

Aviculture at Tulsa Zoo

(Part I – Laying the Foundations)

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1929, like 1066, 1492, 1865, 1941, 1945, 1969, or 2001, is a year more likely than most to mean something to a significant number of people. On 24 October, “Black Thursday” initiated the stock market crash which brought in the Great Depression. Times were prosperous before that day, however, and 1929 was also the year that the Tulsa Zoo opened its first major building, the Bird Hall and Museum.

The Tulsa Zoo is one of at least nineteen zoos and aquariums opened in the US in the 1920’s (Kisling, 2001). Although the Tulsa Zoological Society was organized in 1927, the animal collection had begun in 1926, when the City authorized the Superintendent of Parks to purchase “three American Bisons, three elk and several black-tailed deer” (Kawata, et al, 1978, 25). Lions would not be received until 1930, and the zoo had no chimp until 1950, no elephant until 1954, no giraffes until 1962, no Polar Bear until 1964, and no rhinos until 1974. However, when the Bird Hall and Museum opened in 1929, it featured “200 birds, more than 200 reptiles, and a complete collection of Tulsa County bird eggs” (Kawata, et al, 1978, 5). This building “drew some 2,000 visitors each weekend and between 500 and 600 on weekdays”. A mounted Whooping Crane was included among 800 preserved North American birds which staff member Eugene Mott, an amateur taxidermist, exhibited at the Zoo, commencing July, 1931 (Kawata, et al, 1978, 6, 25).

Through the difficult depression years, exhibits of living birds kept pace with the stuffed ones. On 1 November, 1930, a bid of \$1,922 was approved for a pheasantry, “a large wire structure with 20 runs and a native stone shelter in each pen” (Kawata, et al, 1978, 6, 25). Two 6-week-old ostrich chicks were part of a collection obtained from Fort Worth Zoo in August, 1934 (Kawata, et al, 1978, 26.). In 1937 an exhibit of local birds of prey was created to educate the public and combat the “prejudice and ignorance... imbedded in the minds of citizens”. Tulsa Zoo played its part in the eventually successful effort to

largely end the gratuitous shooting of raptors (Kawata, et al, 1978, 7).

Conservation education was taken very seriously by the Zoo’s dynamic young Director, Tulsa native Hugh Davis, who served in that office from 1932 to 1966, having joined the staff in 1929. In 1937, the Zoo participated in surveying birds in the cypress swamp in Oklahoma’s McCurtain County, in an effort to preserve that endangered habitat. The Zoo was involved in a duck-banding program inaugurated in 1939, trapping, banding and releasing more than 10,000 ducks in Mohawk Park in 1940 (Kawata, et al, 1978, 7). “It was discovered that ducks flew from Tulsa to virtually every point along the Gulf Coast and into Mexico, to all parts of Canada and to Alaska; most of them, however, were killed in Oklahoma” (Kawata, et al, 1978, 8). The Zoo sponsored young person’s field trips and classes in birdhouse building, and loaned mounted specimens to schools.. In 1941, Hugh Davis was elected President of the Tulsa Audubon Society, and with the Daughters of the American Revolution and local garden clubs, campaigned to end the “importation of wild bird plumage for millinery purposes” (Kawata, et al, 1978, 8).

Hugh Davis, who was only 22 when he assumed his directorship, was equally devoted to enlarging Tulsa Zoo’s bird collection. In the depths of the Depression, the most interesting birds at the Zoo were ones he collected himself.

In preparation for a collecting expedition of his own, Hugh Davis took part in two expeditions led by celebrities of the time. During almost all of 1933, he was one of the six member Sixth African Expedition of Osa and

Martin Johnson. In 1935 he joined Bruce and Sheridan Fahnestock (both younger than himself) in Central America, collecting zoological and anthropological specimens for museums (Kawata, et al, 1978, 26). Although details are not now clear, it appears he was able to collect “25 parrots from Guatemala” for the zoo (Kawata, et al, 1978, 26).

Finally, in June, 1936, Hugh Davis directed a seven member expedition to the Caribbean, on the *Eden*, a 62-foot, 22-foot beam, 4½-foot draft boat with a 12-cylinder motor” (Davis, 1936a). The crew of seven included his wife, Melba, and two Tulsa school teachers. Along with living animals and plants for Tulsa Zoo, preserved marine life was collected for the zoo’s education programs and “Eastern Museums” (Davis, 1936c). Davis was also expected to collect animals for “Eastern Zoos” (Davis, 1936c), and did send 30 Plumed Basilisks (*Basileiscus Plumifrons*) and a series of large Meso-American Sliders (*Trachemys Venusta*) to San Diego Zoo, coinciding with the opening of Reptile Mesa there



An exhibit at the Tulsa Zoo’s Bird Hall and Museum, probably in the 1940’s. It is likely the pairs of Black-bellied Whistling Ducks and Greater Curassows were the ones collected by the Zoo’s Director, Hugh Davis, probably in the 1940’s.

