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Cover Page Footnote

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Distribution and Breeding of the Black-Bellied Whistling-Duck (*Dendrocygna autumnalis*) in Arkansas, with a Brief Chronology of Distribution and Breeding in Southeastern United States

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Running Title: Black-Bellied Whistling Duck in Arkansas

Abstract

The Black-Bellied Whistling-Duck (Dendrocygna autumnalis) was a rare bird first reported from Arkansas in 1982, when it was seen in Hempstead Co. in southwestern Arkansas. Observations surged in parts of the state about 2005, then again about 2016, and the bird is now fairly common seasonally in many parts of the state. By use of online sources for citizen science, I elucidate the history of occurrence and present analysis of seasonal distribution of this bird in Arkansas. Individuals occur in Arkansas throughout the year, but observations are most common and widely distributed from March-September, after which most individuals likely migrate southward. Most observations are of a few birds, but a maximum of 1,000 has been estimated at one location and time. The birds have been observed in 52 counties, but the longest and most consistent observations have been in counties near the Red River in southwestern Arkansas, and counties bordering the Mississippi and Arkansas Rivers. The first report of nesting was in Lafayette Co. of southwestern Arkansas, in 1996. Since then, nesting has been reported in 14 counties.

Introduction

The Black-Bellied Whistling-Duck (*Dendrocygna autumnalis*), hereafter BBWD, is a neotropical bird which historically occurred within the United States only in far southern Texas. The first sightings of BBWD in southern North America (the extreme northern range) were believed to be migrants (Bolen 1967; James and Thompson 2020). Range expansion into Gulf and Atlantic coastal states of southeastern North America began in the 1970s (Schneider *et al.* 1993; Cohen *et al.* 2019). Northern expansion of summer distribution as well as breeding range seems to have occurred almost simultaneously from 2 foci – Florida and Texas.

Only 1 occurrence of BBWD was reported by James and Neal (1986) for Arkansas, of 5 immatures at Millwood Lake (Hempstead Co.) on 3 September 1982. More recently, numerous records of occurrence and reproduction have been observed in Arkansas, but details of distribution of summer occupants and locations and dates of reproduction have not been scientifically documented. The purpose of this study is to briefly review the history of distributional expansion of BBWD in the southeastern United States, and to provide detailed insight about the expansion of distribution and breeding range in Arkansas.

Methods and Materials

A literature search was conducted to elucidate the timing of distributional changes of BBWD specifically in Arkansas and generally for southeastern United States. Latitudes of occurrence were evaluated for the northernmost records of breeding in this area, to determine if a latitudinal boundary might exist.

To determine distribution and dates of occurrence of BBWD in Arkansas, records verified by the Arkansas Audubon Society and published on their website (https://arbirds.org/Records/), the citizen science website hosted by the Cornell Lab of Ornithology (https://ebird.org/explore), and reports on the discussion list ARBIRD-L (ARBIRD-L@listserv.uark.edu) hosted at the University of Arkansas were compiled into a spreadsheet. These sources included not only locations and dates of sightings, but also comments describing habitat, behavior, and numbers of birds seen.

Increasing numbers of observations in the data set can be attributed to both an increasing number of birds over time and to an increasing number of observers making reports. I reduced this effect on the data set derived from online sources by deleting duplicate accounts of the same observations, as well as reports for the same location recorded for multiple days. This created a dataset with likely unique observations, which

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was sorted focused by month, year, or county of observation to reveal the history and the presence of this historically rare bird in Arkansas. I examined the seasonal distribution of BBWD in North America to evaluate how the birds dispersed into Arkansas. This was accomplished in eBird (eBird 2021) by use of the science tab, then application of the tab for abundance animation.

Results and Discussion

History of Distribution in Southeastern United States - Cohen *et al.* (2019) documented expanding northward distribution of BBWD from Florida through the southern Atlantic flyway, where BBWD had been reported mostly in marshes along the Atlantic and Gulf coasts (Harrigal and Cely 2004; Balkcom *et al.* 2013). A population of BBWD established since at least the early 1980s in west-central Florida, likely from formerly captive birds gone feral, was documented to be breeding in September 1990 (Palmer 1991). Dispersal from this population was hypothesized to have resulted in confirmed breeding in northern Florida in October 1997 (Bergstrom 1999). It was speculated that established populations in Florida lead to establishment up the eastern seaboard (Palmer 1991; Potter *et al.* 2006).

