

100 Years Ago in The American Ornithologists' Union

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The lead article in the 1906 issue (Auk 23: 186–188) was "List of the Birds of Louisiana" by George E. Beyer, Andrew Allison, and Henry H. Kopman. They started their article by saying,

The most striking feature of the well known topographical and corresponding biotic variety in Louisiana is the absolute contrast between the biota of the fertile and extended delta plain of the Mississippi in the southeastern part of the State and the biota of every type of Louisiana country to the west and north and north-west, except the remaining portion of the general flood plain of the Mississippi lying within the borders of Louisiana.

Much of this first article dealt with the contrast between southeastern Louisiana and the rest of the state. They noted that the Ivory-billed Woodpecker (*Campephilus principalis*) was "very rare" within the central part of the state at that time. The second part was also published in 1906, the third in 1907, the fourth and fifth parts in 1908, and the sixth and seventh parts in 1915. The last two sections were authored solely by Kopman, who stated that "owing to changes in the plans of the several authors of the original list, further co-operation became impractical." The sixth and seventh parts dealt mainly with the passerines, and the final tally was 323 species for the state.

George Beyer (1861–1926) was a character and showman with a huge handlebar mustache. Raised in Germany, he traveled to Central America as a young man to collect specimens for the Dresden Zoological Museum. Learning that his collections had been lost in a shipwreck, he came to the United States. Eventually, in 1893, he was hired by the Museum of Natural History at Tulane University, where he was Curator until 1918. As Hoose (2004) recounts, Beyer believed that an Ivory-billed Woodpecker exhibit would attract many to his museum. In July 1899, he led an expedition to northeast Louisiana, where he collected seven

Ivory-billed Woodpeckers, including a family of three (two adults and a fledgling). He cut down the nesting tree and had an exhibition of the nesting birds made for his museum. After his death, the stuffed specimens from his trip went to the museum at Louisiana State University. Beyer was much more famous as a herpetologist; he was considered the first resident herpetologist for the state of Louisiana. His reputation soared internationally, because he let poisonous snakes bite him (e.g. Beyer 1898), often in front of newspaper reporters.

In another article (Auk 23:186–188), Joseph Grinnell attacked the recent recognition by the AOU Committee on Nomenclature of the San Francisco Titmouse (*Baeolophus inornatus restrictus*), known only from the city of Oakland, California. Specimens from there were noticeably darker, but Grinnell argued that this was probably attributable to air pollution from San Francisco blowing to the east, citing McGregor's (1900) note on the dirty birds of San Francisco.

One hundred years ago, there was still a great debate on the height at which nocturnal migrants flew. The first determination (Scott 1881) used a large astronomical telescope focused on the moon, so that birds flying lower than 1.6 km would be out of focus. Using the angle of the telescope and the distance of at least 1.6 km, birds were calculated as flying between 0.8 and 3.2 km above ground by forming a triangle and calculating its height. Further studies by Chapman (1888) and others led to the belief that birds migrated at 0.16–4.8 km above ground and maybe to 9.6 km. Subsequent studies led Frederic Carpenter to conclude that those were probably overestimates of the true height. He reported a new technique that used two observers simultaneously observing birds flying past the moon using two telescopes. Carpenter had observed birds at night with Joel Stebbins of the Astronomical Department at the University of Illinois, and they found that birds migrated at heights of 364-727 m in spring and 424-1,636 m in fall.

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Carpenter (1876-1925) had gotten his doctorate at Harvard University in 1904, and the title of his dissertation was The Development of the Oculomotor Nerve, the Ciliary Ganglion, and the Abducent Nerve in the Chick. After studying in Germany, he took a position at the University of Illinois in 1905. In 1912, he moved to Trinity College in Hartford, Connecticut, where he was the J. Pierpont Morgan Professor of Biology. He had a distinguished career as a neurobiologist and was considered an authority on the autonomous nervous system. Stebbins (1878-1966) also went on to have a very distinguished career in astronomy, first at the University of Illinois (1903-1922) and then at the University of Wisconsin (1922-1948) and finally at the University of California, Berkeley (1948-1958), where he had received his doctoral degree in 1903. He pioneered the use of photoelectric photometry, which eventually replaced photography as the standard in the field, and was awarded the Catherine Wolfe Bruce gold medal for lifetime contributions in astronomy in 1941 by the Astronomical Society of the Pacific.

Also addressing nocturnal migration, Witmer Stone's "Some Light on Night Migration" (Auk 23:249–252) concerned a "conflagration," when the largest lumberyard in Philadelphia burned to the ground during the night of 27 March 1906. The fire lit up the skies to the extent that Stone could actually watch birds migrating, with about 200 birds in view at one time. He was able to identify several different species, but most appeared to be small birds like "finches."