(Davis, 1936d). These activities were documented as movies by Davis himself (Davis, 1936d). Substantial financial support came from the Tulsa Junior Zoological Society (Martin, 1936c).

The *Eden* departed from Florida to the Bahamas, where four species of cactus were collected (Davis, 1936b). After a brief stop in Jamaica (Davis 1936c), the expedition arrived at the Roatan Islands off the coast of Honduras, then established a base camp at Brewer’s Lagoon (present day Brus Laguna) on Honduras’ Miskito Coast where the living animal collection was assembled (Davis, 1936d).

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While some of the animals were collected by Davis and his party, many were bartered from the local Miskito villagers for cakes of pink scented soap (Anon, 1936b).

The resulting collection was transported to Miami on the Eden then sent by rail to Tulsa, arriving early in the morning on Saturday, 12 September, 1936 (Anon, 1936a). With the exception of “sixteen parrots and one macaw” which required two weeks of government-imposed Psittacosis quarantine, the birds, mammals, and reptiles were accessioned that day at the Zoo.

From initial newspaper the collection received at the Zoo that Saturday might not seem of particular interest: “Two white herons, four ground doves, six small Central American quail, a curassow, two sulphur-breasted [sic] tyrants, a South American possum, five spider and sapajou monkeys, an acouti [sic], a coati-mundi, two black-bellied tree ducks, 10 alligators and 20 turtles of varied species, and an undetermined number of snakes, including some boa constrictors” (Anon, 1936a).

However, features, with photographs, appearing in the Tulsa Daily World over the next several months reveal fascinating details. The “two white herons” were American Egrets (*Ardea alba egretta*), a species which does not otherwise appear in available documentation of Tulsa Zoo’s bird collection. Today, of course, it is an abundant and familiar bird across most of North America, but in 1936 it was still recovering from near extinction at the hands of plume hunters, halted only by protection passed in 1910 and 1913 (Ossa, 1973). The two brought back on the Eden were collected as nestlings from a “rookery in the low, swampy regions near the Patuca River” and hand-fed catfish by Hugh and Melba Davis (Martin, 1936a). The near extinction of this species in the US was emphasized in Tulsa’s press releases (Martin, 1936a), and no doubt, Hugh Davis featured “Edith” and “Eddie” in his presentations on wildlife conservation.

The “four ground doves” were in fact two species (Martin, 1936g). There was a single White-winged Dove (*Zenaida asiatica*), a species whose range has exploded across Texas, and which is now a breeding bird in Oklahoma. In the 1930’s however, its US range was restricted to the Southwest and South Texas (where it was then decreasing), so it would have been decidedly exotic then. No more appear to have arrived at Tulsa until 1978, when eight arrived from Bernie Roer’s Bird Farm in Phoenix. They were purchased for the Southwestern Desert building of the newly opened North American Living Museum.

The species was exhibited there on and off until the remodeling of the Desert in 2011, when the present four were transferred to the Tropical American Rainforest building where they have done just as well, and continue to propagate.

The other three “doves” were Short-billed Pigeons (*Patagioenas nigirostris*). More than 20 years later Jean Delacour (1959) was unaware of this species ever having been kept in captivity. As it is one of a number of admittedly “nondescript” Tropical American pigeons, it has hardly ever been kept. Richard Weigl (pers. com.), the eminent German collector of zoo animal data informs me one was present at the National Zoo, in Washington DC from 1949 to 1951. One of the three Hugh Davis birds is clearly depicted in a Tulsa Daily World feature, which fancied a resemblance to the extinct Passenger Pigeon (Martin, 1936g).

