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## **BULLETIN OF THE**

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### Origin of the Audubon Society in Texas

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ABSTRACT.—The Audubon movement was first established in Texas during 1886 when 104 persons were enrolled by mail as members of the society founded by George Bird Grinnell in New York City. This original Audubon Society was discontinued in January 1889 and there was no further Audubon activity in Texas until a society was organized at Galveston on March 4, 1899. The activities of this society were terminated by the hurricane that destroyed Galveston on September 8, 1900. A second Audubon Society was organized at La Porte, Texas, in April 1903. In late 1904, Mervyn Bathurst Davis was appointed Secretary of the Texas Audubon Societies with the responsibility of organizing local societies. By January 1905 there was a total of fourteen local societies in Texas with a combined membership of around eight hundred.

In February 1886 George Bird Grinnell, editor of *Forest and Stream* magazine in New York City, proposed that an organization be formed for the protection of wild birds and their eggs. Grinnell further proposed that the new society be named for John James Audubon and that it be administered by the staff of his magazine. The response of the public was overwhelming and by December 31, 1886, the newly formed society had a total of 17,723 members. The membership in Texas at this time was 104 persons including two local secretaries. By November 30, 1888, membership in the society totaled 48,518 and its management had become such a burden to Grinnell's staff that in January 1889 the project was abandoned. The reaction of the Texas membership to the discontinuance of Grinnell's Audubon Society is unknown.

Following the demise of the original Audubon Society, bird protection was carried out primarily by the American Ornithologists' Union Committee on the Protection of North American Birds. However, in 1896 there was a resurgence of the Audubon movement resulting in the establishment of societies in Massachusetts and Pennsylvania. In 1897 societies were also organized in eight additional eastern and midwestern states and the District of Columbia.<sup>2</sup>

Organized bird protection work in Texas prior to 1899 was conducted by the Texas State Sportsmen's Association, local and state game protection associations, and The Texas Humane Society founded at Waco in 1895 under the guidance of Captain Mervyn Bathurst Davis and Alfred Abeel.<sup>3</sup> During 1898 E. Irene Rood of the A.O.U. Committee on Bird Protection organized "Bands of Mercy" in the Fort Worth area for the protection of birds. Rood also intended to establish Audubon societies, but this goal was apparently not achieved.<sup>4</sup>

#### The First Texas Audubon Society

The first Audubon Society in Texas was organized at Galveston on March 4, 1899. This was an independent society and was not affiliated with the societies that had been organized earlier in the eastern United States. Estelle C. Hertford served as president and Cecile Seixas as secretary of the Galveston society. Estelle Hertford was the daughter of the merchant Fenelon Cannon and his wife, Lizzie

Cannon. She was born in Texas in January 1876 and was married in 1896 to Joseph W. Hertford, the son of English immigrants. At the time of the 1900 census, the Hertfords were living with Estelle's parents and Joseph was working as a bank examiner.<sup>6</sup>

Cecile Seixas was the daughter of E. E. and Cecilia Seixas. Her father had been born in New York City the son of French immigrants. Her mother and maternal grandparents were natives of Louisiana. Cecile was born in Texas in August 1883 and in 1900 was living with her mother and brother. Cecile's father, who was a carriage maker, died sometime prior to 1900.<sup>7</sup>

Estelle Hertford was twenty-three years of age when the Galveston Audubon Society was formed whereas Cecile Seixas was only fifteen years old. Who recruited these two young women to their positions of leadership? What was the nature of the membership of the society? What did the society accomplish? The only thing known with certainty is that the society was tragically short-lived. Cecile and her mother were killed in the Galveston hurricane of September 8, 1900.8 The fate of Estelle Hertford and the other members of the society is unknown, and it is assumed that many of them were also killed.

#### The Second Texas Audubon Society

In 1901 the Audubon societies throughout the United States organized into a loose federation known as the "National Committee of Audubon Societies." In



HENRY PHILEMON ATTWATER
Naturalist, conservationist, and agricultural and industrial agent for the Southern Pacific Railroad from 1900 to 1913. Vertebrates named for H. P. Attwater include Attwater's Greater Prairie Chicken, Attwater's White-footed Mouse, Attwater's Pocket Gopher, Attwater's Wood Rat, and Attwater's Swamp Rabbit. (Photograph from the Ruthven Deane Collection, Library of Congress)

1902 William Dutcher was elected chairman of the National Committee and it was through his efforts and those of Henry Philemon Attwater (1854–1931) that the second Audubon Society was organized in Texas. Attwater was at this time living in Houston where he was employed as Agricultural and Industrial Agent by the Southern Pacific Railroad. Attwater was also an accomplished naturalist and a recognized authority on Texas birds because of his earlier published work on the birdlife of the San Antonio area.

On September 11, 1902, Dutcher wrote to Attwater asking if he could start an Audubon Society in Texas. Attwater replied on October 2nd that his time was tied up with his job, but that he would do what he could. Not satisfied with this answer, Dutcher wrote again on October 7th asking if Attwater would serve as an officer if a society could be formed. Attwater's reply of October 15th restated his original position that he could only assist those who would attempt to organize Audubon societies.

On May 9, 1903, Attwater informed Dutcher that he had been talking to various people about organizing a society. Attwater's efforts were apparently successful, for Dutcher had already written on May 7th to Adella Penfield of La Porte telling her how glad he was that an Audubon Society had been formed in her community. Adella Penfield was the wife of Charles S. Penfield, a dealer in real estate and later a bank president in Gonzales County. <sup>10</sup>

The officers of the La Porte Society were two teenage school girls: Millie Eva Lamb, president, and Hope Terhune, secretary.<sup>11</sup> Millie Lamb was born in September 1887 the daughter of Oscar C. and Frances L. Lamb, both natives of New York state. Millie and her younger brother were both born in Nebraska. Millie's father, Oscar, worked as a carpenter.<sup>12</sup>

Hope Terhune is not listed in the 1900 census. In 1910 she was living at La Porte with her aunt, Ema S. Terhune, who was a native of Iowa. Hope was born in 1888 in Montana. On November 24, 1904, Millie Lamb was married to Ira J. Bratton and the couple moved to Deepwater, Harris County, Texas, to make their home. What effect Millie's marriage and the resulting separation from her friend had on the activities of the society is unknown.

#### Subsequent Audubon Societies

In January 1905 the various state Audubon societies filed incorporation papers in New York State under a new name, The National Association of Audubon Societies for the Protection of Wild Birds and Animals. <sup>15</sup> Concurrent with this new administrative structure, a major effort was initiated to establish the Audubon movement in Texas.

The man chosen in late 1904 to serve as leader of the Audubon movement in Texas was Captain Mervyn Bathurst Davis (1844–1912), a highly respected journalist, humanist, and protector of animal rights. Davis' position as "Secretary of the Texas Audubon Societies" required that he organize local societies and serve as spokesman for the Audubon position on conservation issues. Davis was highly successful and by January 1905 he reported a total of fourteen local societies and around eight hundred members in Texas. <sup>16</sup> Each of these local societies was the equivalent of what today would be referred to as "chapters." In 1910 Davis was also appointed as a salaried Audubon "Field Agent" for the state of Texas. The life of M. B. Davis, the "genius of Audubon work in Texas," has been described in a previous paper. <sup>17</sup>

#### Discussion

During the late 1890's and early 1900's there was a determined effort to establish the Audubon movement in the south, particularly in the Gulf Coast states where large numbers of wintering birds were being slaughtered. The Galveston and La Porte societies must certainly have had political value since, if by name only, they brought Texas into the Audubon fold and they also served as outlets for Audubon literature. The choice, however, of youthful, inexperienced leadership was unfortunate in a state known for the rigor of its politics. The shift from organizing and administering local societies directly out of the national office to the appintment of an experienced organizer and administrator within the state was perhaps the decisive factor leading to the success of the Audubon movement in Texas.

#### Summary

The Audubon movement was first established in Texas during 1886 when 104 persons were enrolled by mail as members of the society founded by George Bird Grinnell in New York City. This original Audubon Society was discontinued in January 1889.

The first Audubon Society in Texas was established at Galveston on March 4, 1899, under the leadership of Estelle C. Hertford and Cecile Seixas. The activities of this society were terminated by the hurricane that destroyed Galveston on September 8, 1900.

The second Audubon Society was apparently organized at La Porte during late April 1903 under the leadership of Millie Eva Lamb and Hope Terhune. How long this society remained active is unknown.

The third attempt to establish Audubon societies was begun at Waco during late 1904 under the leadership of Captain Mervyn Bathurst Davis who served as the state secretary and later as a salaried field agent. By January 1905 Davis reported a total of fourteen local societies with a combined membership of around eight hundred.

#### Acknowledgments

I am grateful to Nancy Hoelscher for her assistance. This study was made possible by a developmental leave granted by the University of Mary Hardin-Baylor.

#### Footnotes and References

- 1. "Membership of the Audubon Society," *The Audubon Magazine* 1(1887):19 [1987 facsimile]. Also see "Fifty years of bird protection in the United States" by T. Gilbert Pearson, pp. 199–213 in *Fifty Years' Progress of American Ornithology, 1883–1933* published by the A.O.U. (1933).
- 2. Carl W. Buchheister, and Frank Graham Jr., 1973, "From the swamps and back—A concise and candid history of the Audubon movement," *Audubon* 75(1):4–45 [see pp. 7 & 10].
- 3. For further information on conservation work, see S. D. Casto, "The market hunting of Texas birds," *Bull. Tex. Ornith. Soc.* 16(1983):2–15 and S. D. Casto, "Captain M. B. Davis' war to save the birdlife of Texas," *Bull. Tex. Ornith. Soc.* 17(1984):2–12.
- 4. The Yearbook of the Department of Agriculture, 1899, p. 713 identifies E. Irene Rood as a member of the A.O.U. Committee for the Protection of North American Birds. Mrs. Rood's work in the Fort Worth area is described in the Auk 16(1899):55-74 [see pp. 68-69].
- 5. The Yearbook of the Department of Agriculture, 1899, p. 717 lists the officers of the Audubon Society at Galveston. The Yearbook for 1900, p. 671 gives the date of the organization of the Galveston Audubon Society.
- 6. The Cannon and Hertford families in the 1900 census of Galveston County, ED 129, p. 10, lines 21–28.
- 7. Seixas family in the 1880 census of Galveston County, ED 68, p. 6, line 14 and the 1900 census of Galveston County, ED 129, p. 11.
- 8. "Death of Miss Seixas," Bird-Lore 2(1900):166.
- 9. Pearson, op. cit., p. 202. William Dutcher's correspondence with H. P. Attwater is found in the archives of the National Audubon Society in the New York City Public Library.
- 10. Penfield family in the 1900 census of Harris County, ED 71, p. 10, line 97 and 1910 census of Gonzales County, ED 101, p. 13, line 23.
- 11. William Dutcher, "Report of the A.O.U. Committee on the protection of North American birds for the year 1903," *Auk* 21(1904):97–208 [see "Texas," p. 208].
- 12. Lamb family in the 1900 census of La Porte, Harris County, ED 98, p. 5.
- 13. Terhune family in the 1900 census of La Porte, Harris County, ED 111, p. 5.
- 14. "Wedding Bells: Lamb-Bratton," La Porte Chronicle, 24 Nov. 1904, p. 1, col. 5.

