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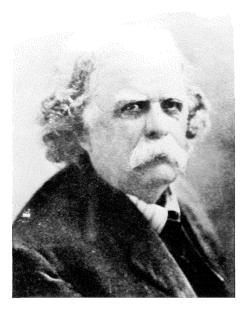
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Captain M. B. Davis' War to Save the Birdlife of Texas

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CAPTAIN M. B. DAVIS
Secretary of the Texas Audubon Societies and
Field Agent for the National Association of Audubon Societies

With long white hair, a full drooping mustache, and the facial features of Mark Twain, Captain Mervyn Bathurst Davis presented a dignified and imposing appearance. Greatly skilled in relating stories and anecdotes through the use of a picturesque and eloquent diction, he was also a man of action firmly committed to those principles that he held to be correct. During his life, M. B. Davis fought two wars—the first to save his home and way of life in his native Virginia and the second with the market hunters, "game hogs," and various other misguided elements engaged in the destruction of Texas wildlife.

Davis embraced the role of "bird protector" with the militant fervor of a man engaged in a struggle with the forces of evil. By his perception, there was being waged a "relentless and ruthless warfare against everything wearing feathers." The destruction of birds was interpreted by Davis as a perversion of the laws of

nature. Birds, he believed, were created for the purpose of controlling insect pests and the extirpation of the birds would ultimately result in the failure of agriculture. In the agrarian society of the early 1900's, the fate of both birdlife and humanity was, therefore, inextricably linked. Neither could live without the other and, if mankind was to survive, the birds must be saved.² To achieve this joint salvation, the "Grand Old Man of Waco" devoted his final years to an educational campaign designed to convince Texans of the "necessity of extending the proclamation of peace and good will to the wild animals and birds of our land."

The rhetoric of Davis' campaign would, by today's standards, be considered exaggerated, anthropomorphic, and overly sentimental. It was, however, a desperate time in the history of bird protection and, although Davis used what meager data as were available on wildlife biology, he relied most heavily on appeals to conscience, moral duty, and self-interest. This approach was consistent with his belief that the war against wildlife would be won only when the compulsion of men to destroy lesser creatures was replaced with a sense of interrelatedness and compassion.³

Early Life in Virginia

Mervyn Bathurst Davis was born in Henrico County, Virginia, on 14 October 1844, the third son of J. Lucius and Elizabeth H. Davis. Lucius was a prosperous farmer and his son was educated at the elite Virginia Military Academy in nearby Richmond. At the outbreak of the Civil War, Mervyn enlisted in the Confederate Army serving in Company G, 10th Virginia Cavalry and Company E, 59th Virginia Infantry. He was wounded in July 1861 on the Gauley River in West Virginia and, although he suffered various other wounds, continued to serve until Lee's surrender on 9 April 1865.⁴ Although there is no official record of the military rank which Davis achieved, he was in later years respectfully referred to as "Captain Davis."

Little is known of Davis' activities immediately following the war. By one account, he came to Texas where he served three or four years as a Texas Ranger fighting Indians and outlaws on the frontier. Since his name does not appear in the Ranger records of this period, it is assumed that he remained in Virginia where he married. This is supported by census records which show that his daughter, Constance, was born in Virginia in 1870. The identity of Davis' first wife is unknown, and it is assumed that she died shortly after the birth of her daughter.

Arrival in Texas

In 1873, Davis located in Waco, Texas, where he worked on the staff of the *Waco Daily Reporter*. He apparently grew bored with this job for he left the pressroom to serve from September 1877 through March 1878 as a Ranger in the Frontier Battalion.⁷ During 1880 Davis was living in Bexar County where he was working as a journalist. His family at this time consisted of his wife, Susan, and two children, Constance and Mervyn Bathurst Jr., and William and Burdie Hartson who were presumably stepchildren.⁸

In 1881, in association with Champe Carter McCulloch (1841–1907) and Herman E. Ambolt (1854–1905) of Waco, Davis formed the first Game Protective Association in Texas. McCulloch, a merchant and later mayor of Waco from 1890 to 1894, was president of the association. Ambolt, owner of a sporting goods store and by profession a gunsmith, was treasurer, and Davis was secretary. The membership, activities, and lifespan of the association are unknown. Davis reportedly conducted a campaign in the press to warn the public about the dangers to Texas wildlife should conservation practices not be implemented. None of his writings from this period have been discovered and their content must, therefore, remain speculative. Game protective associations later became popular in Texas and a number of short-lived organizations were formed for the purpose of education and the financing of a war chest to hire wardens and prosecute offenders.

In 1883, Davis was working in Fort Worth for the *Dallas Weekly Herald*, but moved to Dallas the following year to join the *Dallas Morning News*. In 1885 he was placed on the staff of the *Dallas News* and in the following year was transferred to Waco as a correspondent, a position that he retained for the remainder of his life. During 1890 he was also employed as city editor of the *Waco Day*. ¹⁰ Around 1883, Davis married his third wife, Celeste, who is listed in the 1900 census as a "society editor."

Davis was instrumental in the formation of The Texas Humane Society which

was founded at Waco on 28 March 1895. This society, which is still active, has been known since 1935 as the Waco Humane Society. Davis served as secretary of The Texas Humane Society for several years being assisted by fellow Wacoan Alfred Abeel (1835–1922) who was president. Abeel, a native of New York state, was first in the hardware business and later worked as a receiver for the Waco and Northwestern Railway. 12

During the summer of 1903 Aurelia Gooch, member of The Texas Humane Society, composed an essay on the destruction of caprimulgid birds. In this essay, intended for reading before the local society, Miss Gooch praised caprimulgids as "insect hunters of the highest order . . . plying their useful trade in the defense of crops and assisting in ridding the world of all insect pests." Recognizing the propaganda value of the essay, Secretary Davis forwarded the manuscript to the Dallas Morning News where it was published on 17 August 1903. Upon receiving a copy of this article William Dutcher, Chairman of the National Association of Audubon Societies, extended his compliments to Miss Gooch for a job well done. 14