“Six small Central American quail” is an ambiguous description, but its very ambiguity made these birds a center of attention when it was realized no one in Tulsa knew what they were. They had been collected as chicks in “the Brewer’s Lagoon country of Spanish Honduras, Central America... captured in the jungles and savannahs – where the higher and more open country meets the jungles” (Martin, 1936d), and fed boiled sea turtle eggs from an eyedropper. As they attained mature plumage, the mystery grew. The Field Museum, the American Museum of Natural History, and the New York Zoological Park were all contacted, but as of late November, 1936, they had yet to be identified, and suspicion grew they might be unknown to science (Martin, 1936d). Even today, their identification is not simple. There exists a photo, published in the 22 November, 1936 Tulsa Daily World, of all five males and the sole female. Working from the references in my office, and knowing the birds were from Eastern Honduras, I identified them as the Mosquitia Yucatan Bobwhite (*Colinus nigrogularis segoviensis*), which my afore-mentioned colleague Richard Weigl (pers.com) informs me has no captive history. However, a perusal of page 67 of Paul Johnsgard’s (1988) *The Quails, Partridges, and Francolins of the World*, corrected that identification to the Honduran Spot-bellied Bobwhite (*Colinus leucopogon leylandi*), whose captive history, so Herr Weigl informs me, is otherwise restricted to the London Zoo, which exhibited it from 1898 to 1902. The Honduran subspecies is radically different in appearance from the more familiar nominate subspecies of Spot-bellied Bobwhite in Guatemala, and the male’s head pattern is

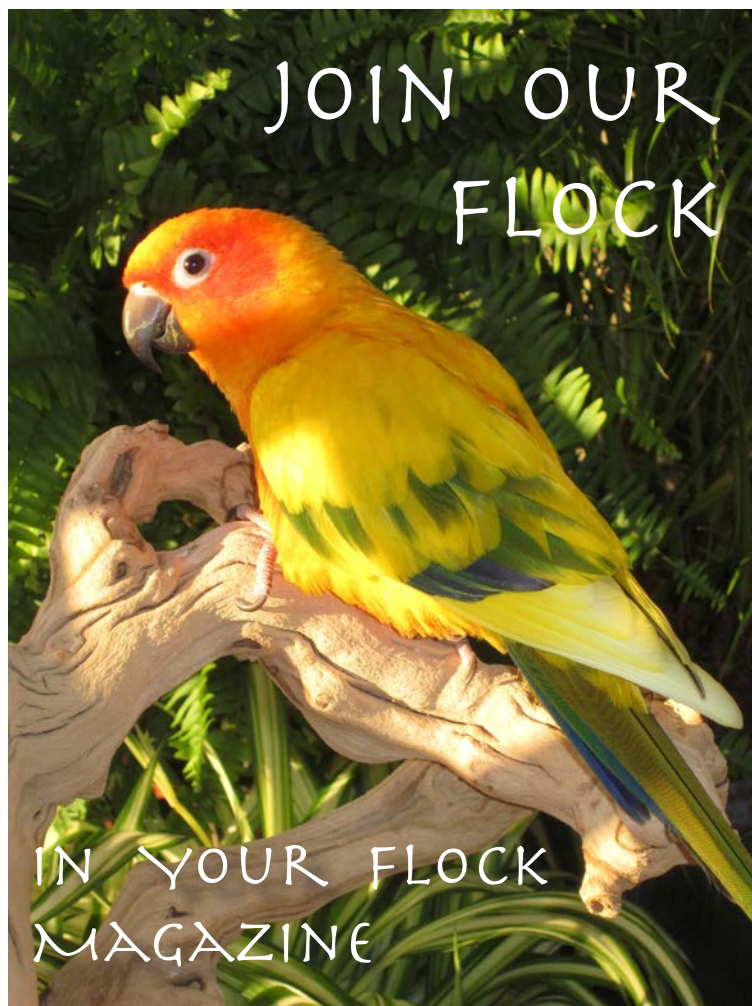


(Top) Possibly the first Scarlet Macaw hatched in a mainstream public zoo, this bird hatched 20 July, 1948, and was hand-raised by Hugh Davis’ family. (Above) “Oscar”, a Humboldt’s Penguin, arrived at Tulsa Zoo weeks after Pearl Harbor, on 31 January, 1942. This appears to have been the only penguin in the collection until 2002

remarkably similar to the Yucatan Bobwhites.

In contrast, the identification of the two male and one female Greater Curassows (*Crax rubra rubra*) in the Eden collection (Martin, 1936b) is a simple matter, as this is the sole taxon of Curassow found in mainland Central America. Although currently classified as Vulnerable to extinction, this species has long been familiar in aviculture and can now be seen in zoos across the US and Europe. The three that arrived in 1936, however, appear to have been the only ones in the Tulsa collection.