- 15. Buchheister and Graham, op. cit., p. 19.
- 16. Letter in the archives of the Audubon Society, New York City Public Library, dated 24 Jan. 1905 from M. B. Davis to John Lowry Peeler. Peeler was a successful Austin lawyer who in 1905 was the chairman of the House of Representatives game law committee.
- 17. S. D. Casto, "Captain M. B. Davis' war to save the birdlife of Texas," Bull. Tex. Ornith. Soc. 17(1984):2-12.

## The Breeding Birds of the Texas Panhandle

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ABSTRACT.—Most previous accounts of the status and distribution of the nesting birds of the Texas Panhandle dealt with an area not clearly defined. The region is here defined and its nesting species updated. 130 nesting species are named and twenty others of uncertain status discussed. This number represents an additional thirty-seven and thirty-three species respectively from that reported by two major works of recent years. The need of further study and clarification is acknowledged and the help of outsiders to the area is solicited.

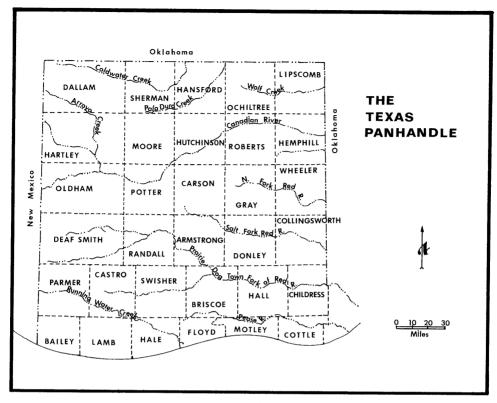
The current distribution and status of the breeding birds of the Texas Panhandle are in need of clarification and updating. Wolfe (1956) treated the area as inclusive in a much larger one, viz., Region 1 of the Texas Ornithological Society, while TOS (1984) defined it in ecological terms (High Plains and Rolling Plains). For the purposes of this paper, the panhandle is defined as that area depicted in map 1, one bounded by Childress County in the southeast to Parmer County in the southwest, and Lipscomb County in the northeast to Dallam County in the northwest.

The two most comprehensive works that deal with the nesting birds of the area are Oberholser (1974) and Johnsgard (1979). The former fails to name thirty-seven of the known breeding species and the latter thirty-three. In both accounts several species are named as having nested in the past but that are no longer known to do so.

This paper names 130 nesting species and discusses twenty others of uncertain status. Much field study remains to be done throughout the area, particularly in those where bird students have not resided. As Maxwell (1980) aptly pointed out, "... our knowledge of bird distribution in Texas is largely due to the chance of where observers live (or have lived) and where attractive assemblages of rare or exotic species lure birders." The current Texas Breeding Bird Atlas Project will undoubtedly further enlarge and clarify our knowledge. Observers living in the Texas Panhandle encourage visits from outsiders and solicit materials in their possession that can further enhance our knowledge.

Pied-billed Grebe (*Podilymbus podiceps*). Scattered and irregular summer resident. Nesting observed in Carson Co. 20 August (adult on nest with two young) and 3 September (adult with three chicks and adult with one chick) 1981 (FC), Randall Co. July 1939 (Stevenson 1942), and 16 and 24 August 1975 (adult on nest—KS).

Eared Grebe (*Podiceps nigricollis*). Rare to uncommon summer resident, primarily in the western half. Nesting observed in Armstrong Co. 6 August 1945 (Hawkins 1945), Buffalo Lake NWR, Randall Co., 2–30 July 1972 (Williams 1972), Gray Co. 5 September 1982 (40+, many with chicks and juveniles—EBE), and Castro and Swisher cos. (Fischer et al. 1982).



Map 1.

Least Bittern (*Ixobrychus exilis*). Rare summer resident (20 May–24 September). One nesting record: nest with adult at Lake Marvin, Hemphill Co., 14 June 1977 (Williams 1977). Seen also in summer in Briscoe, Hutchinson, Potter, and Randall cos. but nesting not discovered.

Great Blue Heron (*Ardea herodias*). Uncommon to common summer resident. Heronries reported in Dallam, Hemphill, Hutchinson, Ochiltree, Potter, Roberts, and Wheeler cos.

Black-crowned Night-Heron (*Nycticorax nycticorax*). Uncommon summer resident throughout most of the area (13 March–25 October). Nesting colonies reported in Castro, Deaf Smith, Hemphill, Moore, Parmer, Potter, Randall, Swisher, and Wheeler cos.

Yellow-crowned Night-Heron (*Nycticorax violaceus*). Scattered but rare and local summer resident (21 April–6 October). Two nesting records: Parmer Co. summers of 1970 and 1971 (CDL). Seen fairly regularly in summer in far eastern counties but nesting not reported.

Wood Duck (*Aix sponsa*). Rare summer resident at scattered locations in eastern half. One report of nesting near Canyon, Randall Co., 11 July 1943 (Hawkins 1945). Summers in the Lake Marvin, Hemphill Co. area where local residents report it nesting. Found regularly in summer along White Deer Creek in southeastern Hutchinson Co. (ED, FD, et al.)

Green-winged Teal (*Anas crecca*). Two nesting records: a questioned sighting Bull. Texas Ornith. Soc. 18(1&2): 1985

at Buffalo Springs, Dallam Co., July 1936 (Oberholser 1974); an adult pair with four ducklings, Lake Meredith, Hutchinson Co., 15 June 1975 (Williams 1975). Numerous scattered summer sightings, mostly of male birds.

Mallard (*Anas platyrhynchos*). Uncommon to common summer resident. The most common breeding duck (Traweek 1978). Nesting reported in almost every county.

Northern Pintail (*Anas acuta*). Rare to uncommon summer resident throughout most of the area. The third most common breeding duck (Traweek 1978).

Blue-winged Teal (*Anas discors*). Uncommon to common summer resident throughout most of the area. The second most common breeding duck (Traweek 1978).

Cinnamon Teal (*Anas cyanoptera*). Rare to uncommon summer resident. Nesting records are primarily from the western half, mostly from the southwestern sector (Traweek 1978).

Northern Shoveler (*Anas clypeata*). Johnsgard (1979) shows it breeding in the northern tier of counties with the statement: "In Texas, dependent young have been reported from early March to June 30." Basis of statement unknown. Summering birds, mostly males, fairly common. Traweek (1978) found a yearly average of 254 adults in his study area but nesting was not observed. Nests in nearby Quay Co., New Mexico (Hubbard 1978).

Gadwall (*Anas strepera*). Rare summer resident. Four nesting records: Buffalo Lake NWR, Randall Co., July 1939 (Stevenson 1942), and 6 August 1972 (hen with seven young—KS); Amarillo, Potter Co., 27 July 1945 (Hawkins 1945); Lake Meredith, Hutchinson Co., 5 July 1982 (Williams 1982).

Redhead (*Aythya americana*). Uncommon to common summer resident except in southeastern sector. All nesting records are from the southwestern sector (Traweek 1978; Rhodes 1979). Possible nesting in Dallam Co. 1933 (Oberholser 1974).

Ruddy Duck (*Oxyura jamaicensis*). Uncommon summer resident, primarily in the western half. All nesting records are from the southwestern sector (Traweek 1978; Rhodes 1978; Williams 1978).

Turkey Vulture (Cathartes aura). Uncommon to common summer resident throughout (17 March-25 November). Strecker (1910) reported nesting in Armstrong Co. Found nesting at Buffalo Lake NWR, Randall Co., 4 July 1967 (nest with two young-KS), and 27 May 1974 (nest with two eggs-KS).

Mississippi Kite (*Ictinia mississippiensis*). Uncommon to common summer resident throughout most of the area (10 April–9 October).

Bald Eagle (*Haliaeetus leucocephalus*). Formerly found nesting in Armstrong Co. (McCauley 1877) and Potter Co. (Oberholser 1974). The last confirmed summer sightings was of an adult in southeastern Hutchinson Co. 25 June 1955 (ED, FD, EW), and two in the Palo Duro Canyon, Randall Co., 25 May 1965 (TF, RR, EW). Persistent rumours or claims of summer sightings since but none confirmed.

Northern Harrier (*Circus cyaneus*). Scattered summer sightings throughout the area. One nesting record: Randall Co. 30 May 1941 (Allan 1943). One probable nesting: Lake Meredith, Hutchinson Co., 4 July 1985 (adult with recently fledged juvenile—KS).

Sharp-shinned Hawk (Accipiter striatus). Actual nests not reported but both Russell (1935) and Stevenson (1942) reported adult birds with young in the Palo

Duro Canyon system in the summers of 1935 and 1936 and classified its status as "common." Possibly nested there in 1955 (PA). Summer sightings extremely rare from anywhere in the area since and without any evidence of nesting.

Swainson's Hawk (*Buteo swainsoni*). Uncommon to common summer resident throughout (15 March–25 November).

Red-tailed Hawk ( $Buteo\ jamaicensis$ ). Uncommon to common summer resident throughout.

Ferruginous Hawk (*Buteo regalis*). Rare summer resident, primarily north of the Canadian River. Oberholser (1974) cites four nesting records: Deaf Smith Co. May 1920; Oldham Co. May 1920; Moore Co. 1939; Dallam Co. April 1966. More recent records: Randall Co. June 1967 (Williams 1967), and 22 April 1968 (nest with four eggs—BJJ); a nest in Dallam Co. found occupied with young in June 1976, 1977, 1978, 1980, 1981, 1984 (KS). Seen regularly in summer in Hartley Co. and occasionally in Gray, Hansford, Ochiltree, Potter, Randall, Roberts, and Sherman cos.