Organization of the Texas Audubon Society

M. B. Davis was a late-comer to the ranks of the Audubon Society. The first chapter of the Texas Audubon Society was organized on 4 March 1899 in Galveston under the leadership of Estelle C. Hertford, president, and Cecile Seixas, secretary. Most of the members of the Galveston chapter were, however, killed during the hurricane of 1900.¹⁵ The search to find a person around whom a state Audubon society could be organized first focused on the naturalist Henry Philemon Attwater of Houston who was an active conservationist with considerable influence among the farmers and horticulturists. Attwater, however, declined the honor because of the demands of his position as Industrial and Agricultural Agent with the Southern Pacific Railroad.¹⁶

Davis apparently came to the attention of the leadership of the National Audubon Society through his work with the Humane Society. It was, however, not until late 1904 that Davis was appointed as Secretary of the Texas Audubon Societies. On 12 January 1905 H. P. Attwater met with Davis in Waco to discuss conservation problems and to plan strategy and tactics. The two men had apparently never met before and the impression that Attwater made on Davis was electrifying. Following Attwater's departure, Davis immediately wrote to Dutcher describing what "a sublime spectacle [it was] to see that old patriot and bird lover [Attwater] struggling against the flood tide of adverse conditions with his sunny heart ever filled with hope, overcoming all discouragements and ever ready to be helpful in the work to which his life is devoted."17 Davis had indeed found his cause and his coworker! The personalities of the two men were greatly different yet compatible. Davis was emotional and was motivated by principle whereas Attwater was more conservative and preferred to base his arguments on scientific data. Working both independently and in collaboration, these two men would greatly influence the course of wildlife conservation in Texas.

Davis' responsibilities as secretary of the Texas Audubon Societies were three-fold—initiating the formation and coordination of the activities of branch societies, implementing the educational and legislative campaign of the society, and reporting to the national office. There was immediate success in starting new

chapters and by January 1905 Davis reported to Representative John Lowry Peeler, Chairman of the Game Law Committee, that there were 14 branch societies and around 800 members in Texas.¹⁸

Business Interests Challenge the Game Law

Davis was allowed precious little time to adjust to his new job before being confronted by a major challenge from business interests that wished to modify the game law that had been passed in 1903. One of the strong points of this law was that it set a limit of 25 ducks per day. No more than this number could be shipped, and the shipment had to be accompanied by the hunter. This restriction was portrayed by the coastal sports industry as a hardship since in a hunt lasting several days, hundreds of ducks might be legally killed which could then not be shipped home. To alleviate this perceived hardship, the Business Men's League of Rockport proposed in late 1904 that a hunter be allowed to ship an unlimited number of unaccompanied waterfowl upon making an affidavit that they had been legally killed. This amendment was promoted by George P. Lupton, General Passenger Agent of the San Antonio & Aransas Pass Railway, who in turn, sought support from passenger agents of other railroad companies involved in transporting hunters to the Texas coast. 19

The proposed amendment to the 1903 law was sternly opposed by T. J. Anderson, General Passenger Agent for the Southern Pacific Railroad in Houston, who vowed to do all in his power to prevent the law from being modified "one jot or tittle."20 On 14 January 1905, at a joint meeting of the Humane and Waco Audubon Societies, Alfred Abeel, M. B. Davis, and W. H. McCollum (1841-1922) were appointed to write a letter endorsing Anderson's position on the proposed amendment. This letter, which was undoubtedly written for the most part by Davis, carefully pointed out the beneficial aspects of the game law before comparing the effect of the proposed amendment to the days when the ducks "were being sent away through the cold storage agencies by train loads for the use of the epicures." Special care was taken not to alienate sportsmen by assuring them that it was not the aim of the Humane and Audubon societies to "deprive the true and legal sportsmen of their recreation with the rod and gun." The immediate and forceful response of the conservationists had the desired effect and the proposed amendment did not gather the statewide support that was expected. The letters which had been written in support of Anderson's position were quickly reprinted in a pamphlet distributed by the Southern Pacific Railroad as a statement of the company's policy on game protection.²¹ So complete was the victory that Captain Davis reported that the pot-hunters were "vanquished" and that "there was rejoicing all along the line."22

First Efforts at Public Education

Plume hunters were operating on the Texas coast during the winter of 1905–1906 and, in the absence of a state warden system, laws protecting birds were being violated throughout most of the state. To counteract these activities, 10,000 warning posters were distributed and a series of lectures were delivered throughout the state by Davis, Attwater, and "Mrs. Cardenas." Several articles on bird protection by Davis and Attwater were also distributed to the newspapers.²³

In the fall of 1906, Davis reported that there were 101 branch Audubon Societies and that Texas was being changed "from a vast slaughter field . . . to a grand preserve." One notable success in protection was the reduction in the number of robins killed as compared with previous years, e.g. in the winter of 1902–1903 a single hunter supplied 120,000 robins to hotels and restaurants in Texas and adjacent states.²⁴

An effort was made during 1906 to establish close working relationships with the women's clubs, educators, newspapers, railway companies, and others interested in the "noble cause" of protection. Priority was also given to discouraging the use of slingshots and target guns by schoolboys while teaching them of the "evils of destruction [and] the inexpressible merit of protection." Wardens were facilitated in the performance of their duties resulting in over 500 convictions since 1904. Other activities during 1906 included promotion of the sanctuary concept, an educational campaign stressing the value of peccaries as exterminators of rattlesnakes, and the role of chachalaccas and bull-bats in the control of the boll weevil.²⁵

Campaign for Renewal of the 1903 Game Law

The game law of 1903 was enacted for a five-year period and was, therefore, scheduled to expire by limitation on 1 July 1908. Since the legislature would not meet until January 1909 following the date of expiration, the state would be without a game law unless an extension was provided by the legislative session convening in January 1907. The danger to the wildlife of Texas was clear. After quietly planning his strategy during the latter months of 1906, Davis boldly made public his plans in a news release at Waco on 12 January 1907. In this release, a Joint Committee consisting of Davis, Alfred Abeel, and H. M. Minier announced that a special Bird and Game Conference would soon be held in Austin and its major items of consideration were outlined for the public.²⁶

In a second news release on January 19th, the Joint Committee revealed that the conference would be held on January 24th and 25th. An invitation was extended to legislators, newspapermen, railway passenger agents, representatives of gun clubs and Audubon societies, and all others who wished for better protection of game. The declared purpose of the conference was to work for extension of the 1903 game law and the creation of a game and bird commission to be supported by revenue from a license on both resident and nonresident hunters.²⁷ During the conference Davis, Attwater, Oscar C. Guessaz, Frank P. Holland, J. H. Connell, C. Taylor Cade, and Hugh Jackson were appointed to a committee to write the recommendations of the conference which were to be presented to the legislature.²⁸

The legislature eventually extended the 1903 game law even though several proposed beneficial amendments were defeated. Charles E. Brewster, Secretary of the National Association of Wardens, who was present at the time of the vote described Captain Davis as "simply crushed to see men he had believed perfectly honest, and who had within the hour assured him [of their support]" stand and cast their vote against the proposed amendments.²⁹ One success of the 1907 campaign was, however, the passage of the game warden bill introduced by Representative Henry Berryman Terrell.