Expanding up the eastern seaboard, the first Georgia reports of BBWD occurred in southern and coastal counties in 1998 (Balkcom *et al.* 2013), and breeding was confirmed in 2006 (Schneider *et al.* 2010). In South Carolina, a wing from a specimen harvested in 1977 was considered to be an escaped captive (Martin 1984), but a valid distributional record was documented in 1994 (Harrigal *et al.* 1995). Breeding in southern South Carolina was confirmed in 2003 and 2004 (Harrigal and Cely 2004), and the northernmost record (33.2°N) of breeding in that state was found in 2011 (Dozier 2012), and nesting occurred more commonly by 2017 (Croft 2018).

The first BBWD documented in North Carolina was viewed cautiously as a straggler seen in 1968, and a bird of questionable origin was reported in 1998 (Lee 2000), but the 2004 report of a group of 5 adults was accepted as legitimate wild birds (LeGrand *et al.* 2004). No records of breeding have yet been reported in North Carolina.

More western populations of BBWD in the southern United States likely established from dispersal of breeding populations in southern Texas and northern Mexico (Schneider *et al.* 1993; Potter *et al.* 2006). By 1998 the bird bred commonly along the Texas coast and inland at Houston (Bergstrom 1999), as well as into

southwestern Louisiana (Stedman 1994; Purrington 1996; Bergstrom 1999). However, some of the Louisiana population may have resulted from release programs (Wiedenfeld and Swan 2000).

Eastward along the coast into Mississippi, BBWD was first reported in May 1985 (Hodges 1985), then in May 1989 (Schiefer 1990) and July 1996 (Wood 1996). Cohen *et al.* (2019) plotted distribution of reports from ebird up to 2016 that showed more counties with sightings in Texas, Louisiana, and Mississippi. Current data in ebird (ebird 2021) shows numerous occurrences in a continuum across the Gulf Coast, including the addition of Alabama, and scattered but numerous sightings far northward into the eastern half of United States and even Canada.

Breeding populations of BBWD have not spread from Texas only eastward along the coastal states. Extending northward into Oklahoma, the first records of BBWD were from 1983 and 19 reports were made by 1998, mostly from the northeastern part of the state (Baumgartner and Baumgartner 1992; Kamp and Loyd 2001). Later, breeding was reported in July and September 1999 (Kamp and Loyd 2001), in June 2000 (Heck and Arbour 2001) and August 2015 (Wiginton *et al.* 2016). About the same time that BBWD were being reported in Oklahoma, they were becoming more common in Arkansas.

History of Distribution in Arkansas - The first observation of BBWD in Arkansas was of 5 immatures seen 3 September 1982 on Millwood Lake in Hempstead Co. No new reports were made in the state for 5 years, then in 1987 the species was documented again in Hempstead, Howard, and Little River Cos. All locations were in southwestern Arkansas on Millwood Lake and all in August and September. In 1988, reports added the counties of Pulaski (July, September) and Poinsett (June). From 1989-1991, birds were documented repeatedly but only in southwestern Arkansas at Millwood Lake locations. First reports in southeastern Arkansas occurred in 1992 in Chicot Co. (August) and 1994 in Bradley Co. (May).

In later months of 1994, BBWD was reported for the first time in more northern counties of Crittenden (November), Sebastian (September, October), and Washington (November). Lafayette Co. (May) was added in 1996, then no new counties were added until Garland Co. (May) and Miller Co. (June) in 1999. Ashley Co. was reported in August 2002, Benton Co. in August 2003, Monroe Co. in July 2003, and Woodruff Co. in July 2003.

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The BBWD now has been recorded from 52 of the 75 counties of Arkansas (Figure 1). During this time frame, 26 counties have had reports over 1-3 years, 10 for 4-6 years, 4 for 7-9 years, 6 for 10-12 years, and 6 for \geq 13 years. The counties with the most repetitive presence based on the number of years with reports include Hempstead (25), Lafayette (16), Desha (14), Arkansas (13), Crawford (13), and Little River (13). As these records are composited from citizen science, it must be understood that the data do not represent a systematic survey, and that less accessible habitats in other counties also may support unreported summer residents and perhaps nesting pairs (Tumlison *et al.* 2020).