Golden Eagle (*Aquila chrysaetos*). Rare summer resident, primarily in the western two-thirds. A 1980 aerial survey of the Palo Duro Canyon system in Randall, Armstrong, Briscoe, and Floyd cos. (Rideout 1984) disclosed 22 active eyries plus four others in Deaf Smith and Oldham cos. Nesting also reported in Hartley, Hutchinson, Moore, and Potter cos. Seen in summer in Carson, Dallam, Lipscomb, and Swisher cos. without nesting being reported.

American Kestrel (*Falco sparverius*). Uncommon summer resident throughout. Prairie Falcon (*Falco mexicanus*). Rare and occasional summer resident in the Palo Duro Canyon and western half of area. Only nesting records are prior to mid-century (McCauley 1877; Stevenson 1942). More recent summer sightings in Dallam, Hartley, Parmer, Potter, and Randall cos. without evidence of nesting.

Ring-necked Pheasant (*Phasianus colchicus*). Uncommon to common summer resident throughout.

Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*). Locally uncommon to common summer resident in the far eastern counties, primarily Wheeler, Hemphill, and Lipscomb, and to a lesser extent in Gray, Donley, and Hall (Jackson and Dearment 1963).

Wild Turkey (*Meleagris gallopavo*). Locally uncommon to common summer resident, primarily along the Canadian River and headwaters of the Red River, and their tributaries, and in the Palo Duro Canyon system.

Northern Bobwhite (Colinus virginianus). Uncommon to common summer resident throughout.

Scaled Quail (Callipepla squamata). Uncommon to common summer resident throughout.

Common Moorhen (Gallinula chloropus). Recently established breeder in marshes at Lake Meredith, Hutchinson Co., with numerous sightings of adults with chicks and juveniles (FC, KS, et al.). Adults with juveniles also seen in Castro and Randall cos. Summer sightings in Gray and Hemphill cos. but nesting not reported.

American Coot (Fulica americana). Uncommon to common summer resident throughout.

Snowy Plover (*Charadrius alexandrinus*). Rare local summer resident (29 March-11 October). Only nesting records are from the Buffalo Lake NWR, Randall Co. Bull. Texas Ornith. Soc. 18(1&2): 1985

(one nest with three eggs, and one nest with two eggs and one dead chick 4 July 1958—PA), and from along the Canadian River in Roberts Co. (Williams 1976).

Killdeer (Charadrius vociferus). Uncommon to common summer resident throughout.

Mountain Plover (*Charadrius montanus*). Rare summer resident (21 March-16 November). Only specific nesting reference is that of Oberholser (1974) in Swisher Co. 31 May 1899. Classified as summer resident by Strecker (1912), Bent (1927), Carlander (1934), Wolfe (1956). Only summer sightings since mid-century are from Dallam and Hartley cos. (KS) without nesting being discovered.

Black-necked Stilt (*Himantopus mexicanus*). Rare local summer resident (2 April–30 September). Nesting records from Armstrong, Carson, Castro, Deaf Smith, Parmer, Randall, and Swisher cos. (Hawkins 1945; Williams 1977; Fischer 1982; PA, KS). Seen also in summer in Dallam, Gray, and Hansford cos. without nesting being reported.

American Avocet (*Recurvirostra americana*). Uncommon to common summer resident with nesting observed in western two-thirds (18 March–11 November).

Spotted Sandpiper (*Actitus macularia*). Two nesting records: 14 July 1920, Deaf Smith Co. (Oberholser 1974); 17 July 1966, Buffalo Lake NWR, Randall Co. (adults with downy chick—KS). Strong indications of nesting at same site in 1967 (KS), and at Lake Meredith, Hutchinson Co., summers of 1975, 1976, 1977 (KS). Summer sightings throughout most of the area (6 April–12 October).

Upland Sandpiper (*Bartramia longicauda*). Rare summer resident (16 April-25 September). Both Carlander (1934) and Stevenson (1942) classified it as a regular summer resident in the Amarillo (Potter/Randall cos.) area but the only definite nesting reference is that of Hawkins (1945) in Sherman Co. in the early 1940's. There have been numerous and widely scattered summer sightings since but without evidence of nesting. These sightings inconclusive as returning migrants may appear in early July. Strongest possibilities of nesting in recent years found in Gray Co. (JCW), and Donley and Hansford cos. (KS).

Long-billed Curlew (*Numenius americanus*). Uncommon to common summer resident, primarily in the northwestern sector where nesting observed in Dallam, Deaf Smith, Hartley, Moore (TPRF no. 35-CS), Oldham, and Sherman cos. Older nesting records also from Carson and Ochiltree cos.

Wilson's Phalarope (*Phalaropus tricolor*). One nesting record: an adult male with chick in Carson Co. 15 June 1980 (Williams 1980). Numerous but scattered summer sightings of single and possibly paired birds, primarily in northern half (23 March–26 October).

Least Tern (*Sterna antillarum*). Rare local summer resident along Canadian River in northeastern sector. Nesting recorded in Roberts Co. 23 June 1976 (Williams 1976—erroneously reported as being in Hemphill Co.), and in Hemphill Co. 14 June 1977 (Williams 1977). Summer sightings also in Donley, Gray, Hutchinson, and Randall cos. without evidence of nesting (19 May–25 August).

Rock Dove (Columba livia). Uncommon to common summer resident throughout.

Mourning Dove (Zenaida macroura). Common to abundant summer resident throughout.

Yellow-billed Cuckoo (*Coccyzus americanus*). Uncommon to common summer resident throughout (26 April–10 October).

Greater Roadrunner (*Geococcyx californianus*). Uncommon summer resident throughout.

Common Barn-Owl (*Tyto alba*). Rare summer resident. Nesting observed in Hartley, Hemphill, Potter, and Randall cos.

Eastern Screech-Owl (*Otus asio*). Locally rare to uncommon summer resident throughout. Adults with juveniles observed in Gray (PA, KS), Hutchinson (Thompson 1952), and Randall (Hawkins 1945; KS) cos.

Great Horned Owl (Bubo virginianus). Uncommon summer resident throughout.

Burrowing Owl (*Athene cunicularia*). Uncommon to common summer resident throughout.

Long-eared Owl (*Asio otus*). One nesting record: Deaf Smith Co. 9 April 1920 (Oberholser, 1974). Rare summer sightings from Hemphill, Potter, and Randall cos.

Common Nighthawk (*Chordeiles minor*). Uncommon to common summer resident throughout (23 April–17 October).

Black-chinned Hummingbird (*Archilochus alexandri*). Rare summer resident at scattered localities (9 April–29 October). Five nesting records: Lake Marvin, Hemphill Co., 4–5 June 1955 (PA et al.); Amarillo, Potter Co., 19 May 1959 (nest building—PA), and 13 July 1973 (Williams 1973); Lake Tanglewood, Randall Co., June–July 1979 (RCS); Amarillo, Randall Co., 31 May 1983 (nest with two young—RR et al.).

Belted Kingfisher (*Ceryle alcyon*). Rare to uncommon summer resident throughout. Actual nesting only reported from Randall Co. (Russell 1935; Stevenson 1942; Hawkins 1945; PA).

Red-headed Woodpecker (*Melanerpes erythrocephalus*). Rare to common summer resident, primarily in eastern half and along the Canadian River and its tributaries; less so in the Palo Duro Canyon system.

Golden-fronted Woodpecker (*Melanerpes aurifrons*). Uncommon to common summer resident in the southeastern sector and in the Palo Duro Canyon system.

Red-bellied Woodpecker (*Melanerpes carolinus*). Rare to uncommon summer resident in the eastern third and along the Canadian River as far west as Oldham Co.

Ladder-backed Woodpecker (Picoides scalaris). Uncommon to common summer resident throughout.

Downy Woodpecker (*Picoides pubescens*). Rare to uncommon summer resident in eastern half, and in Amarillo (Potter/Randall cos.). Adults with juveniles observed in Hemphill Co. (Hawkins 1945; KS).

Hairy Woodpecker (*Picoides villosus*). Rare summer resident in eastern third and along Canadian River as far west as Oldham Co. Juvenile collected in Hutchinson Co. 17 June 1950 (Thompson 1952) and an adult with juvenile seen in Randall Co. 9–12 June 1969 (BJJ).

Northern Flicker (*Colaptes auratus*). Rare to uncommon summer resident throughout most of the area. Almost all summer sightings are of *C. a. auratus*, the "Yellow-shafted," even in the western counties. Nesting observed in Hartley, Hemphill, Hutchinson, Oldham, Potter, Randall, and Roberts cos.

Eastern Phoebe (Sayornis phoebe). Rare summer resident in southeastern sector

(3 March-13 November). Found nesting in the Palo Duro Canyon system as far up as Randall Co.

Say's Phoebe (*Sayornis saya*). Rare to uncommon summer resident except in the northeastern third. Nesting observed in Armstrong, Deaf Smith, and Randall cos.

Vermilion Flycatcher (*Pyrocephalus rubinus*). Occasional summer resident (18 March–1 October). Two nesting records: 6 May–1 June, and 12 June–21 July 1959, both in Amarillo, Randall Co. (Baumgartner 1959).

Ash-throated Flycatcher (*Myiarchus cinerascens*). Uncommon to common summer resident throughout (31 March–16 November).

Great Crested Flycatcher (*Myiarchus crinitus*). Uncommon summer resident in eastern third (21 April–2 October). Nesting observed in Gray Co. Occasionally seen in summer farther west without evidence of nesting.

Cassin's Kingbird (*Tyrranus vociferans*). Occasional summer resident (22 April–16 October). One nesting record: adults feeding young in nest near Texline, Dallam Co., 14 June 1983 (Williams 1983).

Western Kingbird (*Tyrranus verticalis*). Common to abundant summer resident throughout (20 March–26 October).

Eastern Kingbird (*Tyrranus tyrranus*). Uncommon to commom summer resident (23 April–5 October), primarily in eastern half. Fairly common locally farther west.

Scissor-tailed Flycatcher (*Tyrranus forficatus*). Uncommon to common summer resident in eastern two-thirds, more rare farther west (12 March–17 November).

Horned Lark ( $Eremophila\ alpestris$ ). Uncommon to common summer resident throughout.

Purple Martin (*Progne subis*). Rare to uncommon summer resident in eastern half (2 March–5 October). Nesting colonies reported in Childress, Collingsworth, Gray, Hemphill, Hutchinson, Ochiltree, Roberts, and Wheeler cos.