Lecture Before the Texas Farmers' Congress

Davis emerged from the legislative campaign of 1907 as a seasoned conservationist. His oratory had, by this time, become a predictable blend of rational argument, homespun wisdom, and sentimentality tinged with mysticism. This is well illustrated in an address delivered in 1907 before the Texas Farmers' Congress. Davis first focused on the destructive agencies operating on the forests and the wildlife. He then launched into a vivid description of the bull-bat, a species ever "alert, born hungry and never satisfied, he wants nothing... except pernicious insects, and is doomed to cover vast areas on his tireless, and graceful pinions, to satisfy his cravings." The farmers were then reminded that the insect plague was on the increase and that the boll weevil was regarded as a delicacy by over 60 species of birds. Examples were then given of the beneficial activities of yellow-billed cuckoos, martins, swallows, blackbirds, turkey buzzards, hawks, armadillos, alligators, and horned lizards.

Captain Davis ended his address before the Farmers' Congress with the touching story of a farmer who one day noticed that the birds were gone. "He [the farmer] correctly concludes that they are dead, and that they have been killed by the gunners, and he feels in his heart a yearning and tender hope that these little singers, friends of mankind, were possessed of souls, and that they are indulging their melodies in the eternal paradise, close to the throne, in the groves beside the beautiful river, and that they are finding there immunity from persecution, which on earth men, who they sought to preserve, denied them."³⁰

This 'eternal rest' story, delivered in solemn tones by the venerable white-haired patriarch, must assuredly have brought forth a gush of tears from the women and, perhaps, a deepened breath in even the most hardened farm hand. The use of religious metaphor to elicit a decision from the audience was an ingenious ploy. Who, indeed, could possibly declare in favor of the gunners who had so murderously exterminated the least of God's creatures?

Activities During 1908 and 1909

The legislature did not meet during 1908 thereby allowing Davis to devote his entire time to the organization of branch societies and the presentation of lectures. At the end of the year, he reported that birdlife was on the increase except for doves, waterfowl, and prairie-chickens. The plight of the doves was deemed particularly desperate because of an inadequate number of wardens. Gun clubs at Houston and Beaumont were active in protecting waterfowl, and in northwestern Texas landowners, railway men, and state officials were working to protect antelopes, deer, wild turkeys, and prairie chickens.³¹

A major challenge was presented to the game law during 1909. To counteract those who would weaken the law, the Texas Audubon Societies maintained a committee at the legislative session while encouraging a grass roots initiative in which an estimated 5,000 letters were written. Several objectional amendments to the game law were defeated but only one improvement was obtained—a provision for a resident license fee to provide funds for the State Warden System. While considered a victory, the amendment did not require a license in the hunter's residence county or in the counties adjacent to his resident county, thus leaving

in the field vast numbers of gunners who were exempt from any license requirement whatsoever.³²

Endorsement by the Texas Conservation Congress

January through March of 1910 were devoted to lecturing and writing for the press. On 5 April 1910, armed with a stereopticon projector and materials provided by the national society, Davis carried the Audubon message to the Texas Conservation Congress in Fort Worth. His lecture consisted of a discussion of the "value of birds to agriculture" and a sentimental appeal for the "better care of the birds of the state." Questions were received from the audience followed by Davis' request for an endorsement of the work of the Audubon Society. The resolution written by Davis and adopted by the Congress is probably typical of the endorsements obtained from other organizations: "Resolved that the first Congress of the Conservation Association of Texas hereby indorses the work of the Texas Audubon Society in behalf of the wild birds of Texas and urges that the next legislature shall enact bills for the better protection of the birds to the end that they may not be exterminated, but remain with us and be allowed to increase in numbers to delight the world with their beauty and music and also serve the economic purpose for which they were created, namely, the protection of crops by the extermination of the insect enemies of the crops."33

On 26 May 1910, Davis lectured before a meeting sponsored by the Museum and Scientific Society of Houston, an appearance which resulted in his being elected an honorary life member of the Society. Several additional lectures were then given in Houston before traveling on to a number of smaller cities and to the annual meeting of the Texas Farmers' Congress. The tour then continued to thirty smaller towns before being concluded on September 30th in Waco before the Women's Christian Temperance Union.³⁴

Celeste Davis was also active on the lecture circuit. On 13 October 1910, she read an address prepared by her husband before the Mother's Congress in Austin. The influence of women in behalf of the birds was praised and a special plea made for the robin which had recently been found to eat boll weevils in southern Texas. The mothers were asked to prevent their sons from purchasing air guns and target guns and to urge them to instead use their money to buy cameras. In conclusion, the mothers were requested to disarm their sons and to teach them that they could "find diversion without contributing toward the total annihilation of [their] own race." On 1 December 1910, Mrs. Davis presented a similar message to the Federation of Women's Clubs which was meeting in San Antonio.