The “two sulphur[sic]-breasted tyrants” mark Hugh Davis as a true aviculturist, as the Greater Kiskadee (*Pitangus sulphuratus*), as it is commonly known today, is not a traditional American Zoo animal. None are now kept in US zoos, and it has never been particularly common in US collections. This is partially due to the fact that its enormous range includes South Texas, protecting it under US laws, but the very similar Lesser Kiskadee (*P. lictor*) has not been popular either, despite commercial importations from time to time. In general, none of the 400 or so Tyrant Flycatchers (comprising the largest of all bird families) can be said to have ever



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been widespread in US collections. The two brought back from Honduras by Hugh Davis were taken from the nest and hand-reared (Martin, 1936f).

Today Northern Black-bellied Whistling Ducks (*Dendrocygna autumnalis autumnalis*) can be seen in 24 zoos across the US, and have been prolific breeders in many collections. Like the White-winged Dove, they are undergoing a dramatic range expansion through Texas and into other states. It is now a breeding bird in Oklahoma, but that was not documented until 1999, and the wild birds not seen until 1983 (Kamp & Loyd, 2001). In the 1930's their US range was limited to South Texas, and it was declining due to agricultural conversion, so the two brought back from Honduras were treated as tropical rarities and confined to an indoor exhibit in the Bird Hall and Museum (Martin, 1936e).

Of the "sixteen parrots and one macaw" that had gone into Psittacosis quarantine, ten parrots arrived at the Zoo 15 October, more than a month after the rest of the collection. I found no mention of the tame Scarlet Macaw (*Ara macao cyanoptera*), that had been collected on a short expedition up the Rio Patuca (Davis 1936e). Perhaps it and some other parrots went to other collections. Of the ten that

did come to the Zoo, all are species familiar to today's parrot enthusiasts, but would have been most interesting to aviculturists and zoo professionals of the 1930's. From a newspaper photo (Anon, 1936c), it can be seen they were young birds that had been taken from the nest. They had been cared for by Melba Davis. All were from "Spanish Honduras" (Anon, 1936c). Contemporary accounts (Anon, 1936c) identify four of them as "Panama Parrots" (which were a rare bird in collections in those days (Tavistock, 1929)). Knowing that these birds came from the Miskito Coast of Honduras, we can identify them today as the Roatan or Parvipes Amazon (*Amazona auro-palliata parvipes*), a taxon that has long been confused with other Amazons. The five "Red-fronted Amazon Parrots" were Red-lore Amazons (*A. autumnalis autumnalis*), which the Marquess of Tavistock (1929) (the future 12th Duke of Bedford) considered a rarity. The tenth bird was labeled a "White-eyed Amazon Parrot" (Anon, 1936c). From the photo, it can be seen to be a juvenile White-Crowned Pionus (*Pionus senilis*). Today, it is a popular companion bird, hand-raised all over the US every year. In 1936, however, it was one of the rarest parrots in zoos. The world famous collection of parrots at the San Diego

Zoo did not receive one until 1953, and its arrival there was greeted with some fanfare (Anon, 1954).

By late September, 1936, Hugh Davis was making plans for a more elaborate 1937 expedition to Honduras, sponsored this time by the University of Michigan (Anon, 1936b). That, however, did not come to pass, and any further plans were curtailed by the Recession of 1937-1938, which made the remainder of the Depression an austere time for the Zoo (Kawata, et al, 1978, 10 & 27). World War II brought its own set of difficulties, though its onset may have made possible the arrival of Tulsa Zoo's first (and for decades only) penguin, a Humboldt's (*Spheniscus humboldti*) exhibited in the Bird Hall. "Oscar" was received 31 January, 1942 (Kawata, et al, 1978, 27). As this was less than two months after Pearl Harbor, I am led to guess that one of the major animal importing firms was eager to reduce its stock in hand, and ready to make a deal.

On 20 July, 1948, the general Post-War euphoria at the Zoo was enhanced by the hatching of a Scarlet Macaw, which was hand-raised by the Davis family (Kawata, et al, 1978, 28.) Although the first US (and probably world) captive breeding of this species was



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achieved at the private zoo of Chris Holmes, near Santa Barbara, in 1916 (Crandall, 1930, Low, 1980), and others may have occurred by 1948 at Miami Parrot Jungle (Clubb & Clubb, 1992, Lindholm, 1999). Tulsa Zoo appears to have achieved the first mainstream US public zoo propagation of this species. (Hybrid Scarlet X Blue-and-Gold were also hatched in 1948, the first macaws hatched at San Diego Zoo (Stott, 1951) Hybrids of these two species had also been produced at the Catalina Bird Park in 1931 (Delacour, 1980, Low, 1937) and Miami Parrot Jungle, commencing in 1941 (Clubb & Clubb, 1992)).