Northern Rough-winged Swallow (*Stelgidopteryx serripennis*). Rare to uncommon summer resident, primarily in the eastern half (14 March–1 October). Nesting has been recorded in Gray (PA), Ochiltree (Williams 1975), and Randall (Williams 1978) cos.

Cliff Swallow (*Hirundo pyrrhonota*). Uncommon to abundant summer resident throughout (2 April–19 October).

Barn Swallow (*Hirundo rustica*). Uncommon to common summer resident throughout (14 March–23 October).

Blue Jay (*Cyanocitta cristata*). Common summer resident in eastern third and along the Canadian River and its tributaries, less so in the Palo Duro Canyon system. Far western presence largely confined to towns.

Scrub Jay (*Aphelocoma coerulescens*). Uncommon summer resident in the Palo Duro Canyon system. Nest at Lake Tanglewood, Randall Co., fledged young 2 July 1985 (JW).

American Crow (*Corvus brachyrhynchos*). Uncommon to common summer resident in eastern two-thirds and along Canadian River to Oldham Co.; less so elsewhere. Nesting observed in Hemphill Co. and nest with one egg found in the Palo Duro Canyon SP, Randall Co., 24 May 1970 (KS).

Chihuahuan Raven (Corvus cryptoleucus). Uncommon summer resident throughout.

Common Raven (*Corvus corax*). Since McCauley's (1877) recording of it, summer sightings have been extremely rare. Oberholser (1974) shows a summer sight record of nesting in Deaf Smith Co. (details not given). Possibly breeds in extreme northwest sector as it nests in adjacent New Mexico (Hubbard 1978) and Oklahoma (Sutton 1967) counties.

Carolina Chickadee (*Parus carolinensis*). Uncommon summer resident in eastern third and along the Canadian River as far west as Potter Co. Strong evidence of nesting in the upper Palo Duro Canyon system (Seyffert 1984).

Tufted Titmouse (*Parus bicolor*). Rare to uncommon summer resident in eastern third, more common in the Palo Duro Canyon system. The "Black-crested" (*P. b. atricristatus*) is the race to be expected with only occasional sightings of the nominate race in the far eastern counties.

Verdin (Auriparus flaviceps). Rare summer resident in the Palo Duro Canyon system. Two nesting records: Palo Duro Canyon SP, Randall Co., 21 May 1967 (Seyffert 1971), and 6 May 1973 (TPRF nos. 44 a and b—KS).

Bushtit (*Psaltriparus minimus*). Rare to uncommon summer resident in the Palo Duro Canyon system. One nesting record outside the system: nest with young at Lake Marvin, Hemphill Co., 5 May 1969 (Williams 1969a). Observed in summer in Donley Co.

Rock Wren (Salpinctus obsoletus). Uncommon summer resident throughout. More common in the Palo Duro Canyon system.

Canyon Wren (*Catherpes mexicanus*). Rare to uncommon summer resident, primarily in the Palo Duro Canyon system and the western Canadian River breaks.

Carolina Wren (*Thryothorus ludovicianus*). Rare summer resident in the far eastern counties and upper Palo Duro Canyon system. The only reference to actual nesting is that of Oberholser (1974), who shows a summer sight record for Randall Co. Most summer sightings have been from the upper Palo Duro Canyon system but with no evidence of nesting. Probably nests in the far eastern sector as breeding has been recorded in adjacent Oklahoma counties (Sutton 1967).

Bewick's Wren (*Thryomanes bewickii*). Uncommon to common summer resident throughout.

House Wren (*Troglodytes aedon*). Uncommon to common summer resident in eastern half (1 March–29 November). Rarely seen in summer farther west although Russell (1935) cites nesting in the Palo Duro Canyon, Randall Co., 15 July 1935. Occasional summer sightings in Randall Co. since without evidence of nesting.

Blue-gray Gnatcatcher (*Polioptila caerulea*). Uncommon summer resident in the eastern third and in the Palo Duro Canyon system (21 March–24 November).

Eastern Bluebird (*Sialia sialis*). Rare to uncommon summer resident in eastern third and along the Canadian River as far west as Oldham Co. where adults found attending young in nest 2 July 1972 (KS). Occasionally nests in upper Palo Duro Canyon system (Williams 1969b).

American Robin (*Turdus migratorius*). Rare to uncommon summer resident throughout, principally in towns and cities. Nesting observed in Briscoe, Gray, Ochiltree, Potter, Randall, Roberts, and Wheeler cos.

Gray Catbird (*Dumetella carolinensis*). Rare summer resident in eastern third (21 April–24 November). Only nesting reference is that of Oberholser (1974) who shows a summer sight record for Hemphill Co. Occasionally found summering as far west as Oldham, Potter, and Randall cos. with strong indications of nesting.

Northern Mockingbird (*Mimus polyglottos*). Uncommon to common summer resident throughout.

Brown Thrasher (*Toxostama rufum*). Uncommon summer resident in eastern third, more rare farther west. Found nesting along Canadian River as far west as Oldham Co. (Williams, 1972) and in southwestern Randall Co. (KS); strong indications of nesting along Rita Blanca Creek in southeast Hartley Co., 4 July 1984 (KS).

Curve-billed Thrasher (*Toxostama curvirostre*). Rare to uncommon summer resident except in northern tier of counties. Nesting recorded in Oldham (PA, KS), Potter (Williams 1972; Williams 1974), and Randall (Williams 1973—TPRF no. 47—RCS; Williams 1975) cos.

Loggerhead Shrike (*Lanius ludovicianus*). Rare to uncommon summer resident throughout.

European Starling (*Sturnus vulgaris*). Common summer resident throughout. Bell's Vireo (*Vireo bellii*). Rare summer resident in the northeastern sector (16 April–29 October).

Warbling Vireo (*Vireo gilvus*). Rare to uncommon summer resident in eastern half (21 April–3 October). Adult feeding newly fledged young in Gray Co. 17 July 1977 (Williams 1977). Scattered summer sightings in Hartley, Oldham, Potter, and Randall cos. but nesting not reported.

Yellow Warbler (*Dendroica petechia*). Occasional summer resident in north-eastern sector (24 April–2 October). Formerly more widespread but summer sightings now largely confined to Hemphill and Lipscomb cos. McCauley (1877) found it very common "... near the upper part of Red River and heads of its tributaries ...," and collected eggs in what are now Armstrong and Randall cos. Carlander (1933) observed nesting in Randall Co. 24 July 1933. Stevenson (1942) found it resident "... along wooded streams of the canyons and plains," and Hawkins (1945) found it nesting in Randall Co. 10 June 1945. Last reported nesting was at Lake McClellan, Gray Co., 23 June 1956 (nest with three young and one egg—PA).

Common Yellowthroat (*Geothlypis trichas*). Rare to uncommon summer resident throughout (19 April–23 October). Nest with four eggs, Moore Co., 6 June 1978 (KS).

Northern Cardinal (Cardinalis cardinalis). Uncommon to common summer resident. Absent in extreme northwestern sector.

Blue Grosbeak (*Guiraca caerulea*). Uncommon to common summer resident throughout (27 April–10 October).

Lazuli Bunting (*Passerina amoena*). Rare summer resident (23 April–24 October). Only positive evidence of nesting is that of a male bird with four juveniles at Lake Tanglewood, Randall Co., 18 August 1963 (PA, EW). Singing males have been seen in summer in Hartley, Hemphill, Potter, and Randall cos.

Indigo Bunting (*Passerina cyanea*). Uncommon summer resident in eastern third (16 April–19 October). Singing males found along Canadian River as far west as Oldham Co. Singing males and/or paired birds found irregularly at Buffalo Lake NWR and Palo Duro Canyon SP, Randall Co., with a pair feeding three recently fledged young at the latter location 8 July 1979 (Williams, 1979).

Painted Bunting (*Passerina ciris*). Uncommon to common summer resident, particularly in the Palo Duro Canyon system (25 April–19 October). Rare in the

west and absent in the northern tier of counties. Actual nests not reported but numerous sightings of adults with young.

Dickcissel (*Spiza americana*). Uncommon to common summer resident (30 April–26 September). Rare in the northwestern sector. Presence and abundance in any given year and location can be highly variable.

Brown Towhee (*Pipilo fuscus*). Rare summer resident in the Palo Duro Canyon system. Actual nests not found but adults feeding young observed. One summer sighting each in Canadian River breaks, Potter Co., and northwest Deaf Smith Co.

Cassin's Sparrow (Aimophila cassinii). Uncommon to common summer resident throughout (26 March–27 September).

Rufous-crowned Sparrow (Aimophila ruficeps). Rare to uncommon summer resident in the southern two-thirds; most common in the Palo Duro Canyon system. Nest with four eggs Lake Tanglewood, Randall Co., 12 June 1964 (KS); nest with three eggs Palo Duro Canyon SP, Randall Co., 18 July 1976 (KS); nest building observed as early as 18 April 1970 in Palo Duro Canyon SP (KS), and as late as 29 June 1975 in McBride Canyon, Potter Co. (KS).

Brewer's Sparrow (*Spizella breweri*). Only nesting reference is that of McCauley (1877) in Armstrong, Briscoe, and Randall cos. No summer sightings or references to nesting have been reported since (9 March–16 May/24 August–21 November).

Lark Sparrow (*Chondestes grammacus*). Uncommon to common summer resident throughout 23 March–24 October).

Black-throated Sparrow (*Amphispiza bilineata*). Rare summer resident in the Palo Duro Canyon system. Nesting not recorded there but adults feeding two juveniles observed in the State Park 29 May 1975 (KS) and Oberholser (1974) reported it breeding in Armstrong Co. Occasional summer sightings in Childress, Donley, and Oldham cos. but nesting not reported.

Lark Bunting (*Calamospiza melanocorys*). Uncommon to common summer resident throughout. Nesting record from Moore Co. (Williams 1973). Presence and abundance in any given year and location can be highly variable.

Grasshopper Sparrow (*Ammodramus savannarum*). Uncommon to common summer resident throughout, more so in the eastern half (8 April–16 October). Nesting record from Moore Co. (nest with three young 8 July 1973—CS, et al.).

Red-winged Blackbird (Agelaius phoeniceus). Uncommon to common summer resident throughout.

Eastern Meadowlark (*Sturnella magna*). Uncommon to common summer resident in eastern third, principally in lowlands near rivers and streams. Found in the Canadian River valley as far west as central Potter Co.

Western Meadowlark (*Sturnella neglecta*). Common summer resident throughout.