The achievements of 1910 were considerable. Thirty branch societies had been formed in the first quarter of the year, the Audubon message delivered to thousands of people, and the Society had gained the endorsement of the Texas Conservation Congress.³⁷

Appointment as an Audubon Field Agent

Captain Davis was appointed a salaried Field Agent of the National Association of Audubon Societies in 1910. In early January 1911, prior to the convening of the legislature, Davis called a conference of game protectors to meet in Austin to discuss proposed amendments to the game law, including a license requirement for all hunters, protection of the robin and plover as nongame species, and the Bull. Texas Ornith. Soc. 17(1&2): 1984

issuance of permits for the collection of birds for scientific studies. In a letter to Governor Colquitt and the thirty-second legislature, Davis charged that the war against wildlife was being conducted "as if extermination were a virture and the highest welfare of the people could be attained [only] when this shall become a birdless world and when the last of the deer and the antelope and the mountain sheep have disappeared."³⁸

In spite of extensive lobbying, the legislative accomplishments of 1911 were disappointing. Davis did not seem particularly alarmed by the failure to gain nongame status for the robin. Since this species had been increasing in recent years. Davis confidently predicted that the trend would continue. Anticipating, however, that the fall migrants, particularly the robin, would be subject to harassment by boys with cheap guns, Davis published a pre-Christmas message entitled "WITHHOLD TOY GUNS AND SPARE BOYS AND BIRDS." The practice of giving guns to children as Christmas presents was emphatically denounced as contrary to the spirit of jolly old Saint Nicholas "but the parents do it . . . arming their little ones and sending them forth to become pupils in this, kindergarten of lust for bird blood." Repeating a theme echoed by other conservationists, Davis contended that there was an inherited defect in the heart and souls of children which inspired them "with an ardent thirst to kill and destroy." The question was then posed as to whether a child initiated into the ritual of bird slaughter would "grow up a confirmed destroyer, reckless and disregardful of the sweetest emotions of life?"39 As the twig is bent so grows the branch!

Davis' optimism concerning the robins was cruelly shattered by the events to which he was soon to be an eye-witness. During January 1912 the weather turned bitterly cold, and in central Texas the schools were dismissed because of an outbreak of meningitis. With no constructive outlet for their youthful energies, the schoolboys [and schoolgirls!] joined the ranks of the regular hunters and there ensued a merciless slaughter of robins in McLennan County. Worse yet, a ruling by the Board of Health prevented public meetings by which attention could have been drawn to the outrage in progress. Although robins were legal game, the bag limit was routinely exceeded and the dead birds were illegally sold from door-to-door. Davis' estimate was that more than 500,000 robins were killed throughout Texas.⁴⁰ One hunter publicly boasted of leading an expedition of seven "sportsmen" to a robin roost on the Trinity river near Dallas where, in just over two hours, over 10,000 birds were killed.⁴¹

Efforts for Plume-bearing Birds and Horned Lizards

Six Audubon lecturers were kept in the field during 1911 with presentations being given before the State Nurserymen's Association, Corn Growers' Association, Corn Planters' Association, Citrus Fruit Growers' Association, Farmers' Congress, Mothers' Congress, and the State Educational Association. A survey along the coast located a colony of plume-bearing white egrets and large colonies of herons. The sanctuary concept was actively promoted, and Davis was confident that about 50,000 acres would soon be donated for the protection of egrets and herons.

A special campaign was conducted during 1911 for the protection of the horned lizard. Surveys made by the Audubon Society in Shackelford, Jones, and Lampasas counties showed that these reptiles were decreasing at an accelerated rate. Current

fashion demanded that the lizards be "metallized" and used as ornaments for buckles and mounts for hat pins. Davis was, however, convinced that his newspaper articles and letters to influential educators and farmers had brought this horrible work to a halt.⁴²

A Need to Teach Mercy and Kindness

The year 1912 began with the school children of central Texas indulging in an orgy of robin slaughter. This appalling spectacle, perhaps more than any other, convinced Captain and Mrs. Davis that the long term survival of Texas wildlife depended on education of the youth. Mrs. Davis summarized their views as follows: "The heart to love helpless creatures will prevail over the disposition to destroy, and when the boy becomes a man he will protect the birds through principle instead of through fear of the law. We believe that teaching mercy and kindness should be as much a part of the curriculum of our schools as a knowledge of spelling or arithmetic." Realizing that the battle would not be won in their generation, the Davis's began the organization of Junior Audubon Clubs throughout the state.⁴³

In late January 1912, after conferring with Texas Agriculture Commissioner Edward R. Kone, Davis agreed to serve as the editor of a proposed bulletin on "Birds and Their Relation to Agriculture."⁴⁴ The remaining few months of his life were devoted to this task in addition to his work with the Junior Audubon Clubs and the continued study of herons and egrets along the coast.

Captain Davis died on 18 June 1912 and was laid to rest in Oakwood Cemetery at Waco. His manuscript on Texas birds remained unfinished, but was later completed by H. P. Attwater and published in 1914 as Bulletin 37 of the Texas Department of Agriculture under the title "Use and Value of Wild Birds to Texas Farmers and Stockmen and Fruit and Truck Growers." Captain Davis' contributions were acknowledged in the Introduction of the bulletin and his photograph graced the inside cover.

The Genius of Audubon Work in Texas

M. B. Davis' approach to wildlife protection was based in a spiritual concept of stewardship. Although he believed that protection of the helpless was "a high, a noble, and a religious duty," Davis was not, however, lacking in personal ambition. Wishing to be ranked with men such as William Dutcher and T. Gilbert Pearson, he confided shortly before his death that his heart burned with an "eagerness to accomplish an end in ornithology which shall go ringing down the ages"45 Certainly he will not be remembered as an ornithologist, but even his enemies would have agreed with Celeste Davis' assessment that her husband was the "recognized genius of Audubon work in Texas."46 William T. Hornaday, Director of the New York Zoological Park, remembered Davis as "the splendid Brigadier-General who led the Army of Defense . . . when the great battle was fought in Texas by the gallant men and women of the State Audubon Society."47

Davis died knowing that although the war against wildlife had not been won, his struggle had not been in vain. Through his lectures and writings, he had spoken for the birds, the horned lizard, the antelope and the deer, and all members of the dumb creation who had felt the oppression of an uncaring humanity and, like a biblical prophet, he had warned men of the wickedness of their ways and the

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punishment that would follow if they did not change. As the "voice of the voice-less" Davis did, indeed, find his personal fulfillment.⁴⁸

Within a few years following Davis' death, his name and work were to a great extent forgotten. No stone marks his place of burial nor is there a bird species, sanctuary, or scholarship named in his honor. The fruits of his labors are, however, present in the feathered multitudes who are today zealously protected by a new generation of his spiritual descendants.