Hubert O. Jenkins, a graduate assistant at Stanford University who subsequently became a prominent geologist in California, presented an analysis of geographic variation in Hairy Woodpeckers (Picoides villosus) across North America (Auk 23:161–171). Tracing the history of the taxonomy, in which several species had been described, he concluded that there was only one species, with eight continental subspecies. The trends he was able to find were birds with fewer spots on the wing in the west, larger birds in the north, and darker birds in the west. Invoking natural selection, he hypothesized that western birds, having more predators, had fewer wing spots so that they would be less conspicuous on a tree trunk. Likewise, the rigors of the northern climate would have selected for larger and hardier individuals. Apparently, dark plumage was believed to be related to humidity and amount of shade at the time, because Jenkins used that as an explanation for the distribution of dark birds.

In the next issue, Leonhard Stejneger took Jenkins to task in an article titled "Isolation versus Natural Selection" (Auk 23:265–270), highlighting the confusion at the time about the relationship between those two evolutionary forces. Stejneger first stated that precipitation was a better predictor of dark plumage. Next, he argued that having fewer spots would be the ancestral condition, so that eastern birds would be derived from western birds—the opposite conclusion to that reached by Jenkins. His explanation for differences in spotting was isolation of subspecies during the last ice age. Lastly, birds in the north were larger because of "a combination of plentiful of food and vigorous, energetic exercise necessitated by the cold."

Stejneger (1851–1943) was born in Norway and immigrated to the United States in 1881. L. S., as he was known to his friends, had a long and distinguished career as a zoologist at the Smithsonian Institution, where he served both as head curator of the Department of Biology and curator of the Division of Reptiles and Batrachians (=Amphibians) from 1911, the same year he was elected as Fellow in the AOU, until his death. He also was generally considered an authority on fur seals of the northern Pacific.

The most amusing article published in 1906 was "A-Birding in an Auto" (Auk 23:400–418), an account of a five-week, 1,760-km circular



Fig. 1. A 1905 Wayne touring car, similar to the one driven by Ray and his brother in 1905 through the Central Valley of California. The tonneau, or rear seating compartment, was replaced by a locker with "sufficient supplies to sustain us almost indefinitely, should we leave the land of the storekeeper." (Photograph courtesy of the Automotive Research Library of the Horseless Carriage Foundation, La Mesa, California.)

journey through the Central Valley of California made by Milton S. Ray and his brother in 1905. "That faithful friend, the horse, was forsaken this year (1905) for that modern, rapid but rather uncertain conveyance, the automobile." The vehicle that they chose was a 16 horsepower, double-opposed-cylinder Wayne touring car (Fig. 1). Originally, the two brothers were going to leave San Francisco through the mountains of Livermore, but spring rains forced them to take a boat to Stockton instead. The first day (11 May) they made it to Merced, and the next day they became helplessly lost in marshes and mud of the "hog-wallow country," eventually making it to Firebaugh by evening. On the 14th, they left Visalia, only to have their auto break down and the need to be towed back into town. A part was ordered "from the East" by telegraph and they settled in, waiting for a week for the part to be delivered, leading Ray to quip, "such is automobiling." On the 22nd, they reached Bakersfield and then started for Gorman. Along the way, they took a wrong turn and found themselves on a steep mountain road. They inched up the road by "jumping," revving the engine and putting the car into gear to push it forward, but the grade become too steep for the weight of the car, which rolled back and nearly tumbled off a 330-m cliff. They unloaded the vehicle and carried its contents to the top of the grade, and "the experience of that awful moment taught us a lesson never to be forgotten." They next spent a week in the area of Los Angeles, paying a visit to Joseph Grinnell in Pasadena. Headed north, they stopped at San Buenaventura, having seen a California Condor (Gymnogyps californianus) feeding with a flock of Turkey Vultures (Cathartes aura) that day. Subsequent nightly stops were in Santa Barbara, Santa Maria, and San Luis Obispo. Getting to Salinas was a chore, having to make four river

fords using horses and oxen to pull the auto through the sand beds on the river bottoms. Upon reaching Pacific Grove, the drive shaft on the auto snapped, meaning another week-long wait for the part to arrive. Finally, on 17 June, they rolled into San Francisco at dusk "and the pioneer ornithological expedition propelled by power came to an end." A total of 111 species was recorded on the trip.

Ray (1881-1946) was a stalwart of the Cooper Ornithological Society, contributing material to The Condor from its inception in 1889 when he was 18 years old until his death. He was a successful businessman and industrialist and also an accomplished poet, publishing The Farallones, The Painted World and Other Poems of California in 1934. He was a prolific collector of bird eggs, nests, and skins. All housed in his San Francisco residence, his collection was referred to as the Pacific Museum of Ornithology. His collections were subsequently acquired by the Museum of Vertebrate Zoology at the University of California, Berkeley. - Kimberly G. Smith, Department of Biological Sciences, University of Arkansas, Fayetteville, Arkansas 72701, USA. E-mail: kgsmith@uark.edu

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