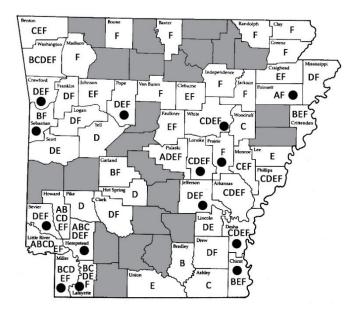


Figure 1. Distribution of the Black-bellied Whistling Duck (*Dendrocygna autumnalis*) in Arkansas (1982-2021) based on literature and records compiled from citizen science websites. Letters in each county represent time frames during which BBWD was observed (the first 2 frames were longer because few birds had been reported, and later frames represent shorter increments): A=1982-1990, B=1991-2000, C=2001-2005, D=2006-2010, E=2011-2015, F=2016-2021). Dots indicate counties in which reproduction has been observed.

For 20 years after the 1982 initial report of BBWD in Arkansas, the bird was reported in 5 or fewer counties each year (most consistently in southwestern Arkansas). From 2005 to 2015 these birds were reported from about 5X as many counties (based on averages for those 2 time frames), then from 2016 to 2021 the average number of counties with reports doubled (Figure 2) as counties more scattered across the state were documented. This may be explained partly by the growing interest in reporting records of birds, which increased after 2000

(Tumlison *et al.* 2020), but obviously a significant influx of BBWD occurred as well. Why 2 asymptotes appear is unclear.

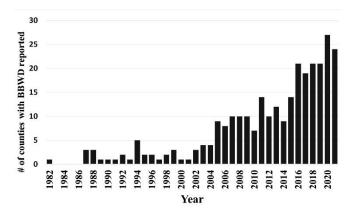


Figure 2. Number of counties in Arkansas with reports of BBWD per year since the first report in 1982.

Unique observations of BBWD in Arkansas peak in May, then reduce and stabilize from June-August at the time the birds begin breeding (Figure 3). Chronological data from eBird showed that birds migrated up the Mississippi and Red Rivers from Louisiana in early April, but birds in eastern Texas expanded northward from about mid-March. The convergence from these origins means that birds in SW Arkansas could have migrated either from eastern Texas or along the Red River from Louisiana.

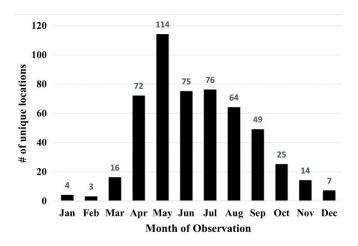


Figure 3. Monthly frequency of unique reported observations of Black-bellied Whistling-Ducks (*Dendrocygna autumnalis*) in Arkansas, 1982-2021.

Sightings of only 1-2 birds occur throughout the year. The maximum numbers of BBWD reported at one place and time in Arkansas include an estimate of 1,000 in Miller Co. on 25 April 2017, 224 on 25 January 2021

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in Arkansas Co., 157 on 16 September 2016 in Lafayette Co., 110 on 4 October 2010 in Little River Co., 109 on 12 May 2013 in Lafayette Co., and 103 on 27 August 2020 from Crawford Co. Flocking is common in this species, and aggregations including 2,000 birds have been reported (Johnsgard 1975). Groups of 10-30 individuals in Arkansas often included offspring, especially from July-October. Groups of ≥40 individuals were reported most from August to November, but such groups were reported in all months of the year, and from counties scattered across the state. Larger groups were reported most in counties that also had reports of reproduction (see Figure 1).

The pattern of monthly occurrence must be viewed cautiously, as reports are based on citizen science and the communicated presence of a rare species often results in multiple reports of the same birds over several days or weeks if the birds remain at the same site. This attribute inflates the numbers of observations of those birds, although these same data reflect continued presence over time. Further, the same individuals or flocks may move short distances and thus be documented at various locations.

Reproduction – The first observation of breeding by BBWD in Arkansas came in May and June 1996, from Lafayette Co. in the southwestern part of the state (Purrington 1996). Since then, reproduction has been observed from May to October in Arkansas, based on reported presence of juveniles, ducklings, or young. The 14 counties with reported reproduction include Chicot, Crawford, Desha, Hempstead, Jefferson, Lafayette, Lonoke, Miller, Poinsett, Pope, Prairie, Sebastian, Sevier, and White (Figure 1).