Acknowledgments

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Footnotes and References

- Letter to T. J. Anderson from Alfred Abeel, M. B. Davis, and W. H. McCollum dated 14 Jan. 1905. Reprinted in A Few Expressions from Various Audubon Societies (n.d.) compiled by T. J. Anderson, General Passenger Agent of the Southern Pacific Railroad, Houston, Texas, 24 pp. [see p. 11].
- 2. Texas farmers were particularly concerned about the ravages of the boll weevil which had invaded southern Texas in 1892 (V. A. Little, A Brief History of Entomology at the Agricultural and Mechanical College of Texas, 1960, p. 2). By 1902 over 467,000 bales of cotton were estimated to be destroyed each year by the boll weevil and the boll worm. The lack of effective chemical controls for these pests led H. C. Williams of Lorena to state that he would "rather have a few thousand birds in [his] cotton patch than all the scientists in the state" ("Birds Must Be Protected," Waco Daily Times-Herald, 19 Jan. 1903, p. 6, cols. 2–3).
- 3. Davis' philosophy concerning conservation is perhaps best stated in his essay "The Birds of Texas," pp. 7-11 in *Use and Value of Wild Birds*, Texas Dept. of Agric., Bull. 37 (1914), 61 pp.
- 1850 Census of Henrico County, Virginia, pp. 539–540 and 1860 Census of Henrico County, Virginia, p. 2; T. Gilbert Pearson, "Some Audubon Workers: Captain M. B. Davis," Bird-Lore 12(1910):212–214; Confederate Pension Records in the Texas State Archives.
- 5. T. Gilbert Pearson, "Captain M. B. Davis," Bird-Lore 12(1910):212-214.
- 6. 1900 Census of McLennan County, Texas, sheet 14, line 57.
- 7. Ranger Rolls in the Texas State Archives.
- 8. 1880 Census of Bexar County, Texas, sheet 25, line 3.
- 9. Pearson, op. cit., pp. 212-214. A biography of C. C. McCulloch is found in *The Handbook of Waco and McLennan County, Texas* (1972), pp. 169-170.
- Obituaries of M. B. Davis in the Dallas Morning News, 19 June 1912, p. 6, cols. 2–3 and Waco Semi-Weekly Tribune, 19 June 1912.
- 11. Leaflet entitled "Waco Humane Society" (n.d., n.p.) in The Texas Collection at Baylor University.
- 12. A biography of Alfred Abeel is found in *The Handbook of Waco and McLennan County, Texas* (1972), p. 1.
- 13. "Destruction of Birds," Dallas Morning News, 17 Aug. 1903, p. 7, col. 2.
- 14. Letter to Aurelia S. Gooch from Wm. Dutcher dated 26 Aug. 1903. Audubon Correspondence in the New York City Public Library.
- 15. Estelle Cannon (Mrs. Joseph W.) Hertford was a native Texan born in 1876 [1900 Census of Galveston County, TX].
- 16. Letter to H. P. Attwater from Wm. Dutcher dated 11 Sept. 1902; Letter to Wm. Dutcher from H. P. Attwater dated 2 Oct. 1902; Letter to H. P. Attwater from Wm. Dutcher dated 7 Oct. 1902; Letter to Wm. Dutcher from H. P. Attwater dated 15 Oct. 1902. Audubon Correspondence in the New York City Public Library.

- 17. Letter to Wm. Dutcher from M. B. Davis dated 12 Jan. 1905. Audubon Correspondence in the New York City Public Library.
- 18. Letter to J. L. Peeler from M. B. Davis dated 24 Jan. 1905. Audubon Correspondence in the New York City Public Library.
- 19. Correspondence concerning the proposed changes in "The Texas Duck Law" is reprinted in *Forest and Stream* 64(1905):31–32.
- 20. Letter to George F. Lupton from T. J. Anderson dated 31 Dec. 1904 in *Forest and Stream* 64(1905): 31.
- 21. A Few Expressions From Various Audubon Societies (n.d.) compiled by T. J. Anderson, General Passenger Agent of the Southern Pacific Railroad, Houston, Texas, 24 pp.
- 22. M. B. Davis, "State Audubon Reports: Texas," Bird-Lore 8(1906):272-275 [see p. 274].
- 23. M. B. Davis, "Texas," Bird-Lore 8(1906):78.
- 24. M. B. Davis, "State Audubon Reports: Texas," Bird-Lore 8(1906):273.
- 25. Ibid, p. 273-275.
- 26. "For Birds and Game, Address to Law Makers," Waco Daily Times-Herald, 14 Jan. 1907, p. 5, col. 3.
- 27. "Game Law Conference," Waco Daily Times-Herald, 19 Jan. 1907, p. 5, col. 3.
- 28. "Report of the Game Law Committee," Texas Field and Sportsman, Feb. 1907, pp. 33-34.
- 29. Letter to Wm. Dutcher from Charles E. Brewster dated 12 Mar. 1907. Audubon Correspondence, Box 17, Folder No. 1, New York City Public Library.
- 30. M. B. Davis, "The Birds of Texas," an address given in 1907 before the Texas Farmer's Congress and reprinted in *Use and Value of Wild Birds*, Texas Dept. of Agriculture, Bull. 37 (1914), 61 pp. [see p. 7-11].
- 31. M. B. Davis, "State Audubon Reports: Texas," Bird-Lore 10(1908):315-317.
- 32. M. B. Davis, "State Audubon Reports: Texas," Bird-Lore 11(1909):333.
- 33. For accounts of the Texas Conservation Congress see *The Fort Worth Record*, 5 April 1910, p. 4, cols. 4–5; 6 April 1910, p. 1, col. 7 and p. 2, cols. 1–6; and 7 April 1910, p. 7, cols. 3–7.
- 34. M. B. Davis, "State Audubon Reports: Texas," Bird-Lore 12(1910):304-305.
- 35. "A Strong Plea for the Birds," Waco Daily Times-Herald, 13 Oct. 1910, p. 5, cols. 2-3.
- 36. "Pleads for the Wild Birds," Waco Daily Times-Herald, 1 Dec. 1910, p. 6, col. 5.
- 37. M. B. Davis, "State Audubon Reports: Texas," Bird-Lore 12(1910):304-305.
- 38. "Game Protectors Met Yesterday," Waco Daily Times-Herald, 12 Jan. 1911, p. 11, col. 1. The letter to Gov. Colquitt is reprinted in the Waco Daily Times-Herald, 26 Jan. 1911, p. 5, col. 2.
- 39. "Withhold Toy Guns and Spare Boys and Birds," Waco Daily Times-Herald, 10 Dec. 1911, p. 6, cols. 1-4.
- 40. "Many Robins Were Killed," *Waco Daily Times-Herald*, 14 Jan. 1912, p. 24, col. 3; "The Slaughter of Robins," *Waco Daily Times-Herald*, 28 Jan. 1912, p. 9, col. 3.
- 41. William T. Hornaday, *Our Vanishing Wildlife*, 1913, New York: New York Zoological Society (1970 Reprint), p. 106.
- 42. "Report of Field Agents: Report of Capt. M. B. Davis," Bird-Lore 13(1911):350-352.
- 43. Mrs. M. B. Davis, "State Audubon Reports: Texas," Bird-Lore 14(1912):445-447.
- 44. "Will Issue Paper on Texas Birds," Waco Daily Times-Herald, 30 Jan. 1912, p. 7, col. 4.
- 45. Mrs. M. B. Davis, "State Audubon Reports: Texas," Bird-Lore 14(1912):445.
- 46. Ibid. p. 445.
- 47. William T. Hornaday, op. cit., p. 297.
- 48. With reference to the poem "Voice of the Voiceless" by Ella Wheeler Wilcox which is reprinted in *Use and Value of Wild Birds*, Texas Dept. of Agriculture, Bull. 37 (1914), pp. 59-60.

