra2003_red_v2.html
- Price, J., S. Droege, and A. Price. 1995. *The Summer Atlas of North American Birds*. San Diego, CA: Academic Press.
- Rich, T. C. *et al.* (eds.). 2004. *North American Landbird Conservation Plan*. Ithaca, NY: Partners in Flight and Cornell University Laboratory of Ornithology.
- Sauer, J. R., J. E. Hines and J. Fallon. 2008. The North American Breeding Bird Survey, Results and Analysis, 1966–2007. Version 5.15.2008. Laurel, MD: Patuxent Wildlife Research Center. See associated web site: <http://www.mbr-pwrc.usgs.gov/bbs/bbs.html>

The Great Plains

- Johnsgard, P. A. 2001. *Prairie Birds: Fragile Splendor in the Great Plains*. Lawrence, KS: University Press of Kansas.
- Johnsgard, P. A. 2001. *The Nature of Nebraska: Ecology and Biodiversity*. 2001. Lincoln NE: University of Nebraska Press.
- Johnsgard, P. A. 2002. *Grassland Grouse and their Conservation*. Washington, D.C.: Smithsonian Inst. Press.
- Johnsgard, P. A. 2003. *Great Wildlife of the Great Plains*. Lawrence, KS: University Press of Kansas,

- Johnsgard, P. A. 2005. *Prairie Dog Empire: A Saga of the Shortgrass Prairie*. Lincoln, NE: University of Nebraska Press.
- Johnsgard, P. A. 2009. *Four Decades of Christmas Bird Counts in the Great Plains: Ornithological Evidence of a Changing Climate*. (Maps by Tom Shane) Lincoln, NE: *University of Nebraska Papers in Ornithology* URL: <http://digitalcommons.unl.edu/biosciornithology/46/>
- Knopf, F. L. 1996. Prairie legacies - birds. Pp. 13-48, in *Prairie Conservation: Conserving North America's Most Endangered Ecosystem*. (F. B. Samson and F. L. Knopf, eds.). Island Press, Covelo, CA.
- Knopf, F. L., and F. B. Samson (eds.). 1996. *Prairie Conservation: Conserving North America's Most Endangered Ecosystem*. Island Press, Covelo, CA.
- Rising, J. D. 1983. The Great Plains hybrid zone. *Current Ornithology* 1:131-157.
- Savage, C., J. A. Williams and J. R. Page. 2006. *Prairie: A Natural History*. Vancouver, B.C.: Greystone Books.
- Trimble, D. E. 1990. *The Geologic Story of the Great Plains*. Medora, ND: Theodore Roosevelt Nature and History Association.

Colorado

- Andrews, R., and R. Richter. 1992. *Colorado Birds: A Reference to Their Distribution and Habitat*. Denver, CO: Denver Museum of Natural History.

Iowa

- Dinsmore, J. J., T. H. Kent, D. Koenig, P. C. Petersen and D. M. Roosa (eds.). 1984. *Iowa Birds*. Ames, IA: Iowa State University Press.
- Mutel, C. F. 1989. *Fragile Giants: A Natural History of the Loess Hills*. Iowa City, IA: University of Iowa Press. 284 pp.

Kansas

- Cable, T. T., S. Seltman, and K. J. Cook. 1996. Birds of Cimarron National Grassland. Ft. Collins, CO: *Forest Service General Technical Report RM-GTR-281*.
- Rising, J. D. 1974. The status and faunal affinities of the summer birds of western Kansas. *University of Kansas Science Bull.* 50:347-88.
- Thompson, M. C., and C. Ely. 1989, 1992. *Birds in Kansas*. 2 vol. Lawrence, KS: University Press of Kansas.
- Zimmerman, J. L. 1990. *Cheyenne Bottoms: Wetland in Jeopardy*. Lawrence, KS: University Press of Kansas.

Zimmerman, J. L. 1993. *The Birds of Konza: The Avian Ecology of the Tallgrass Prairie*. Lawrence, KS: University of Kansas Press.

Minnesota

Janssen, R. B. 197. *Birds in Minnesota*. Minneapolis, MN: University of Minnesota Press.

Tester, J. R. 1995. *Minnesota's Natural Heritage: An Ecological Perspective*. Minneapolis: University of Minnesota Press.