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*). Scattered summer sightings but nesting in this century only recorded in Castro, Parmer, and Swisher cos. (Williams 1978; Fischer 1982). McCauley (1877) found it nesting in Armstrong Co. in 1876 and Oberholser (1974) cites a possible nesting in Oldham Co. in 1899.

Great-tailed Grackle (*Quiscalus mexicanus*). Rare to locally common summer resident, less so in northwest sector. Nesting observed in Castro, Moore, Parmer, Potter, Randall, and Swisher cos.

Common Grackle (*Quiscalus quiscula*). Uncommon to common summer resident throughout. Nesting observed in Armstrong, Potter, Randall, and Roberts cos.

Brown-headed Cowbird (Molothrus ater). Uncommon to common summer resident throughout.

Orchard Oriole (*Icterus spurius*). Uncommon to locally common summer resident except in the far west where rare (1 May–26 September).

Northern Oriole (*Icterus galbula*). Uncommon to common summer resident, *I. g. bullockii* ("Bullock's") throughout, and *I. g. galbula* ("Baltimore") in eastern third (14 March–22 November).

House Finch (*Carpodacus mexicanus*). Uncommon summer resident, primarily in the western half. More common in towns and cities.

Pine Siskin (*Carduelis pinnus*). Two nesting records: Randall Co. 3 May 1966 (Williams 1966); Potter Co. 17 June 1969 (Pulich 1971). Other occasional summer sightings in Deaf Smith, Lipscomb, Potter, and Randall cos., but nesting not discovered.

Lesser Goldfinch (*Carduelis psaltria*). Rare but regular summer resident in the Palo Duro Canyon system. Hawkins (1945) observed nest building 17 June 1945, and adults were seen feeding newly fledged young 10 September 1966 (PA)—both sightings in Randall Co. Recorded also in summer in Lipscomb and Roberts cos.

House Sparrow (*Passer domesticus*). Common to abundant summer resident throughout.

#### Summer Residents of Uncertain Nesting Status

American Bittern (*Botaurus lentiginosus*). Johnsgard (1979) shows it breeding in the northeastern sector but does not give basis for claim. Reported occasionally in summer in Hutchinson, Moore, Potter, and Randall cos. without evidence of nesting.

Green-backed Heron (*Butorides striatus*). Rare to uncommon summer resident, primarily in eastern half (16 April–20 October). Probable nester in the Lake Marvin, Hemphill Co. area but actual nests not yet found (KS, et al.). Nests in adjacent Oklahoma counties (Sutton 1967).

White-faced Ibis (*Plegadis chihi*). Occasional and scattered summer sightings: Three in Randall Co. 24 June 1973 (PA et al.); one in Castro Co. 4 June 1978 (KS); one in Carson Co. 5 June 1979 (PA), and 13 on 5 June 1980 (KS). Nests in adjacent Quay County, New Mexico (Hubbard 1978). Numerous July sightings.

Canvasback (*Aythya valisineria*). Traweek (1978) reported four broods in the southwestern sector in 1975 but not the exact county location. Four of the counties in his study area are adjacent to the southern Panhandle.

Cooper's Hawk (*Accipiter cooperii*). One possible nesting: a female flew from a nest near Canadian, Hemphill Co., 25 April 1954 (PA). Scattered and occasional mid-summer sightings of immature birds.

Black Rail (*Laterallus jamaicensis*). A tape recording of a calling male on territory was made on Jim's Lake, southwestern Hutchinson Co., 1 July 1979 (RB) and placed in the Library of Recorded Sounds at Texas A&M University. Oberholser (1974) cites a summer sight record for Roberts Co.

King Rail (Rallus elegans). Thompson (1952) collected a male from a tule pond

in northwestern Hutchinson Co. 5 July 1950, and a young male in down plumage on 7 July. Oberholser (1974) cites a summer sight record in Roberts Co.

Virginia Rail (*Rallus limicola*). Regular summer resident in the marshes at Lake Meredith, Hutchinson Co., where it probably nests but where nesting has yet to be discovered. Found also in summer in Gray and Moore cos.

Sora (*Porzana carolina*). Occasional summer sightings in Castro, Gray, Hutchinson, Moore, Oldham, and Randall cos. without evidence of nesting.

Barred Owl (*Strix varia*). Rare summer resident at Lake Marvin, Hemphill Co. McCauley (1877) reported a specimen taken along lower McClellan Creek, Gray Co. Actual nesting yet to be discovered.

Common Poorwill (*Phalaenoptilus nuttalii*). Rare to uncommon summer resident in Briscoe, Armstrong, and Randall cos. (15 April–25 November). Actual nesting yet to be discovered.

Chimney Swift (*Chaetura pelagica*). Rare to uncommon summer resident in cities and towns throughout most of the area (25 March–14 October). Approximately 75 summered in Miami, Roberts Co., in 1984 (R/B). Actual nesting yet to be discovered.

Western Wood-Pewee (*Contopus sordidulus*). A number of early to mid-June sightings in the extreme northwestern sector but without evidence of nesting. Probably late migrants although species nests in nearby northeastern New Mexico (Hubbard 1978).

Eastern Wood-Pewee (*Contopus virens*). Rare summer sightings without evidence of nesting. Singing birds observed at Buffalo Lake NWR, Randall Co., 10 June 1967, 7 June 1969, 6 June 1970, and 19 June 1983, but all were transients (KS).

Willow Flycatcher (*Empidonax traillii*). Occasional summer sightings at scattered locations without evidence of nesting. Carlander (1934) cited it as a "summer resident" but made no reference to nesting. Oberholser (1974) cited summer specimens taken in Dallam, Oldham, and Potter cos. without giving further details. More recent records of singing birds in Dallam, Donley, and Randall cos., all in second week of June (PA, KS et al.). Numerous June and July records of unidentified empids in Dallam, Hartley, Hutchinson, Oldham, Potter, and Randall cos. All probably early or late migrants but Sutton (1967) considered *E. traillii* a probable breeder in nearby Beaver and Ellis cos., Oklahoma.

Cactus Wren (*Campylorhyncus brunneicapillus*). Strong evidence of possible, but irregular, nesting in Oldham Co. Adults seen and empty nests found August/September 1977 (PA, RR, KS, et al.). Other unoccupied, possibly roosting, nests found in summer during same period (TG).

Yellow-breasted Chat (*Icteria virens*). Summering birds have been found in Armstrong, Donley, Hemphill, Potter, and Randall cos. Probable nester but actual nesting has yet to be discovered (24 April–9 November). Formerly more common than now (McCauley 1877).

Summer Tanager (*Piranga rubra*). Occasional and scattered sightings of singing males in summer in Hemphill, Lipscomb, Potter, and Randall cos. but nesting has yet to be discovered.

Field Sparrow (Spizella pusilla). Uncommon summer resident in the eastern third. Probable nester but actual nesting yet to be discovered. Singing males on

territory have been found as far west as northwestern Armstrong and southwestern Hutchinson cos. (KS).

American Goldfinch (*Carduelis tristis*). Widespread summer sightings in the eastern half but nesting yet to be discovered. Strong indications of nesting in the Lake Marvin, Hemphill Co., area where singing males on territory were found in summers of 1973, 1977, and 1981 (KS).

#### Observers Cited and Abbreviations Used

NWR-National Wildlife Refuge BII-B. James Jokerst CDL-Carroll D. Littlefield PA-Peggy Acord RB-Richard Bryant CS-Carolyn Stallwitz EBE-E. B. Ellis R/B-Raymond Bryant ED-Estelle Duncan RCS-Roberta Currie Seastrand EW-Esther Waddill RR-Rena Ross SP-State Park FC-Fern Cain TF-Thelma Fox FD-Frank Duncan TG-Tom Green JCW-Jack C. Williams JW-Janice Walker TPRF-Texas Photo-Record File (Texas A&M University) KS-Kenneth Seyffert

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#### SHORT COMMUNICATIONS

## Notes on the Systematics and Distribution of Texas Birds. II. Molothrus aeneus loyei, an Addition to the Avifauna

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The Bronzed Cowbird, *Molothrus aeneus*, one of the neotropical species in the Texas avifauna, has expanded its range within the state in recent years, reaching northward onto the Edwards Plateau (Tom Green, Kerr and Travis counties) and up the Rio Grande to at least Brewster County (Texas Ornith. Soc. 1984. Checklist of the Birds of Texas, 2nd edition). I have collected the species in Val Verde County, close to the Rio Grande at Del Rio and approximately 40 km north of the Rio Grande, near Pandale in the Pecos River basin. These specimens proved to be the nominate race, the only subspecies reported for the state in the T.O.S. Checklist (1984).

In May 1984, while discussing the avifauna of southeastern New Mexico with me, John Hubbard (pers. comm.) stated that the Bronzed Cowbirds which had recently invaded that region appeared to be of the subspecies *loyei*. This taxon has a distribution from Colima and Nayarit in western Mexico to southwestern and central Arizona and southwestern New Mexico, and was originally described by van Rossem (1934. Trans. San Diego Soc. Nat. Hist. 7:355) as *Tangarius aeneus milleri*. However, the merging of *Tangarius* into *Molothrus* duplicated the name *milleri* in *M. bonariensis*, hence the new name *loyei* by Parkes and Blake (1965. Taxonomy and nomenclature of the Bronzed Cowbird. Fieldiana: Zoology 44(22):207–216). In describing *milleri* (=loyei), van Rossem (1934) emphasized the drastic color difference of the female when compared to the nominate *aeneus*, stating that the female *milleri* much more closely resembled the female of the Brown-headed Cowbird, *M. ater*.

A few days after my conversation with Hubbard, I netted birds at Kingston Hot Springs, a private resort in Presidio County. The *ater*-like plumage of the female Bronzed Cowbirds netted at this location immediately attracted my attention. I collected one female (TCWC 11366) during the visit. In 1985 I visited the site again and collected a second female (TCWC 11527). Because all specimens of *M. a. milleri* in our collections have very worn plumage, I borrowed specimens in fresh plumage for direct comparison. Inquiry to several collections in the western part of Texas turned up an additional member of the *milleri* subspecies taken in July 1986 at Alpine, Brewster County; the specimen is housed in the zoology collections at Sul Ross State University. This bird has very worn plumage, closely resembling the small series in our collections from Arizona.

Wauer (1973. Wilson Bull. 85(3):343-344) first reported resident Bronzed Cow-

birds in the Trans-Pecos region, but did not designate the subspecies identity. However, Hubbard and Crossin (1974. Nemouria 14:25) reported 2 species taken at Presa Francisco Zarco, Durango as *M. a. loyei*; this locality is about 500 km south of the Big Bend region.