Food Storing by American Crows

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On 4 November 1983, between 1125 and 1230 CST, we observed American Crows (Corvus brachyrhynchos) caching pecan nuts (Carya illinoensis) in a lawn on the campus of Stephen F. Austin State University in Nacogdoches, Texas. The crows arrived separately at the lawn [mainly centipedegrass, Eremochloa ophiuroides (Munro) Hack.] from a northwesterly direction, each with a single mature pecan nut in its bill. Though the crows were unmarked, we believe that only two crows were caching. A caching crow then probed the lawn with the pecan nut still in its bill, apparently searching for a favorable place to store the nut. Typically, the crow appeared to find a good storage place but would then try several other places before returning to actually store the nut or test the "good" spot again. While searching for a place to cache the pecans, the crow frequently scanned the sky and nearby trees. When a nut was actually cached, the crow would first place it in a more distal position in its bill and then thrust the nut into the lawn, often making one or two additional thrusts before releasing the nut. Once released, the nut was further hammered into the grass mat of the lawn with several pecks. Since the grass mat was about 8 cm thick, it was impossible for us to see the nut at this time. The crow would then step back from the cache site, examine it by cocking its head to one side, and arrange the grass at the cache site with its bill. The crow then walked about 30-50 cm away, grabbed some grass in its bill, and tore it out. Upon returning to the cache site, the crow poked the torn grass in the spot where the nut had been cached and proceeded to arrange the grass again with its bill between close inspections of the site. The procedure of tearing up grass and arranging it at the cache site was repeated four to six times. When the arrangement of the grass finally appeared to be satisfactory, the crow would walk about 1 m away from the cache and fly toward the northwest for another pecan. Each caching took approximately 10 min, and after about 1 h of observation, the crows had stored seven pecan nuts. We did not know where the crows were obtaining the pecans; however, the closest pecan trees were 0.2 km away.

We tried to note the location of the nuts while caching was occurring but were only able to locate one of the pecans after the crows had departed. Concealment of nuts was so good that we were unable to find one nut that we had observed with binoculars being stored from a distance of 10 m away. The one pecan that we did recover was lying horizontally with one half imbedded in sand and the other half in the mat of dead grass above the sand. This nut was not visible from above and was found only by probing the grass mat and sand with fingers.

Until very recently, previous documentation of food caching by American Crows was vague. Turcek and Kelso (1968) state that American Crows transport and store a variety of nuts. However, the reference used to support their statement

(Campbell 1886) reports only that crows transport a variety of nuts and then drop them; no mention of food storage or caching is made. Criddle (1927) mentioned that tame crows frequently hid berries and other items of food. Goodwin (1976) noted that it was uncertain as to what extent American Crows stored food in the wild. More recently, Hess (1978) reported possible food storing by American Crows. He observed a crow pick up a tuft of dried grass and place it on a possible cache site. Most recently, Kilham (1984) observed crows in Florida store corn and animal prey. These cache sites were covered up with dried grass or dried cow dung. Roberts (1979) lists American Crows as a food storing species, apparently with reference to Turcek and Kelso's (1968) work. James and Verbeck (1983) reported storing and covering of intertidal food by Northwestern Crows (Corvus caurinus).

Our observations provide insight into the complexity of American Crow behavior and demonstrate that food storing is not just a local phenomenon. Detailed descriptions of behavior at cache sites are difficult to obtain because of the wariness of crows.

Concealment of cache sites has been reported in other Corvids. Blue Jays (*Cyanocitta cristata*) regularly covered acorn cache sites with leaf litter (Darley-Hill and Johnson 1981). In Europe, Jays (*Garrulus glandarius*) also preferred to store acorns under a thin layer of leaves (Chettleburgh 1952).

Literature Cited

Campbell, J. T. 1886. Causes of forest rotation. Am. Nat. 20:521-527.

Chettleburgh, M. R. 1952. Observations on the collection and burial of acorns by Jays in Hainault Forest. Brit. Birds 45:359–364.

Criddle, N. 1927. A tale of four Crows. Can. Field Nat. 41:179-183.

Darley-Hill, S., and W. C. Johnson. 1981. Acorn dispersal by the Blue Jay (*Cyanocitta cristata*). Oecologia (Berlin) 50:231–232.

Goodwin, D. 1976. Crows of the world. Brit. Mus. Nat. Hist., London.

Hess, G. K. 1978. Possible food storing by a Common Crow. Delmarva Ornithol. 13:21.