Descriptors in the database such as hatchling, downy, fluffy, and very tiny, were taken to indicate recent hatching and provide the best available sense of the timing of reproductive events. The earliest reports of hatchlings in Arkansas were on 18 June (Crawford Co.), 19 June (Lafayette Co.), and 23 June (Chicot Co.). Similar reports continued in various counties through August. Especially late dates were 7 September (Crawford Co.), 18 September 2022 (pers. Obs. In Clark Co.), and 18 October (Miller Co.). These data are consistent with the expectation of a late and extended breeding season.

From 6-18 hatchlings (n=13 broods, \overline{X} =11.5 hatchlings) were reported associated with one or both likely parents in Arkansas. The lower numbers might have been due to mortality or hatch failure, but also it can be difficult to see all young simultaneously, so interpretation of such counts is complicated. Reported

normal clutch sizes range from about 13-30, but dump nesting (multiple females laying eggs in the same nest) is common and may create nests of about 100 eggs (James and Thompson 2020). A low percentage of those eggs may hatch.

Further, post-hatch brood amalgamation occurs in BBWD. This is when parents rear their own young as well as those of other individuals, and when pairs cooperatively rear their broods together (Bergman 1994). This may have been the case when 5 adults were reported guarding 15 young in Lonoke Co. on 15 August 2020.

Nests of BBWD in Arkansas have been found in natural cavities, in nest boxes made for Wood Duck (*Aix sponsa*), and on the ground. This is consistent with observations in Georgia (Balkcom *et al.* 2013) and Texas (McCamant and Bolen 1979), where use of nest boxes as a management tool seems limited if there is successful ground nesting (O'Kelly 1987). When nest boxes are used, BBWD seem to prefer boxes with an entrance hole of at least 10 cm in diameter (Bolen 1967).

Habitat requirements supporting breeding are variable (Bolen *et al.* 1964), but tend to include a site near a pond, lake, or wetland, a surrounding band of vegetation within 1 km, availability of 0.5 suitable cavities per ha, 20% shrub understory beneath cavity trees, and brood-rearing habitat (shallow water with emergent vegetation) within 400 m of the nest (McKenzie and Zwank 1988), but cultivated cropland also is used (Bolen and Rylander 1983). Such habitats are available near many municipal water treatment plants and wetlands near major streams in Arkansas.

Why these birds have increased their northernmost breeding range may be related to climate change. Hitch and Leberg (2007) showed a significant northward shift in the distribution of the southern species of birds included in their study over a 26-year period. Cain (1973) had argued that energetic costs due to low spring temperatures might restrict the northern limit of breeding by BBWD to about the latitude of Dallas, TX (32.7°N), and subsequently the birds were found nesting commonly in the Dallas-Fort Worth area (Pulich 1988; Schneider et al. 1993). The southern border of Arkansas (33.0°N) is slightly north of that latitude, but the northernmost locations of known breeding in Arkansas are 35.4°N (Crawford Co. vic. Alma) and 35.6°N (Poinsett Co. vic. Weiner). The northernmost breeding records from Oklahoma are at similar latitudes: 36.2°N (Osage Co. N of Sand Springs) and 36.0°N (Kingfisher Co. S of Hennessey). This shift in breeding range is about 350 km north of the latitude of Dallas. Further, the northernmost record of breeding in South Carolina was

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33.2°N (Dozier 2012). Hardiness zone maps produced by the USDA over time show similar expansion of southern hardiness for plants (https://www.fs.fed.us/wildflowers/Native_Plant_Mate_rials/Native_Gardening/hardinesszones.shtml). If plants are becoming increasingly able to survive farther northward, it is logical that the same phenomena are affecting distributions of southern birds.