The obvious differences between the females on *M. a. aeneus* and *M. a. milleri* leave no doubt about the identification of the specimens from Alpine and Kingston Hot Springs. The latter subspecies shows much stronger sexual dimorphism, including a duller and browner basic color with a strong, dark band across the chest. In worn plumage, the female *milleri* looks much like the mouse brown *ater* female. I would predict that males in fresh plumage would show the subtle differences noted by van Rossem (1934). It seems reasonable to assume that any Bronzed Cowbird seen in the Big Bend region and west would be of the subspecies *milleri*. With *M. a. aeneus* already extending to the Pecos River, one can only speculate where the two subspecies will eventually meet in the Trans-Pecos.

I extend my thanks to Dr. J. V. Remsen of the Louisiana State University Museum of Zoology for the loan of the fresh-plumaged *M. a. milleri*, and to Dr. J. F. Scudday of Sul Ross State University for loan of the Alpine specimen. Drs. J. R. Dixon and R. D. Slack commented on an earlier version of the manuscript. Dr. J. P. Hubbard provided important sources that greatly enhanced the final manuscript.

## Vegetation at 15 Bald Eagle Nests in Texas

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#### Introduction

In 1983 there were fewer than 20 active bald eagle (Haliaeetus leucocephalus leucocephalus) known nests in Texas. These nest sites were concentrated in an area less than 160 Km wide in the Texas coastal plain from near Corpus Christi to just south of Houston. Little specific information about these nests was recorded in the literature. In order to provide quantitative data important to sound management of the Texas bald eagle population, we undertook a study of 15 active or recently active nest sites within the described area. The investigation included a detailed evaluation of the vegetation found in the 15 nest areas.

#### Methods

We sampled the woody vegetation around 15 bald eagle nests near the central Texas coast during the summer of 1983. Fourteen of these nest sites were examined by counting and measuring the trees and shrubs on a circular plot surrounding

the nest tree (Daubenmire 1968). The remaining nest (River Ranch No. 1) was located in a cultivated field with very few trees. Because the plot method is poorly suited for sampling areas with very low plant density, we chose the "nearest neighbor" method (Cottam and Curtis 1956) to estimate tree density at this nest site.

Density of woody plants varied greatly among the various nest sites. As a result, the radius of each plot varied with plant density. To determine plot size, we used the minimum radius (measured from the nest tree) that would include at least 30 trees. Two nests were located in the ecotones between 2 different habitats. In these cases, we stratified our sample by establishing a semicircular plot in each habitat type rather than averaging the results of 2 dissimilar vegetation types.

Nest trees were identified to species. Diameters at breast height (dbh) were measured with a tape that was calibrated to read diameter from measurements of circumference. Tree heights and nest heights were measured either with a standard survey transit or with a hand-held clinometer.

Within each plot, all woody vegetation greater than 5 cm dbh was measured and tallied by species. This information was then used to calculate density (plants/ha) and basal area (sq m/ha) for each species. Dominance is the degree of influence that different species of plants exert on other components of the ecosystem and basal area is considered one of the best measures of ecological dominance (Daubenmire 1968).

An index of canopy cover was calculated by selecting a compass azimuth from a table of random numbers and then selecting a second azimuth at a right angle to the first so that both lines crossed at the nest tree. Each line contained 50 points evenly spaced along the transect extending to the edge of the vegetation sampling plot. The total number of points intersected by the vertical projection of the tree crowns was used as an index of percent canopy cover. Indices were rounded to the nearest 5 percent.

#### Results and Discussion

Most nests were constructed in water oaks (scientific names are given in the Appendix) and in pecans (Table 1). Every nest we examined was built in a broad-leaved tree reflecting the scarcity of pines in our area. In our study area large bald cypress are uncommon and found mostly adjacent to the major stream courses, where regular boat traffic (i.e. disturbance) is common. In other studies of southern bald eagle nest sites eagles nested exclusively in conifers (pines or bald cypress). Of 61 bald eagle nest sites examined by McEwan and Hirth (1979) in north-central Florida, 58 were located in various species of pines and 3 were located in bald cypress. An early study of bald eagle nests along Lake Erie (Herrick 1924, cited in Snow 1973) indicated a preference for sycamores and hickories, but most studies of northern bald eagles show a strong preference toward conifers for nesting.

All nest trees that we examined either extended above the general level of the tree canopy or stood alone. The average height of water oaks used by eagles for nest trees in this study was 24 m while the average height of the pecans was 23.5 m. The eagle nests were located well up in the tree crowns with nest heights in both tree species averaging 18.3 m and ranging between 15.5 m and 22.5 m in water oaks and between 15.2 m and 21.3 m in pecans. The amount of canopy

1 able 1. Vegetative characteristics of bald eagle nest sites on the upper Texas coa	Table 1.	Vegetative characteristics of bald eagle nest sites on the upper	Texas coast
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Nest	Nest tree	Tree ht (m)	Nest ht (m)	Tree den./ (trees/ha)	Basal area (sq m/ha)	Canopy cover (%)
Phillips Reservoir	water oak	21.3	16.7	190	27.04	60
Retrieve Prison	Amer. elm	36.5	24.4	565	17.04	85
Maner Lake	pecan	19.8	15.2	5	2.10	10
Dow (Sargent)	pecan	25.9	21.3	763	13.46	95
Black Ranch #1	water oak	24.4	18.3	10	8.02	15
Black Ranch #2	sycamore	27.4	22.9			
Dense woodland				311	38.05	95
Pasture				0	0.00	0
Bar-X Ranch	water oak	25.9	15.5	2	1.28	5
George Ranch (FB2)	water oak	26.2	22.5	5	1.28	10
George Ranch (FB1)	water oak	25.0	18.0	30	9.23	45
River Ranch No. 1	pecan	18.0	fallen	2	1.04	5
River Ranch No. 2	pecan		0.3	2	1.51	10
Duncan Ranch	cottonwood	29.6	cut	77	4.20	20
Skull Creek	cottonwood	18.9	21.6	79	7.65	40
Goldenrod	live oak	22.9	14.9	7	2.02	5
McFaddin Ranch	water oak		18.3			•
Dense woodland				1380	18.35	90
Pasture				5	1.09	5

cover at the nest sites was highly variable and ranged from 5% on the very open sites to 95% on the sites with closed canopies.

Eagle nests were located in 2 distinct habitat classes with regard to the density of woody vegetation. Nine nests were located in open habitats (less than 125 trees/ha) and 3 nests were in dense habitats (greater than 250 trees/ha). In addition, 2 nests were located in ecotones (the boundary area between dense forest and open fields or pastures) and 1 nest, near the Phillip's Reservoir, was in a disturbed type where only the understory had been removed. Nests located in forest habita' always extended well above the level of the general forest canopy so that whether in the forest, on the edge, or in the open, an unobstructed flight path to the nest was always present.

Table 2. Characteristics of vegetation surrounding the Retrieve Prison Farm bald eagle nest.

Species	Mean diameter (cm)	Number trees	Density (trees/ha)	Relative density	Basal area (sq m/ha)	Relative dominance
Pecan	26.6	18	89.8	0.16	4.96	0.29
American elm	37.8	6	29.8	0.05	3.35	0.20
Water oak	42.4	4	20.0	0.04	2.76	0.16
Sugarberry	19.3	14	69.8	0.12	2.04	0.12
Ash	40.8	2	9.8	0.02	1.30	0.08
Winged elm	17.7	9	44.9	0.08	1.11	0.07
Deciduous holly	6.3	31	154.0	0.27	0.49	0.03
Boxelder	20.5	3	15.0	0.03	0.49	0.03
Grape	6.6	21	104.0	0.19	0.34	0.02
Trumpet creeper	7.8	3	15.0	0.03	0.04	0.00
Rattan	6.0	2	9.8	0.02	0.00	0.00
Total		113	564.0	1.00	17.03	1.00
Snags	21.5	7	35.0		1.25	

Table 3. Characteristics of vegetation surrounding the McFaddin Ranch bald eagle nest.

Species	Mean diameter (cm)	Number trees	Density (trees/ha)	Relative density	Basal area (sq m/ha)	Relative dominance		
Dense woodland								
Water oak	48.5	4	40.0	0.03	7.35	0.40		
Sugarberry	11.6	38	392.0	0.28	4.14	0.23		
Texas buckeye	7.8	39	389.0	0.28	1.87	0.10		
Winged elm	19.0	6	60.0	0.04	1.67	0.09		
Soapberry	11.1	13	129.0	0.09	1.28	0.07		
Hercules'-club	16.5	2	20.0	0.01	0.41	0.02		
Overcup oak	9.3	4	40.0	0.03	0.24	0.02		
Pecan	10.4	3	29.8	0.02	0.22	0.01		
Deciduous holly	5.3	11	109.0	0.08	0.22	0.01		
Swamp dogwood	6.3	7	69.8	0.05	0.22	0.01		
Red mulberry	8.8	3	29.8	0.02	0.17	0.01		
Mexican plum	8.3	3	29.8	0.02	0.14	0.01		
Slippery elm	12.9	1	9.8	0.01	0.12	0.01		
Summer grape	7.1	2	20.0	0.01	0.04	0.00		
Muscadine grape	6.0	1	9.8	0.01	0.00	0.00		
Poison ivy	6.0	1	9.8	0.01	0.00	0.00		
Total		138	1379.0	1.00	18.34	1.00		
Snags	6.6	12	120.0		0.39			
Savannah								
Pecan	54.6	12	2.4	0.46	0.51	0.50		
Live oak	74.4	5	0.9	0.19	0.41	0.38		
Water oak	90.9	1	0.2	0.04	0.12	0.12		
Poison ivy	6.6	7	1.4	0.27	0.00	0.00		
Winged elm	5.0	1	0.2	0.04	0.00	0.00		
Total		26	5.1	1.00	1.08	1.00		

Table 1 summarizes some of the measurements taken at each nest site in the study area. Tables 2 and 3, the Retrieve Prison Farm and the McFaddin Ranch nests respectively, are examples of the vegetation encountered at nesting sites. The McFaddin Ranch site was one of two nests built on ecotones between different habitats.

Other than the few factors mentioned above, no patterns were observed in these data that would lead to a conclusion concerning habitat selection criteria of Southern Bald Eagles in Texas. The authors suggest that future investigations sample vegetation in control areas not being used as nest sites. These additional data would allow underlying selection factors, if they exist, to be investigated using multivariate techniques.