James, P. C., and N. A. M. Verbeck. 1983. Storing and recovery of intertidal food by Northwestern Crows (*Corvus caurinus*). Abstracts 101st A.O.U. meeting, N.Y., Abstract #204.

Kilham, L. 1984. Foraging and food storing of American Crows in Florida. Florida Field Nat. 12: 25-31.

Roberts, R. C. 1979. The evolution of avian food-storing behavior. Am. Nat. 114:418-438.

Turcek, F. J., and L. Kelso. 1968. Ecological aspects of food transportation and storage in the Corvidae. Comm. Behav. Biol., Part A 1:277-297.

¹ Maintained in cooperation with the School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas 75962.

Notes on the Systematics and Distribution of Texas Birds. I. Deletions and Additions of Subspecies Between the First and Second Editions of the T.O.S. Checklist

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Obvious changes that occur between editions of a checklist include additions or deletions of species through new information or division of previously recognized species into 2 or more species, and changes in distributional status. Similar events change the status of subspecies as well. Herein I report the deletion of 4 subspecies and the addition of 7 others for the second edition of the *T.O.S. Checklist*.

Deletions

Larus hyperboreus barrovianus. —Richard C. Banks (pers. comm.) recently reexamined the 2 specimens previously assigned to this subspecies. Although the 2 birds show tendencies towards the currently undescribed populations of western Canada, they are not assignable to L. h. barrovianus.

Otus asio asio. — Re-examination of specimens from northeast Texas show them to be either O. a. floridanus or intermediates between that race and O. a. asio.

Aeronautes saxatalis sclateri.—The specimens reported in the first edition of the checklist have been reassigned to the nominate race (R. C. Banks, pers. comm.). Behle (1973, Auk 90:299–306), in his study of variation of the species in Utah and the Rocky Mountains, suggested that A. s. sclateri be synonymized with the nominate race.

Sturnella neglecta confluenta.—The 5th edition of the A.O.U. Check-List of North American Birds (1957, American Ornithologists' Union, Baltimore) did not recognize subspecies of the Western Meadowlark, nor did Blake (1968, Check-List of Birds of the World, vol. XIV:138–206). The inclusion of this form in the 1st edition of T.O.S. Checklist is an enigma.

Additions

Branta canadensis taverneri.—Arnold (1979, Bull. Texas Ornithol. Soc. 12:54–55) reported this subspecies from Waller and Irion Counties, while Oberholser (1974, The Bird Life of Texas, Vol. 1, Univ. Texas Press, Austin) listed this subspecies for Aransas and Kleberg Counties. The 1st edition of the T.O.S. Checklist followed the 5th edition of the A.O.U. Check-List which did not recognize this subspecies. Because such diversity of opinion exists, however, about the numbers of subspecies of the Canada Goose, the subspecies taverneri was included in the 2nd edition for completeness.

Callipepla squamata hargravei. - Rea (1973, Condor 75:322-329) described

this subspecies from the panhandles of Texas and Oklahoma, southwestern Kansas, southern Colorado and northern New Mexico. The description appeared too late for inclusion in the 1st *T.O.S. Checklist*.

Charadrius alexandrinus tenuirostris.—The common subspecies in Texas, this form was deleted from the 1st edition by mistake; the range description given for the species in the 1st edition is that of this subspecies.

Sayornis saya saya.—As with the preceding species, the 1st edition presents a "species" distribution and status which is that of this form as well; the name of this subspecies was deleted by mistake.

Ammodramus henslowii houstonensis.—Arnold (1983, Auk 100:504–505) described the breeding population in Houston, Harris County, as a distinct subspecies. This race probably is now extinct.

Agelaius phoenecius stereus, A. p. zastereus.—Oberholser (1974) described 38 new taxa, mostly new subspecies. Browning (1974, Murrelet 55:32–38; 1978, Proc. Biol. Soc. Washington 91:85–122) evaluated the new taxa proposed by Oberholser (1974); in his 1978 paper, Browning recognized 3 of Oberholser's subspecies: Lamporornis clemenciae phasmorus and The 2 Red-winged Blackbirds. The T.O.S. Bird Records Committee concurred with Browning on the Red-wings, but disagreed with his finding on the Blue-throated Hummingbird.

New information will accumulate on the subspecific identity of birds taken in Texas, including re-evaluation of specimens currently assigned to subspecies not expected from this area. Single specimens are often difficult to identify to subspecies because of inherent variation that occurs in populations; hence, differences of opinion may occur between ornithologists on the identifications of individual specimens.

GENERAL NOTES

Snowy Egrets and Great Egrets Using Foot-dragging Behavior in Aerial Feeding

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On 26 June 1983 on the Attwater Prairie Chicken National Wildlife Refuge, Colorado County, Texas, I observed Snowy Egrets (*Egretta thula*) and Great Egrets (*Casmerodius albus*) using aerial foraging behaviors over a shallow water impoundment for 35 min beginning at 0615. I saw Snowy Egrets in flight just above the water dragging one or both feet in the water and striking at prey. In most instances, prey were immediately swallowed, although occasionally the egret would alight in the shallow edge and then swallow the prey. Major prey items appeared to be small fish. Occasionally a Snowy Egret would "plop" into the water, in often successful pursuit of prey while foot-dragging. Approximately 40 Snowy Egrets were in the area, most at various times employing the foot-dragging technique. The extent of flight with feet in the water varied, with the maximum distance approaching the width of the deeper water in the impoundment, approximately 20 m.

Fifteen Great Egrets were also foraging within the area. Great Egrets foraged primarily by striking at fish from a standing position in shallow water. However, on six occasions Great Egrets were observed using foot-dragging behavior. No prey items were taken during these six attempts. Great Egrets did not appear to use foot-dragging behaviors with the apparent ease of Snowy Egrets. No Great Egret flew the width of the pond using the behavior, with most flights involving short semi-circular flights back to the take-off side of the pond. In contrast, Snowy Egrets consistently used the behavior in flights across the pond.

Conditions were apparently favorable for aerial foraging, as no wind was evident and a light fog was present over the still waters of the impoundment. More importantly, a drawdown on the shallow water impoundment had caused a concentration of fish and other aquatic organisms into an area of approximately $20 \text{ m} \times 60 \text{ m}$ adjacent to the earthen dam. The high concentration of aquatic life was evident by the occasional visible backsides and leaps of fish.