Oberholser (1974) noted that BBWD breeds in coastal south Texas from May through October and occasionally in early November. Cain (1973) suggested that BBWD might nest farther north if they delayed breeding until later in the year. First reported breeding in Arkansas was in May and June of 1996 (SW AR), but later in the year farther north: in September in Poinsett Co. and June, July, August, and September in Crawford Co. First records of breeding in Oklahoma were reported in July and September 1999 from northeastern Oklahoma and September in northwestern Oklahoma (Kamp and Loyd 2001). Nesting in southeastern Oklahoma was documented in June 2000 (Heck and Arbour 2001) and southwestern Oklahoma in August 2015 (Wiginton et al. 2016). Breeding in northern Florida was confirmed in October 1997 (Bergstrom 1999). The first record of breeding in South Carolina was in 2003 (Harrigal and Cely 2004) but occurred fairly commonly by 2017, with a nesting season ranging from May-September but peaking in June-July (Croft 2018).

Conclusions – BBWD were first reported in Arkansas in 1982, but since about 2005 they have reappeared consistently and have become a state resident known to appear in 52 counties and breed in at least 14 counties. Number of observations peak in May, then decline as many birds may leave or reduce movements during the breeding season, which extends from May-October. The rather scant number of breeding observations may indicate most breeding in August and September in Arkansas. Large flocks of up to 1,000 have been reported. Northern expansion of range across the southeastern US appears to be related to climate change.

Acknowledgments

We thank the many bird enthusiasts who systematically collect and report observations of birds. We thank Dan Scheiman for his efforts in updating the eBird data base for Arkansas birds, which made this project much easier to conduct.

Literature Cited

- **Balkcom GD, BT Bond**, and **TM Schneider**. 2013. Current status and distribution of the Black-bellied Whistling duck (*Dendrocygna autumnalis*) in Georgia. The Oriole 77:81-84.
- **Baumgartner FM** and **AM Baumgartner**. 1992. Oklahoma bird life. University of Oklahoma Press (OK). 532 p.
- **Bergman DL**. 1994. Post-hatch brood amalgamation by Black-bellied Whistling-ducks. Wilson Bulletin 106:563-564.
- **Bergstrom BJ**. 1999. First reported breeding of black-bellied whistling-duck in northern Florida. Florida Field Naturalist 27:177-179.
- **Bolen EG**. 1967. Nesting boxes for black-bellied tree ducks. Journal of Wildlife Management 31:794-797
- **Bolen EG** and **MK Rylander.** 1983. Whistling-ducks: zoogeography, ecology, anatomy. Special Publications, The Museum, Texas Tech University 20:1-67.
- **Bolen EG, B McDaniel**, and **C Cottam**. 1964. Natural history of the black-bellied tree duck (*Dendrocygna autumnalis*) in southern Texas. Southwestern Naturalist 9:78-88.
- Cain BW. 1973. Effect of temperature on energy requirements and northward distribution of the black-bellied tree duck. Wilson Bulletin 85:308-317
- Cohen BS, SE Askin, GD Balkcom, RJ Benedict Jr., JA Rader, JD James, BA Collier, and MJ Chamberlain. 2019. Survival and distribution of Black-bellied Whistling-duck (*Dendrocygna autumnalis*) in the southeastern United States. Journal of the Southeastern Association of Fish and Wildlife Agencies 6:123-128.
- Croft GD. 2018. Reproduction and nest-box selection by wood ducks and black-bellied whistling ducks in coastal South Carolina [MS thesis]. Clemson (SC): Clemson University. 66 p. Available from: https://tigerprints.clemson.edu/cgi/viewcontent.cgi/2article=3985&context=all_theses.
- **Dozier J**. 2012. Black-bellied Whistling-Duck nest in the Santee Delta-Winyah Bay area of South Carolina. The Chat 76:16-18.
- **eBird**. 2021. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology (Ithaca, NY). Available: http://www.ebird.org (Accessed: 30 December 2021).

