

George M. Sutton Avian Research Center

The 1990 Merit Award to an Oklahoma science organization was made to the George Miksch Sutton Avian Research Center (GMSARC) of Bartlesville. This private, nonprofit research center was established in 1983 to promote conservation, education, and research on endangered, rare, and neglected birds. The center is named for George Miksch Sutton whose inspiration led to its founding.

George M. Sutton received the Ph.D. degree from Cornell University in 1932, and became a nationally-recognized ornithologist and bird artist. After long service as Professor of Zoology and then Curator of Birds Emeritus at the University of Oklahoma, he died in 1984 at the age of 84.

Oklahoma scientists can be proud of this 40-acre facility southwest of Bartlesville. GMSARC has attracted national attention with its bald eagle restoration program, in part, of course, because our nation's founders chose *Haliaeetus leucophalus*, the bald eagle (Fig. 1), as our national symbol, representing strength, courage, beauty, and freedom. The work of GMSARC has been featured on CNN's Science News; CBS's New Explorers, A Flight for Survival; NBC's Today Show; CBS's Sunday Morning with Charles Kuralt; and a BBC program, Eagles of the World. A live appearance on the Today Show, scheduled for February 1991, was pre-empted by coverage of flights of the F-15 "Eagle" in the Persian Gulf.

A list of readily available printed articles about GMSARC is provided below. A story in the National Geographic Magazine is expected soon. Ms. Patty Alexander, Development Director, explained the eagle program of GMSARC to your editor and his spouse during an August visit (Fig. 2).

At one time, eagles nested in every state except Hawaii. Now they do not; DDT in the eagles' food - from the environment - caused eggshells to become so thin that the mother eagle would break the eggs when she sat on them. In 1982 there were no nesting eagles in Oklahoma. The GMSARC is working to restore nesting eagles to the southern states. Florida has the highest population of nesting southern eagles. In December the Florida eggs are collected by volunteer experts, such as tree surgeons, with appropriate tree climbing skills. All of the eggs are removed from a nest; the nesting eagles usually lay more eggs. Special equipment has been developed for handling the eggs. The GMSARC in 1984 was the first group to take bald eagle eggs from nests and to raise chicks from them.

Bantam hens provide natural incubation for the eagle eggs; the fraction of eggs hatched is higher than that obtained with mechanical incubators. The hens are selected by specific tests using fake bald eagle eggs. At the first crack in the egg, it is taken from the hen. After the initial crack, the eagle chick rests for a day before finishing the job



Figure 1. Sequoyah, a young bald eagle.



Figure 2. Mutual admiration of bald heads by Franklin Leach, left, and Sequoyah, right, monitored by Patty Alexander, center, the Development Director of GMSARC.

and emerging from the shell. The eaglets are protected from their surroundings so that they have no contact with humans or other unnatural environmental factors. By the age of one week, the eaglet's vision has improved sufficiently that the workers use camouflage suits without round eye holes (a slit instead) when they work where the eagles can see them. Tulsa artist Jerry Hale created a bald eagle puppet that is used to feed the young chicks (Fig. 3). This leads the chicks to believe that a mother eagle is feeding them. Feeding with the puppet is done for the first three weeks; then a bowl is used. By the time they are six weeks old, they can feed themselves.

The newly hatched eagle chick weighs about 90 g. During its two-month stay in Bartlesville, the eaglet grows to 2.5-4.5 kg, and eats some 100 kg (250 lb) of fresh fish, venison, rabbit, and Japanese quail. Eaglets are first placed in a community nest so that they can see other eagles and learn that they are eagles. The chicks are separated from each other by towels so they can not fight and kill each other. When they get older, each is given a separate nest, but can still see other eagles. At six weeks, they are separated completely.

The eaglets are housed in an area that is open on the east side to the environment (covered by wire screen). The other side of the room contains a passageway, flaps for feeding with the puppet, and one-way glass for viewing the eagles. By February the eagles have enough feathers that they can live outside. As the eagles age they require cooler and cooler rooms.

The eagles are released when they are two months old. They are kept in a tower cage at the release site until they get accustomed to the surroundings. There is a tube-enclosed ladder to allow feeding. After becoming accustomed to the site, the wire is removed and the eagles are free to come and go. Since its beginning, the GMSARC has released 243 bald eagles.

The bald eagle does not get the familiar white head and tail feathers (the bald look) until it is 4-5 years old. They molt every year. For easier identification the young eagles are now marked with Lady Clariol (an individual white pattern) rather than the more expensive radio-transmitters used during GMSARC's early operations. Of course, each eagle is banded with a U.S. Fish and Wildlife Service band as well as a GMSARC black band with white lettering.

In May or June eagles migrate to the northern states for the summer. They come south in January or February to winter in the southern states. In 1990 two of the birds released by GMSARC raised chicks in Oklahoma. This is the first nest since 1982. There was also a nest in Mississippi established by GMSARC-raised eagles. This proves the success of the program. Most of the birds released are not yet old enough to breed.

I met Sequoyah, a 4.5-year-old bald eagle, and compared bald heads (see the picture). He was not very appreciative of my bald head being in his space. Unfortunately, we were not able to get Dr. Steve Sherrod's bald head in the same picture. Steve is director of GMSARC and his head is about as devoid of hair as is mine.

Other birds, such as the peregrine falcon, loggerhead shrike, and prairie birds, are also being studied at GMSARC. The GMSARC is making an environmental impact and doing good science. The Oklahoma Academy of Science is proud to recognize their contributions to science and conservation.

Franklin R. Leach
Editor

Selected Readings

Anon., *Life* (May 1988) Into the Air Little Baldies, p. 53-56.

Simons, T., Sherrod, S.K., Collopy, M.W., and Jenkins, M.A., (1988) Restoring the Bald Eagle, *Am. Sci.* **76**, 253-260.

Walters, M., (September, 1989), Rebirth of the American Eagle, *Reader's Digest*, p. 95-100.



Figure 3. Franklin Leach, bald Editor, and bald-eagle puppet for feeding eaglets.