In 1959, Hugh Davis was again on expedition, this time in "an old car and a trailer", with which he and Lead Keeper Chuck Brown (Kawata, et al, 1978, 14& 28) traveled to "the jungles of Southern Mexico". I have yet to find more detailed records, but the birds brought back to Tulsa (along with mammals and reptiles) on 23 December, 1959 were listed as "one tree duck, one stone plover, six orange and black orioles, one macaw, three parrots". The "stone plover" could only have been a Double-striped Thick-knee (*Burhinus bistriatus*). It appears that 1959 specimen was the only representative of its family at Tulsa Zoo until 2012, when four more of the same species were received from the Toledo Zoo, where they were hatched.

While I have not seen an actual list of the "26 parrots and 14 reptiles" Hugh Davis collected on another trip to Mexico in July, 1962 (Kawata, et al, 1978, 29), I believe I may have found some of them in Tulsa Zoo's computerized records (only the second to be initiated in a US zoo) (Kawata, et al, 1978), which commence with birds present in the collection in 1969. They list, without source, three Green Conures (*Aratinga holochlora*) and a Green-cheeked Amazon (*Amazona veridigenalis*) with an arrival date of "1 January, 1963" and another Green-cheeked and six Yellow-naped Amazons (*A. auropalliata auropalliata*) with a 1 June, 1962 acquisition date. I suspect they may all have been among the "26 parrots" from Mexico.

Since it is documented that Hugh Davis returned from an expedition he led to Mexico, El Salvador, and Nicaragua on 26 November, 1963, three Scarlet Macaws listed in the Zoo records as having arrived from Nicaragua on that date were clearly among the otherwise mysterious "26 birds of eight species" included in the resulting collection. In 1978 two of those macaws were exchanged to Mickey Olson for six Brushland Tinamous (*Nothoprocta cinerascens*) and a pair of Crested Seriemas (*Cariama cristata*). The male

Seriema, "Ward", was hatched in Mickey's collection 1 May, 1977, and is very much alive and well today at Tulsa Zoo, where he sired eight offspring from 1980 through 1989.

The birds from these last three Davis expeditions did not go to the 1929 Bird Hall (demolished in 1964 to clear the way for the children's zoo), but were instead displayed in the Primate/Aviary Building. A classic example of Mid-Century Modern zoo design, it cost \$458,000 at its completion in October, 1957. Construction had commenced in July, 1956, the same year the Citizens of Tulsa voted a million dollars for improvements to their city parks (Kawata, et al, 1978, 13).

This building is still very much in use, and now also houses an extensive collection of reptiles, amphibians, fishes, and invertebrates. While one of the twelve glass-fronted units in the bird wing temporarily houses a growing Komodo Dragon, the remaining eleven (two with outside access) hold 24 species of birds, with a further five species in entirely outdoor units.

Today this building is called the Dave Zucconi Conservation Center. Three years after Hugh Davis' 34-year tenure as Director had ended. David Zucconi commenced his 27 year Directorial Career at Tulsa Zoo in 1969, having previously worked at the Staten Island and Milwaukee Zoos, both notable for unusually biodiverse collections.

Biodiversity was increasingly emphasized at Tulsa during the Zucconi administration, and continues to be a focus today. The first inventory of the Tulsa Zoo bird collection I have been able to locate documents that on Christmas day, 1969 (less than four months after David Zucconi had commenced his duties) 281 birds of 67 forms were present. Sixty-three were domestic ducks and 27 were domestic geese. Of the 67 taxa, nineteen were psittacines and twelve were falconiform birds of prey. Ten were passerines. The one non-passeriform softbill was a Cuvier's Toucan (*Ramphastos tucanus cuvieri*) (then a widespread zoo bird). The total number of avian families represented in this collection was twenty. (Tulsa Zoological Society, 1970). On 30 June, 1979, there were 70 taxa, but the representation of families had grown to 35 (City of Tulsa, 1979). The number of psittacine species had dropped to seven, but the collection included mousebirds, frogmouths, seriemas, tinamous, woodpeckers, lapwings, and other representatives of families never before exhibited at Tulsa. As of first October, 2013, 106 species and subspecies of birds, representing 53 families were present at Tulsa Zoo.

Part II of this article will present the Tulsa

Zoo bird collection today, and examine how it came to be over the last four decades.

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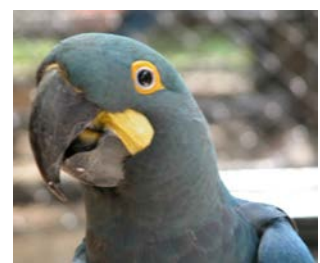
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