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#### Acknowledgments

We want to thank Mr. John C. Smith of Rockport, Texas for his invaluable help in arranging access to the study areas. This work was supported in part by the George Ranch Foundation.

#### APPENDIX. Scientific names of plants mentioned in the tables or the text.

American elm ash boxelder Cedar elm cottonwood deciduous holly grape

grape
gum-elastic
Hercules'-club
live oak

Mexican plum muscadine grape osage-orange overcup oak pecan poison ivy

post oak rattan red mulberry Shumard oak

Shumard oak slippery elm soapberry sugarberry summer grape swamp dogwood sweetleaf

water oak winged elm yaupon

sycamore

Texas buckeye

trumpet creeper

Ulmus americana Fraxinus sp. Acer negundo Ulmus crassifolia Populus deltoides Ilex decidua Vitis sp.

Bumelia lanuginosa

Zanthoxylum clava-herculis

Quercus virginia
Prunus mexicana
Vitis rotundifolia
Maclura pomifera
Quercus lyrata
Carya illinoensis
Toxicodendron radicans
Quercus stellata
Berchemia scandens
Morus rubra
Ouercus shumardii

Ulmus rubra Sapindus sapponaria (sp?) Celtis laevigata

Vitis aestivalis
Cornus drummondii
Symplocos tinctoria
Platanus occidentalis
Ungnadia speciosa
Campsis radicans
Quercus nigra
Ulmus alata
Ilex vomitoria

## Nesting of the Magnificent Hummingbird in Jeff Davis County, Texas

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The Magnificent (=Rivoli's) Hummingbird, Eugenes fulgens, has been reported from the Trans-Pecos region of Texas as a summer resident in the mountains, but breeding remains unknown (Oberholser 1974. The Bird Life of Texas, Univ. of Texas Press, Austin; Texas Ornithological Society, 1974. Checklist of the Birds of Texas, T.O.S., Waco). We report here a nesting attempt by this species in the Davis Mountains, Jeff Davis County.

Late in the morning of 20 May 1982, we stopped at the property of J. R. Dixon and F. F. Scudday in the Davis Mountains Resort, an area on the slopes of Mt. Livermore. While wandering along a watercourse, we encountered a large female hummingbird. The bird frequently perched on exposed limbs, so one of us (KAA) returned to the car for a movie camera, while the other remained to observe the bird. Slack watched the bird as it flew to a nest in a small oak. The nest contained a single buffy-white egg. Slack's notes describe the nest tree as "..an oak . . . with DBH 3". Nest tree sprouted from a compound stem composed of 3 trunks." Elevation at the nest site is 1610 m.

We identified the bird as the Magnificent Hummingbird on the bases of a post-ocular *spot*, rather than a *stripe*, the *buffy* suffusion on the throat, and the *green* coloration of the tail. The rather poor super-8 film taken of the bird on the nest shows the eye-spot and the buffy throat. This film has been deposited in the Texas Photo-Record File as no. 316.

Tony Gallucci (pers. comm.) stated that he has observed nesting of the species in the Guadalupe Mountains National Park, Culberson County, but details of this observation are not available. This, then, represents the only documented record for nesting of the Magnificent Hummingbird in Texas.

## A First Nesting of the Wilson's Phalarope in Texas

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Just before sunrise on 15 June 1980, I arrived at a playa lake located 1 mi. E of the Pantex Ordnance Plant, southwestern Carson County, Texas. The sky was clear, the temperature 70° F, and a slight breeze was blowing. I had visited the site on the previous 5 June after having been told of some "white birds" of

unknown species that had been seen there. They had proved to be two Snowy Egrets (*Egretta thula*), a species rarely seen in the Texas Panhandle in summer, and I had resolved to keep my eye on them. On this second visit I found only one egret; as I started to leave, however, I noticed a bird over the northeastern shore whose actions were puzzling. The sun had just risen and I was looking almost directly into it. A meadowlark-size bird was flying in tight circles over a fixed spot on the ground, hovering at times with feet dangling, but never alighting. I could by no means identify it as the glare from the sun was too great and I could discern little more than flashing wings. After several minutes, the bird landed near where it had been circling and remained hidden in the tall grass.

My curiosity was aroused and I got out of the car to investigate. As I approached the eastern shore, a medium-size, light-colored bird arose from the ground and flew directly toward me, calling in a low-pitched, rather subdued and agitated, nasal "wonk." It circled about, calling constantly, and it was awhile before I realized that the bird was, in fact, a male Wilson's Phalarope (*Phalaropus tricolor*). It was white underneath and grayish-brown above with a wash of color on the sides of the neck, a white tail, and a long, thin, needle-like bill characteristic of the species. Its evident alarm indicated to me that either a nest or young was nearby.

I had closely observed the spot from which the bird had flown, so I now walked toward it. The nearer I got the more agitated the bird became. When I stood still it would fly off to a different area a short distance away and hover as though trying to divert my attention. I searched diligently for a nest or young, but without success. I moved away from the area, sat down, and began observing the bird. After a short time, it ceased calling and circling, and flew back to the spot from which it had flown originally. I walked toward the bird, it repeated its performance, and I searched again—but nothing. This interaction between bird and observer continued for some time before I succeeded in getting quite near before the bird flew. A quick dash to the spot, a rapid parting of the rather tall grasses, and there, crouched motionless, was a downy chick; had I not been standing directly above it, I would never have seen it.

The young phalarope was orange-buff overall with two broken and distinct black stripes running from a lateral stripe at the base of the head up to the base of the bill. The upper body had a quite similar pattern of stripes running from the rump to the bend of each wing. The bill was dark-colored and rather long and pointed, and the dark feet and toes seemed enormous in relation to body size. What I could see of the undersides were light buff, and the chin was whitish. After awhile it perked up, looked around, and ran rapidly off through the grass and disappeared. At no time did I see a female phalarope in the area.

The chick could not have been but a few days old as I detected no indications of emerging pin feathers. Given an incubation period of 16 to 21 days (Jones, 1969), the date of egg laying must have been near 25 May. By this date northward migration in the Texas Panhandle has been completed and noticeable aggregations of phalaropes are not seen again until southward migrants arrive in late June or early July. Between 16 May and 15 June most of my phalarope records are of single birds or of groups of less than ten seen in the central and northern sectors of the region, thus suggesting the possibility of other nestings that may have gone undetected because of the assumption that the birds were either the tag end or

forerunners of migrants. On 20 June 1982 I observed a pair of Wilson's Phalaropes on a playa lake only a short distance east of the 1980 discovery (Williams, 1982), but I saw no evidence of nesting.

Howe (1975) is of the opinion that the species engages in courting activity during spring migration. It may be that late courting migrants through the Texas Panhandle are opportunistic in selecting nesting sites at playa lakes that can be ephemeral to perennial in nature. The playa where the nesting occurred is basically perennial as I have surveyed it a number of times and found that it usually contained water. Of medium size, it is bisected by a dirt road and is closely surrounded by cultivated fields of grain. At the time of the nesting discovery numerous farming implements were parked nearby, indicating that considerable activity had probably taken place during the nesting cycle. The playa is usually covered by a thick growth of emergent vegetation, principally smartweed (*Polygonum pensylvanicum*), cattail (*Typha domingensis*), and bulrush (*Scirpus* sp.). Various grasses and forbs grow thickly around its margins and are replaced by buffalo grass (*Buchloe dactyloides*) on the drier upper slopes.

Other bird species observed on or around the playa lake during my two June 1980 visits were: Black-crowned Night-Heron (Nycticorax nycticorax), White-faced Ibis (Plegadis chihi), Mallard (Anas platyrhynchos), Northern Pintail (Anas acuta), Blue-winged Teal (Anas discors), Cinnamon Teal (Anas cyanoptera), Northern Shoveler (Anas clypeata), Gadwall (Anas strepera), Swainson's Hawk (Buteo swainsoni), Ring-necked Pheasant (Phasianus colchicus), Killdeer (Charadrius vociferus), American Avocet (Recurvirostra americana), Spotted Sandpiper (Actitus macularia), Mourning Dove (Zenaida macroura), Horned Lark (Eremophila alpestris), Red-winged Blackbird (Agelaius phoeniceus), Western Meadowlark (Sturnella neglecta), and Great-tailed Grackle (Quiscalus mexicanus).

Prior to the 1980 discovery, the Wilson's Phalarope was not known to nest any nearer to the Texas Panhandle than central and southwestern Kansas (Johnsgard, 1979). Sutton (1967) cites one reported instance in northwestern Oklahoma in which a pair "may have been preparing to nest" 14 June 1930 on Salt Plains in Alfalfa County. It is interesting to note that on 30 June 1980, a first nesting of the Wilson's Phalarope in New Mexico was established (Kaufman, 1980), and in June 1981, one for Arizona (Rosenberg, 1981).

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Williams, F. 1982. Southern Great Plains. American Birds 36(6):993.

#### Body Weights of South Texas Green Jays (Cyanocorax yncas)

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Body weight data on the Green Jay (*C. yncas*) in south Texas has been lacking for many years (Gayou, 1984. The Behavioral Ecology of Texas Green Jays. PhD dissertation, University of Missouri–Columbia). The weights of 131 AHY Green Jays captured within Santa Ana National Wildlife Refuge (Hidalgo Co., Texas) are compiled in Table 1 and Figure 1.

A Student's t-distribution test (Snedecor & Cochran, 1957, Statistical Methods, Iowa State University Press) was performed to determine if there was a significant difference between female body weights and those of the unknown sex category. Results showed no significant difference between these two groups (P < .001). Dunning (1984, Body Weights of 686 Species of North American Birds, Western Bird Banding Assoc. Monograph #1) obtained weight data from 14 specimens from "Texas and Mexico." He found an average weight of 99.7 g (S.D.  $\pm$  22.7; range: 70.6 to 125 g). In addition, Gehlbach (pers. comm.) found an average

 Type
 Mean
 S.D.
 Range
 N

 Female
 79.0 g
 ±4.80
 74–87 g
 9

 Unknown sex
 78.5 g
 ±5.60
 66–92 g
 122

Table 1. Body weight data of south Texas Green Jays.