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- **Harrigal D** and **JE Cely**. 2004. Black-bellied whistling-ducks nest in South Carolina. The Chat 68:106-108.
- **Harrigal D, P Laurie**, and **C Floyd**. 1995. Black-bellied Whistling-Ducks observed in Colleton County, South Carolina. The Chat 59:99-100.
- **Heck BA** and **WD Arbour.** 2001. First nesting records of the Black-bellied Whistling-Duck in southeastern Oklahoma. Bulletin of the Oklahoma Ornithological Society 34:17.
- **Hitch AT** and **PL Leberg**. 2007. Breeding distributions of North American bird species moving north as a result of climate change. Conservation Biology 21:534-539.
- **Hodges MF Jr**. 1985. Birds around the state: December 1984-November 1985. The Mississippi Kite 15:24-38.
- **James DA** and **JC Neal**. 1986. Arkansas birds: their distribution and abundance. The University of Arkansas Press (AR). 402 p.
- **James JD** and **JE Thompson**. 2020. Black-bellied Whistling-Duck (*Dendrocygna autumnalis*), version 1.0. *In* Birds of the world (AF Poole and FB Gill, eds.). Cornell Lab of Ornithology, Ithaca, NY. https://doi.org/10.2173/bow.bbwduc.01
- **Johnsgard PA**. 1975. Waterfowl of North America. Indiana University Press (IN). 575 p.
- **Kamp MB** and **J Loyd**. 2001. First breeding records of the Black-bellied Whistling-duck for Oklahoma. Bulletin of the Oklahoma Ornithological Society 34:13-17.
- **Lee DS**. 2000. Photograph of Black-bellied and White-faced Whistling-Ducks from North Carolina, with comments on other extralimital waterfowl. The Chat 64:93-99.
- **LeGrand HE Jr, KE Camburn, S Cooper, RJ Davis, EV Dean, WK Forsythe**, and **RL Tyndall**. 2004. 2004 annual report of the North Carolina bird records committee. The Chat 69:29-34.
- **Martin EM**. 1984. A 1977 record of a Black-bellied Whistling-Duck from Lee County, S.C., comes to light. The Chat 48:14.
- **McCamant RE** and **EG Bolen**. 1979. A 12-year study of nest box utilization by Black-bellied Whistling ducks. Journal of Wildlife Management 43:936-943.
- McKenzie PM and PJ Zwank. 1988. Habitat suitability index models: Black-bellied Whistling duck (breeding). United States Fish and Wildlife Service Biological Report 82 (10.150). 22 p.
- **Oberholser HC. 1974.** The bird life of Texas. University of Texas Press (TX). 1108 p.

- **O'Kelley BL**. 1987. Recruitment of Black-bellied Whistling ducks in south Texas with special reference to the use of nest boxes [MS thesis]. Lubbock (TX): Texas Tech University. 59 p.
- **Palmer T**. 1991. First nesting record of Black-Bellied Whistling-Duck in central Florida. Florida Field Naturalist 19:79-81.
- **Potter EF**, **JF Parnell**, **RP Teulings**, and **R Davis**. 2006. Birds of the Carolinas, 2nd edition. University of North Carolina Press (NC). 416 p.
- **Pulich WM**. 1988. The birds of north central Texas. Texas A&M University Press (TX). 439 p.
- **Purrington RD**. 1996. Central southern region reports, winter 1996. Audubon Field Notes 50:958-959.
- **Schiefer TL**. 1990. Birds around the state: December 1988-December 1989. The Mississippi Kite 20:8-30
- Schneider JP, TC Tacha, and D Lobpries. 1993. Breeding distribution of black-bellied whistling-ducks in Texas. Southwestern Naturalist 38:383-385.
- Schneider TM, G Beaton, TS Keyes, and NA Klaus [eds]. 2010. The breeding bird atlas of Georgia. University of Georgia Press (GA). 497 p.
- **Stedman SJ**. 1994. Central southern region reports, winter 1994. National Audubon Society Field Notes 48:215-218.
- **Tumlison R, T Tumlison**, and **TT Bryant.** 2020. Distribution and reproduction by the Purple Gallinule (*Porphyrio martinica*) in Arkansas. Journal of the Arkansas Academy of Science 74:26-30.
- Wiedenfeld DA and MM Swan. 2000. Louisiana Breeding Bird Atlas. Louisiana Sea Grant College Program, Louisiana State University (LA). 80 p.
- Wiginton BM, GN Wiginton, and MS Husak. 2016. First nesting record of the Black-bellied Whistlingduck (*Dendrocygna autumnalis*) in southwest Oklahoma. Bulletin of the Oklahoma Ornithological Society 49:1-4.
- **Wood DR**. 1996. Black-bellied whistling ducks at Yazoo National Wildlife Refuge, Mississippi. The Mississippi Kite 26:21-22.