Nebraska

Brown, C R., M. B. Brown, P. A. Johnsgard, J. Kren & W. C. Scharf. 1996. The birds of the Cedar Point Biological Station area, Keith and Garden Counties, Nebraska: Seasonal occurrences and breeding data. *Trans. Nebraska Academy of Sciences*, 25:91-108. <http://digitalcommons.unl.edu/biosciornithology/24>

Johnsgard, P. A. 2007. *The Birds of Nebraska*. Revised ed. Lincoln, NE: *University of Nebraska Papers in Ornithology*. URL: <http://digitalcommons.unl.edu/biosciornithology/44>

Scharf, W, J. Kren, L. Brown, and P. A. Johnsgard. 2008. Body Weights and Distributions of Birds in Nebraska's Central and Western Platte Valley. Lincoln, NE: *University of Nebraska Papers in Ornithology*. URL: <http://digitalcommons.unl.edu/biosciornithology/43>

Sharpe, R. S., W. R. Silcock and J. G. Jorgensen. 2001. *Birds of Nebraska: Their Distribution and Temporal Occurrence*. Lincoln, NE: University of Nebraska Press.

North Dakota

Chapman, K. A., M. K. Ziegenhagen, and A. Fischer. 1998. *Valley of Grass: Tallgrass Prairie and Parkland in the Red River Valley*. St. Cloud, MN: North Star Press,

Igl, L. D., and D. H. Johnson. 1997. Changes in breeding bird populations in North Dakota, 1967-1992-3. *Auk* 114:74-92.

Oklahoma

Baumgartner, F. M., and A. M. Baumgartner. 1992. *Oklahoma Bird Life*. Norman, OK: University of Oklahoma Press.

Wood, D. S., and G. D. Schnell. 1984. *Distribution of Oklahoma Birds*. Norman, OK: University of Oklahoma Press.

South Dakota

Froiland, S. G. 1990. *Natural History of the Black Hills and Badlands*. Rev. ed. Sioux Falls, SD: Center for Western Studies.

- South Dakota Ornithologists' Union. 1991. *The Birds of South Dakota* 2nd ed. Aberdeen, SD: South Dakota Ornithologists' Union.
- Tallman, D. A., D. L. Swanson, and J. S. Palmer. 2002. *Birds of South Dakota*. Aberdeen, SD: South Dakota State University.

Texas

- Lockwood, M. W., and B. Freeman. 2004. *The TOS Handbook of Texas Birds*. College Station, TX: Texas A. & M. Press.
- Seyffert, K, D. 2000. *Birds of the Texas Panhandle: Their Status, Distribution and History*. College Station, TX: Texas A. & M. University Press, Natural History Series.
- Tveten, J. L. 1993. *The Birds of Texas*. Fredricksburg, TX: Shearer Publishing.

Wyoming

- Luce, R., R. Oakleaf, A. Cerovski, L. Hunter & J. Friday. 1997. *Atlas of Birds, Mammals, Reptiles and Amphibians in Wyoming*. Lander, WY: Wyoming Game & Fish Dept.

Page 516: References on Individual Species

- Brennan, L. A. 2007. *Texas Quails: Ecology and Management*. College Station, TX: Texas A&M University Press.
- Curson, D. R. & C. B. Goguen. 1998. Plumbeous vireo (*Vireo plumbeus*). In *The Birds of North America*, No. 366. (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.
- Greenlaw, J. S. 1996a. Spotted towhee (*Pipilo maculatus*) In *The Birds of North America*, No. 263 (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.
- Greenlaw, J. S. 1996a. Eastern towhee (*Pipilo erythrophthalmus*), In *The Birds of North America*, No. 262 (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.
- Hill, G. E. 1993. House finch (*Carpodacus mexicanus*). 1993. In *The Birds of North America*, No. 46 (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.
- James, R. D. 1998. Blue-headed vireo (*Vireo solitarius*). In *The Birds of North America*, No. 379 (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.
- Johnsgard, P. A. In preparation. *Ancient Voices Over America's Wetlands: The Sandhill and Whooping Cranes*. In review, University of Nebraska Press.

- Johnson, K. and B. D. Peer. 2001. Great-tailed grackle (*Cassidix mexicanus*). In *The Birds of North America*, No. 576 (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.
- Mueller, A. J. 1992. Inca dove (*Columbina inca*). In *The Birds of North America*, No. 28 (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.
- Rising, J., and N. J. Flood. 1998. Baltimore oriole (*Icterus galbula*). In *The Birds of North America*, No. 384 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia PA, and The American Ornithologists' Union, Washington, D.C.
- Rising, J., and P. L. Williams. 1999. Bullock's oriole (*Icterus bullockii*). In *The Birds of North America*, No. 416 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia PA, and The American Ornithologists' Union, Washington, D.C.
- Romagosa, C. M. 2002. Eurasian collared-dove (*Streptopelia decaocto*). In *The Birds of North America*, No. 630 (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.
- Schwertner, T. W, H. A. Mathewson, J. A. Robertson, M. Small and G. L. Waggener. 2003. White-winged dove (*Zenaida asiatica*). In *The Birds of North America*, No. 710 (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.
- Storer, R. W. & G.L. Nuechterlein. 1992. Western grebe/Clark's grebe (*Aechmophorus occidentalis/A.clarkii*). In *The Birds of North America*, No. 26 (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.