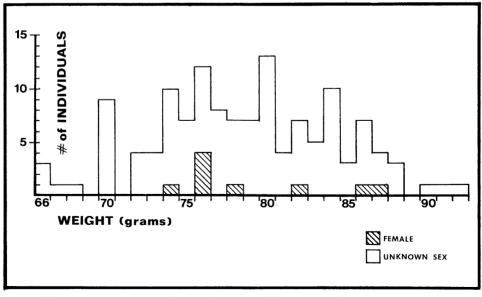


Fig. 1. Body weight distribution histogram of South Texas Green Jays (N = 131).

weight of 112 g for 9 AHY Green Jays from the "northern portion of east-central Mexico." Why this apparent difference exists among these data is unknown at this time. Dunning's and Gehlbach's data may indicate an increase in mean body weight of Green Jays as one proceeds from the northernmost periphery of this species' range (i.e. south Texas) to more central regions of the range of this northern population. Additional data in the form of larger sample sizes from various locations throughout the range may or may not support this trend.

The author wishes to thank the Texas Ornithological Society for its generosity in providing partial funding for this study in the form of a research award.

#### Decisions of the T.O.S. Bird Records Committee for 1985

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For the calendar year of 1985, the T.O.S. Bird Records Committee considered 22 submissions, mostly from 1984 and 1985. However, we also did a little "house

Species County Date Acceptances Greater Shearwater, Puffinus gravis 13 October 1984 At sea Yellow Rail, Coturnicops noveboracensis Cameron 25 March 1985 Ruddy Ground-Dove, Columbina talpacoti Hidalgo 7 March 1984 Ruddy Ground-Dove, Columbina talpacoti Hidalgo 18 October 1984 Common Pauraque, Nyctidromus albicollis Grimes 29 March 1985 Greater Pewee, Contopus pertinax Howard 23 October 1984 Blue Bunting, Cyanocompsa parellina Hidalgo 3 December 1984 22 March 1985 Baird's Sparrow, Ammodramus bairdii Hidalgo Rejections Greater Shearwater, Puffinus gravis At sea 14 March 1978 Band-rumped Storm-Petrel, Oceanodroma castro 14 June 1984 Bexar 3-6 November 1984 Glossy Ibis, Plegadis falcinellus Tarrant Gray Hawk, Buteo nitidus Val Verde 10 November 1984 Common Black-Hawk, Buteogallus anthracinus 10 November 1984 Mason Gray Hawk, Buteo nitidus 14 April 1985 Kleberg Aplomado Falcon, Falco femoralis Cameron 6 March 1985 Cameron Thayer's Gull, Larus thayeri 21 March 1985

Sabine

Sabine

Brewster

Jeff Davis

Jeff Davis

Val Verde

Thayer's Gull, Larus thayeri

Mew Gull, Larus glaucoides

Arctic Tern, Sterna paradisaea

Greater Pewee, Contopus pertinax

Greater Pewee, Contopus pertinax

Allen's Hummingbird, Selasphorus sasin

Table 1. Decisions rendered by the Bird Records Committee in 1985.

20 April 1985

20 April 1985

9 July 1984

14 July 1984

11 August 1982

10 November 1984

cleaning" as evidenced by one record each for 1983, 1982 and 1978. Table 1 shows the decisions of the committee (8 acceptances, 14 rejections). In addition, Jim Morgan was elected to replace Ben Feltner on the committee.

I would again add the admonition that any person who feels he or she has an unusual record should submit a T.O.S. Verifying Document of an Unusual Bird (obtainable from me) for consideration; the committee cannot act on records which are not submitted. Furthermore, rejection of a record *does not imply disbelief* of the sightings; the committee simply believes that the evidence submitted is not sufficient to document the record. To that end, one cannot *overly* document a record, although some are rather obvious.

#### Recent Articles about Texas Birds

#### Karen L. Benson

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#### -1984-

Baldassarre, G. A., and E. G. Bolen. 1984. Field-feeding ecology of waterfowl wintering on the southern High Plains of Texas. J. Wildl. Manage. 48(1):63–71. Investigates the use of harvested cornfields by dabbling ducks.

Baldassarre, G. A, and D. H. Fisher. 1984. Food habits of fall migrant shorebirds on the Texas High Plains. J. Field Ornith. 55(2):220–229. Describes the feeding ecology of nine shorebird species found to use playa lakes.

Blankinship, D. R., and K. A. King. 1984. A probable sighting of 23 Eskimo Curlews in Texas. Am. Birds 38(6): 1066.

Brand, C. J. 1984. Avian cholera in the central and Mississippi flyways during 1979–80. J. Wildl. Manage. 48(2):399–406. Documents the widespread mortality of waterfowl from the nesting grounds in Canada south to the wintering grounds in Texas.

Brand, C. J., and D. E. Docherty. 1984. A survey of North American migratory waterfowl for duck plague (Duck Virus Enteritis) virus. J. Wildl. Dis. 20(4):261–266. One of the 30 collection sites was in the Texas Panhandle.

Braun, D., G. B. Kitto, and M. J. Braun. 1984. Molecular population genetics of tufted and black-crested forms of *Parus bicolor*. Auk 101(1):170–173. Presents preliminary evidence for separating *Parus bicolor* into 2 species based on specimens taken in Texas and Louisiana.

Brown, C. R. 1984. Vocalizations of the Purple Martin. Condor 86(4):433–442. Describes ten types of vocalizations from Texas and Arizona Purple Martins.

Chapman, B. R. 1984. Seasonal abundance and habitat use patterns of coastal bird populations on Padre and Mustang Island barrier beaches (following the Ixtoc I oil spill). U.S. Fish Wildl. Serv. FWS/OBS-83/31. Synthesizes all available data on waterbirds in the study area and assesses the effect of the oil spill on them.

Dennis, J. V. 1984. Tale of two woodpeckers. Living Bird Quarterly 3(1):18–21. The pileated thrives under conditions that seem to have doomed the ivorybill.

Gaines, G. D., and R. J. Warren. 1984. Genetics and morphology of Sandhill Crane populations in Texas. J. Wildl. Manage. 48(4):1387–1393. Found a fixed genetic difference between two subspecies; this difference could be used to monitor the effect of hunting on the species.

Gaines, G. D., R. J. Warren, and D. B. Pence. 1984. Helminth fauna of Sandhill Crane populations in Texas. J. Wildl. Dis. 20(3):207–211. Reports differences in the abundances of parasitic worms found in Canadian and Alaskan crane populations wintering in Texas.

Guthery, F. S., and R. W. Whiteside. 1984. Playas important to pheasants on the Texas High Plains. Wildl. Soc. Bull. 12(1):40–43. Found that pheasants, forced

by cropland tillage in the fall, move into vegetation around playas during the winter.

Guthery, F. S., S. M. Odenberger, and F. A. Stormer. 1984. Predictors of site use by ducks on the Texas High Plains. Wildl. Soc. Bull. 12(1):35–40. Develops a model that predicts duck use of a site; significant factors are water and crop areas.

Hobaugh, W. C. 1984. Habitat use by Snow Geese wintering in southeast Texas. J. Wildl. Manage. 48(4):1085–1096. Addresses the management implications of geese dependence on rice-farming practices.

Lasley, G. W. 1984. First Texas specimen of the White-collared Swift. Am. Birds 38(3):370-371.

McNair, D. B. 1984. Reuse of other species nests by Lark Sparrows. Southwest. Nat. 29(4):506–507. Documents Lark Sparrow use of mockingbird and thrasher nests in Texas and Oklahoma.

Mitchell, C. A., D. H. White, E. J. Kolbe, and R. C. Biever. 1984. Dicrotophos poisoning of Great-tailed Grackles in Texas. J. Wildl. Dis. 20(3):256–257. Documents gross misuse of a pesticide near Waco, Texas. Data suggest intentional poisoning.

Ng, D., and B. D. Jasperson. 1984. Interspecific allopreening between Crested Caracara and Black Vulture. Condor 86(2):214–215. An incident of mutual preening near Refugio, Texas.

Passmore, M. F. 1984. Reproduction by juvenile Common Ground Doves in South Texas. Wilson Bull. 96(2):241–248. Juveniles were found to be reproductively active at approximately 79 days of age and to contribute 15–21% of the annual recruitment to the population.

Quinlan, E. E., and G. A. Baldassarre. 1984. Activity budgets of nonbreeding Green-winged Teal on playa lakes in Texas. J. Wildl. Manage. 48(3):838–845. Describes daily activity patterns of wintering teal.

Sikes, P. J., and K. A. Arnold. 1984. Movement and mortality estimates of Cliff Swallows in Texas. Wilson Bull. 96(3):419–425. Analyzes nine years of banding data from six major colonies near Somerville, Texas.

Smith, D. S., and J. R. Cain. 1984. Criteria for age classification of juvenile Scaled Quail. J. Wildl. Manage. 48(1):187–191.

Snyder, W. D. 1984. Ring-necked Pheasant nesting ecology and wheat-farming on the High Plains. J. Wildl. Manage. 48(3):878–888. Found that spring cultivation of stubble caused almost total nest failure and suggested that renesting in green wheat is important to pheasant production.

Stormer, F. A. 1984. Night-roosting habitat of Scaled Quail. J. Wildl. Manage. 48(1):191–197.

Tacha, T. C. 1984. Preflight behavior of Sandhill Cranes. Wilson Bull. 96(3): 471–477. Quantifies behaviors that contribute to the social organization of cranes.

Tacha, T. C., and P. A. Vohs. 1984. Some population parameters of Sandhill Cranes from mid-continental North America. J. Wildl. Manage. 48(1):89–98. Presents techniques to identify age-classes and lists percentage of harvest by age/sex classes.

Tacha, T. C., P. A. Vohs, and G. C. Iverson. 1984. Migration routes of Sandhill Cranes from mid-continental North America. J. Wildl. Manage. 48(3):1028–1033. Presents demographic evidence for two subpopulations of Sandhill Cranes.

Tewes, M. E. 1984. Opportunistic feeding by White-tailed Hawks at prescribed burns. Wilson Bull. 96(1):135–136. Occurred at Welder Wildlife Refuge and Aransas NWR.

Thebeau, L. C., and B. R. Chapman. 1984. Laughing Gull nest placement on Little Pelican Island, Galveston Bay. Southwest. Nat. 29(3):247–256. Found that gulls nested in two distinct plant communities, but usually within 2 m of open sand areas.

Thompson, B. C., and R. D. Slack. 1984. Post-fledging departure from colonies by juvenile Least Terns in Texas: implications for estimating production. Wilson Bull. 96(2):309–313. Juveniles were found to depart colonies within 3 weeks after fledging; thus one-time only counts of fledglings underestimate colony's production.

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## **BULLETIN**

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