Kushlan (Wilson Bull. 81:199–200, 1972) has described foot-dragging in the Snowy Egret as dragging the toes of both feet through the water and taking prey from the water while in direct flight without hovering. Kushlan (Auk 93:86–94, 1976) ammended the behavioral description to include toes and/or one or both feet. He also stressed the importance of habitat conditions influencing foraging behaviors. My observations of this foot-dragging foraging behavior represents the

second reported record for Snowy Egrets. However, it is apparently the first record of Great Egrets employing foot-dragging techniques.

Decisions of the T.O.S. Bird Records Committee for 1984

Keith A. Arnold

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At sporadic intervals, the T.O.S. Bird Records Committee takes under consideration, records that have been submitted of rare or unusual birds. On this hangs the crucial point: the Committee cannot consider a record that is not submitted. The task of each Committee member is to decide if the record as submitted properly documents the occurrence of the bird in question. We do not pass judgements on the reliability of the observer(s), only on the question of sufficient evidence to document the record.

To make this program more useful, the records considered each year by the Committee should be published in a publicly available document, in this case the *Bulletin of the Texas Ornithological Society*. The Committee has not previously published the records considered, but the T.O.S. membership can expect to see a listing of acceptances and rejections for the previous year published in each volume of the *Bulletin*. Since the Committee members were busy with the updating of the *T.O.S. Checklist* in much of 1982 and 1983, the present listing represents a bit of "house-cleaning."

I would encourage every birder in Texas to familiarize themselves with the types of records that should be reported to the Committee, and to submit such records for consideration: if in doubt, submit it! I also urge you not to be recalcitrant for fear of rejection; at least the record will have received considerations. Please *do* attempt to have your record substantiated by one or more other observers, and, if at all possible, have photographs taken of the bird *no matter how*

Species County Date Little Gull, Larus minutus Lubbock 9 April 1983 7 January 1983 Great Kiskadee, Pitangus sulphuratus Atascosa 27 December 1983 Dallam Black-billed Magpie, Pica pica Cape May Warbler, Dendroica tigrina Gonzales 24 December 1983 Golden-crowned Warbler, Basileuterus culicivorus 1 January 1984 Hidalgo Blue Bunting, Cyanocompsa parellina Hidalgo 24 January 1984 Blue Bunting, Cyanocompsa parellina Hidalgo 16 February 1984 Dallam 29 December 1983 Snow Bunting, Plectrophenax nivalis

Table 1. Bird record accepted in 1984.

Bull. Texas Ornith. Soc. 17(1&2): 1984

Species Date County 13 December 1983 Snail Kite, Rostrhamus sociabilis Willacy 7, 9 January 1982 Collared Forest-Falcon, Micrastur semitorquatus Hidalgo 16 February 1984 Little Gull, Larus minutus Brazoria Blue-throated Hummingbird, Lampornis clemenciae 11 November 1982 Bexar 15-18 September 1983 Allen's Hummingbird, Selaphorus sasin Revar Swainson's Thrush, Catharus ustulatus Bexar 19 December 1982 Black-capped Gnatcatcher, Polioptila nigriceps Brewster 11 April 1984 6 September 1978 Bachman's Warbler, Vermivora bachmanii Brazos

Table 2. Bird records rejected in 1984.

poor these might be: one can never be certain when a given photograph will contain the necessary clue for identification.

Great Horned Owl Uses Witches' Broom as Roost

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On 9 March 1983 at 1145 CST we flushed a Great Horned Owl (*Bubo virginianus*) from a "witches' broom" in a longleaf pine (*Pinus palustris*) in the Angelina National Forest in east Texas. Witches' brooms are characterized as abnormal, relatively dense clusters of branches caused by a variety of agents: fungi, mistletoe, viruses, insects, or mites (Boyce, Forest Pathology, McGraw-Hill, NY, 1938). The witches' broom, which was situated 11 m up in the tree, was about 3 m high and 4 m in diameter and had grown in an offset symmetrical fashion around the trunk of the pine. The pine tree was 76 years old and was 22 m tall and 37.5 cm DBH (diameter at breast height).

Examination at the base of the tree on 9 March revealed portions of two cottontail (*Sylvilagus* spp.) skulls, an assortment of vertebrae, and a humerus. We then removed all traces of prey from the ground around the base of the tree. The Great Horned Owl was not seen nor flushed again on any of our subsequent visits to the tree; however, signs of its presence were apparent.

On 26 March, a fresh pellet was found at the base of the pine, and examination revealed the partial remains of a pocket gopher (*Geomys bursarius*) and a young *Sylvilagus* sp. On 4 April, we removed and examined three more regurgitated pellets that contained the usual assortment of hair and small bones and one

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Sylvilagus sp. skull. On 11 April, we found the whole head (fur, eyes, ears, etc.) of a Sylvilagus sp. and one pellet that contained part of a Sylvilagus sp. palate. Also scattered about the base of the pine were 14 primary and secondary flight feathers of an American Crow (Corvus brachyrhynchos). Visits to the witches' broom on 4 May 1983, 12 May 1983, and 8 March 1984 revealed no additional signs of use by the owl. However, on 27 April 1984, during a return visit to the witches' broom, we found a squirrel's (Sciurus sp.) leg and foot, 19 flight and 9 contour feathers of an American Crow, and an assortment of mammal bones (femurs, vertebrae, and scapulae), indicating that the roost site was being used for a second year. On 23 May and 29 May 1984, the roost was still in use. During both of these visits, we found parts of four different Sylvilgus sp., feathers of American Crows, and assortments of membranes of numerous other small mammal bones (Sciurus sp., Neotoma sp.).

Our observations on the use of a witches' broom by a Great Horned Owl documents the potential value of such structures for wildlife. The witches' broom we observed was a very dense cluster of both live and dead longleaf pine needles, which obviously provided excellent concealment for the owl during its daytime roost.

NOTES AND NEWS

ATTENTION AUTHORS.—Original articles, reports and other items submitted for inclusion in the *Bulletin of the Texas Ornithological Society* should be sent to the editor, Terry C. Maxwell, Department of Biology, Angelo State University, San Angelo, Texas 76909.

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